Preliminary Feasibility Study
NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project
Lemhi County, Idaho, USA

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1.0 SUMMARY

1.1 Introduction & Overview

The Beartrack mine, located in Lemhi County, Idaho, previously operated between 1994 and 2002 producing approximately 610,000 ounces of gold from an open pit heap leach process before concluding operations. Kappes, Cassiday & Associates (KCA) was contracted by Revival Gold Inc. (Revival), to prepare an independent National Instrument 43-101 Technical Report (Report) at a Preliminary Feasibility Study (PFS) level for the Beartrack-Arnett Heap Leach Project (Project), which considers resuming mining at the Beartrack site and developing a new open pit mine at the Haidee deposit in the Arnett Creek area. In addition to updated heap leach Mineral Resource estimates and new Mineral Reserve estimates, which are incorporated into the PFS mine and processing plans for a first phase of operation, an updated mill Mineral Resource estimate is also included in Section 14 for a potential second phase of operation. This Report has been prepared by KCA, Independent Mining Consultants, Inc. (IMC), KC Harvey Environmental (KC Harvey) and WSP USA Environment & Infrastructure Inc. (WSP) with input from other consultants.

The primary purposes of this Report are as follows:

- Provide an updated Mineral Resource for the Beartrack-Arnett property encompassing both heap leach and mill Mineral Resources.
- Present the technical and financial results of a PFS for the restart of open pit mining and heap leaching to produce gold doré.
- Establish the additional technical studies required to develop a Feasibility Study for the heap leach restart and to develop baseline studies in preparation for environmental permitting.

The Project considers open pit mining of approximately 39.9 million tons (36.2 million tonnes) of ore from the Beartrack and Haidee deposits with an estimated average grade of 0.022 ounces/ton gold (0.74 grams/tonne). Ore from the open pits will be processed in a conventional crushing circuit then conveyor stacked onto two heap leach pads and leached with a low concentration cyanide solution. The resulting pregnant leach solution will be processed in an existing, refurbished, adsorption-desorption-recovery (ADR) plant for the recovery of gold resulting in the production of a final doré product.

Ore will be processed at an average rate of 13,200 tons/day (12,000 tonnes/day) with the Project being developed in two areas: the Beartrack area and the Haidee area. During the first five years of mine operations, ore will be mined from the Beartrack open pits (North, South, and Mason-

Dixon pits), then crushed, conveyor stacked, and leached on a dedicated leach pad at the Beartrack site. During the last three years of mine operations, mining will be focused at the Haidee deposit. Prior to mining at Haidee, a two-way haul road between the Haidee and Beartrack sites will be constructed, and a dedicated leach pad for the Haidee ore will be constructed adjacent to the Beartrack leach pad site. The mobile crushing equipment will be relocated to an area west of the Haidee leach pad to minimize the required haul distance between the Haidee pit and heap leach pad.

The life-of-mine (LOM) average metallurgical recovery for the Project is approximately 61.6% of contained gold, the LOM gold production is approximately 529,100 ounces, and the average annual gold production is approximately 65,300 ounces over an 8.1-year mine life. Economics for the PFS are based on mining and processing the heap leach Mineral Reserves only; mining and processing of mill Mineral Resources would be a separate project.

1.2 Mineral Tenure & Surface Rights

1.2.1 Beartrack

Revival entered into an earn-in agreement on August 31, 2017, which was amended on May 8, 2019, May 20, 2020, and on August 31, 2022, it was amended and restated to purchase Meridian Beartrack Co., owner of a 100% interest in the mineral rights for 305 unpatented claims totalling approximately 5,709 acres (2,055 ha) and 14 patented claims (or portions thereof) totalling approximately 463 acres (187 ha) from Meridian Gold Company, now a wholly owned subsidiary of Pan American Silver Corporation (Pan American). In addition, Revival has staked 243 unpatented lode claims and 14 unpatented mill site claims surrounding the Beartrack property that are subject to the earn-in agreement. The total footprint of the Beartrack claims is 7,648 acres (3,095 ha).

1.2.2 Arnett

At Arnett, from 2017 through 2022, Revival optioned or purchased a 100% interest in the mineral rights for 95 unpatented lode claims, two unpatented placer claims, and one patented lode claim totaling approximately 1,974 acres (799 ha) and staked an additional 242 unpatented lode claims. The total area of the Arnett claims is 6,743 acres (2,728 ha).

1.3 Agreements & Royalties

The property agreements for Beartrack and Arnett are subject to certain property payments, royalties, and performance obligations that are described in Section 4 of this Report.

1.4 Geology & Mineralization

The Property occurs east of the Idaho Batholith within the Cretaceous Cordilleran thrust belt. The area is dominated by a structurally complex package of metasedimentary rocks known as the Mesoproterozoic Belt Supergroup. Approximately 1,370 million years ago, Belt Supergroup rocks were buried, metamorphosed, and intruded by the megacrystic granitic rocks (rapakivi granite) and augen gneiss. Metasedimentary rocks near Salmon and Leesburg exhibit a regional biotite-grade metamorphism.

1.4.1 Beartrack

The bedrock geology in the Beartrack area is dominated by two Mesoproterozoic rock units: metasedimentary rocks of the Yellowjacket Formation and a rapakivi granite. The Yellowjacket Formation consists predominantly of a thick sequence of very fine-grained non-calcareous silty sandstone to sandy siltstone units which locally exhibits crossbedding.

The Yellowjacket Formation has been intruded by the Proterozoic rapakivi granite, which is located on the east side of a 2.5 mi (4 km) long section of the Panther Creek Shear Zone (PCSZ) in the Beartrack mine area. The intrusive is medium- to coarse-grained, sub-equigranular to porphyritic, and is composed predominantly of potassium feldspar (locally as megacrysts up to 2.3 inches (6 cm) in size displaying poikilitic textures), plagioclase, quartz, and biotite.

Gold mineralization on the Beartrack property is associated with a major gold-arsenic-bearing hydrothermal system where stockwork, vein, and breccia-hosted mineralization has been identified in four areas over more than 3 mi (5 km) of strike length. Mineralization at Beartrack consists of quartz-pyrite-arsenopyrite veins and veinlets occurring in a broad halo of sericitic alteration controlled by the PCSZ. Gold mineralization at Beartrack exhibits many of the characteristics of the class of gold deposits known as mesothermal, orogenic or shear zone-hosted deposits.

1.4.2 Arnett

The Arnett property occurs within a discrete structural block consisting primarily of the Yellowjacket Formation bounded on the east and west by the northeast-trending PCSZ and the Hot Springs fault, and the northwest-trending Pine Creek and Poison Creek faults to the south and north. The Yellowjacket Formation is intruded by the polyphase intrusion of the Cambro-Ordovician Arnett Intrusive complex, which includes the unit known informally as the crowded porphyry, the host rock at Haidee. The block is surrounded by the rapakivi (megacrystic) granite.

Gold mineralization, as it is currently known, is primarily hosted by the crowded porphyry, which is part of the Cambro-Ordovician Arnett Intrusive complex and consists of quartz-iron oxide (pyrite) veinlets occurring in a broad halo of potassic and sericitic alteration. Gold mineralization at Arnett exhibits some of the characteristics of intrusion-related gold deposits and orogenic gold deposits.

1.5 History

Placer gold was discovered in the Mackinaw Mining District in 1867 with the first lode mine in the Beartrack area (Gold Flint) opening in 1880 followed by the Italian mine on Arnett Creek in 1892.

Modern exploration activities at Beartrack began in 1985 with Canyon Resource Corporation (Canyon) and the property was further explored by Meridian Minerals Corporation (a predecessor to Meridian Beartrack Co.) until mining was initiated in 1994. Beartrack was an open pit, heap leach operation that mined over 24 million tons (22 million tonnes) of ore and poured over 600,000 ounces of gold until leaching stopped in 2002. In 2007 Yamana purchased the parent companies of Meridian Beartrack Co. In 2017, Revival executed an earn-in and related stock purchase agreement to purchase Meridian Beartrack Co. In 2023 Pan American acquired Yamana and became Yamana's successor to Revival's earn-in and related stock purchase agreement to purchase Meridian Beartrack Co.

Cyprus Mines Corporation (Cyprus) first started exploring the Arnett Creek area in 1973. In 1985 American Gold Resources Corporation (AGR) leased claims in the area from two families and later began drilling near the Haidee mine with their partner British Petroleum Minerals American (BPMA). Ashanti Goldfields acquired AGR in 1996 and within a year of Ashanti Goldfields acquiring AGR, the Arnett Creek Project was sold to Meridian Minerals who completed confirmation and exploration drilling until returning the claims to their original owners in 1998. In 2017, Revival announced the acquisition of the Arnett property.

1.6 Drilling & Exploration Activities

Reverse circulation drilling (RC) and diamond drilling (DD) on the Property is the principal method of exploration. As of the effective date of this Report, Revival and its predecessors have completed 1,303 holes, 949 RC and 354 DD, totalling 654,997 ft (199,643 m) drilled. From 2017 to the effective date of this Report, Revival has completed at total of 147 DD holes (91 – Arnett, 56 – Beartrack) totalling 116,220 ft (35,424 m) of drilling.

Collar locations for holes drilled before 1994 were located with respect to a Base Line and drill laterals using bearing and distance as determined by tape. Once located by this method, locations at Beartrack were converted to Mine Grid coordinates. Holes drilled after 1994, were surveyed using Mine Grid coordinates. Revival has converted all collar coordinates to Central Idaho State Plane NAD83-Feet (ID83CF). The trajectory of drill core holes determined using a downhole survey instrument corrected for magnetic declination. No downhole surveys were completed on RC holes.

Revival contracted various drilling companies from 2017 to complete their drilling campaigns at Beartrack and Arnett using either HQTT, PQTT (both deposits) or NQTT (Beartrack) drill strings. Core recovery averaged 92% at Beartrack and 90% at Arnett with isolated intervals of poor or no core recovery occurring in the fault zones. Collar locations were surveyed using differential GPS in UTM NAD83 coordinates and then converted to the ID83CF coordinate system. The trajectory of all drill holes is determined during drilling using a downhole survey instrument and corrected for magnetic declination.

Apart from drilling, Revival's exploration activity on the Beartrack property includes reprocessing historical geophysical data, completing additional geophysical surveys, three-dimensional modeling and the application of artificial intelligence, and structural mapping in the North and South Pit areas. Revival's exploration activity at Arnett from 2017 to the end of 2021 includes geophysical surveys, mapping, rock sampling, soil geochemical survey and three-dimensional modeling and the application of artificial intelligence.

Between 2017 and the effective date of this Report, Revival completed 56 DD holes totalling 66,819 ft (20.366 m) at Beartrack. Revival's drilling programs for Beartrack focused on increasing the Mineral Resources and testing the sulfide mineralization along strike and at depth. The programs were targeted to confirm historical drill data and to expand known areas of mineralization.

Between 2018 and the effective date of this Report, Revival completed 91 DD holes totalling 49,448 ft (15,072 m) at Arnett. Revival's drilling programs in the Haidee area focused on confirming the presence of mineralization and expanded the mineralized footprint to the northeast and southwest.

In 2019, MPX Geophysics Limited (MPX) conducted a helicopter-borne magnetic survey at the Arnett property and the data was combined with historical airborne magnetic data from Beartrack. Magnetic data from the Arnett and historical Beartrack magnetic surveys were processed in a consistent manner. Lithologic units at the surface within the project areas possess low to very low magnetic susceptibilities, making them effectively magnetically transparent. As interpreted, the prominent magnetic highs are due to buried magnetic intrusions. The geophysics interpretation considers features evident in the various geophysical datasets to create the lithology, structure, and alteration interpretation. Cenozoic surficial deposits are excluded from the interpretation. In addition, the gold mineralization associated with the PCSZ is not directly detectable with the airborne geophysical data; hence the merged Beartrack-Arnett dataset interpretation is oriented toward geology rather than direct targeting for exploration.

In 2020, Geofísica TMC conducted ground based induced polarization and resistivity surveys (IPRES) over the Arnett Creek, Joss, and Rabbit target areas. Surveys included gradient array configurations at Arnett Creek and Joss and two lines of dipole-dipole configurations at Rabbit. Mineralization at Haidee has low chargeability (due to the oxidized nature of sulfides) and high resistivity (possibly due to the addition of silica in quartz veining and/or potassic alteration. A metal factor calculation created by dividing the chargeability by the resistivity in the Arnett Creek IP survey was effective at highlighting zones of mineralization at Haidee. Structural blocks at Joss and Rabbit are effectively mapped based on contrasting low resistivity and low chargeability zones in Tertiary cover rocks and high resistivity and high chargeability zones in the Proterozoic host rocks.

Faults and buried intrusions were interpreted from combining the electric and magnetic data. The PCSZ and the Coiner fault have strong associated magnetic lows as do several other faults. In addition, several buried intrusions have been identified, chiefly beneath the Haidee and Haidee West target areas, between Roman's Trench and the Italian mine and near the intersection of the two claim blocks.

Geologic mapping at Arnett Creek undertaken by Revival in 2019 showed the wide-spread nature of float of the Yellowjacket Formation, which is thought to be from Tertiary epiclastic rocks. Lack of exposure on the property led to the decision to conduct soil sampling using a partial leach. Results showed the presence of strong anomalies that will be further examined.

In 2021, Revival Gold engaged Mira Geosciences to undertake a comprehensive program of three-dimensional computer geological modeling and apply artificial intelligence to help identify exploration vectors and build on the Company's targets for future exploration.

1.7 Sampling & Data Verification

Logging on paper logging forms was replaced by data entry into Excel in 2018, which was then replaced by the logging software GeoSequel in 2019. Geology was logged and core recovery and rock quality designation (RQD) were measured and recorded. Standard certified reference materials (CRMs), blanks and duplicates were inserted into the sample stream. Core was split with a hydraulic core splitter, placed in plastic sample bags with sample tags and stored in the secure core logging facility at Beartrack. Little information is available about the sampling protocols used by Meridian for the 1990 to 2000 drill campaigns.

Historical bulk density values for Beartrack were initially based on drill core determinations and were later modified by Meridian as mining progressed. In 2019, Revival submitted 16 bulk density samples to verify previously reported historical density of the specific lithologies in the Beartrack area. Bulk density for Haidee is determined by specific gravity (SG) measurements on drill core using a similar procedure to that at Beartrack.

Several independent commercial laboratories have been used for analyzing samples from both Beartrack and Haidee since 1988. Laboratories include the primary laboratory ALS Minerals in Reno, Nevada, Tucson, Arizona or Vancouver, British Columbia, or its predecessor Chemex Laboratory Inc. (ALS Chemex), and check laboratories Skyline Assayers & Laboratories (Skyline) in Tucson, Arizona, American Assay Laboratory (AAL) in Sparks, Nevada, and Paragon Geochemical in Sparks, Nevada.

Samples were prepared by ALS Minerals with a 250 g pulp (PREP 31-Y) prepared for Beartrack samples and a 1,000 g pulp prepared (PREP-31-BY) for Haidee samples to help account for the nugget effect. Samples were analyzed by fire assay (FA) and cyanide leach.

Limited information is known of the early quality assurance quality control (QAQC) program at Beartrack; however, subsequent mining confirmed that historical drilling is reliable. Revival generally inserted blanks at a rate of 1 in 20 samples; standards at around a rate of 1 in 20 (Beartrack) and 1 in 15 (Haidee); duplicates at around a rate of 1 in 30 (Beartrack) and 1 in 40 (Haidee). Check assays were sent to umpire laboratories. It was determined that Beartrack legacy RC data prior to 1990 and all RC holes drilled at Haidee would be excluded from Mineral Resource estimation due to biases detected in the samples.

The QP has reviewed the sample preparation, security and analytical procedures provided by Revival as well as the QAQC audit and is of the opinion that the QAQC program as designed and implemented at Beartrack and Haidee is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

The QP conducted various database validation checks on the existing Beartrack and Haidee database including comparing the assay table directly with the assay laboratory certificates and found the database to be sufficiently reliable for Mineral Resource estimation. Previous QAQC reports were reviewed with no issues identified. During a site visit, the QP carried out data verification exercises to assess the adequacy and suitability of the data used for resource estimation and concluded that the data supporting the Mineral Resource estimation are reliable, reasonably error free and suitable for the purposes used in the Report.

1.8 Metallurgical Test Work

1.8.1 Column Leach Metallurgical Testing

Historical metallurgical testing in support of past production at Beartrack, and evaluation of Haidee, was commissioned by prior operators and are regarded only anecdotally in this PFS.

Recent testing commissioned by Revival completed by SGS Mineral Services (SGS) in 2018, 2020, and 2023 forms the basis for the metallurgical recoveries in this PFS. In total, the testing includes six column leach tests and 18 coarse bottle roll tests conducted on Beartrack oxide ore, two column leach tests and three coarse bottle roll tests conducted on Beartrack transition ore, three column leach tests and three coarse bottle roll tests conducted on Beartrack sulfide ore, and three column leach tests and nine coarse bottle roll tests conducted on Haidee ore.

Based on the SGS metallurgical testing, which is supported by the historical operational data from the Beartrack mine, key design parameters for the Project include:

- Crush size of 100% passing 1½ inches (P_{80} 7/8 inches).
- Variable gold recoveries for the Beartrack ore based on the ratio of the cyanide soluble and fire assay gold grade. The average gold recovery at Beartrack is 53.0% of contained gold and 84% of cyanide soluble gold, which includes an additional 2.3% recovery of contained gold for the Beartrack oxide and transition ores associated with the long secondary leach tail.
- Gold recovery of 86% of contained gold for Haidee ore.
- Design leach cycle of 80 days.
- Lime consumptions of:
  - 6.2 lbs/t (3.1 kg/T) for Beartrack oxide
  - 11.0 lbs/t (5.5 kg/T) for Beartrack transition
  - 11.5 lbs/t (5.8 kg/T) for Beartrack sulfide
  - 4.8 lbs/t (2.4 kg/T) for Haidee oxide
- Cyanide consumptions of:
  - 0.80 lbs/t (0.40 kg/T) for Beartrack oxide
  - 0.86 lbs/t (0.43 kg/T) for Beartrack transition
  - 1.18 lbs/t (0.59 kg/T) for Beartrack sulfide
  - 0.60 lbs/t (0.30 kg/T) for Haidee oxide

In general, recoveries for the Beartrack ore are variable and are strongly correlated to the percentage of sulfide and to a lesser extent material crush size. Recoveries for Haidee ore were high, with very little sensitivity to material crush size. The results indicate that the Beartrack oxide and transition ore and Haidee ore will yield acceptable results using conventional heap leaching methods with cyanide. Some Beartrack sulfide ore may provide sufficient recoveries for heap leaching. Reagent consumptions for all ore types are moderate, with increased cyanide and lime requirements for higher sulfide ores.

1.8.2 Milling Metallurgical Testing

Multiple metallurgical testing programs have been conducted over the years on the transition and sulfide materials from the Beartrack deposits including flotation, ultra-fine grinding of concentrates followed by cyanide leaching, bio-oxidation followed by cyanidation, pressure oxidation of whole ores and concentrates followed by cyanide leaching and roasting of whole ores and concentrates.

Based on recent test work performed by SGS in 2018 (SGS, 2018) and 2020 (SGS, 2020) under the direction of RPA Inc. (RPA, 2019) on 139 core sample intervals across the three lithological units hosting sulfide gold mineralization at Beartrack, pressure oxidation of sulfide flotation concentrate, followed by cyanidation of the oxidized concentrate and flotation tailings yielded the highest overall gold recoveries of approximately 94%, and has been recommended by Marsden (Marsden, 2019) as a viable process flowsheet for Beartrack transition and sulfide materials. This is the assumed process flowsheet and metallurgical recovery that forms the basis of the mill Mineral Resource estimates.

1.9 Mineral Resource Estimate

Mineral Resource estimates for the Project were developed using three computer-based block models: Beartrack open pit model; Beartrack underground model; and Haidee open pit model. Each model covers a separate zone of the deposits.

The Beartrack model is assembled to enable evaluation of both heap leach Mineral Resources and Mineral Reserves, as well as deeper un-oxidized open pit Mineral Resources that would require a mill for processing. The underground Mineral Resources are estimated in a separate model with smaller blocks that are consistent with the geometry of the mineralization that is amenable to underground mining. The underground model overlaps with the open pit model in the South Pit area. Careful effort was made to ensure that open pit and underground Mineral Resources were not double counted.

The Haidee model is located approximately four miles (6.5 km) northwest of the Beartrack area in the Arnett Creek area. The Haidee block model uses a different block size and estimation procedures to properly represent the potentially minable component of the Haidee mineralization that is planned for production by open pit methods and heap leaching.

There are four sources, defined by location and mineralization type, that define the Beartrack-Arnett Mineral Resources: 1) Beartrack open pit heap leach; 2) Haidee open pit heap leach; 3) Beartrack open pit mill; and 4) Beartrack underground mill. The Mineral Resource estimate in Table 1-1 is the sum of all four sources and includes the Mineral Reserve developed as part of this PFS.

Table 1-1: Beartrack-Arnett Mineral Resource Estimate, 30 June 2023

Mineral Resource Type		Deposit	Mineral Resource Category	Mineral Resources Tonnage (kt)	Tonnage (kT)	Gold Grade (oz/t)	Gold Grade (g/T)	Contained Gold (koz)
Heap Leach Mineral Resource	Open Pit	Beartrack	Measured	7,434	6,743	0.030	1.03	224
			Indicated	20,705	18,781	0.023	0.77	466
			Inferred	2,970	2,694	0.015	0.51	45
		Haidee	Measured	6,540	5,932	0.014	0.48	92
			Indicated	11,995	10,880	0.015	0.51	177
			Inferred	3,995	3,624	0.016	0.55	64
	Open Pit	Beartrack & Haidee	Measured	13,974	12,675	0.023	0.78	316
			Indicated	32,700	29,661	0.020	0.67	643
			Measured + Indicated	46,674	42,336	0.021	0.70	959
			Inferred	6,965	6,318	0.016	0.53	108
Mill Mineral Resource	Open Pit	Beartrack	Measured	7,229	6,557	0.032	1.10	231
			Indicated	41,111	37,290	0.030	1.03	1,233
			Inferred	41,525	37,666	0.029	0.99	1,204
	Underground	Beartrack	Inferred	7,436	6,745	0.118	4.05	877
	Open Pit & Underground	Beartrack	Measured	7,229	6,557	0.032	1.10	231
			Indicated	41,111	37,290	0.030	1.03	1,233
			Measured + Indicated	48,340	43,847	0.030	1.04	1,464
			Inferred	48,961	44,411	0.043	1.46	2,082
Total Mineral Resource	Open Pit & Underground	Beartrack & Haidee	Measured	21,203	19,232	0.026	0.88	547
			Indicated	73,811	66,951	0.025	0.87	1,876
			Measured + Indicated	95,014	86,184	0.026	0.87	2,423
			Inferred	55,926	50,728	0.039	1.34	2,190

Notes:
1) Gold price used for Mineral Resources: $1,900/oz.
2) Gold grades are reported in ounces per ton (oz/t) and grams per metric tonne (g/T).
3) Economic cutoff is based on Income, Net of Process Revenue (NPR) = $0.01/t ($0.01/T). NPR = (Grade x Recovery x ($1,900 - $5)) - (Process Cost + G&A). Beartrack heap leach process cost and process recovery vary with CN/FA ratio.
4) Beartrack average heap leach recovery = 51% of contained (FA) gold, which excludes secondary leach recovery that is included in the PFS recovery calculations. Beartrack heap leach ore types are: CN/FA > 0.7 = Oxide, 0.2 to 0.7 CN/FA = Transition, CN/FA < 0.2 = Sulfide. Beartrack base heap leach mining cost and average processing cost including G&A = $1.85/t ($2.04/T) and $6.24/t ($6.88/T), respectively. Beartrack heap leach throughput = 13,200 t/d (12,000 T/d). Beartrack approximate FA cutoff grades for heap leach resource = Oxide = 0.004 oz/t (0.15 g/T), Transition = 0.09 oz/t (0.29 g/T), sulfide = 0.028 oz/t (0.96 g/T).
5) Haidee heap leach recovery = 86% of contained gold. Haidee base heap leach open pit mining cost and average processing cost including G&A = $1.85/t ($2.04/T) and $6.15/t ($6.78/T), respectively. Haidee heap leach throughput = 13,200 t/d (12,000 T/d). Haidee heap leach resource cutoff grade = 0.005 oz/t (0.17 g/T).
6) Beartrack mill sulfide recovery = 94%. Beartrack base mill open pit mining cost and processing cost including G&A = $1.94/t ($2.14/T) and $22.52/t ($24.83/T), respectively. Beartrack average mill underground mining cost and processing cost including G&A = $90.71/t ($100.00/T) and $32.22/t ($35.52/T), respectively. Beartrack mill open pit throughput = 13,200 t/d (12,000 T/d). Standalone underground throughput = 2,750 t/d (2,500 T/d). Beartrack open pit mill sulfide resource cutoff = 0.013 oz/t (0.43 g/T). Beartrack underground mill resource cutoff = 0.069 oz/t (2.37 g/T).
7) Total surface mine material moved: 495,560 kt (449,504 kT).
8) Mineral Resources include Mineral Reserves.
9) Numbers may not sum exactly due to rounding.

The underground Mineral Resource occurs in both the South Pit and Joss areas and vertically over an elevation of approximately 1,900 feet (580 meters). The underground Inferred Mineral

Resource dips at approximately 80 - 90 degrees and ranges in thickness from about 10 to 80 feet (3 to 25 meters).

The available geotechnical information for the Beartrack South and Joss areas was reviewed to establish the appropriate underground mining method. Based on review of this information, drift and fill was selected as the appropriate mining method.

The qualified person (QP) for the Mineral Resource is John Marek, of IMC. A gold price of $1,900/oz was used in the determination of Mineral Resources. Sensitivity to changes in the gold price is presented in Section 14.

Risks associated with the Mineral Resource estimates include sensitivity to the gold price, geotechnical conditions, particularly for the underground portion of the Mineral Resource, and permitting.

1.10 Mineral Reserve Estimate

The Mineral Reserve is the total of all Proven and Probable category material that is planned for the resumption of open pit heap leach gold production. The mine plan presented in Section 1.11 summarizes the production of the Mineral Reserve. The Mineral Reserve is established by tabulating the Measured and Indicated Mineral Resources (Proven and Probable Mineral Reserves, respectively) planned for processing over the mine life. The final pit designs and internal phase designs that contain the Mineral Reserves were guided by the results of computer-generated pit shell algorithms.

The Mineral Reserve pits were developed based on a gold price of $1,700/oz and metallurgical recoveries and processing costs developed by KCA. Risks associated with this Mineral Reserve include sensitivity to the gold price, geotechnical conditions, and permitting. The QP for the Mineral Reserve is John Marek of IMC.

Cutoff grades for the mine plan are based on Income, Net of Process Revenue (NPR). The equation below summarizes the procedure.

NPR = NSR – Process OPEX – Site G&A
where NSR = (Gold Price – Sales Cost) x Recoverable Gold

The internal economic cutoff is $0.01/t ($0.01/T) for both pits. Haidee Process Plant OPEX includes the ore haulage differential from Haidee to the crusher.

Table 1-2 summarizes the Mineral Reserve estimate.

Table 1-2: Beartrack-Arnett Mineral Reserve Estimate, 30 June 2023

Deposit	Mineral Reserve Category	Mineral Reserves				
		Tonnage		Gold Grade		Contained
		(kt)	(kT)	(oz/t)	(g/T)	Gold (koz)
Beartrack	Proven	7,077	6,420	0.031	1.06	219
	Probable	17,196	15,600	0.024	0.82	413
	Proven + Probable	24,273	22,020	0.026	0.89	632
Haidee	Proven	6,540	5,933	0.014	0.48	92
	Probable	9,087	8,244	0.015	0.51	136
	Proven + Probable	15,627	14,177	0.015	0.51	228
Total Proven		13,617	12,353	0.023	0.78	311
Total Probable		26,283	23,844	0.021	0.72	549
Total Proven + Probable		39,900	36,197	0.022	0.74	859

Notes:
1) Gold price used for Mineral Reserves: $1,700/oz.
2) Gold grades are reported in ounces per ton (oz/t) and grams per metric tonne (g/T).
3) Cutoff gold grade is based on Income, Net of Process Revenue (NPR) = $0.01/t ($0.01/T).
NPR = (Grade x Recovery x ($1,700 - $5)) - (Process Cost + G&A).
Process cost varies with CN/FA ratio. Process recovery varies by CN/FA ratio.
4) Typical FA gold cutoff grades are: 0.005 oz/t (0.17 g/T) oxide, 0.010 oz/t (0.33 g/T) transition, 0.031 oz/t (1.07 g/T) sulfide.
5) Total open pit material: 137,342 kt (124,595 kT).
6) Numbers may not sum exactly due to rounding.

1.11 Mining Methods

The PFS mine plan was developed using conventional open pit hard rock mining methods. The mining operation is planned to deliver 4.83 million tons (4.38 million tonnes) of material to the crushing circuit per year. Crushed material would be sent to the designated leach pad and processed in a conventional heap leach operation.

The mine plan was developed based on mining two primary mineral deposits: Beartrack and Haidee. Ore from the two areas would be hauled to a crushing circuit initially located between the Beartrack pits and the Beartrack leach pad, then in year five the circuit would be relocated adjacent to the Haidee leach pad.

The general sequence of mining is: 1) Beartrack North pit, 2) Beartrack Mason-Dixon pit, 3) Beartrack South pit, and 4) the Haidee pit. The mining sequence is influenced by the need to backfill the Beartrack North Pit due to storage capacity and generally follows the preference for mining the highest value to lowest value. Waste rock will be sent to four distinct destinations, three storage facilities at Beartrack and one at Haidee.

Mine equipment is conventional and common in the western U.S. Loading will be accomplished by three, 14 yd^3 (10.7 m^3) front loaders matched to 100-ton (90-tonne) class haul trucks. Blast hole drills are equipped with down hole hammers with a planned bit diameter of 6-7/8 inches

(175 mm). Appropriate auxiliary and support equipment has been included on the equipment list. The historical experience at Beartrack has provided sound guidance to the selection of mining equipment for this PFS.

Appropriate operating and maintenance labor combined with salaried staff have been included in the estimate of mine operating costs. A summary of the equipment list and personnel are provided in Section 16.

Table 1-3 summarizes the mine production schedule for this PFS which also establishes the Mineral Reserve shown on Table 1-2. Ore production from Beartrack ceases, and ore production at Haidee commences, in year five.

Table 1-3: PFS Mine Production Schedule

Mine Parameter	Unit	PP	YR 1	YR 2	YR 3	YR 4	YR 5	YR 6	YR 7	YR 8	YR 9	LOM
Ore Mined	(t ,000)	1,200	4,828	4,828	4,828	4,828	4,426	4,828	4,828	4,828	478	39,900
	(T ,000)	1,088	4,379	4,379	4,379	4,379	4,015	4,379	4,379	4,379	433	36,191
Waste Rock Mined	(t ,000)	3,900	14,872	14,872	14,872	14,905	9,602	9,562	9,703	4,444	349	97,080
	(T ,000)	3,538	13,490	13,490	13,490	13,519	8,710	8,673	8,801	4,031	317	88,058
Total Mined	(t ,000)	5,100	19,700	19,700	19,700	19,733	14,028	14,390	14,531	9,272	827	136,980
	(T ,000)	4,626	17,869	17,869	17,869	17,899	12,724	13,053	13,181	8,410	750	124,249
Stripping Ratio	(w/o)	3.3	3.1	3.1	3.1	3.1	2.2	2.0	2.0	0.9	0.7	2.4
Head Grade	(oz/t)	0.022	0.018	0.018	0.022	0.030	0.043	0.015	0.015	0.014	0.015	0.022
	(g/T)	0.77	0.60	0.62	0.77	1.04	1.48	0.50	0.51	0.47	0.52	0.74
Contained Gold	(oz)	26,836	84,727	87,976	108,308	146,000	190,610	70,542	71,136	65,530	7,261	858,926
Gold Recovery	(% FA)	-	61%	65%	61%	52%	36%	96%	86%	86%	102%	62%
Recovered Gold	(oz)	-	68,350	56,852	66,537	75,692	68,402	67,651	61,518	56,470	7,431	529,051

Note: Gold Recovery and Recovered Gold include heap leach and ore processing recovery delay and secondary leaching. Recovery delay and secondary leaching account for the elevated Gold Recovery in years 6 and 9.

1.12 Recovery Methods

Test work results completed to date indicate that the heap leach Mineral Reserves for the Beartrack and Haidee pits are amenable to cyanide leaching for the recovery of gold. Based on the Mineral Reserve of 39.9 million tons (36.2 million tonnes) and established processing rate of 13,200 t/d (12,000 T/d), the project has an estimated life of 8.1 years.

Ore from the Beartrack and Haidee pits will be processed through a mobile crushing circuit where it will be crushed to 100% passing 1½ inches (38 mm). Crushing will be accomplished in two stages with an open circuit primary jaw crusher, and two closed-circuit secondary cone crushers operating in parallel. Ore will be direct-dumped into the primary crusher dump hopper by 100-ton (90-tonne) trucks; a front-end loader will feed material to the dump hopper as needed from a run-of-mine (ROM) stockpile located near the primary jaw crusher. Mining, crushing, and leaching activities will be performed year-round.

Crushed ore will be stockpiled using a fixed stacker and reclaimed, using belt feeders to a reclaim conveyor; pebble lime will be added to the reclaim conveyor belt for pH control. During the initial five years of operation ore will be conveyed from the reclaim conveyor to the heap stacking system at the Beartrack heap leach pad using an overland conveyor. During the last three years of operation, the mobile crushing circuit will be relocated to the west side of the Haidee leach pad and the conveyor stacking system will be fed directly by the reclaim conveyor.

Crushed ore will be stacked in 33-foot (10-meter) lifts and leached using a buried drip irrigation system for solution application. After percolating through the ore, the gold bearing pregnant leach solution will drain by gravity to an existing pregnant solution pond where it will be pumped to the carbon adsorption circuit, which is part of the existing ADR plant. Gold-cyanide compounds will be loaded onto activated carbon in the adsorption circuit; the resulting barren solution will flow by gravity to the barren solution tanks and then be pumped to the heap for additional leaching. High strength cyanide solution will be injected into the barren solution to maintain the cyanide concentration in the leach solutions at the desired levels.

Loaded carbon from the adsorption circuit will be stripped using a modified pressure Zadra process where gold will be stripped from the carbon and recovered by electrowinning. Cathodes from the electrowinning cells will be washed and the resulting precious metal sludge treated in a retort to recover mercury, followed by smelting to produce the final doré product.

Carbon will be acid washed before every strip to remove scale and other inorganic contaminants. All activated carbon will be thermally regenerated after each strip using a rotary kiln.

1.13 Infrastructure

Much of the infrastructure from the original Beartrack mining operation is still present at site and remains in serviceable condition. Wherever possible, the existing infrastructure will be refurbished and reused, including the site access road, electrical power supply and distribution lines and equipment, site roads, gold recovery plant and laboratory building, pregnant and event process solution ponds, core warehouse, fuel storage systems, water tanks and distribution, water treatment plant, and septic systems for all existing buildings.

New infrastructure to be constructed for the Project includes the mine truck shop/warehouse, administration and process office trailers and new heap leach facilities for the Beartrack and Haidee pits, respectively. An additional event process solution pond will be constructed in year five of operations to handle additional solution collected when the Haidee leach pad is constructed.

Power will be delivered to the project by an existing 69 kV transmission line and distributed using an existing 4.16 kV distribution power line. Power distribution will be at 4.16 kV, 3 Phase, 60 Hz and stepped down to 480V or 110/220V as needed. Emergency power for the recovery plant and process solution pumps will be provided by a diesel generator.

1.14 Environmental Studies, Permitting & Social Impact

The Project is located primarily on Federal lands managed by the United States Department of Agriculture Forest Service (USFS); consequently, Federal law governs operations and environmental compliance, with State of Idaho and local governments having concurrent authority over certain aspects of the Project, such as permitting and water rights. The USFS regulations require that locatable mineral prospecting, exploration, development, mining and processing operations, and associated means of access, be conducted in a manner that minimizes adverse environmental effects on National Forest System (NFS) surface resources. USFS conducts analysis of environmental effects in accordance with the National Environmental Policy Act of 1969, as amended (NEPA; 42 United States Code [USC] §§ 4321 et seq.). The NEPA review process involves consideration of all relevant environmental statutes, including but not limited to the Federal Clean Air Act, the Clean Water Act, the Endangered Species Act, the Wilderness Act, the Wild and Scenic Rivers Act, and the National Historic Preservation Act.

Environmental baseline studies in the Project area were previously completed by USFS for the Beartrack Gold Project (USFS, 1991) and more recently for Revival's exploration drilling programs (USFS, 2013; USFS 2022). Revival has contracted qualified third parties to perform reviews of available environmental baseline reports and monitoring data collected during Meridian Beartrack Mine operations, closure, and reclamation to assess data adequacy and data needs to support Project permitting and preparation of the Project Environmental Impact Statement (EIS) during the NEPA review.

Considering the current regulatory framework, it is reasonable to expect that all required permits and authorizations can be obtained for the Project due to:

- the Project plans, which maximize the use of existing infrastructure to limit new disturbance and include environmental design features to promote environmental protection;
- the ongoing collaboration between Revival and the regulatory and administrative agencies at Federal, State, and local levels; and,
- the continued stakeholder engagement actions by Revival in the local communities as well as at the regional level.

Development of the Project would have positive impacts on the local communities by providing direct employment in the mining industry and secondary employment in the support industries, income generated from wages and by secondary job employers, and local and State revenues generated through taxes paid by Revival.

1.15 Capital & Operating Costs

Capital and operating costs for the process and general and administration (G&A) components of the Project were estimated by KCA, mining costs were provided by IMC, and KC Harvey developed the reclamation and closure costs with input from KCA and IMC. The costs are considered to have an accuracy of +/-25%.

Table 1-4 presents the capital requirements for the Project.

Table 1-4: PFS Capital Cost Summary

Description	Costs ($,000)
Pre-Production Capital	
Process & Infrastructure Capital	$56,820
Mining Capital & Mining Pre-Production	$28,230
Indirect & Owner's Costs	$4,258
Process Pre-Production	$2,252
Engineering Procurement Construction Management (EPCM)	$5,682
Contingency	$12,089
Total Pre-Production Capital	**$109,331**
Working Capital & Initial Fills	
Mining Working Capital	$2,988
Processing Working Capital	$1,704
G&A Working Capital	$367
Initial Fills	$166
Total Working Capital	**$5,225**
Sustaining Capital	
Process & Infrastructure	$40,663
Indirect & EPCM	$6,099
Mining	$43,916
Contingency	$9,352
Total Sustaining Capital	**$100,031**

Description	Costs ($,000)
Reclamation & Closure Capital	
Direct Costs	$12,510
EPCM & Indirect Costs	$1,877
Operating Costs	$6,258
Heap Leach Rinsing & Neutralization	$7,009
Contingency	$4,148
Total Reclamation & Closure Capital	**$31,802**

Material take-offs for earthworks, concrete and major piping were estimated by KCA. All equipment and material requirements are based on design information described in this PFS. Capital costs were estimated from budgetary supplier quotes for all major and most minor equipment as well as contractor quotes for major construction contracts with multiple quotes for several of the bid packages. Where project specific quotes were not available an estimate was made based on recent quotes in KCA/IMC's files.

Table 1-5 presents the LOM operating cost requirements for the Project.

Table 1-5: PFS Operating Cost Summary

Description	LOM Costs	
	($/t ore)	($/T ore)
Mine	7.53	8.30
Process & Support Services	4.29	4.73
Site G & A	0.93	1.02
Totals	**12.75**	**14.06**

Mining costs were developed based on owner mining using leased equipment.

Process operating costs were estimated first principles. Labor costs were estimated using project specific staffing, salary and wage and benefit requirements. Unit consumptions of materials, supplies, power, water and delivered supply costs were also estimated. The operating costs presented are based on ownership of all process production equipment and site facilities, including the onsite laboratory. The owner will employ and direct all process operations, maintenance, and support personnel for all site activities.

G&A costs were estimated by KCA with input from Revival. G&A costs include project specific labor and salary requirements and operating expenses.

Operating costs were estimated based on first quarter 2023 US dollars and are presented with no added contingency based upon the design and operating criteria present in this PFS.

1.16 Economic Analysis

Based on the estimated production schedule, capital costs and operating costs, KCA prepared a Microsoft Excel spreadsheet-based Discounted Cash Flow (DCF) model, which measures the Net Present Value (NPV) of future cash flow streams. The PFS economic model was developed based on the following assumptions:

- The mine production schedule from IMC.
- Period of analysis of 13 years including one year of investment and pre-production, 8.1 years of production and 3.9 years for reclamation and closure.
- Gold price of $1,800/oz.
- Processing rate of 13,200 t/d (12,000 T/d).
- Overall average recovery of 61.6% for gold.
- Capital and operating costs as developed in Section 21 of this report.

The Project economics based on these criteria from the DCF are summarized in Table 1-6.

Table 1-6: PFS Economic Analysis Summary

Production Data		
Life of Mine	8.1	yrs
Annual Average Ore Mined and Leached	4.83 4.38	Mt/yr MT/yr
LOM Average Head Grade	0.022 0.74	oz/t g/T
LOM Gold Recovery	61.6	%
Average Annual Gold Production	65,324	ounces
Total Gold Produced	529,051	ounces
LOM Strip Ratio (Waste:Ore)	2.4	
Capital Costs		
Initial Capital	$109	million
Working Capital & Initial Fills	$5	million
LOM Sustaining Capital	$100	Million
Reclamation & Closure Capital	$32	Million
LOM Average Operating Costs		
Mining	$7.53 $8.30	/t ore /T ore
Processing & Support	$4.29 $4.73	/t ore /T ore
G&A	$0.93 $1.02	/t ore /T ore
Total OPEX	$12.75 $14.06	/t ore /T ore
Total Cash Cost	$986	/ounce
All-in Sustaining Cost (ASIC)	$1,235	/ounce

Financial Parameters		
Gold Price		$1,800 /ounce
Internal Rate of Return,	Before Tax	27.7 %
	After Tax	24.3 %
Average Annual Cashflow,	Before Tax	$41 million
	After Tax	$37 million
Net Present Value @ 5%,	Before Tax	$130 million
	After Tax	$105 million
Pay-Back Period		3.4 years

A sensitivity analysis was performed on the Project economics. Figure 1-1 and Figure 1-2 are charts showing the relative sensitivity of the after-tax IRR and NPV to gold price, capital cost, and operating cost.

Figure 1-1: After-Tax IRR versus Gold Price, Capital Cost, & Operating Cost

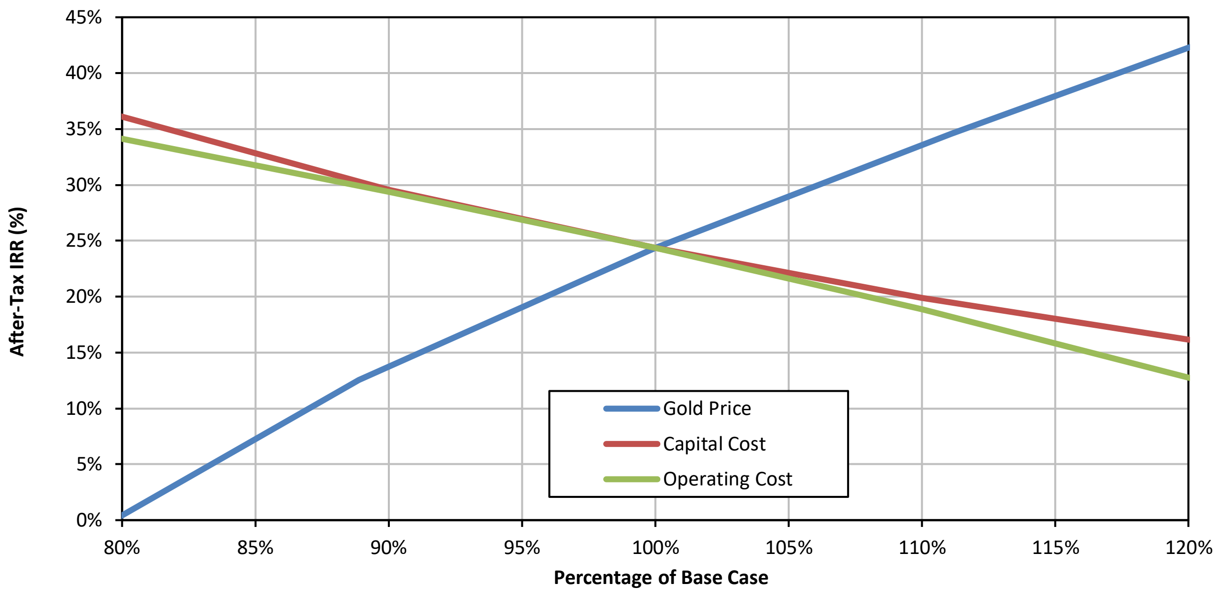
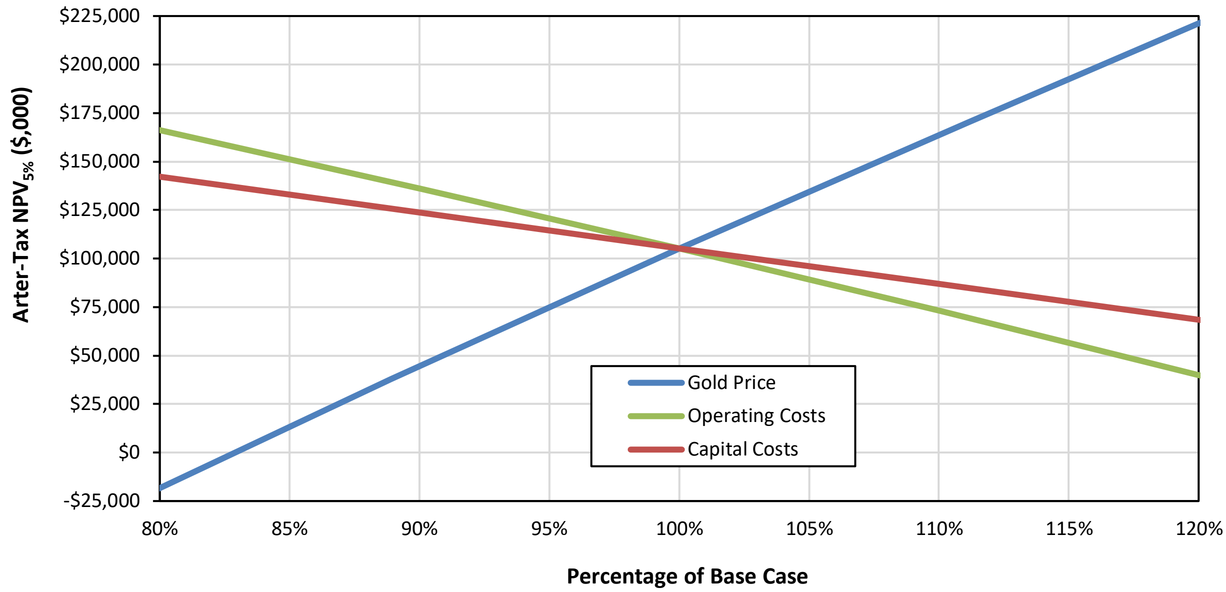


Figure 1-2: After-Tax NPV @ 5% versus Gold Price, Capital Cost, & Operating Cost



1.17 Conclusions

The work that has been completed to date has demonstrated that a first phase restart of the Beartrack-Arnett Heap Leach Project is a technically feasible and economically viable project. The Project is accessible year-round via well-maintained roads from the town of Salmon, Idaho, and benefits from existing infrastructure from the previous operation including the site access road, electrical power transmission and distribution lines, water storage and distribution systems, and various process facilities.

The Project has been designed as an open pit mine with heap leach for recovery of gold from predominantly oxide and transition material. Ore will be crushed to P_{100} 1½ inches (38 mm), stockpiled, reclaimed and conveyor stacked onto the Beartrack heap leach pad during the initial five years of operation and the Haidee heap leach pad during the final three years of operation at an average rate of 13,200 t/d (12,000 T/d). Stacked ore will be leached using low grade sodium cyanide solution and the resulting pregnant leach solution will be processed in an existing, refurbished ADR plant where gold will be adsorbed onto activated carbon, stripped, and recovered by electrowinning followed by treatment in a mercury retort and smelting to produce the final doré product.

Metallurgical test work completed indicates that the material is amenable to cyanide leaching for the recovery of gold with moderate reagent requirements. The overall gold recovery for the project is estimated at 61.6% and will produce an estimated 529,100 ounces of gold.

1.18 Opportunities

Key opportunities for the Beartrack-Arnett Project include:

- Potential to upgrade the current Inferred Mineral Resources to the Measured and Indicated categories.
- Mineralization at Haidee remains open in all directions providing the opportunity to expand the existing heap leach Mineral Resource.
- Potential exists to identify near-surface, higher grade Mineral Resources on the Arnett Property, primarily in the Roman's Trench area.
- Potential to increase the mine life and mine throughput, and improve the overall project economics, as additional Mineral Resources are defined.
- Silver is known to be present and recoverable in the Beartrack ore but has not been included in the Mineral Resource or economic estimates. Inclusion of silver could provide additional revenue and value to the Project.
- Ore from Haidee does not appear to be sensitive to crush size in the range of crush sizes tested and coarser crushing may be possible without any appreciable changes in recovery. Coarser crushing, and potentially ROM leaching, should be evaluated as part of future test work.
- Potential to increase the level of automation, electrification, and emerging mining and processing technologies, such as ore sorting, in all areas of the Project.
- Potential to develop a second phase mill operation to process known mill Mineral Resources and numerous related exploration expansion opportunities (Joss, South Pit, Wards Gulch and elsewhere).

1.19 Risks

Risks for the Beartrack-Arnett first phase heap leach restart project include:

- Risks associated with potential mine development include sensitivity to the gold price, geotechnical conditions, permit delays, and the uncertainty around the U.S. mining law.
- The Beartrack site is serviced by an existing Idaho Power Co. (IPCo) 69 kV power transmission line with limited excess capacity and with power available on a first come first serve basis. If power supply from the existing system is inadequate when the Project is developed then upgrades to the Salmon substation, and other upstream IPCo system components, would be required, which would increase pre-production capital costs.
- To account for the long leach tail observed during historical Beartrack operations, the metallurgical recovery calculated from column leach testing was increased by 2.3% of contained gold (approximately 11 koz in total) for Beartrack oxide and transition ores.

Although the data supports this assumption, there is a risk that this added recovery may not be realized or may be delayed relative to the economic model assumptions.

- Humidity cell testing on leached Beartrack transition and sulfide samples indicate the material could generate acid, which could compromise the heap leach operation and result in lower gold recoveries and higher operating and closure costs. Humidity cell testing on leached samples from Arnett indicates that the material is non-acid generating and contains only trace deleterious elements.
- The existing composite liner systems for the pregnant and event ponds are not in compliance with current Idaho Administrative Procedure Act (IDAPA) requirements for storing process solutions. This PFS assumes that the ponds can be used in their current configuration because of their previous permit status and performance history; however, it is possible the pond liners will need to be upgraded, thereby, adding costs to the Project.
- The Project considers refurbishing and reusing much of the existing recovery plant and infrastructure. Although every effort has been made to identify and minimize risks associated with reusing the existing plant, there is a risk that the refurbishment and decontamination costs will exceed the budgeted estimates.
- There is a legal framework in place at both the State and Federal levels and precedent for permitting the Project. However, in addition to standard resource impact evaluations, the NEPA review will consider site-specific issues related to the Clean Water Act, Clean Air Act, and Endangered Species Act, and other environmental legislation and policies which may be revised prior to Project permitting. Based on the outcome of the environmental review under the NEPA process, the Record of Decision (ROD) may advance an alternative that differs from Revival's proposed plan.
- During closure and post-closure, water discharge under the Idaho Pollutant Discharge Elimination System (IPDES) Program will consider future in-stream water quality criteria that would define closure water treatment requirements. This may require modifications to the currently proposed water management process.
- Skilled labor in Salmon and the surrounding area is limited. While Idaho has a history of recent mining, such as Thompson Creek near Challis, in the Coeur d'Alene District in northern Idaho and in the phosphate mines in southeastern Idaho, bringing labor in from other parts of the state will likely increase local labor costs and, as with most small communities, housing availability will be limited.

Risks associated with the potential second phase Beartrack-Arnett mill Mineral Resources include:

- Risks associated with potential mine development include sensitivity to the gold price, geotechnical conditions, particularly for the underground portion of the mineral resource, permitting delays, and the uncertainty around the U.S. mining law.

- The assumed ore processing method for the mill Mineral Resources requires significant capital expenditure and there is a risk that there would be insufficient tonnage and grade to provide reasonable payback on the capital. However, the mill Mineral Resource deposits remains open along strike and at depth, particularly in the high-grade Joss area.

1.20 Recommendations

Provided below are recommendations for additional work to increase the level of detail, improve the project economics, or de-risk aspects of the project:

- Construction of the haul road between Beartrack and Arnett represents a significant cost to the project and should be further studied. Future work should include a geotechnical investigation of the proposed haul road route and engineering review to identify opportunities to reduce construction costs.
- Additional heap leach metallurgical test work should be completed to verify recoveries and reagent requirements. Test work should include variability columns and different crush sizes as well as compacted permeability testing to confirm that cement agglomeration is not required.
- Revival should engage with Idaho Department of Environmental Quality (IDEQ) staff to determine if the existing Beartrack pond lining systems would require modifications to be permitted under the current IDAPA Ore Processing by Cyanidation rule.
- Consideration should be given to assaying for silver in future Beartrack exploration drilling as the column leach testing indicates silver recoveries could have a meaningful increase in project revenue.
- Additional hydrogeologic characterization is recommended to refine the current estimates on the site-wide water balance and pit lake modeling to support closure and post-closure water management.
- Additional environmental geochemistry characterization is recommended to support operational waste management planning and closure design of the waste rock storage areas.
- Complete additional heap leach facility geotechnical studies to support advancing the heap leach pad designs to the feasibility level.
- Complete additional open pit geotechnical and hydrogeological studies to support advancing the designs to the feasibility level.
- The current environmental baseline study program should be maintained to prepare for permitting and NEPA review of the first phase heap leach restart project.

- A Plan of Operations should be developed to in support of permitting the first phase heap leach restart project.
- A feasibility study should be completed on the first phase heap leach restart project once the items above have been sufficiently advanced.
- Evaluate potential to produce an economically shippable concentrate from underground mill Mineral Resources at Beartrack.
- A scoping level economic assessment for mining and processing sulfide material should be completed to determine the viability of developing that project.
- Ongoing exploration for open pit oxide mineralization at Arnett to augment the PFS mine plan is recommended. The deposit at Haidee is open in all directions and there remain several other promising untested near-surface oxide drill targets near the Haidee haul road and Beartrack ADR plant.
- Further sulfide exploration on the open +3-mile (5-km) Beartrack trend and a scoping level assessment for processing sulfide material should be completed to assess the economic potential for a second phase of underground and open pit operations focused on mill resources.

Estimated costs for select discretionary and core recommendations are provided in Table 1-7.

Table 1-7: Estimated Costs for Select Recommendations

Recommendations	Estimated Costs	
	Discretionary ($ millions)	Core Items ($ millions)
Heap leach metallurgical testing – crush size optimization	-	$0.60
Haidee haul road study	-	$0.35
Heap leach geotechnical characterization of ore and liner assembly	-	$0.03
Hydrogeological studies	-	$3.20
Geochemical characterization studies	-	$0.30
Open pit geotechnical studies	-	$0.20
Remaining permitting baseline data collection & studies	-	$6.50
Plan of Operations	-	$0.30
Phase 1 Heap Leach Project feasibility study	-	$1.00
Phase 2 Mill Project scoping level economic study	$0.30	-
Mineral resource expansion core drilling (±12,000 m)	$6.60	-
Grassroots exploration core (±5,000 m) and RC (±6,000 m) drilling	$3.40	-
Totals	$10.30	$12.48

2.0 INTRODUCTION

This Technical Report is issued to Revival Gold Inc. (Revival). Revival is listed on the TSX Venture Exchange (TSX.V: RVG, OTCQX: RVLGF) and has the right to acquire a 100% interest in Meridian Beartrack Co. ("Meridian Beartrack"), owner of the Beartrack Gold project ("Beartrack"), located in Lemhi County, Idaho. Revival also owns rights to a 100% interest in the neighboring Arnett Gold Project ("Arnett") which includes the Haidee deposit. This report has been prepared by Kappes, Cassiday and Associates (KCA), Independent Mining Consultants Inc. (IMC), KC Harvey Environmental (KC Harvey) and WSP USA Environment & Infrastructure Inc. (WSP) with input from other consultant groups.

The purposes of this Technical Report are as follows:

- Provide an updated Mineral Resource for the Beartrack-Arnett property encompassing both heap leach and mill Mineral Resources,
- Present the technical and financial results of a PFS for the implementation of a restart of open pit mining and heap leaching to produce gold doré, and
- Establish the additional technical studies required to develop a Feasibility Study for the heap leach restart and to develop baseline studies in preparation for environmental permitting.

The project considers open pit mining of approximately 39.9 million tons of ore from the Beartrack and Haidee deposits with an estimated average grade of 0.022 oz/t gold. Ore from the pits will be processed in a conventional crushing circuit. Crushed ore will be conveyor stacked onto two heap leach pads and leached with a low-concentration cyanide solution. The resulting pregnant leach solution will be processed in an existing, refurbished, adsorption-desorption-recovery (ADR) plant for the recovery of gold resulting in the production of a final doré product.

This study considers the potential viability of mineral resources for the proposed development option and includes:

- Updated Mineral Resource with an effective date of June 30, 2023,
- Historical exploration and production work, description of the property, geology and nature of mineralization,
- Updated mining studies and Mineral Reserves estimates,
- Infrastructure and logistic strategies,
- Updated costing studies, and
- An economic model based upon the results of those studies.

The Report has been written in compliance with disclosure and reporting requirements set forth in the Canadian Securities Administrators' current "Standards of Disclosure for Mineral Projects" under the provisions of NI 43-101, Companion Policy NI 43-101CP and Form NI 43-101F1. This Report supersedes a National Instrument 43-101 Technical Report prepared by Wood dated 17 November 2020 titled, "Preliminary Economic Assessment of the Heap Leach Operation on the Beartrack Arnett Gold Project, Lemhi County, Idaho, USA" (Wood, 2020) and Mineral Resource Update National Instrument 43-101 Technical Report prepared by Wood titled, "NI43-101 Technical Report on the Mineral Resource Update of the Beartrack-Arnett Gold Project, Lemhi County, Idaho, USA" dated 12 May 2022 (Wood, 2022) and is an update of both reports.

2.1 Project Scope

Revival commissioned KCA to evaluate the Beartrack-Arnett Heap Leach Project to PFS standards. This Report is led by KCA and incorporates work from other groups including IMC for mine development and costs, KC Harvey for environmental, permitting, ground water modeling, and site wide water balance, and WSP for geotechnical investigations. A more detailed scope description for each group is included below.

KCA's scope of work for the Project is summarized as follows:

- Review of new and historical metallurgical tests and interpretation,
- Process design and recovery methods,
- Infrastructure design,
- Infrastructure and process capital and operating costs,
- General and administrative (G&A) costs with input from Revival.
- Economic analysis, and
- Overall report preparation and compilation.

IMC's scope of work for the Project is summarized as follows:

- Verify the drillhole database is appropriate for determination of mineral resources and mineral reserves, inclusive of QAQC verification.
- Develop the Mineral Resource block models for the deposits,
- Estimate Mineral Resources,
- Estimate Mineral Reserves,
- Develop an operational mine plan for the open pits, and
- Estimate Mining capital and operating costs.

KC Harvey's scope of the work for the Project is summarized as follows:

- Assessment of regulatory requirements and description of the steps required to obtain construction and operating permits for the mine plan described in this report,
- Acid rock drainage and metal leaching potential of the mine waste rock,
- Heap and waste rock facility closure plans, and
- Site wide water balance.

WSP's scope of the work for the Project is summarized as follows:

- Geotechnical investigations and analysis documented in WSP (2022b, 2022c, 2023) for the mine pit slopes, waste rock storage facilities, and heap leach facilities.

The scope of this report also includes a study of information obtained from public documents; other literature sources cited; and cost information from public documents and recent estimates from previous studies conducted by KCA.

This Technical Report is intended to provide the project's economics and to give guidance for the continued development and implementation of the Beartrack-Arnett Heap Leach Project.

2.2 Terms of Reference

The purpose of this Report is to disclose Mineral Reserves for the Beartrack-Arnett property, disclose an updated Mineral Resource estimate for the property and present preliminary project economics. This report supports information disclosed in a news release dated July 11, 2023.

The units of measure presented in this report, unless noted otherwise, are in the U.S. Customary system. The currency used for all costs is presented in US Dollars (US$ or $), unless specified otherwise. The costs were estimated based on quotes and cost data as of 1st Quarter 2023. Quotes were obtained for all major equipment packages, construction contracts and infrastructure items.

The economic evaluation of the Project has been conducted on a constant dollar basis (Q1 2023) with a gold price of US$1,800 per ounce for the Base Case. Economic evaluation is done on a Project basis and from the point of view of a private investor, after deductions for royalties, income taxes, and various mining taxes and duties.

2.3 Qualified Persons & Site Visits

The following professional engineers were the Qualified Persons (QPs) for this Technical Report as defined by NI 43-101:

- Caleb Cook, P.E., Kappes, Cassiday & Associates
- John Marek, P.E, RM SME, Independent Mining Consultants, Inc.
- David Cameron, P.E., KC Harvey Environmental, LLC
- Dr. Haiming (Peter) Yuan, P.E., WSP USA Environment & Infrastructure Inc.

Mr. Cook is responsible for Sections 2, 3, 5, 6, 12.4, 13, 17, 19, 22, 23, 28 and parts of Sections 1, 4, 18, 21 and 24 through 27. Mr. Marek is responsible for Sections 7, 8, 9, 10, 11, 12 except for 12.4, 14, 15, 16 and parts of Sections 1, 18, 21, and 25 through 27. Mr. Cameron is responsible for Section 20 and parts of Sections 1, 4, 21, 22 and 25 through 27. Dr. Yuan is responsible for parts of Sections 1, 16, 18, and 24 through 27.

Mr. Cook visited the site on October 16-17, 2022 to meet with project personnel and to review general site conditions, especially the area of the heap leach pad and processing facilities.

Mr. Marek visited the site on August 3-4, 2022.

Mr. Cameron visited the site on May 11, 2021, inspected all areas of the site, reviewed site conditions, and collected reports on historical operations. KC Harvey Environmental, LLC personnel under Mr. Cameron's direct supervision attended that site inspection and subsequently completed environmental monitoring and field work on the site through 2021 and 2022.

Dr. Yuan visited the site on June 14, 2021. The focus of Dr. Yuan's site visit was to assess geotechnical conditions of major civil works including locations of waste rock facilities (WRF), heap leach pads (HLPs), and potential borrow sources.

There is no affiliation between Mr. Cook, Mr. Marek, Mr. Cameron, Dr. Yuan and Revival except that of an independent consultant / client relationship and each author is considered to be independent of Revival as described in Section 1.5 of NI 43-101.

All reports, publications, exhibits, documentation, conclusions, and other work products obtained or developed by the authors during completion of this Technical Report shall be and remain the property of KCA, IMC, KC Harvey and WSP.

This Technical Report was prepared specifically for the purpose of complying with NI 43-101 and may be distributed to third parties and published without prior consent of the Authors if the

Technical Report is presented in its entirety without omissions or modifications, subject to the regulations of NI 43-101.

2.4 Effective Date

The effective date for this Report is June 30, 2023, representing the cut-off date for information included in the Report.

2.5 Sources of Information

KCA has taken all reasonable care in producing the information contained in this report. The information, conclusions and estimates contained in this report are consistent with information available at the time of preparation, the data supplied by outside sources and assumptions, conditions and qualifications set forth in this report. The authors of this report are Caleb Cook, John Marek, David Cameron, and Peter Yuan, each of whom is a Qualified Person as defined under NI 43-101.

The information in this report is not a substitute for independent professional advice before making any investment decisions. Any information in this report cannot be modified without the express written permission from KCA.

The primary sources of information used for this technical report are set out in Section 27, References, and include:

- The 17 November 2020 Technical Report prepared by Wood titled, "Preliminary Economic Assessment of the Heap Leach Operation on the Beartrack Arnett Gold Project, Lemhi County, Idaho, USA".
- The 12 May 2022 Technical Report prepared by Wood titled, "NI 43-101 Technical Report on the Mineral Resource Update of the Beartrack-Arnett Gold Project, Lemhi County, Idaho, USA".
- The Revival digital drillhole database.
- The original assay certificates for the holes.
- Various geologic solids that were developed (interpreted) by Revival geologists.
- Various reports, including previous reports on sampling methodology, quality control and quality assurance (QA/QC), resource modeling, geotechnical and slope stability, mine planning, and economic evaluations. These were developed by Meridian Gold (Meridian), and various consultants.
- Various reports on metallurgical testing, process recovery, and mineral processing.
- Published reports on Idaho taxes and duties.

KCA, IMC, KC Harvey and WSP reviewed the data and only used data that were deemed reliable for this Report.

2.6 Frequently Used Acronyms, Abbreviations and Units of Measure

2.6.1 Common Units of Measure and Abbreviations

Above mean sea level	amsl	Liter	L
Centimeter	cm	Liters per hour per square meter	$L/hr/m^2$
Centimeters per second	cm/s	Megawatt	MW
Cubic Feet	ft^3	Meter	m
Cubic Meters	m^3	Micrometer (micron)	µm
Day	d	Milligram	mg
Days per week	d/w, dpw	Milligrams per liter	mg/L
Days per year (annum)	d/y(a), dpy(a)	Milliliter	mL
Degree	°	Millimeter	mm
Degrees Celsius	°C	Million ounces	Moz
Degrees Fahrenheit	°F	Million tons	Mtons, Mt
Feet	ft	Million tonnes	Mtonnes, MT
Gallons	gal	Million	M
Gallons per minute	gpm	Minute (time)	min
Gallons per minute per square foot	gpm/ft^2	Month	mo
Gram	g	Ounce	oz
Grams per tonne	g/T	Ounces per ton	oz/t, opt
Greater than	>	Parts per billion	ppb
Hectare	ha	Parts per million	ppm
Hertz (frequency)	Hz	Percent	%
Hour	h, hr	Phase (Electrical)	ph
Hours per day	h/d, hpd	Pound	Lb
Hours per week	h/w, hpw	Pounds per Square Inch	psi
Hours per year	h/y(a), hpy(a)	Pounds per ton	lbs/ton
Kilo (thousand)	k	Specific gravity	SG
Kilogram	kg	Square Feet	sf, ft^2
Kilometer	km	Ton	T
Kilovolt	kV	Tonne	T
Kilowatt	kW	Tons per day	t/d, tpd
Kilowatt-hour	kWh	Tons per month	tpm
Less than	<	Volt	V
Linear foot	lf	Year (annum)	yr (a)

2.6.2 Acronyms

Acid Base Accounting	ABA
Acid Generation Potential	AP
Acid Neutralization Potential	NP
Adsorption-Desorption-Recovery	ADR
American Society for Testing and Materials	ASTM
Atomic Adsorption	AA
Bottle Roll Test	BRT
Carbon in Column	CIC
Certified Reference Materials	CRM
Code of Federal Regulations	CFR
Conventional Rotary Drill	CR
Council on Environmental Quality	CEQ
Diamond Drill	DD
Environmental Impact Statement	EIS
Executive Order	EO
Federal Water Pollution Control Act (Clean Water Act)	CWA
Global Positioning System	GPS
Idaho Administrative Procedures Act	IDAPA
Idaho Department of Environmental Quality	IDEQ
Idaho Department of Lands	IDL
Idaho Department of Water Resources	IDWR
Idaho Pollutant Discharge Elimination System	IPDES
Internal Rate of Return	IRR
Life of Mine	LOM
Metal Leaching	ML
Multi-Sector General Permit	MSGP
National Environmental Policy Act	NEPA
National Marine Fisheries Service	NMFS
National Pollutant Discharge Elimination System	NPDES
Net Neutralization Potential	NNP
Net Present Value	NPV
Net Smelter Return	NSR
Not Potentially Acidic Drainage Generating	Non-PAG
Potentially Acidic Drainage Generating	PAG
Record of Decision	ROD
Quality Assurance/Quality Control	QA/QC
Reverse Air-Blast (Drilling)	RAB
Reverse Circulation	RC
Rock Quality Designation	RQD
Run of Mine	ROM

Salmon-Challis National Forest	SCNF
Synthetic Precipitation Leaching Procedure	SPLP
Universal Transverse Mercator	UTM
United States Department of Agriculture Forest Service	USFS
United States Army Corps of Engineers	USACE
United States Code	USC
United States Environmental Protection Agency	USEPA
United States Fish and Wildlife Service	USFWS
X-Ray Diffraction	XRD

3.0 RELIANCE ON OTHER EXPERTS

3.1 Mineral Tenure, Surface Rights and Royalties

The QPs have not independently reviewed ownership of the Property or any underlying property agreements, mineral tenure, surface rights or royalties. The QPs have fully relied upon and disclaim responsibility for information derived from Revival and legal experts retained by Revival, including the title opinion dated May 16, 2023, provided by Christopher Gabbert, Lyons O'Dowd, PLLC, 2023.

This information is used in Section 4 for property description and in Section 14 to support reasonable prospects for eventual economic extraction, including inputs to the economic cut-off grades applied to the Mineral Resource estimates.

4.0 PROPERTY DESCRIPTION & LOCATION

4.1 Location

The Project is located in Lemhi County, Idaho, in the northwestern USA (Figure 4-1). Beartrack and Arnett are located approximately 11 mi (18 km) and 16 mi (26 km), respectively, west-northwest of the town of Salmon, and approximately 150 mi (240 km) northeast of Boise, the capital of Idaho. Approximate geographic coordinates for the center of the resource at Beartrack are 45°14'13"N and 114°6'12"W and the Haidee target at Arnett, 45°14'8"N and 114°12'42"W. The approximate elevations for the above cited coordinates are 7,103 ft (2,162 m) above mean sea level at Beartrack and 7,300 ft (2,225 m) above mean sea level at Arnett.

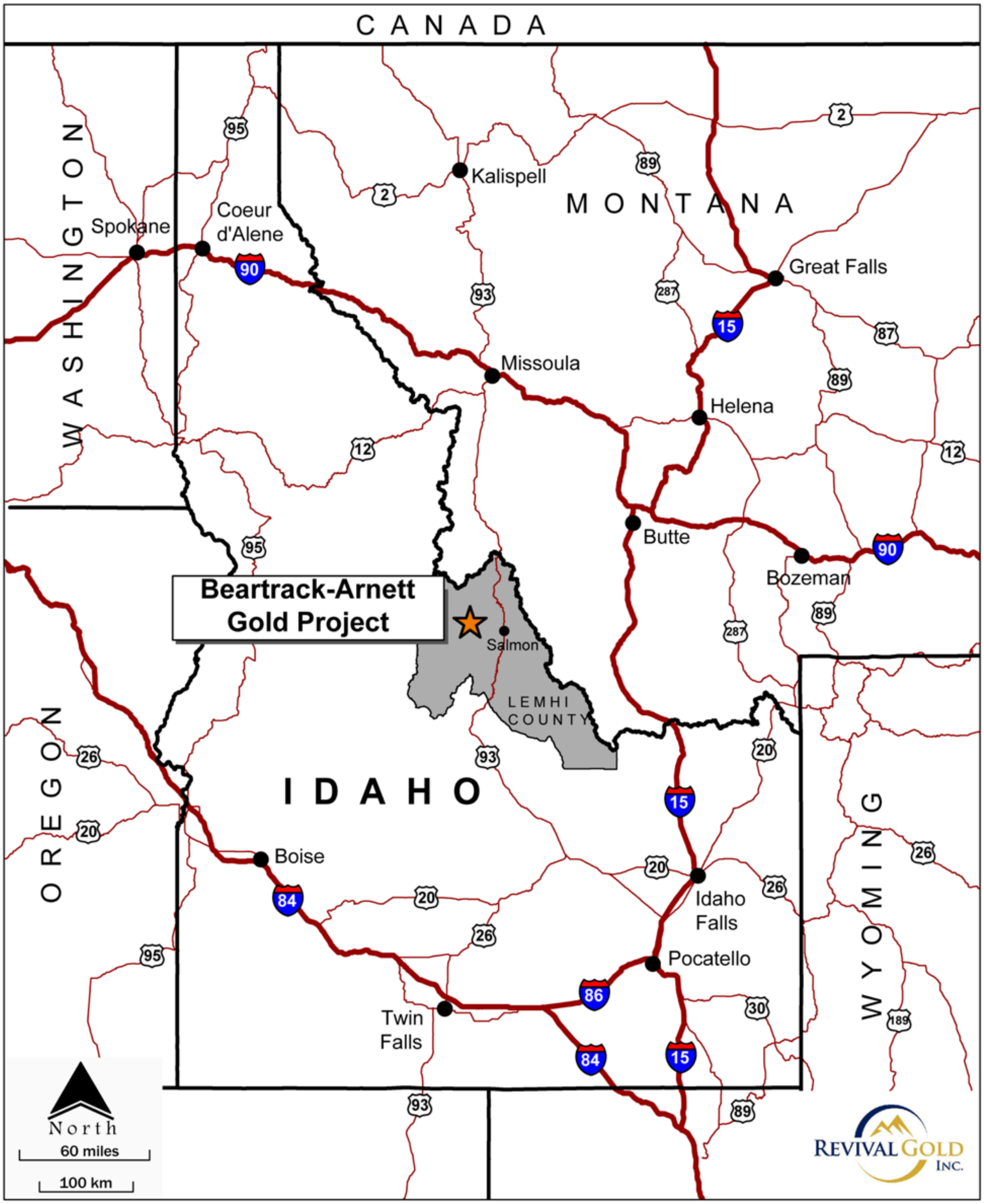
4.2 Mineral Tenure

4.2.1 Beartrack

Revival entered into an earn-in agreement on August 31, 2017, amended on May 8, 2019, and May 20, 2020, and on August 31, 2022, it was amended and restated to purchase Meridian Beartrack Co., owner of a 100% interest in the mineral rights for 305 unpatented claims totalling approximately 5,709 acres (2,055 ha) and 14 patented claims (or portions thereof) totalling approximately 463 acres (187 ha), from Meridian Gold Company, now a wholly owned subsidiary of Pan American Silver Corporation (Pan American). In addition, Revival has staked 243 unpatented lode claims and 14 unpatented mill site claims surrounding the Beartrack property that are subject to the earn-in agreement. Due to overlapping of claims, the total footprint of the Beartrack claims is 7,648 acres (3,095 ha) (Figure 4-2). The information presented in Table 4-1 presents the breakdown of claims, by type and area, and includes the estimated holding costs to maintain these claims.

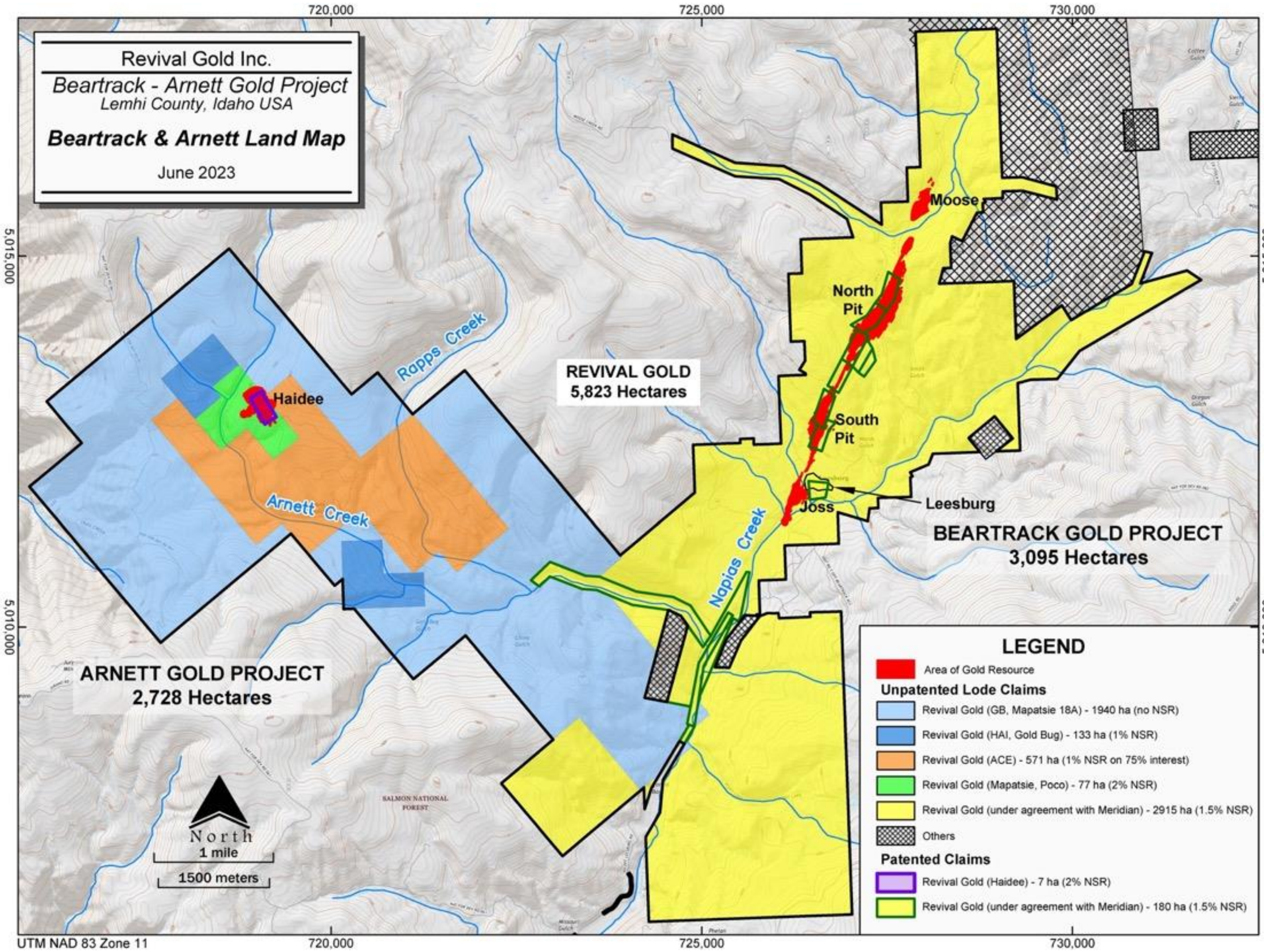
Claim locations in the USA are described with respect to the Section, Township, and Range system employed throughout the country. The claims that comprise the Beartrack land position are located, all or in part, in Section 1, Township 21 North, Range 19 East; Sections 4, 5 and 6, Township 21 North, Range 20 East; Section 36, Township 22 North, Range 19 East; Sections 2, 3, 4, 5, 9, 10, 11, 12, 14, 15, 16, 17, 19, 20, 21, 22, 28, 29, 30, 31, 32, and 33, Township 22 North, Range 20 East; Sections 19, 20 and 36, Township 23 North, Range 19 East; and Section 34, Township 23 North, Range 20 East, Boise Meridian.

Figure 4-1: Project Location Map



Source: Revival, 2023

Figure 4-2: Beartrack and Arnett Land Map



Source: Revival, 2023

All 562 unpatented lode claims are in good standing until September 1, 2023, when the next filings and required maintenance fee payments to the U.S. Bureau of Land Management (BLM) are due. The 14 unpatented mill site claims and 3 unpatented lode claims staked in 2023 have not received approval from the BLM's land law adjudication process and are therefore, deemed "Filed" but not "Active" until they are approved by the BLM.

Table 4-1: Beartrack Land Ownership

Registration	Claim Type	No. of Claims	Anniversary Date	In Good Standing Until	Approx. Area (ha)	Estimated Annual Holding Cost ($)
Meridian Beartrack	Unpatented Lode	359	08/31/2022	09/01/2023	2,921	59,235
Meridian Beartrack	Unpatented Mill Site	157	08/31/2022	09/01/2023	310	25,905
Meridian Beartrack	Unpatented Placer	46	08/31/2022	09/01/2023	677	19,305
Meridian Beartrack	Patented Claims	14	08/31/2022	09/01/2023	180	1,001
Totals		**576**			**4,088**	**105,446**
Overlapping Claims[1]					993	
Totals		**576**			**3,095**	**105,446**

Note: (1) Many claims overlap which is the reason for the area being subtracted from the total. The total net represents the overall footprint of the claim block.

4.2.2 Arnett

At Arnett, from 2017 through 2022, Revival optioned or purchased a 100% interest in the mineral rights for 95 unpatented lode claims, two unpatented placer claims, and one patented lode claim totalling approximately 1,974 acres (799 ha) and staked an additional 242 unpatented lode claims. Due to the overlapping of unpatented lode claims over unpatented placer claims, the total footprint of the Arnett claims is 6,743 acres (2,728 ha) (Figure 4-2). Table 4-2 lists the claims by type and area and includes the estimated holding costs to maintain these claims.

The Arnett claims are located, all or in part, in Sections 9, 10, 13, 14, 15, 16, 17, 20, 21, 22, 23, 24, 25, 26, 27, 28, 36 Township 22 North, Range 19 East and Sections 19, 29, 30, 31 and 32, Township 22 North, Range 20 East, Boise Meridian.

All 337 unpatented lode claims, and two unpatented placer claims are in good standing until September 1, 2023, when the next filings and required maintenance fee payments to the BLM are due. The 46 unpatented claims staked in 2020 have not received approval from the BLM's land law adjudication process and are, therefore, deemed "Filed" but not "Active" until they are approved by the BLM.

Table 4-2: Arnett Land Ownership

Registration	Claim Type	Claim Names	No. of Claims	Anniversary Date	In Good Standing Until	Approx. Area (ha)	Estimated Annual Holding Cost ($)
Revival	Unpatented Lode	ACE	68	08/31/2022	09/01/2023	571	11,220
Revival	Unpatented Lode	HAI 1 to 7, Gold Bug 12 to 17 & 27 to 29	16	08/31/2022	09/01/2023	133	2,640
Revival	Unpatented Lode	GB 1 to 242 & Mapatsie #18A	243	08/31/2023	09/01/2023	1,940	40,095
Revival	Unpatented Placer	Arnett Creek Pl. & Dump Creek Pl.	2	08/31/2022	09/01/2023	16	330
Revival	Patented Lode	Haidee	1	08/31/2022	09/01/2023	7	20
Revival	Unpatented Lode	Mapatsie 6 to 9, 11, 13, 18, 19, 20 & Poco 34	10	08/31/2022	09/01/2023	77	1,650
Totals			**340**			**2,744**	**55,955**
Overlapping Claims[1]						16	
Totals			**340**			**2,728**	**55,955**

Note: (1) Many claims overlap which is the reason for the area being subtracted from the total. The total net represents the overall footprint of the claim block.

4.3 Obligations to Maintain the Properties

The primary obligation to maintain unpatented mining claims in good standing is payment of an annual maintenance fee of $165 per lode or mill site claim on or before September 1 of each year. Placer claims over 20 acres must pay an additional $165 per 20 acres or portion thereof. Property taxes are also due for patented claims, as these are classified as real property. The total estimated financial obligation to maintain the claims that constitute the Project, the subject of this Report, is $105,446 per year for Beartrack (Table 4-1) and $55,955 per year for Arnett (Table 4-2). In addition to these property payments, there is a property tax on buildings at the Beartrack mine site. This amount is expected to increase incrementally over time.

4.4 Agreements, Royalties & Other Encumbrances

4.4.1 Beartrack

On August 31, 2017, Revival entered into a four year earn-in and related stock purchase agreement (the "Agreement") with Meridian Gold Company (a subsidiary of the former Yamana Gold Inc., now Pan American) by which Revival may acquire a 100% interest in Meridian Beartrack Co., owner of the Beartrack Property. On May 8, 2019, and May 20, 2020, Revival executed amendments to the Agreement and on August 31, 2022, it was amended and restated (together, the "Restated Agreement") to acquire Meridian Beartrack Co. The following is a summary of the Restated Agreement.

Revival may acquire Meridian Beartrack Co., (the "Acquisition") by making a cash payment of $250,000 (paid), delivering four million shares of Revival (delivered), spending $15 million on qualifying exploration expenditures (spent) and funding certain operating and maintenance (O&M) costs during an earn-in period ending on or before October 2, 2024. As of March 31, 2023, approximately $1.1 million was incurred related to O&M costs. Upon completion of the Acquisition, Revival will assume future site O&M cost obligations including site bonding surety. Such costs are to be determined at the time of assuming the interest in the property but are estimated at this time to be approximately $850,000 annually. The current face value of the bond is $10.2 million. Revival will be required to provide a 1% Net Smelter Return (NSR) royalty, an additional NSR royalty of 0.5% (terminating when the payments of the additional royalty total $2 million) and pay the greater of $6 per ounce of gold in mineral resource or $15 per ounce of gold in mineral reserve completed three years after the Acquisition (October 2, 2027).

The 305 unpatented claims and 14 patented claims subject to the Restated Agreement with Meridian Beartrack are subject to a 0.5% net profit royalty to Mr. Raymond W. Threlkeld. The royalty is to be paid within 30 days of the end of each quarter in which gold is sold or produced. There are no historical payments due to Mr. Threlkeld.

An agreement between Meridian Minerals Company (Meridian Minerals), currently Meridian Beartrack Co., and the Marvin Johnson family covers certain patented and unpatented placer claims located largely south and west of the South Pit zone at Beartrack. These placer claims are subject to a 25% of net return royalty calculated as the profits from sales of all placer gold mined from the claims. The royalty covers all placer gold, which is defined as gold occurring within 100 ft (30.5 m) of the surface. The agreement, signed on October 3, 1989, allows for the return of the claims in question to the Johnsons, or the heirs of the Johnson family living at the time the agreement was signed, if they are deemed to not have value for exploration or mining.

Other than the foregoing, Revival is not aware of any third parties currently claiming an active right to royalty payments or other financial payments in relation to the Property, except for an annual payment on a per claim basis to the Federal government for unpatented claims, and Lemhi County tax payments on patented claims.

4.4.2 Arnett

Revival owns full title and 100% of the ACE unpatented lode claims, which comprise part of the Arnett Property land position (Table 4-2). Bull Run Capital Inc. may claim a 1.0% NSR on a 75% interest in the claims that may be repurchased for $2 million.

The Mapatsie 6 to 9, 11, 13, 18, 19, 20 and Poco 34 unpatented lode claims are subject to a 2.0% NSR that may be repurchased for $2 million from Private Individuals.

The HAI 1 to 7 and Gold Bug 12 to 17 and 27 to 29 unpatented lode claims are subject to a 1.0% NSR that may be repurchased for $2 million from Otis Capital USA Corp. (now Excellon Resources Inc.).

The Haidee patented lode claim is subject to a 2.0% NSR that may be repurchased for $1 million from Paul M. McPherson, Jr, Tyler J. McPherson et al.

Other than the foregoing, Revival is not aware of any third parties currently claiming an active right to royalty payments or other financial payments in relation to the Property, except for an annual payment on a per claim basis to the Federal government for unpatented claims, and Lemhi County tax payments on patented claims.

4.5 Environmental Liabilities

The Beartrack property is a brownfield mine site; the Arnett property has also experienced historical mining activity. Mining activities, livestock grazing, road development, timber harvest, surface water withdrawals, and wildfires have all influenced surface water resources and fisheries habitats in the region.

The Meridian Beartrack Mine utilized open pit mining and cyanide heap leach extraction to recover gold beginning in 1995 and continued until 2006. Currently the mine is in the post-closure phase which involves finalizing reclamation and water management.

Water management at Meridian Beartrack Mine is conducted in accordance with Federal and State of Idaho regulations administered by USFS and IDEQ. Contact water and stormwater are collected, monitored, treated, and discharged in compliance with the Idaho Pollutant Discharge Elimination System (IPDES) Individual Industrial Discharge Permit (Permit Number ID-002702-2) and the IPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP; Permit Number IDR-050000). Contact water includes water from the open pit disturbance areas and waste rock storage facility. A comprehensive Stormwater Pollution Prevention Plan (SWPPP) is maintained in accordance with the IPDES MSGP.

The ongoing operation and maintenance of the Beartrack Mine site, including water treatment and management to maintain compliance with the existing IPDES permits, would be assumed by Revival as part of the compensation to Meridian Gold Company for Revival to acquire the property.

4.6 Existing Exploration Permits

Revival has one active exploration permit, referred to as BTAC, on the Beartrack-Arnett site. This permit was approved in 2022 and incorporated the individual Arnett, Beartrack, Rabbit, and Moose previously approved permits. The BTAC exploration permit encompasses 4,973 acres of National Forest System (NFS) land and 382 acres of private land in the Mackinaw (Leesburg) Mining District. The BTAC permit allows 230 acres of disturbance over 10 years. The BTAC project was analyzed with an Environmental Assessment and approved with a Decision Memo and a Finding of No Significant Impact. A Work Plan for the first stage of exploration was submitted to the USFS in May 2023. The current reclamation bond of $155,100 for exploration activities will be adjusted as exploration continues. The maximum allowable open surface disturbance at one time is 30 acres or approximately 13 percent of the total approved disturbance. Once the disturbance has been recontoured it is no longer considered open.

The Haidee patented land parcel does not require permits to undertake exploration activities. This private land has also been used to construct roads to drill sites on NFS land to decrease impacts to those lands.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES & PHYSIOGRAPHY

5.1 Accessibility

The Property can be accessed from State Highway 93 near the town of Salmon, Idaho, via all-weather, public gravel roads (25 mi (40 km)). Salmon can be accessed via paved highways from Missoula, Montana (140 mi (225 km)), Idaho Falls, Idaho (160 mi (257 km)) or from Boise, Idaho (250 mi (400 km)). Drive times to Salmon are 2.7, 2.5 and 5 hours, respectively. Missoula, Idaho Falls, and Boise have daily air service to larger, western airports such as Denver and Salt Lake City and regular air service exists between Boise and Salmon. In addition, there are several passable four-wheel- drive roads and trails that allow for access to much of the property.

5.2 Climate

The climate of the region is dependent on altitude. The town of Salmon is the nearest location for which weather statistics are readily available. Salmon is at an elevation of 3,944 ft (1,202 m) amsl, while the elevation of the Property is at ~7,201 ft (2,195 m) amsl. Salmon is located within a valley with a semi-arid climate, characterized by cold dry winters and hot, slightly wetter summers. Ascending the mountains to the west, the climate changes to a damper and cooler humid climate. At Salmon, the average monthly high temperature in July is 85°F (29°C) and the average monthly low in January is 11°F (-12°C). Winter minimum temperatures range from 27°F (-3°C) to 10°F (-12°C), while summer highs range from 71°F (22°C) to 87°F (31°C). The average annual precipitation is 9.5 inches (24.2 cm), most of which occurs May through July. Average annual snowfall is 160 cm (63 inches); December and January are typically the snowiest months.

Temperatures at the Property are lower, while annual precipitation amounts are higher, due to the higher elevation. Based on weather statistics from the Project site collected approximately 15 years ago, SNOTEL data collected by the U.S. Department of Agriculture Soil Conservation Service, remote automatic weather stations operated across the U.S. by several governmental agencies, the Precipitation Frequency Atlas of the Western United States prepared by the National Oceanic and Atmospheric Administration (NOAA) and the National Weather Service (NWS), and data from the Cobalt Blackbird mine climate station, the average monthly high and low temperature at the Property are estimated to be 84°F (29°C) and 8°F (-13°C), respectively. The maximum temperature generally occurs in July or August while the minimum temperature generally occurs between December and February. The average precipitation at the Property is estimated to be approximately 20.3 inches (51.6 cm) with maximum precipitation generally occurring between March and June. The average annual snowfall at the Property is estimated to be approximately 160 inches (406 cm).

The operating season with respect to exploration fieldwork and drilling is generally from mid--June through the end of October. However, roads can be kept open and drilling operations can be conducted year-round, provided the appropriate permits have been obtained from the United States Forest Service.

Historically, Meridian Beartrack operated the Beartrack open pit mine and heap leach processing year-round so climate should not present an impediment to mining.

5.3 Local Resources

The town nearest the Project is Salmon. Lemhi County had a 2021 population of 8,162 (https://www.census.gov/quickfacts/table/PST045215/16059) while Salmon's 2021 population was reported to be 3,190 (http://www.cityofsalmon.com). Most basic services can be found in Salmon, Missoula (population 74,822) or Idaho Falls (population 66,898).

Salmon is located approximately five hours from Boise, the capital of Idaho, where many State and Federal government agencies are located. Semi-skilled and unskilled labour can be obtained regionally as mining is active in Idaho and in Nevada to the south.

5.4 Infrastructure

A high-tension power line currently provides power to the Beartrack site. The reported capacity of the line is 69 kV.

Some infrastructure remains at the Property from the historical mining operation. The Beartrack site includes an adsorption-desorption-regeneration (ADR) plant with some equipment, change rooms, offices (limited equipment), leach (pregnant) ponds, overflow (stormwater) ponds, a fully winterized core logging and storage facility, an electrical substation, a Pall microfiltration water treatment plant, and a fuel farm. There is sufficient space for waste disposal areas, heap leach pads, and additional processing plant sites.

It is believed that the availability of power, water, and mining personnel would be sufficient should the Project advance.

5.5 Physiography

The Property consists of relatively gentle, forested terrain ranging in elevation from 6,401 ft (1,951 m) to about 7,401 ft (2,256 m). Vegetation consists largely of coniferous trees (primarily Lodgepole pines with lesser Douglas fir and Engelmann spruce) with sage, mountain mahogany shrubs and grasses at lower elevations. Mule deer, elk, moose, black bear, and mountain lions are present in the area.

6.0 HISTORY

6.1 District History

Placer gold was discovered at Napias Creek in the Mackinaw Mining District (the District) in 1867 less than 0.6 mi (1 km) downstream from the Beartrack mine. The District subsequently became one of the largest placer mining districts in Idaho. The use of sluice boxes and shakers to mine placers in the late 1800s gave way to hydraulic mining in the 1920s and to dredges in the 1930s and 1940s. Total placer gold production from the District is estimated to be equivalent to 475,000 oz of gold (Johnson et al., 1998) but could be as high as 600,000 oz of gold.

All mining work in the District focused on alluvial gold until 1870 when the first lode claim, the Shoo Fly, was located. The first lode mine in the Beartrack mine area, the Gold Flint, opened in 1880 followed by the Italian mine on Arnett Creek in 1892. Total production from these lode deposits is unknown but is thought to be limited.

The largest mining operation in the District was the modern Beartrack mine.

6.2 Beartrack Property History

6.2.1 Ownership

6.2.1.1 *Canyon Resource Corporation*

In 1985, representatives of Canyon visited the Beartrack property and recognized the potential for bulk tonnage mineralization in what became the North deposit. Based on three samples collected in 1985 and follow-up sampling in 1984, Canyon staked 39 unpatented lode claims over the North deposit in 1984. Canyon continued to sample the property between 1985 and 1986. Prior to the initiation of drilling, in late 1986 or early 1987, Mr. Raymond Threlkeld, a consultant acting on behalf of Meridian Minerals, examined the property and recognized its bulk tonnage potential. On his recommendation, Meridian Minerals provided limited funding for a nine-hole RC drilling program in 1987 (Perry, 2003). The success of the drilling campaign led to the acquisition of the property in 1988 by Meridian Minerals, a Montana corporation and subsidiary of Burlington Resources Inc.

None of the Canyon drilling data was used to estimate the Mineral Resources that are the subject of this Report.

6.2.1.2 *Meridian Minerals Corporation*

Meridian Minerals' exploration efforts focused predominantly on the areas of the North and South deposits. Regional mapping and sampling programs were conducted in 1990 and 1991 to examine the remainder of the land position (Meyer, 1990 and Trujillo, 1991a and 1991b). Regional work focused on areas beyond the two known deposits and led to a much broader understanding of the geology of the property. The geological map prepared by Trujillo (1991a) remains the most detailed geologic map of the Beartrack deposits and target area.

FMC Gold Company (FMC Gold), a Delaware Corporation, purchased Meridian Minerals a Montana corporation, including the Beartrack project, in May of 1990. Mining was initiated in late 1994. In July 1996, FMC Gold merged into Meridian Gold Inc. a Delaware corporation (Meridian Gold), as a result of its reincorporation from Delaware into Canada. Meridian's interest in the site, through Meridian Minerals (Montana) was later renamed Meridian Beartrack Co. (subsidiaries of Yamana, and now Pan American Silver Corp. ("Pan American")). Between 1995, when the first gold was poured, and 2002, when leaching stopped, the Beartrack mine produced approximately 609,000 oz of gold. In October 2007, Yamana purchased Meridian Gold and in 2023, Pan American completed the purchase of Yamana. The mine is currently in remediation through its wholly owned subsidiary Meridian Beartrack.

In 2012, Meridian Beartrack initiated a three-year, $10 million exploration program to evaluate the deep potential at Beartrack. In 2013, Meridian Beartrack terminated the program early having completed 21 core holes totalling approximately 35,295 ft (10,728 m). No further exploration work was conducted on the property.

Meridian Minerals, FMC Gold, Meridian Gold, and Meridian Beartrack Co. are collectively referred to as Meridian in the subsequent sections of this Report.

6.2.1.3 *Revival Gold Inc.*

On September 9, 2017, Revival announced the execution of an earn-in and related stock purchase agreement with Meridian, which is now indirectly owned by Pan American.

6.2.2 Exploration & Development Activities

Extensive regional geophysical surveys were completed by Meridian that included airborne magnetics, very low frequency electromagnetics (VLF), and induced polarization (IP). IP and resistivity data were collected at the Beartrack property using the dipole-dipole (DPDP) and gradient arrays.

IP and resistivity anomalies were found to be associated with the economic deposits along the PCSZ. Low amplitude, well defined IP and resistivity anomalies were found to be directly associated with the gold mineralized zones at the Beartrack deposits. The IP anomalies are caused by pyrite in the quartz-sericite-pyrite alteration assemblage associated with gold mineralization. High resistivity anomalies caused by silicification in the alteration assemblage help distinguish IP anomalies associated with gold mineralization from anomalies caused by pyrite randomly distributed in the Yellowjacket and rapakivi granite. The consistent broad coverage of the gradient array survey has been important for identifying the lateral continuity of the IP anomalies associated with gold mineralization.

6.2.2.1 *Drilling*

The historical drilling completed at the Beartrack property is summarized in Table 6-1. Together, Canyon and Meridian completed 922 drill holes for a total of 447,302 ft (136,338 m) with Canyon drilling the first holes in the North deposit in 1987.

Table 6-1: Historical Beartrack Drilling by Year

Company	Year	Drill Type	Number of Drill Holes	Drilling (m)	Drill Hole Sequence Number
Canyon	1987	RC	9	692	CRC-001 – CRC-009
Meridian	1988	RC	123	17,166	88-001 – 88-126
		DD	10	1,420	DD-001 – DD-009
	1989	RC	298	43,783	89-127 – 89-417, BT898AC-01 – BT89AC-10
		DD	43	4,509	DD-010 – DD-052
	1990	RC	149	18,803	90-406 – 90-554, BT90AC-11 – BT90AC-27
		DD	65	12,505	DD-053 – DD-116
	1991	RC	17	2,123	L001 – L009, BT91AC-28 – BT91AC-36
	1992	RC	13	1,652	L010 – L022
		DD	6	390	DD-117 – DD-122
	1995	RC	29	3,444	95-560 – 95-589
	1996	RC	87	9,281	96-590 – 96-681
		DD	27	5,068	DD-123 – DD-149
	1997	RC	3	579	97-686 – 97-688
		DD	22	4,195	DD-150 – DD-172
	2012	DD	14	6,697	BT12-174D – BT12-186D
	2013	DD	7	4,031	BT13-187D – BT13-193D
Totals			**922**	**136,338**	

6.2.3 Past Production

The Beartrack mine was an open pit heap leach mine that produced 14,991 tons (13,600 tonnes) of ore and between 13,600 tonnes (14,991 tons) to 27,200 tonnes (29,983 tons) of waste rock per day. Mining was conducted on 7.6 m (25 ft) high benches and after blasting, ore was transported to the crusher and waste to the rock storage facility using a fleet of eight 83-tonne haul trucks. Ore was dumped directly into the crusher by the trucks and subjected to a two-stage crushing and screening process to achieve a minus 5 cm (2 in) product. Crushed ore was placed on an approximately 800 m (2,625 ft) long conveyor line for transport to the heap leach pad. Ore was stacked in a semicircular fashion into panels where leach lines with emitters were placed on the ore in a grid pattern for distribution of weak sodium cyanide solution. The Beartrack heap leach facility achieved a life-of-mine (LOM) gold recovery of 88% relative to the estimated cyanide-soluble gold grade of the Beartrack ore. Tonnes, cyanide soluble gold grade, and gold ounces poured by year based on historical information obtained from Meridian is summarized in Table 6-2.

Table 6-2: History of Beartrack Gold Production

Year	Tonnes Mined (kt)	Cyanide Soluble Au Grade (g/T)	Au Ounces Poured (oz)
1994	735	1.25	0
1995	3,539	1.16	39,180
1996	4,130	0.90	108,708
1997	3,983	0.85	112,655
1998	4,023	0.82	105,039
1999	4,662	1.13	137,207
2000	808	1.04	72,137
2001	N/A	N/A	18,338
2002	N/A	N/A	8,678
2003-2014	N/A	N/A	7,199
Totals	**21,880**	**0.99**	**609,141**

Note: Numbers may not sum exactly due to conversion from Imperial to metric units and rounding.
Source: Revival, 2018.

6.3 Arnett Property History

The principal historical lode mining areas on the Arnett property are the Haidee and Italian Mine areas. The Haidee lode was patented by George L. Shoup, the first governor, and an early senator of Idaho in 1892 near the peak of lode mining activity in the District. In 1903, a New York firm began driving a 2,953 ft (900 m) adit on the property. Mineralization of interest was discovered, but the adit never reached the target vein due to caving problems and the project was abandoned (Kiilsgaard et al., 1989). The potential ore was reported to be worth $7.7/tonne ($7/ton) at the time (Umpleby, 1913), or about 10.6 g/T Au (0.34 oz/ton Au), based on the $20/oz Au price in effect at that time.

The Italian mine claims were also located in 1892. The Italian mine was reported to be the major lode producer in the District. In 1908 a hoist was installed and shaft sinking began, leading to the discovery of gold in the shaft. A 30-stamp mill was built in 1910, and a 522 kW (700 hp) hydroelectric power plant was installed 6.8 mi (11 km) west of the mine; however, the new facilities did little to increase production. Total reported production from 1902 through 1935 was 722 oz of gold and 194 oz of silver (Kiilsgaard et al., 1989).

More recently, Mr. James Clutis recognized the potential for large tonnages of low-grade gold mineralization in the area of the Haidee and Italian mines and he staked the Mapatsie and Poco claims (Patricia Clutis, verbal communication; Reed and Hutchins, 1973). There is no evidence that Mr. Clutis attempted to advance the hard rock potential of the Arnett property but, beginning in the early 1970s, he began to seek a partner or buyer for Arnett. Available information suggests that between 1973 and 1985 Cyprus, Amselco Minerals Inc., St. Joe American Corporation, Anaconda Copper Company, Phelps Dodge Corporation, Pegasus Gold Corporation, Coeur d'Alene Mining, and High Country Mining Corporation (High Country Mining) evaluated the Arnett property. The most in-depth review was conducted by Cyprus in 1973.

In 1985, High Country Mining submitted a mining proposal to the Cobalt Ranger District for a placer mine in the vicinity of the Italian and Haidee mines in the Arnett Creek drainage. High Country Mining also submitted a proposal to conduct an exploration operation in the Arnett Creek drainage area consisting of four exploration trenches and approximately 2,000 ft (610 m) of access road. No documentation of this program has been found (Wolfson, 2016).

In 1985, privately owned AGR leased the Mapatsie 1 through 37, Poco 1 through 46, Poco Extension 1 through 9 lode claims and the Goldfinch 1 through 6 placer claims from Elsie Clutis, Wayne and Patricia Clutis and Frank and Verna Taft. AGR explored the Arnett property with various partners before signing a joint venture agreement with Meridian in 1991. Meridian returned the property to the Clutis and Taft families in 1998 terminating its involvement at Arnett.

In 2004, Kilgore Gold Company staked 16 unpatented lode claims covering the Little Chief Extension (seven Hai claims) and the eluvial placer workings east-southeast of the Italian mine (nine Gold Bug claims). Through a series of corporate transactions, those claims were owned by Otis Gold Corporation until their sale to Revival in 2017.

In 2016, Bull Run, a privately held corporation, acquired the 68 ACE claims from Utah Mineral Resources.

6.3.1 Ownership

6.3.1.1 *Cyprus Mines Corporation*

In 1973, Cyprus completed geological mapping, soil and rock sampling, a magnetometer survey, and 10 shallow percussion holes. Cyprus conducted soil geochemistry and ground magnetic surveys on 11 northeast-trending lines spaced 1,000 ft (305 m) apart across the trend of the claim block as it was then. Soil samples and magnetometer readings were collected every 400 ft (122 m) along the lines. In addition, rock samples were collected from dumps and limited outcrop in the area (Reed and Hutchins, 1973).

Cyprus concluded that gold mineralization occurs within quartz-filled fractures hosted by intrusive rocks. The quartz was found to contain variable amounts of pyrite with lesser amounts of sphalerite and galena. Higher gold grades correlate with a higher density of quartz veining and pyrite (or limonite) content. Sampling indicated that gold values were erratically distributed within the quartz. Cyprus concluded that the results obtained did not warrant further work on the Arnett property (Reed and Hutchins, 1973).

6.3.1.2 *American Gold Resources Corporation*

In 1985, AGR leased the Clutis and Taft family claims while exploring for gold in Lemhi County. By the end of 1989, AGR had assembled an overall land position of over 80,000 acres (32,375 ha), of which, 70,000 acres (28,328 ha) was contiguous to the north, west, and south boundaries of Meridian Minerals' Beartrack property.

In the Arnett Creek area, AGR controlled 156 unpatented mining claims and one patented mining claim for a total of 2,718 acres (1,100 ha). The unpatented claims consisted of 96 unpatented claims from the Clutis and Taft families (now the Barnett group), 50 unpatented mining claims from High Country Mining and 10 claims staked in AGR's name. An interest in one patented claim, the Haidee lode, was leased from the Shoup family (American Gold Resources Corp., 1995).

In 1987, AGR signed a 50/50 joint venture agreement with BPMA to fund exploration of approximately 13,800 acres (5,585 ha) of AGR's holdings in the Haidee area.

Late in 1991, AGR signed a joint venture operating agreement with Meridian on the Arnett property. In June 1996, a Plan was submitted to the USFS for continued exploration drilling in the vicinity of the Haidee mine; however, in mid 1996, AGR was acquired by Ashanti Goldfields Inc., who then sold the Arnett Creek Project along with Ditch Creek (also known as Humbug), to Meridian for $1.0 million in 1997.

6.3.1.3 *Meridian Minerals Company*

In 1997, Meridian completed 11 confirmation and exploration DDH on the Arnett property, all on the Haidee patented claim. In 1997, Meridian submitted a two-year proposal to the USFS for exploration in the Arnett Creek area, including trenching and drilling near the Haidee and Italian mines, but in mid-1998 Meridian terminated its involvement in the project, returning the unpatented and patented claims to their original owners.

6.3.1.4 *Revival Gold Inc.*

On June 30, 2017, Revival announced the acquisition of the Arnett property followed by the acquisition of the internal Haidee patented lode claim and the Mapatsie #18A unpatented lode claim on July 24, 2018.

6.3.2 Exploration & Development Activities

In 1991, AGR performed a series of cold cyanide soluble leach tests on 116 drill samples selected to represent the various types of material that would be leached. Also, in 1991 AGR commissioned KCA to conduct column leach tests using trench samples and RC cuttings from the Property.

A ground magnetics survey was completed by Cyprus. AGR reports that a VLF survey was conducted over the Arnett property. No digital data for either survey has been found.

AGR conducted extensive trenching in the Haidee area. Maps were obtained from Meridian showing the general lithology, alteration, and structure. Results for 755 trench samples are included in the Arnett database. Descriptions of trenching are limited to two reports, one prepared by AGR and one prepared by BPMA (American Gold Resources, 1991). There are no descriptions of the procedures employed in the sampling of trenches or the logging of drill holes.

6.3.2.1 *Drilling*

The historical drilling completed on the Arnett property is summarized in Table 6-3. Between 1987 and 1997, 234 drill holes were completed on the Arnett property totalling 91,427 ft (27,867 m).

Table 6-3: Historical Arnett Drilling by Year

Company	Year	Drill Type	Number of Drill Holes	Drilling (m)	Drill Hole Sequence Number
AGR – BPMA	1987	DD	2	241	ACD-1 to ACD-2
	1988	RC	14	1,606	ACR-1 to ACR-14
AGR – Meridian	1989	RC	58	6,853	ACR-15 to ACR-73
	1990	RC	99	10,977	ACR-74 to ACR-170, RC-01
Meridian	1992	RC	28	2,920	ACR92-171 to ACR92-198
	1993	RC	17	3,171	ACR93-199 to ACR93-215
	1995	RC	5	762	ACR95-216 to ACR95-220
	1997	DD	11	1,337	ADD-01 to ADD-11
Totals			**234**	**27,867**	

6.3.2.2 *Studies*

In 1992 AGR commissioned Pincock, Allan & Holt, Inc. (PAH) to prepare a pre-feasibility study for the Arnett Creek Project. The purpose of the study was to establish the economic feasibility of the project given certain parameters, quantify reserves delineated to date, and identify any deficiencies in the data prior to undertaking a full feasibility study. The study was confined to technical feasibility from geology through processing and did not consider environmental or legal factors (Sandefur et al., 1993).

In 1994 AGR enlisted PAH to prepare an update to a previous report for the Arnett property (Sandefur et al., 1993). The report was intended to update the economic feasibility of the project, quantify reserves as delineated at the time and to identify deficiencies in the data required prior to committing to a full feasibility study on the Property (Sandefur and Kolin, 1994).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Project is located in east-central Idaho east of the Western Idaho Shear Zone (WISZ) and the Idaho Batholith within the Cretaceous Cordilleran thrust belt. The WISZ is a major, lithospheric-scale tectonic boundary between accreted terranes to the west and Precambrian North America to the east (Braudy et al., 2016). Deformation along the WISZ began around 104 Ma and ceased at approximately 88 Ma (Braudy et al., 2016). Ma et al. (2017) propose deformation parallel to the WISZ in the Sawtooth Mountains area (Sawtooth Shear Zone) and the Deadwood Shear Zone in the Yellow Pine area. Ma et al. (2017) determined transpressional deformation occurred mainly between ca. 95 to 92 Ma and ca. 84 Ma, ending by 77 Ma.

The area is dominated by a structurally complex package of metasedimentary rocks known as the Mesoproterozoic Belt Supergroup (Belt Supergroup) (Figure 7-1). Approximately 1,370 million years ago, Belt Supergroup rocks were buried, metamorphosed, and intruded by the megacrystic granitic rocks (rapakivi granite) and augen gneiss. Metasedimentary rocks near Salmon and Leesburg exhibit a regional biotite-grade metamorphism (Evans and Zartman, 1990).

Several potassic plutonic suites are exposed in a northwest-striking belt across central Idaho, referred to as the Big Creek–Beaverhead belt. Two of these, Arnett Creek and Deep Creek, occur within the district, and are Late Cambrian to Early Ordovician in age. These intrusions are thought to be coextensive with recurrent uplift of the Lemhi Arch (Lund et al., 2010).

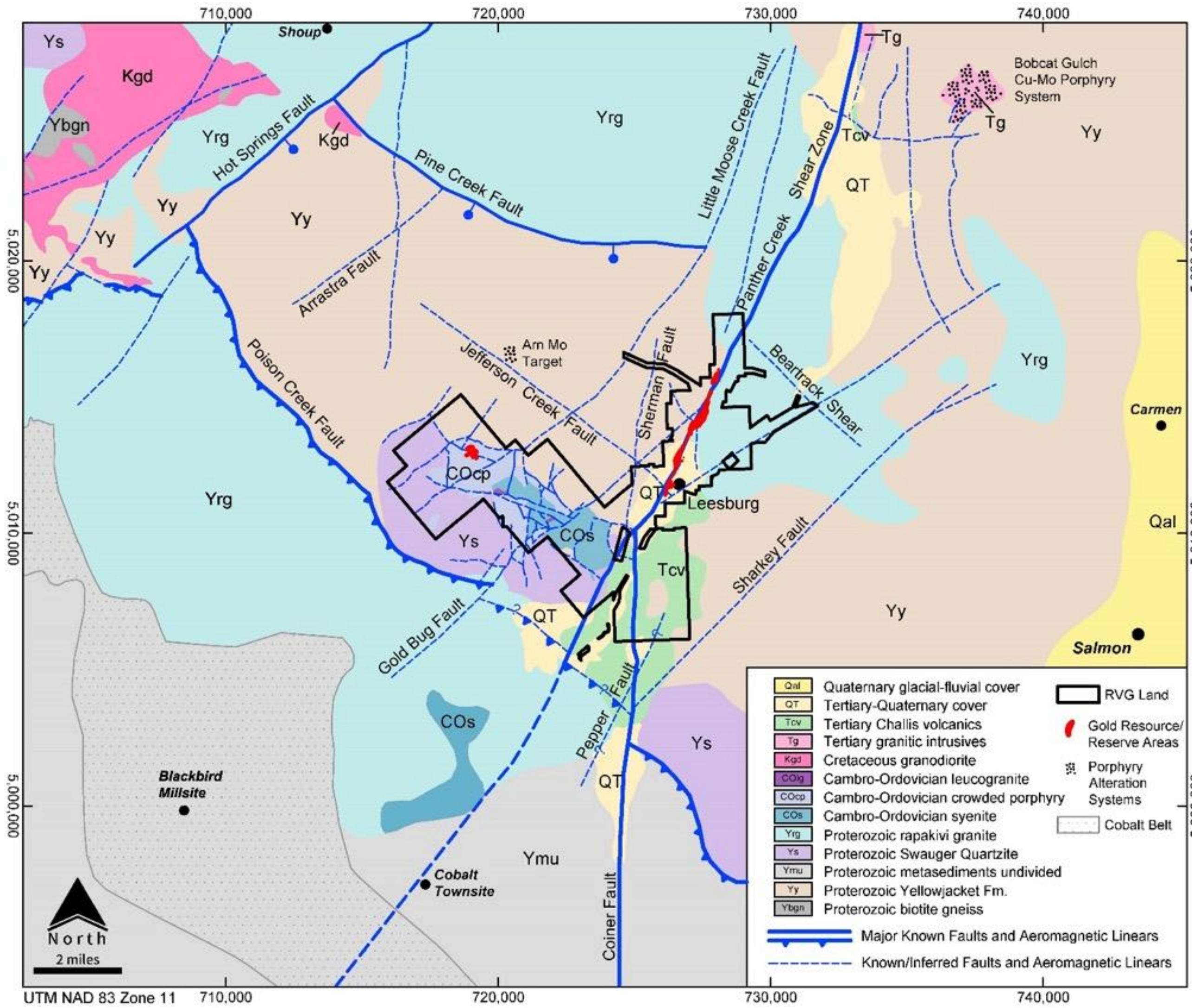
During the Cretaceous Sevier orogeny (ca. 130-60 Ma), the region underwent folding, thrusting and plutonism resulting in a series of north-northwest-trending folds and northwest-striking thrust faults. The emplacement of the Idaho Batholith also began at this time.

The Cretaceous Idaho Batholith is composed largely of granite and granodiorite and covers much of central Idaho. The southern Atlanta Lobe and the northern Bitterroot Lobe of the Idaho Batholith are separated by metasedimentary rocks of the Belt Supergroup in the Salmon River Arch. The Atlanta lobe was emplaced from 98 Ma to 67 Ma while the Bitterroot lobe was emplaced from 66 Ma to 54 Ma (Gaschnig et al., 2010). Rocks related to the Idaho Batholith are exposed near the confluence of Panther Creek and the Salmon River less than 16 km northwest of the Project and are dated at 83 Ma (Lund et al., 1983; Tysdale et al., 2003; Lund, unpublished data).

Extension along several sets of normal faults began before the Middle Eocene Challis volcanism and produced numerous Tertiary grabens and half grabens in a system of north-trending

Paleogene basins containing interlayered sedimentary, volcaniclastic and volcanic rocks. Quaternary glacial deposits are present locally (Janecke et al., 1997).

Figure 7-1: Geology Map of the Mackinaw District



Source: Revival, 2023

7.2 Property Geology

The bedrock geology in the Beartrack-Arnett area is dominated by two Mesoproterozoic rock units: metasedimentary rocks of the Yellowjacket Formation and a rapakivi (megacrystic) granite. The Yellowjacket Formation consists predominantly of a thick sequence of very fine-grained non-calcareous quartzite, siltite and argillite units which locally exhibit crossbedding. The Yellowjacket Formation has been intruded by the Proterozoic rapakivi granite. The intrusive is medium- to coarse-grained, sub-equigranular to porphyritic, and is composed predominantly of potassium feldspar (locally as megacrysts up to 6 cm in size displaying poikilitic textures), plagioclase, quartz, and biotite. The rapakivi granite was referred to as quartz monzonite (QMZ) by Meridian and the terms rapakivi granite and quartz monzonite are used interchangeably in this Report.

Although metasedimentary rocks in the Leesburg area have been mapped as sandstones and siltites of the Gunsight Formation and Swauger Quartzite (Tysdale et al., 2003; Johnson, 2021b), or as the Lemhi Group (Lewis et al., 2022), all Meridian maps and reports refer to these lithologies as the Yellowjacket Formation. Descriptions of these units as mapped on the Property are provided below, taken directly from Hawksworth et al. (2003) with contributions from Meyer (1990), Trujillo (1991a and 1991b), Johnson (2021a and 2021b), and Lewis et al. (2022) unless otherwise noted.

Mesoproterozoic metasedimentary rocks have been intruded by the Cambro-Ordovician Arnett Intrusive Complex, a polyphase potassic intrusive complex located in the Arnett Creek drainage. The Arnett Creek Intrusive Complex hosts currently known mineralization in the Arnett area.

At Beartrack, dikes of mafic to felsic composition intrude both the Yellowjacket Formation and the rapakivi granite, particularly near the PCSZ. Dikes locally display foliation or mylonitic fabric, and strong sericitic or chloritic alteration, which can make identification difficult. At the Beartrack mine, mineralization may be partially controlled by these dikes. In the Haidee area, mafic and intermediate dikes intrude the crowded porphyry. Dikes may, or may not, be altered and mineralized and are of unknown and, probably, varying ages.

7.2.1.1 *Lithology*

7.2.1.2 *Mesoproterozoic Yellowjacket Formation*

The Yellowjacket Formation is regionally extensive, occurring east of the Leesburg Basin, as well as north of the Arnett Intrusive Complex. The stratigraphy of the Yellowjacket Formation is complex and changes in lithology are often subtle. The upper exposed member of the Yellowjacket Formation is blue-gray to dark gray arkosic-lithic quartzite with occasional quartzite and siltite. The metasedimentary rocks grade down-section into argillites, siltites, and what are interpreted to be metavolcaniclastics (Johnson, 2021a).

Other units present in the Yellowjacket Formation are silty to sandy argillite beds interbedded with the quartzite/siltite described above, and a light- to medium-gray quartzite with a very minor clay component. The argillite beds are most common at Beartrack in the South Pit area and the quartzite is present in the Independence area, between the North and South pits (Johnson, 2021b).

Compositionally, siltite consists primarily of biotite, feldspar, and quartz. Bedding ranges in thickness from 2 inches to 24 inches (5 cm to 60 cm) with most beds averaging 6 inches to 10 inches (15 cm to 25 cm). Graded bedding and crossbedding are present locally with thin, sandy argillite beds sometimes capping the graded beds. Parallel laminations and ripple cross-lamination are the most common sedimentary structures.

Crossbedding suggests that the Yellowjacket Formation may be tightly folded; however, no folds have been mapped. Metasedimentary rocks of the Yellowjacket Formation are locally highly contorted in a zone measuring 50 ft to 115 ft (15 m to 35 m) in width in the hanging wall of the PCSZ in the North Pit of the Beartrack mine.

Bedding at Beartrack typically strikes 345° and dips 85° southwest in the South Pit area and strikes 345° and dips 50° southwest in the North Pit. In the Arnett area, strikes and dips of bedding are variable and, locally, overturned.

7.2.1.3 *Mesoproterozoic Swauger Quartzite*

The Swauger Quartzite is a poorly exposed massive, white to light gray, thickly bedded, coarse-grained quartzite with cross-bedding exposed south and west of the Arnett Intrusive Complex (Figure 7-2). The unit consists predominantly of quartz with some feldspar and occasional lithic clasts. The Swauger Quartzite is a distinct marker unit that overlies the Yellowjacket Formation. It is also found in non-conformable contact with the younger Crowded Porphyry in the western portion of the map area. This unit is also exposed on Phelan Mountain in the footwall of the Poison Creek thrust fault.

7.2.1.4 *Mesoproterozoic Lawson Creek Formation (Ylc)*

The Lawson Creek Formation is a thin-bedded, fine-grained, blue gray to light gray, platy arkosic-lithic quartzite. Exposure is poor and limited to the southwestern portion of the Revival land position. The contact between Lawson Creek Formation and the rapakivi granite is nonconformable with hornfels developed locally along the contact (Johnson, 2021a).

7.2.1.5 *Mesoproterozoic Igneous Rocks*

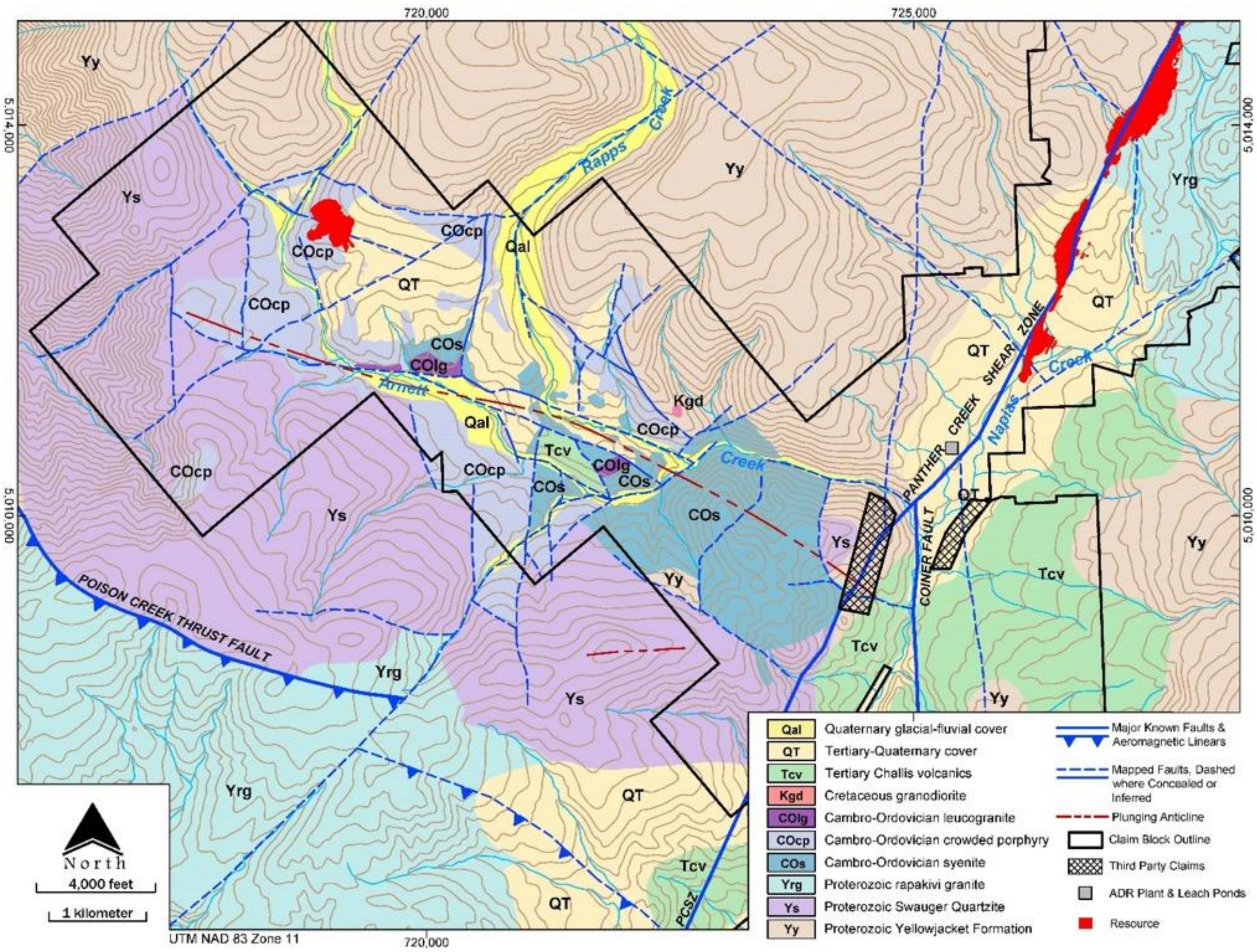
The Yellowjacket Formation has been intruded by Mesoproterozoic-age rapakivi, or megacrystic, granite, which occurs primarily to the east of the PCSZ, extending as far south as Leesburg, and surrounding the Arnett Intrusive Complex and Yellowjacket Formation at Arnett. This intrusive is medium-to coarse-grained, sub-equigranular to porphyritic and is composed primarily of potassium feldspar (locally as megacrysts up to 6 cm in length displaying poikilitic texture), plagioclase, quartz, and biotite. Older deformation fabrics, ranging from mineral lineations to mylonite, are widely distributed throughout the quartz monzonite but are most prominent near the

PCSZ. Prominent foliation trends include 30° to 050° and 300°. The rapakivi granite has been dated at 1,370 Ma by Evans and Zartman (1990).

7.2.1.6 *Cambro-Ordovician Alkaline Arnett Pluton*

The Cambro-Ordovician Arnett Intrusive Complex is a northwest-trending polyphase potassic intrusive complex extending from just west of the confluence of Arnett Creek with Napias Creek to the Haidee West area. The Intrusive Complex measures 3.7 mi to 4.3 mi (6 km to 7 km) in length and less than 1 mi to 1.9 mi (1 km to 3 km) in width. The composition of the Intrusive Complex ranges from medium-grained, equigranular alkali-feldspar syenite through medium- to coarse-grained, equigranular to porphyritic alkali-feldspar granite.

Figure 7-2: Generalized Geologic Map of the Arnett Area



Source: Revival, 2023

7.2.1.7 *Cambro-Ordovician Crowded Porphyry*

The predominant lithology at Arnett is a porphyritic syenogranite unit informally referred to as the Crowded Porphyry by Revival. This unit hosts the current Mineral Resource at Arnett. It has been mapped by AGR and Meridian geologists as Mesoproterozoic-age rapakivi granite based on textural similarity but on maps produced by the USGS the Crowded Porphyry is mapped as part of the Arnett Intrusive Complex (Connor and Evans, 1986 and Tysdale et al., 2003). Revival obtained a U-Pb age date of approximately 489.0 Ma ±4.63 Ma for this unit (Link and McCurry, 2019) supporting Cambro-Ordovician age proposed by Connor and Evans (1986) and Tysdale et al. (2003).

The Crowded Porphyry is coarse-grained hypidiomorphic inequigranular biotite-bearing syenogranite composed primarily of phenocrysts of potassium feldspar with occasional larger, rounded phenocrysts of potassium feldspar up to approximately one inch (2 cm to 3 cm) in length, quartz, plagioclase, biotite, and accessory magnetite. Phenocrysts of potassium feldspar are often mantled by plagioclase. Older deformation fabrics, ranging from foliation to mylonite, are locally present in the Crowded Porphyry, including near mineralized zones in the Haidee and Haidee West areas.

The Crowded Porphyry exhibits four distinct types of hydrothermal alteration:

- Fracture-controlled and pervasive gray magnetite/hematite alteration.
- Fracture-controlled quartz-biotite-magnetite veinlets; biotite on fractures and possible recrystallization of primary biotite to aggregates of fine-grained biotite.
- Replacement of both primary magmatic and hydrothermal magnetite by specular hematite.
- Sericitic alteration.

7.2.1.8 *Cambro-Ordovician Fine-Grained Syenite*

This unit is a dark gray, fine-grained syenite with salt and pepper texture that was initially thought to be a diorite. However, preliminary whole rock geochemistry indicate that this is a syenite. Although the chemical composition of Fine-Grained Syenite is similar to the syenite unit described below, this unit is finer-grained and locally porphyritic. This unit is present in both the Roman's Trench and China Gulch areas and has been identified in drilling at Haidee. The Fine-Grained Syenite exhibits biotite alteration in the Roman's Trench area and argillic alteration in Haidee area. The rock weathers a rusty dark gray and is medium-gray on fresh surfaces (Johnson, 2021a).

7.2.1.9 *Cambro-Ordovician Syenite*

This unit is a medium- to dark-gray, medium- to coarse-grained, equigranular to porphyritic alkali syenite. The Syenite contains perthitic alkali-feldspar and two generations of biotite, as well as quartz, opaque minerals, and accessory zircon and rutile (Lund et al., 2010). The biotite occurs as large (1mm to 3 mm) flakes replaced by smaller (0.05 mm to 0.1 mm) randomly oriented flakes. Calcite in the rocks may be an alteration product (Evans and Zartman, 1988).

Gruss weathering of the Syenite is common, and this unit tends to be more oxidized, and biotite altered in the Roman's Trench-Rapps Creek area. The Syenite has been observed to crosscut the Fine-Grained Syenite unit in the Roman's Trench area and found in contact with the Crowded Porphyry in the Roman's Trench-Rapp's Creek area. The Fine-Grained Syenite unit was also found intruding the Syenite in the southeastern portion of Revival's land package. This may point to the Syenite being slightly older than the Fine-Grained Syenite in that area. This unit may be mineralized in the Gold Bug Gulch and Rapp's Creek areas. The Syenite is dated as being 486±6 Ma based on dating provided by Lund et al. (2010) of a mafic syenite sample taken from an outcrop along NF-197 road.

7.2.1.10 *Cambro-Ordovician Wispy Syenite*

This unit is a syenite with wispy biotite. It is found in the Italian mine area and to the north of the Italian mine. It is unknown whether the wispy syenite is part of main syenite unit or the Crowded Porphyry. It could also represent a contact zone between either of these units and the leucogranite (described below). The wispy texture is unique to this intrusive in the area.

7.2.1.11 *Cambro-Ordovician Leucogranite*

This unit is light pink to gray, equigranular, alkali granite containing quartz, orthoclase, biotite and magnetite. The Leucogranite is found mainly in the Italian mine and Thompson-Hibbs areas, but a small grouping of exposures was also found on the east-west-trending ridgeline separating Rapp's Creek from Arnett Creek drainages. The Leucogranite appears to be the host rock for mineralization in the Italian Mine and Thompson-Hibbs areas. Potassic alteration in the form of potassium feldspar selvages around veinlets, and sericitic alteration are as common in this unit as they are in the Crowded Porphyry. Leucogranite from the Italian Mine was dated as being 477±3 Ma (Revival, unpublished data). Locally, the Leucogranite exhibits alteration similar to that of the Crowded Porphyry.

7.2.1.12 *Cretaceous (?) Granite/Tonalite*

A small grouping of granite/tonalite outcrops were mapped to the east of Roman's Trench and based on the distinctive composition and lack of foliated texture, could be related to the Idaho

Batholith. This unit was originally mapped as a granodiorite, but based on recent limited whole rock analyses, this unit should be classified as either a granite or tonalite. This unit consists of medium-grained plagioclase feldspar and biotite with fine-grained quartz and salt and pepper texture. Outcrop patterns suggests this may represent a small plug.

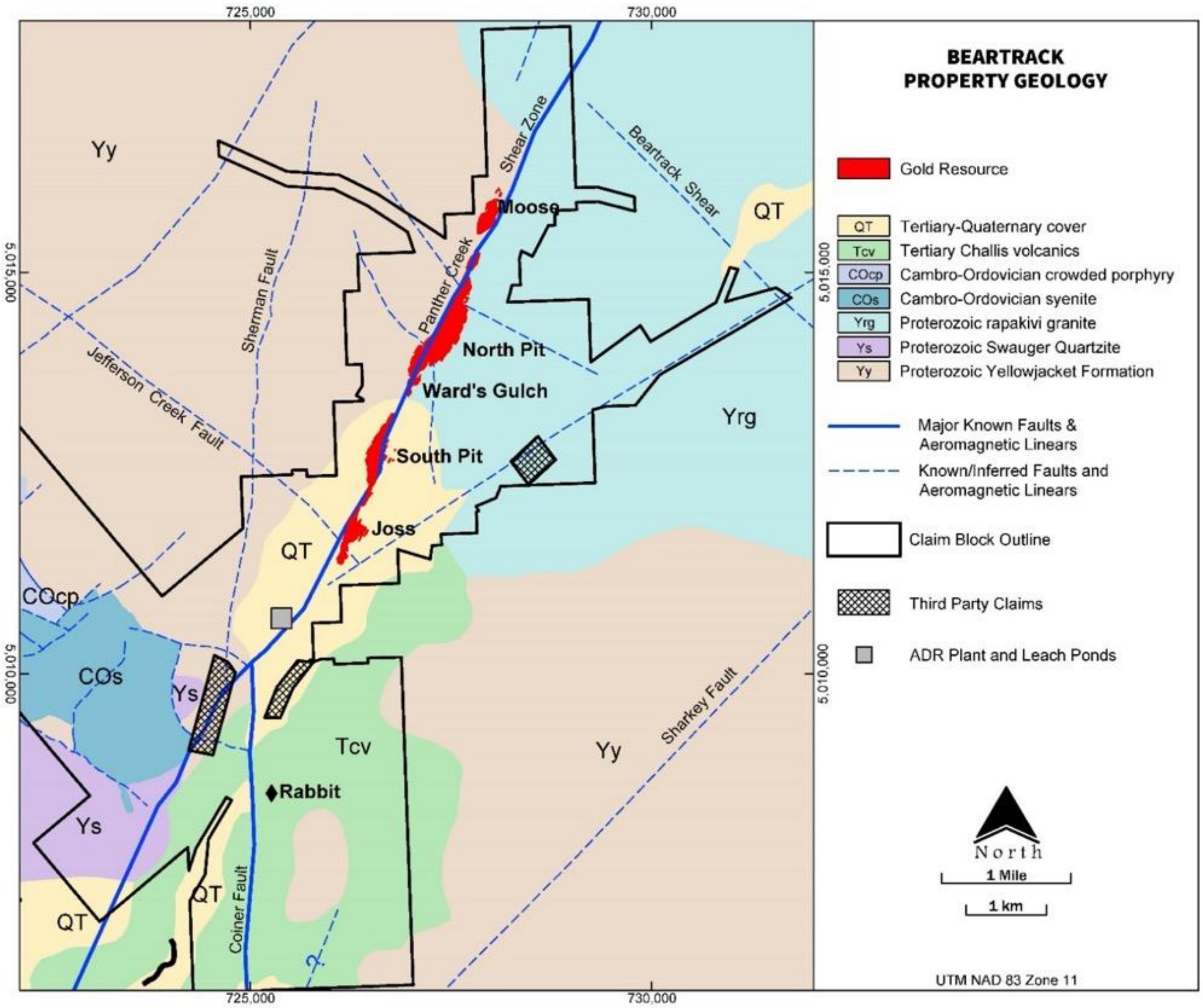
7.2.1.13 *Other Intrusive Rocks*

Dikes of mafic to felsic composition intrude both the Yellowjacket Formation and the rapakivi granite, particularly near the PCSZ. Dikes locally display foliation or mylonitic fabric, and strong sericitic or chloritic alteration, which can make identification difficult. At the Beartrack mine, mineralization may be partially controlled by these dikes. In the Haidee area, mafic and intermediate dikes intrude the crowded porphyry. Dikes may, or may not, be altered and mineralized and are of unknown and, probably, varying ages.

7.2.1.14 *Cenozoic Deposits*

Beartrack occurs in the Leesburg basin, which has been mapped as Cenozoic undifferentiated deposits consisting of Tertiary sedimentary, volcaniclastic and volcanic rocks overlain by minor Quaternary glacial deposits. These Tertiary sediments and volcanics were deposited in a half graben or pull-apart basin. The Panther Creek Fault (PCF) is related to the Tertiary basin and forms the eastern margin of mineralization in the Joss area (Figure 7-3).

Figure 7-3: Generalized Geologic Map of the Beartrack Area



Source: Revival, 2023

Based on Revival's drilling programs, and work by the Idaho Geological Survey (Lewis et al. 2022), the unit mapped as Quaternary in the past is largely Tertiary in age. This is consistent with observations made by Janecke et al. (1997) and Link and Janecke (1999) for the area south of the Property where numerous Tertiary half grabens in a system of north-trending Paleogene basins have been mapped. Age dates on volcanic rocks in the Panther Creek half graben indicate that it formed between 47.7 Ma and 44.5 Ma (Janecke et al., 1997).

Epiclastic sedimentary rocks in the Leesburg basin consist largely of angular to subrounded boulder and cobble beds interlayered with sandstone, shale, frequently carbonaceous or containing coal, volcaniclastic rocks, and in the vicinity of the confluence of Napias and Arnett

Creeks, basalt flows. Age dates of 48.30 ± 0.06 Ma and 32.19 ± 0.02 Ma have been obtained from a biotite tuff unit in Joss area (hole BT19-223D at approximately 88.5 m) and south of Phelan Creek, respectively (Lewis et al. 2022). Boulders and cobbles are largely composed of metasedimentary rocks of the Yellowjacket Formation and the rapakivi granite, but clasts of the Arnett Intrusive Complex and volcanic rocks are also represented near the confluence of Napias and Arnett Creeks. Local landslide deposits containing mineralized Yellowjacket Formation have been mined from Cenozoic deposits at Beartrack. Cenozoic basin-fill deposits are over 980 ft (300 m) thick in the vicinity of the Rabbit target. A more detailed description is available in Lewis et al. (2022).

Cenozoic sedimentary rocks and interbedded Tertiary volcanic rocks are present on the Arnett property, although Arnett lacks the thick accumulations observed at Beartrack. At Arnett, the Cenozoic deposits occur as a thin layer bounded by faults, or as isolated erosional remnants, that manifest as angular to subangular float fragments of the Yellowjacket Formation within the Arnett Intrusive Complex. The placer workings at the Haidee mine appear to have exploited Cenozoic deposits of this type. At Haidee, deposits of Cenozoic rocks appear to have been no more than10 ft or 13 ft (3 m or 4 m) thick. It also appears that the placer deposits along lower Arnett Creek, and possibly elsewhere in the Arnett Creek drainage basin, may have exploited terrace gravels related to the Cenozoic deposits.

Tertiary volcanics have been mapped on the ridge between Arnett and Rapp's Creeks, and in the Gold Bug and China Gulch areas. Challis Volcanics in this area consist of basalt flows, andesitic tuffs and breccias. Sometimes these volcanics exhibit chalcedonic quartz alteration.

7.2.1.15 *Regional Structure*

The Project is located between the northwest-trending Poison Creek and Brushy Gulch thrust faults in a block dominated of Mesoproterozoic metasedimentary and intrusive rocks. Other prominent structures and the area are the northwest-trending Pine Creek Fault, and the northeast-trending Hot Springs and Panther Creek faults. The north-northeast-trending Coiner Fault, of which the Panther Creek Fault may be a part, extends from Iron Creek in the south to near the Idaho-Montana state line, a distance of approximately 55 mi (90 km).

7.2.1.15.1 Beartrack Structure

The structure in the Beartrack area is dominated by the PCSZ, which is the primary control on mineralization at the Beartrack mine. The PCSZ is thought to be part of the north-northeast-trending regional Coiner Fault, which has a strike length approaching 55 mi (90 km). Recent mapping by the Idaho Geological Survey (Lewis et al. 2022) indicates that the Coiner Fault is the main structural feature in the Mackinaw district. The Lemhi gold deposit, located approximately 22 mi (35 km) northeast of Beartrack, also lies in proximity to the Coiner Fault.

A recent airborne magnetic-radiometric survey if the Idaho Cobalt Belt, completed on behalf of the United States Geological Survey (Bates and Sander, 2022), shows a substantial northeast-trending feature, with a strike length of approximately 60 km. This feature corresponds to a pronounced northeast-trend linear that is visible on maps and satellite images. Both the geophysical and topographic linear features correspond to the Panther Creek Fault as mapped on some geologic maps (Tysdale et al., 2003 and Lewis et al., 2012). However, Lewis et al. (2019) and Janecke et al. (1997) indicate that there is no evidence of a fault in Panther Creek. Regardless, the PSCZ is the primary control for gold mineralization at Beartrack. The intersection of the PCSZ and the Coiner Fault is thought to occur near the confluence of Napias and Arnett Creeks and represents a target for future exploration.

The PCSZ is a deep-seated, long-lived structure with multiple stages of movement as evidenced by foliation and mylonite in metasedimentary rocks and granite to post-mineral fault breccia and gouge in both host rocks and in the Cenozoic gravels.

Perhaps the most important post-mineral structure is the PCF, a component of the PCSZ. The PCF is defined as a zone of fault gouge or breccia, sometimes bordered on the east and/or west by foliated rock. This feature forms the eastern margin of the half-graben that has been filled with Cenozoic volcanic and sedimentary rocks and commonly represents the boundary of mineralization. The PCF offsets mineralization along the PCSZ, exhibiting right-lateral strike-slip displacement followed by dip-slip displacement with the west side down. Strike-slip displacement could be as much as 1.25 mi (2,000 m) and dip-slip displacement could be 1,000 ft (300 m) or more south of the Joss area.

Near the North Pit and South Pit at Beartrack, the fault separates metasedimentary rocks of the Yellowjacket Formation on the west side of the fault from the rapakivi granite on the east side of the fault (Figure 7-3). North of the North Pit, the fault occurs entirely within the rapakivi granite while south of the South Pit the fault occurs entirely within the Yellowjacket Formation.

The PCSZ generally strikes 25° but varies between 18° and 40°. The dip is generally between 80° and 90° to the northwest but shallows to 50° northwest in some areas. Deep DD completed in 2012 and 2013 suggests that the PCSZ rolls back to a steep southeasterly dip at the south end of the North Pit. Changes in the strike and/or dip of the PCSZ may play a part in controlling the location of mineralization along the structure.

Sense of displacement on the PCSZ is complex and difficult to quantify. Airborne magnetics suggest that there is a significant component of net right-lateral strike-slip displacement along the

PCSZ but evidence exists for both right- and left-lateral strike-slip movement as well as significant dip-slip movement. If the Cenozoic volcanics and epiclastic rocks in the Leesburg basin were deposited in a graben or half-graben, then there must have been relatively recent dip-slip movement on this segment of the PCSZ. How this down-thrown block reconciles with other segments of the PCSZ is unknown.

Variations in the character of brittle deformation along the PCSZ are indicative of a pattern of alternating compressive and dilatant zones. In dilatant zones, the PCSZ has been the focus for the localization of a complex lithological assemblage including: 1) silicified tectonic breccias, locally containing sulfides; 2) massive bull quartz ± pyrite veins, and 3) mafic to intermediate dikes. In compressive areas, mineralization narrows, and the fault is typified by zones of gouge and cataclasite ranging from 1 m to 100 m (325 ft) in width. Compressive and dilatant zones may reflect changes in the strike and dip of the PCSZ.

Stockwork and breccia-hosted mineralized zones at the Beartrack mine are clearly cross-cut by post-mineral shears as indicated by gouge zones between 3 ft and 50 ft (1 m and 15 m) in width. The amount and direction of post-mineral offset of mineralized zones at the Beartrack mine has not been determined but it appears to be substantial.

7.2.1.15.2 Arnett Structure

The structural geology of the Arnett property is complex with any interpretation of structure complicated by lack of outcrop. Based on mapping, structures developed within a north-south dextral wrench fault system. This style of faulting developed regionally as part of the WISZ, which placed the district distal to the main WISZ shear approximately 100 mi (160 km) to the west. This tectonic framework may have provided the ground preparation in both Arnett and Beartrack, especially within dilation zones along structures.

Dominant structures on the Arnett property are oriented 270° to 300°. In addition, 340° structures were also mapped at Arnett. Most of the faults are vertical to steeply dipping to the southwest, with exception northwest-trending thrust faults and reverse faults that dip moderately to the southwest. Mineralization in the Haidee area strikes approximately 340° to 330° and dips moderately to the southwest.

Two sets of nearly perpendicular, near-vertical post-mineral faults have been identified at Haidee. These faults create a fault block measuring approximately 330 ft (100 m) in a northeast-southwest direction and 2,132 ft (650 m) in a northwest-southeast direction. Although mineralization extends in all directions beyond this block, the core of the known higher-grade mineralization at Haidee occurs within the block defined by these two sets of faults. Neither set of faults crops out because exposure in the Haidee area is limited.

The most prominent set of these post-mineral faults is oriented 340° to 330°. The two faults are separated by approximately 325 ft (100 m). The southwestern-most of these faults was first identified in an historical very low frequency (VLF) survey and confirmed by drilling in 2019. The northeastern fault of the pair was identified during drilling.

The second pair of faults is roughly perpendicular to the first set with an orientation of approximately 60°. These two faults are approximately 2,130 ft (650 m) apart and have been inferred from drilling. These faults also offset mineralization with the central block, being uplifted with respect to the blocks on either end.

7.2.2 Mineralization

7.2.2.1 *Beartrack*

Gold mineralization on the Beartrack property is associated with a major gold-arsenic-bearing hydrothermal system where shear, stockwork, vein, and breccia-hosted mineralization has been identified over more than 5 km of strike length. All mineralization is spatially related to, and primarily controlled by, the PCSZ. Gold mineralization has been intersected over a vertical range of 2,460 ft (750 m) with no indication that mineralization stops, that grade diminishes or of mineral or metal zonation with depth. All areas drilled to date at Beartrack display similarities in style of mineralization and alteration with only slight variations in geochemistry and each core hole drilled by Revival Gold, that has intersected the PCSZ, has been mineralized. The primary difference between areas is host rock.

Based on $^{40}Ar/^{39}Ar$ dating of sericite and potassium feldspar, mineralization from the Beartrack gold system is approximately 68 million years old, with additional thermal events at 74 million years and 58 to 60 million years (Evans and Snee, 1989). Re-Os dating on sulfides from Beartrack supports the 68-million-year date (68.2 ± 1.7 Ma, Revival, unpublished data).

Previous exploration and exploitation of gold mineralization by Meridian focused on leachable gold but the presence of unoxidized sulfide mineralization beneath the leachable material was known. In 2012 and 2013, Meridian conducted deep drilling to determine the depth potential of sulfide mineralization along the PCSZ. For corporate reasons, Meridian did not complete the planned drilling program, but the deep drilling established the presence and continuity of mineralization at depth.

7.2.2.1.1 Deposit Mineralization and Descriptions

Main-stage gold mineralization occurs as quartz-pyrite-arsenopyrite stockwork vein zones, disseminations and tectonic breccias. Potassium feldspar may be present as a gangue mineral in higher grade intersections. Both ferroan and calcium carbonate are present in small amounts as a gangue mineral and as disseminations and/or micro veinlets in the metasedimentary host rocks (Economic Geology Consulting, 2013; Gillerman, 2023).

Mineralogical studies show that gold is submicroscopic, occurring primarily as inclusions that are micron- to sub-micron-sized within arsenopyrite or in arsenic-rich growth bands within pyrite. This is confirmed by metallurgical flotation studies, which record gold grades ranging from 92 ppm Au to 122 ppm Au in arsenopyrite concentrates, and from 12 ppm Au to 28 ppm Au in pyrite concentrates (Kesler, 1989a and 1989b).

Mineralization at Beartrack is hosted by a Proterozoic rapakivi granite intrusion and Proterozoic metasedimentary rocks within the PCSZ, which is the primary control on mineralization. Stockwork zones range in width from 15 ft to 325 ft (5 m to 100 m) and are generally characterized by continuous gold mineralization. In the Yellowjacket Formation, stockwork veinlets are predominantly 0.08 inches to 0.4 inches (0.2 cm to 1.0 cm) thick, with larger veins ranging up to 2 inches (5.0 cm). In the rapakivi granite, vein zones 0.2 inches to 4 inches (0.5 cm to 10.0 cm) thick have been emplaced into pre-existing irregular joint and fractures sets. Individual veins are generally discontinuous along strike and may be offset by post-mineral shearing.

Individual veins are filled with massive to crystalline milky to light gray quartz, containing fine-grained pyrite and arsenopyrite as disseminations or concentrations along vein margins. Most of the pyrite and arsenopyrite occurs as euhedral crystals ranging in size from <5 microns to over 1 mm, with an estimated average size range of 100 to 300 microns for pyrite and 50 to 150 microns for arsenopyrite. Sulfide minerals may extend two to three mm into the wall rock (Schmidt, 1990).

Galena, sphalerite, chalcopyrite, tennantite-tetrahedrite are relatively common (Economic Geology Consulting, 2013; Konyshev, 2015; Gillerman, 2023) and minor amounts of petzite, hessite, silver-mercury amalgam (SGS, 2012), cinnabar, scheelite, wolframite, marcasite and boulangerite are also present (Kesler, 1988, 1989a, 1989c). Mercury sulfide, mercury selenide and native mercury occur as inclusions in pyrite, and sphalerite may be mercury-rich (Kessler, 1989c). Native gold is present in minor amounts, ranging in size from 30 to 100 microns. Analysis of native gold particles showed the particles to be composed of approximately 89% gold and 11% silver (Shaw, 1990).

Gold mineralization can also occur with little veining but in association with pyrite replacement of biotite in the rapakivi granite. This is common in the Ward's Gulch area. The replacement of biotite by pyrite may also occur in the metasedimentary rocks and this sulfidation reaction may have contributed to gold deposition.

The primary control on mineralization at Beartrack is the north-northeast-trending PCSZ. Mineralization occurs within a broad zone of fracture-controlled sericite-pyrite alteration that can extend up to 500 ft (150 m) from the PCSZ. Mineralization occurs over a vertical range of more than 2,460 ft (750 m) and exhibits no apparent vertical zonation in metal content, mineralogy, or alteration with only slight variations in geochemistry along strike. Mineralization is open at depth and along strike.

Key secondary controls on mineralization are thought to be the intersections of northwest-trending, northeast-dipping faults with the PCSZ and the presence of siltite units in the metasedimentary package. Mineralization is typically higher-grade in the footwall of northwest-trending faults and intersections of the PCSZ with larger northwest-trending faults may have influenced the location of mineralization at Ward's Gulch (Camp Creek Fault) and Joss (Johnson Creek Fault).

Mineralization extends further from the PCSZ in siltite units than in micaceous, or phyllitic units. This can be seen in the South deposit where mineralization narrows as the structure passes from predominantly siltite units in at the south end of the deposit to predominantly micaceous units at the north end of the deposit. Conversely, mineralization in granitic rocks, or more micaceous metasedimentary units, tends to be lower-grade and may be less continuous.

Limited multi-element geochemistry in drill core from the 2012 through 2021 drilling programs is presented in Table 7-1. The data presented below are from intervals containing greater than 500 ppb Au. Mercury and tellurium are not available for all samples and some of the sampling was done selectively only on mineralized intervals.

Based on a recent analysis of multi-element geochemistry data conducted by Revival, three distinct mineralization types have been noted:

- Au + As only
- Au + Hg only
- Base Metal (Cu, Mo, Pb, Zn) + Ag + Sb + Te + Bi)

All three types can be found separately, but they very commonly overprint each other, as might be expected in a long-lived, evolving hydrothermal system where structural plumbing pathways are commonly, but not always, re-used over time. No relative age relationships have been determined. Konyshev (2015) suggested that a second hydrothermal system is present at Beartrack at depth. While this seems unlikely, it is possible that a late-stage epithermal overprint, possibly related to intrusive activity associated with the Challis Volcanics, is present at Beartrack.

Table 7-1: Beartrack Mine Geochemistry (in ppm)

Element	North Pit	Ward's Gulch	Independence	South Pit	Joss
Au	1.46	3.31	1.12	1.51	2.12
Ag	4.9	13.5	8.4	13.9	5.04
As	1,128	1,333	521	3,691	5,053
Sb	29	70	82	142	56
Hg	5.1	10.4	10.4	16.8	0.15
Bi	4.9	2.1	2.3	2.67	0.74
Mo	22.1	34.6	11.4	10.9	5.0
Te	0.66	0.44	0.56	0.51	0.05
W	NA	92	50	23	140
Pb	211	276	394	2,964	37
Zn	84	125	285	417	93

Note: Values calculated only from samples >0.50 ppm Au.

It is apparent that arsenic increases from north to south and that base metals and tellurium, although low overall, generally decrease from north to south. Arsenic is the only metal that shows a consistent statistical correlation with gold, yielding a correlation coefficient of 0.5. The relatively low correlation coefficient between gold and arsenic may be related to the separation of the elements during oxidation and the fact that a substantial portion of the gold occurs in pyrite.

7.2.2.1.2 South Deposit Mineralization

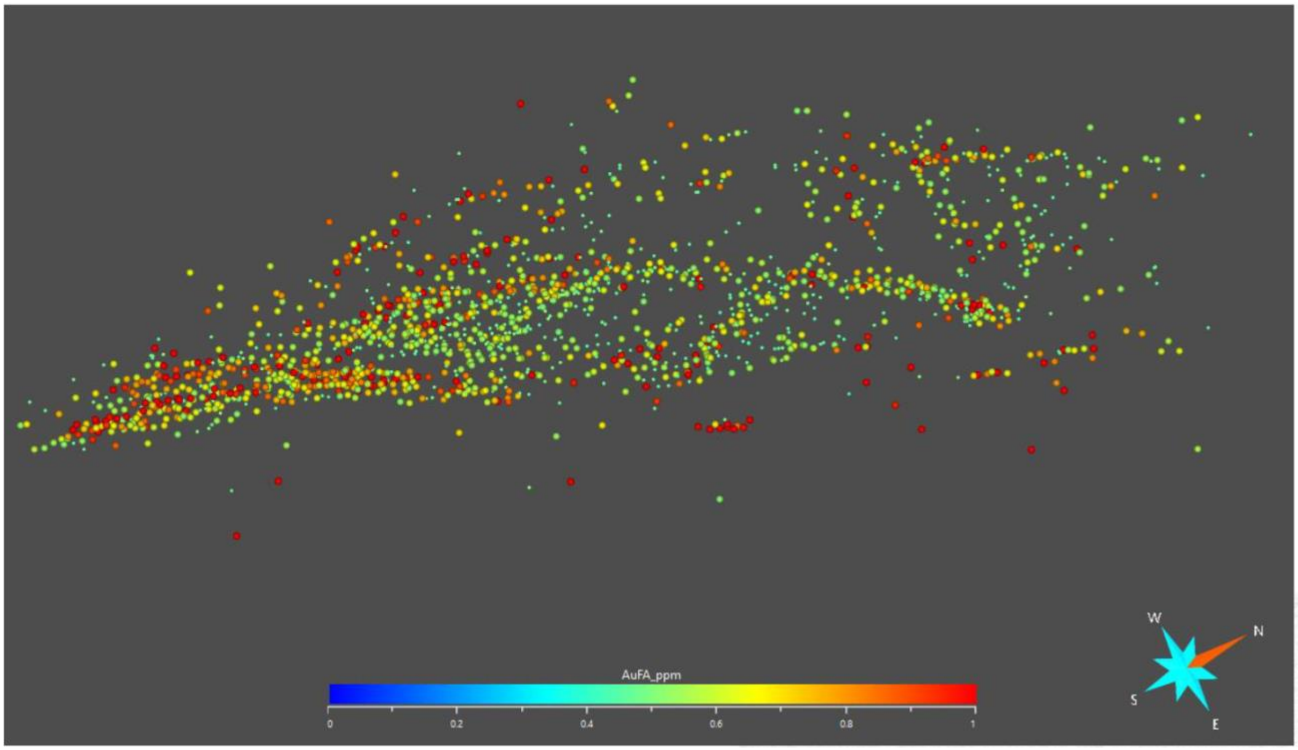
The South deposit at Beartrack is lens-shaped in plan, measuring approximately 4,250 ft (1,300 m) in length, and reaching a maximum width of 450 ft (140 m) while decreasing to less than 30 ft (10 m) at each end. Oxidation extends from between 100 ft (30 m) to over 1,000 ft (300 m) in depth. Mineralization is open at depth and along strike to the south.

Filtered blast hole data for the South Pit (Mira Geoscience, 2020) show what appears to be a pull-apart basin, or reverse flower structure, controlling higher grades west of the PCF (Figure 7-4). Similar features may play a part in controlling mineralization in other locations along the PCSZ.

Pyrite-arsenopyrite stockwork veinlets occur primarily in the metasedimentary rocks of the Yellowjacket Formation, while the higher-grade silica-sulfide-flooded breccia zone is located on the western margin of the PCSZ, between metasedimentary rocks of the Yellowjacket Formation and silicified, mylonitized quartz monzonite on the eastern side of the PCSZ. The breccia zone is up to 1,640 ft (500 m) long and 80 ft (25 m) wide. It has been traced down dip for over 1,950 ft (600 m) and remains mineralized at depth.

East of the PCSZ, intrusive-hosted stockwork mineralization is restricted to a zone that is up to 1,300 ft (400 m) long and ranges from 30 ft to 200 ft (10 m to 60 m) in width in the southern half of the pit. Oxidation in the quartz monzonite rarely extends below depths of 130 ft (40 m). The marked contrast in alteration and mineralization across the fault is attributed to a lack of structural preparation within the quartz monzonite.

Figure 7-4: Filtered Blast Hole Data showing Higher-Grades along Pull-Apart Structures



Source: Mira Geoscience, 2021

7.2.2.1.3 North Deposit Mineralization

The oxide body in the North deposit is 5,250 ft (1,600 m) in length, 30 ft to 650 ft (10 m to 200 m) wide and has been intersected by drilling to depths locally in excess of 820 ft (250 m). Gold mineralization occurs primarily as a network of oxidized quartz-pyrite-arsenopyrite stockwork and sheeted veins, which commonly overprint older mylonitized zones in the quartz monzonite near the PCSZ. In general, mineralization does not extend to the depths recorded in other areas along the PCSZ and it tends to be lower grade.

7.2.2.1.4 Ward's Gulch & Mason Dixon

In the Ward's Gulch area, significant mineralization also occurs within the Yellowjacket Formation. High-grade mineralization occurs in a dilatant zone containing a complex assemblage of silica-sulfide-flooded breccias, intermediate dikes, massive quartz-pyrite veins, and post-mineral cataclasite and gouge zones. Post-mineral shearing is prominent in the quartz monzonite, resulting in the formation of sheared gouge zones up 130 ft (40 m) wide along the PCSZ footwall. Mineralization also occurs in the rapakivi granite where biotite has been replaced by pyrite. In the Mason-Dixon area, mineralization is confined to the metasedimentary rocks.

High-grades have also been intersected at depth in the Ward's Gulch area in hole BT12-175D, which intersected 30 ft (9 m) drilled width, averaging 2.3 oz/t (78 g/T) Au from 1,654 ft to 1,683 ft (504 m to 513 m). Revival offset this hole in 2017 (holes BT17-194DB and BT17-199D) but failed to reproduce the results from hole BT12-175D.

The oxide boundary in most of the North deposit is relatively flat lying, ranging from 80 ft to 245 ft (25 m to 75 m) in thickness. Oxidation is shallowest in the centre of the North Pit, where the PCSZ dip rolls from 80°NW to 50°NW. The thick gouge zone along the fault may have served as a barrier to the downward migration of oxidizing fluids. By contrast, oxidation along the 85°NW-dipping PCSZ in the Ward's Gulch area locally extends on both sides of the fault to drilled depths in excess of 1,475 ft (450 m); the mineralized intersection in hole BT12-175D was oxidized at 1,475 ft (450 m) vertically below the surface.

7.2.2.1.5 Independence Area

The Independence area is defined as the area from the Mason-Dixon pit to the northern end of the South deposit, a distance of approximately 1,000 ft (300 m). The maximum width of mineralization is approximately 65 ft (20 m) narrowing to a less than 15 ft (5 m) in places. Overall, gold grades in the Independence area are lower and the mineralized intervals are narrower than elsewhere at Beartrack. Sulfides in the intervals containing gold mineralization commonly reflect some degree of oxidation to the depth drilled.

Mineralization in this area occurs in stockwork veinlets and siliceous breccias containing quartz, pyrite and arsenopyrite, or their oxidized equivalents, hosted by the Yellowjacket Formation. The Yellowjacket Formation in this area is a very fine-grained quartzite with little or no biotite in this unit of the Yellowjacket Formation (Johnson, 2021b).

Wide-spaced zones of stockwork veining consisting of quartz, sphalerite and galena occur to the northwest of the PCSZ. There is little gold associated with this mineralization.

7.2.2.1.6 Joss Area

The Joss area is defined as the area from the South deposit southwestward for approximately 3,280 ft (1,000 m). Mineralization consists of quartz arsenopyrite-pyrite stockwork and breccia-hosted gold mineralization along the PCSZ in the Yellowjacket Formation. In some locations, such as the high-grade interval in hole BT21-240D averaging 0.6 oz/t (18.9 g/T) Au from 1,448.2 ft to 1,465.6 ft (441.4 m to 446.7 m) downhole depth, potassium (?) feldspar is present. Higher grades in the Joss area are generally located just east of the Panther Creek Fault (see discussion above). In several cases, most prominently in hole BT18-211D, there are several narrow zones of higher-grade mineralization east of the main mineralized zones. Sericitic alteration, typical of the Beartrack property, is also present in the Joss area.

Although mineralization was reported to crop out south of the Leesburg townsite between the reclaimed placer ground and the cemetery (Bartles, 1991), no such outcrop has been found by Revival. It seems unlikely that mineralization would reach the surface in the Joss area as all holes drilled in the area, including the shallow L-series RC holes as well as the deeper exploration holes, were collared in post-mineralization Cenozoic deposits. If mineralization does reach the surface, it is likely to be from one of the mineralized structures east of the PCSZ.

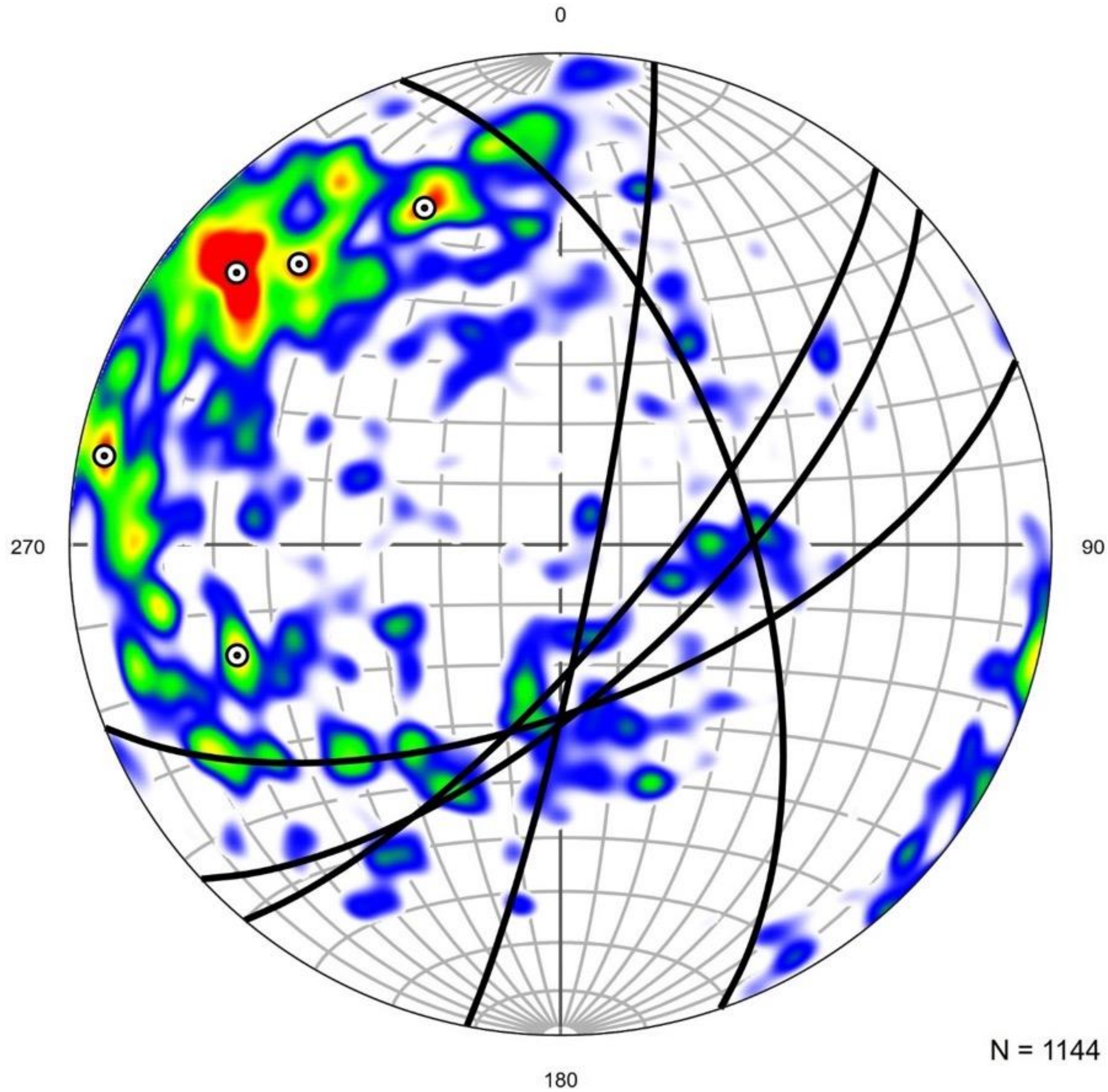
In drilling, mineralization has been encountered from 245 ft (75 m) below the surface (overlain by Tertiary epiclastic rocks and localized Quaternary till) to depths of 1,600 ft (490 m) below the surface. Estimated true widths range from a few meters to over 245 ft (75 m). This can vary depending on how many mineralized intervals are present in the Yellowjacket Formation east of the PCSZ. Mineralization is open at depth and along strike in both directions.

As mentioned above, Cenozoic deposits overlie mineralization at Joss and occur in a graben, or half graben, to the immediate west of the PCSZ. Cenozoic deposits are estimated to be at least 650 ft (200 m) thick in this area. In the central Joss area, the PCSZ forms the eastern boundary of the graben and Cenozoic deposits immediately adjacent to the PCSZ may show signs of faulting.

Oriented drill core measurements have been made routinely since late 2019. One-thousand-forty-four measurements made on core from the Joss area indicate that five dominant veinlet orientations are present (see Figure 7-5):

- 040°; 75 SE
- 068°; 63 SE
- 047°; 67 SE
- 011°; 84 SE
- 341°; 59 NE

Figure 7-5: Veinlet Orientations from Oriented Drill Core in the Joss Area



Source: Revival, 2023

7.2.3 Alteration

Main stage gold mineralization is directly associated with sericitic (sericite±pyrite) alteration. Sericitic alteration is fracture-controlled but in areas of high veinlet density the alteration is pervasive. The alteration zone varies from 50 ft to 500 ft (15 m to 150 m) in width. Sericite, and to a lesser degree pyrite, replaces primary biotite in intrusive rocks and metamorphic biotite in metasedimentary rocks. Except for variations in intensity, alteration does not display any obvious lateral or vertical zonation. Sericitic alteration grades directly to unaltered rock with no associated propylitic or argillic alteration.

Silicification is strongly associated with disseminated pyrite-arsenopyrite mineralization in tabular tectonic breccia zones related to the PCSZ, or in local breccia veins in the Yellowjacket Formation. Outside brecciated zones, weaker silicification is locally present in wallrock adjacent to stockwork veins or structural intersections.

Carbonate is present in small amounts as calcite and ferroan carbonate disseminations and in microveinlets in the metasedimentary host rocks in both the North and South deposits (Economic Geology Consulting, 2013; Gillerman, 2023).

Secondary potassium feldspar veining is present, particularly southeast of the South deposit, but its association with gold mineralization is unclear; however, potassium (?) feldspar has been tentatively recognized as a gangue mineral in the Joss area.

7.2.4 Oxidation

The oxidation of pyrite and arsenopyrite formed iron oxides (goethite and hematite) and liberated micron-size gold into a form amenable to heap leach cyanide recovery. Oxidized mineralization was exploited by Meridian at Beartrack from 1995 to 2002. During this time, approximately 600,000 oz of gold were produced by heap leach cyanide recovery of oxidized mineralization.

The depth of oxidation is highly variable and is influenced by a combination of structural, lithological, and alteration controls. The morphology of the oxide/sulfide boundary is complex and does not appear to correlate with the current water table, nor can it be mapped to any useful degree. Oxidation within the Yellowjacket Formation and along the PCSZ may extend to depths of more than 1,950 ft (600 m) below the present surface in some areas. In comparison, oxidation within the quartz monzonite is confined to a near-surface environment and forms a flat-lying blanket less than 65 ft to 230 ft (20 m to 70 m) in thickness.

It is believed that most of the oxidation is related to Tertiary weathering. This is perhaps reflected in the shallower, tabular zone of oxidation in the North Pit with the deeper, more irregular structurally controlled oxidation being younger.

7.2.5 Fluid Inclusions

Gangue quartz in the Beartrack hydrothermal system has contrasting fluid inclusion signatures. The earliest stages of quartz are similar to that found in greenstone-hosted lode, or orogenic gold deposits. For instance, liquid carbon dioxide (CO_2) is common among millions of crisscrossing healed microfractures, yielding a wispy texture, while later, euhedral quartz displays primary, irregularly shaped three phase liquid CO_2-bearing inclusions defining growth zones in quartz. The later texture has not been reported for greenstone-hosted lode gold deposits (Hawksworth, 1997 and Hawksworth et al., 2003).

Abundant pyrite and arsenopyrite are associated with an even later clear mosaic quartz with few fluid inclusions. These inclusions exhibit inconsistent liquid to vapour ratios, which is suggestive of formation temperatures below ~428°F (220°C). This temperature is within, but near, the lower end of the temperature range typical of greenstone-hosted lode gold deposits (Goldfarb et al. 2005).

Fluid inclusion data presented by Konyshev (2015) from the base metal quartz veins yield two homogenization temperature ranges between 399°F to 421°F and 467°F to 478°F (204°C to 216°C and 241°C to 247°C). These homogenization temperatures fall within the range of epithermal deposits, and this is part of the evidence presented by Konyshev (2015) in support of an epithermal deposit at Beartrack. It is worth noting that their homogenization temperatures also fall within the range of orogenic deposits.

Descriptions of the units mapped on the Project are provided below.

7.2.5.1 *Arnett*

Gold mineralization on the Arnett property is associated with wide-spaced quartz-FeOx (pyrite)-Au veinlets hosted primarily by the Cambro-Ordovician Crowded Porphyry, although the Leucogranite is mineralized in the Italian mine and Thompson-Hibbs area. Pyrite is coarse-grained and typically occurs along veinlet margins. Native gold is present locally in oxidized pyrite. Mineralization is not yet known to extend into the adjacent metasedimentary rocks.

Alteration is complex but, in general terms, gold is associated with wide-spread sericitic and potassic alteration. The primary alteration type associated with mineralization is sericitic alteration, which locally contains notable chlorite. Potassic alteration, in the form of fracture-controlled biotite, is also common. Recent petrographic work suggests that biotite-epidote/chlorite-muscovite-magnetite are present replacing magmatic amphibole (Gillerman, 2023). Laser ablation inductively coupled plasma mass spectrometry analysis of selected magnetite grains from the Haidee area contained elevated Ti, Nb and Au (Gillerman, 2023).

The gray alteration associated with quartz-biotite-magnetite veinlets, was thought to be secondary gray potassium feldspar. Recent petrographic work now indicates that the gray color may be caused by finely disseminated magnetite (Gillerman, 2023).

Surface weathering has generally oxidized pyrite to form limonite and nontronite, a bright green iron-rich smectite clay present on fractures, generally in proximity to quartz-iron oxide veinlets. Higher gold grades are associated with increased quartz veining, limonite/pyrite concentration and sericitic alteration. Mineralized zones, and the individual structures and veins within those zones, pinch and swell both along strike and down dip.

Multi-element geochemistry for the Arnett property for all samples with greater than 0.005 oz/t (0.16 g/T) Au is presented in Table 7-2. Very few of the elements would be considered geochemically anomalous but bismuth and tellurium have the strongest correlations with gold while iron, copper, mercury, and molybdenum have weaker correlations with gold.

Table 7-2: Multi-Element Geochemistry, Haidee Area

Element	Average Concentration	Correlation Coefficient with Au
Au	1.0 ppm	1.00
Ag	0.7 ppm	0.27
As	10.6 ppm	0.27
Sb	3.6 ppm	0.16
Bi	2.8 ppm	0.74
Hg	0.2 ppm	0.39
Mo	2.3 ppm	0.39
Te	0.5 ppm	0.62
W	35 ppm	0.20
Cu	36 ppm	0.41
Pb	46 ppm	0.10
Zn	40 ppm	-0.09
Fe	2.6 %	0.44

7.2.5.2 *Deposit Mineralization and Descriptions*

There are several mineralized areas on the Arnett portion of the Property but only the Haidee area has had historical resources identified. It should be noted that historical gold resources were defined by AGR in five zones, the Haidee Main, Haidee West, Haidee East, Little Chief, and Little Chief Extension. Revival combined the Haidee Main, Haidee West, and Haidee East areas into one larger area simply called the Haidee area, and the Little Chief Extension has been renamed Haidee West. In general, mineralization is similar in each area; however, some differences occur. Primary differences include the orientation and density of mineralized structures the amount of alteration present in each area.

7.2.5.3 *Haidee Area*

This area is centred on the Haidee patented claim. Drilling and trenching performed by AGR and various joint venture partners identified a historical resource that was amenable to mining by open pit methods. Drilling by Revival has largely confirmed the presence and continuity of mineralization in this area.

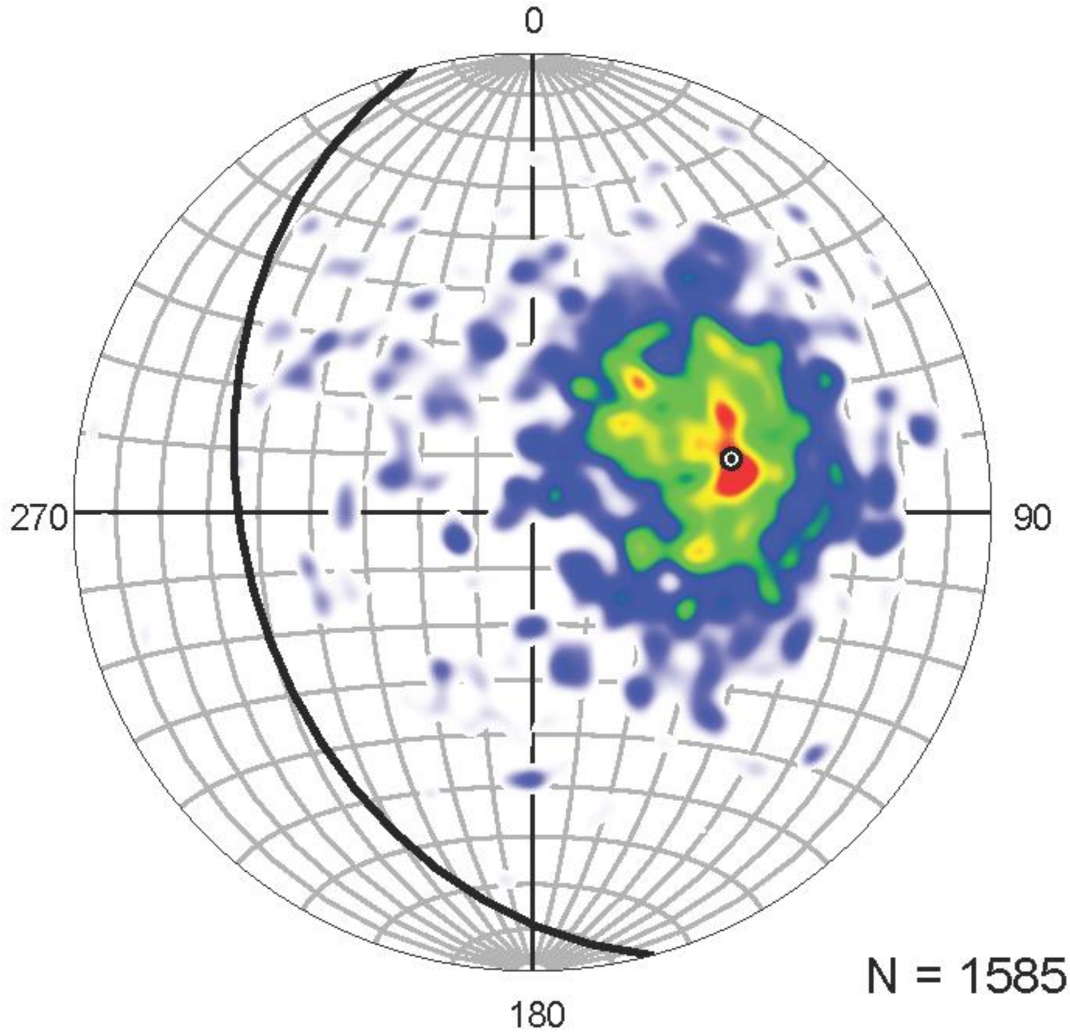
The mineralized body as currently known has a strike length of approximately 1,800 ft (550 m) in a north-northwest direction and a total width of approximately 1,600 ft (490 m). Mineralization extends from the surface up to 390 ft (120 m) depth, or an elevation of about 7,000 ft (2,135 m) amsl. Mineralized structures dip moderately to the southwest. Gold mineralization is controlled by a strong north-northwest-trending fracture system exhibiting quartz veins and veinlets in a stockwork of limonite-filled fractures.

Data collected from oriented drill core from three Meridian core holes (ACDD-5, ACDD-6 and ACDD-8) and 67 Revival core holes (AC19-36D through AC22-102D) indicates that there is one primary orientation for veinlets:

- 165°; 37°SW

This orientation is based on measurements from nearly 1,600 readings and reflects the interpreted orientation of the mineralized zone at Haidee (Figure 7-6).

Figure 7-6: Veinlet Orientations from Oriented Drill Core in the Haidee Area



Source: Revival, 2023

Mineralization occurs as medium- to coarse-grained pyrite, typically oxidized to goethite, in veinlets of glassy gray to white quartz. Native gold has been observed in oxidized pyrite, although sulfides are nearly completely oxidized, pyrite remains in isolated veinlets, even in oxidized intervals.

There is a strong nugget effect at Arnett, which is related to a number of factors: veinlet density is irregular, sulfide distribution within those veinlets is uneven, and oxidation has resulted in the occurrence of coarse-grained native gold in oxidized pyrite grains. The latter factor makes it difficult to duplicate assays, whether they be duplicate samples taken from drill core, laboratory duplicates, or even fire assay and cyanide-soluble assays.

Meridian identified 11 different vein/alteration types related to gold mineralization at Arnett (Barbarick, 1997). A count was made of each type of occurrences from all 11 core holes where the gold grade was greater than or equal to 0.01 oz/t (0.34 g/T) Au. The results, presented in Table 7-3, demonstrate that gold is most commonly associated with iron oxides and/or potassic alteration in the form of secondary feldspar or biotite. The fact that gold is more strongly associated with iron oxides suggests that some secondary enrichment may have taken place.

Table 7-3: Occurrence of Gold by Mineral Assemblage in the Haidee Zone

Vein / Alteration Type	Frequency
Quartz vein with iron oxide(s) as fracture fill, disseminations or marginal to veins	130
Quartz vein containing pyrite with no iron oxide present	5
Quartz vein containing iron oxides and pyrite	25
Quartz vein containing secondary feldspar	85
Quartz vein containing magnetite	5
Quartz vein containing silica fracture fill and/or matrix fill when vein has been brecciated and/or with wall rock silicified at margins	35
Iron oxides disseminated and/or as fracture fill in country rock or dikes when no quartz vein is present	45
Disseminated and/or fracture fill sulfides when no quartz vein is present	0
Secondary feldspar disseminated and/or as fracture fill in country rock	70
Secondary biotite disseminated and/or as fracture fill in quartz vein and/or country rock	70

7.2.5.4 *Haidee West*

Mineralization at Haidee West is related to a near-vertical, northwest-striking shear zone that has been traced by RC drilling for a strike length of 590 ft (180 m). The average width is 65 ft (20 m).

Five core holes were drilled in the Haidee West area by Revival in 2019. Mineralization is oxidized near the surface but most of the 2019 drilling encountered unoxidized sulfides in this area. The 2019 drilling did not confirm either the grades or drilled widths obtained in RC drilling by AGR.

This is thought to be the result of downhole contamination in the RC drilling, particularly below the water table, which is where most of the mineralization was intersected by AGR. Revival's 2019 drilling was core drilling and not subject to sampling difficulties related to the presence of water in drill holes. Haidee West is not included in the current resource estimates and further exploration drilling is warranted.

The Haidee West exhibits a strong VLF signature which suggests that Haidee West connects to the Little Chief mine area. A second, similar parallel anomaly 390 ft (120 m) to the north remains undrilled. Mineralization appears to be faulted off to the northwest.

7.2.5.5 *Little Chief Mine*

This zone was identified through underground sampling of the Little Chief Mine in 1989 when a 89.9 ft (27.4 m) wide zone was sampled in a crosscut that averaged 0.044oz/t (1.5 g/T) Au (American Gold Resources Corp, 1991). Six RC holes tested this mineralization in 1990 and 1992, identifying several low- to moderate-grade mineralized structures. This zone has been defined on one drill section, so lateral continuity is unknown. Revival has not done any drilling in the Little Chief Mine area.

7.2.6 Alteration

Hydrothermal alteration is characterized by wide-spread sericitic and potassic alteration and the oxidation of magnetite to specularite. Argillic alteration is present locally. Sericitic and potassic alteration, and the oxidation of magnetite to specularite, are hypogene in nature while the argillic alteration is thought to be largely supergene, resulting from the weathering of pyrite in veinlets and wall rocks. All three alteration types affect the Crowded Porphyry and, locally, other rocks of the Arnett Intrusive Complex.

The earliest alteration is potassic alteration. Potassic alteration consists of quartz±biotite±magnetite veinlets, the recrystallization of primary magmatic biotite to fine-grained aggregates of black biotite and biotite-epidote/chlorite-muscovite-magnetite replacing what appears to have been magmatic amphibole (Gillerman, 2023).

The gray alteration associated with quartz+/-biotite+/-magnetite veinlets, was thought to be secondary gray potassium feldspar. Recent petrographic work now indicates that the gray color may be caused by finely disseminated magnetite and/or hematite (Gillerman, 2023).

Potassic alteration is followed by the oxidation of magnetite to specularite. Regardless of the origin of the magnetite, be it magmatic or hydrothermal, it is often partially or completely altered to specularite. The specularite may retain weak magnetism but this appears to be rare. Laser ablation inductively coupled plasma mass spectrometry analysis of selected magnetite grains from the Haidee area contained elevated Ti, Nb and Au (Gillerman, 2023).

The most abundant type of hydrothermal alteration at the Property is sericitic+/-chlorite alteration of feldspars and biotite. This alteration affects plagioclase, and primary and hydrothermal biotite. In early stages, biotite is destroyed, followed by sericitic alteration of plagioclase rims of zoned feldspars. With progressive alteration, feldspar and biotite in the host rock are converted to pale to dark green sericite+/-chlorite.

There is no one-to-one relationship between the alteration types and gold values; however, they usually occur in broad spatial relationship with gold mineralization. It is likely that the fluids responsible for the earlier alteration used the same fracture system, but not necessarily the same fractures, as those responsible for gold mineralization.

7.2.7 Oxidation

The oxidation at Arnett is thought to be related to the Tertiary weathering surface upon which the Cenozoic epiclastic rocks were deposited. Oxidation in the Haidee area extends to the depths of current drilling, approximately 500 ft (150 m) below the surface, or the 7,000 ft (2,135 m) elevation amsl, but mineralization in the Haidee West area occurs primarily as sulfides. Even though the 2019 drilling at Haidee West was collared at a lower elevation, intersections are only approximately 100 ft (30 m) deeper than those at Haidee suggesting that the Tertiary oxidation surface is not horizontal across the Property or that it varies with topography. Additionally, holes AC21-070D and AC22-080D encountered unoxidized rock at an elevation of approximately 6,750 ft (2,050 m) amsl, which further suggests that the base of the oxidation is not a planar, horizontal surface.

8.0 DEPOSIT TYPES

8.1 Beartrack

Gold mineralization at Beartrack exhibits many of the characteristics of the class of gold deposits known as mesothermal, orogenic, or shear zone-hosted deposits. In these deposits, gold is deposited at crustal levels at depths of 1.9 mi to 12.4 mi (3 km to 20 km) and at temperatures from 392°F to 932°F (200°C to 500°C). Deposits may have a vertical extent of more than 1.2 mi (2 km) and lack pronounced zoning. Gold-bearing quartz veins and veinlets with minor sulfides crosscut a wide variety of host rocks and are localized along major regional faults and related splays (Robert, 2004; Goldfarb and Groves, 2015, Goldfarb and Pitcarin, 2023). The wall rock is typically altered to silica, pyrite, and muscovite within a broader carbonate alteration halo (Ash and Alldrick, 1996).

The primary sulfide minerals in mesothermal gold deposits are pyrite and arsenopyrite; however, galena, sphalerite, chalcopyrite, pyrrhotite, tellurides, scheelite, bismuthenite, stibnite, tetrahedrite and molybdenite may also be present. Primary gangue minerals are quartz and carbonate (ferroan-dolomite, ankerite, ferroan-magnesite, calcite, siderite), with lesser albite, mariposite (fuchsite), sericite, muscovite, chlorite, and tourmaline (Ash and Alldrick, 1996).

Mesothermal gold deposits may be enriched in many elements, including sulphur, copper, molybdenum, antimony, bismuth, tungsten, lead, zinc, tellurium, mercury, arsenic, and silver; however, most mesothermal gold deposits are characterized by elevated iron, sulphur, and arsenic, with only minor enrichment in the other elements (Goldfarb et al., 2005).

Mineralization at Beartrack consists of quartz-pyrite-arsenopyrite (gold-iron-arsenic-sulphur) veins and veinlets occurring in a broad halo of sericitic alteration related to the PCSZ. The PCSZ exhibits both brittle and ductile deformation and is interpreted to be a deep-seated regional structure that has been active for a protracted period of time. Mineralization does not exhibit any zonation over 750 m (2,460 ft) vertically. All these characteristics are typical of mesothermal gold deposits.

In the case of gold mineralization at Beartrack, the characteristics and controls of mineralization are reasonably well known. The primary control on mineralization is the regional, north-northeast-trending PCSZ. An important secondary control is the Proterozoic Yellowjacket Formation, which appears to be a more favourable host rock than the Proterozoic intrusive rock. These factors, along with the known characteristics of orogenic gold mineralization, will guide future exploration activity at Beartrack.

8.2 Arnett

Gold mineralization at Arnett is enigmatic, exhibiting some of the characteristics of orogenic gold deposits, but also exhibiting some of the characteristics of intrusion-related gold deposits. The characteristics of orogenic deposits are summarized in the section above. In intrusion-related deposits, gold is deposited at depths from ranging from 1.9 mi to 3.7 mi (3 km to 6 km) in plutonic roof zones. Given the substantial range of depths over which intrusion-related gold deposits may form, homogenization temperatures vary dramatically, but fluids tend to be of low salinity and high in CO_2. A wide variety of deposit types can occur in intrusion-related gold systems. Intrusion and/or country rock hosted deposits may consist of skarns, replacements, disseminations, stockworks and veins. The most common occurrence is sheeted, gold-bearing quartz veins and veinlets with minor sulfides, often occurring in the cupola of the source intrusion.

Intrusion-related gold deposits normally exhibit low sulfide content (less than 5%) with arsenopyrite, pyrrhotite and pyrite in quartz veins. Bismuth minerals may also be present. Alteration consists of potassic (K-feldspar), sodic (albite) and sericitic alteration with greisen and skarn development in some deposits. Geochemically, intrusion-related gold systems typically contain gold ± bismuth, arsenic, tungsten molybdenum, antimony, tellurium with highly variable assemblages of copper-zinc-lead-arsenic (Hart and Goldfarb, 2005; Hart, 2005).

In the case of gold mineralization at Arnett, many of the characteristics of mineralization are known but the controls of mineralization are poorly understood. Mineralization at Arnett consists of quartz-iron oxide (pyrite) veinlets (gold-iron-sulphur) occurring in a broad halo of potassic and sericitic alteration. Trace elements are not strongly anomalous; however, bismuth and tellurium have the strongest correlations with gold while iron, copper, mercury, and molybdenum have much weaker correlations with gold. Alteration types and geochemical associations suggest high-temperature mineralization, that could be related to an intrusion. Airborne magnetics support the presence of a shallow intrusion below the Haidee and Haidee West targets. It is a reasonable conclusion that this intrusion may be genetically related to mineralization and the extensive potassic alteration and hypogene alteration of magnetite to specularite found in the area. These factors will guide future exploration activity at Arnett.

9.0 EXPLORATION

9.1 Beartrack

9.1.1 Structural Mapping

Geological consultant Anthony Norman from Melbourne, Australia was contracted to conduct structural mapping in 2018 and spent approximately three weeks on site. Structural mapping included time spent with Arnett drill core and in the field at Arnett. Norman's conclusions (Norman, 2018) are presented below:

- "Beartrack and Arnett Creek have been subject to a complex deformation and magmatic history. The Yellowjacket Formation was regionally deformed (folded and thrusted) and metamorphosed to upper greenschist facies (biotite-garnet-andalusite) during D1. Rapakivi granite intruded the deformed and metamorphosed sequence. Southwest-directed thrusting and mylonitization of granite occurred during D2 northeast-southwest compression. Dextral movement occurred along the Panther Creek Fault during thrusting and mylonitization. "Bluish" quartz in granite appears to be related to strain during mylonitization. Regional folding and faulting during D1-D2 provided the structural preparation for mineralization."
- "Pegmatitic dikes (leucogranite and alaskite) intrude along D2 northwest-trending faults in the Yellowjacket Formation and rapakivi granite. They are related to a magmatic event of unknown absolute age. Pegmatitic dikes are not substantially displaced by movement along the Panther Creek Fault, so it is unlikely that there has been kilometre-scale displacement along the Panther Creek Fault. Stage I quartz-plagioclase-biotite veins were probably coeval with the pegmatite dikes. Samples have been collected to determine if intrusion of pegmatites was accompanied by mineralization."
- "At Beartrack, there is a strong lithological control on mineralization. Quartzite is the preferred host. Where granite is in contact with argillaceous metasediments, granite is the preferred host. Mineralization is structurally controlled, and the weight of evidence points to orogenic-style mineralization; however, it is unclear if there was substantial regional deformation and metamorphism at the time of mineralization, which could supply the fluids and metal budget."
- "Mineralization at Beartrack occurred during D3 extension associated with dextral northeast-southwest transpression. Three stages of quartz veins formed during mineralization (Stages IIA to IIC). The earliest veins are polymetallic (Cu-Pb-Zn±Au) sheeted northeast-trending veins. Stage IIB bull quartz+pyrite veins formed discontinuous northeast-plunging shoots within dextral jogs along the Panther Creek Fault. Stage IIC

brecciation and grey quartz-arsenopyrite-gold veins was the main stage of mineralization. High-grade mineralization occurs in the footwall of D2 northwest-trending faults and plunges shallowly northwards. A secondary southerly plunge of mineralization is related to the intersection of bedding with the Panther Creek Fault."

- "It is concluded that there were two mineralization events; an early Mesozoic (?) magmatic event related to potassic alteration in Arnett Creek and the other a structurally controlled extensional event at Beartrack."
- "Brittle D4 southwest-dipping reverse faults cut and displace leucogranitic dikes and mineralized quartz veins. The absolute age of these faults is unknown."
- "Epithermal veins (Stage III) cut the rapakivi granite and appear to cut the Panther Creek Fault. It is not known if Stage III epithermal veins are cut by D4 faults."
- "K-feldspar alteration and gold mineralization at Arnett Creek may be related to the expulsion of fluids from Mesozoic granites, prior to extension-related mineralization at Beartrack. The consequence of this model is that the target zones will be breccias in the carapace of the granites. Drilling beneath shallow dipping zones (e.g., Thompson-Hibbs) will not be productive, as the mineralizing fluids have moved away from these zones and into the roof zones or contact zones. There is a lack of multi-element geochemistry and detailed mapping to determine if Arnett Creek mineralization and potassic alteration is related to a late Tertiary-age intrusion. The distinction between possible Tertiary granite and Ordovician granite at Arnett Creek is not clear."

9.1.2 Reprocessing of Airborne Magnetic Data

In 2018, Revival commissioned a review of historical geophysical data from Beartrack. This data was obtained from Ellis Geophysical Consulting Inc. in Reno, Nevada, who conducted previous work on the Project on behalf of Meridian, and reviewed by Wave Geophysics LLC of Evergreen, Colorado. This data has been summarized in Section 6 of this Report.

Airborne magnetics, frequency-domain electromagnetic (FDEM) and VLF data from the historical dataset were reprocessed. Magnetic and FDEM data are useful for geologic mapping and in some instances direct targeting of mineral systems. Magnetic data are useful for geologic mapping because, with only a few exceptions (e.g., pyrrhotite), magnetic data measure variation in magnetite content correlating with variations in the magnetic susceptibility parameter. Thus, variations in rock type and alteration can be identified through the interpretation of magnetic data. Structure, such as faults and folds, can also be identified in magnetic data. Resistivity data, computed from FDEM measured data, can provide insights into lithology, structure, and alteration.

In 2019, Revival completed an airborne magnetic survey over the Arnett property, merged the data with the historical Beartrack airborne magnetic data and reprocessed the entire dataset. The airborne magnetics for the Arnett property is discussed in Section 9.2.1.

9.1.2.1 *1989 Airborne Geophysical Survey*

Airborne magnetic, FDEM, and VLF data were collected between June 25 and July 3, 1989, by Aerodat Limited. Details of the survey can be found in de Carle (1989). The survey totalled approximately 590 line-miles (950 km) and covered approximately 83 mi^2 (216 km^2). Flight line orientation was 105° and the line spacing was 490 ft (150 m). Tie-line orientation was 15° and tie-line spacing was 1,300 ft (400 m). Helicopter altitude was 200 ft (60 m).

FDEM data was collected using a towed-bird sensor elevation of 100 ft (30 m). Coaxial coils were 935 Hz and 4,600 Hz and coplanar coils were 33 kHz and 4175 Hz.

VLF data were collected using the following frequencies:

- 24.0 kHz – Cutler, Maine
- 21.4 kHz – Annapolis, Maryland
- 24.8 kHz – Jim Creek, Washington

The FDEM resistivity grids contain significant line-levelling errors. Since the original line data is not available, these line-levelling errors were removed through the application of grid decorrugation filters using Fast Fourier Transform methods in the MAGMAP module of Geosoft Montaj software.

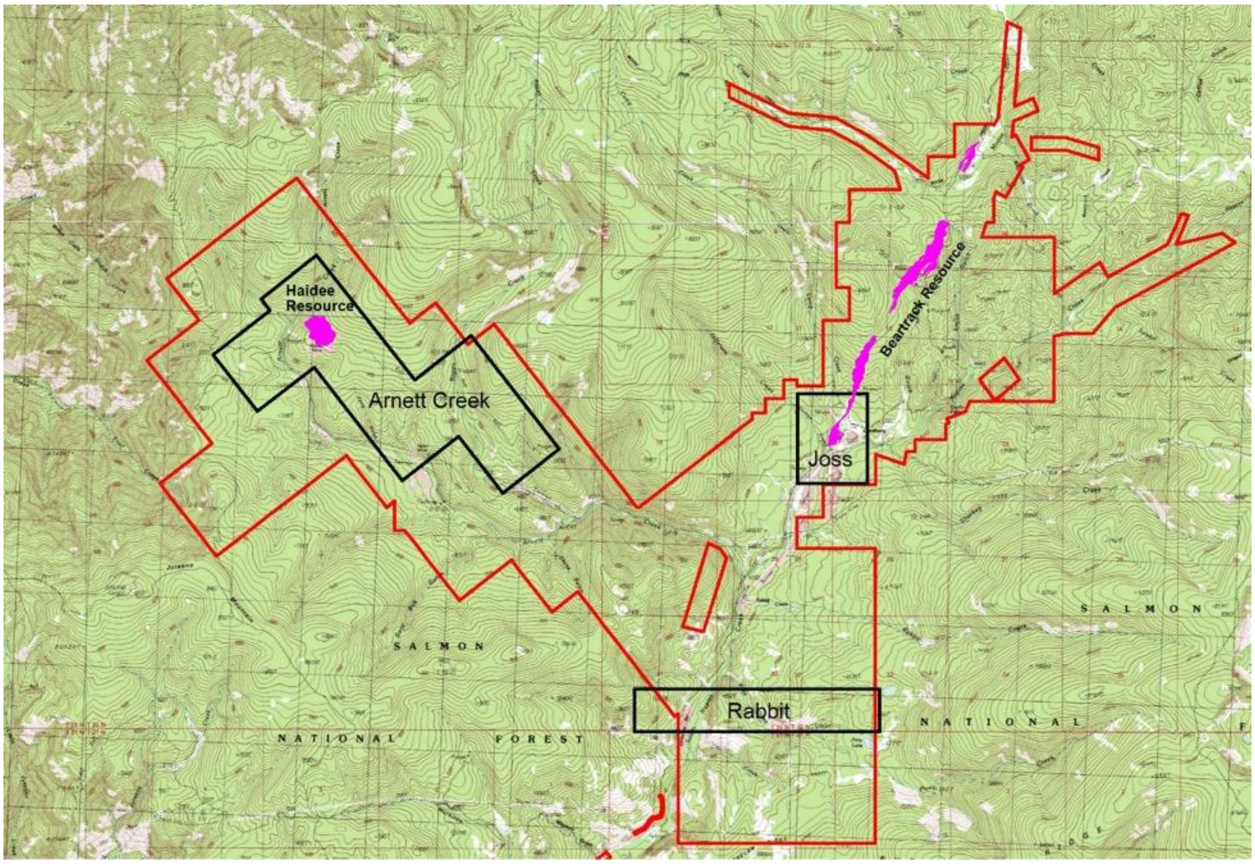
For Beartrack, resistivity data computed at 4,175 Hz is deeper than resistivity data computed at 33 kHz, with the maximum depth-of-penetration of helicopter-borne FDEM systems in the order of 325 ft (100 m). Since no coaxial coil data or identified conductors are included in the Revival archive, only resistivity data computed at 33 kHz and 4,175 Hz was incorporated for the Project.

Resistivity lows in the FDEM resistivity data at Beartrack were interpreted to be Tertiary volcanic rocks, although one FDEM resistivity low may represent clay alteration in the rapakivi granite. These units were interpreted to have a much broader areal extent than shown in the mapped geology and have not yet been fully investigated in the field.

9.1.3 Ground Geophysical Program

Approximately 85 line-km of IP-RES was completed in late 2020 across both the Beartrack and Arnett project areas (Figure 9-1). Field data were collected by Geofísica TMC, S.A. de C.V. based in Mazatlán, Sinaloa, Mexico and data were processed by Géophysique TMC based in Val-d'Or, Québec, Canada (Simard, 2020). The fieldwork took place between August 29, and October 7, 2020, and consisted of 7.0 line-km of IP-RES using the dipole-dipole electrode array, in addition to 78.0 line-km of IP-RES using the gradient array and completed over three distinct survey areas. The geophysical grid was established by Revival with each station locate by hand-held GPS and marked by a flag every 50 m and by a wooden picket every 100 m.

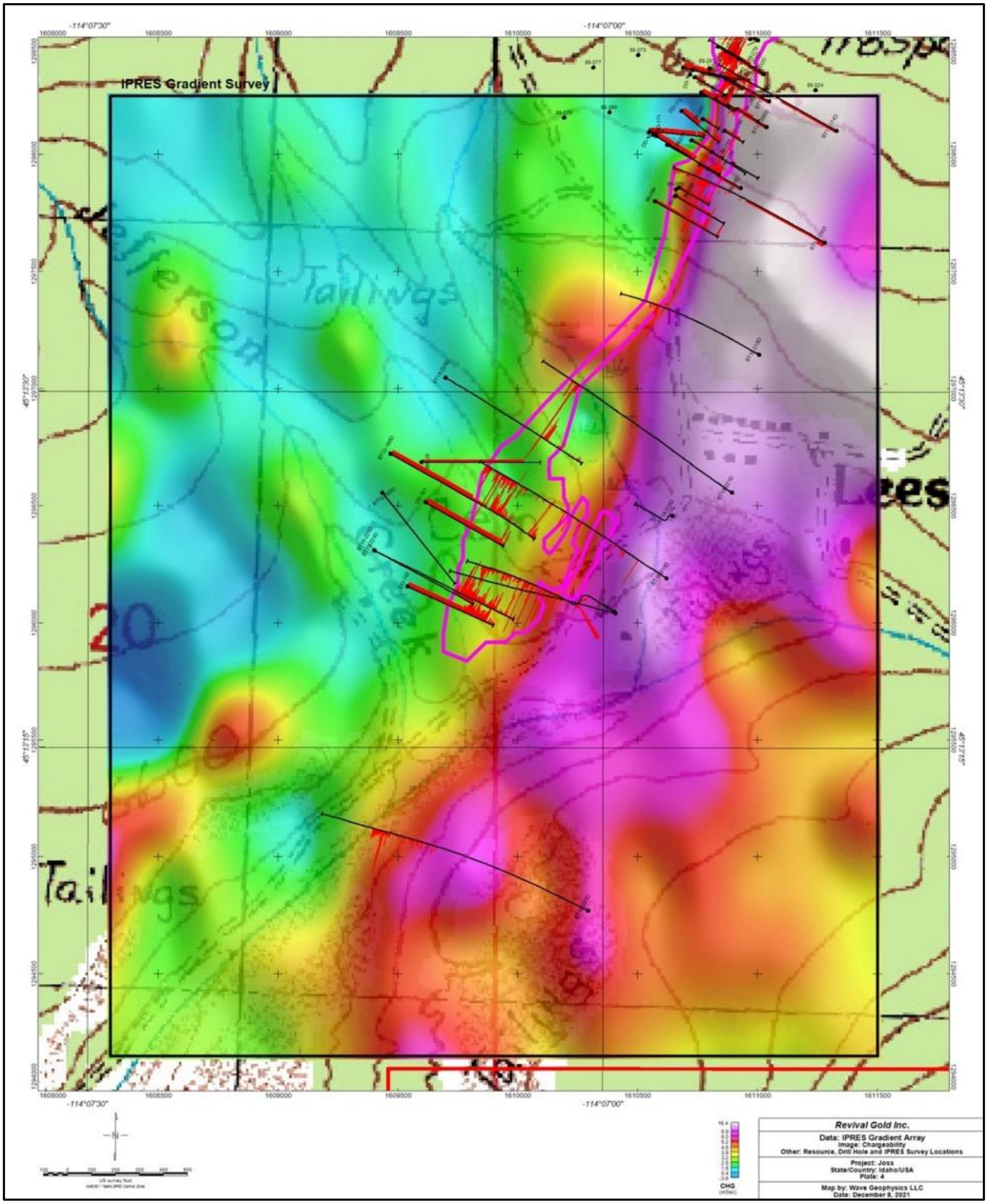
Figure 9-1: Beartrack-Arnett Gradient-Array IP-RES Program Limits



Source: Modified after Wave Geophysics, 2020.

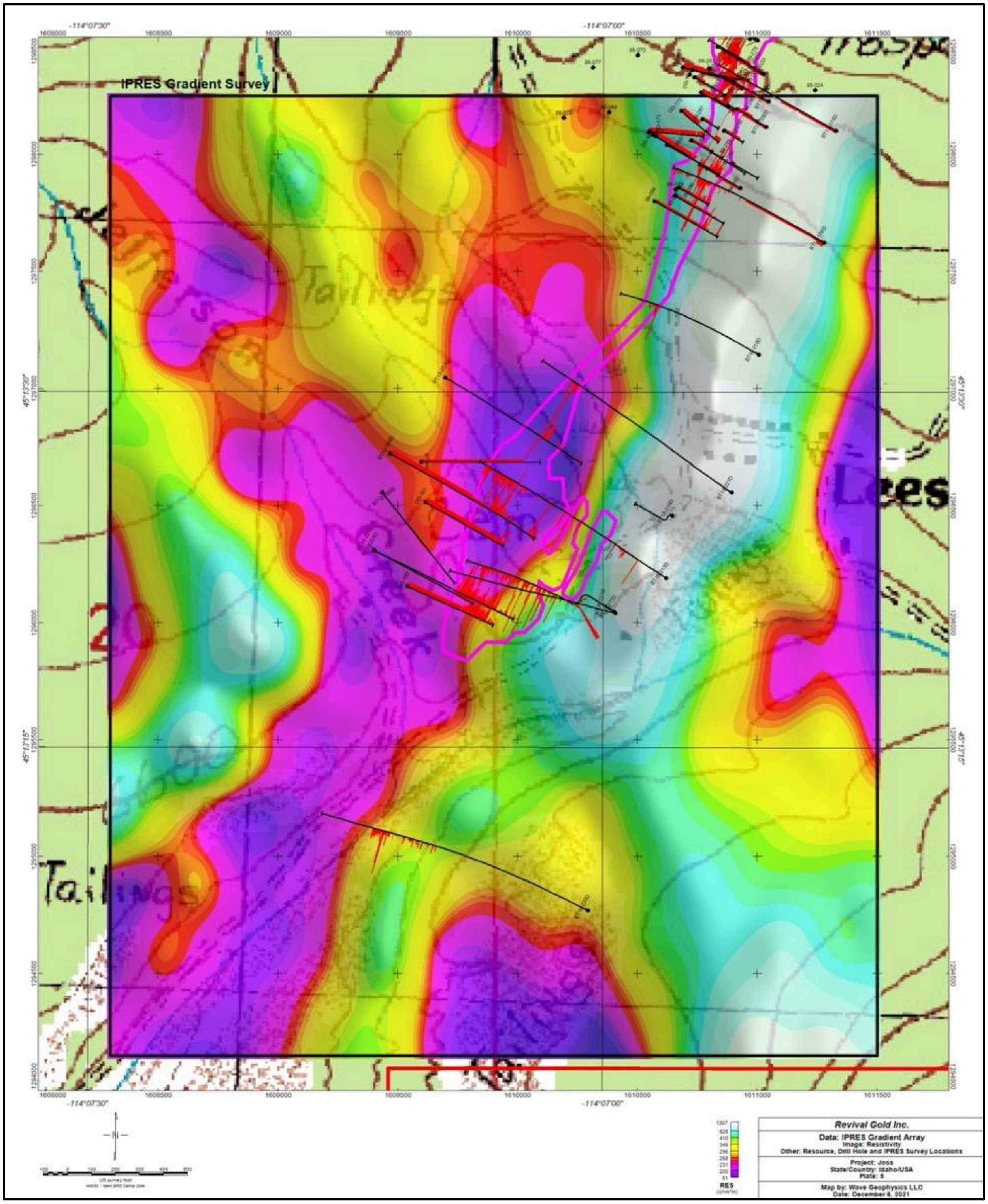
At Beartrack, approximately 13 line-km of gradient-array IP-RES was completed across the southern end of the Joss area and 7 line-km of dipole-dipole IP-RES over a magnetic low in the Rabbit area identified during the reprocessing of historical aeromagnetic data. The intention of the Beartrack IP-RES program was to clarify geologic relationships and aid in drill hole targeting. Gradient-array chargeability and resistivity maps of the Joss area are presented on Figure 9-2 and Figure 9-3, respectively and dipole-dipole pseudo-sections from the Rabbit area are presented on Figure 9-4 and Figure 9-5.

Figure 9-2: Joss Area IP-RES Gradient Array Chargeability Map



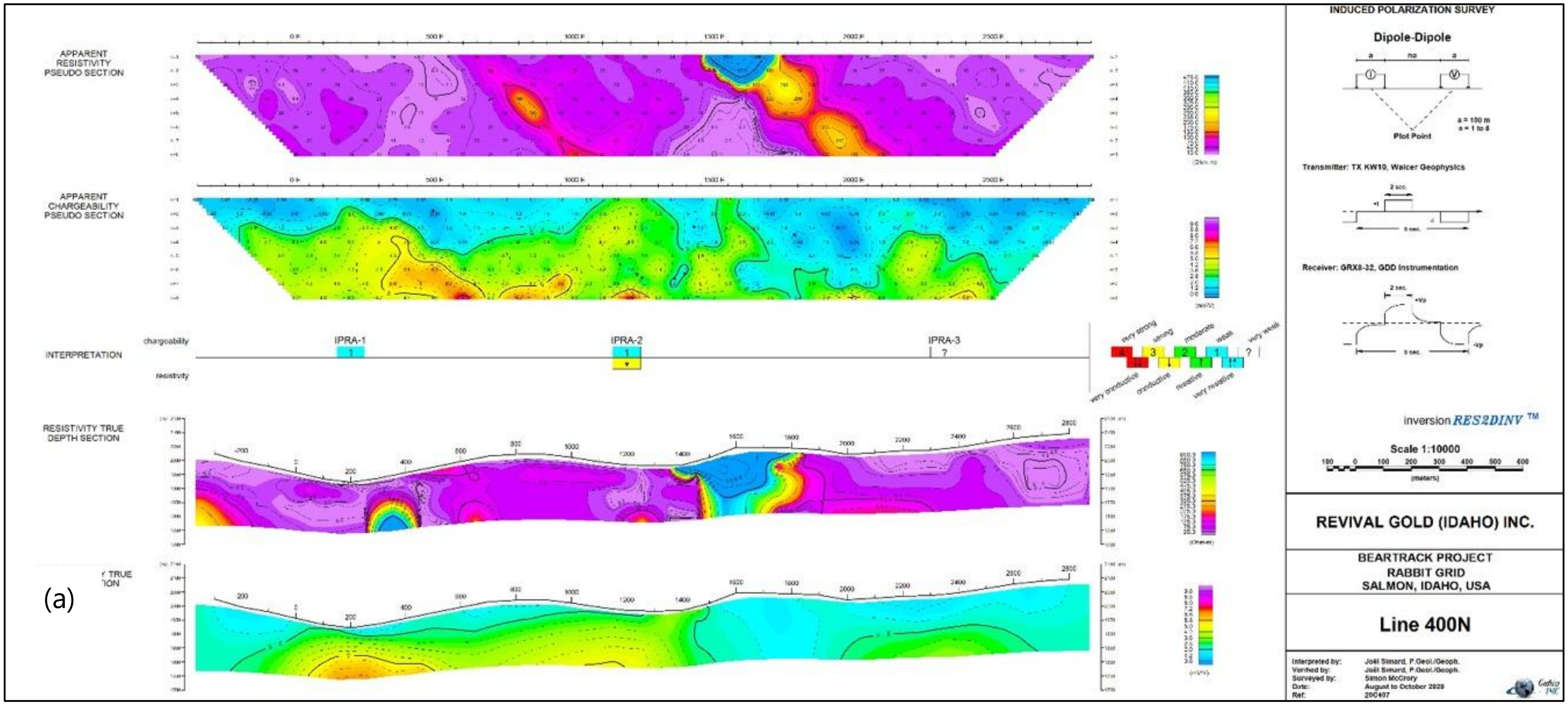
Source: Wave Geophysics LLC., 2021

Figure 9-3: Joss Area IP-RES Gradient Array Resistivity Map



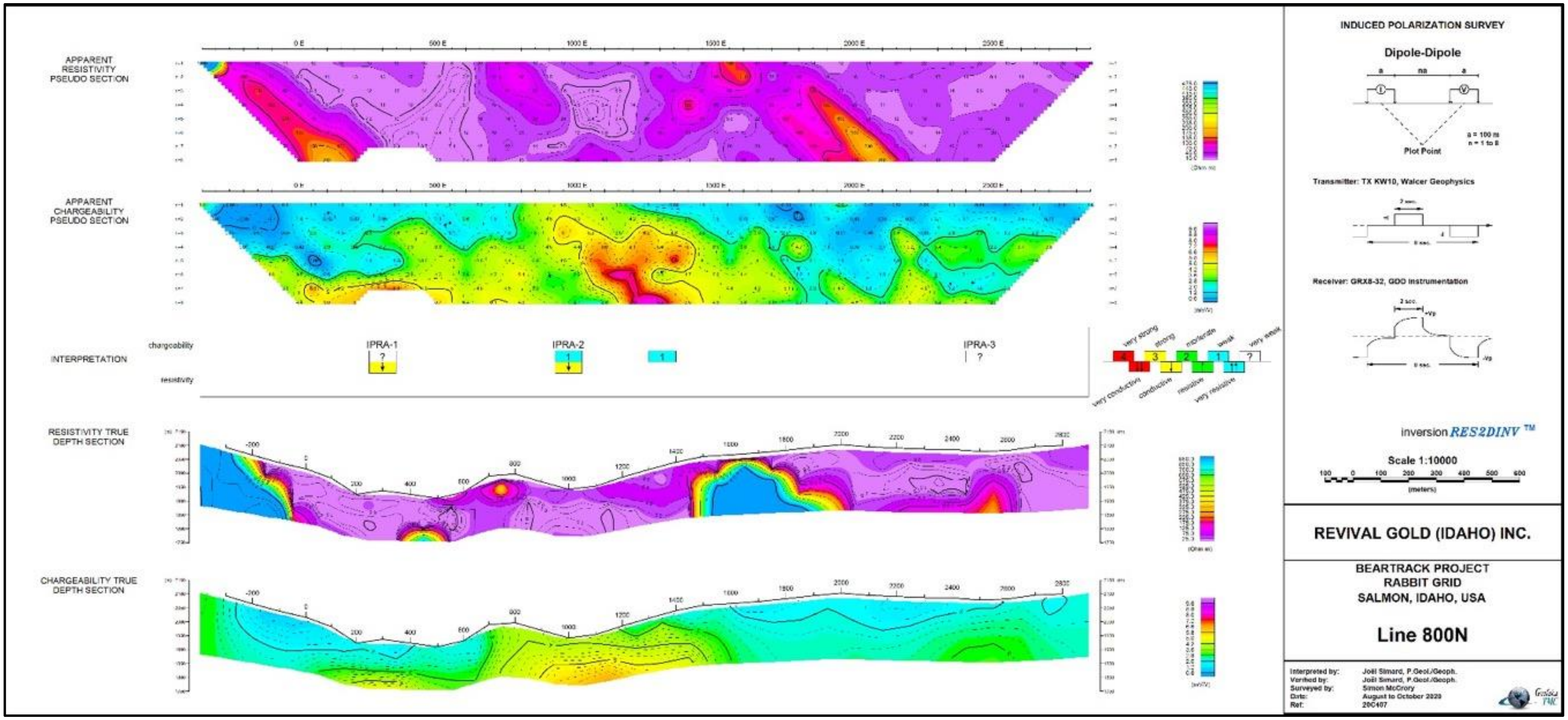
Source: Wave Geophysics LLC., 2021

Figure 9-4: Rabbit Area Resistivity and Dipole-Dipole Pseudo-Sections



Source: Géophysique TMC, 2020

Figure 9-5: Rabbit Area Resistivity and Dipole-Dipole Pseudo-Sections



Source: Géophysique TMC, 2020

The standard suite of data and map products in the deliverables are the following:

- IP-RES gradient blocks and lines
- IP-RES gradient chargeability data
- IP-RES gradient resistivity data
- IP-RES gradient metal factor data
- IP-RES gradient resistive-polarizable data
- IP-RES interpretation
- IP-RES dipole-dipole data and 2D section models for (a) Line 400 and (b) Line 800 (after Simard, 2020)
- 3D IP-RES volumes (a) chargeability voxel, (b) chargeability isosurfaces, (c) resistivity voxel, (d) resistivity isosurfaces, (e) metal factor voxel, (f) metal factor isosurfaces, (g) resistive-polarizable voxel, and (h) resistive-polarizable isosurfaces
- IP-RES dipole-dipole interpretation.

The Yellowjacket Formation unit is characterized by high chargeability, high resistivity and low magnetic susceptibility. Because physical properties of the rapakivi granite are similar to those of the Yellowjacket Formation, delineating contacts between these units is challenging. The Tertiary Challis Volcanics and associated epiclastic rocks are characterized by low chargeability, low resistivity, and low magnetic susceptibility. Delineating the PCSZ is crucial to understanding the mineral system at Joss. The geophysical datasets provide valuable information but lack sufficient resolution to precisely define the location of the PCSZ (Beasley, 2021).

Seven line-kilometres of dipole-dipole array IP-RES data were collected along two lines in the Rabbit area. Data pseudo-sections and 2D chargeability and resistivity model sections were generated by Géophysique TMC.

Rabbit geophysical signatures are dominated by low resistivity, low chargeability, and low magnetic susceptibility responses from the Challis Volcanic unit. An inlier of Yellowjacket Formation is distinctly characterized by high resistivity. Magnetic-destructive alteration along the Coiner Fault is characterized by low magnetic susceptibility. Interpreted Cambro-Ordovician syenite intrusions underlie portions of the Rabbit area.

IP-RES metal factor signatures and magnetite-destructive alteration along the Coiner Fault define a target where the 3D magnetic susceptibility model is cut away to expose the IP-RES metal factor volumes. The 3D metal factor is thought to be caused by brecciation and elevated sulfide content along the Coiner Fault. Two additional targets of lower priority were also identified (Beasley, 2021).

9.2 Arnett

9.2.1 Airborne Magnetics

On June 11 and 12, 2019, MPX conducted a helicopter-borne magnetic survey at Arnett. Details of the survey are provided in MPX Geophysics (2019) and Beasley (2019). The survey totalled approximately 404 line-km and covered approximately 36 km^2 (14 mi^2). Flight line orientation was 50° and the line spacing was 100 m (325 ft). Tie-line orientation was 140° and tie-line spacing was 1,000 m (3,280 ft). Helicopter altitude was 60 m (200 ft) and the towed-bird magnetometer altitude was 30 m (100 ft).

Magnetic data from the Arnett and historical Beartrack magnetic surveys were processed in a consistent manner. Both surveys required micro-levelling to remove line-to-line and crossline striping. Micro-levelling was performed on grid data through the application of de-corrugation filters that combine Butterworth and Directional Cosine filters with specified parameters. The micro-levelling operation was performed using Fast Fourier Transform methods in the MAGMAP module of Geosoft Montaj software.

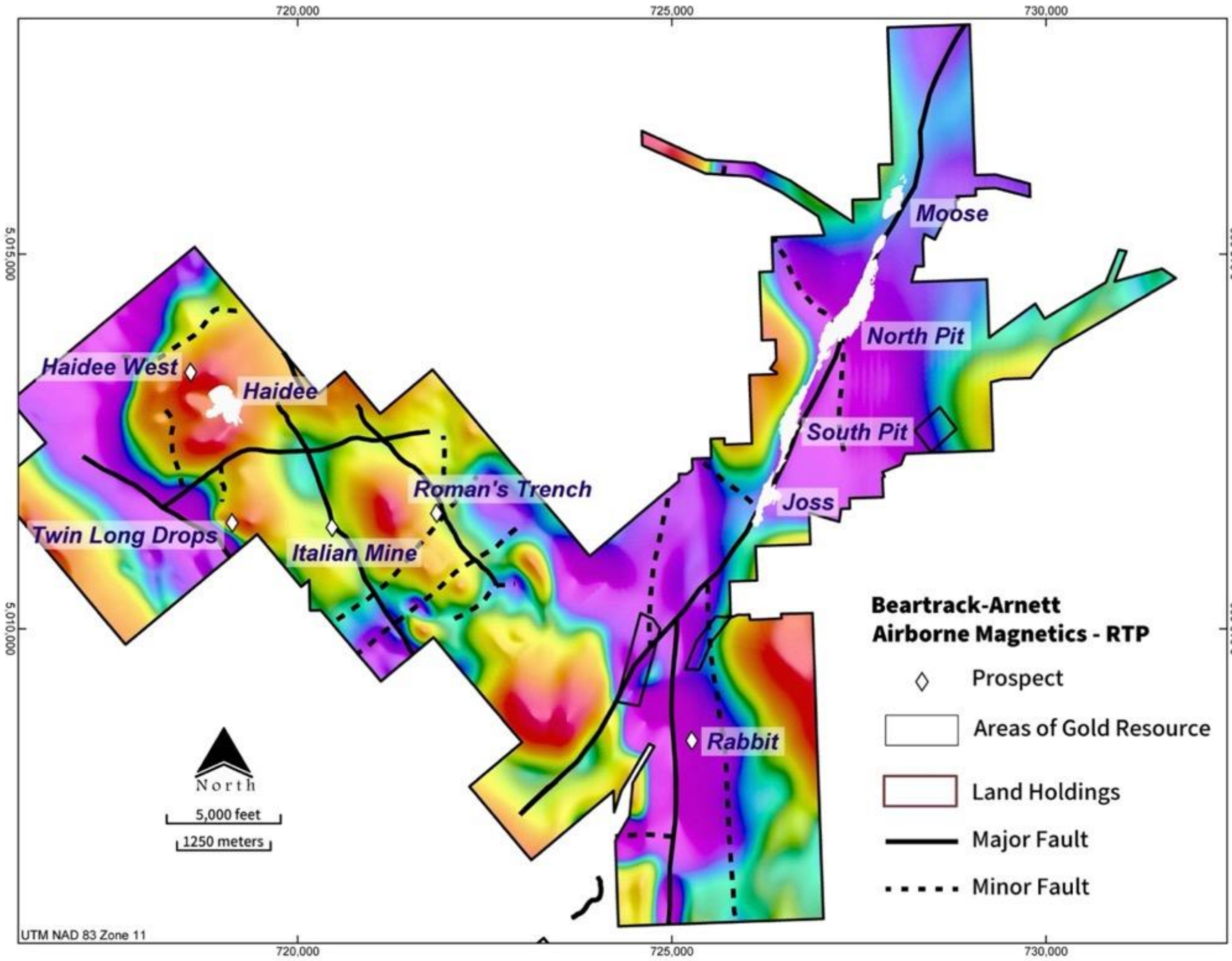
The standard suite of magnetic data and map products in the deliverables are the following:

- Total Magnetic Intensity (TMI) – base-station corrected measured data
- International Geomagnetic Reference Field (IGRF) – regional magnetic field
- Residual Magnetic Intensity (RMI) – TMI-IGRF data
- Reduced-to-Pole (RTP) – RTP of RMI data
- Reduced-to-Pole Vertical Derivative (RTP_dz) – vertical derivative of RTP data
- Reduced-to-Pole Tilt Derivative (RTP_dt) – tilt derivative of RTP data.

Lithologic units at the surface within the property areas possess low to very low magnetic susceptibilities, making them effectively magnetically transparent. As interpreted, the prominent magnetic highs are thought to be due to buried magnetic intrusions. The geophysics interpretation considers features evident in the various geophysical datasets to create the lithology, structure, and alteration interpretation. Cenozoic surficial deposits were excluded from the interpretation. In addition, the gold mineralization associated with the PCSZ is not directly detectable with the airborne geophysical data; hence the merged Beartrack-Arnett dataset interpretation is oriented toward geology rather than direct targeting.

Faults and buried intrusions were identified from the magnetic data (Figure 9-6). The PCSZ and the Coiner Fault have strong associated magnetic lows as do several other faults. In addition, several buried intrusions were identified, chiefly beneath the Haidee and Haidee West target areas, between Roman's Trench and the Italian mine, and near the intersection of the two claim blocks.

Figure 9-6: Beartrack-Arnett Airborne Magnetic Map – Reduced to Pole



Source: Revival, 2023

Four observations are directly relevant from an exploration point of view:

- The PCSZ does not appear to extend a significant distance to the southwest beyond the intersection between the PCSZ and the Coiner Fault.
- The PSCZ is a deep-seated structure, extending to the depth modelled.
- There is a buried intrusion beneath the Haidee and Haidee West areas.
- The magnetic low along the Coiner Fault south of the confluence of Arnett Creek with Napias Creek, which is similar to that along the mineralized section of the PCSZ, and the buried intrusion beneath the Haidee and Haidee West areas represent exploration targets.

- In addition to the 2D interpretation, a 3D magnetic susceptibility model was computed for a portion of the merged dataset. This 3D magnetic susceptibility model was computed using MAG3D, a program developed by the University of British Columbia Geophysical Inversion Facility (UBC-GIF). The 3D model shows that the intrusion beneath the Haidee area is approximately 300 m (1,000 ft) below the surface and that the magnetic low associated with the PCSZ extends to the depth of the model, or approximately 1,800 m (5,900 ft) below the surface.

9.2.2 Ground Geophysics

A gradient-array IP-RES program covering six square kilometers, or (65 line-kilometers (Figure 9-1), was completed at Arnett during 2020. The survey covered the area from the Haidee target to the Italian mine, Roman's Trench and the Shenon Gulch area, where several unexplained gold soil anomalies were identified in Revival Gold's 2019 soil sampling program.

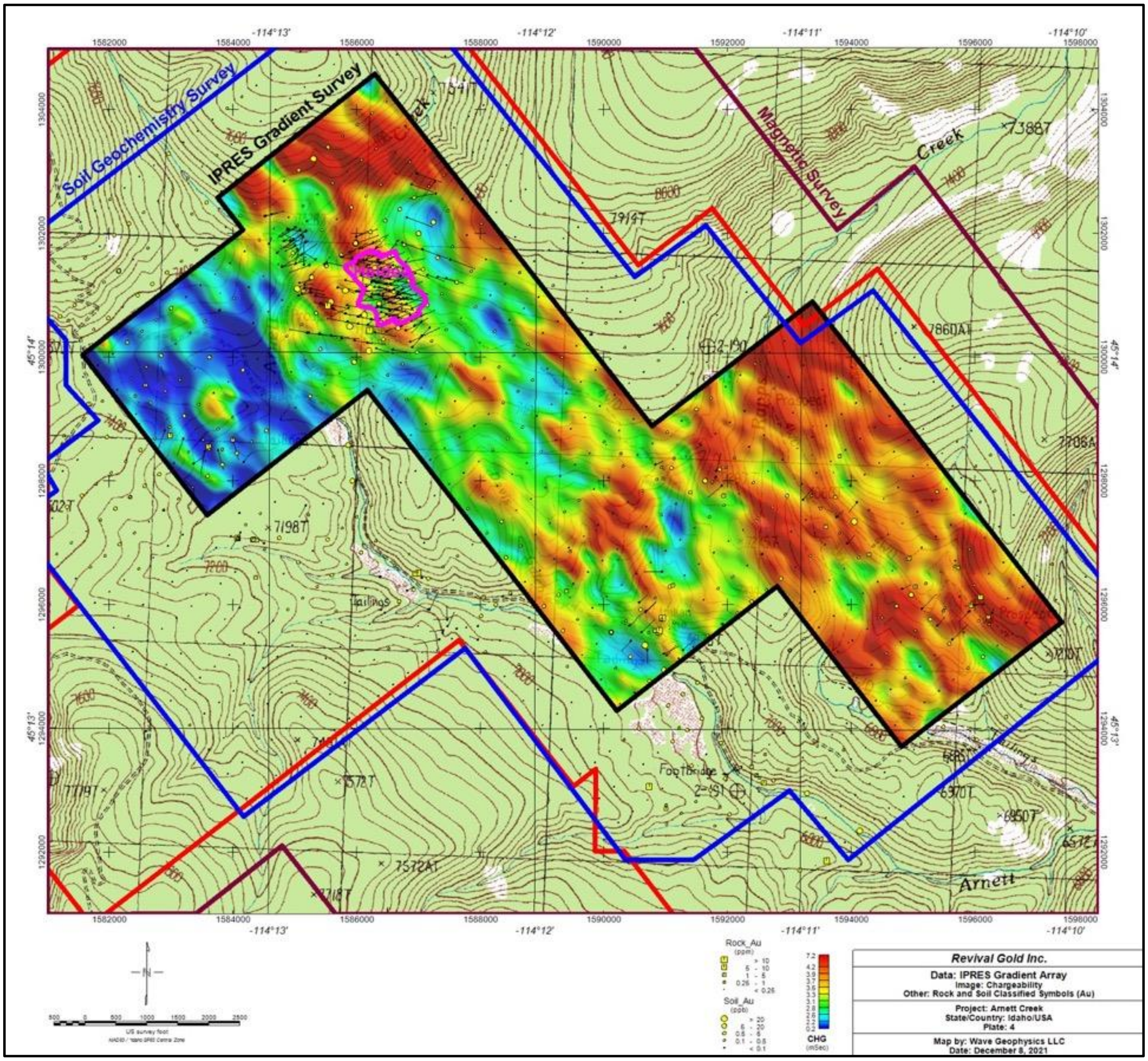
The standard suite of data and map products in the deliverables are the following:

- IP-RES gradient blocks and lines
- IP-RES gradient chargeability data
- IP-RES gradient resistivity data
- IP-RES gradient metal factor data
- IP-RES gradient resistive-polarizable data
- IP-RES interpretation.

The chargeability data ranges from 0.2-7.2 mSec, which are low amplitude and correspond to a low-sulfide environment and mineral system. Resistivity data ranges from 51-1945 ohm*m, which are consistent with rock types in the area. Chargeability and resistivity maps are shown on Figure 9-7 and Figure 9-8, respectively.

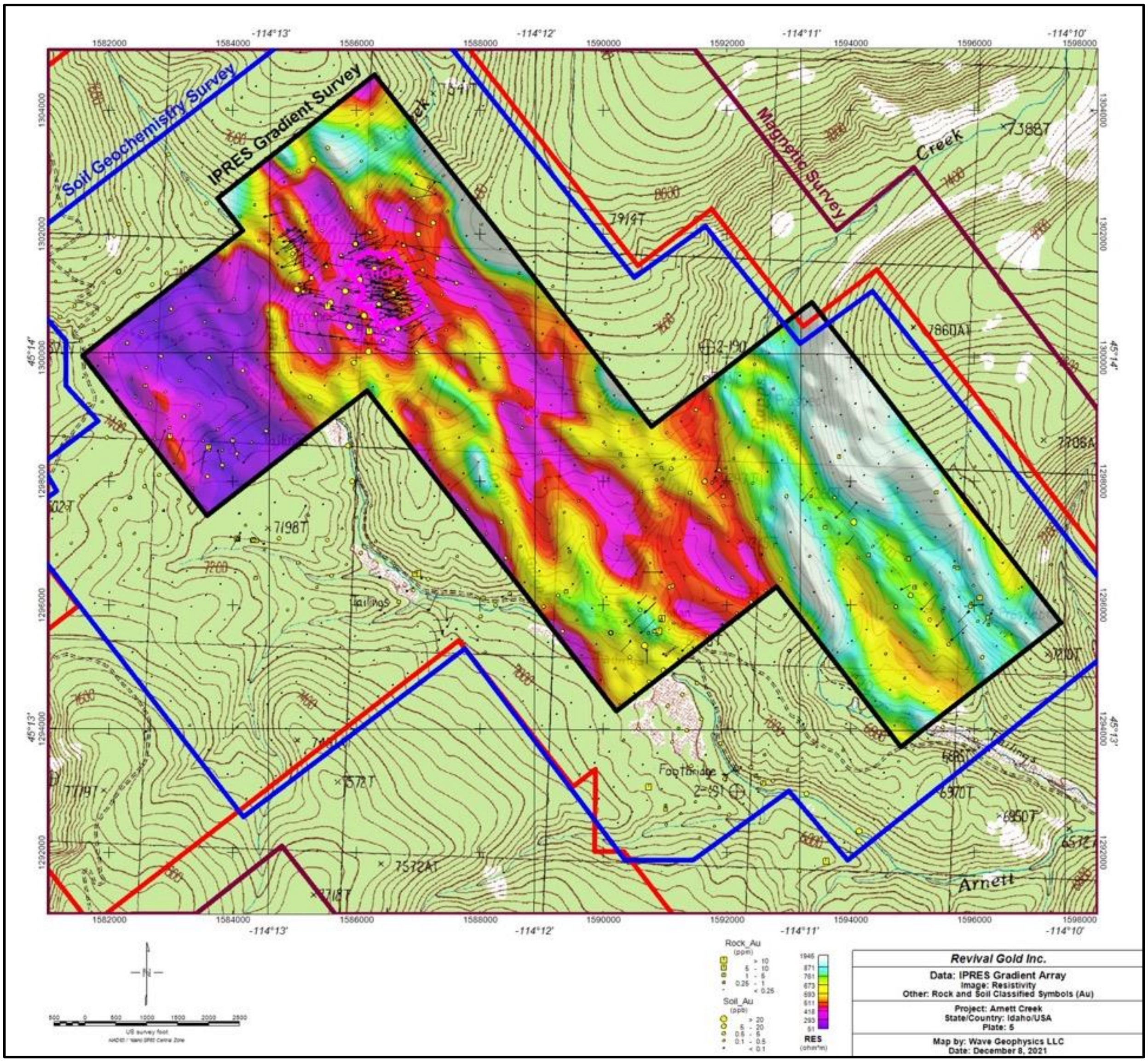
The available geological, geochemical, drill hole, magnetic and IP-RES data and model products were utilized to produce an integrated interpretation and generate targets. Magnetic and IP-RES products were utilized to interpret lithology and structure. Interpreted lithology and structure consider Revival geologic mapping, but not all mapped features are evident in the geophysical data. Conversely, not all interpreted features are evident in geologic mapping. Lithologic classification was performed through correlation of mapped geologic units and geophysical parameters. None of the targets have been drill tested.

Figure 9-7: Arnett Area IP-RES Gradient Array Chargeability Map



<u>Source:</u> Wave Geophysics LLC., 2021

Figure 9-8: Arnett Area IP-RES Gradient Array Resistivity Map



Source: Wave Geophysics LLC., 2021

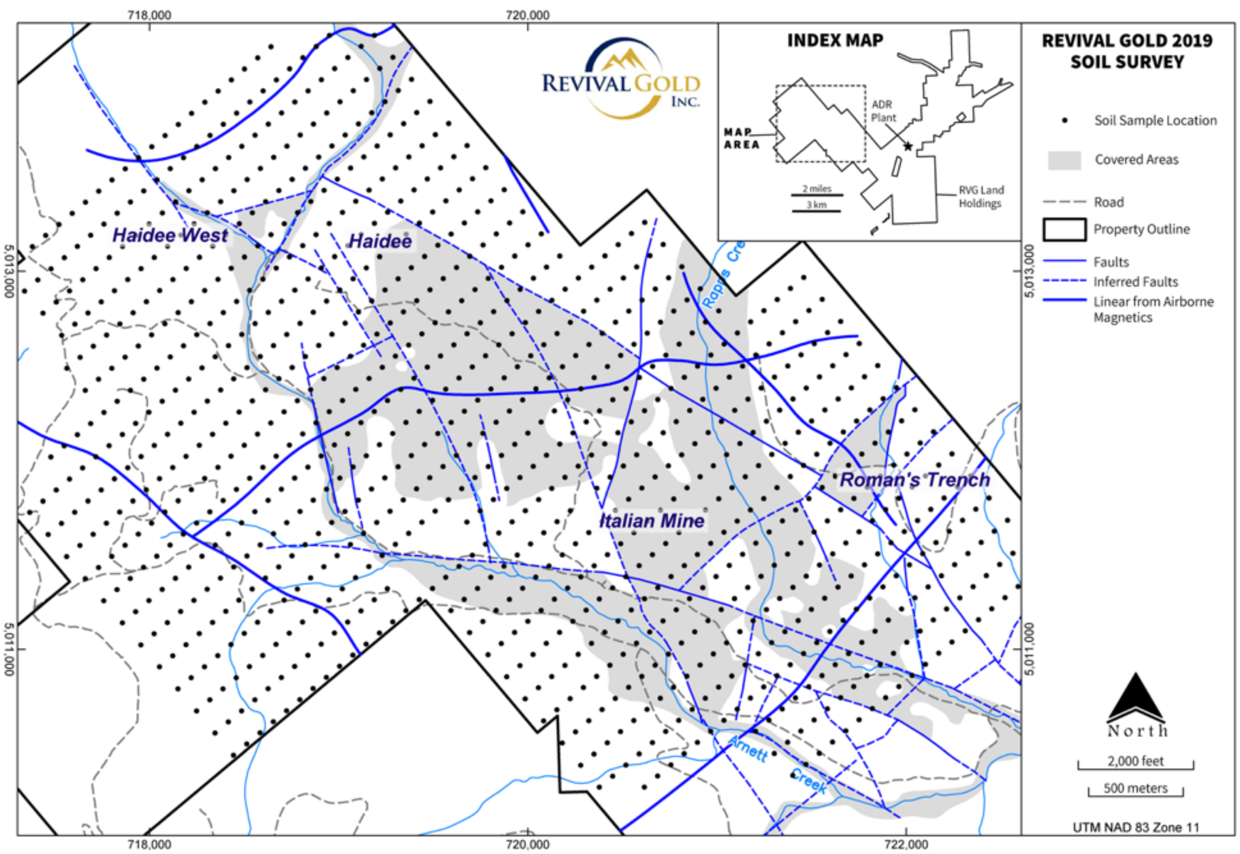
9.2.3 Geologic Mapping

In order to better understand the geology of the Arnett property, in 2019 and 2020, Revival undertook a geologic mapping program over much of Arnett. The intention of the geologic mapping was to understand structure and alteration across Arnett as well as to define the limits of Cenozoic post-mineral cover. Mapping was done at a scale of 1:10,000. One observation of relevance for exploration is the wide-spread nature of float of the Yellowjacket Formation, which is thought to be from Tertiary epiclastic rocks. The lack of exposure on the property led to the decision to conduct soil sampling using a partial leach.

9.2.4 Soil Sampling

Revival's 2019 soil sample program began with an orientation survey consisting of 23 soil samples extending from an area thought to be covered by post-mineral cover into an area of residual soils. The concept was to submit the samples to ALS Global in Elko, Nevada and see how the results compared across soil types. Samples were analyzed by aqua regia digestion with super trace ICP-MS analysis (code ME-MS41LTM) and their IonicLeach™, which is a static sodium cyanide leach using the chelating agents ammonium chloride, citric acid and EDTA with the leachant buffered at an alkaline pH of 8.5 (code ME-MS23TM). Although both methods yielded potentially useable results, the samples analyzed by the IonicLeach™ were slightly better, so this method was selected for the full soil sampling program.

Figure 9-9: Arnett Area Soil Sampling Location Map



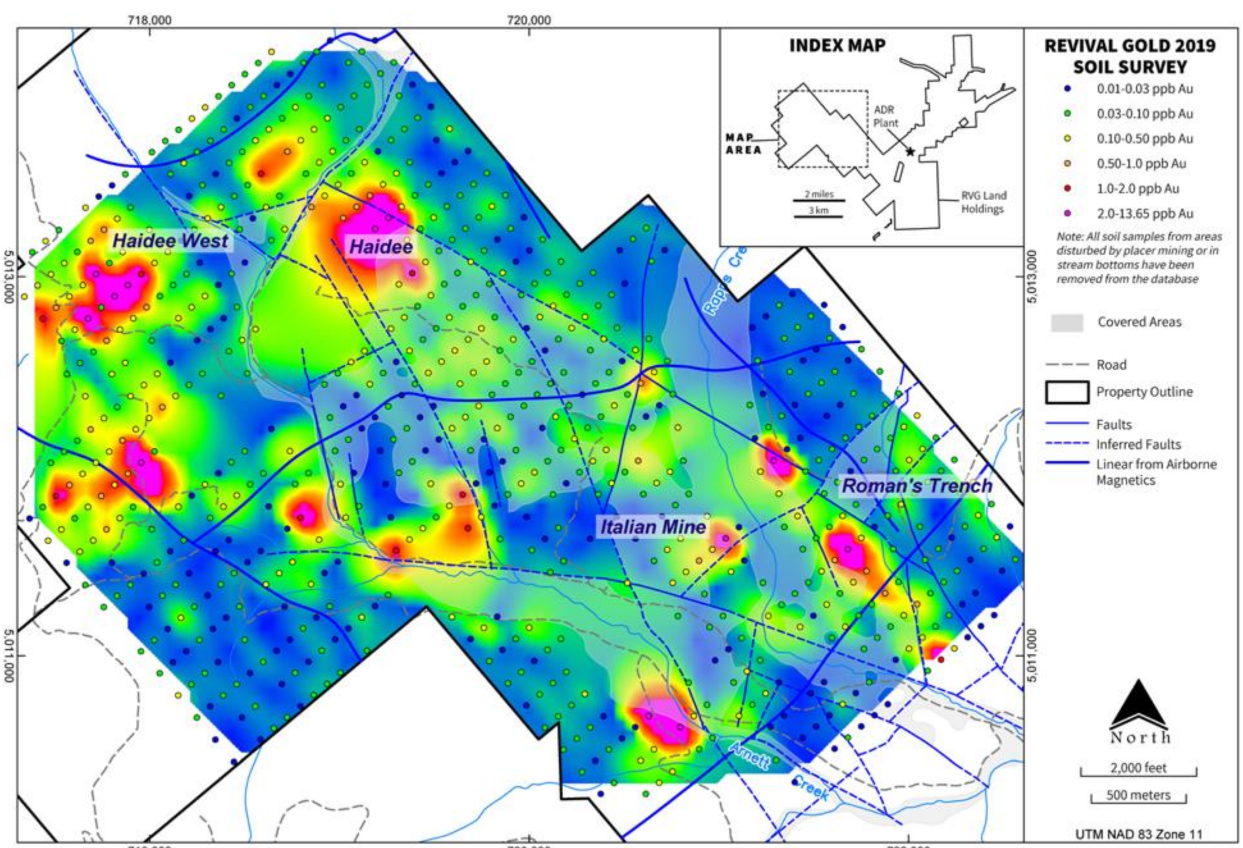
Source: Revival, 2019

The full soil sampling program consisted of 971 samples collected on a 150 m x 100 m (490 ft x 325 ft) grid over 12 km^2 (4.6 mi^2) (Figure 9-9). Samples were collected from the A horizon immediately below the layer of organic material and submitted to ALS Global for IonicLeach™, to enable identification of subtle anomalies under post-mineral cover. Duplicates and standards were inserted into the sample stream for QAQC purposes, but the standards did not prove to be useful due to the partial leach method. Duplicate samples adequately reflected the values of the original sample.

For data processing, samples were divided into four populations based on the nature of the soils that were sampled: residual soils developed over bedrock, soils developed over Tertiary epiclastic rocks, soils disturbed by historical mining activity and soils in active stream bottoms. Each area could potentially yield different mean and anomalous values.

As expected, areas disturbed by historical mining activity and active stream bottoms yielded the highest values. Samples in those areas were removed from the data for processing so as not to unduly influence statistics. With the removal of the samples in areas of disturbed or transported soils, several gold anomalies emerge (Figure 9-10).

Figure 9-10: Arnett Area Soil Sampling Gold



Source: Revival, 2019

Strong anomalies are present immediately northeast of the known Haidee resource in an area thought to be covered by Tertiary epiclastic rocks, in the Roman's Trench area, in the Twin Long

Drops area south of Haidee and, west and southwest of the Haidee area just below the ridge. At least two subtle, northwest-trending anomalies occur to the south and southeast of Haidee in the covered area known as the Midlands. Several of the anomalies are near the intersections of mapped structures or structures inferred from airborne magnetics. These anomalies will be examined on the ground in the coming field season and explored as appropriate.

9.3 Exploration Potential

9.3.1 Beartrack

In addition to the areas described above, there are other known targets on the Beartrack property: Joss, Moose, the areas between Ward's Gulch and the South Pit (Independence area), the PCSZ-Coiner Fault intersection and Rabbit. The Moose area has only been drill tested by RC drilling. Of the remaining areas, Joss has seen the most drilling followed by the area between Ward's Gulch and the South Pit, and the South Pit and Joss. Areas with the greatest potential to expand resources at Beartrack are Joss and Moose. The Rabbit target is a conceptual exploration target developed around the projected intersection of the PCSZ and the Coiner Fault. This area has seen limited drilling and has not been adequately tested.

9.3.1.1 *Joss Area*

Potential exists to expand the Mineral Resource in the Joss area at depth and along strike in both directions. Hole BT18-220D was drilled approximately 250 m (820 ft) south of Joss and intersected 1.79 g/T Au over a 38.8 m (127 ft) drilled width from 457 m to 496 m (1,500 ft to 1,627 ft) down hole. This interval included 8.84 g/T Au over a 3.0 m (10 ft) drilled width from 471 m to 474 m (1,545 ft to 1,555 ft) down hole.

Core hole BT21-239DB was drilled approximately 400-m south of the southern-most drillhole in the Joss area (BT18-220D). This hole intersected a zone of fracture-controlled sericite alteration and geochemical analysis of the altered Yellowjacket Formation confirmed the presence of weakly anomalous gold and arsenic values. However, the hole unexpectedly encountered a post-mineral fault that may have displaced the continuation of Joss mineralization, as suggested by the anomalous geochemistry, in this area. While the direction and amount of displacement is unknown at this time, this is an encouraging result that suggests mineralization may extend beyond current drilling.

9.3.1.2 *Independence Area*

Five core holes were drilled in the Independence area, between Ward's Gulch and South Pit in the central Beartrack area, and successfully confirmed the continuity of the mineralized structure over 400 m to 600 m of strike in this previously untested area. Mineralization in this area is lower in grade and geochemically distinct from other mineralization at Beartrack but each of the five holes intersected gold mineralization, which remains open at depth.

9.3.1.3 *Moose Area*

The Moose area is located north of the North Pit in the Moose Creek drainage and measures approximately 1,100 m (3,600 ft) in length, 15 m to 120 m (50 ft to 390 ft) in width and extends to depths of at least 150 m (490 ft). Gold mineralization occurs primarily in the rapakivi granite as a series of quartz-pyrite-arsenopyrite stockwork veinlets. To the north end of the deposit, the mineralization diverges from the PCSZ-Yellowjacket contact, and is completely hosted by the quartz monzonite. Due to extensive glaciation, only 5 m to 20 m (16 ft to 65 ft) of oxide mineralization has been preserved in the Moose area.

9.3.1.4 *Rabbit Target*

The Rabbit area is located south of the Joss area near the projected intersection of the PCSZ and the Coiner Fault. The intersection of the two structures is the primary target; however, targets also exist along strike on both structures for approximately 400 m (1,300 ft) along the Coiner Fault and 330 m (1,080 ft) along the interpreted extension of the PCSZ.

In 2020, three core holes were drilled at Rabbit, approximately 2 to 3 km south of the footprint of the existing Beartrack mineral resource. Difficult drilling conditions limited the 2020 program at Rabbit; however, one hole, BT20-234D, intersected fracture-controlled sericite alteration with associated weakly anomalous trace elements, including weakly anomalous gold, that mirror the signature of mineralization at Beartrack. The results are encouraging and warrant follow-up drilling.

9.3.1.5 *Deep Sulfide Potential*

Sulfide mineralization has been drill tested at depth beneath South Pit, the Ward's Gulch area at the south end of the North Pit, and in the Joss area. This mineralization has been tested on a limited basis; however, given the nature of lode or shear zone-hosted gold deposits, there is no indication that gold mineralization does not extend to depth.

Deep sulfide mineralization is similar in nature to the shallower sulfide mineralization encountered below oxidized mineralization in the North and South pit areas. Table 9-1 shows some of the higher-grade sulfide intersections encountered by Meridian and Revival. As is the case with near-surface oxide mineralization, most of these intersections are surrounded by broader intersections of low-grade mineralization. It is clear that higher-grades are present within the Beartrack system; however, due to the wide-spaced nature of deep drilling at Beartrack, these intervals are isolated.

The presence of higher grades at Joss suggests that the potential for narrow vein and bulk underground mining and milling may exist at Beartrack.

Table 9-1: Selected Deep Sulfide Intersections – Beartrack

Area	Hole No.	From (m)	To (m)	Drilled Width (m)	Au Grade (g/T)	Drill Type	Azimuth	Dip	Assay Type
Ward's Gulch	BT12-175D	504.0	513.7	9.7	70.90	DD	121	-61	Fire Assay
	BT12-184D	440.1	445.5	6.3	3.52	DD	302	-54	Fire Assay
	DD-131	133.5	159.1	25.6	7.62	DD	119	-60	Fire Assay
	including	137.2	151.2	13.7	12.84	DD			
	BT12-176D	308.2	313.0	4.8	9.38	DD	302	-55	Fire Assay
South Pit	BT12-179AD	671.2	677.9	6.7	5.45	DD	124	-68	Fire Assay
	BT19-219D	574.3	575.5	1.2	9.17	DD	300	-49	Fire Assay
	DD-162	184.4	189.0	4.6	5.24	DD	115	-60	Fire Assay
	BT12-186D	358.9	370.0	12.8	3.91	DD	120	-65	Fire Assay
	including	367.0	369.0	2.3	5.57	DD			
Joss	BT18-220D	471.2	474.3	3.1	8.84	DD	297	-49	Fire Assay
	BT19-224D	235.9	258.2	22.2	4.43	DD	115	-57	Fire Assay
	including	237.2	248.3	11.1	5.77	DD			
	BT19-225D	347.3	351.7	4.4	4.24	DD	119	-64	Fire Assay
	BT20-227D	352.3	396.2	43.9	2.41	DD	283	-59	Fire Assay
	including	383.1	387.0	3.9	6.84	DD			
	BT21-240D	371.7	482.9	110.6	4.34	DD	318	-61	Fire Assay
	including	441.4	455.1	13.7	11.96	DD			

Notes:
1. Original drill data is in Imperial units, which were converted to metric units. Numbers may not add up due to rounding.
2. Detailed explanations on the sample preparation, analysis and laboratory used for the reported results can be found in Section 11.

It should be noted however, that Revival's two offset holes around the high-grade intersection in hole BT12-175D did not duplicate the high-grades encountered (holes BT17-194DB and BT17-199D were drilled as offsets to hole BT12-175D). The structure was intersected as expected but the high grades were not duplicated. Nonetheless, given the nature of these intersections and the known continuity of lode or shear zone-hosted gold deposits to depth, additional drilling to test these areas is warranted.

9.3.2 Arnett

There are several known targets on the Arnett property. Much of the exploration potential lies in areas that are covered by younger sediments and/or dense forest and this cover has acted as an impediment to exploration and potential discovery. Two broad target areas are each known to host several gold prospects; the Northern Contact Zone and the Arnett Creek Lineament. Although the exact nature of these zones, or lineaments, is unknown, known mineralized prospects align along them. Targets within these two linear features are described in general below and in detail in reports by AGR (1991, 1993, and 1995).

9.3.2.1 *The Northern Contact Zone*

The Northern Contact Zone is generally located south of the northern contact between the Arnett Intrusive Complex and the older metasedimentary rocks of the Belt Supergroup. The potential target area has a strike length of approximately 3 km. The area extends from the Haidee West through the Haidee, Midlands, North Italian, and Roman's Trench areas.

Outside the Haidee and Haidee West areas, the most interesting target in this trend is Roman's Trench. At Roman's Trench mineralization appears to follow a west-northwest-trending structure (or structures) for approximately 1,500 m (4,920 ft). Although controls on mineralization are not well understood, several structural elements intersect in this area including northwest-, northeast- and north-south-trending structures. In 1990, eight RC drill holes targeted the Roman's Trench. Revival has collected numerous anomalous rock samples from dumps and has mapped potassic alteration in the area.

9.3.2.2 *The Arnett Creek Lineament*

The Arnett Creek Lineament is a loosely defined zone that follows Arnett Creek for approximately 5 km. The presence of gold mineralization has been established from the Shenon Gulch and Porcupine areas in the west through the Twin Long Drops, South Arnett Creek, and Thompson-Hibbs areas to the Italian mine, Musgrove Bar, and the Stuckey workings in the east. Unfortunately, since the Arnett Creek Lineament forms a topographic low, there is little exposure along this trend. Numerous placer gold occurrences are found along this trend including those at Shenon Gulch, Porcupine, and Musgrove Bar. These placers appear to be related to a terrace of Tertiary epiclastic rocks on the south side of Arnett Creek.

The style of mineralization in the Arnett Creek Lineament is slightly different from that in the Northern Contact Zone. Although mineralization tends to be higher-grade, at least from dump samples, the alteration is more clearly fracture controlled. Secondary, grey potassium feldspar is common as is the oxidation of magnetite to specularite. At the Italian mine and Thompson-Hibbs, mineralization is hosted by the alkali granite of the Arnett Pluton.

9.3.2.3 *Gold Bug Gulch*

Anomalous rock samples and historical mine working occur in the Gold Bug Gulch area. The orientation of mine workings, and northeast-trending linear features observed in topography suggest that mineralization in this area could be related to the PCSZ, rather than structures at Arnett.

10.0 DRILLING

10.1 Introduction

RC drilling and DD are the principal methods of exploration on the Project. Drilling completed by Revival is summarized in Table 10-1.

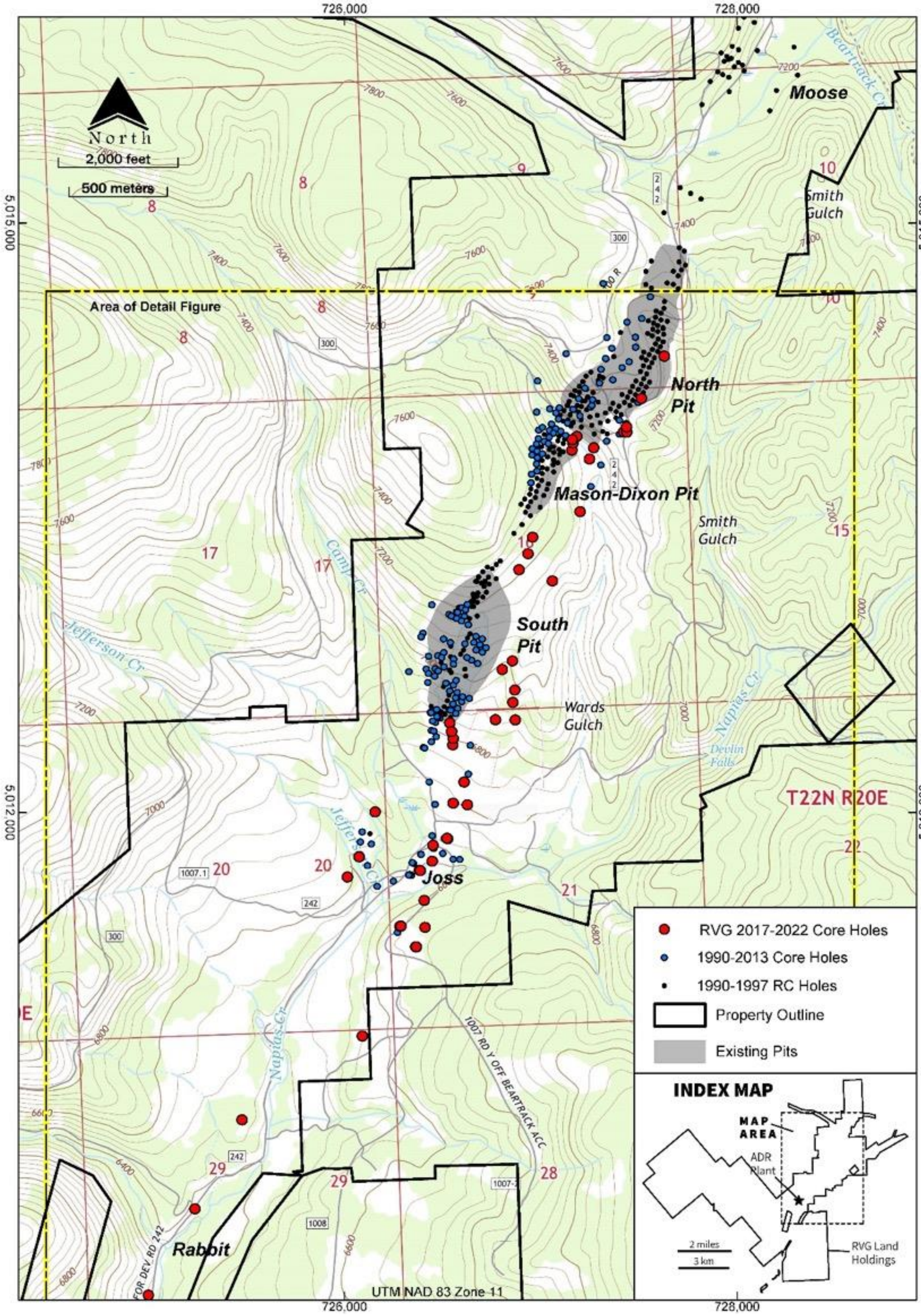
Revival began drilling at Beartrack in 2017 and at Arnett in 2018. Revival's drilling programs for Beartrack focused on increasing the Mineral Resources and testing the sulfide mineralization along strike and at depth. Revival's drilling programs at Arnett focused on confirming the presence of mineralization and expanding the mineralized footprint in the Haidee area.

Locations of drill collars for the 2017 to 2022 Revival programs are shown on Figure 10-1 (Beartrack) and Figure 10-2 (Arnett). The Revival drilling programs have been generally conducted from late March to early October. The drilling data presented has been converted from its original imperial units to metric units for the purposes of this Report.

Table 10-1: Revival Gold Drilling Programs

Deposit	Year	Company	Drilling Type	Number of Holes	Metres Drilled (m)
Beartrack	2017	Revival	DD	15	3,024
	2018	Revival	DD	16	7,627
	2019	Revival	DD	3	1,232
	2020	Revival	DD	10	3,518
	2021	Revival	DD	5	2,376
	2022	Revival	DD	7	2,589
Totals				**56**	**20,366**
Arnett	2018	Revival	DD	6	932
	2019	Revival	DD	22	3,826
	2020	Revival	DD	30	4,929
	2021	Revival	DD	15	2,502
	2022	Revival	DD	18	2,883
Totals				**91**	**15,072**
Grand Totals				**147**	**35,438**

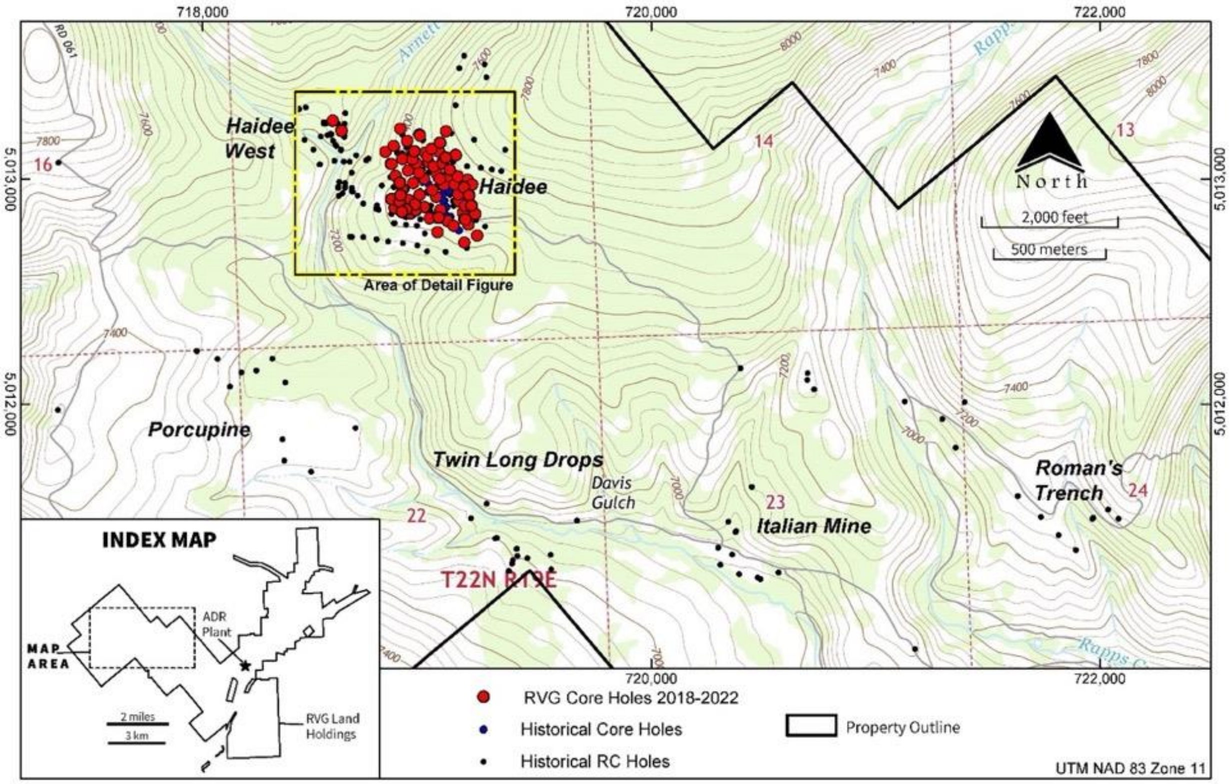
Figure 10-1: Beartrack Drilling Location Map



Source: Revival, 2022

Note: RVG – Revival

Figure 10-2: Arnett Drilling Location Map



Source: Revival, 2022
Note: RVG – Revival

10.2 Beartrack

10.2.1 Drill Methods and Programs

Drilling completed prior to Revival's acquisition of the Project is discussed in Section 6 of this Report.

10.2.1.1 *Canyon Resources Corporation*

Drilling began on the Beartrack property in 1987 when Canyon completed nine RC drill holes in the North deposit. None of the Canyon drilling data were used to estimate Mineral Resources that are the subject of this Report.

10.2.1.2 *Meridian Minerals Company*

Meridian conducted drilling on the Beartrack property from 1988 to 2013. The drilling completed by Meridian at Beartrack eventually led to a production decision, resulting in much of the shallow drilling performed by Meridian being mined out.

The trajectory of all drill core holes was determined during drilling using a downhole survey instrument. All azimuth readings were corrected for magnetic declination. No downhole surveys were conducted on RC holes.

Collar locations for holes drilled before 1994, were located with respect to the Base Line and drill laterals using bearing and distance as determined by tape. Once located by this method, locations were converted to Mine Grid coordinates. Holes drilled after 1994, were surveyed and locations were converted to Mine Grid coordinates. From 1988 through 1997, DDs have a naming convention with the prefix DD followed by the number of the drill hole. Beginning in 2012, the naming convention changed to BT, denoting Beartrack, followed by two digits representing the year and the number of the drill hole. Revival has continued with this naming convention.

10.2.1.2.1 Drilling Sampling Methods Study

In 1990 Meridian began a comparative study of sampling methods for RC and DD (Meridian Gold, 1990). Two sampling methods for RC drilling were examined and compared to results from core holes.

10.2.1.2.2 Reverse Circulation Drilling Sampling Methods

When RC drilling above the water table under dry conditions, the samples were discharged from the sample return hose and sent into a cyclone designed to slow down the rapidly moving mixture of air, rock chips, and fines (dust). The sample was retained in the cyclone until the drilled interval was complete and then passed through a dry splitter and reduced into assay and metallurgical splits. Some loss of fines occurred during the process as unrecovered dust; however, the volume by weight was small and not considered significant.

When RC drilling under wet conditions, a sample slurry composed of air, water, rock chips, and suspended fines exited the cyclone continuously into one of two types of wet splitters: a cone splitter or a rotating vane splitter. The sample obtained from the wet splitter was further divided into two equal splits using a “Y” splitter. One split, called a bucket sample, captured 100% of the sample slurry in as many 19-litre (5 gallon) buckets as necessary to capture the entire portion of the sample split for each 1.5 m (5 ft) interval. The number of buckets used ranged from 0.5 to 31 buckets. The slurry was flocculated in the buckets, the clear liquid decanted, and the solid portion of all samples combined into one bucket.

The second split, referred to as the pan sample, was collected in a steel pan capable of holding approximately 9 litres (2 gallons) of sample slurry. If the sample volume exceeded the volume of the steel pan, the slurry was allowed to overflow the pan. Two samples, one for assay and one for metallurgical testing, were taken from the pan and placed into sample bags.

10.2.1.2.3Diamond Drilling Sampling Methods

All core holes recovered HQ-diameter core measuring 63.5 mm (2.5 inches) in diameter. Core recoveries up to the time the sampling study report was written in 1990 averaged over 84% with the poorest recovery in hydrothermal breccia, bull quartz, and fault zones. All core samples were split longitudinally into two halves using a hydraulic core splitter, with one half (approximately 50% by volume) of the core placed in a sample sack for assay and the remaining half returned to the core box.

10.2.1.2.4 Sampling Study Conclusions

Meridian concluded that:

- Core and dry RC drilling samples obtained from above the water table produced similar results and provided valid samples of the mineralization.
- Core and careful RC bucket sampling (with 100% sample collection and use of a flocculent to retain fines) produced similar results and provided valid samples of the mineralization.
- Pan sampling of RC samples with water overflow resulted in nominal to significant (up to 300%) upgrading of RC assays when compared to core. This is thought to be due to the loss of altered wall rock resulting in a concentration of gold-bearing vein fragments.
- Although RC bucket sampling provided an indicator of mineralization in areas of high groundwater flow, core provided the most representative grade.

In 2020, an examination of the assays from RC versus core holes in the South and North Pits by Hanson et al (2020) concluded that the results of the Meridian study were reasonable. As a result of this examination, 430 RC holes drilled between 1987 and 1989, totalling over 61,600 m (202,100 ft), were eliminated from 2020 Mineral Resource estimation.

Subsequent work completed by Revival indicates that the pre-1990 RC results from the rapakivi granite are suitable for use in mineral resource estimating; however, the 1988 – 1989 RC holes drilled in the Yellowjacket Fm. are not suitable. The QP reviewed Revival's analysis, agreed with the conclusion, and excluded the 1988 – 1989 RC holes drilled in the Yellowjacket Fm from mineral resource estimating.

Additional insight resulting from the sampling study was also gained regarding the statistical behaviour of the deposit. Despite samples of the mineralization providing assays with a high degree of precision and accuracy, as well as low nugget values, the deposit displays significant degrees of gold grade variability, particularly over the short distances. This is demonstrated by the high variance experienced in twin hole comparisons and can be interpreted as an indication of steeply dipping mineralization controls. Meridian believed that the frequency of these controls, and the overall structural/mineralized system, resulted in a deposit that is well-behaved over large areas (greater than the average drill hole spacing), but correlations over short distances are difficult. Historical mining supports the interpretation of the homogenous nature of mineralization on a deposit scale.

10.2.1.3 *Revival Gold Inc.*

Revival began drilling at Beartrack in 2017 and has drilled each year through 2022. In 2017 and 2019 drilling was conducted by Timberline Drilling Inc. (Timberline), located in Elko, Nevada, in 2018, drilling was conducted by Titan Drilling (Titan) from Elko, Nevada, in 2020, drilling was conducted by Boart-Longyear Drilling Services from West Valley, Utah and in 2021 and 2022, drilling was conducted by Major Drilling America Inc (Major), located in Salt Lake City, Utah (Figure 10-3).

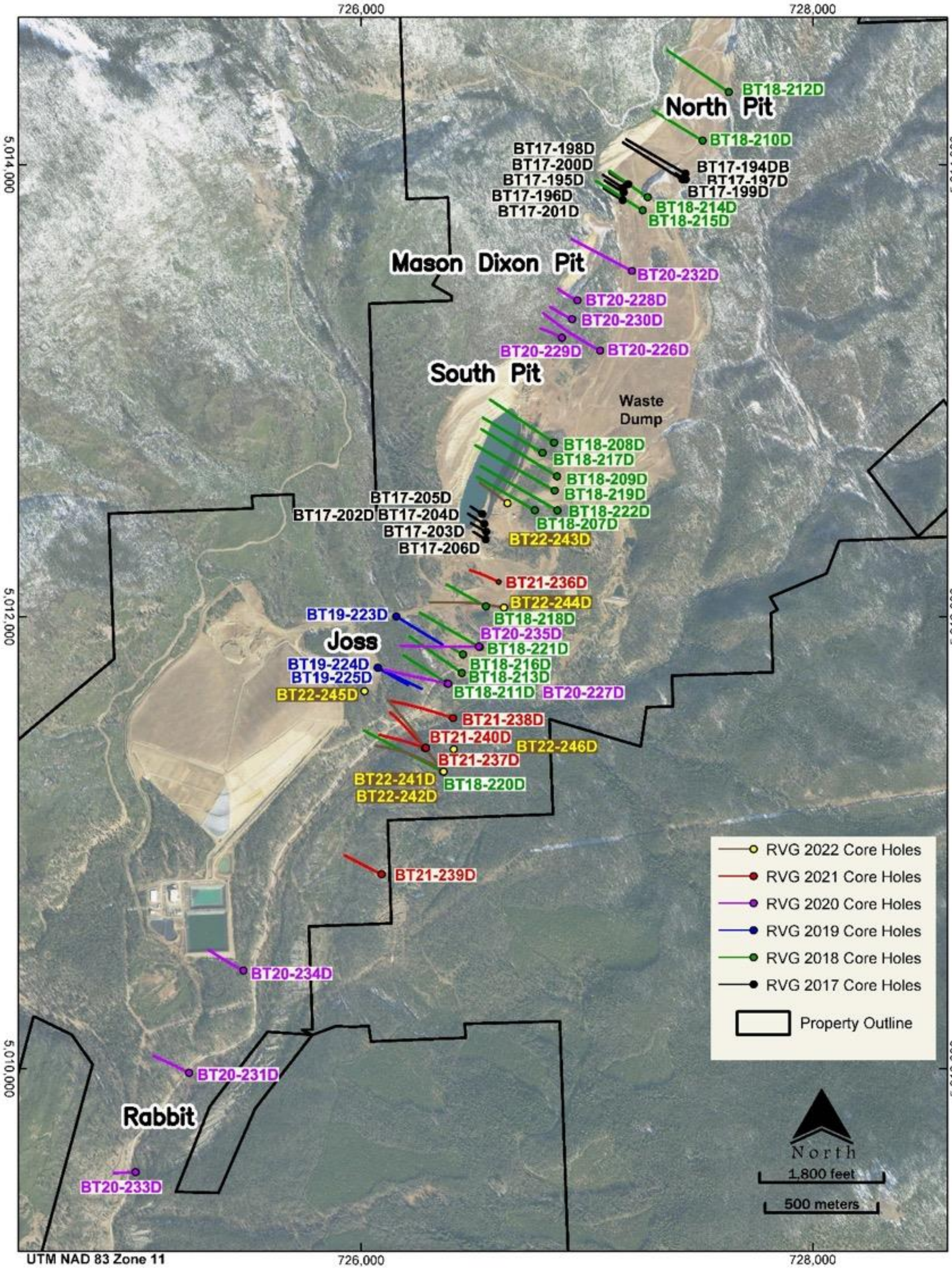
All holes were completed with an HQTT (Triple Tube) drill string, which was reduced to NQTT due to difficult drilling conditions in a few instances. Holes BT19-223D through BT19-225D, BT21-240D, BT22-241D and BT22-242D were collared with a PQ drill string to allow for drilling through a thick sequence of Tertiary epiclastic rocks. (For reference, PQ core diameter is 85 mm (3.3 inches), HQTT core diameter is 61.1 mm (2.4 inches) and NQTT core diameter is 45.1 mm (1.8 inches)). Drilling was generally conducted with a 1.5 m (5 ft) core barrel to enhance recovery.

In addition, holes BT17-194D and BT17-197D were abandoned due to unacceptable hole deviation. Those holes were not sampled; however, the unmineralized core obtained from these holes was used as blank material for the 2017 QAQC program. Holes BT18-216D, BT20-231D, BT20-233D, BT20-234D, BT21-236D, BT21-239DB, BT22-244D and BT22-245D were also abandoned prior to reaching the intended target due to difficult drilling conditions. Hole BT22-246D was abandoned due to the presence of the Moose fire in the area. Poor core recovery in hole BT20-232D, required setting a wedge and redrilling the mineralized zone. The wedged hole was named BT20-232D-W.

Revival's drilling programs focused on increasing the resources at Beartrack and testing the sulfide mineralization at depth. Many of the drill holes completed during this time confirmed mineralization from Meridian's drill programs; however, no twin holes were completed by Revival.

All Revival drill holes that intersected the PCSZ, with the exception of holes that were lost due to poor drilling conditions, encountered mineralization. Drilling beneath the North Pit encountered mineralized structures and confirmed mineralization below the current pit.

Figure 10-3: Revival Beartrack Drilling 2017 to 2022



Source: Revival, 2022

Note: RVG – Revival

Drilling in the Independence area, the area between the Mason-Dixon and South pits, encountered mineralization in each hole but with lower-than-expected grades. The host rock in this area contains less biotite than in other areas, which may have contributed to the lower grades and narrower widths in this segment of the PCSZ.

Although mineralization is known from historical drilling to extend at least 600 m (1,950 ft) below the surface in the South Pit area, drilling beneath the South Pit was planned with the intention of extending the block model at depth. Holes were drilled on a spacing of approximately 60 m (195 ft). All holes drilled beneath the South Pit encountered mineralization confirming continuity of mineralization at depth.

The Joss area has been an important focus for drilling since 2018. Several holes were drilled in the area by Meridian; however, the drilling was insufficient for the development of a Mineral Resource. All holes drilled in the Joss area encountered one or more zones of mineralization within the PCSZ, or to the east of the PCF. Mineralization has yet to be encountered west of the PCSZ in the Joss area.

As is the case with near-surface oxide mineralization, most of these intersections are surrounded by broader intersections of low-grade mineralization. Higher-grades are present within the Beartrack system but due to the wide-spaced nature of deep drilling at Beartrack, these intervals have the appearance of being isolated. The presence of higher grades at Joss suggests that the potential for narrow vein and/or bulk underground mining and milling may exist at Beartrack. Further drilling will be required to demonstrate the continuity of higher grades along strike and at depth.

10.2.2 Drill Hole Surveying

The trajectory of all drill core holes is determined during drilling using a downhole survey instrument. Azimuth readings for the 2017 through 2021 drilling programs were corrected for magnetic declination (13°E). Azimuth readings for the 2022 drilling program was corrected for magnetic declination using 13.5°E.

The collar locations of drill holes are surveyed using differential GPS in UTM NAD83 coordinates and then converted to Central Idaho State Plane NAD83-Feet (ID83CF) coordinate system. In general, most of the drilling was completed in both northwest and southeast directions with drill holes spaced approximately 15 to 50 m (50 to 160 ft) apart based on directional drilling orientation.

Holes are plugged according to Idaho State regulations; however, collars are not marked in the field as all pads are reclaimed after being surveyed, according to the current Beartrack Plan of Operations approved by the USFS.

10.2.3 Drill Core Recovery

Overall, core recovery averaged 92% for the five-year period but isolated intervals of poor, or no core recovery occurred, particularly in the PCSZ. Core recovery for mineralized intervals in 2022 averaged 97%. A detailed discussion of core recovery as it pertains to mineralization is presented in the 2018 Mineral Resource Estimate Report (Lechner, et. al., 2018). In general, higher gold grades are associated with the PCSZ, as well as the contact between the Yellowjacket Formation and PCSZ, and that of the rapakivi granite and PCSZ. These areas are known to be composed of more broken rock and have lower gold recoveries (92% recovery for grades higher than 1.0 g/T Au).

Mineralized intervals with poor core recovery (<50% recovery) are noted as footnotes in Table 10-2, which summarizes selected results from the 2022 drilling programs. A table of drilling results from 2017 through 2021 is available in Hanson et al. (2020). RQD is generally good in the rapakivi granite and poor in the PCSZ and Yellowjacket Formation.

Table 10-2: Selected Results from Beartrack 2022 Drilling Program

Hole Number	Area	Azimuth (degree)	Dip (degree)	From (m)	To (m)	Drilled Width (m)	Est. True Width[1] (m)	Fire Assay Gold Grade (g/T)
BT22-241D	Joss	299	-58	404.0	405.4	1.4	1.0	4.95
				413.9	423.1	9.1	5.0	1.22
				532.4	533.8	1.4	1.0	6.17
				555.7	607.5	51.8	26.0	3.60[2]
including				566.5	581.6	15.2	8.0	3.81
including				587.1	601.4	14.2	7.0	6.17[2]
including				588.7	589.7	1.0	1.0	10.65
including				593.3	594.7	1.4	1.0	11.80
including				598.2	599.8	1.5	1.0	8.28
BT22-242D	Joss	322	-58	490.4	491.3	0.9	1.0	12.65
				606.0	612.1	6.1	3.0	5.44
including				609.0	610.8	1.8	1.0	13.69
				648.9	764.3	115.4	52.0	3.49
including				682.6	694.0	11.4	6.0	10.12
including				682.6	687.1	4.5	2.0	16.62
including				708.1	735.0	26.9	13.0	3.83
including				721.2	730.1	8.9	4.0	5.54
including				745.2	755.4	10.2	5.0	5.98
including				753.4	755.4	2.0	1.0	11.38

Hole Number	Area	Azimuth (degree)	Dip (degree)	From (m)	To (m)	Drilled Width (m)	Est. True Width[1] (m)	Fire Assay Gold Grade (g/T)
BT22-243D	South Pit	311	-61	124.4	151.3	26.9	13.0	0.64
				228.5	232.6	4.1	2.0	5.99
including				229.6	232.6	2.9	1.0	7.92
				257.9	305.3	47.4	24.0	2.02
including				259.5	265.5	6.0	3.0	2.95
BT22-244D	Joss	283	-58	661.0	667.3	6.4	3.0	0.58

Notes:

(1) True width estimates are based on a vertically dipping mineral zone. Drill holes typically steepen during drilling so the inclination of the drill hole at depth may not be the same as the inclination in the mineralized zone.

(2) Core recovery for the interval 591.0 m to 591.7 m was 0%. This interval was included at zero grade.

IMC and Revival have taken steps to manage and mitigate these risks for the drill holes for use in a resource estimate. For example, the Yellowjacket RC drill holes drilled between 1988 and 1989 were excluded from the database used in the estimation. With that change, IMC's QP concludes that the drilling database, sampling and recovery factor results at Beartrack are suitable to be used in a Mineral Resource estimate.

10.3 Arnett

10.3.1 Drill Methods and Programs

10.3.1.1 *British Petroleum Minerals America and American Gold Resources*

Over 200 RC holes were drilled across the Arnett property by BPMA and AGR (see Section 6 for additional details). None of the drilling data from BPMA or AGR were used to estimate the Mineral Resources that are the subject of this Report.

In 1988, BPMA completed 16 drill holes totalling 1,847 m (6,060 ft) on the Arnett Property (see Section 6). No documentation remains concerning the sampling protocol for HH or RC drilling from this program.

The remainder of the RC drilling was completed by AGR. The sampling and assay protocols for holes ACR15 through ACR90-170 were documented in an undated memorandum by Bertram (Bertram, ND) and a memorandum from 1990 (American Gold Resources Corp., 1990). All sampling was directly supervised by AGR personnel. Sample intervals were 1.52 m (5 ft). Dry samples were split on site to approximately 25% of the original sample using a Jones splitter. The resulting sample was between 4.5 kg (10 lbs) to 9 kg (20 lbs). Samples were places in cambric cloth bags and shipped for assay.

Wet samples were split on site to between 17% and 25% of the original sample using an air/hydraulic-powered rotary wet splitter. The splitter was adjusted so that, in almost all cases, there was no overflow from the assay split. On some occasions, a flocculent was added to settle suspended fines and the clear water was decanted. The assay split was collected in a five-gallon plastic bucket and shipped for assay.

Samples were submitted to American Assay Laboratories in Reno, NV and consisted of the following:

- Drying.
- Split approximately 1 kg (2 lbs) from the dry sample.
- Pulverize the 1 kg sample.
- Mix and homogenize.
- Fire Assay a 30 g (1 assay-tonne) with an atomic adsorption finish for samples exceeding 10 ppm (0.03 ounces per ton).

Written drill logs do not indicate whether collars have been surveyed. PAH noted a significant error in some collar elevations (Sandefur et al.,1993). Revival noted a similar issue with some collar elevations, which were as much as 30 m (98 ft) above or below the Light Detection and Ranging (LiDAR) surface. In these cases, collar elevations were adjusted back to the LiDAR surface. In cases where drill pads are visible on the LiDAR surface, hole locations can be confirmed, at least within the area of the drill pad.

No downhole surveys are available for the RC drill holes.

The particulars of the 1992, 1993 and 1995 RC drilling programs are not known. All RC drilling was conducted using a track mounted rig but sampling and analytical procedures were not documented.

BPMA completed two DD holes during the 1987 to 1988 drilling campaign. All that is known about this DD program is that the total drilling was 241 m (790 ft). No other information has been found by Revival.

In 1997, Meridian completed 11 DDH on the Haidee patented claim. These holes were drilled to confirm previous RC drilling, as gold was found to occur, at least in part as free gold on iron oxide crystal faces and there was concern that downhole contamination might have occurred below the water table (Barbarick, 1997). To ensure the recovery of free gold and prevent it from being washed away during drilling, drilling was conducted with a triple tube system and a high polymer bentonite mud mix to form a protective coating on the core.

In order to preserve free gold during the core handling process, core was logged without removing it from the core box and core was split using a hydraulic splitter rather than a core saw. Splitting was done perpendicular to fracture planes and all fragments were collected from both the splitting surface and the core box (Barbarick, 1997).

10.3.1.2 *Meridian Minerals Company*

In 1997, Meridian completed 11 DD holes totalling 1,337 m (4,387 ft). All 11 holes were drilled on the Haidee patented claim. Core was HQ, which is approximately 63.5 mm (2.5 inches) in diameter.

The average sample interval was 1.49 m (4.9 ft) with a minimum sample length of 0.12 m (0.4 ft) and a maximum sample length of 3.68 m (12 ft). Recovery for the 1997 drilling program averaged 91% but intervals of low recovery were present, particularly in fault zones.

Three of the core holes completed by Meridian were drilled as twins of the AGR RC holes. Meridian concluded that overall, there was poor to moderate correlation of gold-bearing intersection between RC and core twins and that moderate to occasionally heavy downhole contamination had taken place below the water table.

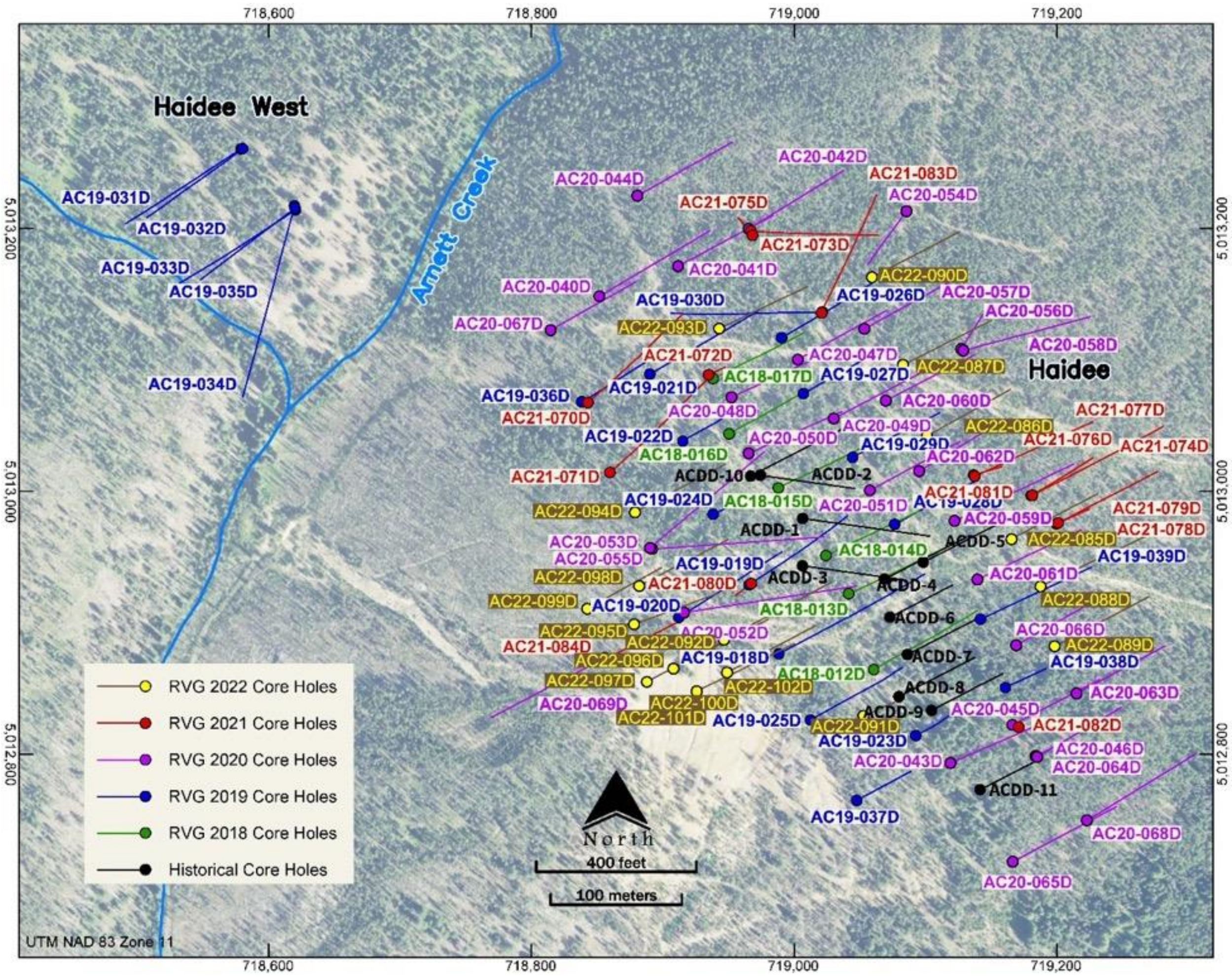
Meridian found that at times there was reasonable correlation between mineralized intervals as reported in both RC and DD holes; however, at other times intervals reported in RC differed considerably in both grade and thickness, including intervals that were encountered in core that were not identified in RC holes.

The principal reason cited for the lack of correlation was down hole contamination below the water table, but the lack of correlation may partially be due to the inherent variability in the pinch and swell geometry of individual mineralized zones and significant variation in grade over short distances within the mineralized zones (nugget effect). The 1997 Meridian Gold study concluded that additional drilling of mineralized zones should be done with core drilling, but that RC drilling was useful in testing outlying zones (Barbarick, 1997).

10.3.1.3 *Revival Gold Inc.*

Revival drilled in the Haidee area from 2018 to 2022 (Table 10-3 and Figure 10-4). The primary focus of drilling at Arnett was to expand resources and to support resource estimations in the Haidee area. In 2018, drilling was conducted by Titan, in 2019, drilling was conducted by Timberline, in 2020 drilling was conducted by Boart-Longyear, and in 2021 and 2022 drilling was conducted by Major. All holes except AC21-082D were completed with an HQTT drill string. Hole AC21-082D is a geotechnical hole as well as a water observation well so it was drilled with PDTT diameter core. Drilling was generally conducted with a 1.52 m (5 ft) core barrel to enhance recovery.

Figure 10-4: Revival Arnett Drilling 2018 to 2022



Source: Revival, 2022
Note: RVG – Revival

Drilling in the Haidee area confirmed the presence of mineralization and expanded the mineralized footprint to the northeast and southwest. Drilling in Haidee West generally encountered mineralization in association with unoxidized pyrite. Based on Revival's drilling, mineralization remains open in all directions, with strong potential to expand the mineralized footprint both up- and down-dip.

The distribution of mineralization at Arnett is irregular with narrow, high-grade intervals among broader intervals of lower-grade mineralization. Results from the 2022 drilling program are presented in Table 10-3. A table of drilling results from 2018 through 2021 is available in Hanson et al (2020). Higher-grades are generally caused by native gold occurring in oxidized pyrite grains and are variable in nature.

Table 10-3: Select Results from Arnett 2022 Drilling Program

Hole Number	Area	Azimuth (degree)	Dip (degree)	From (m)	To (m)	Drilled Width[1] (m)	Fire Assay Gold Grade (g/T)
AC22-086D[2]	Haidee	63	-62	16.7	21.3	4.5	1.82
including				20.0	21.3	1.3	5.85
				28.0	32.0	4.0	1.03
				44.0	59.8	15.8	1.51
including				44.0	45.4	1.4	7.83
including				48.6	50.0	1.3	7.57
				80.5	83.5	3.0	1.96
				94.1	128.6	34.6	0.39
AC22-092D	Haidee	64	-60	28.9	33.5	4.6	0.31
				61.6	81.4	19.8	0.76
including				61.6	62.8	1.2	8.88
				119.7	122.7	3.0	0.45
				152.4	154.7	2.3	0.57
				173.8	176.1	2.3	0.52
AC22-094D[3]	Haidee	64	-60	7.0	11.3	4.3	0.80
				21.0	31.2	10.2	5.42
including				23.8	29.2	5.4	9.62
including				23.8	25.5	1.7	19.39
including				28.3	29.2	0.8	12.60
				76.7	79.9	3.2	0.78
				101.5	107.3	5.8	0.87
				117.7	127.2	9.5	1.22
including				117.7	119.3	1.6	4.25
				132.0	135.0	3.0	0.53
AC22-095D[4]	Haidee	72	-65	4.8	40.5	35.8	0.53
				57.3	86.6	29.3	0.53
				102.8	117.4	14.7	0.40
				159.9	163.0	3.2	2.62
AC22-097D	Haidee	64	-60	2.8	20.7	18.0	1.12
including				2.8	4.8	2.1	3.19
including				13.7	16.5	2.7	2.87
				40.0	72.8	32.8	0.36
AC22-099D[5]	Haidee	63	-65	0.0	27.1	27.1	0.70
including				17.6	19.2	1.6	5.23
				47.9	50.1	2.3	0.69
				77.8	83.1	5.3	0.85
				111.9	114.0	2.1	2.75
				142.8	154.5	11.7	0.40

Hole Number	Area	Azimuth (degree)	Dip (degree)	From (m)	To (m)	Drilled Width[1] (m)	Fire Assay Gold Grade (g/T)
AC22-100D[6]	Haidee	66	-60	1.6	31.7	30.1	0.81
				43.9	50.2	6.2	1.01
				61.0	67.7	6.7	0.46
				89.5	106.4	16.9	0.53
				158.6	165.2	6.6	2.87
including				158.6	161.4	2.7	6.38

Notes:

(1) True width at Haidee is estimated to be greater than 70% of drilled width. True width at Haidee West is estimated to be approximately half of the drilled width. Numbers may not add up due to rounding.

(2) Core recovery for the intervals 49.4 m to 50.0 m was 40% and 54.0 m to 54.7 m was 35%.

(3) True width for the interval 21.0 m to 31.2 m is unknown but estimated to be less than 30% drilled width.

(4) Core recovery for the interval 26.8 m to 27.5 m was 48%.

(5) Core recovery for the interval 11.6 m to 11.9 m was 0%. This interval was included in the grade calculation at 0 g/T Au.

(6) Core recovery for the interval48.7 m to 49.7 m was 25%.

Holes AC20-054D, AC20-056D, AC21-075D, AC21-077D, AC21-080D and AC21-082D were drilled primarily as geotechnical holes.

All core drilling was completed using a split inner sleeve (or triple tube) in order to enhance core recovery. With the exception of hole AC21-082D, all core is HQTT (also known as HQ3) unless drilling conditions require a reduction in the diameter of the drill core to NQTT. Hole AC21-082D was drilled as a water observation well and was drilled with a PQ drill string. The orientation of all drill core from the 2020 and 2021 drilling programs is for the purpose of clarifying the orientations of features such as mineralization, faults and sedimentary bedding.

Highlights reported by Revival from the Arnett 2018 to 2022 drilling are shown in Table 10-3.

10.3.2 Drill Hole Surveying

For holes drilled by Revival, the trajectory of all drill holes is determined during drilling using a downhole survey instrument and corrected for magnetic declination (13°E). No downhole surveys are available for hole AC21-084D because the survey instrument malfunctioned.

Collar locations of drill holes are spotted and surveyed using differential GPS using the Idaho State Plane Central NAD83 reference datum. The drill holes have a naming convention with the prefix AC denoting Arnett followed by two digits representing the year and the number of the drill hole. In general, most of the drilling was completed in both northwest and southeast directions with drill holes spaced approximately 15 m to 50 m (50 ft to 160 ft) apart based on directional drilling orientation.

Holes are plugged according to Idaho State regulations; however, collars are not marked in the field as all pads are reclaimed after being surveyed, according to the current Arnett Plan.

10.3.3 Drill Core Recovery

Overall, core recovery averaged 90% for the four-year period with the recovery for all intervals greater than 0.25 g.t Au averaged 91%; however, isolated intervals of poor, or no core recovery occurred primarily in fault zones. Intervals with poor core recovery are noted as footnotes in Table 10-3, which summarizes selected results from the 2018 and 2021 drilling programs. RQD is moderate except in fault zones, where it often becomes poor.

The QP finds that the drilling, sampling and recovery factors results at Arnett are suitable to be used to complete a resource estimation.

11.0 SAMPLE PREPARATION ANALYSES AND SECURITY

11.1 Revival Drill Core Handling and Logging Procedures

Drill core was placed in core boxes at the drill site by drilling personnel. Core was cleaned, core boxes marked with the hole number and length, and core blocks were placed in the boxes at the end of each core retrieval run. When oriented drill core was collected, the core was cleaned, and the core orientation line was placed on the bottom of the core prior to the core being placed in the core box. (Oriented core was collected beginning with holes BT20-226D at Beartrack and AC19-36D at Arnett.) Core boxes were kept under the control and supervision of the drill crew on the drill site until they were transported to the locked and secured Beartrack core logging facility by drilling personnel at the end of each drill shift. On occasion, core was picked up at the drill rig by Revival personnel.

At the logging facility, core was placed on the logging tables and reassembled to the extent possible. Core recovery and RQD were measure and logged, and then the geology logged in detail by Revival geologists. Geologists marked intervals to be sampled and inserted standard reference materials blanks, and duplicate samples into the sample stream. After logging and the insertion of control samples, the core was moved to the core splitting area where it was photographed prior to being split.

In 2017, core was logged on paper logging forms and the relevant data on sample intervals, assays, recovery and RQD was entered into an Excel spreadsheet. In 2018, core was logged into a logging form created in Excel for this purpose. Assay data was entered directly from spreadsheets provided by the laboratory, reducing the potential for data entry errors, and data was more easily extracted. Since 2019, core was logged directly into a GeoSequel database. Assay data was imported directly into the database from spreadsheets provided by the laboratory, further reducing the potential for data entry errors. Data is also managed more easily using the GeoSequel database. All drill hole data is on file in Revival's Salmon office.

11.2 Sample Methods

Core was split using a hydraulic core splitter. The decision to split, rather than saw the core, was based on the friable nature of the rock in the PCSZ. Core was split and placed in plastic sample bags along with individually numbered sample tags and sealed with a zip tie. Bags were placed on the floor in numerical order and inventoried prior to being placed in sacks and sealed for transport. Samples were stored in the secure core logging facility at the Beartrack mine site until they were transported by Revival personnel directly to the sample preparation facility.

11.3 Sample Security

Samples were transported from the drill rig to the core storage facilities at the Beartrack mine site by the drilling contractor, where the geological staff logged and sampled the core. Samples were stored in the secure core logging facility at the Beartrack mine site until they were transported directly to the ALS Minerals sample preparation laboratory.

The analytical laboratory stored all pulps and coarse rejects until they were transported to the Beartrack mine site. All pulps from 2012 through the most recent drilling program are stored on site in the Beartrack core shack.

11.4 Bulk Density

11.4.1 Beartrack

Historical bulk density values were initially based on drill core determinations and were later modified by Meridian as mining progressed. Meridian determined that there was a basic distinction in the density of each rock type based on whether the rock was mineralized. Based on historical production data, Meridian determined that the mineralized host rocks (i.e., quartzite, quartz monzonite intrusive, and the PCSZ) ranged between 5% and 7% lighter than unmineralized material. Revival geologists believe that this is due to gold mineralization being associated with sericitic alteration.

Bulk density is used globally to convert volume to tonnage and, in some cases, to weight block grade estimates.

In 2019, Revival submitted 16 bulk density samples to verify previously reported historical density of the specific lithologies in the Beartrack area. Samples were first weighed as received and then submerged in de-ionized water and reweighed. The samples were then dried until a constant weight was obtained. The sample was then coated with an impermeable layer of wax and weighed again while submersed in de-ionized water. Weights were entered into a database and the bulk density of each sample was calculated.

$$SG = \text{weight in air} / (\text{weight in air} - \text{weight in water})$$

Under normal atmospheric conditions, SG (a unitless ratio) is equivalent to density in t/m^3.

Results ranged from 2.28 t/m^3 to 2.91 t/m^3 as shown in Table 11-1. For the Yellowjacket Formation, densities from the Joss and Ward's Gulch areas were found to be higher than previously reported from both the North Pit and South Pit areas. Revival geologists consider the higher values to be related to either an increase in sulfide concentration at depth and/or reduction in the amount of sericitic alteration associated with the gold mineralization, or possible facies change in the Yellowjacket Formation. Further density analysis is required to confirm accurate density values in the North Pit and South Pit areas.

Wood recommends obtaining more bulk density determinations from representative rock types at different depths.

11.4.2 Arnett

In 2019, 45 samples were submitted for density measurements on drill core samples from the main mineralized zones to represent local major lithologic units, mineralization styles, and alteration types. Bulk density for Arnett is determined by SG measurements on drill core using a similar procedure to that at Beartrack. Samples were collected on full core which had been retained in the core box, and SG has been converted to equivalent tonnage factor where the relationship between SG and tonnage factor is represented by the following formula:

$$\text{Tonnage factor} = (SG \times 62.427962) / 2000$$

Density values range from 1.87 t/m^3 to 2.64 t/m^3 with an average density of 2.35 t/m^3. This is slightly low for granitic rocks; however, the difference may be caused by hydrothermal alteration. Table 11-2 presents an example of the density data collected at Arnett.

Beginning in 2022, density measurements were made by Revival Gold personnel in the Beartrack core shack. Core was allowed to dry in the core box and samples were collected approximately every 15 m (50 ft). Weights were entered into a database and the bulk density of each sample was calculated.

$$SG = \text{weight in air} / (\text{weight in air} - \text{weight in water})$$

Under normal atmospheric conditions, SG (a unitless ratio) is equivalent to density in t/m^3.

A total of 186 density measurements were made on core from the 2022 drilling program. Density values range from 1.96 t/m^3 to 2.67 t/m^3 with an average density of 2.51 t/m^3. While the range of densities is consistent with that obtained from the ALS measurements, the average density is higher than the 2.35 t/m^3 obtained by ALS. Samples from fault zones tend to have lower densities than samples collected outside of fault zones. The difference may be caused by a difference in methodology (dried and sealed in paraffin or air dried and unsealed core) or it may represent a difference in sample selection.

Table 11-1: Beartrack Density Log Database

BH ID	Sample ID	From (ft)	To (ft)	Length (ft)	Depth (ft)	Lithology Code	Description	Sample Weight (kg)	Bulk Density (tonne/m^3)	Bulk Density (ft^3/ton)
BT17-201D	BT17-201D 426.4	426.4	426.9	0.5	426	50	Wards Granite	0.58	2.28	14.05
BT18-215D	BT18-215D 809.7	809.7	810.2	0.5	810	50	Wards Granite	0.62	2.55	12.56
BT12-178D	BT12-178D 1505.5	1,505.5	1,505.9	0.4	1,506	60	Wards Quartzite	0.32	2.75	11.65
BT12-178D	BT12-178D 1602.5	1,602.5	1,602.9	0.4	1,603	60	Wards Quartzite	0.32	2.60	12.32
BT12-186D	BT12-186D 1238.5	1,238.5	1,239.0	0.5	1,239	60	Joss Quartzite	0.62	2.87	11.16
BT18-211D	BT18-211D 203	203.0	203.5	0.5	203	60	Joss Quartzite	0.36	2.76	11.61
BT18-211D	BT18-211D 775.3	775.3	775.8	0.5	775	60	Joss Quartzite	0.40	2.72	11.78
BT18-213D	BT18-213D 1567.2	1,567.2	1,567.6	0.4	1,567	60	Joss Quartzite	0.60	2.80	11.44
BT18-218D	BT18-218D 935	935.0	935.5	0.5	935	60	Joss Gouge	0.42	2.86	11.20
BT18-220D	BT18-220D 1528.5	1,528.5	1,529.0	0.5	1,529	60	Joss Quartzite	0.36	2.62	12.23
BT18-220D	BT18-220D 1606	1,606.0	1,606.4	0.4	1,606	60	Joss Quartzite	0.38	2.82	11.36
BT18-221D	BT18-221D 1246	1,246.0	1,246.5	0.5	1,245	60	Joss Quartzite	0.76	2.63	12.18
BT19-223D	BT19-223D 1121.5	1,121.5	1,122.0	0.5	1,122	60	Joss Quartzite	0.70	2.91	11.01
BT19-224D	BT19-224D 1052	1,052.0	1,052.5	0.5	1,052	60	Joss Quartzite	0.54	2.67	12.00
BT19-225D	BT19-225D 1030	1,030.0	1,030.5	0.5	1,030	60	Joss Quartzite	0.48	2.63	12.18
BT18-218D	BT18-218D 746	746.0	746.5	0.5	746	60	Joss Quartzite	0.76	2.66	12.04
								Averages	**2.70**	**11.92**

Table 11-2: Arnett Density Log Database

BH ID	Sample ID	From (ft)	To (ft)	Length (ft)	Depth (ft)	Litho Code	Description	Sample Weight (kg)	Bulk Density (tonne/m^3)	Bulk Density (ft^3/ton)
AC19-018D	AC19-018D 396.7-397.1	396.7	397.1	0.4	397.0	50	Haidee Granite	0.42	2.47	12.97
AC19-018D	AC19-018D 526.0-526.6	526.0	526.6	0.6	526.0	50	Haidee Granite	0.58	2.31	13.87
AC19-019D	AC19-019D 337.5-338.0	337.5	338.0	0.5	338.0	50	Haidee Granite	0.40	2.23	14.37
AC19-019D	AC19-019D 561.9-562.3	561.9	562.3	0.4	562.0	50	Haidee Granite	0.56	2.46	13.02
AC19-020D	AC19-020D 195.7-196.2	195.7	196.2	0.5	196.0	50	Haidee Granite	0.54	2.64	12.14

BH ID	Sample ID	From (ft)	To (ft)	Length (ft)	Depth (ft)	Litho Code	Description	Sample Weight (kg)	Bulk Density (tonne/m^3)	Bulk Density (ft^3/ton)
AC19-020D	AC19-020D 424.0-424.5	424.0	424.5	0.5	424.0	50	Haidee Granite	0.58	2.32	13.81
AC19-021D	AC19-021D 162.5-162.9	162.5	162.9	0.4	163.0	50	Haidee Granite	0.50	2.30	13.93
AC19-021D	AC19-021D 365.2-365.9	365.2	365.9	0.7	366.0	50	Haidee Granite	0.74	2.38	13.46
AC19-022D	AC19-022D 110.4-110.9	110.4	110.9	0.5	111.0	50	Haidee Granite	0.52	2.38	13.46
AC19-022D	AC19-022D 415.7-416.0	415.7	416.0	0.3	416.0	50	Haidee Granite	0.38	2.17	14.76
AC19-023D	AC19-023D 245.8-246.3	245.8	246.3	0.5	246.0	50	Haidee Granite	0.46	2.09	15.33
AC19-023D	AC19-023D 343.2-343.6	343.2	343.6	0.4	343.0	50	Haidee Granite	0.38	1.87	17.13
AC19-024D	AC19-024D 152.4-152.8	152.4	152.8	0.4	153.0	50	Haidee Granite	0.48	2.38	13.46
AC19-024D	AC19-024D 335.3-335.8	335.3	335.8	0.5	336.0	50	Haidee Granite	0.60	2.44	13.13
AC19-025D	AC19-025D 182.4-183.0	182.4	183.0	0.6	183.0	50	Haidee Granite	0.76	2.43	13.18
AC19-025D	AC19-025D 435.4-435.7	435.4	435.7	0.3	436.0	50	Haidee Granite	0.52	2.40	13.35
AC19-026D	AC19-026D 186.9-187.3	186.9	187.3	0.4	187.0	50	Haidee Granite	0.52	2.39	13.40
AC19-026D	AC19-026D 487.3-487.8	487.3	487.8	0.5	488.0	50	Haidee Granite	0.50	2.38	13.46
AC19-027D	AC19-027D 137.5-138.0	137.5	138.0	0.5	138.0	50	Haidee Granite	0.60	2.44	13.13
AC19-027D	AC19-027D 436.1-436.5	436.1	436.5	0.4	436.0	50	Haidee Granite	0.52	2.42	13.24
AC19-028D	AC19-028D 67.5-68.0	67.5	68.0	0.5	67.8	50	Haidee Granite	0.52	2.40	13.35
AC19-028D	AC19-028D 446.2-446.6	446.2	446.6	0.4	446.0	50	Haidee Granite	0.42	2.37	13.52
AC19-029D	AC19-029D 52.5-53.0	52.5	53.0	0.5	52.8	50	Haidee Granite	0.52	2.25	14.24
AC19-029D	AC19-029D 356.4-357.0	356.4	357.0	0.6	357.0	50	Haidee Granite	0.60	2.17	14.76
AC19-030D	AC19-030D 120.5-121.0	120.5	121.0	0.5	121.0	50	Haidee Granite	0.56	2.38	13.46
AC19-030D	AC19-030D 366.0-366.5	366.0	366.5	0.5	366.0	50	Haidee Granite	0.50	2.32	13.81
AC19-031D	AC19-031D 202.7-203.1	202.7	203.1	0.4	203.0	50	Haidee West Granite	0.50	2.36	13.57
AC19-031D	AC19-031D 448.4-448.8	448.4	448.8	0.4	449.0	50	Haidee West Granite	0.42	2.38	13.46
AC19-032D	AC19-032D 143.0-143.5	143.0	143.5	0.5	143.0	50	Haidee West Granite	0.42	2.35	13.63
AC19-032D	AC19-032D 451.0-451.6	451.0	451.6	0.6	451.0	50	Haidee West Granite	0.62	2.27	14.11
AC19-033D	AC19-033D 139.0-139.5	139.0	139.5	0.5	139.0	50	Haidee West Granite	0.60	2.35	13.63
AC19-033D	AC19-033D 434.0-434.5	434.0	434.5	0.5	434.0	50	Haidee West Granite	0.62	2.36	13.57
AC19-034D	AC19-034D 84.2-84.7	84.2	84.7	0.5	84.5	50	Haidee West Granite	0.54	2.49	12.87

BH ID	Sample ID	From (ft)	To (ft)	Length (ft)	Depth (ft)	Litho Code	Description	Sample Weight (kg)	Bulk Density (tonne/m^3)	Bulk Density (ft^3/ton)
AC19-034D	AC19-034D 685.1-685.5	685.1	685.5	0.4	685.0	50	Haidee West Granite	0.52	2.39	13.40
AC19-035D	AC19-035D 158.0-158.5	158.0	158.5	0.5	158.0	50	Haidee West Granite	0.50	2.47	12.97
AC19-035D	AC19-035D 595.4-595.8	595.4	595.8	0.4	596.0	50	Haidee West Granite	0.42	2.34	13.69
AC19-036D	AC19-036D 167.3-167.8	167.3	167.8	0.5	168.0	50	Haidee Granite	0.64	2.46	13.02
AC19-036D	AC19-036D 511.1-511.5	511.1	511.5	0.4	511.0	50	Haidee Granite	0.46	2.34	13.69
AC19-037D	AC19-037D 130.5-130.9	130.5	130.9	0.4	131.0	50	Haidee Granite	0.48	2.36	13.57
AC19-037D	AC19-037D 491.0-491.3	491.0	491.3	0.3	491.0	50	Haidee Granite	0.40	2.22	14.43
AC19-038D	AC19-038D 197.8-198.3	197.8	198.3	0.5	198.0	50	Haidee Granite	0.46	2.31	13.87
AC19-038D	AC19-038D 251.6-252.0	251.6	252.0	0.4	252.0	50	Haidee Granite	0.44	2.32	13.81
								Averages	**2.35**	**13.63**

11.5 Analytical and Test Laboratories

ALS Minerals, or its predecessor ALS Chemex has been used for a primary analytical laboratory for all drilling campaigns since 1988. ALS Minerals is an internationally known, independent, accredited testing laboratory and conforms to the requirements of ISO/IEC 17025:2005 and the conditions for accreditation established by Standards Council of Canada.

Revival has sent check assays to Skyline in Tucson Arizona, AAL in Sparks, Nevada, and Paragon Geochemical, also in Sparks, Nevada. Skyline is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. AAL is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017. Paragon Geochemical is accredited in accordance with the recognized International Standard ISO/IEC 17025:2017.

All laboratories are independent of Meridian, Revival, KCA, and IMC.

11.6 Sample Preparation and Analyses

11.6.1 Sample Preparation

Sampling was conducted by Revival geologists and technicians as described in Section 11.2. From 2017 through 2020, pulps were prepared by ALS Minerals in Elko, Nevada and in 2021 pulps were prepared by ALS Minerals in Twin Falls, Idaho. Sample preparation procedures differ for Beartrack and Arnett. At Beartrack, a 250 g pulp (PREP 31-Y) was prepared and at Arnett, a 1,000 g pulp was prepared (PREP-31-BY) to help account for the nugget effect at Arnett.

Sample preparation procedures for fire assay and cyanide leach samples are as follows:

- Samples logged in the tracking system (LOG-22) and weighed (WEI-21)
- Entire sample crushed to >70% -6 mm (CRU-21)
- Fine crushing to -70% <2 mm (CRU-31)
- Sample split with riffle splitter (SPL-21)
- Split pulverized to 85% <75 µm (PUL-31)

Sample preparation procedures for fire assay and multi-element geochemistry are as follows:

- Samples logged in the tracking system (LOG-22) and weighed (WEI-21)
- Entire sample crushed to >70% -19mm (CRU-22c)
- Fine crushing to -70% <2 mm (CRU-31)
- Sample split with riffle splitter (SPL-21)
- Split pulverized to 85% <75 µm (PUL-31)

11.6.2 Geochemical Analyses and Assay

All samples were analyzed by fire assay (gold) or cyanide leach by ALS Minerals in Reno, Nevada or Tucson, Arizona. Multi-element geochemistry analyses were conducted by ALS Minerals in Vancouver, British Columbia.

Analytical methods used for fire assay and cyanide leach are as follows:

- Gold by cyanide leach and atomic absorption spectroscopy (AAS) (Au-AA13). In 2017, Au 30 g fire assay with AA finish (Au-QQ-25) was used.
- Au 30 g fire assay with AA finish (Au-AA23) for Beartrack and 30 g fire assay with AA finish (Au-AA24).

Analytical methods used for fire assay and multi-element geochemistry are as follows:

- Au 30 g fire assay with AA finish (Au-AA23)
- Ag – four-acid (Ag-OG62)
- 48 element four acid inductively coupled plasma mass spectrometry (ICP-MS) (ME-MS61 or ME-MS61m)
- Elements exceeding the upper detection limit - four acid (ME-OG62).

11.7 Quality Assurance and Quality Control

Quality assurance is necessary to demonstrate that the assay data has precision and accuracy within generally accepted limits for the sampling and analytical methods used. Quality control consists of procedures used to ensure that an adequate level of quality is maintained in the process of sampling, preparing, and assaying the samples. In general, QAQC programs are designed to prevent or detect contamination and allow analytical precision and accuracy to be quantified. In addition, a QAQC program can disclose the overall sampling and assaying variability of the sampling method itself and help in detecting sample numbering mix-ups.

The assay performance of the primary laboratories used by Revival was assessed by a review of results from the insertion of (Certified Reference Material (CRM), or standards. The CRM is a sample of known value that is used to assess laboratory performance. A second type of CRM is employed to help identify any contamination issues that may occur at the preparation stage of the assay procedure. This barren CRM, or blank, is devoid of significant mineralization and is likewise inserted into the sample stream at a prescribed rate.

Assay precision is assessed by reprocessing duplicate samples from designated stages of the analytical process from the primary stage of sample splitting, through sample preparation stages of crushing/splitting, pulverizing/splitting, and assaying. Assay precision is also assessed using the CRM assay data by computing the mean and standard deviation (SD) of the assay dataset and comparing each individual assay against thresholds derived from these calculations.

Revival has employed a standard quality QAQC program for its drill programs since 2017 which consisted of regularly inserting control samples into the sample stream. QAQC samples employed in the Revival program consisted of CRMs, blanks, and duplicate samples.

Summaries for the 2012 through 2021 Revival QAQC programs are summarized in the previous technical report (Wood, 2022).

11.7.1 Insertion Rate

11.7.1.1 *Beartrack*

In 2022, a total of 216 QAQC samples, or nearly 22% of the total of 749 regular samples submitted, were analyzed. The increased percentage of QAQC samples submitted is due to the inclusion of duplicate samples from pulps (DUP) and coarse rejects (PDUP) in the laboratory. These duplicates were collected every 20 samples beginning with the first and fifth sample respectively. These samples are in addition to core duplicate, or twin samples. Revival also submitted 39 sample pulps to Paragon Geochemical for check assaying. Table 11-3 summarizes the type and number of control samples used for Revival's 2022 drilling program.

Table 11-3: 2022 Revival QAQC Samples Insertion Rate – Beartrack

Sample Type	Number	Insertion Rate
Regular Samples	749	N/A
Blanks	56	1 per 20
Standards	70	1 per 14
Pulp Duplicates	34	1 per 29
Coarse Duplicates	33	1 per 29
Core Duplicates (Twins)	23	1 per 43
Check Assays	43	1 per 17

11.7.1.2 *Arnett*

In 2022, a total of 529 QAQC samples, or nearly 26% of the total of 2,012 regular samples submitted, were analyzed. The increased percentage of QAQC samples submitted is due to the inclusion of duplicate samples from pulps (DUP) and coarse rejects (PDUP) in the laboratory. These duplicates were collected every 20 samples beginning with the first and fifth sample respectively. These samples are in addition to core duplicate, or twin samples. Revival also submitted 45 sample pulps to Paragon Geochemical for check assaying. Table 11-4 summarizes the type and number of control samples used for Revival's 2022 drilling program.

Table 11-4: 2022 Revival QAQC Samples Insertion Rate – Beartrack

Sample Type	Number	Insertion Rate
Regular Samples	2,012	N/A
Blanks	105	1 per 20
Standards	139	1 per 14
Pulp Duplicates	119	1 per 17
Coarse Duplicates	115	1 per 17
Core Duplicates (Twins)	51	1 per 40
Check Assays	119	1 per 18

11.7.2 Certified Standard Reference Material

Revival purchased standards from well-known Canadian distributors CDN Resources Laboratories (CDN) in Vancouver, British Columbia and Analytical Solutions Limited (ASL) in Toronto, Ontario. CDN prepares its own standards in-house while ASL acts as the North American vendor for standards prepared by Ore Research & Exploration Pty Limited (OREAS) located in Melbourne, Australia. All standards came in 100 g sealed envelopes. Standards prepared by both laboratories are widely employed in the industry.

Standards were chosen with gold grades near the projected resource cut-off grade, the projected resource average grade, and the projected resource high-grade and are summarized in Table 11-5. About half of the standards used for the 2017 drilling campaign had expected gold grades near the possible resource cut-off grade and the other half represent high-grade standards. In 2018, standards CDN-GS-P6F and CDN-GS-1P5Q yielded unreliable results and were replaced about halfway through the drilling program with standards CDN-CM-27 and CDN-GS-28. From 2017 through 2020, standards were considered to have failed if two consecutive samples exceeded the mean plus two SDs or one sample exceeded the mean plus three SDs. Beginning in 2021, standards were considered to have failed if the value exceeded 10% variation from the best value provided on the standard certificate.

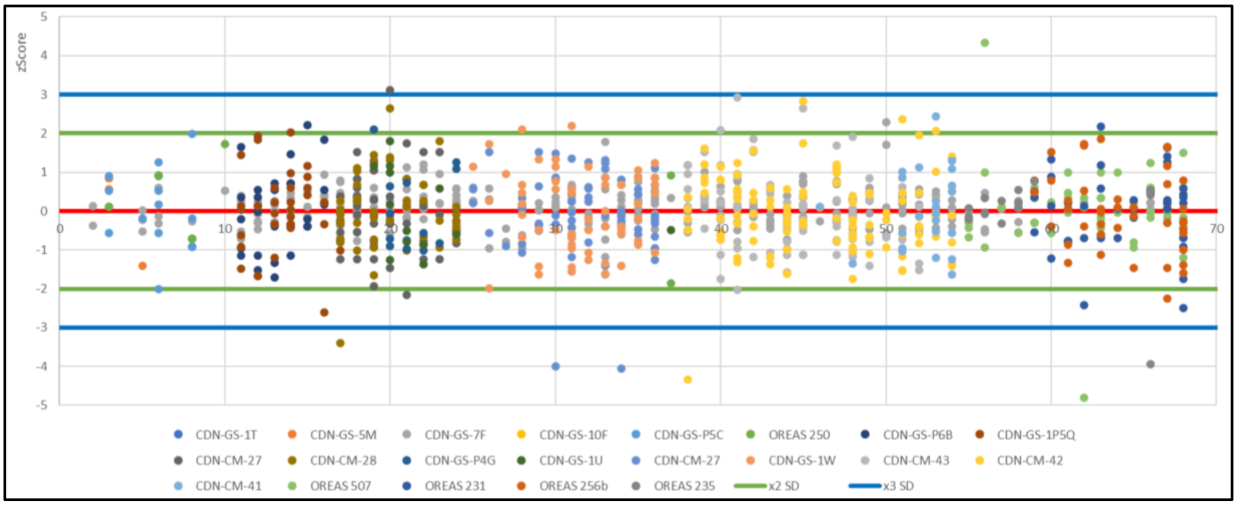
Table 11-5: Revival Certified Reference Material – Beartrack and Arnett

Year	Lab	Standard Name	Element	Unit	Best Value / Average	Std Dev	Relative Std Dev
2021, 2022[1]	OREAS	OREAS 507	Au	g/T	0.176	0.006	3.409
2021, 2022[1]	OREAS	OREAS 231	Au	g/T	0.542	0.015	2.768
2021, 2022[1]	OREAS	OREAS 235	Au	g/T	1.590	0.038	2.390
2021, 2022[1]	OREAS	OREAS 256b	Au	g/T	7.840	0.207	2.640

Note: 1) Standards were considered to have failed if the value exceeded 10% variation from the best value provided on the standard certificate.

When standards fall out of tolerance, the laboratory is contacted and asked to rerun five samples above and below the failed standard (or blank). If the rerun standard falls within tolerance and the other rerun samples do not show significant variation, the standard is considered to have passed and the original values are retained in the database. If the rerun standard does not pass, while the other rerun samples do not show significant variation, the original values are retained in the database. If the rerun standard does not fall within tolerance and the other rerun samples show significant variation, then the batch is rerun. This later case did not occur in either 2018 or 2019. Figure 11-1 presents the Zscore performance of the CRMs used by Revival for the 2017 to 2021 drilling programs.

Figure 11-1: Arnett CRM ZScores Over Time for the 2017 to 2021 Period



Source: Wood, 2022

The assay results were plotted for the 500 submissions for gold on histogram plots and inspected to evaluate the ALS Minerals precision performance. The recommended best value (RBV) and SD for each CRM were provided by ALS Minerals. An individual test result was considered as out-of-specification (OOS) if it exceeded three times the SD (±3SD) of the RBV. Two consecutive results greater than twice the SD (±2SD) were also considered as failures. It was noted that some of the standard shipments did not have sufficient mass for analysis. These were classified as NSS (not enough sample) and were not taken into account in this analysis. The remaining results plotted within an acceptable range of accuracy.

The mean and SD values were calculated for each CRM from the collective assay results. The individual samples were then compared to these mean and SD values for each CRM. Any individual assay outside of ±2SD from the mean of the collective assays was considered to be OOS. The results showed 30 accuracy faults of ±2SD and 22 faults of ±3SD for gold. Of the total 52 accuracy faults, only two failed upon re-assaying. Such precision failures do not adversely affect overall confidence in the assays but may indicate potential variability inherent in assay procedures or lack of homogeneity in CRM.

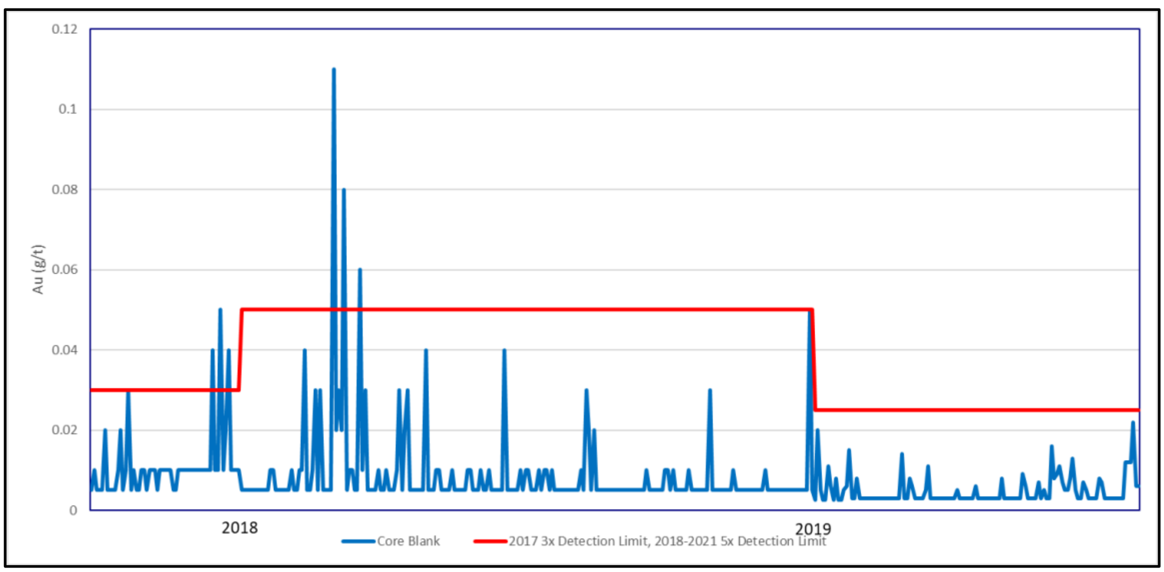
The QP considers that there is a good alignment between the CRMs used and the average economic metal concentration in the drill samples. The QP is of the opinion that the results of the CRM samples from 2017 to 2021 support the use of samples assayed at the ASL during this period in Mineral Resource estimation.

11.7.3 Blanks

In addition to standards of known value, blanks were inserted into the sample stream. From 2017 through early 2019, blanks were taken from barren core in the upper portion of holes that were abandoned due to hole deviation early in the 2017 drilling program. In mid-2019, blank material was obtained from crushed river rock. Several failure results may indicate a potential cross-contamination issue between samples during the preparation phase of the assay procedure. Blanks were considered to have failed if they exceeded five times the detection limit (DL) of 0.005 g/T Au, and if greater than 5% of the samples exceeded 5DL, the laboratory was notified. The procedures state that a process investigation, re-assaying, and assay validation may be required to determine the cause of the failures.

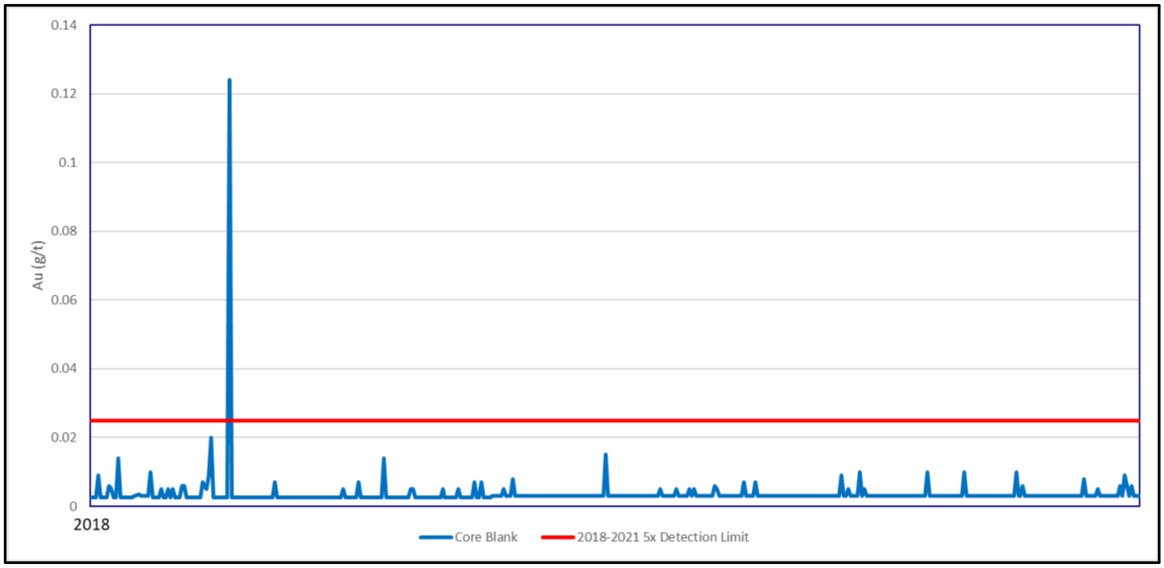
Examples of a plot used to evaluate assay performance through the insertion of blank material is illustrated on Figure 11-2 and Figure 11-3. As seen in Figure 11-2, for 2017 Revival used a failure rate of 3DL which produced more than desired failures of the blanks. In 2018, Revival used 5DL for the same material and same analytical methods for analysis. Starting in 2019, Revival changed analytical techniques from AA25 to AA23 to obtain better reproducibility in blank analysis, which changed the DL to 0.005 g/T Au and used 5DL for the failure threshold.

Figure 11-2: Beartrack Gold Blank Control Chart for the 2017 to 2021 Period



Source: Wood, 2022

Figure 11-3 Arnett Gold Blank Control Chart for the 2018 to 2021 Period



Source: Wood, 2022

The plotted analyses indicate that of a total of 862 gold results returned by ALS Minerals for both Beartrack and Arnett, seven results (0.8%) were OOS. The small number of failures shows acceptable levels of cross-contamination between samples.

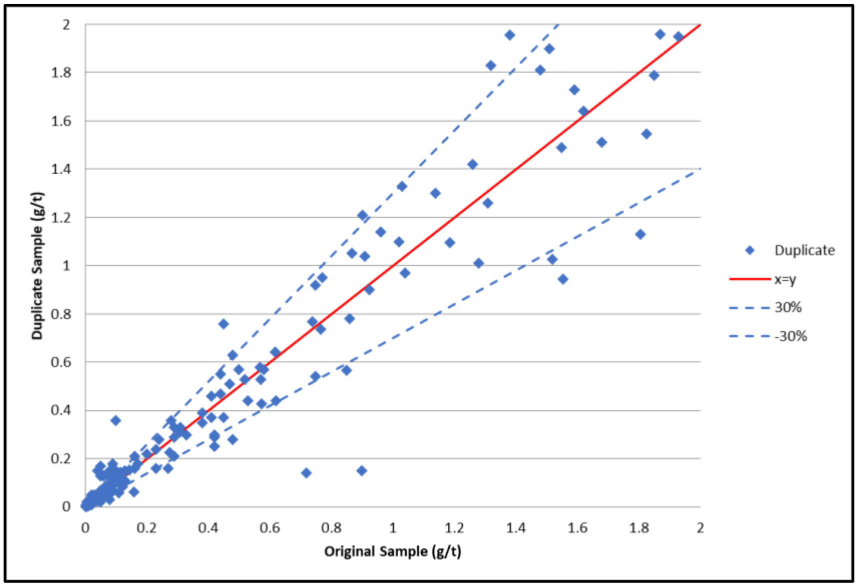
11.7.4 Duplicate Samples

Routine analyses were performed on field duplicates, i.e., a second longitudinal split of the sample half-core to yield two quarter-core samples. The purpose of this is to measure the precision of the entire sampling and analysis procedure as well as providing a measure of the inherent variability and heterogeneity of the mineralized bodies (nugget effect). Duplicates were the last samples submitted in each batch of samples from a given drill hole in order to make it less obvious to the laboratory which sample was being duplicated.

The original and field duplicate gold results were plotted on scatter diagrams and inspected for evidence of bias. The scatterplot for Beartrack is shown on Figure 11-4. The original and duplicate results showed good agreement and plotted within an acceptable range with a slight bias toward a higher-grade in the duplicate assay. No significant grade bias in the duplicate gold results.

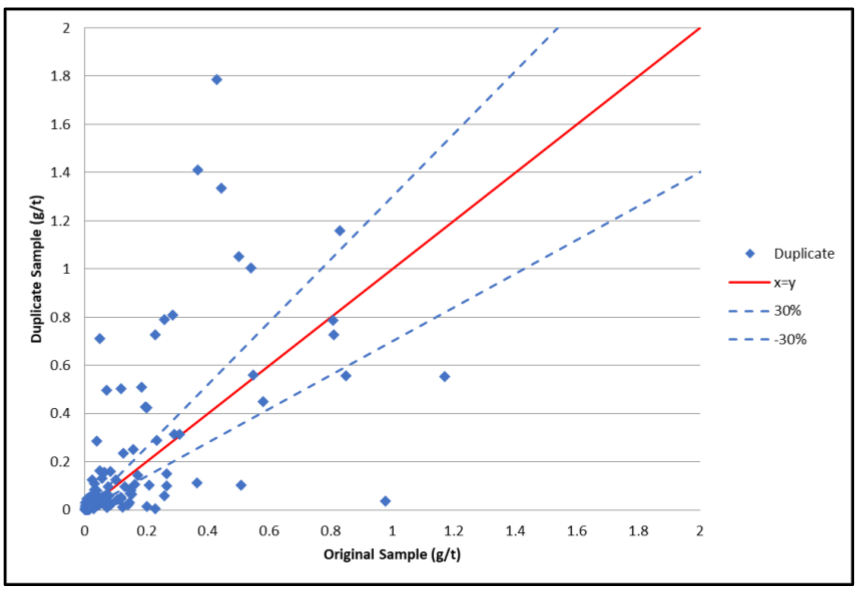
The scatterplot for Arnett is shown on Figure 11-5. While field duplicates from Arnett do not show a significant grade bias, they do show a wide scatter of values. Gold mineralization at Arnett occurs, at least in part, as native gold in oxidized coarse-grained pyrite in widely spaced quartz veinlets. This is thought to create the nugget effect, which is reflected in the broad scatter of data in Figure 11-5.

Figure 11-4: Beartrack Gold Duplicate Control Chart for the 2017 to 2021 Period



Source: Wood, 2022

Figure 11-5: Arnett Gold Duplicate Control Chart for the 2018 to 2021 Period



Source: Wood, 2022

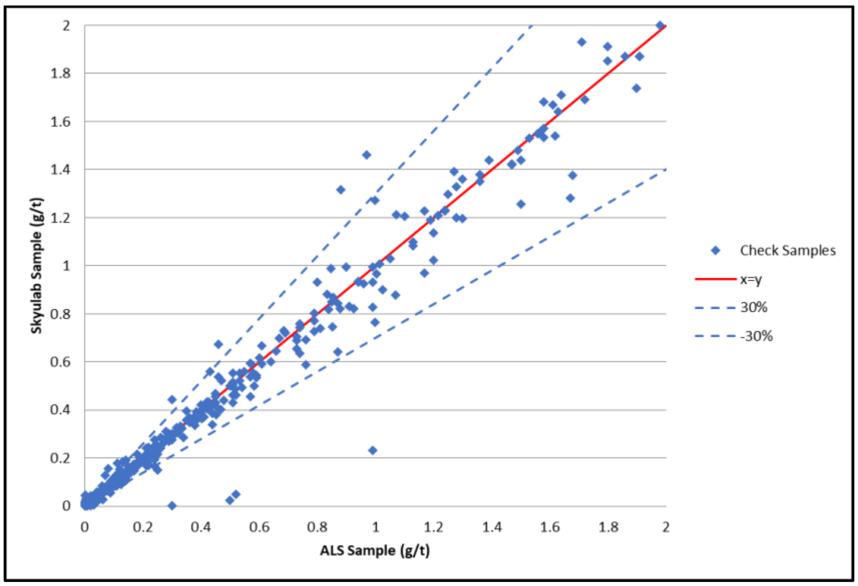
11.7.5 Secondary Laboratory Pulp Check Assays

As part of the QAQC program, sample pulps were submitted to a second laboratory, Skyline. Sample preparation and analytical methods for fire assay and multi-element geochemistry are as follows:

- Blending of pulp (SP-16)
- Fire assay with AA finish (FA-01)
- Au fire assay with gravimetric finish for over-limit results (FA-02)

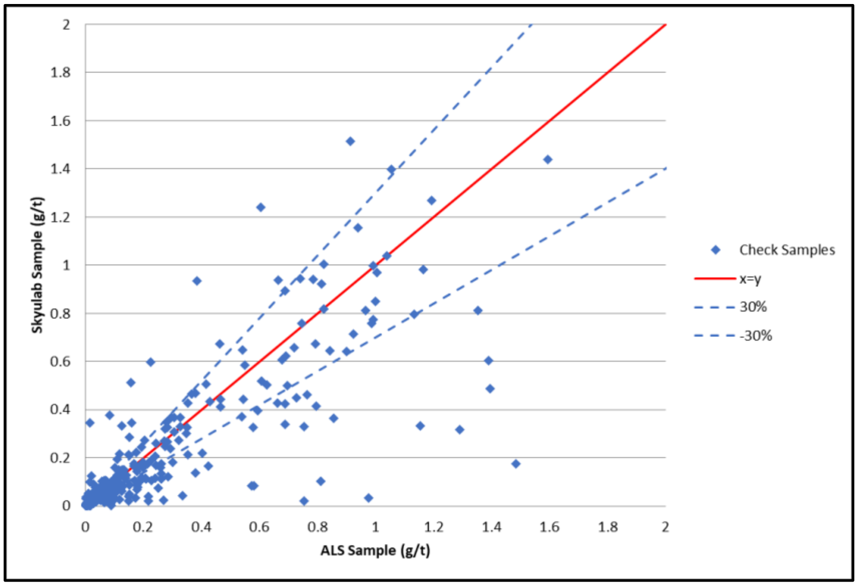
Figure 11-6 and Figure 11-7 compares the original ALS Minerals assay (X-axis) with the Skyline assay (Y-axis) for Beartrack and Arnett, respectively. The scatterplot shows that there is a reasonable comparison between the two laboratories.

Figure 11-6: Check Laboratory Assay Plot – Beartrack for the 2017 to 2021 Period



Source: Wood, 2022

Figure 11-7: Check Laboratory Assay Plot – Arnett for the 2018 to 2021 Period



Source: Wood, 2022

While check assays from Arnett do not show a significant grade bias between labs, they do show a wide scatter of values. Gold mineralization at Arnett occurs, at least in part, as native gold in oxidized coarse-grained pyrite in widely spaced quartz veinlets. This is thought to create the nugget effect, which is reflected in the broad scatter of data on Figure 11-7.

11.7.6 Historical Sample Analysis and QAQC

Historical information from Meridian on sampling and QAQC for Beartrack was reviewed and summarized in Lechner and Karklin (2018). Information from that report is summarized below for completeness.

11.7.6.1 *1990-2000 Meridian Sampling*

Little information was recovered from the acquired Meridian drill hole database regarding detailed sampling protocols that were used for the 1990 to 2000 drill campaigns. Most of the original assay certificates for that drilling data (1990 to 2000) were recovered. Those records were found in the original drill hole folders that contain the geologic logs, assay certificates, and where applicable, downhole survey results. During this time Meridian used ALS Chemex Laboratories (later known as ALS Chemex and ALS Minerals).

The commercial laboratory certificates contain QAQC results for standards and blanks that the laboratories routinely inserted for their internal purposes. Meridian's QAQC program is described in Section 11.7.1.1.

Lechner and Karklin (2018) made various comparisons of that data with 2012-2013 Meridian and 2017 Revival drill hole data, all of which was backed by QAQC results. Based on these comparisons, Lechner and Karklin (2018) concluded that sample preparation, security, and analytical procedures for the 1990-2000 Meridian drill hole data were adequate. This opinion was based on the similarity in gold grade distributions between the 1990-2000 Meridian data and spatially paired more recent drilling data, as well as excellent LOM production reconciliation that Meridian experienced while the Beartrack mine was in operation.

11.7.6.2 *2012 to 2013 Meridian Sampling*

Meridian submitted samples from its 2012 and 2013 drilling programs to ALS Minerals in Elko, Nevada for preparation and ALS Minerals in North Vancouver, British Columbia for analysis.

At ALS Minerals, Elko, Nevada, the samples were subjected to standard sample preparation (PREP-31), which includes the following methods.

- Samples were logged in the tracking system (LOG-22) and weighed (WEI-21).
- After weighing, the entire portion of each rock sample was subjected to preliminary coarse crushing (CRU-21) followed by fine crushing to better than 70% passing a 2 mm (Tyler 9 mesh) screen (CRU-31).
- A split of up to 1,000 g was taken using a riffle splitter (SPL-21) and then pulverized in a grinding mill with a low-chrome steel bowl to better than 85% passing a 75 µm (Tyler 200 mesh) screen (PUL-31). Compressed air was used to clean the equipment between samples. Barren material was crushed between sample batches to clean the equipment.

ALS Minerals, Elko, Nevada then forwarded the sample pulps to the North Vancouver ALS Minerals laboratory for analysis. Pulps were analyzed for gold by conventional fire assay and AA analysis using a 30 g charge (Au-AA25), followed by four-acid digestion and inductively coupled plasma atomic emission spectroscopy (ICP-AES) (ME-ICP61) analysis for 33 elements.

Results of the QAQC program have been well documented by Revival. The QAQC program used meets industry standard with a generally acceptable rate of insertion for blank samples, CRMs, and pulp duplicates.

The results of the pulp duplicate assays showed reasonable reproducibility with no significant grade biases. The insertion of CRMs showed that laboratory results from ALS Chemex were acceptable with respect to precision and accuracy. The results from the insertion of blanks and sterile samples are also generally acceptable.

11.8 QP Comment on Section 11

The QP has reviewed the sample preparation, security and analytical procedures provided by Revival as well as the QAQC audit and is of the opinion that the QAQC program as designed and implemented at Beartrack and Arnett is adequate and the assay results within the database are suitable for use in a Mineral Resource estimate.

12.0 DATA VERIFICATION

IMC reviewed the drill hole data with the supporting QAQC information to confirm the data is appropriate to develop mineral resources and mineral reserves. Some of the historical data was removed from the database and not utilized for mineral resources or mineral reserves. This section presents the QAQC data analysis in metric units. The Mineral Resource is later developed in imperial units. Most of the original QAQC data is reported in metric units, so this analysis has been kept in the native metric system. Once QAQC was complete, the assay data was converted to imperial units for Mineral Resource modeling. The qualified person for this section is John Marek of Independent Mining Consultants, Inc.

The general approach applied by IMC was as follows:

1) Verify the recent drilling with analysis of the QAQC information that is collected during the assay process.
2) Spot check certificates of assay against the database to confirm proper data entry.
3) Once the reliability of the recent data is established, compare the new data to the historical data using a nearest close sampling method. As result of this step, some of the historical reverse circulation (RC) data was eliminated.

The Revival QAQC procedures incorporate the following procedures on recent drilling:

- Standards
- Blanks
- ¼ Core Duplicates (2022 drilling also included crush reject duplicates and pulp duplicates)
- Check Assays

The QAQC results were analyzed and summarized for the Beartrack mine area and the Haidee deposit in Arnett Creek in the subsections to follow. QAQC information is reported in metric units and will be presented here in the original metric units. The data has been converted to imperial units of troy ounces per short ton for application to mineral resource modeling.

12.1 Beartrack QAQC

The Beartrack mine area includes recent and historical drilling. The earliest drilling within the Beartrack deposit dates from 1987. Meridian drilled both RC and Core during the period of 1988 through 1997. Modern QAQC began in 2012 with the Meridian drilling and continued through all subsequent revival drill programs. This section will primarily address the 2012 through current database QAQC. The new data will be compared to the historical data with a nearest sample approach in Section 12.3.

12.1.1 Beartrack Standards

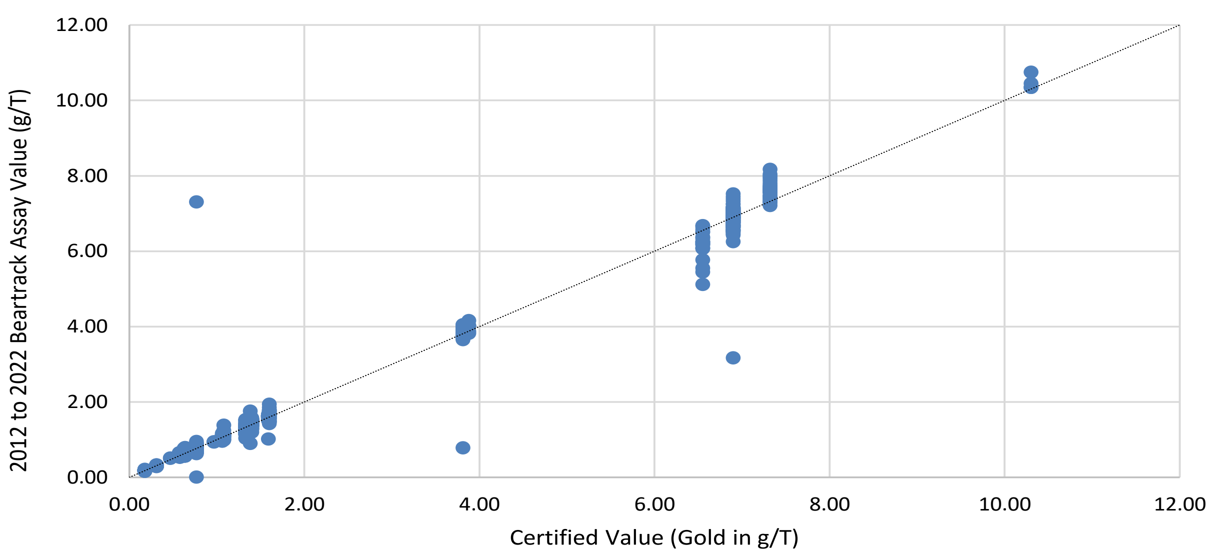
Standards are inserted periodically in the sample runs to confirm the accuracy of the assay laboratory. During the drilling and assay process, standards results are compared to the certified standard value plus or minus two standard deviations or 10% depending on the year. The IMC approach to analysis of standards is to determine if there is a bias in the lab results and if there is unexplained variability in the results.

Figure 12-1 summarizes the results of the inserted Beartrack standards from 2012 through 2023. The X-axis is the accepted value of the standard and the scattered vertical points on the Y-axis are the actual results from the assay laboratories. The line represents the theoretical 1 to 1 relationship. In summary, the standards do not illustrate any substantial bias.

The four points that are off axis are likely swapped standards that could reflect recording the wrong standard or submitting the wrong standard. The Y axis value of near 0.0 for the submitted standard that is under 1 g/T is likely a swap with a blank. The XY plots are also completed by IMC on an annual basis. Only 1 of the 4 swapped values occurred with Revival standards in 2018, the other three are from the 2012 to 2013 period when Meridian was drilling on site.

In summary, 4 potential swaps out of 643 standards analyzed is an acceptable result. It is worth noting that no further swaps have been observed since 2018.

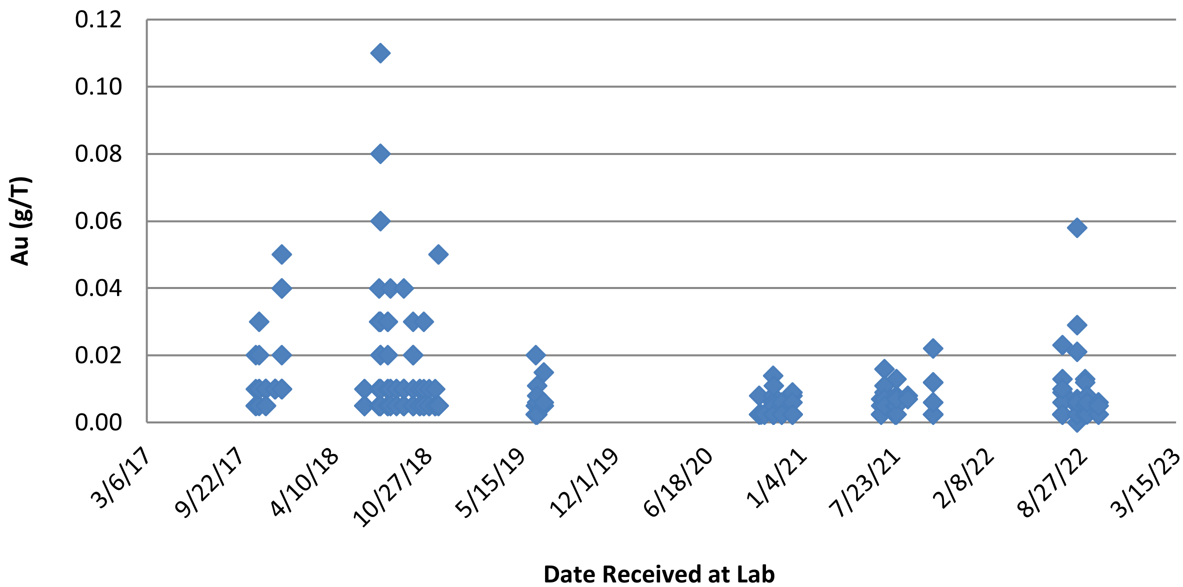
Figure 12-1: Beartrack Standards Analysis



12.1.2 Beartrack Blanks

Blanks were inserted in the sample stream by Meridian and Revival to identify any sample grade carry over due to improper sample prep or cleaning. Figure 12-2 illustrates the blank insertions versus the time they were received at the analytical lab for the period from 2017 through 2022.

Figure 12-2: Beartrack Blank Insertions



There is some scatter in the Yamana drill results in 2017 and 2018, but the highest values on the graph are substantially below interesting economic cutoff.

The Meridian drilling results were similarly analyzed with acceptable results. There were 130 available blank insertions reporting one value of 3.94 g/T Au, which is a swap with one of the standards.

12.1.3 Beartrack Core Duplicates

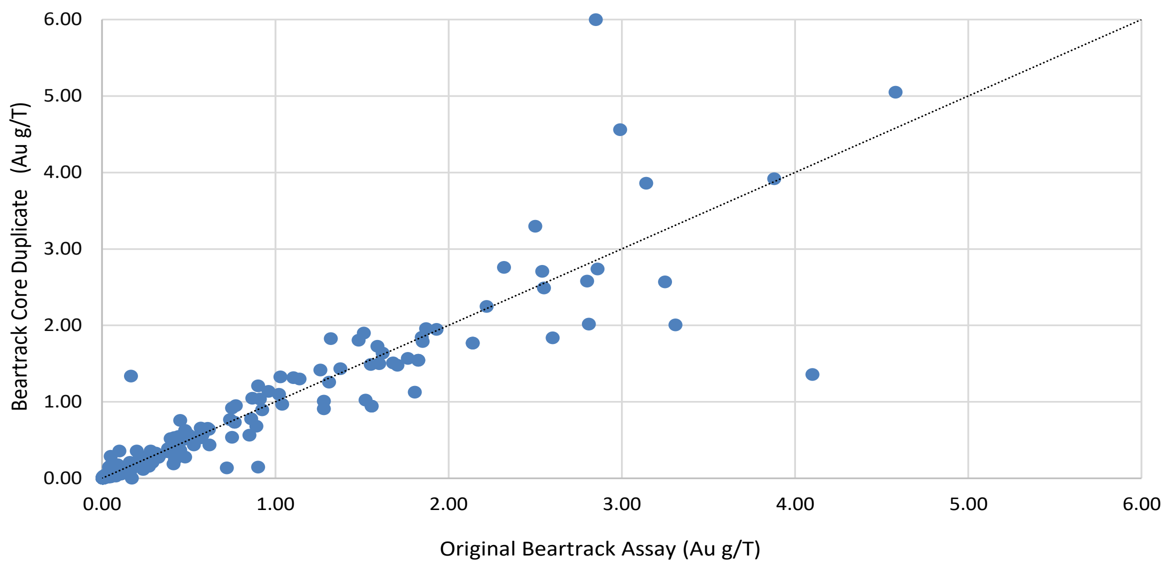
Beartrack has inserted duplicate samples of ¼ core for re-assay consistently since 2017. These samples provide confirmation of the reliability of sample preparation and assay procedures combined.

Figure 12-3 summarizes the results for all samples over the period of 2017 through 2022. The highly variable results that occur around 3.0 g/T Au all occurred during the period of October through early December 2017. Results since that time frame have been much more stable.

The following summarizes the comparison of the mean values of the original and the duplicate core results:

All ¼ Core Samples: 270 samples Original Mean = 0.594 g/T, Duplicate Mean = 0.623 g/T

Figure 12-3: Beartrack ¼ Core Au Duplicate Results



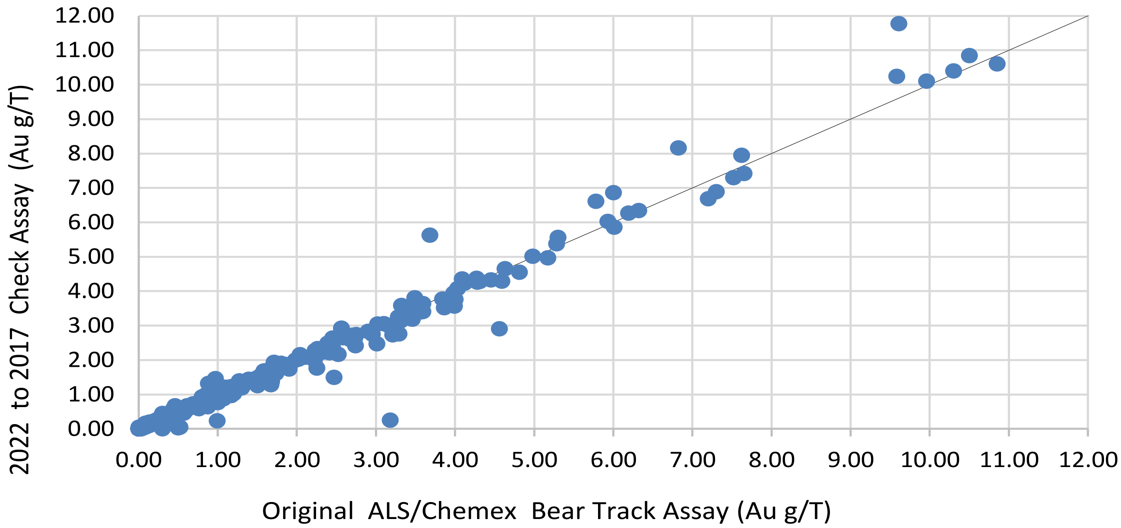
12.1.4 Beartrack Check Assays

Selected sample pulps are regularly sent to an outside 3rd party laboratory for independent assay. Over the period of 2017 through 2022 three different labs have been used for check assays: Paragon, Skyline, and American Assay Labs. Figure 12-4 summarizes the IMC work with the check assays.

The following summarizes the comparison of the mean values of the original and the check assay results:

Check assays: 586 samples Original Mean = 1.065 g/T, Duplicate Mean = 1.042 g/T

Figure 12-4: Beartrack Fire Gold Check Assays



12.1.5 Beartrack Certificate Check

IMC requested assay certificates for 10 Beartrack drill holes that cover the time period from 1988 through 1996. The assay certificates were compared to the assay data base that was provided by Revival. Roughly 850 intervals were checked with no observed problems with data entry of values above trace assay.

Early versions of the Revival data base that was provided to IMC contained discrepancies between the imperial and metric data for trace results and missing assay intervals. Corrective efforts between Revival and IMC resolved the issue. The certificate check was completed after that issue was corrected and did not identify any improper treatment of trace assays of missing intervals.

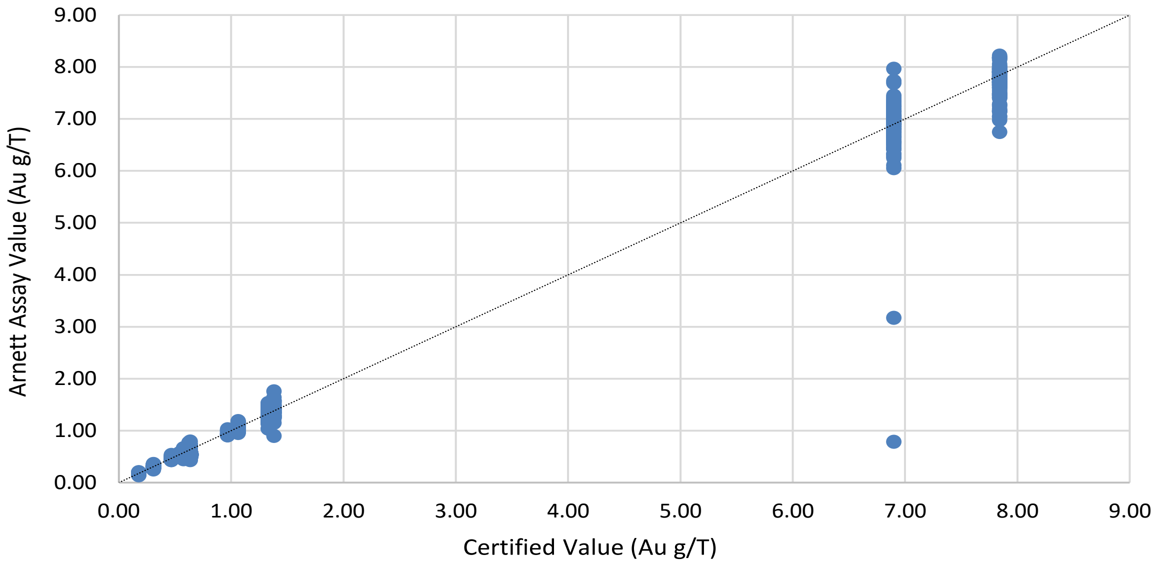
12.2 Haidee QAQC

12.2.1 Haidee Standards

Standards were submitted throughout the Haidee drilling programs. Figure 12-5 illustrates the results of the standards insertions. A scan of the graph indicates 1 swap value and one unexplained error out of 1,033 standard submissions. That level of error rate is acceptable, and the graph does not indicate any issues with laboratory assay bias.

The check assay work that is reported later indicates substantial scatter or variability in the check assay results. The positive results of the standards on Figure 12-5 indicate that the issue is not a laboratory analysis issue, but a function of the gold distribution in the Haidee samples.

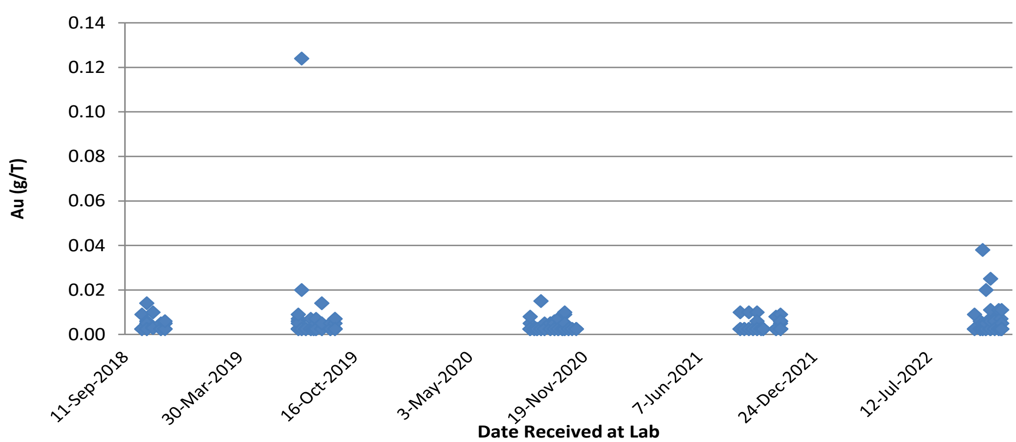
Figure 12-5: Haidee Fire Gold Standards Analysis



12.2.2 Haidee Blanks

Blank submissions have been incorporated into all Haidee drilling. Figure 12-6 illustrates the blank results over time at Haidee. There were 568 blank submissions from 2018 through 2022. The graph indicates 1 value that was higher than the rest, but it was less than potential economic cutoff grade.

Figure 12-6: Haidee Blank Submissions



The clustering of blanks over time are due the seasonal drill program. Samples are submitted to the lab from mid-summer through late fall, so there are no samples received at the lab during the winter and spring.

12.2.3 Haidee Core Duplicates

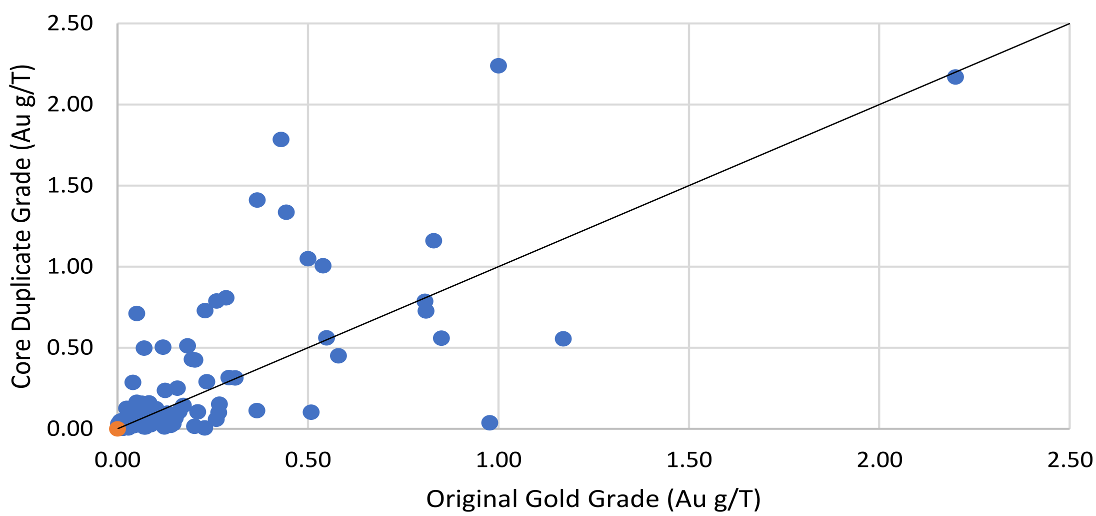
Core duplicates were analyzed from 2018 through 2021. The results of the 2018 through 2021 core duplicates are summarized below and on Figure 12-7.

Number of Haidee Core Duplicates = 207	
Mean and Standard Deviation of the Original Assays	0.141 g/T Au and 0.420 g/T Au
Mean and Standard Deviation of the Check Assays	0.187 g/T Au and 0.589 g/T Au

Despite the high degree of variability, a T-Test on the two populations indicates that one can except that the estimated mean values were both from the same population with 95% confidence.

The wide range of variability is also illustrated with the check assay results in the next sub-section.

Figure 12-7: Haidee Core Duplicates



12.2.4 Haidee Check Assays

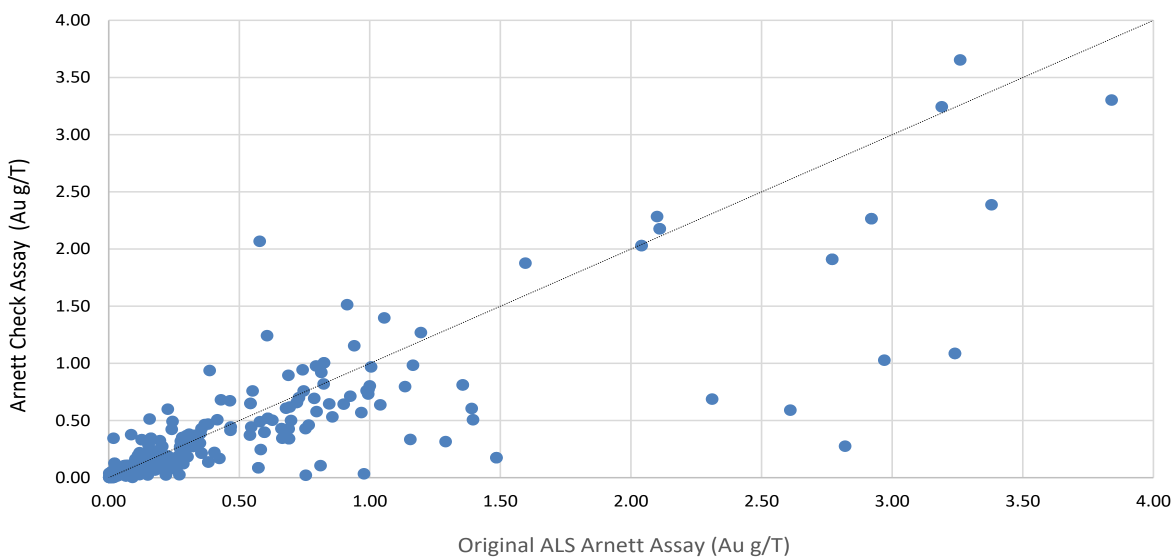
Prepared pulps have been sent to outside laboratories for check assays throughout the Haidee drilling. Check assays have been sent to both Skyline and Paragon labs during the period of 2018 through 2022. The check assay results illustrate a high degree of variability, throughout the tested grade range which is reported to be caused by the sporadic occurrence of free gold. To reduce the variability, Revival has increased the prepared pulp size from 250 g to 1000 g. Assay procedures utilize a 50 g aliquot.

If all check assay labs are combined there are 531 check assay samples. The mean and standard deviation of the original ALS assays and the check assays are summarized below:

Number of Haidee Check Assays = 531
Mean and Standard Deviation of the Original Assays 0.365 g/T Au and 1.1237 g/T Au
Mean and Standard Deviation of the Check Assays 0.296 g/T Au and 0.5798 g/T Au

Figure 12-8 illustrates an XY plot of the original assays versus the combined check assays. The high degree of scatter is illustrated on the graph.

Figure 12-8: Haidee Check Assay Results for All Years and Check



The two populations were tested to determine if the difference in their mean grades was statistically significant using the T-Test. The results of the T-Test indicate that one cannot say the two populations are different with a 95% confidence. In other words, we must accept that the two data sets could have come from the same population.

It is interesting to note that the standard deviation of the original assay is greater than that of the check assay. This is likely because the pulps were re-homogenized by the check lab.

A few Screen fire assays might be useful to confirm the source of the variability and Haidee. This level of variable result will present challenges for operational grade control.

12.2.5 Certificate Check

IMC requested assay certificates for 9 Haidee core holes that cover the time period from 1997 through 2022. The assay certificates were compared to the assay database that was provided by Revival. Roughly 1000 intervals were checked with no observed problems with data entry of values above trace assay.

Within two holes drilled in 1997, there were intervals recorded as trace in the certificate that were recorded as 0.0 in the database in the imperial units column. This is a minor occurrence and likely due rounding when converting from metric to imperial units.

12.3 Core vs RC

12.3.1 Haidee

Previous resource models at Haidee have rejected the use of RC drilling and sampling. IMC completed a nearest sample comparison of Haidee core versus RC in order to understand the relationship between the two drill methods.

The nearest sample procedure selects data from one data set (RC in this case) and finds all samples from the second data set (Core) located within specified distances. The paired populations are compared, and hypothesis tests completed, to determine if they represent the same population. The T-Statistic is a test to see of the populations are of equal mean. The Paired T-Statistic compares the differences between individual sample pairs. If those statistics are greater than about 2.0, then one has more than 95% confidence that they are not the same population.

Table 12-1 summarizes the nearest sample work completed at Haidee and confirms that the RC is high biased relative to the diamond core. The high level of sample variability likely contributes to this result.

Table 12-1: Haidee RC vs Core

All Arnett Assays RC to DDH Comparison, Assays Less than 1.71 g/T								
Separation Distance Ft	Number of Pairs	RC Samples		Core Samples		T Statistic	Paired T Statistic	Pass or Fail
		Mean g/T	Variance	Mean g/T	Variance			
5	55	0.274	0.1173	0.171	0.0586	1.751	1.876	F
10	201	0.308	0.1173	0.171	0.1173	3.857	4.011	F
25	721	0.308	0.1173	0.171	0.1173	8.539	8.840	F

Arnett Assays in Rapakivi and Crowded Porphyry								
Separation Distance Ft	Number of Pairs	RC Samples		Core Samples		T Statistic	Paired T Statistic	Pass or Fail
		Mean g/T	Variance	Mean g/T	Variance			
5	49	0.342	0.2346	0.411	0.7037	0.413	0.404	P?
10	205	0.548	1.1729	0.342	0.5864	2.081	2.151	F
25	649	0.479	0.8210	0.308	0.7037	3.411	3.499	F

12.3.2 Beartrack

The nearest sample procedure was also applied to Beartrack. However, at Beartrack, there are multiple rock units and a long period of historical drilling relative to Haidee. Additional effort was required to understand the impacts of the geologic units and the time period during which the drilling was completed.

In summary, the only information IMC has rejected from the Beartrack resource model estimation process is the 1988 Yellowjacket RC drilling and the 1989 Yellowjacket RC drilling.

The first step was to determine that the available core was consistent by comparing the more recent Yamana and Revival diamond drilling against the historical Meridian diamond drilling. Table 12-2 summarizes the results of 2012-2021 core assays versus the earlier 1988 – 1997 core assays. All rock types are combined on this table however, detailed checks of core data were completed for all geologic units. The table indicates that the core drilling from all years can be combined.

Table 12-2: 2012-2021 Core Drilling Compared to the 1988 to 1997 Core Drilling

All Rock Types Combined								
Separation	Number	2012-2021 Core		1988-1987 Core		T	Paired T	Pass or
Distance Ft	of Pairs	Mean g/T	Variance	Mean g/T	Variance	Statistic	Statistic	Fail
10	31	1.473	1.9939	1.541	1.9939	0.130	0.140	P
20	99	1.438	1.7593	1.747	2.5803	1.540	1.720	P
30	181	1.610	2.2284	1.610	2.4630	0.100	0.100	P
40	278	1.747	2.9321	1.507	2.6976	1.760	1.760	P

The diamond drilling was compared to the RC data on a year by year and rock type by rock type basis. As a result of these comparisons, the RC drilling in the years 1988 and 1989 in the Yellowjacket Formation were determined to be high biased relative to the Core drilling for all years in the same rock type.

Table 12-3 summarizes the results of the 1988 and 1989 Yellowjacket close pair analysis.

Table 12-3: All Core vs 1988 and 1989 Yellowjacket RC Drilling

Yellowjacket Core vs RC from 1988								
Separation	Number	Core		1988 RC		T	Paired T	Pass or
Distance Ft	of Pairs	Mean g/T	Variance	Mean g/T	Variance	Statistic	Statistic	Fail
10	120	1.918	3.1667	2.260	3.6359	1.440	1.770	?
20	411	1.404	1.8766	1.712	3.2840	2.780	3.260	F
30	713	1.336	2.4630	1.472	2.4630	1.480	1.670	?
40	1116	1.233	2.5803	1.506	2.8149	3.590	3.860	F

Yellowjacket Core vs RC from 1989								
Separation Distance Ft	Number of Pairs	Core		1989 RC		T Statistic	Paired T Statistic	Pass or Fail
		Mean g/T	Variance	Mean g/T	Variance			
10	684	1.610	2.9321	1.918	3.0494	3.240	4.050	F
20	1901	1.712	3.2840	2.123	3.6359	6.860	7.910	F
30	2664	1.575	2.8149	1.986	3.4013	8.410	9.760	F
40	3163	1.575	2.8149	1.952	3.2840	8.750	10.160	F

Every separation distance for both years shows the RC mean to be higher than the core mean. The test statistics also indicate that the populations are not similar.

Once the 1988 – 1989 RC drilling from the Yellowjacket Formation was removed, the remaining populations of core vs RC drilling were compared by rock type. To illustrate the compatibility of the data used for block model estimation. Table 12-4 illustrates the accepted data.

Table 12-4: All Core Versus Selected RC by Rock Type

Rapakivi								
Separation Distance Ft	Number of Pairs	Core		1988 RC		T Statistic	Paired T Statistic	Pass or Fail
		Mean g/T	Variance	Mean g/T	Variance			
10	144	0.959	0.7037	0.959	0.7037	0.020	0.030	P
20	519	0.856	0.5864	0.890	0.5864	0.680	0.910	P
30	864	0.822	0.5864	0.856	0.4691	1.010	1.290	P
40	1136	0.822	0.5864	0.856	0.5864	1.380	1.750	P

Dike or PCSZ								
Separation Distance Ft	Number of Pairs	Core		1989 RC		T Statistic	Paired T Statistic	Pass or Fail
		Mean g/T	Variance	Mean g/T	Variance			
10	38	2.158	6.4507	2.329	2.2284	0.340	0.490	P
20	185	2.226	5.6297	2.089	3.9877	0.620	1.080	P
30	309	1.884	6.2161	1.747	3.6359	0.690	1.090	P
40	401	1.712	5.3951	1.678	3.7531	0.300	0.450	P

Accepted Yellowjacket								
Separation Distance Ft	Number of Pairs	Core		1989 RC		T Statistic	Paired T Statistic	Pass or Fail
		Mean g/T	Variance	Mean g/T	Variance			
10	21	0.822	1.0556	1.404	6.9199	0.960	1.090	P
20	61	0.890	3.1667	0.856	2.8149	0.110	0.120	P
30	107	0.890	2.1111	0.993	3.0494	0.450	0.470	P
40	175	0.890	2.8149	0.925	2.2284	0.080	0.090	P

12.4 Metallurgical Test Data

KCA checked the metallurgical test procedures and results to ensure they met industry standards. Metallurgical samples were reviewed to ensure that material was reasonably representative with regards to material type and grade with the material planned to be processed to support the selected process method and assumptions regarding recoveries and costs.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The Beartrack Mine originally operated between 1994 and 2002 and processed approximately 24.5 million tons of ore from the North, South and Mason Dixon pits, producing nearly 610,000 ounces of gold. A summary of the historical production is presented in Table 13-1.

Table 13-1: Beartrack Mine Historical Production

Year	Waste Rock (tons)	Ore (tons)	AuCN (oz/ton)	AuCN (ounces)	Au Poured (ounces)	Cumulative Recovery (% AuCN)
1994	969,700	809,800	0.036	29,560	0	0.0%
1995	3,797,500	4,150,200	0.034	142,340	39,180	22.8%
1996	4,217,400	4,302,900	0.026	112,070	108,710	52.1%
1997	4,725,200	4,133,800	0.024	100,070	112,660	67.8%
1998	7,900,200	4,668,300	0.022	103,080	105,040	75.1%
1999	3,848,800	5,386,100	0.030	161,720	137,210	77.5%
2000	390,700	1,031,400	0.027	28,020	72,140	84.9%
2001					18,340	87.7%
2002					8,680	88.9%
2003-2014					7,200	90.0%
Totals	**25,849,500**	**24,482,500**	**0.028**	**676,860**	**609,160**	**90.0%**

Historical metallurgical test work programs in support of the past production at Beartrack and evaluation of Arnett (Haidee) were commissioned by the prior operators of the projects and include work completed by Hazen Research Inc. in 1989 and 1990; Davy Research & Development Ltd. in 1989; Coastech Research Inc. in 1990; T.P. McNulty & Associates in 1990; and KCA in 1991. Results from these historical test programs are regarded only anecdotally with respect to the Project as described in this study; however, the historical results largely support the current findings.

Metallurgical test work programs were commissioned by Revival Gold and completed by SGS Mineral Services in 2018, 2020, and 2023 and form the basis for the conclusions derived in this study. These reports are summarized chronologically below and are referenced in this study. Although condensed, for the sake of completeness, as much relevant data as practical is presented herein, specifically the data and results relevant to the heap leach project.

13.1 SGS Mineral Services (2018)

Results for the 2018 SGS test program summarized herein are extracted from the SGS Mineral Services report titled “Preliminary Metallurgical Testing of Composites from the Beartrack Gold Deposit” dated 10 October 2018 (SGS, 2018).

The 2018 SGS test program was conducted on six composite samples representing different ore types from the Beartrack Gold Deposit. Various tests were conducted including rougher kinetic flotation tests, intensive cyanidation on flotation concentrate, and standard cyanidation on flotation tailings.

Material from each composite was submitted for head analysis by 28 element ICP scan and whole rock analysis by XRF. Gold head assays were determined in triplicate by fire assay with AAS finish. Total sulfur and total carbon assays were determined using a LECO Carbon/Sulfur analyzer. The mercury assay was determined by cold vapor AAS. Gold grades ranged between 0.020 and 0.177 oz/t (0.69 and 6.07 g/T) with an average grade of 0.062 oz/t (2.11 g/T). Sulfur analysis ranged between 0.43 and 2.20% with an average of 1.46%. Carbon analysis ranged between 0.02 and 1.07% with an average of 0.32%. Mineralogy was conducted on all composite materials to determine mineral assemblage, identify gold bearing minerals and assess gold deportment using QEMSCAN, SEM-EDS and chemical analysis. Additional clay minerology was conducted by XRD analysis.

Flowsheet development testing was carried out on a Master Composite generated from the six composite samples with the objective of maximizing gold recovery to a flotation concentrate in minimal mass. Overall recoveries for gold from the individual Beartrack composites were highly variable with flotation concentrate recovery ranging from 64 to 98%. Cyanidation of flotation concentrates produced gold recoveries ranging from 50 to 80% and cyanidation of the flotation tailings produced recoveries of 40 to 82%. Overall recoveries were very good averaging 94.3%.

13.2 SGS Mineral Services (2020)

Results for the 2020 SGS test program summarized herein are extracted from the SGS Mineral Services report titled “An Investigation into Metallurgical Testing on Samples from the Beartrack – Arnett Creek Project” dated 31 January 2020 (SGS, 2020).

The 2020 SGS test program was conducted on 139 sample intervals of 1/4 HQ core from the Beartrack deposit and six crushed reject samples from the Arnett Creek (Haidee) deposit. Samples from the Beartrack deposit were stage crushed to minus 6 mesh and split into samples according to lithology composites. Lithology composites for the Beartrack deposit were stage crushed to minus 10 mesh then split into composite charges for further testing. A split from each lithology deposit was taken to create a mater composite. The Arnett Creek samples were used ‘as-is’ for the whole ore leach test work.

Head characterization tests were conducted on splits from each composite with results for the primary elements presented in Table 13-2 and Table 13-3 for Beartrack and Arnett, respectively.

Table 13-2: Beartrack Composite Head Analysis

Composite	Analyte							
	AuCN (g/T)	AuFA (g/T)	As (ppm)	S (%)	S^{2-} (%)	C (%)	TOC (%)	TIC (%)
BC30	0.44	1.11	1481	1.02	0.99	0.05	<0.05	0.03
QM50	0.28	0.63	645	1.25	1.25	0.18	0.17	<0.01
QZ60	0.45	1.11	2549	0.76	0.70	0.33	0.32	0.02
MC	0.38	0.91	1633	1.04	1.06	0.22	0.21	0.01

Table 13-3: Arnett Creek Sample Head Analysis

Sample ID	Analyte								
	AuCN (g/T)	AuFA (g/T)				As (ppm)	S (%)	$S^{=}$ (%)	TOC (%)
Sample 1 - AO396645	0.27	0.30	0.98	0.22	<5	0.03	<0.05	<0.05
Sample 3 - AO189714	0.55	0.95	3.71	-	<5	0.04	<0.05	<0.05
Sample 4 - AO396117	0.51	0.76	-	-	19	<0.01	<0.05	<0.05
Sample 5 - AO189171	0.31	0.47	-	-	9	<0.01	<0.05	<0.05
Sample 6 - AO188352	0.68	0.87	-	-	13	<0.01	<0.05	<0.05

A series of 2.2 lb (1 kg) screened metallic head assays were added to the program because of the variations in the direct gold head grades. A 4.4 lb (2 kg) cyanide soluble gold assay was also completed for each sample.

13.2.1 Whole Ore Cyanidation

Whole ore cyanidation tests were conducted on the Beartrack Master Composite sample and each of the 'as-received' Arnett Creek samples. For the Beartrack Master Composite, a 2.2 lb (1,000-gram) sample was pulped to 65% solids in a laboratory rod mill, then ground to the target K_{80} of 200 mesh (75µm) before adjusting the pulp to 45% solids. Lime was added to the pulp to bring the pH to 10.5-11 before adding cyanide and running the bottle roll test for 72 hours. The calculated head grade of the master composite was 0.029 oz/t (0.98 g/T), final gold extraction was 38%.

For the 'as-is' Arnett Creek samples, 2.2 lbs (1,000 grams) of each of the samples were pulped to 45% in bottles and rolled for 48 hours. A summary of the Arnett Creek bottle roll test results is presented in Table 13-4. The five Arnett Creek samples achieved high gold extractions ranging from 86.6 to 95.2%. Leach kinetics were slow and required 48 hours of leaching.

Table 13-4: Arnett Creek Whole Ore Leach Results Summary

Test #	K80 (µm)	Head Assays			Residue Assays		Consumption		Gold Extraction (%)
		Direct AuCN (g/T)	Direct AuFA (g/T)	Calc AuFA (g/T)	AuFA (g/T)	AuCN (g/T)	NaCN (kg/T)	CaO (kg/T)	
CN-AC-1	831	0.27	0.30	0.36	0.02	<0.1	0.13	0.94	94.5
CN-AC-3	1596	0.55	0.95	1.27	0.12	<0.1	0.13	0.76	90.5
CN-AC-4	752	0.51	0.76	0.37	0.04	<0.1	0.14	0.99	89.3
CN-AC-5	935	0.31	0.47	0.52	0.07	<0.1	0.11	0.66	86.6
CN-AC-6	773	0.68	0.87	0.83	0.04	<0.1	0.12	1.15	95.2

13.2.2 Beartrack Flotation Test Work

A series of six rougher flotation tests were conducted using the Beartrack Master Composite. Overall gold recoveries ranged from 85.8 to 88.0% with concentrate grades of 0.129 oz/t (4.43 g/T) Au to 0.171 oz/t (5.87 g/T). Overall sulfide recoveries ranged from 95.6 to 96.3%. Mass recovery ranged from 13 to 20%. The results show an association between gold and sulfides, specifically pyrite. Grind size did not have a significant impact with gold or sulfide recovery. The addition of a secondary collector did not improve gold or sulfide recovery.

Intensive cyanidation of the flotation concentrate tests were performed on bulk rougher concentrate samples. The concentrate leach tests showed final recoveries ranging from 26.2 to 48.2% indicating the samples were refractory in nature.

Cyanidation of flotation tailings was conducted on rougher tailings. Recoveries based on calculated head grades were highly variable and ranged from 40 to 86%. Grind sizes ranged from K_{80} 140 to 100 mesh (107 to 147µm). Results suggested that gold extraction was not influenced by the grind sizes tested.

One batch of pressure oxidation (POX) tests were conducted on a sample of rougher concentrate. POX achieved high sulfide oxidation of >99% based on calculated head grades. Further cyanidation of the POX residue showed a high recovery of 97%. This test was the highest total gold recovery achieved out of the various flowsheets tested.

Overall milling flowsheet recovery results are presented in Table 13-5.

Table 13-5: Overall Milling Flowsheet Recovery Summary

Test	Grind Size		Gold Grade		Gold Recovery						
	Primary Grind (µm)	Regrind (µm)	Direct Head (g/T)	Calculated Final Tailings (g/T)	Whole Ore Leach (%)	Flotation / Rougher Concentrate (%)	Flotation Concentrate Cyanide Leach (%)	Flotation Tailings Cyanide Leach (%)	Flotation Concentrate + Tailings Leach (%)	Concentrate Leach + Tailings Leach (Cal'd^) (%)	Concentrate Leach + Tailings Leach (Est*) (%)
Whole Ore Leach	91	-	0.91	0.610	38	-	-	-	-	38.0	33.0
Flotation-Leach	127	-	0.91	0.613	-	88.0	23.1	9.0	97.0	32.1	32.7
Flotation-Leach	147	-	0.91	0.690	-	87.1	22.9	9.9	97.0	32.7	24.1
Flotation-Leach	128	-	0.91	0.648	-	87.5	22.9	9.4	96.9	32.3	28.8
Flotation-Leach	107	-	0.91	0.635	-	86.8	22.8	10.2	96.9	32.9	30.2
Flotation-Leach	148	78	0.91	0.595	-	83.6	21.9	12.8	96.4	34.7	34.7
Flotation-Leach	148	~27	0.91	0.538	-	83.6	40.3	12.8	96.4	53.1	40.9
Flotation-Leach	148	~14	0.91	0.417	-	83.6	33.5	12.8	96.4	46.2	54.2
Flotation-POX- Leach	148	78	0.91	0.054	-	83.6	81.6	12.8	96.4	94.3	94.0

Notes:
^Based on calculated head of products
*Based on direct head and calculated final tailings

13.3 SGS Mineral Services (2023)

Results for the 2023 SGS test program summarized herein are extracted from the SGS Mineral Services report titled "An Investigation into Gold Recovery from Beartrack-Arnett Project Samples" dated 20 January 2023 (SGS, 2023).

Revival commissioned SGS Mineral Services in Ontario, Canada to examine the heap leach amenability on nine (9) bulk composite samples from the Beartrack-Arnett project. The samples were received in supersacks and had been composited based on the sample head grade, sulfide content and deposit. A summary of the sample ID's is presented in Table 13-6.

Table 13-6: Sample ID Summary (SGS, 2023)

Sample ID
BT Oxide #1: Low-Grade
BT Oxide #2: Mid-Grade
BT Oxide #3: High-Grade
BT Oxide #4: High-Grade
BT Transition #1: Low-Grade
BT Sulfide #1: Low-Grade
AC Oxide #1: Low-Grade
AC Oxide #2: Mid-Grade
AC Oxide #3: High-Grade

The nine samples were crushed to nominal 1½ inch (38 mm), 1-inch (25 mm), and ½-inch (12.5 mm) sizes and 30-day coarse ore bottle roll (heap leach amenability) tests were completed on each sample. Column leach tests were then performed on each composite at a crush size of 1½ inches.

13.3.1 Head Analysis

Beartrack-Arnett bulk samples were submitted for head characterization, which included Standard Fire Assay for gold and silver, screened metallics, cyanide soluble gold, sulfur analysis, carbon analysis, mercury analysis, and ICP multi element analysis. A summary of the head analysis results is presented in Table 13-7.

Table 13-7: Head Analysis Summary (SGS, 2023)

Element	Beartrack (BT) Samples						Arnett (AC) Samples		
	Oxide #1 Low Grade	Oxide #2 Mid-Grade	Oxide #3 High Grade	Oxide #4 High Grade	Transition #1 Low Grade	Sulfide #1 Low Grade	Oxide #1 Low Grade	Oxide #2 Mid-Grade	Oxide #3 High Grade
Au g/T Cut 1	0.27	0.53	1.06	1.10	0.60	2.91	0.23	0.34	0.52
Au g/T Cut 2	0.24	0.46	0.88	1.12	0.61	3.26	0.33	0.28	0.44
Au g/T Avg.	0.26	0.50	0.97	1.11	0.61	3.09	0.28	0.31	0.48
Au by S.M., g/T	0.25	0.50	0.61	1.25	0.55	3.20	0.28	0.32	0.63
Au by SFA, g/T	0.38	0.50	0.81	1.22	0.64	2.92	0.50	0.39	1.36
Au Calc., g/T	0.28	0.52	0.64	1.23	0.69	3.20	0.45	0.52	0.88
Ag g/T	7.10	5.10	6.90	7.00	6.00	24.5	0.5	0.90	0.80
AuCN g/T *	0.22	0.42	0.61	0.98	0.34	0.48	0.45	0.46	0.61
S %	0.15	0.11	0.14	0.16	1.44	3.27	<0.01	<0.01	0.02
$S^=$ %	0.15	0.11	0.15	0.20	1.34	3.15	<0.05	<0.05	<0.05
C(t) %	0.02	0.02	0.02	0.02	0.13	0.19	0.01	0.01	0.01
TOC %	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Hg g/T	6.6	2.0	3.6	6.4	12.0	9.3	<0.3	<0.3	<0.3

The head analyses show gold grades ranging from 0.007 to 0.085 oz/t (0.23 to 2.91 g/T). Total organic carbon was below the detection limit for all samples, with mercury present in all Beartrack samples. High concentrations of Al, Fe and K were also detected.

13.3.2 Environmental Test Work

All head samples were submitted for Modified Acid Base Accounting tests to determine the potential to generate acidic conditions over time. Oxide samples for Beartrack and Arnett reported low to non-detectable sulfide concentrations and maintain very low probability of acid generation; however, the samples were also almost entirely devoid of neutralization potential. Beartrack transition and sulfide samples were identified as 'strongly' acid generating (PAG) and with minimal neutralization potential.

The test work is ongoing at the time of this study.

13.3.3 Course Ore Bottle Roll Tests

In total, 36 coarse ore bottle roll tests were conducted on 4.4 lb (2-kilogram) samples to evaluate the effect of grind size versus recovery. Crush sizes evaluated were 1½ inch (38 mm), 1 inch (25 mm), and 1/2 inch (12.5 mm). Tests were completed under the following conditions:

- 45% solids pulp density,
- 10.5 to 11 pH maintained with Lime,

- 0.5 g/L NaCN concentration, and
- 30-day leach period.

Results for the coarse bottle roll tests are presented in Table 13-8.

Table 13-8: SGS 2023 Coarse Bottle Roll Leach Tests

Sample	Test No.	Crush Size (inch)	Au 30 day Recovery (%)	Residue Au Grade (g/T)	Calculated Au Head Grade (g/T)	Average Calculated Au Head Grade (g/T)
BT Oxide #1: Low-Grade	1	1 ½	**52.8**	0.20	**0.41**	**0.35**
	2	1	**60.4**	0.15	**0.37**	
	3	½	**69.9**	0.08	**0.27**	
BT Oxide #2: Mid-Grade	4	1 ½	**73.4**	0.13	**0.49**	**0.49**
	5	1	**74.4**	0.13	**0.51**	
	6	½	**77.0**	0.11	**0.48**	
BT Oxide #3: High-Grade	7	1 ½	**73.0**	0.23	**0.85**	**0.73**
	8	1	**72.4**	0.17	**0.62**	
	9	½	**73.5**	0.19	**0.71**	
BT Oxide #4: High-Grade	10	1 ½	**69.6**	0.41	**1.33**	**1.16**
	11	1	**70.0**	0.27	**0.91**	
	12	½	**69.8**	0.38	**1.24**	
	10R	1 ½	**60.2**	0.56	**1.40**	**1.26**
	11R	1	**69.8**	0.32	**1.04**	
	12R	½	**72.2**	0.38	**1.35**	
	10R2	1 ½	**59.5**	0.50	**1.24**	**1.32**
	11R2	1	**63.3**	0.49	**1.32**	
	12R2	½	**63.1**	0.52	**1.41**	
BT Transition #1: Low-Grade	13	1 ½	**35.6**	0.40	**0.61**	**0.64**
	14	1	**30.5**	0.45	**0.64**	
	15	½	**29.6**	0.47	**0.66**	
BT Sulfide #1: Low-Grade	16	1 ½	**9.8**	2.71	**3.00**	**3.20**
	17	1	**6.8**	3.37	**3.61**	
	18	½	**9.1**	2.71	**2.98**	
AC Oxide #1: Low-Grade	19	1 ½	**90.6**	0.03	**0.27**	**0.43**
	20	1	**80.5**	0.14	**0.70**	
	21	½	**86.3**	0.05	**0.33**	
AC Oxide #2: Mid-Grade	22	1 ½	**90.5**	<0.02	**0.21**	**0.34**
	23	1	**91.7**	0.03	**0.36**	
	24	½	**89.8**	0.05	**0.44**	
AC Oxide #3: High-Grade	25	1 ½	**84.4**	0.10	**0.61**	**0.60**
	26	1	**96.3**	0.02	**0.54**	
	27	½	**86.2**	0.09	**0.65**	
BT Blend Tests 50-50 Oxide #4 & Sulfide #1	28	1 ½	**21.8**	1.65	**2.11**	**2.75**
	29	1	**25.4**	2.94	**3.94**	
	30	½	**23.3**	1.69	**2.20**	

Gold extractions for the four Beartrack oxide samples ranged from 53 to 73%. Finer crush sizes showed a moderate recovery increase. Cyanide consumptions ranged from 3.6 to 5.2 lbs/t (1.8 to 2.6 kg/T). Lime additions ranged from 2.0 to 4.4 lbs/t (1.0 to 2.2 kg/T). Beartrack transition and sulfide samples showed low recoveries from 6.8 to 35.6%. Cyanide consumptions for transition and sulfide samples ranged from 3.6 to 4.6 lbs/t (1.8 to 2.3 kg/T) and lime additions ranged from 2.2 to 2.6 lbs/t (1.1 to 1.3 kg/T).

The Arnett Creek oxide samples showed positive recoveries ranging from 80 to 96%. The cyanide consumption ranged from 4.0 to 5.6 lbs/t (2.0 to 2.8 kg/T), and lime additions ranged from 2.2 to 3.2 lbs/t (1.1 to 1.6 kg/T).

Blended sample tests of Beartrack oxide and sulfide reported moderate recoveries from 56.3% to 68.8%.

13.3.4 Column Leach Tests

Column leach tests (SGS, 2023) were conducted utilizing material crushed to 100% passing 1½ inches (38 mm). A total of twelve column tests were conducted on six Beartrack samples and three Arnett Creek samples. Material was leached for 180 days for oxide samples and 360 days for transition and sulfide samples with a sodium cyanide solution at various flow rates: 0.002, 0.003 and 0.004 gpm/ft^2 (5, 7.5, and 10 L/h/m^2). A summary of results for Beartrack and Arnett Creek column leach tests are presented in Table 13-9.

Table 13-9: SGS 2023 Beartrack Column Leach Test Results

Sample	Test No.	Test Duration Days	Reagent Addition		Au Extraction (%)	Au Residue Grade (g/T)	Au Calculated Head (g/T)	Au Direct Head (g/T)
			NaCN (kg/T)	CaO (kg/T)				
BT Oxide #1 Low-Grade	C-1 5 L/h/m^2	180	1.30	3.43	**60.1**	0.11	0.28	0.38
BT Oxide #2 Mid-Grade	C-2 5 L/h/m^2	180	1.42	3.41	**77.0**	0.12	0.52	0.50
BT Oxide #3 High-Grade	C-3 5 L/h/m^2	180	1.12	3.47	**81.1**	0.12	0.64	0.81
BT Oxide #4 High-Grade (3 flowrates tested)	C-4 5 L/h/m^2	180	0.98	3.18	**62.5**	0.46	1.23	1.22
	C-5 10 L/h/m^2	180	1.30	4.06	**59.3**	0.54	1.33	
	C-6 7.5 L/h/m^2	180	1.40	3.29	**61.4**	0.51	1.32	
BT Transition #1 Low-Grade	C-7 5 L/h/m^2	360	1.78	6.44	**30.7**	0.48	0.69	0.64
BT Sulfide #1 Low Grade	C-8 5 L/h/m^2	360	2.20	6.67	**11.3**	2.84	3.20	2.92

Sample	Test No.	Test Duration Days	Reagent Addition		Au Extraction (%)	Au Residue Grade (g/T)	Au Calculated Head (g/T)	Au Direct Head (g/T)
			NaCN (kg/T)	CaO (kg/T)				
AC Oxide #1 Low-Grade	C-9 5 L/h/m^2	152	0.92	2.39	**79.9**	0.09	0.45	0.50
AC Oxide #2 Mid-Grade	C-10 5 L/h/m^2	180	1.02	2.83	**92.4**	0.04	0.52	0.39
AC Oxide #3 High-Grade	C-11 5 L/h/m^2	180	0.97	2.77	**94.3**	0.05	0.88	1.36

Gold extractions for the Beartrack Oxide samples ranged from 59 to 81%. Solution application rate did not show to have an impact on overall recovery. Cyanide consumptions ranged from 2.0 to 2.8 lbs/t (1 to 1.4 kg/T) and lime addition averaged 7.0 lbs/t (3.5 kg/T).

Gold extractions for Beartrack Transition and Sulfide samples were 30.7% and 11.3%, respectively. The cyanide consumptions and lime additions were higher than the oxide samples and averaged 4.0 and 13.0 lbs/t (2 kg/T and 6.5 kg/T), respectively. The leach kinetics for the sulfide and transition were both slow, leaching extended over 300 days.

Gold extractions for Arnett Creek Oxide samples were high ranging between 79.9 and 94.3% gold recovery. The low-grade column was not able to reach a full leach cycle due to plugging. The cyanide consumptions and lime additions were lower than Beartrack Oxide samples and averaged 2.0 and 5.4 lbs/t (1 kg/T and 2.7 kg/T), respectively.

13.4 Heap Leach Conclusions from Metallurgical Programs

Based on the recent metallurgical tests completed on the project, which are supported by the historical operational data, key design parameters for the Project include:

- Crush size of 100% passing 1½ inches (P_{80} 7/8 inches)
- Variable gold recoveries for the Beartrack ore based on the ratio of the cyanide soluble gold and fire assay gold grade. The average gold recovery at Beartrack is 53% of contained gold and 84% of cyanide soluble gold including an additional 2.3% gold recovery for oxide and transition ore based on the long leach tail observed during operations and in the column leach tests.
- Gold recovery of 86% of the fire assay grade for Arnett ore (Haidee) including a 2% deduction from lab recoveries.
- Design leach cycle of 80 days.

- Lime consumption as follows:
  - 6.2 lbs/t (3.1 kg/T) for Beartrack Oxide
  - 11.0 lbs/t (5.5 kg/T) for Beartrack Transition
  - 11.5 lbs/t (5.8 kg/T) for Beartrack Sulfide
  - 4.8 lbs/t (2.4 kg/T) for Haidee Oxide
- Cyanide consumption as follows:
  - 0.80 lbs/t (0.4 kg/T) for Beartrack Oxide
  - 0.86 lbs/t (0.43 kg/T) for Beartrack Transition
  - 1.18 lbs/t (0.59 kg/T) for Beartrack Sulfide
  - 0.60 lbs/t(0.3 kg/T) for Haidee Oxide

The key design parameters are based on test work performed on representative samples from documented drill holes from the proposed pits. In total the test work includes six column leach tests and 18 coarse bottle roll tests conducted on Beartrack oxide ore, two column leach tests and three coarse bottle roll tests conducted on Beartrack transition ore, three column leach tests and three coarse bottle roll tests conducted on Beartrack Sulfide ore and three column leach tests and nine coarse bottle roll tests conducted on Haidee (Arnett Creek).

13.4.1 Heap Leach Recovery

In order to determine the recovery estimates for the Beartrack and Arnett (Haidee) ores, several different parameters were analyzed including material crush size, gold head grade and percent sulfide and their impact on recovery. From these analyses, the Beartrack ores are moderately sensitive to crush size and very sensitive to percent sulfide for gold recovery, while the Arnett (Haidee) material shows little to no sensitivity to crush size (there is no sulfide material for Arnett). Neither deposit appears to be sensitive to head grade for gold recovery. Plots for crush size vs. recovery, percent sulfide vs. recovery and gold head grade vs. recovery are presented on Figure 13-1, Figure 13-2 and Figure 13-3, respectively.

Figure 13-1: Crush Size versus Recovery

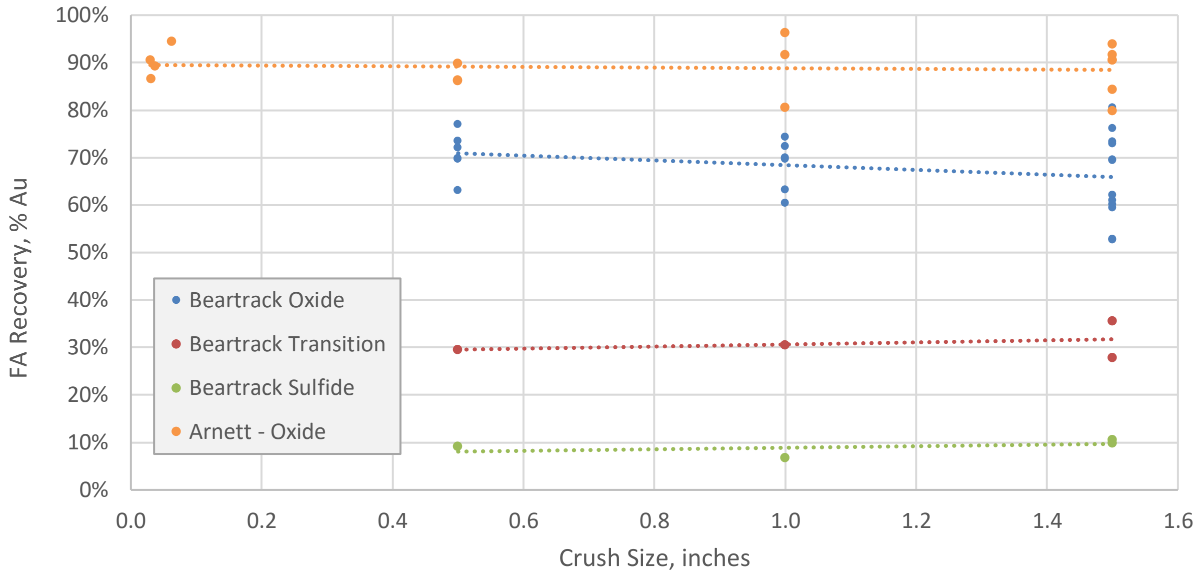


Figure 13-2: Beartrack Percent Sulfide versus Gold Recovery

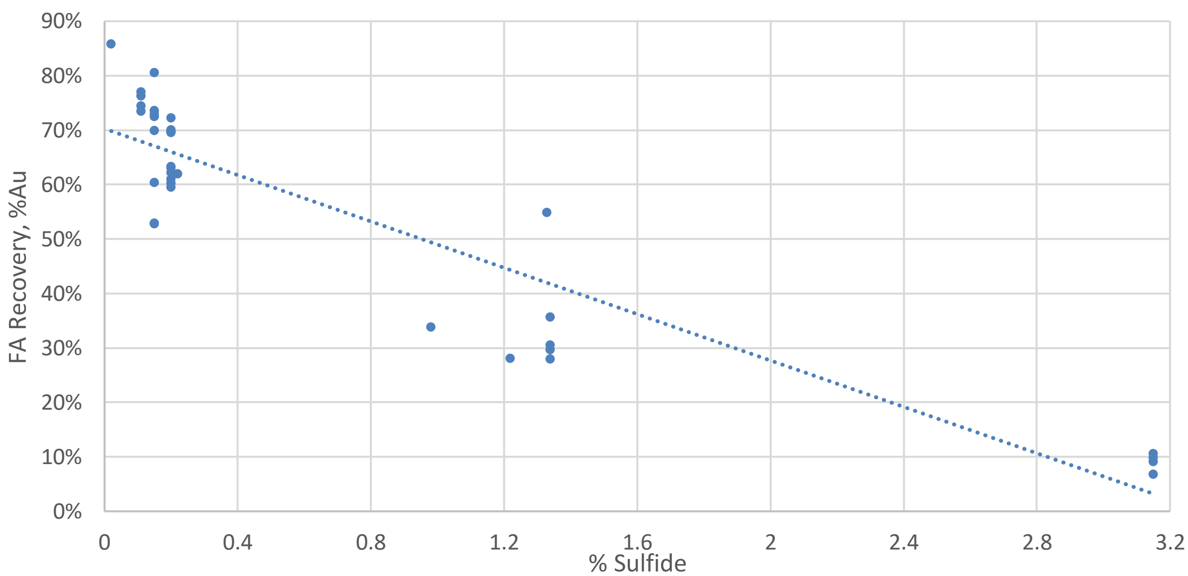
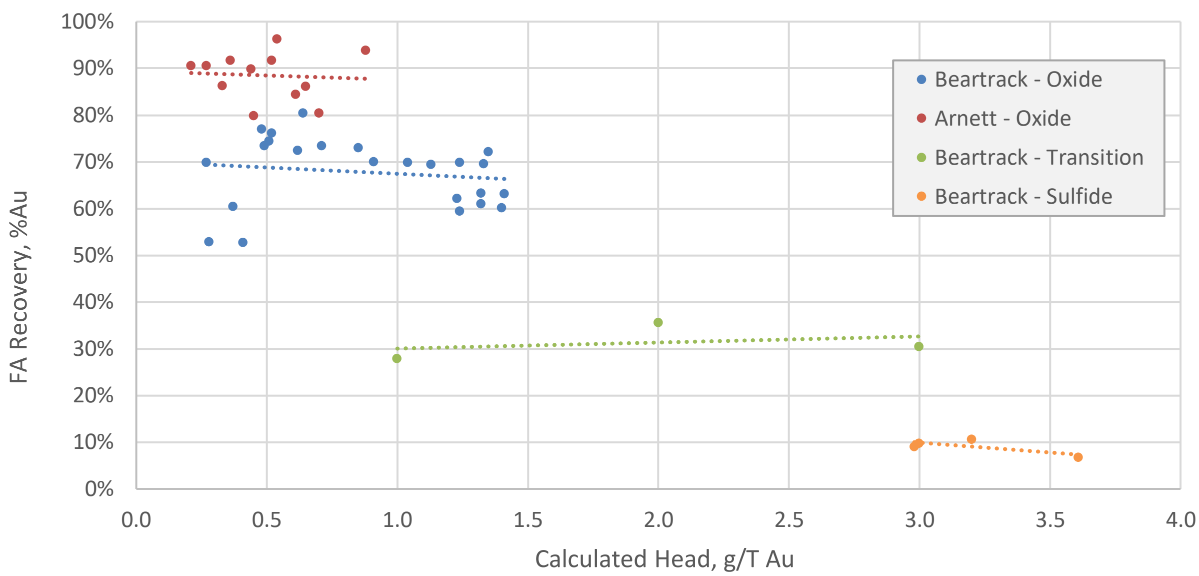


Figure 13-3: Gold Grade versus Gold Recovery



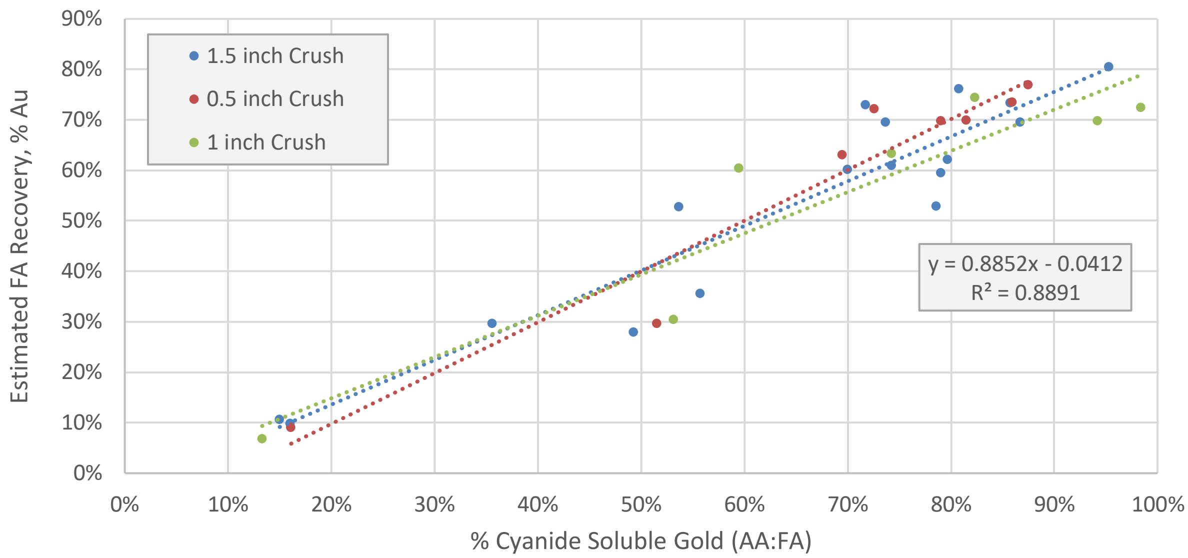
A crush size of 1½ inches has been selected based on the column and bottle roll leach data. Although the test results suggest that there may be some recovery improvements with finer crushing at Beartrack, these improvements appear to be relatively minor without significant additional crushing. Additional column tests at finer particle sizes are recommended. Gold recoveries for Arnett (Haidee) are estimated at 86% of the fire assay grade, including a 2% lab to field deduction at 1½ inches.

Further evaluation of the Beartrack data shows a strong correlation between the lab recoveries and the ratio of the cyanide soluble gold content and head grade, as shown in Figure 13-4. This relationship takes into account the percent sulfide of the Beartrack ore which has a significant impact on the cyanide soluble gold.

Based on a 1½ inch crush size, the following recovery correlation is assumed for the Beartrack ore:

$$\%Au = 0.8852 * \frac{CN\ Au}{FA\ Au} - 0.0412$$

Figure 13-4: Beartrack AA:FA versus Gold Recovery



In order to validate the recovery estimate method, the variable recovery formula was applied to the original mine resource and compared to the historical production data. The resulting tons and recovered gold were in close agreement between the model and actual production (within 1% for the total tons and 3% for the recovered gold, excluding the long leach tail) and the recovery model was determined to be reasonable for estimating gold recoveries.

13.4.2 Leach Cycle

The Beartrack-Arnett leach cycle has been estimated based on the column test work completed by evaluating the leach curves for gold. The leach cycle considers tons of solution per ton of ore as well as the total time required to reach the ultimate recovery in the column leach tests. The selected leach cycle for the Beartrack-Arnett ore is 80 days, which considers recovering approximately 90% of the recoverable gold during the primary leach cycle and recovering the remaining gold during subsequent leaching of higher lifts.

It is noted from the historical production data, as well as from the lab column leach tests, that there appears to be a long tail to the leach curve, with additional metal being recovered incrementally over a long period of time. The long leach tail, and subsequent additional metal recovery, is not considered or included in the leach cycle; however, it is reasonable to assume that additional metal recovery would occur with extended leaching. Additional extended column tests should be considered to quantify this recovery improvement; an additional gold recovery of 2.3% has been applied to the Beartrack oxide and transition ores based on the leach tail.

13.4.3 Reagent Consumptions

13.4.3.1 *Cyanide*

Cyanide consumptions from the column leach tests for Beartrack and Arnett (Haidee) were studied by material type and adjusted to provide a basis for the expected field cyanide consumptions. In KCA's experience, field cyanide consumptions are typically 25% to 50% of observed lab consumptions and have been estimated at 33% of the lab. Lab cyanide consumptions for the Beartrack Oxide ore averaged 2.4 lbs/ton, Beartrack Transition ore averaged 2.6 lbs/ton and Beartrack Sulfide ore averaged 3.6 lbs/ton with field cyanide consumptions of 0.80 lbs/ton, 0.86 lbs/ton and 1.18 lbs/ton for the Beartrack Oxide, Transition, and Sulfide ores, respectively. Lab cyanide consumption for Arnett (Haidee) averaged 1.8 lbs/ton with an estimated field cyanide consumption of 0.6 lbs/ton.

13.4.3.2 *Lime*

Lime is required for pH control during leaching and is assumed to be consumed at a 1:1 ratio after converting from hydrated lime, which is typically used in laboratory tests, to quick or pebble lime, which is most commonly used in operation. Lime consumption for the Beartrack Oxide ore averaged 6.2 lbs/ton, Beartrack Transition ore averaged 11.0 lbs/ton and Beartrack Sulfide ore averaged 11.5 lbs/ton. Lime consumption for Arnett (Haidee) averaged 4.8 lbs/ton.

13.5 Sulfide/Milling Test Work Summary & Conclusions

Multiple test work programs, both historical and recent, have been conducted on the transition and sulfide materials present in the Beartrack deposit including flotation, ultra fine grinding of concentrates followed by cyanide leaching, bio-oxidation followed by cyanidation, pressure oxidation of whole ores and concentrates followed by cyanide leaching, and roasting of whole ores and concentrates. A summary of each program and tests performed is presented in Table 13-10. Key results from the SGS test programs completed between 2018 and 2023 are presented in Sections 13.1, 13.2 and 13.3.

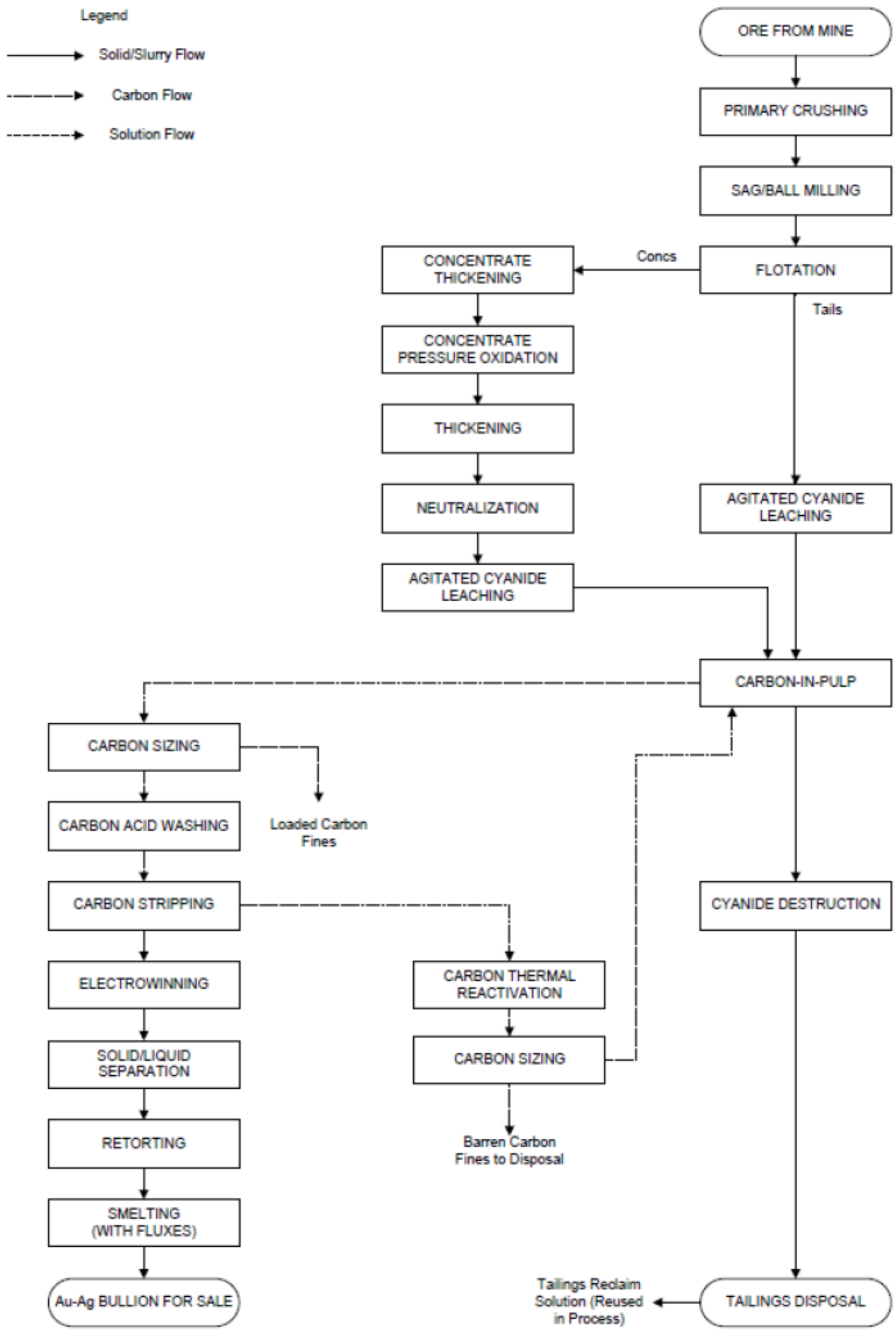
Table 13-10: Beartrack Sulfide Test Work Summary

Year	Laboratory	Test Work
1989	Hazen Research Inc	Cyanidation, Flotation, and Gravity Separation
1989	Davy Research and Development	Bio-Oxidation
1990	Hazen Research Inc	Pre-Oxidation, Flotation, Cyanidation
1990	T.P. McNulty and Associates inc. / Hazen Research	Whole Ore Leaching, Flotation, Gravity Concentration, Oxidation
2018	SGS Mineral Services	Flotation, Cyanidation
2020	SGS Mineral Services	Whole Ore Cyanidation, Flotation, Intensive Leach, Pressure Oxidation
2023	SGS Mineral Services	Cyanidation

The test work completed on the sulfide resource indicates that the material is not amenable to direct cyanide leaching with low average gold recoveries. Flotation results from the programs varied; however, rougher flotation results from the 2020 SGS program indicated gold recoveries ranging between 85.8 to 88% and sulfide recoveries ranging from 95.6 to 96.3% at a grind size of K_{80} = 150 µm with mass pulls ranging from 13 to 20%. Sulfide concentrates are not directly cyanide leachable, even with ultra-fine grinding; however, gold recoveries greater than 96% were achieved with pressure oxidation followed by cyanidation.

Based on the test work results available, flotation of sulfide material with a CIL leach on the flotation tails at Beartrack may be a viable option, especially if the flotation recoveries and mass pulls can be optimized; however, additional treatment of the concentrate would be required. Selling or toll processing of the sulfide concentrate to an existing mine with a pressure oxidation circuit would likely be the most economic case based on the current tons and grade estimates. Alternatively, it may be viable to construct a pressure oxidation circuit at the Beartrack site for onsite treatment and leaching. A conceptual block flow diagram for processing the sulfide material is presented in Figure 13-5.

Figure 13-5: Conceptual Block Flow Diagram for Processing High-Sulfide Material



Source: Marsden, 2019

The following additional test work is recommended for the Beartrack sulfide material to better evaluate and define an optimal processing method:

- Grind size optimization tests
- Flotation reagent optimization
- Arsenopyrite recovery optimization
- Gold deportment
- Cyanide treatment of flotation tails

Note that only sulfide material that can be processed economically by heap leaching is included in the reserve for the pre-feasibility case.

14.0 MINERAL RESOURCE ESTIMATES

Mineral resources were developed for the Project using three computer-based block models. Each model covers a separate zone of the deposits.

1) Beartrack Open Pit Mineral Resource Model
2) Beartrack Underground Resource Model
3) Haidee Open Pit Mineral Resource Model

The Beartrack model is assembled to enable evaluation of both heap leach mineral resources and mineral reserves, as well as deeper un-oxidized open pit mineral resources that would require a mill for processing. The underground mineral resources are estimated in a separate model with smaller blocks that are consistent with the geometry of the mineralization that is amenable to underground mining. The underground model overlaps with the open pit model in the South Pit and Joss areas. Careful effort has been made to assure that open pit and underground resources do not double count material.

The Haidee model is located approximately four miles (6.5 km) to the northwest of the Beartrack area. The Haidee block model uses a different block size and estimation procedures in order to properly represent the potentially minable component of the Haidee mineralization that is planned for production by open pit methods and heap leaching.

Each of the three models will be described separately in the following sections.

14.1 Beartrack Open Pit Model

14.1.1 Model Size and Database

The Beartrack area has been divided into five areas that correspond to the historical mining areas and drilling locations. The model has been rotated to generally parallel the orientation of the Panther Creek Shear Zone (PCSZ). The model size and orientation are summarized on Table 14-1.

Table 14-1: Beartrack Open Pit Model Location

Block Model Location 30 Degree Rotation to the Right of North			
Row	Column	Northing	Easting
1	1	1,295,634.00	1,606,134.00
925	1	1,311,655.47	1,615,384.00
925	250	1,309,155.47	1,619,714.13
1	250	1,293,134.00	1,610,464.13
Bottom Toe elevation			4000.00
Top Crest Elevation			8000.00
Block size in Plan			20 x 20 ft
Bench Height			25 ft

Figure 14-1 illustrates the drill hole locations and the deposit area based on the color coding of the drill hole collars.

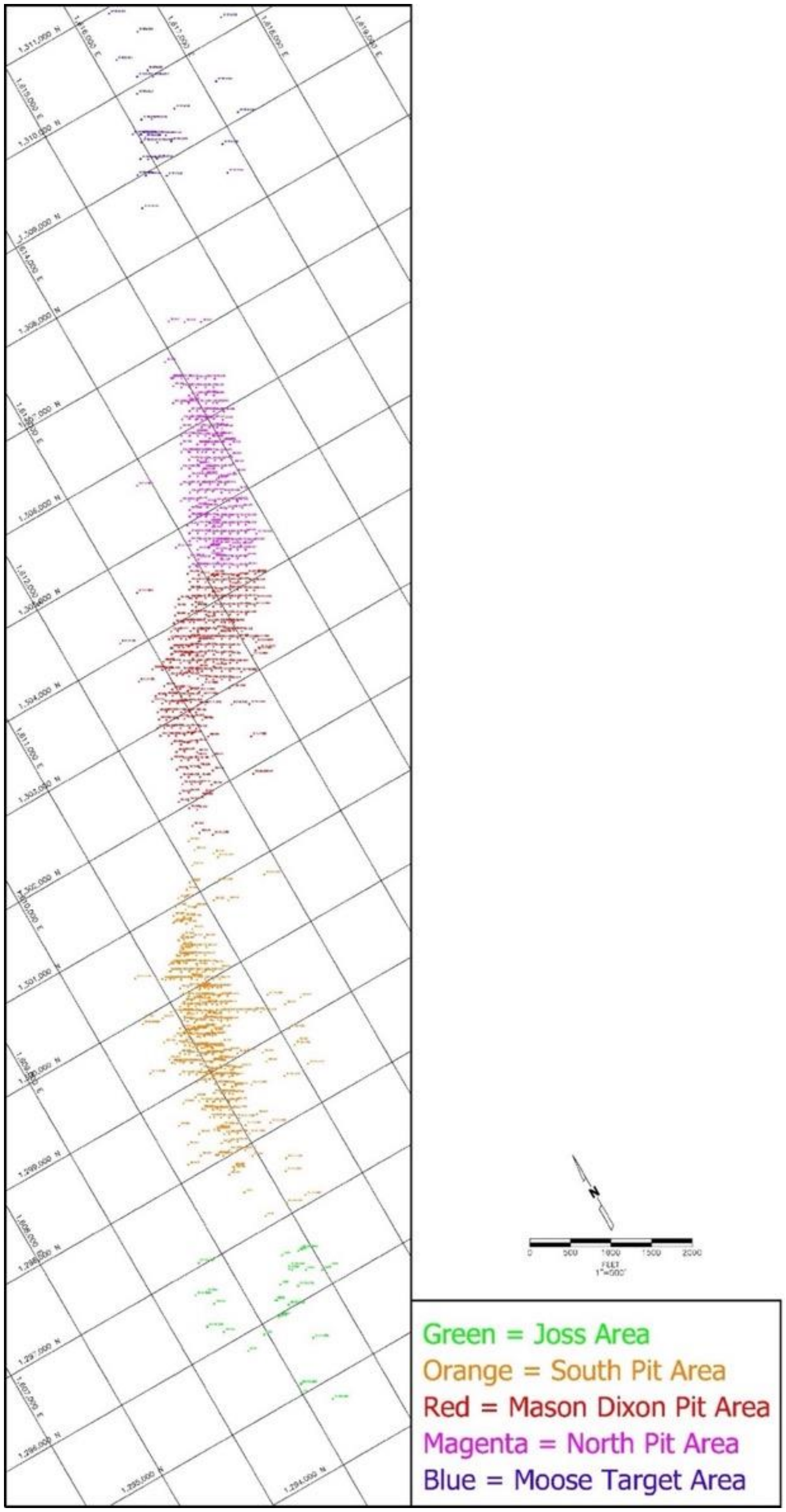
Table 14-2 summarizes the total amount of drilling completed in the Beartrack model area and the amount of data selected for mineral resource estimation. Section 12 describes the procedures whereby the reverse circulation drilling in the Yellowjacket formation that was drilled during 1988 and 1989 was removed from the data base for resource estimation.

Table 14-2: Beartrack Drill Hole Data

Beartrack Mineral Resource Areas	Total Drilling Data in the Database						
	Fire Assay Gold		Cyanide Assay Gold		Cyanide To Fire Assay Ratio	Number Of Drill Holes	Feet of Drilling
	Number of Assays	Mean Grade (oz/t)	Number of Assays	Mean Grade (oz/t)			
Joss	4,606	0.020	442	0.004	0.155	38	36,837
South Pit	36,452	0.029	19,432	0.024	0.586	384	215,988
Mason-Dixon Pit	24,826	0.017	11,043	0.014	0.525	294	148,154
North Pit	16,686	0.016	6,925	0.014	0.447	220	95,367
Moose Deposit	2,716	0.010	845	0.005	0.221	32	14,920

Beartrack Mineral Resource Areas	Drilling Data Accepted for Mineral Resource Estimation				
	Fire Assay Gold		Cyanide Assay Gold		Cyanide To Fire Assay Ratio
	Number of Assays	Mean Grade (oz/t)	Number of Assays	Mean Grade (oz/t)	
Joss	4,606	0.020	442	0.004	0.155
South Pit	25,531	0.024	12,108	0.021	0.593
Mason-Dixon Pit	23,962	0.017	10,758	0.014	0.515
North Pit	15,207	0.017	6,852	0.014	0.445
Moose Deposit	2,466	0.011	816	0.047	0.199

Figure 14-1: Model Location and Drill Hole Location Map



Source: IMC, 2023.

14.1.2 Geology and Interpretation

Section 7 describes the Beartrack geology in some detail. Rock type and structure solids were interpreted by the Revival team and confirmed by IMC prior to use in the resource model. The solids were used to code the model blocks on a nearest whole block basis. The interpreted units are as follows:

Model Code	Description
10	Tertiary – Alluvium
30	Panther Creek Shear Zone (PCSZ)
40	Intrusive Dikes
50	Rapakivi Granite
60	Yellowjacket Formation

The mineralization is contained within the PCSZ, Rapakivi granite, Yellowjacket Formation. There is minor mineralization within the Intrusive Dikes in the Mason-Dixon pit area. The rock type and structure zones were used to define estimation domains and to control the block grade estimation. Grades were not assigned to the Tertiary unit.

14.1.3 Assay Cap Grades

Individual assays were capped prior to the calculation of composites for grade estimation. The assays were assigned the geologic codes listed above based on whether the assay was contained within the solids. Cumulative frequency plots were prepared for each geologic unit to determine the outlier level for capping. Table 14-3 summarizes the assay cap values by unit.

Table 14-3: Beartrack Open Pit Assay Cap Levels

Code	Unit	Fire Assay Gold Cap	
		(oz/t)	(% capped)
30	PCSZ	0.70	0.126%
50	Rapakivi	0.45	0.016%
60	Yellowjacket	0.50	0.083%

The CN/FA ratio was capped at a value of 1.5. This process acknowledges that cyanide results are occasionally a higher value than the fire assay. This situation generally occurs where the fire assay values are near the detection limit.

14.1.4 Composite Procedures

The drill hole data was composited into 25 ft down hole lengths constrained by the geology unit codes that were assigned to the block model. IMC utilizes a procedure where the length of the composites can be adjusted slightly, so that an integral number of composites occur within each rock type interval. For example, if there is 270 ft of drill hole penetration through a rock type, each composite would be calculated at 27 ft so that there were 10 composites of equal length. The procedure results in minor variations in composite length but avoids the issue of short composites at a rock type contact. The length variability is not sufficient to be considered as a change in support.

Composites are weighted averages of the length of the contained assay intervals or fractions of assay intervals. Composite procedures were applied to fire assay gold (FA) and the CN/FA ratio. Cyanide soluble gold assays (CN) were composited but were not used for grade estimation. CN/FA ratio was assigned to the model blocks from the CN/FA ratios in the composites.

14.1.5 Basic Statistics and Mineral Domains

Statistical domains were developed based on the geologic unit and the deposit area. Boundary analyses were completed to compare the composite data on either side of tested geologic units. The boundary analysis was applied to the fire assay gold data. Once the underlying controls on hydrothermal mineralization were established, a second procedure was used to evaluate the oxidation level within the deposits.

The estimation domains for the Fire Gold block estimation are as follows:

Domain	Area	Geologic Units
1	Joss Area	Combine PCSZ and Yellowjacket
2	South Pit	Combine PCSZ and Yellowjacket
3	South Pit	Rapakivi
4	Mason-Dixon	Combine PCSZ and Rapakivi
5	Mason-Dixon	Yellowjacket
7	North Pit	Combine Yellowjacket and Rapakivi
8	Moose	Combine Yellowjacket and Rapakivi

Once the domains for FA gold were established, the CN/FA ratio was studied to understand the oxidation intensity and geometry that contributes to the heap leach component of the mineralization.

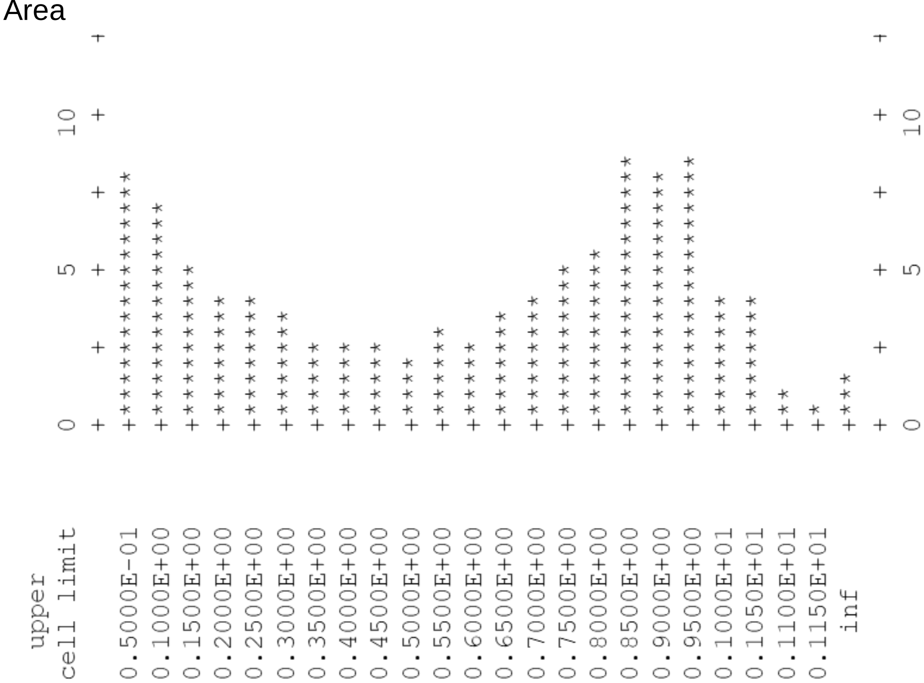
Many practitioners hold the opinion that FA and CN are somewhat independent variables and should be estimated separately. In this case, the CN assay gold values are indicative of two geologic occurrences: 1) hydrothermal mineralization, and 2) oxidation state. The first of which is generally a highly skewed distribution as observed at Beartrack. The second process is typically an unknown distribution which is a function of water table, permeability, porosity, and fracture density.

The calculated ratio of CN/FA on the assay level is a direct measure of the amount of oxidation that has occurred at that location. By dividing by FA, the hydrothermal component of the distribution is removed from the new variable CN/FA.

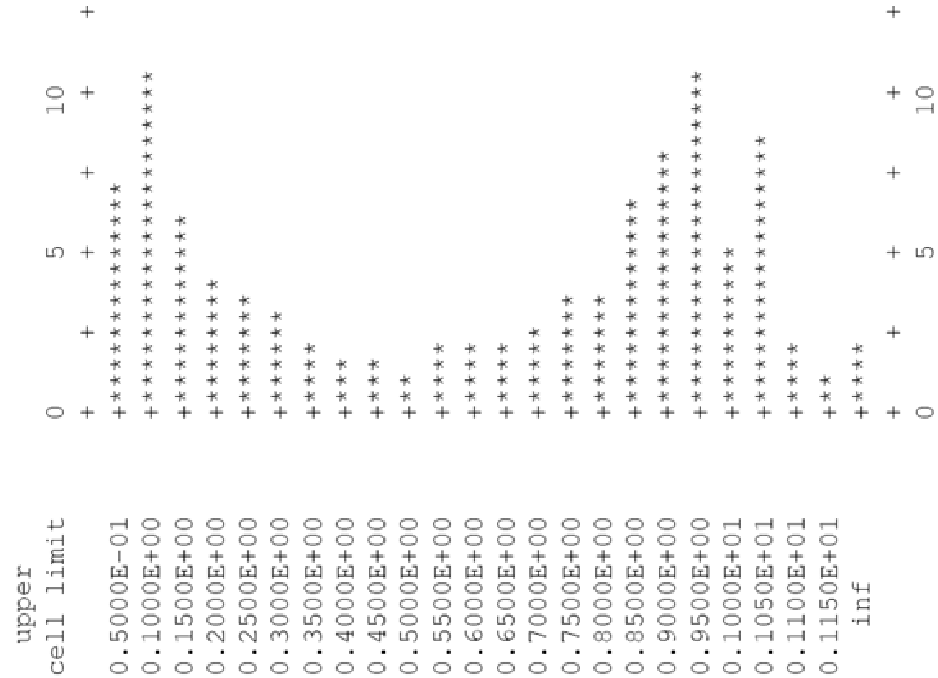
Figure 14-2 illustrates histograms of the CN/FA assay data in the South Pit area and The Mason-Dixon Pit area. There is a distinct boundary at 0.5 value for CN/FA ratio that illustrates a population boundary between well oxidized and sulfidic material. The distributions of material in the oxidized zones are nearly normal distributions, indicating that the oxidation process is independent of the hydrothermal grade event.

Figure 14-2: Histograms of CN/FA Ratio on South Pit and Mason-Dixon Pit

South Pit Area



Mason-Dixon Pit Area



A boundary of 0.5 CN/FA ratio will be applied in the estimation process for CN/FA into the block model. This boundary will prevent the sulfidic values from impacting the oxidized blocks and vice-versa.

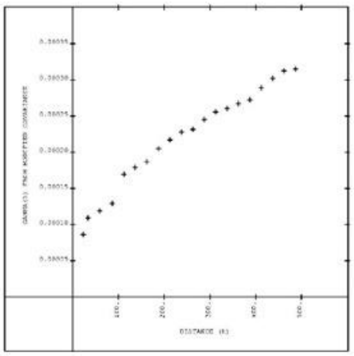
14.1.6 Variography

Variograms were developed to provide guidance to the selection of search parameters for block grade estimation. A few example variograms are provided below that cover the heap leach open pit area. Variograms for FA composites for the three major geologic units are illustrated in Figure 14-3.

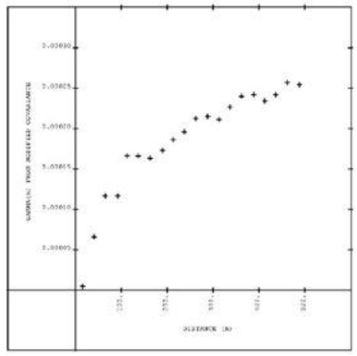
For each geologic unit, there are three directional variograms representing: 1) vertical, 2) along strike, and 3) across strike. The PCSZ variogram across strike is not well developed because the structure is typically not very wide.

Figure 14-3: Example Variograms

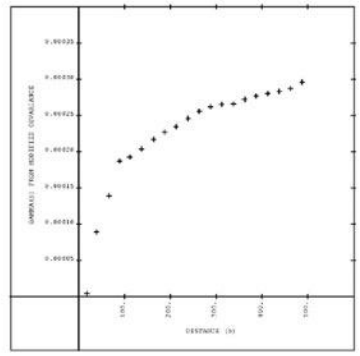
Yellowjacket



Vertical

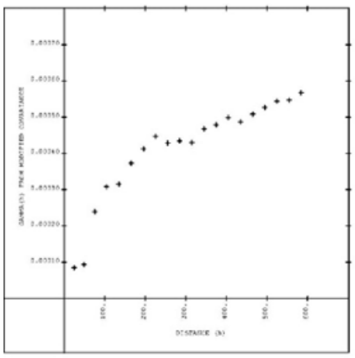


Strike

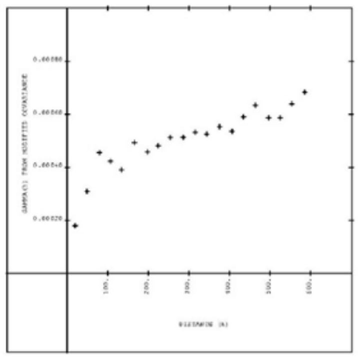


Cross Strike

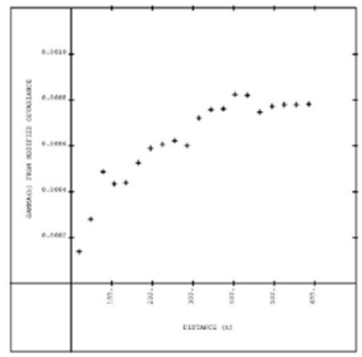
Rapakivi



Vertical

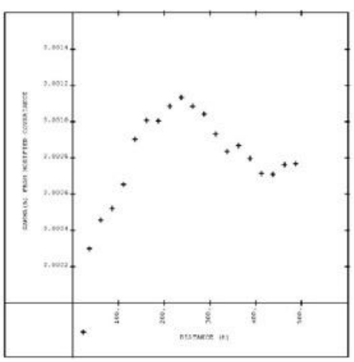


Strike

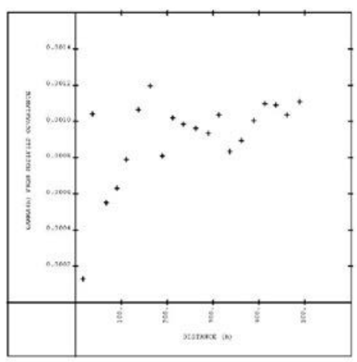


Cross Strike

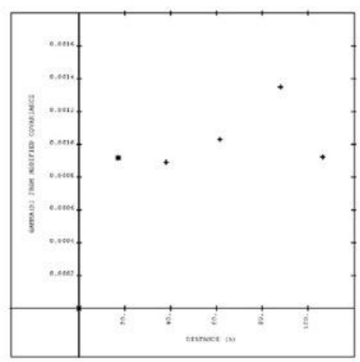
Panther Creek Shear Zone



Vertical



Strike



Cross Strike

14.1.7 Block Grade Estimation

Block grade estimation utilized inverse distance methods with a relatively high-power weight to provide a reasonable model for mine planning that would reflect changes in cutoff grade and reflect local variability in the mineralization. The intent was to limit the "smearing" of grades that often occurs with ordinary linear kriging and low power weight inverse distance.

The heap leach target area is well drilled at Beartrack due to the historical drilling combined with recent drilling by Revival or their predecessors. Several steps were utilized to develop the estimated block grades.

A grade boundary was developed to define the working area for grade estimation. This process minimizes the impact of outlying low (near zero) grade on the estimation of economic grade mineralization. That grade boundary was selected to be slightly less than potential economic heap leach cutoff grades and to also reflect a break in the cumulative frequency curves between measured assay values and "trace" assay values.

The grade boundary was first assigned using a nearest neighbor assignment of the composite grades to blocks. That nearest neighbor estimate precisely matches the composite grades without smearing. A boundary of 0.0035 oz/t was selected to define the mineralized zones of the deposit. Blocks outside of the nearest neighbor 0.0035 oz/t boundary were not assigned grades. Those inside the 0.0035 oz/t boundary were assigned grades.

The procedure for block grade estimation was as follows:

1) Nearest composite (nearest neighbor) assignment of composite grades to model blocks with a search radius of 200 ft strike, 50 ft cross, 125 ft vertical.
2) Nearest neighbor block grades above 0.0035 oz/t were assigned FA grades with the following methods:
   a. All Domain boundaries were treated as hard bounds.
   b. Inverse distance estimation 1/D3 was utilized with search radii of 200 ft strike, 50 ft cross, and 125 ft vertical.
   c. Maximum of 10 composites, minimum of 1 composite, and a maximum of 3 composites per hole.
3) An indicator CN/FA estimate was assigned with the CN/FA ratio discriminator set at 0.5. This estimate treated Rapakivi as one domain, and all other rock units combined as a second domain. The search was 200 ft strike, 40 ft cross, 38 ft vertical.
4) Composites were assigned a code if they were within the indicator areas of + 0.5 or less than 0.5 based on a 50% probability. This process has now defined 4 domains for estimation of the CN/FA ratio: 1) Rapakivi + 0.5, 2) Rapakivi less than 0.5, 3) All other rocks + 0.5, 4) All other rocks less than 0.5 CN/FA ratio.
5) The CN/FA ratio was estimated for each of the above four CN/FA domains using 1/D3 and a search of 200 ft strike, 50 ft cross, 38 ft vertical.

6) The mine plan estimate of mineral recovery is based on the CN/FA ratio which is an input into a simple linear equation for recovery. That recovery is applied to the FA block grade.
7) A CN block grade was developed for comparison to historical production purposes, by multiplying the CN/FA ratio times the FA grade in each block.
8) The classification codes for measured, indicated, and inferred were developed using the results of the FA estimate steps mentioned above and summarized in the next sub-section.
9) A second estimation method for FA was completed using an updated nearest neighbor boundary and inverse distance 1/D3 with alterative search radii of 200 ft strike, 50 ft cross, and 300 ft vertical. Any block added in this second pass was coded as “inferred” with a unique class code.

14.1.8 Classification

Block classification was developed based on the number of composites used to estimate a block and the average search distance that resulted from the inverse distance estimate for FA.

The steps were as follows to establish classification:

1) First Pass with search parameters of 200 ft strike, 50 ft cross, 125 ft vertical

   Measured: Number of composites = 10 and average search distance <= 75 ft, Class = 1
   Indicated: Number of composites >=4 and average search distance <= 125 ft, Class = 2
   Inferred: Remaining blocks at 200 x 50 x 125 ft search, Class = 3
2) Second pass with search parameters of 200 ft strike, 50 ft cross, 300 ft vertical
3) If not estimated in the first pass and estimated in the second, then Inferred Class = 4

14.1.9 Density Assignment

Block density was extracted from previous work. Few additional density samples were available, so the block densities that were utilized on previous resource estimates were utilized by IMC. Table 14-5 summarizes the density assignments that were controlled by the geologic unit and the estimated fire assay gold grade.

Table 14-4: Beartrack Open Pit Model Density Assignment

Geologic Unit	Code	Average Specific Gravity		Estimated Block Tonnage (kt)		Density (ft^3/t)	
		Less Than 0.005 oz/t Au	Greater Than 0.005 oz/t Au	Less Than 0.005 oz/t Au	Greater Than 0.005 oz/t Au	Less Than 0.005 oz/t Au	Greater Than 0.005 oz/t Au
Till / Overburden	10	2.00	NA	0.6240	0.6240	16.026	16.026
PCFZ	30	2.63	2.46	0.8206	0.7675	12.187	13.029
Dikes	40	2.45	2.34	0.7644	0.7301	13.082	13.697
Rapakivi	50	2.45	2.34	0.7644	0.7301	13.082	13.697
Yellowjacket	60	2.63	2.46	0.8206	0.7675	12.187	13.029
Backfill	99	2.00	NA	0.6240	0.6240	16.026	16.026
Joss Yellowjacket	60	2.75	2.75	0.8580	0.8580	11.655	11.655
Default		2.46	2.46	0.7675	0.7675	13.029	13.029

14.1.10 Backfill Assignment

IMC was provided with a set of triangulated solids that represent the volume between the end of mining (EOM) and the current topography with backfill. After completion of grade estimation those blocks were modified to reflect the backfill process.

1) A code was assigned to each block with back fill representing the fraction of the block contained in the back fill volume.
2) The grade of the block was recalculated assuming that the backfill fraction of the block had a grade of 0.0.
3) The density of the block was re-estimating using the weighted average of the backfill density and the in-situ rock density.

14.1.11 Model Verification

Standard model verification practices were applied to the Beartrack Open Pit model including:

1) Bias check comparisons of nearest neighbor grades to the estimated block grades
2) Swath plots
3) Reconciliation of the model versus historical production.

The bias check is a comparison of grades estimated by the block Nearest Neighbor (Polygon) assignments for fire gold and cyanide gold to the inverse distance estimates. Both estimates use the same search radii and populations boundaries as the IMC estimation method. A summary of the results inside the IMC heap leach mine plan is as follows:

Measured and Indicated Mineralization Inside the IMC Heap Leach Mine Plan

	IMC Model Mean	Nearest Neighbor Mean
Fire Gold	0.023 oz/t	0.024 oz/t
Cyanide Gold	0.011 oz/t	0.012 oz/t

A cutoff of 0.0 was applied to the above tabulations. The tonnage that was estimated was identical for all cases. The results of the above check indicate there are no issues within the mineral reserve pit volume.

Swath plots were developed comparing the estimated block grades versus the nearest neighbor grade assignments. Figures 14-4 through 14-7 utilized the following methods.

1) Measured and Indicated blocks only within the block model area. A pit limitation has not been applied to the swath plots.
2) The IMC model grade is labeled as “Model Fire Assay Gold Grade” or “Model Cyanide Gold Grade” and is always the blue line on all graphs.
3) The nearest neighbor result labeled “Model Polygon Gold Grade” or cyanide grade is used to provide the best declustered estimate of the drill hole data.
4) The plots are not sorted by pit area or rock type. The area selected for the cross-section plots cover the footprint of the heap leach pits. The pits however are not a limit. The approximate boundaries of the pit areas are shown on Figure 14-6.
5) The bottom of the heap leach oxide pit is the 6,425 ft elevation, which is illustrated on Figure 14-4.

Figure 14-4: Fire Assay Block Grade Swath Plot by Elevation

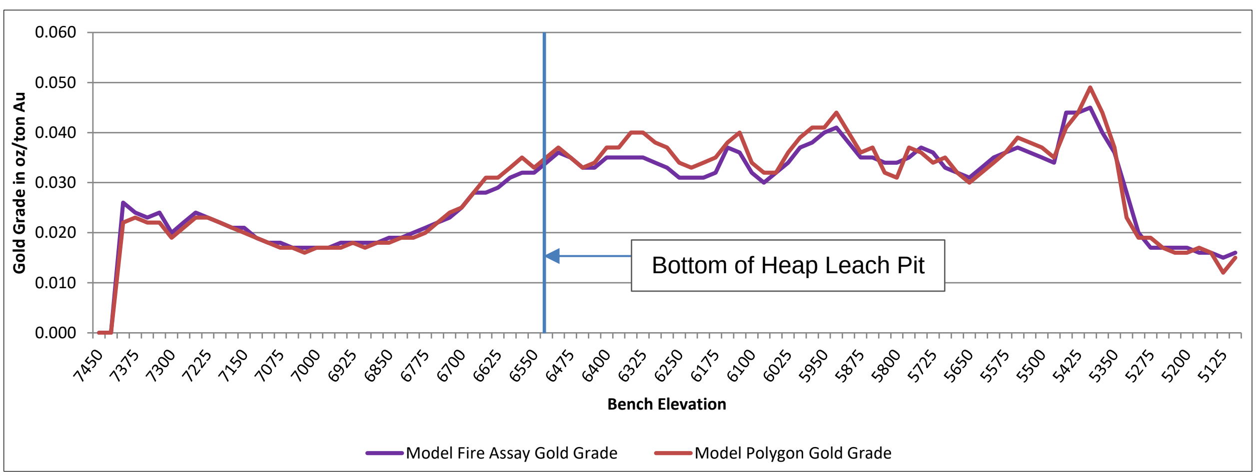


Figure 14-5: Cyanide Block Grade Swath Plot by Elevation

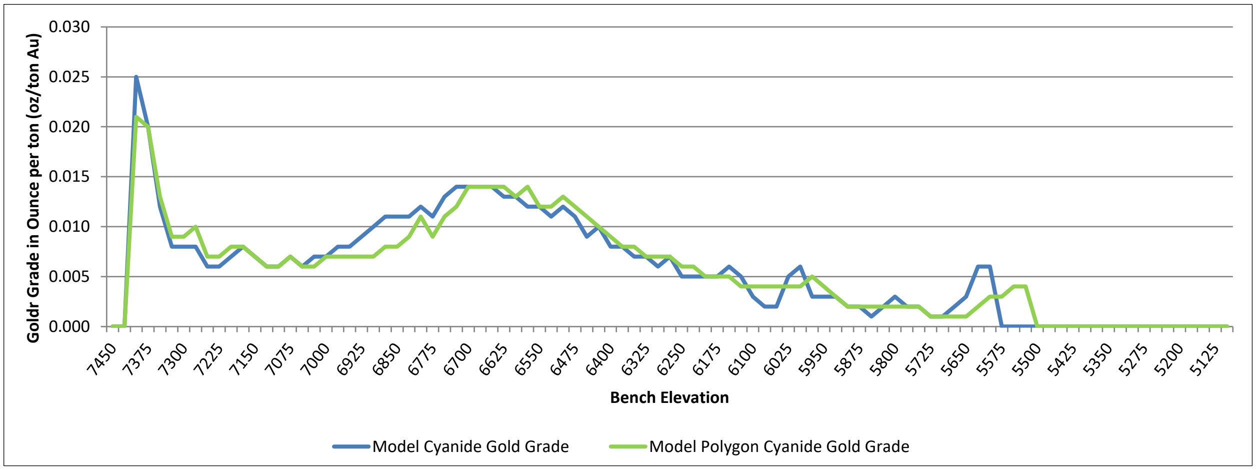


Figure 14-6: Fire Assay Gold Grade Swath Plot by Model Row

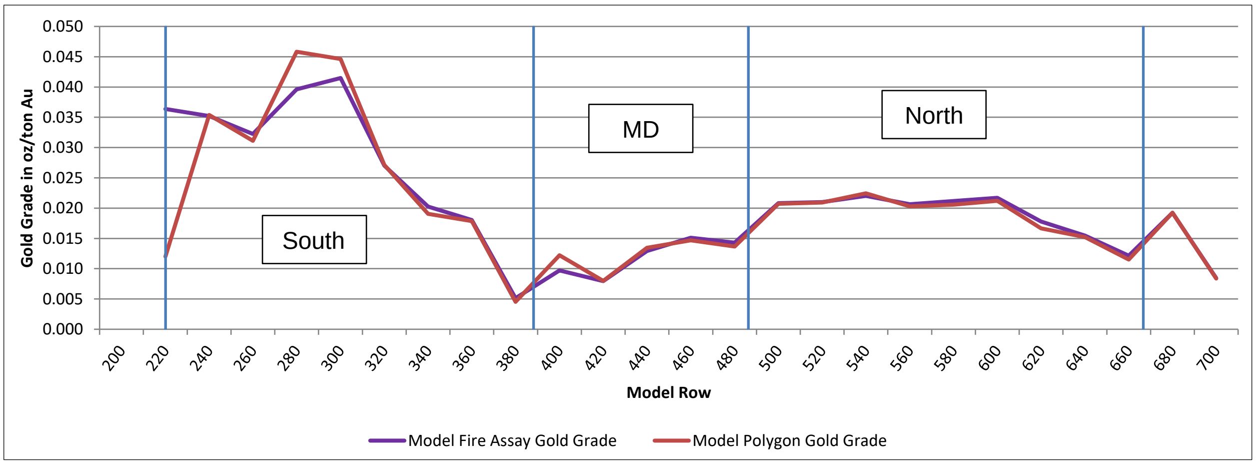
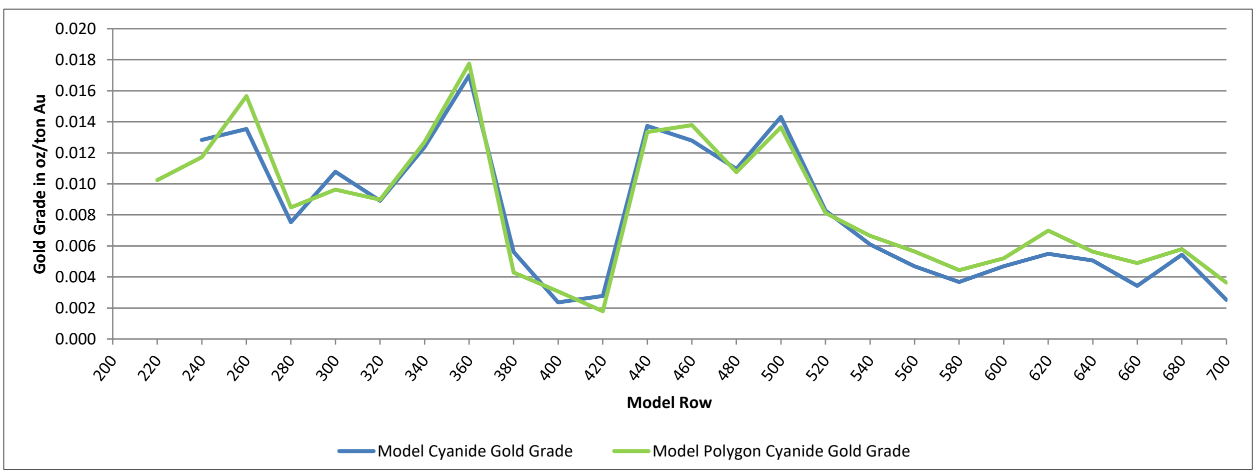


Figure 14-7: Cyanide Gold Grade Swath Plot by Model Row



The primary and most powerful model verification was completed by reconciliation against the historical production. Two surface triangulations were obtained by the Revival team: the end of mining (EOM), and the original pre-mining topography. Prior to modifying the model with the backfill assignments, the material between the two surfaces was reported from the model at the same cutoff grade that was applied during mining operations. That cutoff grade was a cyanide soluble gold grade of 0.008 oz/t.

Table 14-5 summarizes the reported production based on the monthly crusher head samples during the mine operation. The bottom portion of the table applies the same gold cutoff grade and reports the mined volume from the IMC block model. In addition to the model report of tonnage and grade, the KCA process recovery equations that are used for the mineral resource and mineral reserve tabulations for the heap leach ore are also summarized. The actual reported gold production versus the estimated gold production from the model and recovery equations match within 3.3%. Ore tonnage and grade match is within less than 1% difference to the reported production.

Table 14-5: Reported vs Modeled Production Reconciliation

Beartrack Mine Historical Ore and Metallurgical Recovery Data						
Reported CN Gold Cutoff Grade (oz/t)	Reported Ore to Crusher (kt)	Reported CN Gold Grade (oz/t)	Reported CN Gold to Crusher (oz)	Reported Gold in Dore by March 2000 (oz)	Calculated CN Gold Recovery by Mar 2000 (%)	Calculated CN Gold Recovery by Oct 2014 (%)
0.008	24,482	0.0276	676,861	531,948	78.6%	90.0%

IMC Modeled Estimate of Historical Production with KCA Recovery Equation					
Assumed CN Gold Cutoff Grade (oz/t)	Modeled Ore Tonnage (kt)	Modeled CN Gold Grade (oz/t)	Modeled CN Gold to Crusher (oz)	Estimated Gold Recovered using KCA Equation (oz)	Estimated CN Gold Recovery (%)
0.008	24,486	0.0277	678,262	514,206	75.8%
% Difference	0.0%	0.4%	0.2%	-3.3%	-3.5%

Additional gold was produced during the leach rinsing and drain down period from 2000 to 2014. The gold produced during that time is not reflected in the comparison presented above.

14.2 Beartrack Underground Model

The Beartrack Underground model is physically contained within the volume of the Beartrack Open Pit model. The intent of the underground model is to provide better estimation of a potential high grade underground mining option. The likely cutoff grades for underground mining necessitate the ability to model grade bearing structures that are more narrow than open pit selectivity.

The underground model covers the area of the South Pit and Joss deposits. It extends to the surface, but the focus of the modeling is the deeper higher-grade material below the South Pit and within the Joss Area. As a result, there are changes in block size and estimation parameters for the underground target area.

14.2.1 Model Size and Data Base

The Beartrack underground block model is contained within the open pit model. The block size has been reduced by half in the vertical and crosscut orientations compared to the open model. The underground model is co-located such that four underground blocks fall within one open pit block. The location and size of the Beartrack underground block model is summarized on Table 14-6.

Table 14-6: Beartrack Underground Model Location

Underground Block Model Location 30 Degree Rotation to the Right of North			
Row	Column	Northing	Easting
1	1	1,295,742.70	1,607,905.72
365	1	1,302,064.69	1,611,555.72
365	270	1,300,714.69	1,613,893.99
1	270	1,294,392.70	1,610,243.99
Bottom Toe elevation			4000.00
Top Crest Elevation			8000.00
Block size in Plan			20 x 10 ft
Bench Height			12.5 ft

Table 14-2 presented earlier, indicates the amount of data that was used to assemble the underground model within the sub-sets labeled Joss and South Pit. The underground model does continue to the surface, so the South Pit surface mine data was included, however, the primary focus is the model area below the pit. The same data rejection of 1988 and 1989 Yellowjacket RC has been applied here.

14.2.2 Geology and Interpretation

The underground mineralization in the Joss and South Pit underground area is hosted in the Yellowjacket Formation and the PCSZ. The higher-grade intercepts are in, or immediately adjacent to, the post-mineral Panther Creek Fault. The same interpreted solids that were used to code the open pit model were also used to code the smaller blocks of the underground model.

14.2.3 Assay Caps

Assay Cap levels were identical to those listed for the open pit on Table 14-3. In fact, the same assay file was used for the open pit model.

14.2.4 Composite Procedures

The composite procedure was modified for the underground model in that 12.5 ft down hole composites were applied to match the vertical block height. The same irregular length composite routine was applied. The controlling units are the PCSZ and the Yellowjacket formation.

14.2.5 Basic Statistics and Mineral Domains

A different approach was used to define the population domains for the underground model compared to the open pit. The geologic control would be the Panther Creek Shear Zone. With the limited number of drill intercepts, it would be difficult to define a clear boundary for that zone.

Figure 14-8 is a cumulative frequency plot of the 12.5 ft downhole composites in the underground model area below the 6,400 ft elevation (bottom of the leach pit). The plot illustrates two breaks in the grade distribution at about 0.040 oz/t and again at 0.100 oz/t.

Figure 14-8: Cumulative Frequency Plot of Fire Gold Composites in Underground Area

The indication is that there are two populations of mineralization. The material between 0.040 and 0.100 oz/t may represent leakage from a central higher-grade structure. The 0.100 oz/t material may represent that central high-grade material.

Table 14-7 summarizes the composite statistics inside and outside of those grade domains.

Table 14-7: Statistics of 12.5 ft Composites by Grade Domain Below the 6,400 Elevation

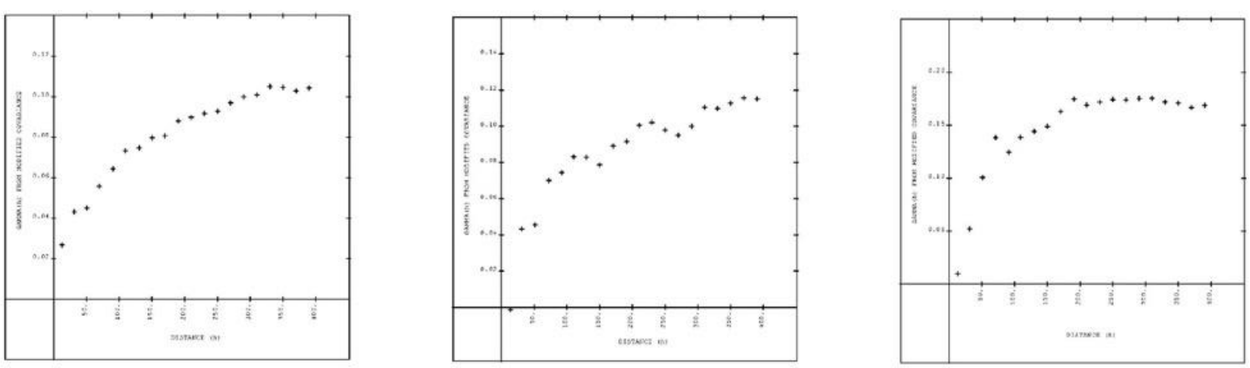
Beartrack Underground Area	Basic Statistics of 12.5 ft Composites inside Fire Assay Gold Grade Domains					
	Greater than 0.10 oz/t		0.04 to 0.10 oz/t		Less than 0.04 oz/t	
	Number of Composites	Mean Grade (oz/t)	Number of Composites	Mean Grade (oz/t)	Number of Composites	Mean Grade (oz/t)
Joss	73	0.164	170	0.063	1,438	0.006
South Pit	800	0.148	2,969	0.063	10,888	0.010

14.2.6 Variography

Variogram work focused on developing indicator variograms that would provide guidance in the development of grade domain boundaries by indicator estimation. The drill intercepts in the grade range above 0.040 oz/t were studied carefully in three-dimensional projections. There appears to be a slight change in strike of the high-grade intervals in the underground area compared with the average trend of the open pit models. A strike of 20 degrees was applied to the variograms underground as opposed to 30 degrees applied to the open pit model. Figure 14-9 illustrates the indicator variograms that were obtained for the two grade discriminators.

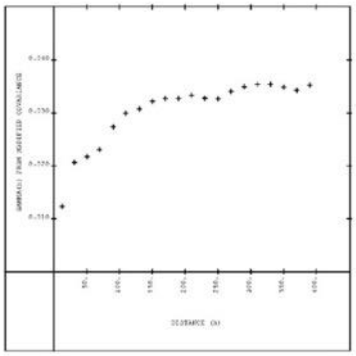
Figure 14-9: Indicator Variograms on Fire Gold in the Underground Areas

0.040 oz/t Discriminator

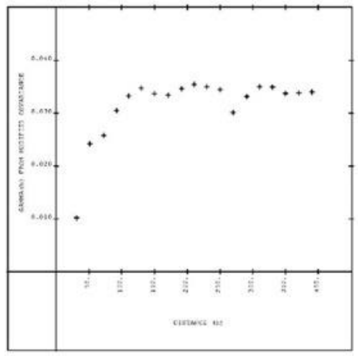


Vertical Strike Cross Strike

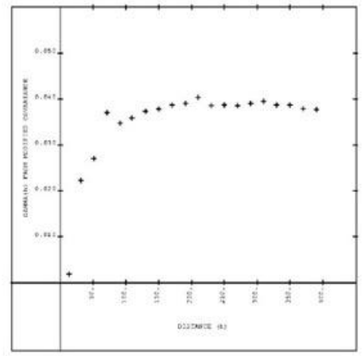
0.100 oz/t Discriminator



Vertical



Strike



Cross Strike

14.2.7 Block Grade Estimation

Block grade estimation utilized a two-stage indicator approach to define the population boundaries and to estimate grades within the boundaries. All procedures described below apply to the FA composite values. The CN/FA ratio was not estimated for the underground model. The procedures for the grade boundaries and grade assignments are summarized below:

1) An inverse distance procedure was applied to an indicator with a 0.040 oz/t discriminator. The resulting indicator fractions were used to code blocks with an indicator fraction of 0.50 or above as contained within the 0.040 oz/t grade boundary.
    a. Search radius of 200 ft strike, 75 ft cross, 300 ft vertical, 1/D3,
    b. Max composites = 7, Min = 3, Max per Hole = 5.
2) An inverse distance procedure was applied to an indicator with a 0.100 oz/t discriminator. The resulting indicator fractions were used to code blocks with an indicator fraction of 0.50 or above as contained within the 0.10.0 oz/t grade boundary.
    a. Search radius of 125 ft strike, 50 ft cross, 160 ft vertical, 1/D3,
    b. Max composites = 7, Min = 3, Max per Hole = 5.
3) The two indicators now define two grade boundaries at 0.040 and 0.100 oz/t
4) Grades inside the 0.100 oz/t boundary were estimated with 1/D3
    a. Composite values above 0.100 oz/t were used; the grade boundary was treated as a hard boundary.
    b. Search radius of 125 ft strike, 50 ft cross, 160 ft vertical, 1/D3,
    c. Max composites = 10, Min = 1, Max per Hole = 3.
5) Grades inside the 0.040 oz/t boundary were estimated with 1/D3
    a. Composite values between 0.040 and 0.100 oz/t were used; the grade boundary was treated as a hard boundary.

   b. Search radius of 200 ft strike, 75 ft cross, 300 ft vertical, 1/D3,
   c. Max composites = 10, Min = 1, Max per Hole = 3.
6) Grades below the 0.040 oz/t boundary were estimated with 1/D3
   a. Composite values less than 0.040 oz/t were used; the grade boundary was treated as a hard boundary.
   b. Search radius of 200 ft strike, 75 ft cross, 300 ft vertical, 1/D3,
   c. Max composites = 10, Min = 1, Max per Hole = 3.

14.2.8 Classification

The potential underground resource is currently classified as inferred category. The drill density is not currently sufficient to define the precise geometry of the mineralized structures in sufficient detail. Efforts to define material with reasonable expectation of economic extraction would not be of sufficient reliability to qualify as indicated mineral resources.

The QP does not foresee any reason why additional future drilling and sampling would not result in the upgrade of some component of the deposit to indicated category.

14.2.9 Density Assignment

The density assignment to the block model followed the same procedure as summarized for the open pit other than the blocks are one-quarter of the volume of the open pit block volume. The primary geologic units are the PCSZ, and the Yellowjacket formation. The adjustment for the presence of mineralization in the PCSZ was included in the density assignment.

14.2.10 Model Verification

Standard procedures for underground model verification included a bias check against a nearest neighbor polygonal estimate and swath plots on plan and section. A polygonal block grade estimate was completed respecting the grade boundaries that were assigned to the block model. The results were tabulated at a zero cutoff and within each grade boundary of the block model. Table 14-8 summarizes the results.

Table 14-8: Nearest Neighbor Polygonal Grade vs 1/D3 Model Grade Estimate

Fire Assay Gold Grade Range (oz/t)	Number of Blocks	Fire Assay Gold Grade		Gold Grade Difference (%)
		Polygonal Model (oz/t)	1/D3 Model (oz/t)	
Greater than 0.000	1,888,593	0.01239	0.01231	-0.7%
0.001 to 0.040	1,718,553	0.00618	0.00605	-2.1%
0.040 to 0.100	150,285	0.06295	0.06297	0.0%
Greater than 0.100	19,755	0.16872	0.17178	1.8%

The table indicates that there is no significant bias in the block model. The grade range estimates reflect the difference in block variance between the methods, and further indicates that block grade estimates at elevated cutoff grades are reliable for inferred mineral resources.

In addition, swath plots were completed through the block model comparing the polygonal block grade estimate versus the modeled grade. Figure 14-10 and Figure 14-11 illustrate the results by level plan and by cross section. The model results are somewhat conservative in the southern portion of the deposit due to the wide spaced drilling and limited indicator bounds that were applied.

Figure 14-10: Underground Model Swath Plot of Model vs Polygonal Grade by Elevation

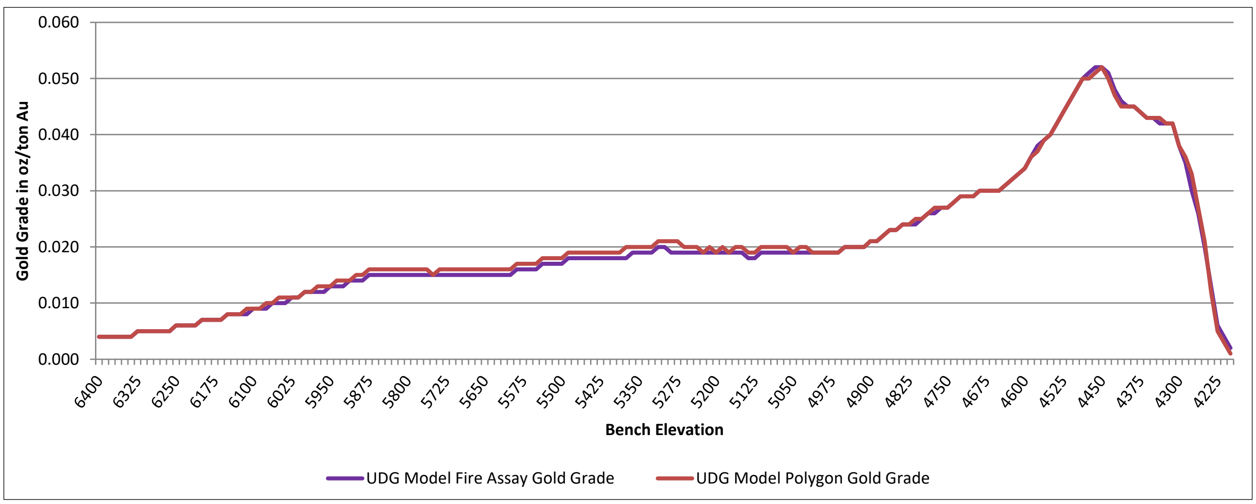
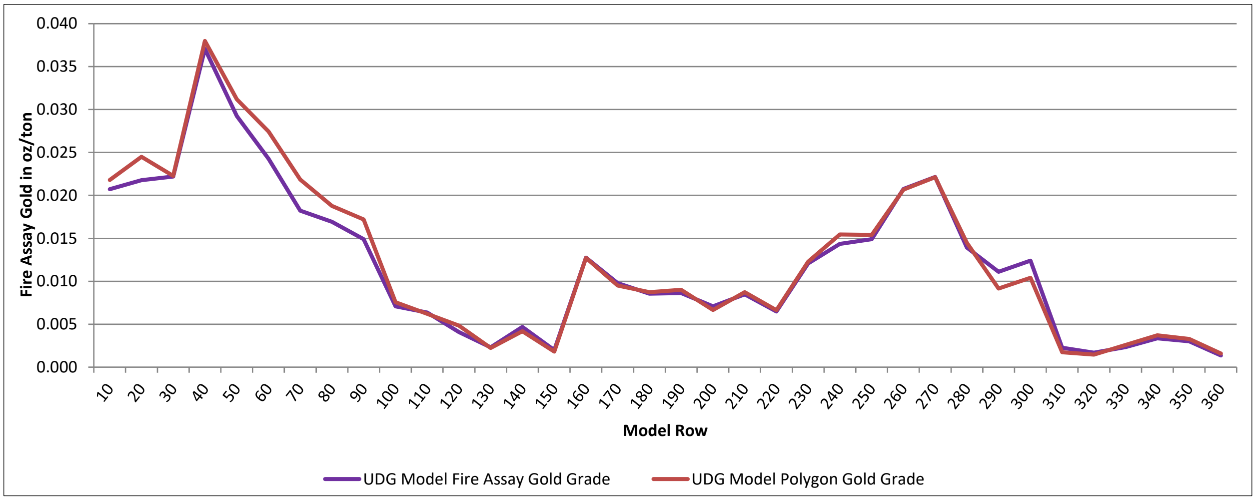


Figure 14-11: Underground Model Swath Plot of Model vs Polygonal Grade by Section



14.3 Haidee Model

The Haidee mineralization is located roughly four miles northwest of the Beartrack area in the Arnett Creek drainage. There are several mineral targets in the Arnett area, but the specific area that is currently of economic interest is referred to as Haidee. Within this text, the names Arnett and Haidee will both reference the targeted mineralization.

14.3.1 Model Size and Data Base

The geologic controls on mineralization have defined the location, rotation, and geometry of the Haidee block Model. Table 14-9 illustrates the block size and location of the model.

Table 14-9: Haidee Model Location

Block Model Location 30 Degree Rotation to the Left of North			
Row	Column	Northing	Easting
1	1	1,298,600.00	1,586,000.00
155	1	1,301,955.85	1,584,062.50
155	130	1,303,580.85	1,586,877.08
1	130	1,300,225.00	1,588,814.58
Bottom Toe elevation			6470.00
Top Crest Elevation			7910.00
Block size in Plan			25 x 25 ft
Bench Height			15 ft

All the drilling used for the development of mineral resources is diamond drilling at Haidee. The RC data is biased and was not used for resource estimation as discussed in Section 12.

Diamond drill holes and assays utilized in the Haidee model area are summarized in Table 14-10.

Table 14-10: Data Accepted for Haidee Mineral Resource Estimation

Haidee Drilling	Gold Fire Assays		Gold Cyanide Assays		Drilling Data	
	Number of Assays	Mean Grade (oz/t)	Number of Assays	Mean Grade (oz/t)	Number of Holes	Feet of Drilling
Core Holes	11,517	0.007	10,648	0.004	102	53,837

14.3.2 Geology and Interpretation

The mineralization at Haidee is hosted within an intrusive unit called the Crowed Porphyry. The unit is related to the rapakivi intrusive at Beartrack but with a more coarse-grained mineral structure.

The Crowded porphyry strikes about 150 degrees (S30E) and dips roughly 34 degrees to the southwest. Mineralization is controlled by several structures, but generally follows the same 150 strike, 34 dip orientation. Section 7 presents stereo illustrations of the fracture orientations at Haidee. That information helped guide the determination of the primary orientation of Haidee mineralization.

14.3.3 Assay Caps

A cumulative frequency plot of the Haidee assay information was prepared as a guide to establish the assay capping level at Haidee. Assay caps were applied at 0.45 oz/t which resulted in 12 values or 0.10% of the data base being capped.

14.3.4 Bench Height Study and Composite Procedures

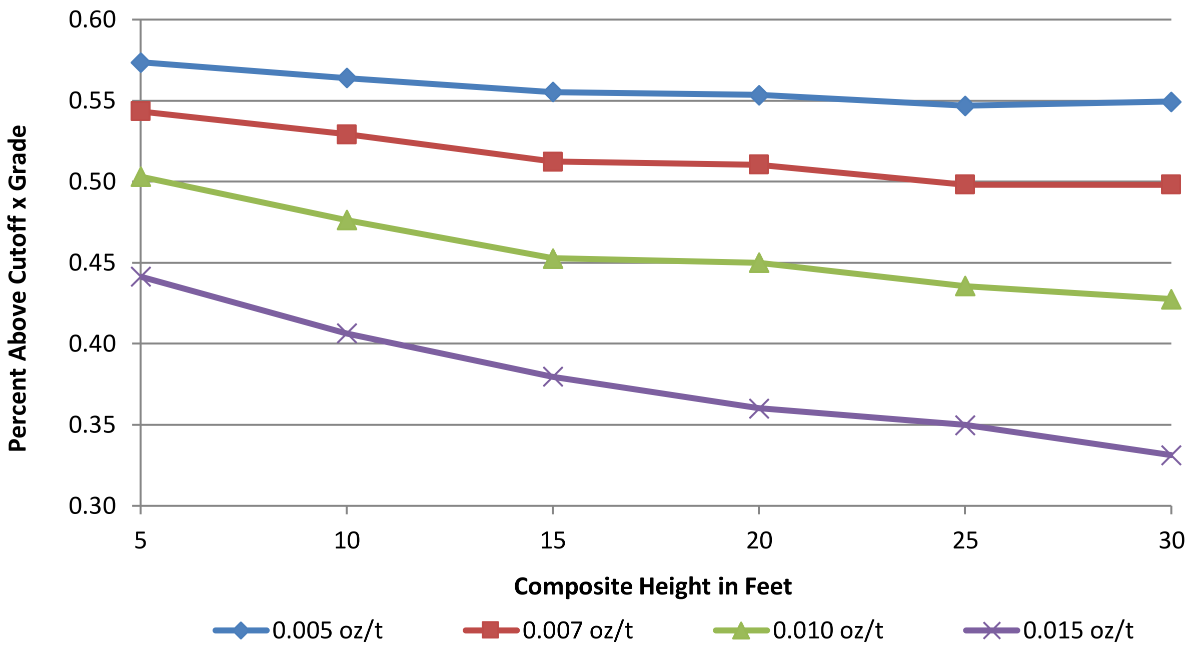
Review of drill hole cross sections looking northwest indicate a somewhat tabular nature to the mineralization, dipping parallel to the structural orientation (see Section 7). This observation prompted the development of a bench height study to determine if there was a bench height that would produce better grade and minimize dilution. The procedure was as follows:

1) Bench interval composites were generated for bench heights of 5, 10, 15, 20, 25, and 30 ft.
2) Each set of composites were evaluated at cutoff grades of 0.005, 0.007, 0.010, and 0.015 oz/t.

3) For each example, the percentage of composites above cutoff and the average grade of composites were recorded. The product of those two values is an indication of the relative amount of metal above cutoff for each tested bench height.

Figure 14-12 illustrates the results of these tabulations.

Figure 14-12: Bench Height Study Summary



At all cutoffs, there is an improvement in the contained metal with lower bench height. Taking practicality of mining into account, a 15 ft bench height was selected as an improvement over the 25 ft height used at Beartrack, or the traditional 20 ft height used throughout Nevada.

14.3.5 Composites, Basic Statistics and Mineral Domains

Haidee is currently understood to be a single rock type and mineral domain. Improved understanding of near vertical northeast trending structures could result in the development of structural domains in future work.

Based on the bench height analysis, a bench height and a down hole composite length of 15 ft was selected for application to the resource model. Table 14-11 summarizes the basic statistical results of the composites used for resource estimation. Assays were capped at 0.45 oz/t prior to calculation of the 15 ft composites.

Table 14-11: Mineral Resource Grade Estimation 15 ft Down Hole Composites

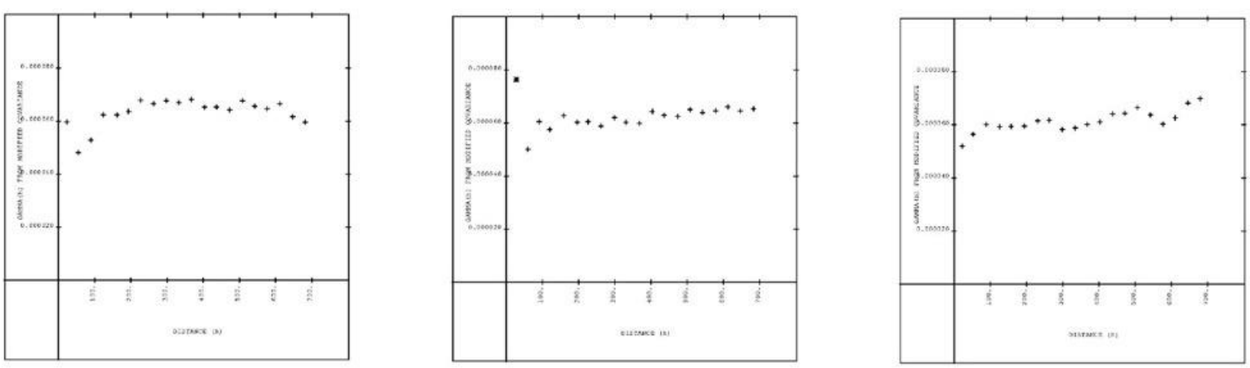
Haidee Data	Number of Composites	Mean Gold Grade (oz/t)
Core Holes	3,446	0.0066

Cyanide-soluble assays are maintained within the Haidee database as noted on Table 14-10; however, metallurgical testing results have not correlated well with the Haidee cyanide assay data. As a result, the cyanide data was not used in the estimation of block grades. Fire assay results do correlate well with the metallurgical testing; consequently, fire assays are the only grade estimations applied to the Haidee model.

14.3.6 Variography

Variograms were developed to provide guidance for search distance and estimation method. Figure 14-13 summarizes the variograms that are parallel and perpendicular to the 150-degree strike and 34-degree dip orientation.

Figure 14-13: Haidee Variograms



Down Dip: 240, 34   Strike: 150, 0   Perpendicular: 60, 60

The initial first point on the down dip and strike variograms are not representative because they do not have sufficient data to be relevant.

14.3.7 Block Grade Estimation

Block grade estimation utilized a two-step approach. The first step was to develop a grade boundary or mineralized envelope. The second step assigned grade internal to the grade envelope. The steps were as follows:

1) A nearest neighbor (polygonal) grade estimate was completed using the following parameters
    a. 240 Bearing, Plunge 34 degrees (150 strike, 34 degree dip)

   b. Search of 240 ft down plunge, 200 ft strike, and 25 ft perpendicular
2) A grade envelope was established using the polygonal estimate when it was greater than 0.001 oz/t.
3) Block grade was assigned inside of that grade envelope using:
   a. Inverse distance cubed 1/D3
   b. Search of 160 ft down plunge, 135 ft strike, and 25 ft perpendicular
   c. Max of 10 composites, Min of 1 composite, Max of 3 per hole.
   d. A high-grade search limit for grades above 0.050 oz/t was set at 100ft.

The important aspects of the Haidee model are: 1) understanding the orientation of the geologic controls and mineralization, and 2) reduction of the bench height to minimize dilution to respect the mineralized bands, and 3) selection of a block size that can model the dip of the deposit.

14.3.8 Density Assignment

A single density was assigned to every block in the model because the modeled area is comprised of a single rock type. A dry specific gravity of 2.35 was applied, which results in the following imperial unit density factors: 13.633 ft^3/t, and 146.70 lbs/ft^3.

14.3.9 Classification

Classification was assigned based on the number of composites used to estimate a block and the distance between the block and the closest composite.

Measured: Number of composites = 10 and closest composite <= 100 ft, Class = 1

Indicated: Number of composites >= 4 and closest composite <= 150 ft, Class = 2

Inferred: Remaining blocks at 160 ft by 135 ft by 25 ft search, Class = 3

14.3.10 Model Verification

Standard procedures for model verification included a bias check against a nearest neighbor polygonal estimate and swath plots on plan and section. A polygonal block grade estimate was available since it was used to develop the grade estimation envelope.

The average grade of all model blocks with values greater than 0.0 are as follows:

71,261 blocks, 1/D3 mean = 0.0097 oz/t, Polygon mean = 0.0108 oz/t

The apparent low bias of the 1/D3 grade estimate is due to the high-grade search limit on grades above 0.050 oz/t that was applied to the inverse distance estimate, that was not applied to the polygonal estimate. The intent of the high-grade limit was to minimize the smearing of high-grade values over the surrounding low-grade values.

There are 62 composites with values greater than 0.050 oz/t that average 0.088 oz/t. These high value composites amount to 1.8% of the database and could impact 23% of the contained metal if not constrained.

The swath plots on Figure 14-14 and Figure 14-15 illustrate the same difference in grade due to the high-grade search limit applied to the composites above 0.050 oz/t.

Figure 14-14: Haidee Model Swath Plot of Model vs Polygonal Grade by Elevation

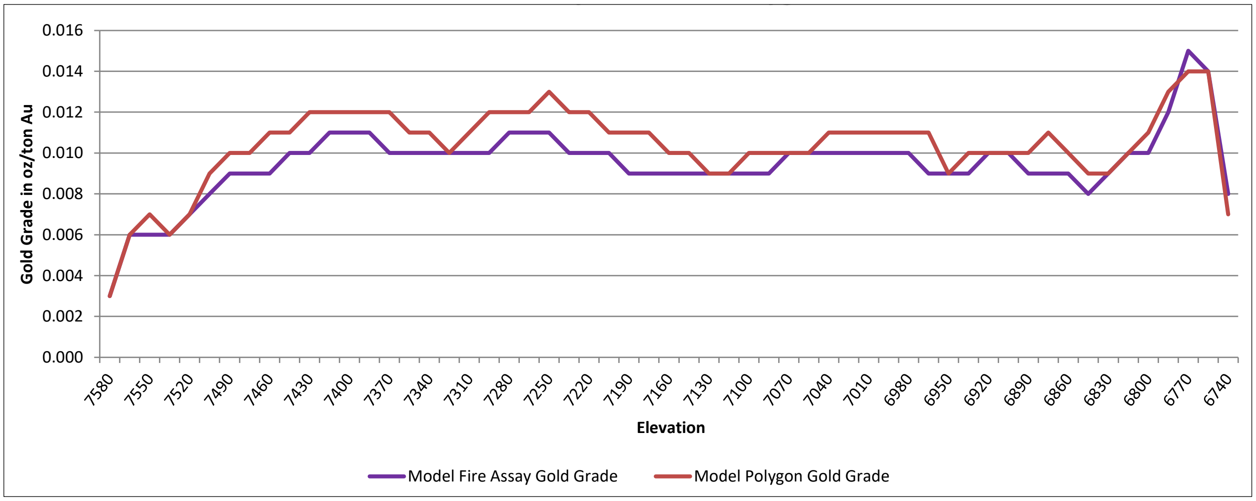
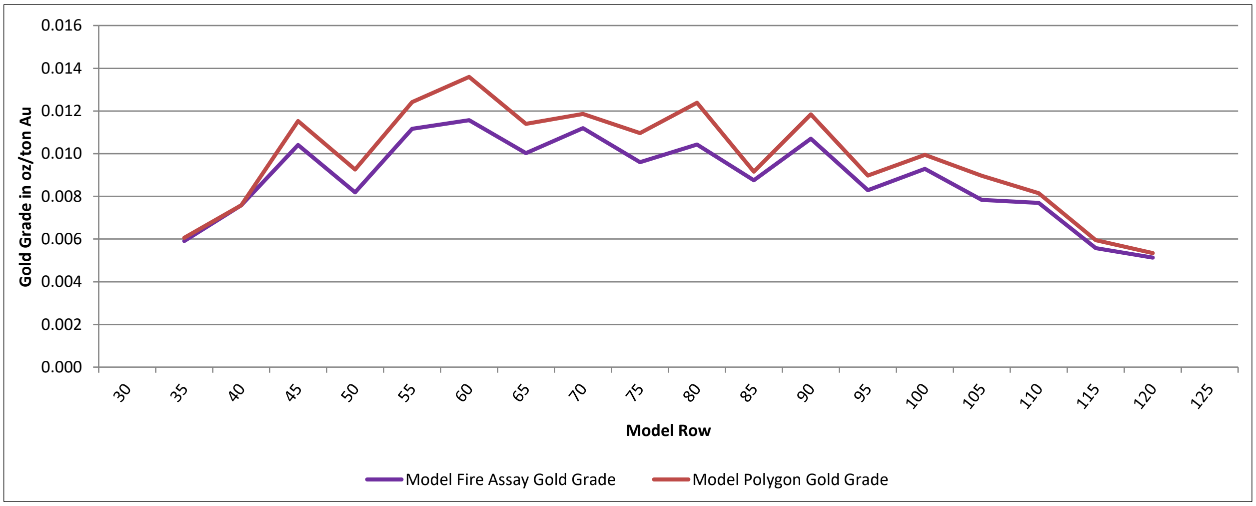


Figure 14-15: Haidee Model Swath Plot of Model vs Polygonal Grade by Cross Section



14.4 Mineral Resource Estimates

There are four sources of mineralized material that make up the Beartrack-Arnett mineral resource estimate including:

1) Beartrack open pit heap leach resource
2) Haidee open pit heap leach resource
3) Beartrack open pit mill resource
4) Beartrack underground mill resource

Table 14-12 summarizes the input parameters used to define the mineral resource for all for sources. The mineral resource estimate summarized in Table 14-13 is the sum of all four of the preceding sources and includes the mineral reserve stated in Section 15.

Table 14-12: Mineral Resource Definition Parameters

Mineral Resource Definition Parameters	Units	Mill Parameters		Heap Leach Parameters	
		Beartrack Underground	Beartrack Open Pit	Beartrack Open Pit	Haidee Open Pit
General					
Mineral Resource Gold Price	$/oz	$1,900		$1,900	
Mining / Processing Rate	t/d T/d	2,750 2,500	13,200 12,000	13,200 12,000	
Process Recovery	%	94%		51%[1]	86%
Mining OPEX					
Base Mining	$/t $/T	$90.71 $100.00	$1.94 $2.14	$1.85 $2.04	$1.85 $2.04
Incremental Bench Mining per bench below listed elevation	$/t $/T ft	- - -	- - -	$0.04 $0.04 7,075	$0.02 $0.02 7,340
Processing OPEX including G&A					
Oxide ($^{CN}/_{FA}$ > 0.7)	$/t $/T	- -	- -	$6.00 $6.62	$6.15 $6.78
Transition ($^{CN}/_{FA}$ > 0.2 < 0.7)	$/t $/T	- -	- -	$6.63 $7.31	- -
Sulfide ($^{CN}/_{FA}$ < 0.2)	$/t $/T	$32.22 $35.52	$22.52 $24.83	$7.27 $8.02	- -
Incremental Ore Haul	$/t $/T	- -	- -	- -	$1.99 $2.19
Other Costs					
Refining & Freight	$/oz	$5.00		$5.00	
Open Pit Slope Angles					
Tertiary, Dykes, Till, Fill	degrees	-	38	38	
Rapakivi Granite	degrees	-	45	45	
Yellowjacket	degrees	-	45	45	

Mineral Resource Definition Parameters	Units	Mill Parameters		Heap Leach Parameters	
		Beartrack Underground	Beartrack Open Pit	Beartrack Open Pit	Haidee Open Pit
Economic Cutoff Values					
Net of Process Revenue	$/t $/T	$90.71 $100.00	$0.01 $0.01	$0.01 $0.01	$0.01 $0.01
Approximate Contained (FA) Gold Cutoff Grades					
Heap Leach Oxide	oz/t g/T	- -	- -	0.004 0.15	0.005 0.17
Heap Leach Transition	oz/t g/T	- -	- -	0.009 0.29	- -
Heap Leach Sulfide	oz/t g/T	- -	- -	0.028 0.96	- -
Mill Sulfide	oz/t g/T	0.069 2.37	0.013 0.43	- -	- -

Note:
1) This value represents the average metallurgical recovery of the Beartrack heap leach Mineral Resource inside the PFS pit; however, the recoveries used to define the PFS Mineral Resource were calculated on a block-by-block basis using the following equation: $0.8852 * {}^{CN}/_{FA} - 0.0612$, where CN is the cyanide soluble gold estimate for a given block and FA is the contained gold estimated for a given block. This value excludes secondary leach recovery, which is included in the PFS recovery calculations.

The Beartrack and Haidee heap leach resources were developed using a multi-step approach that is summarized below:

1) Pit shells were developed based on measured and indicated heap leach material only. These pit shells form the basis of the mine plans and mineral reserve pits presented in Sections 15 and 16.
2) Within the mineral reserve pit shells, inferred class heap leach material exists and is included in the mineral resource estimate.
3) Within the Beartrack heap leach mineral resource pit shells, sulfide material that could be processed if a mill were available is also included in the mineral resource estimate.

The sulfide material that lies outside the Beartrack heap leach resource shell was subjected to an additional pit optimization run that assumed that a sulfide processing plant was available. IMC assumed that the heap leach plant would still be available, so each block was evaluated for processing by heap leach and by sulfide flotation. The processing scenario with the best net of process income value was selected for each block. Mineralization in the Joss area, and below the Beartrack South sulfide resource pit, were evaluated for underground resource potential.

The Beartrack sulfide mineral resource pit shell was developed by constraining the southwest limit to preclude a pit from forming in the Joss area. This constraint was introduced so all Joss mineral resources would be in the underground category.

Underground mine operating and processing costs at 2,750 tons per day were applied to material that is outside of the Beartrack sulfide open pit to establish the material that could potentially be developed by underground methods. Mine operating costs were scaled from other western U.S. projects and the mining method is assumed to be drift and fill, guided by the rock strength and RQD information that is available.

RQD information is collected during the Revival core logging process. That information was analyzed in the areas of the underground mineral resources to begin to understand the rock characteristics. Historical geotechnical work for the Beartrack surface mine provided some rock strength data that was also included in the understanding of rock characteristics. This geotechnical information guided the selection of the mining method and estimation of underground mine operating costs. As more geotechnical information becomes available, more detailed analysis of underground mining methods will be completed.

Each of the four sources were tabulated independently and totaled to define the mineral resource statement in Table 14-13.

Table 14-13: Beartrack–Arnett Mineral Resource Estimate, 30 June 2023

Mineral Resource Type		Deposit	Mineral Resource Category	Mineral Resources				
				Tonnage		Gold Grade		Contained
				(kt)	(kT)	(oz/t)	(g/T)	Gold (koz)
Heap Leach Mineral Resource	Open Pit	Beartrack	Measured	7,434	6,743	0.030	1.03	224
			Indicated	20,705	18,781	0.023	0.77	466
			Inferred	2,970	2,694	0.015	0.51	45
		Haidee	Measured	6,540	5,932	0.014	0.48	92
			Indicated	11,995	10,880	0.015	0.51	177
			Inferred	3,995	3,624	0.016	0.55	64
	Open Pit	Beartrack & Haidee	Measured	13,974	12,675	0.023	0.78	316
			Indicated	32,700	29,661	0.020	0.67	643
			Measured + Indicated	46,674	42,336	0.021	0.70	959
			Inferred	6,965	6,318	0.016	0.53	108
Mill Mineral Resource	Open Pit	Beartrack	Measured	7,229	6,557	0.032	1.10	231
			Indicated	41,111	37,290	0.030	1.03	1,233
			Inferred	41,525	37,666	0.029	0.99	1,204
	Underground	Beartrack	Inferred	7,436	6,745	0.118	4.05	877
	Open Pit & Underground	Beartrack	Measured	7,229	6,557	0.032	1.10	231
			Indicated	41,111	37,290	0.030	1.03	1,233
			Measured + Indicated	48,340	43,847	0.030	1.04	1,464
			Inferred	48,961	44,411	0.043	1.46	2,082
Total Mineral Resource	Open Pit & Underground	Beartrack & Haidee	Measured	21,203	19,232	0.026	0.88	547
			Indicated	73,811	66,951	0.025	0.87	1,876
			Measured + Indicated	95,014	86,184	0.026	0.87	2,423
			Inferred	55,926	50,728	0.039	1.34	2,190

Notes:
1) Gold price used for Mineral Resources: $1,900/oz.
2) Gold grades are reported in ounces per ton (oz/t) and grams per metric tonne (g/T).

3) Economic cutoff is based on Income, Net of Process Revenue (NPR) = $0.01/t ($0.01/T). NPR = (Grade x Recovery x ($1,900 - $5)) - (Process Cost + G&A). Beartrack heap leach process cost and process recovery vary with CN/FA ratio.
4) Beartrack average heap leach recovery = 51% of contained (FA) gold, which excludes secondary leach recovery that is included in the PFS recovery calculations. Beartrack heap leach ore types are: CN/FA > 0.7 = Oxide, 0.2 to 0.7 CN/FA = Transition, CN/FA < 0.2 = Sulfide. Beartrack base heap leach mining cost and average processing cost including G&A = $1.85/t ($2.04/T) and $6.24/t ($6.88/T), respectively. Beartrack heap leach throughput = 13,200 t/d (12,000 T/d). Beartrack approximate FA cutoff grades for heap leach resource = Oxide = 0.004 oz/t (0.15 g/T), Transition = 0.09 oz/t (0.29 g/T), sulfide = 0.028 oz/t (0.96 g/T).
5) Haidee heap leach recovery = 86% of contained gold. Haidee base heap leach open pit mining cost and average processing cost including G&A = $1.85/t ($2.04/T) and $6.15/t ($6.78/T), respectively. Haidee heap leach throughput = 13,200 t/d (12,000 T/d). Haidee heap leach resource cutoff grade = 0.005 oz/t (0.17 g/T).
6) Beartrack mill sulfide recovery = 94%. Beartrack base mill open pit mining cost and processing cost including G&A = $1.94/t ($2.14/T) and $22.52/t ($24.83/T), respectively. Beartrack average mill underground mining cost and processing cost including G&A = $90.71/t ($100.00/T) and $32.22/t ($35.52/T), respectively. Beartrack mill open pit throughput = 13,200 t/d (12,000 T/d). Standalone underground throughput = 2,750 t/d (2,500 T/d). Beartrack open pit mill sulfide resource cutoff = 0.013 oz/t (0.43 g/T). Beartrack underground mill resource cutoff = 0.069 oz/t (2.37 g/T).
7) Total surface mine material moved: 495,560 kt (449,504 kT).
8) Mineral Resources include Mineral Reserves.
9) Numbers may not sum exactly due to rounding.

Because of the wide range of process costs applied to the heap leach and sulfide open pits, cutoff grades for the open pits were developed based on income net of process revenue (NPR). NPR is equal to: Net Smelter Return – Process and G&A costs.

The open pit mineral resources are tabulated at an NPR value of $0.01/t reflecting an internal or marginal cutoff grade that will cover processing and G&A.

For the underground mineral resource, a breakeven cutoff inclusive of mining and processing costs of 0.069 oz/t was applied, as shown in Table 14-12.

The qualified person for the mineral resources is John Marek, P.E. of Independent Mining Consultants Inc. A gold price of $1,900/oz was used for mineral resource determination. Table 14-13 summarizes the mineral resource in imperial and metric units; the mineral resources include the mineral reserves reported in Section 15. Risks associated with this mineral resource include sensitivity to metal price, geologic and geotechnical uncertainty, and uncertainty around permit requirements and timing.

Table 14-14 illustrates the sensitivity of the total mineral resource to changes in gold price from $1,800/oz to $2,000/oz.

Table 14-14: Mineral Resource Sensitivity to Gold Price, 30 June 2023

Mineral Resource Category and Gold Price	Mineral Resource Tonnage		Contained Gold Grade		Contained Gold
	(kt)	(kT)	(oz/t)	(g/T)	(koz)
Mineral Resource Sensitivity at $1,800/oz Gold					
Total Measured	20,887	18,948	0.026	0.89	543
Total Indicated	70,624	64,069	0.026	0.88	1,817
Total Measured + Indicated	91,511	83,017	0.026	0.88	2,360
Total Inferred	49,249	44,674	0.041	1.39	2,003
Base Case Mineral Resource at $1,900/oz Gold					
Total Measured	21,203	19,232	0.026	0.88	547
Total Indicated	73,811	66,951	0.025	0.87	1,876
Total Measured + Indicated	95,014	86,184	0.026	0.87	2,423
Total Inferred	55,926	50,728	0.039	1.34	2,190
Mineral Resource Sensitivity at $2,000/oz Gold					
Total Measured	22,234	20,168	0.025	0.85	552
Total Indicated	85,030	77,127	0.023	0.80	1,973
Total Measured + Indicated	107,264	97,295	0.024	0.81	2,525
Total Inferred	70,110	63,597	0.035	1.19	2,441

Notes:
1. Open Pit Economic Cutoff = $0.01 Net of Process Revenue / t.
2. Underground Economic Cutoff = $90.71 Net of Process Revenue / t.

Table 14-15 illustrates the sensitivity of the Beartrack underground mineral resource to changes in cutoff gold grade. All underground scenarios in Table 14-15 underlie the $1,900/oz gold Beartrack mill open pit.

Table 14-15: Underground Mineral Resource Sensitivity to Cutoff Grade, 30 June 2023

Cutoff Gold Grade		Gold Price	Inferred Mineral Resource Tonnage		Contained Gold Grade		Contained Gold
(oz/t)	(g/T)	($/oz)	(kt)	(kT)	(oz/t)	(g/T)	(koz)
0.058	2.00	2,250	13,746	12,470	0.094	3.22	1,292
0.066	2.26	2,000	9,032	8,194	0.110	3.77	994
0.069	2.37	1,900	7,436	6,746	0.118	4.04	877
0.073	2.50	1,800	6,081	5,517	0.128	4.38	778
0.077	2.64	1,700	4,734	4,295	0.142	4.86	672
0.080	2.74	1,640	3,731	3,385	0.157	5.38	586

Note: A cutoff gold grade of 0.069 oz/t (2.37 g/T) defines the underground mineral resource.

15.0 MINERAL RESERVE ESTIMATES

15.1 Introduction

The Mineral Reserve is the total of all Proven and Probable category material that is planned for production. The mine plan that is presented in Section 16 details the production of that Mineral Reserve. The Mineral Reserve is established by tabulating the Measured Material (Proven) and Indicated Material (Probable) that is planned for processing over the mine life. The final pit design and internal phase designs that contain the Mineral Reserve were guided by the results of a computer-generated pit shells algorithm.

15.2 Computer-Generated Pit Shells

The computer-generated pit algorithm is a tool for phase design guidance. The algorithm applies approximate costs and recoveries along with approximate open pit slope angles to establish theoretical economic breakeven pit wall orientations.

Economic input applied to the cone algorithm is necessarily preliminary as it is one of the first steps in the development of the mine plan. The pit shell geometries should be considered as approximate as they do not assure access or working room. The important result of the pit shells is the relative change in geometry between pit shells of increasing metal prices. Lower metal prices result in smaller pits containing materials with higher margins, which provide guidance to the design of the initial phase designs. The change in pit geometry as metal prices are increased indicates the best directions for the succeeding phase expansions to the ultimate open pit.

Pit shells were generated for the Beartrack (BT) and Haidee (HA) deposits using gold prices ranging from $800 to $1,800 per gold ounce. The mining costs were developed by IMC by scaling from the Wood 2020 PEA results. Process costs and recoveries were provided by KCA and are provided in Table 15-1. Income Net of Process Revenue (NPR), defined as Net Smelter Return (NSR) less process plant operating expenditures (OPEX) and general and administrative costs (G&A), was calculated on a block-by-block basis in dollars per ton (and tonne) of ore to indicate the value of a block.

NPR = NSR – Process Plant OPEX - Site G&A

Designing with NPR was chosen because Beartrack-Haidee Gold Project Mineral Resources have variable recoveries and process costs based on redox and estimated cyanide solubility. Haidee Process Plant OPEX includes the ore haulage differential from Table 15-1.

Table 15-1: Heap Leach Optimization Parameters for Floating Cones

Mineral Resource Definition Parameters	Units	Heap Leach Parameters	
		Beartrack Open Pit	Haidee Open Pit
General			
Mineral Reserve Gold Price	$/oz	$1,700	
Mining / Processing Rate	t/d T/d	13,200 12,000	
Process Recovery	%	51%[1]	86%
Mining OPEX			
Base Mining	$/t $/T	$1.85 $2.04	$1.85 $2.04
Incremental Bench Mining per bench below listed elevation	$/t $/T ft	$0.04 $0.04 7,075	$0.02 $0.02 7,340
Processing OPEX including G&A			
Oxide ($^{CN}/_{FA}$ > 0.7)	$/t $/T	$6.00 $6.62	$6.15 $6.78
Transition ($^{CN}/_{FA}$ > 0.2 < 0.7)	$/t $/T	$6.63 $7.31	- -
Sulfide ($^{CN}/_{FA}$ < 0.2)	$/t $/T	$7.27 $8.02	- -
Incremental Ore Haul	$/t $/T	- -	$1.99 $2.19
Other Costs			
Refining & Freight	$/oz	$5.00	
Open Pit Slope Angles			
Tertiary, Dykes, Till, Fill	degrees	38	
Rapakivi Granite	degrees	45	
Yellowjacket	degrees	45	
Economic Cutoff Values			
Net of Process Revenue	$/t $/T	$0.01 $0.01	$0.01 $0.01
Approximate Contained (FA) Gold Cutoff Grades			
Heap Leach Oxide	oz/t g/T	0.005 0.17	0.006 0.21
Heap Leach Transition	oz/t g/T	0.010 0.33	- -
Heap Leach Sulfide	oz/t g/T	0.031 1.07	- -

Note:
1) This value represents the average metallurgical recovery of the Beartrack heap leach material inside the PFS pit; however, the recoveries used to define the PFS Mineral Reserve were calculated on a block-by-block basis using the following equation: $0.8852 * {}^{CN}/_{FA} - 0.0612$, where CN is the cyanide soluble gold estimate for a given block and FA is the contained gold estimated for a given block. This value excludes secondary leach recovery, which is included in the PFS recovery calculations.

Bench discounting was not applied due to the short life of the project and the limited flexibility in phase design that will be discussed in Section 16. Pit shells were generated by allowing only

Measured and Indicated Mineral Resource blocks to contribute positive economic value. Inferred mineralization did not receive economic credit in the determination of mineral reserves.

Within the generated pit shells, if processing a block produced a negative NPR value, the block was considered waste.

15.3 Guidance Cone Selection at Beartrack

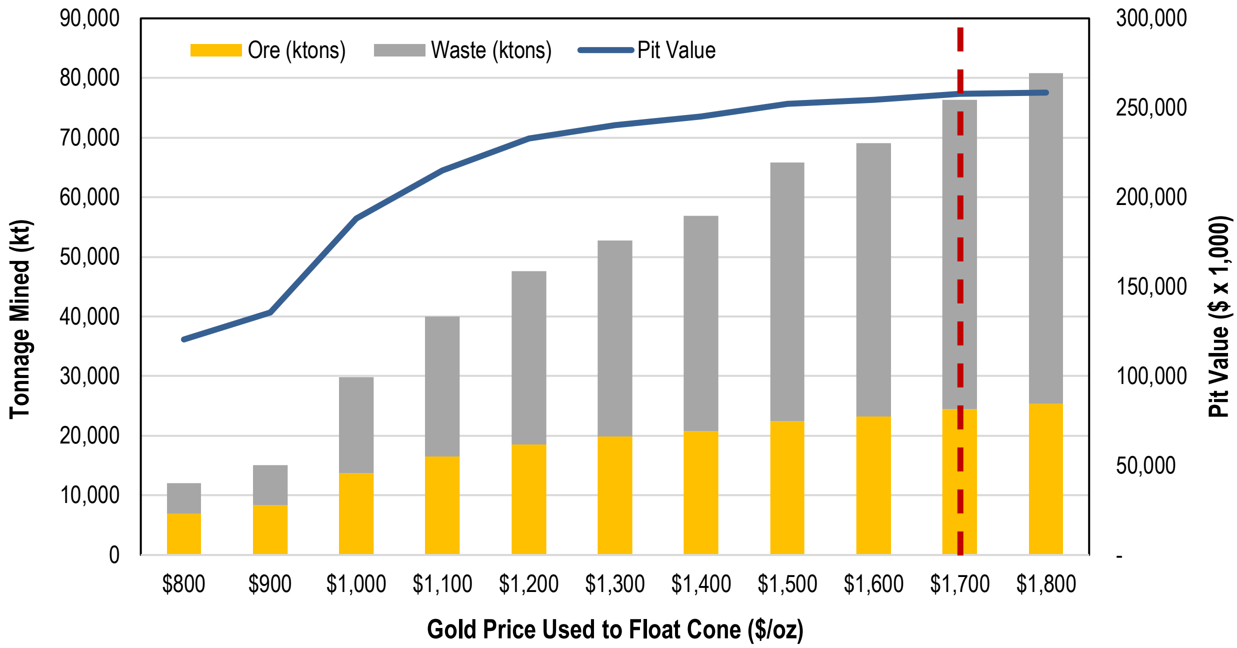
A range of pit shells geometries were developed for the Beartrack deposit by varying the gold price between $800/oz. and $1,800/oz. Costs were held constant in each case and a pit geometry was established at each assumed metal price. The computer-generating algorithm establishes the pit wall location on a breakeven economic basis. The pits thus derived were then evaluated at $1,700/oz. The purpose of this work was to see if there was a point of diminishing returns where little value is added by increasing the pit size. The $1,700/oz. Au cone was selected for the purpose of this evaluation; therefore, the final pit of Beartrack was designed to contain the ore within the $1,700/oz. Au cone. The additional value gained from designing to a pit larger than the $1,700/oz pit shells was marginal compared to the value of the $1,700/oz. geometry. The benefit of mining a larger pit would become more marginal or even negative once the mine schedule is completed and the value of the pit is evaluated on a discounted basis. The tonnage curves of the cones between $800 and $1,800/oz Au are given in Table 15-2 and Figure 15-1.

Table 15-2: Beartrack Comparison of Pit Sizes at Constant $1,700/oz Gold Price

Au[1] Price $/oz	Mineral (kt)	Net of Process ($/t)	FA Grade (oz/t)	Recovered Au Grade (oz/t)	CN/FA Ratio	Waste Rock (kt)	Total Material (kt)	Pit Value ($x1000)	Recovered Gold (koz)	Profit ($/oz)	Cash Cost ($/oz)
$800	6,927	$20.842	0.028	0.016	0.76	5,071	11,998	120,500	110.14	$1,094.07	$605.93
$900	8,376	$19.814	0.027	0.015	0.76	6,716	15,092	135,700	128.15	$1,058.89	$641.11
$1,000	13,674	$18.081	0.025	0.014	0.77	16,132	29,806	188,100	195.54	$961.96	$738.04
$1,100	16,494	$17.926	0.026	0.014	0.76	23,528	40,022	214,900	234.21	$917.53	$782.47
$1,200	18,579	$17.790	0.027	0.014	0.75	29,035	47,614	233,000	261.96	$889.44	$810.56
$1,300	19,876	$17.518	0.026	0.014	0.75	32,898	52,774	240,400	276.28	$870.14	$829.86
$1,400	20,797	$17.374	0.026	0.014	0.75	36,107	56,904	245,200	289.08	$848.21	$851.79
$1,500	22,408	$17.261	0.026	0.014	0.75	43,397	65,805	252,400	309.23	$816.22	$883.78
$1,600	23,181	$17.070	0.026	0.014	0.75	45,839	69,020	254,600	317.58	$801.69	$898.31
$1,700	24,482	$16.937	0.026	0.014	0.74	51,800	76,282	257,900	332.96	$774.58	$925.42
$1,800	25,393	$16.724	0.026	0.014	0.74	55,471	80,864	258,500	342.81	$754.07	$945.93

Note:
1. This gold price was used to generate the cone geometry. The remaining columns report the results of geometries being re-evaluated using a $1,700/oz gold price.

Figure 15-1: Beartrack Comparison of Various Cone Sizes at $1,700/oz Au



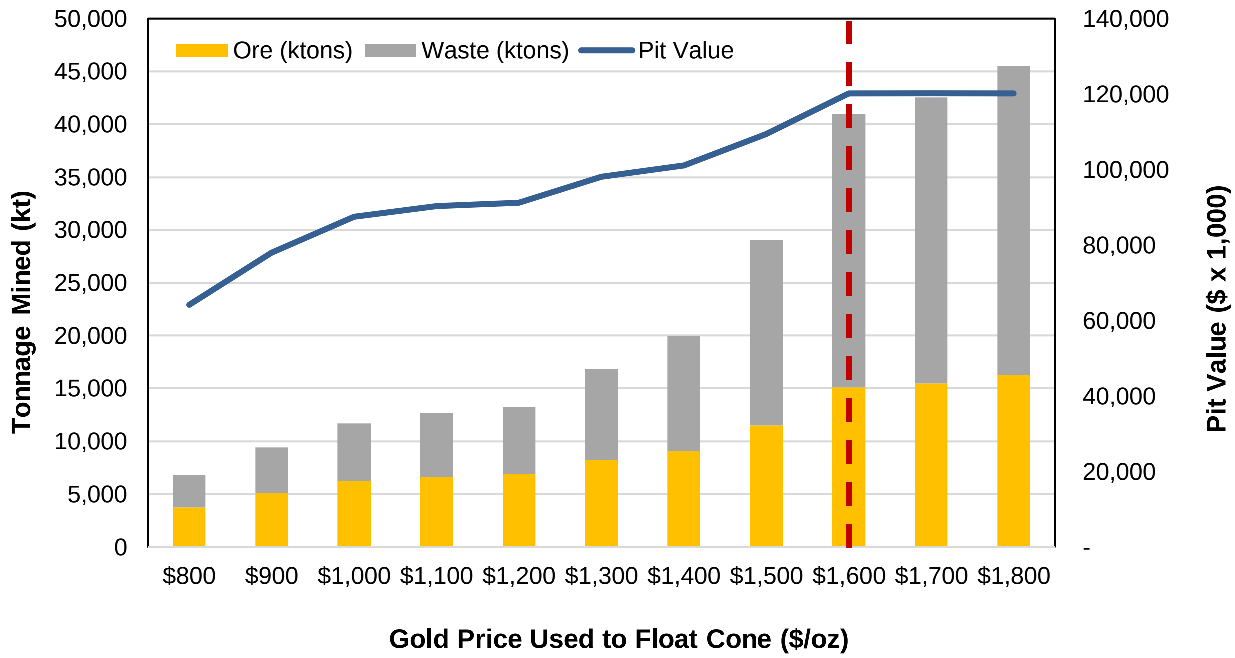
15.4 Guidance Cone Selection at Haidee

Haidee was evaluated in the same manner as Beartrack. The curves of the increasing pit shell geometries evaluated at $1,700/oz Au for Haidee is provided on Table 15-3 and Figure 15-2.

Table 15-3: Haidee Comparison of Pit Sizes at Constant $1,700/oz Gold Price

Au[1] Price ($/oz)	Mineral (kt)	Net of Process ($/t)	Gold Grade (oz/t)	Recovered Au Grade (oz/t)	Waste Rock (kt)	Total Material (kt)	Pit Value ($ x 1000)	Recovered Gold (koz)	Profit ($/oz)	Cash Cost ($/oz)
$800	3,743	$20.565	0.020	0.017	3,112	6,855	64,150	64.38	$996.43	$703.57
$900	5,109	$18.730	0.018	0.015	4,324	9,433	77,990	79.09	$986.13	$713.87
$1,000	6,230	$17.566	0.018	0.015	5,429	11,659	87,480	96.44	$907.09	$792.91
$1,100	6,663	$17.125	0.017	0.015	6,000	12,663	90,240	97.41	$926.36	$773.64
$1,200	6,866	$16.913	0.017	0.015	6,384	13,250	91,130	100.38	$907.84	$792.16
$1,300	8,189	$15.873	0.016	0.014	8,650	16,839	98,110	112.68	$870.69	$829.31
$1,400	9,082	$15.287	0.016	0.014	10,869	19,951	101,100	124.97	$809.01	$890.99
$1,500	11,512	$14.315	0.015	0.013	17,514	29,026	109,400	148.50	$736.68	$963.32
$1,600	15,104	$13.196	0.015	0.013	25,883	40,987	120,100	194.84	$616.40	$1,083.60
$1,700	15,474	$13.087	0.015	0.013	27,076	42,550	120,200	199.61	$602.16	$1,097.84
$1,800	16,314	$12.786	0.014	0.012	29,200	45,514	120,100	196.42	$611.44	$1,088.56

Figure 15-2: Haidee Comparison of Various Cone Sizes at $1,700/oz Gold



The $1,600/oz. Au cone was selected for the purpose of this evaluation; therefore, the final pit of Haidee was designed to contain the ore within the $1,600/oz. Au cone. The additional value contained within the pits that were generated at metal prices above $1,600/oz was incrementally marginal compared to the $1,600/oz. geometry. The benefit of mining a larger pit would become more marginal or even negative once the mine schedule is completed and the value of the pit is evaluated on a discounted basis.

15.5 Open Pit Phase Designs

Computer-generated pit shells do not consider phased access or bench working room and cannot be used for practical operations. The pit shells are used only as a guide for the design of operational mining phases. The following items were considered in phase design:

- Slope angle recommendations were provided by WSP in their report titled “Pre-feasibility Level Pit Slope Design Study” 10 December 2022.
- Access: Access to every bench of every phase is incorporated into the pit design.
- Haul Road Pit Exits: Pit exit locations are chosen to have the haul road exit the pit at the most beneficial location for the haulage of ore to the crusher and waste to the appropriate storage location.

- Realistic Mining Geometries: Computer generated pits have irregular pit walls that will be operationally difficult to mine. Designing pits removes these irregularities and smooths out pit walls.

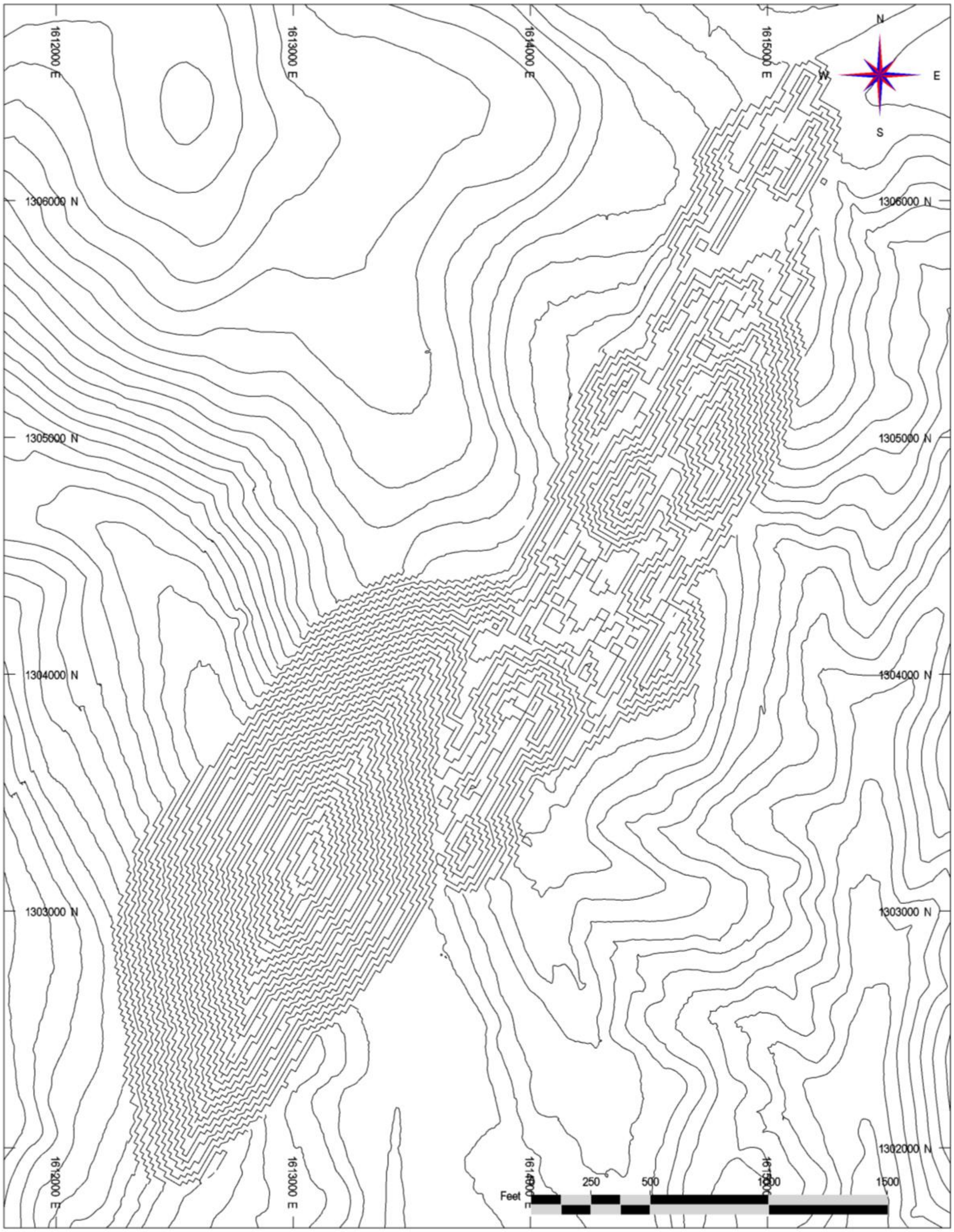
By incorporating haul roads into the pit design and smoothing irregularities in the pit walls, additional waste is often incurred in the upper benches and some ore that was in the bottom benches of the pit shells becomes unachievable. For this reason, designed phases often have a higher stripping ratio than optimized pits. Open pit design criteria are provided in Table 15-4.

Table 15-4: Design Parameters for Open Pit Phase Design

Design Parameters		Parameters Value
Haul Road Width Including Ditches and Berms		81 feet
Maximum Haul Road Grade		10%
Beartrack	Bench Height for Mining	25 feet
	Face Angle of Benches	Variable between 60° - 70°
	Inter-ramp Slope Angles Used	Variable between 38° - 49°
Haidee	Bench Height for Mining	15 feet
	Face Angle of Benches	Variable between 65° - 70°
	Inter-ramp Slope Angles Used	Variable between 45° - 49°

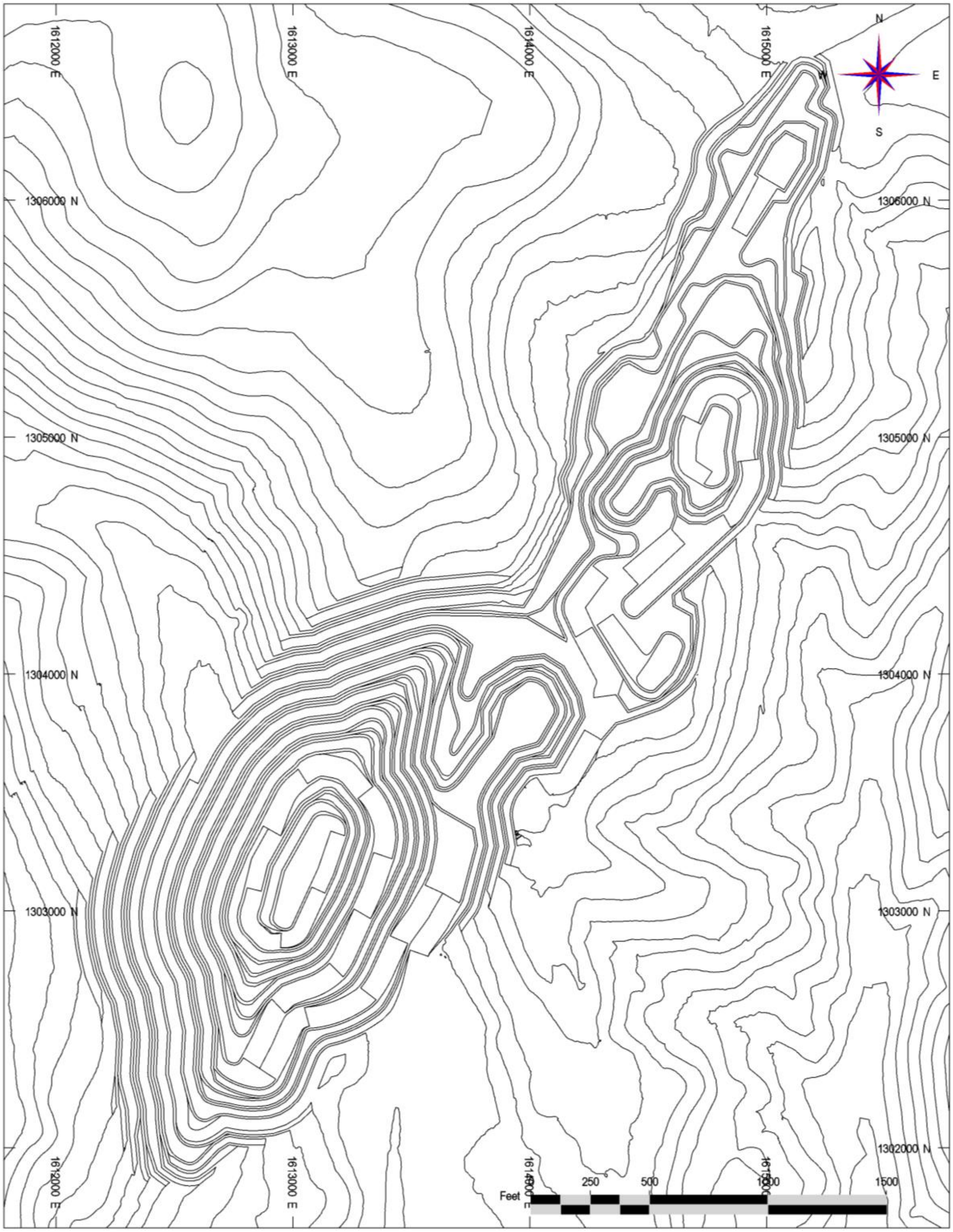
The pit shell results were used as a guide to develop six pushbacks or phases for the development of a practical mine plan and schedule: three phases within the Beartrack area, and three phases within the Haidee area. The design cones for Beartrack North, Beartrack South, and Haidee are illustrated on Figure 15-3, Figure 15-5, and Figure 15-7, respectively. The ultimate pits for Beartrack North, Beartrack South, and Haidee are shown on Figure 15-4, Figure 15-6, and Figure 15-8, respectively. Figure 15-3 through Figure 15-8 were developed at the same scale for comparative purposes.

Figure 15-3: Beartrack North Floated at $1,700/oz Gold Price



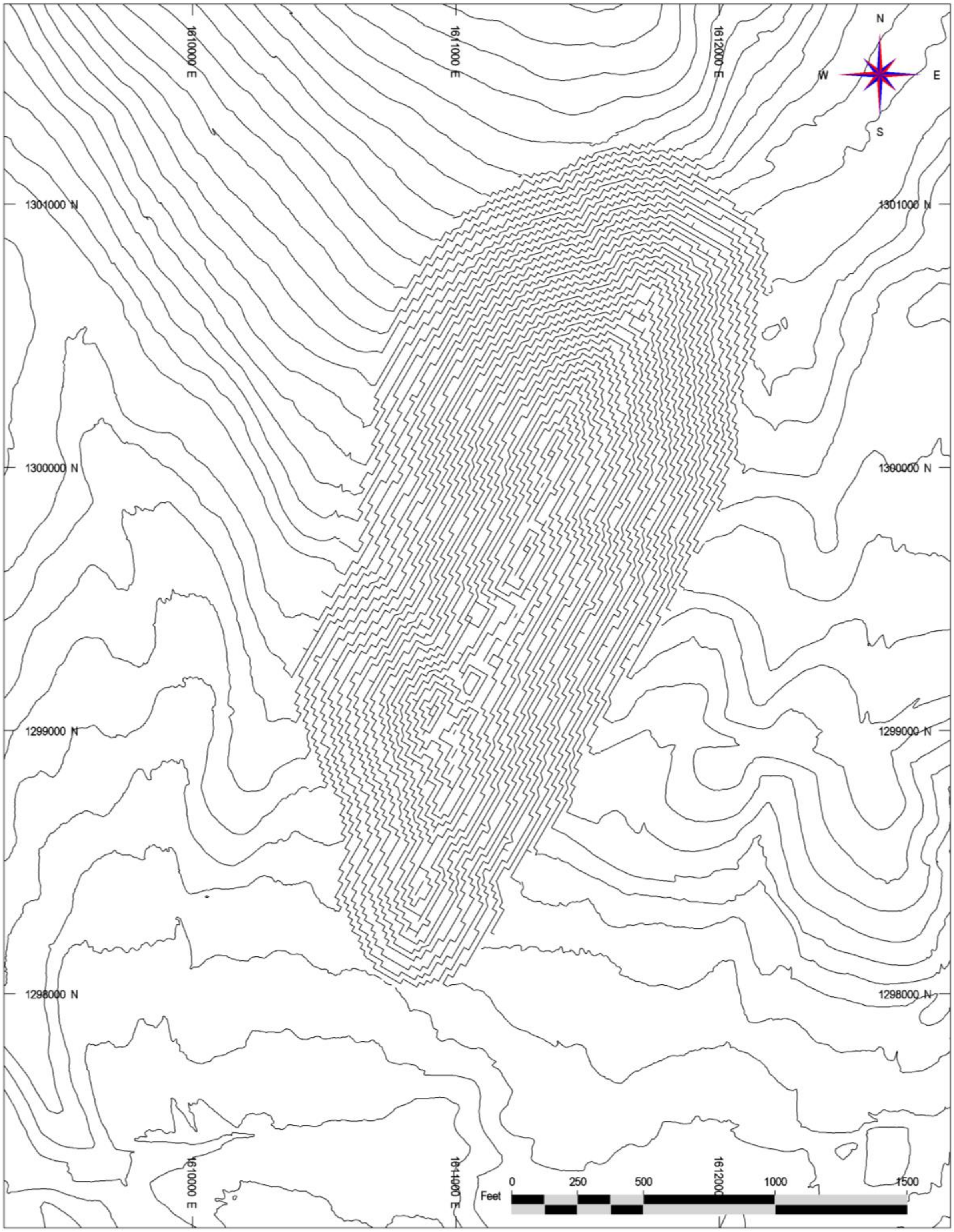
Source: IMC, 2023.

Figure 15-4: Beartrack North Ultimate Pit



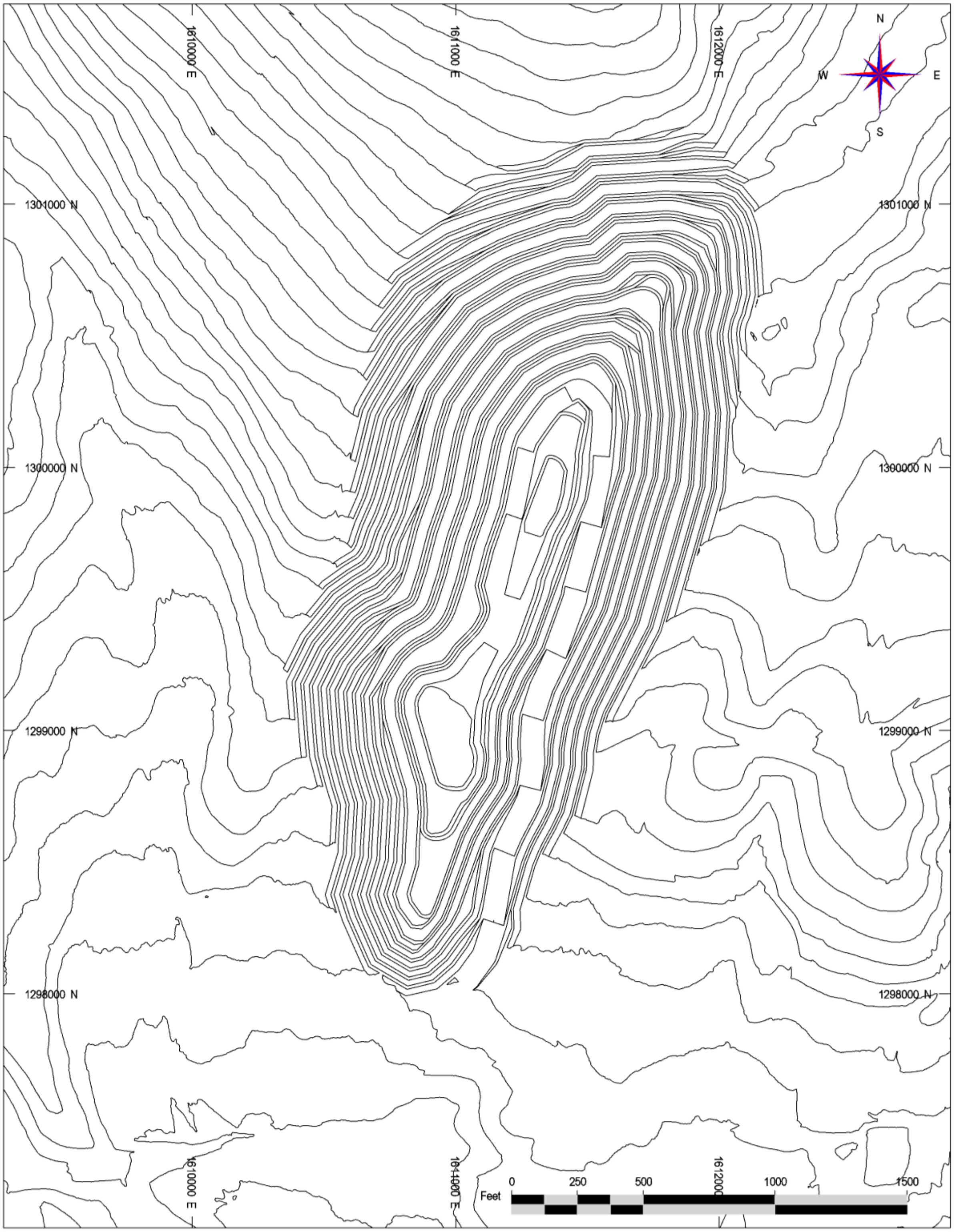
Source: IMC, 2023.

Figure 15-5: Beartrack South Cone Floated at $1,700/oz Gold Price



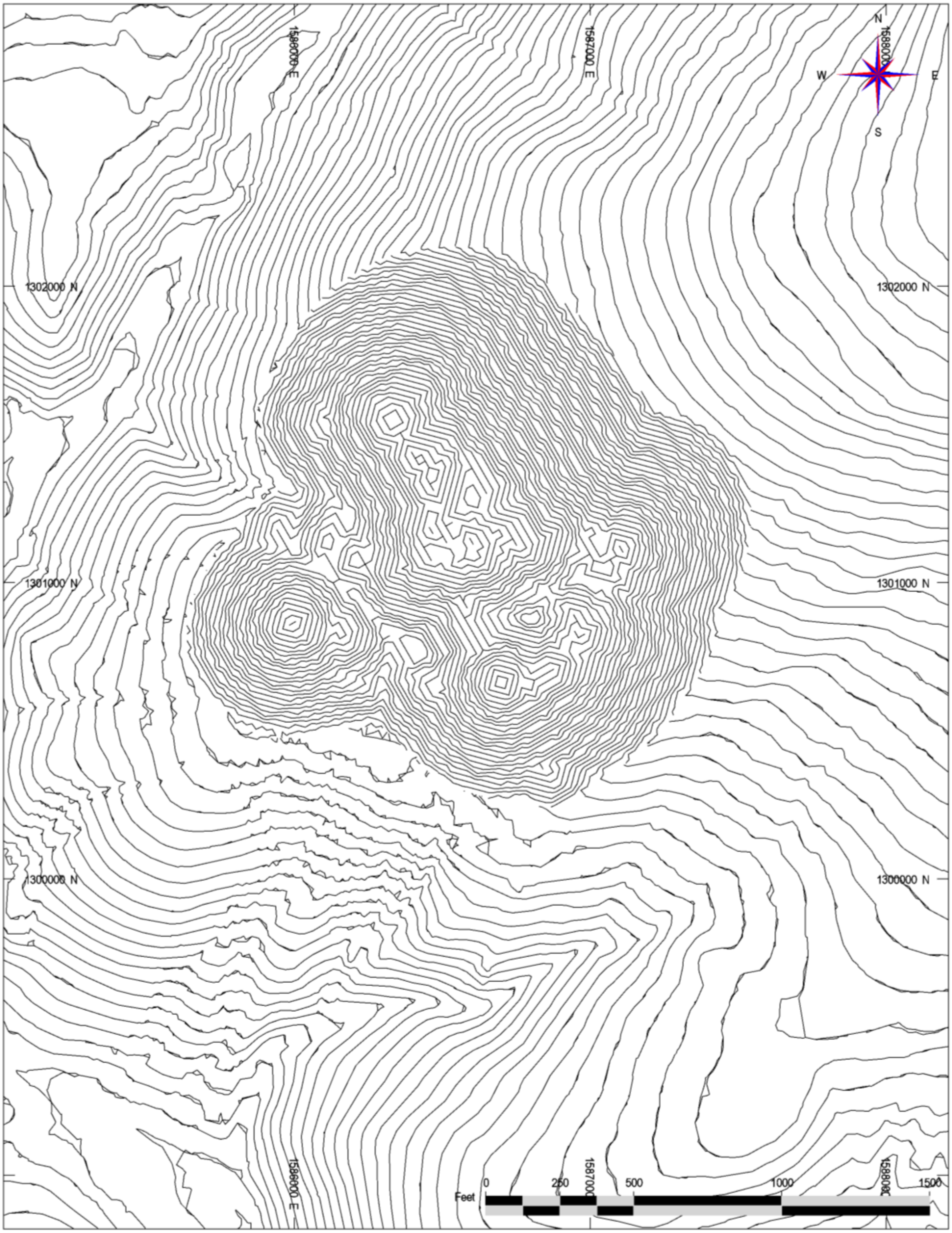
Source: IMC, 2023.

Figure 15-6: Beartrack South Ultimate Pit



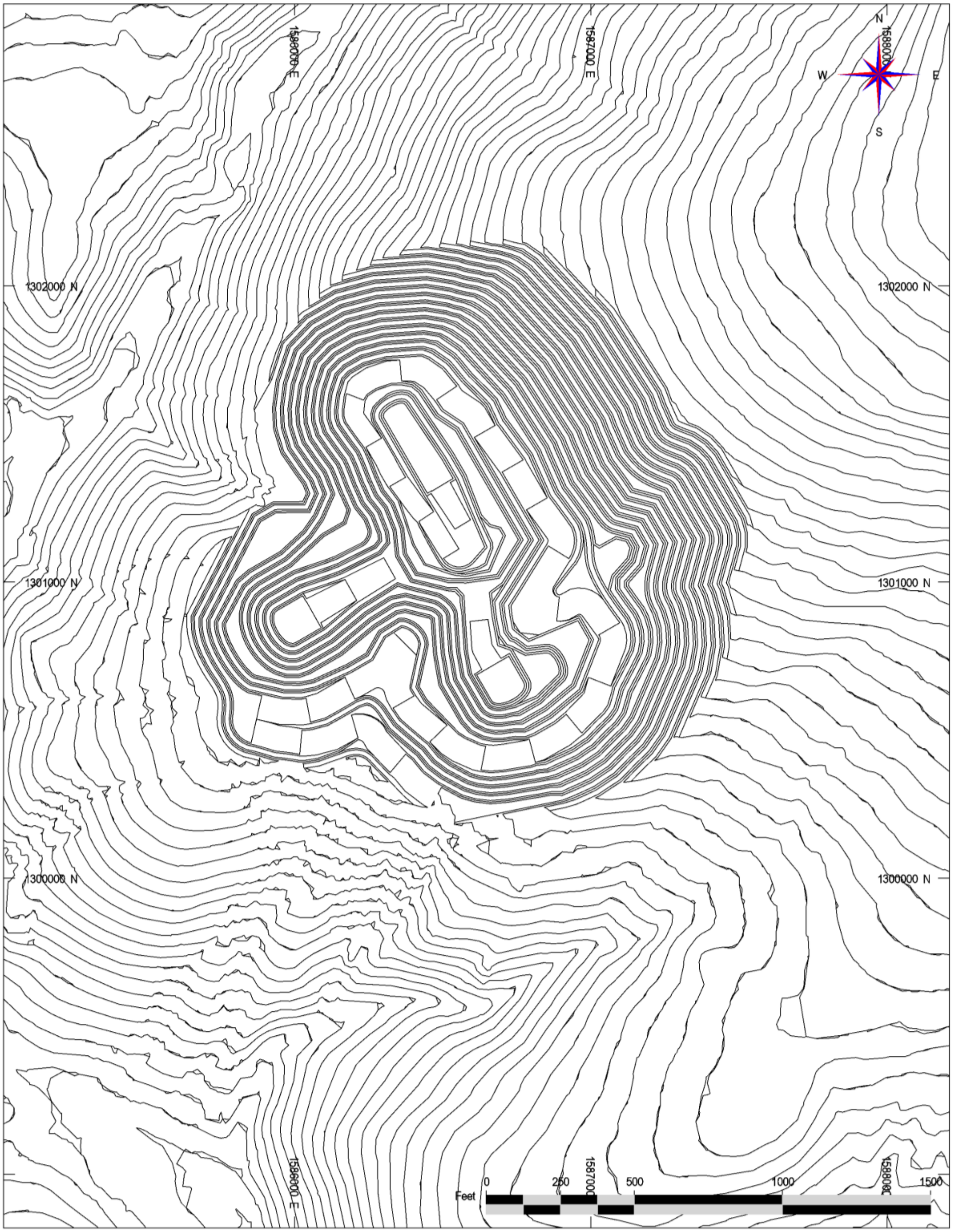
Source: IMC, 2023.

Figure 15-7: Haidee Cone Floated at $1,600/oz Gold Price



Source: IMC, 2023.

Figure 15-8: Haidee Ultimate Pit



Source: IMC, 2023.

The Mineral Reserve is the sum of the Proven and Probable material scheduled to be processed in the mine plan presented in Section 16. The cutoff grade for material sent to processing is $0.01/t Net of Process Revenue.

The processing costs used for mine planning were described in Table 15-1 and were implemented for the NPR equivalent calculation. The Mineral Reserves are summarized in Table 15-5.

Table 15-5: Beartrack-Arnett Mineral Reserve Estimate, 30 June 2023

Deposit	Mineral Reserve Category	Mineral Reserves				
		Tonnage		Gold Grade		Contained
		(kt)	(kT)	(oz/t)	(g/T)	Gold (koz)
Beartrack	Proven	7,077	6,420	0.031	1.06	219
	Probable	17,196	15,600	0.024	0.82	413
	Proven + Probable	24,273	22,020	0.026	0.89	632
Haidee	Proven	6,540	5,933	0.014	0.48	92
	Probable	9,087	8,244	0.015	0.51	136
	Proven + Probable	15,627	14,177	0.015	0.51	228
Total Proven		13,617	12,353	0.023	0.78	311
Total Probable		26,283	23,844	0.021	0.72	549
Total Proven + Probable		39,900	36,197	0.022	0.74	859

Notes:
1) Gold price used for Mineral Reserves: $1,700/oz.
2) Gold grades are reported in ounces per ton (oz/t) and grams per metric tonne (g/T).
3) Cutoff gold grade is based on Income, Net of Process Revenue (NPR) = $0.01/t ($0.01/T).
   NPR = (Grade x Recovery x ($1,700 - $5)) - (Process Cost + G&A).
   Process cost varies with CN/FA ratio. Process recovery varies by CN/FA ratio.
4) Typical FA gold cutoff grades are: 0.005 oz/t (0.17 g/T) oxide, 0.010 oz/t (0.33 g/T) transition, 0.031 oz/t (1.07 g/T) sulfide.
5) Total open pit material: 137,342 kt (124,595 kT).
6) Numbers may not sum exactly due to rounding.

An internal or marginal cutoff with an NPR of $0.01/t was determined to provide the best overall project economics, inclusive of the time value of money. Haidee Process Plant OPEX includes the ore haulage differential from Table 15-1.

The risks associated with the mineral reserves include variability in metal price, cost inflation, and the typical geologic uncertainty associated with the development of mineral resource block models. Permitting is not expected to be an impediment, but delays in project permitting could have a negative impact on project economics and consequently project mineral reserves.

The qualified person for the mineral reserves is John Marek, P.E. of Independent Mining Consultants, Inc.

16.0 MINING METHODS

16.1 Introduction

The Beartrack-Arnett Gold Project PFS mine plan was developed using conventional open pit hard rock mining methods. The mining operation is planned to deliver 4.8 million tons of leachable material to the primary crusher per year (nominally 13,200 tons per day). Crushed material would be sent to the designated leach pad and processed in a conventional heap leach operation.

The mine plan developed for the Project incorporates the mining of two primary mineral deposits – Beartrack and Haidee. Mineral Reserves from the two open pits would be sent to a primary crusher located near the leach pad. The primary crusher is moved in year 5 from a location preferential for Beartrack haulage to a location further west that is preferential for Haidee haulage.

Waste rock would be sent to four distinct destinations, three storage facilities at Beartrack and one at Haidee. For Beartrack, the non-acid generating (NAG) material would be sent either to backfill the North Pit or to the designated Waste Storage (NAG1 or NAG2). The potential acid generating (PAG) material would be sent to its own designated Waste Rock Storage (PAG1). The general sequence of mining is: the Beartrack North pit first, Mason Dixon pit second, South pit third and the Haidee deposit fourth. The mining sequence is influenced by the need to backfill the Beartrack North Pit due to storage capacity and this order also generally follows the preferred sequence of mining highest value to lowest value.

A summary of the ore tonnage by ore type and waste tonnage from each of the deposit areas is provided in Table 16-1.

Table 16-1: Summary of Mine Plan Material by Deposit and Pit

Deposit	Phases	Ore Type	Tonnage Ore (kt)	Net of Process ($/t)	FA Gold Grade (oz/t)	Recovered Gold Grade (oz/t)	CN/FA Ratio	Waste Rock (kt)	Strip Ratio (w/o)
Beartrack	North	Oxide	3,543	14.70	0.017	0.012	0.88		
		Transition	472	11.38	0.025	0.011	0.55		
		Sulfide	177	4.12	0.044	0.007	0.23		
		Total	4,192	13.88	0.019	0.012	0.82	6,520	1.6
	Mason-Dixon	Oxide	9,795	16.50	0.019	0.013	0.87		
		Transition	1,562	14.92	0.031	0.013	0.53		
		Sulfide	553	6.39	0.053	0.008	0.23		
		Total	11,909	15.82	0.022	0.013	0.79	29,629	2.5
	South	Oxide	4,005	24.07	0.026	0.018	0.84		
		Transition	2,596	16.90	0.034	0.014	0.51		
		Sulfide	1,570	7.53	0.066	0.009	0.21		
		Total	8,171	18.61	0.036	0.015	0.61	30,607	3.7
Haidee	Haidee 01	Oxide	3,354	15.71	0.016	0.014		3,476	1.0
	Haidee 02	Oxide	5,879	13.52	0.015	0.013		9,450	1.6
	Haidee 03	Oxide	6,394	10.61	0.013	0.011		17,398	2.7
Total Beartrack and Haidee			39,900	15.01	0.022	0.013		97,080	2.4

Only Measured and Indicated material is scheduled to be fed to the crusher. Additional details of this schedule will be presented later in this section, including annual time periods and illustrative annual drawings of the mine and dump plan. Multiple schedules were evaluated to determine the best economics and minimize the initial capital requirements. Table 16-2 and Table 16-3 describe the PFS mine plan schedule. The recovered gold grade is calculated on a block-by-block basis during the mine planning process. These values were used for mine planning and may not precisely match the final recoveries calculated by KCA.

Table 16-2: Mine Production Schedule and Crusher Feed Schedule

Year	Cutoff, Net of Process ($/t)	Ore Tonnage (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Recovered Gold Grade (oz/t)	Stockpile In (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Stockpile Out (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Waste Rock (kt)	Total Material (kt)
PP	$0.01	1,200	$18.72	0.022	0.015							3,900	5,100
YR01	$0.01	4,828	$12.41	0.018	0.011							14,872	19,700
YR02	$0.01	4,828	$13.32	0.018	0.011							14,872	19,700
YR03	$0.01	4,828	$16.77	0.022	0.014							14,872	19,700
YR04	$0.01	4,828	$19.88	0.030	0.015							14,905	19,733
YR05	$0.01	4,426	$19.05	0.043	0.015	362	$2.71	0.007				9,602	14,390
YR06	$0.01	4,828	$13.15	0.015	0.013				362	$2.71	0.007	9,562	14,390
YR07	$0.01	4,828	$13.33	0.015	0.013							9,703	14,531
YR08	$0.01	4,828	$11.64	0.014	0.012							4,444	9,272
YR09	$0.01	478	$14.02	0.015	0.013							349	827
Total	$0.01	39,900	$15.01	0.022	0.013	362	$2.71	0.007	362	$2.71	0.007	97,081	137,342

Note: Total material movement includes stockpile material re-handle.

Table 16-3: Crusher Feed Schedule by Ore Type

Year	Cutoff Net of Process ($/t)	Oxide				Transition/Mixed				Sulfide				Stockpile In			Stockpile Out		
		Ore (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Recovered Gold Grade (oz/t)	Ore (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Recovered Gold Grade (oz/t)	Ore (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Recovered Gold Grade (oz/t)	Ore (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)	Ore (kt)	Head, Net of Process ($/t)	FA Gold Grade (oz/t)
PP	$0.01	1,042	$19.98	0.020	0.015	103	$13.54	0.030	0.012	54	$4.29	0.045	0.007						
YR01	$0.01	4,056	$13.08	0.016	0.011	585	$10.42	0.023	0.010	186	$3.86	0.043	0.007						
YR02	$0.01	4,104	$13.96	0.016	0.012	554	$11.86	0.026	0.011	170	$2.66	0.037	0.006						
YR03	$0.01	3,962	$17.28	0.019	0.014	673	$17.16	0.034	0.014	193	$5.02	0.045	0.007						
YR04	$0.01	3,065	$25.63	0.027	0.019	1,268	$10.37	0.025	0.010	495	$8.64	0.065	0.009						
YR05	$0.01	1,778	$23.10	0.025	0.018	1,446	$23.36	0.044	0.018	1,202	$7.86	0.069	0.009	362	$2.71	0.007			
YR06	$0.01	4,828	$13.15	0.015	0.013												362	$2.71	0.007
YR07	$0.01	4,828	$13.33	0.015	0.013														
YR08	$0.01	4,828	$11.64	0.014	0.012														
YR09	$0.01	478	$14.02	0.015	0.013														
Total	$0.01	32,970	$15.47	0.017	0.013	4,629	$15.67	0.032	0.013	2,300	$6.99	0.061	0.008	362	$2.71	0.007	362	$2.71	0.007

Note: Total material movement includes stockpile material re-handle.

In addition to mine sequencing constraints, the PFS mine schedule considers the crusher relocation in year 5. One month of ore production is assumed to be stockpiled in year 5 and rehandled to the crusher in year 6 to account for the time to relocate the crusher in year 5.

The IMC mine planning team applied the following steps to develop the PFS mine plan:

1. Computer generated pit guidance for phase design;
2. phase designs;
3. mine production schedule;
4. waste rock storage design and waste rock allocation;
5. haul road design;
6. time sequence mine and dump drawings; and
7. equipment and manpower requirements.

Additional details associated with the preceding steps are described in the following subsections.

16.2 Geotechnical Considerations

Pit design recommendations were provided by Revival's geotechnical consultant WSP for the Beartrack North, Beartrack South and Haidee open pits, respectively. Pit slope design recommendations in the Tertiary Sediments in the Beartrack North and Beartrack South pits are primarily based on performance of the slopes in the existing historical pits. Table 16-4 provides the inter-ramp slope angles used in the Beartrack and Haidee open pit designs.

Table 16-4: Mine Design Pit Slope Parameters

Deposit	Geotechnical Unit	Bench Configuration	Bench Height (feet)	Minimum Catch Bench Width (feet)	Bench Face Angle (degrees)	Inter-ramp Slope Angle (degrees)
Beartrack	Tertiary Sediments	Single	25	20	65	38
	Glaciolacustrine Deposits	Single	25	20	65	38
	Yellowjacket Formation	Triple	75	40	70	45
	Rapakivi Granite	Double	50	25	70	49
	Panther Creek Shear Zone	Double	50	25	60	42
Haidee	East Sector	Double	30	16	65	45
	All other Sectors	Double	30	16	70	49

16.3 Open Pit Phase Designs

The final PFS phase designs were guided by the floating cone pit shells that were described in Section 15. Phases are designed to even out waste rock stripping over the mine life and to move higher-grade ore forward in the mine schedule. The culmination of the phase designs results in the ultimate pits that were presented in Section 15. Phase designs include all internal access roads and assure proper operating requirements for mining equipment.

A total of three independent phases were designed to achieve the ultimate Beartrack open pit; The initial development of Beartrack open pit requires 3.9 million tons of waste rock stripping to expose sufficient ore for production at the planned throughput rate; this requires a simultaneous development of North and Mason Dixon phases. Waste stripping of the Beartrack South phase is planned to start after mining of the North phase is complete.

The Haidee open pit is planned to be mined in three phases. Waste rock stripping in Haidee begins while ore is being produced from Beartrack to maintain a constant ore feed to the crusher.

The three Beartrack open pit phases are mined first in the mine schedule, followed by the Haidee phases. The parameters for the mine phase designs are summarized in Table 16-5.

Table 16-5: Design Parameters for Open Pit Mine Phases

Design Parameter		Parameters Value
Haul Road Width Including Ditches and Berms		81 feet
Maximum Haul Road Grad		10%
Beartrack	Bench Height for Mining	25 feet
	Face Angle of Benches	Variable between 60° - 70°
	Inter-ramp Slope Angles Used	Variable between 38° - 49°
Haidee	Bench Height for Mining	15 feet
	Face Angle of Benches	Variable between 65° - 70°
	Inter-ramp Slope Angles Used	Variable between 45° - 49°

The ore mined from each phase on an annual basis is provided on Figure 16-1. The waste mined from each phase on an annual basis is provided on Figure 16-2. Open pit progression (at the end of preproduction and by year thereafter) as well as waste rock storage facility and haul road progression can be seen on Figure 16-7 through Figure 16-15.

Figure 16-1: Ore Mining Schedule by Deposit and Phase

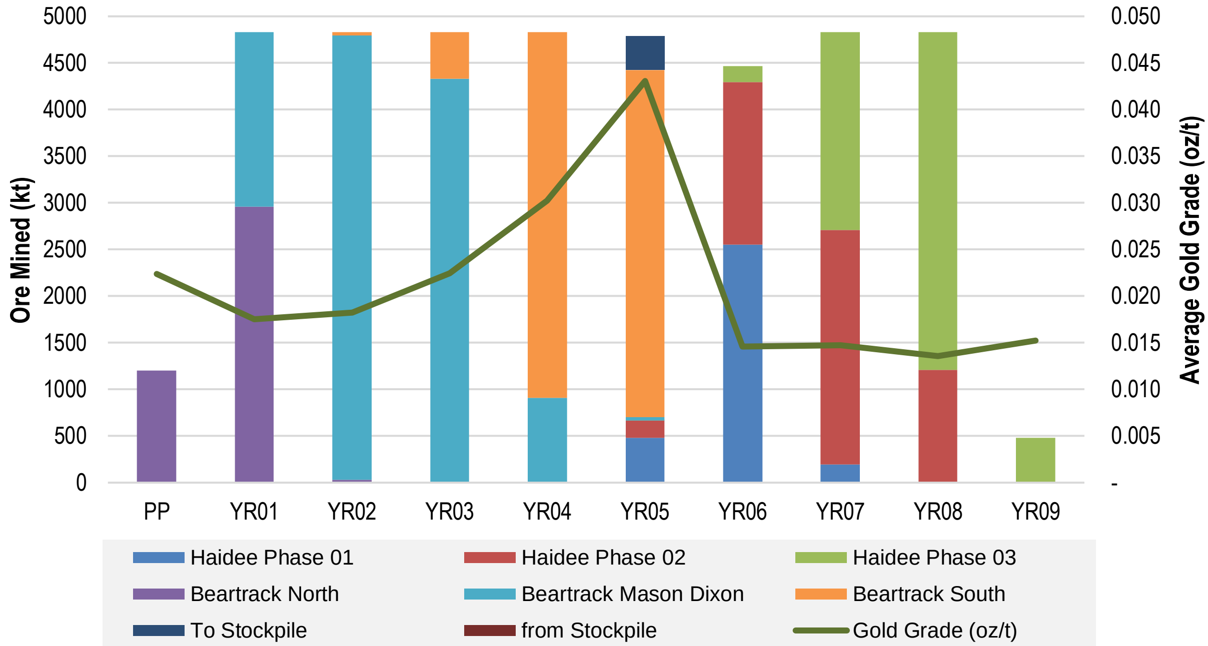
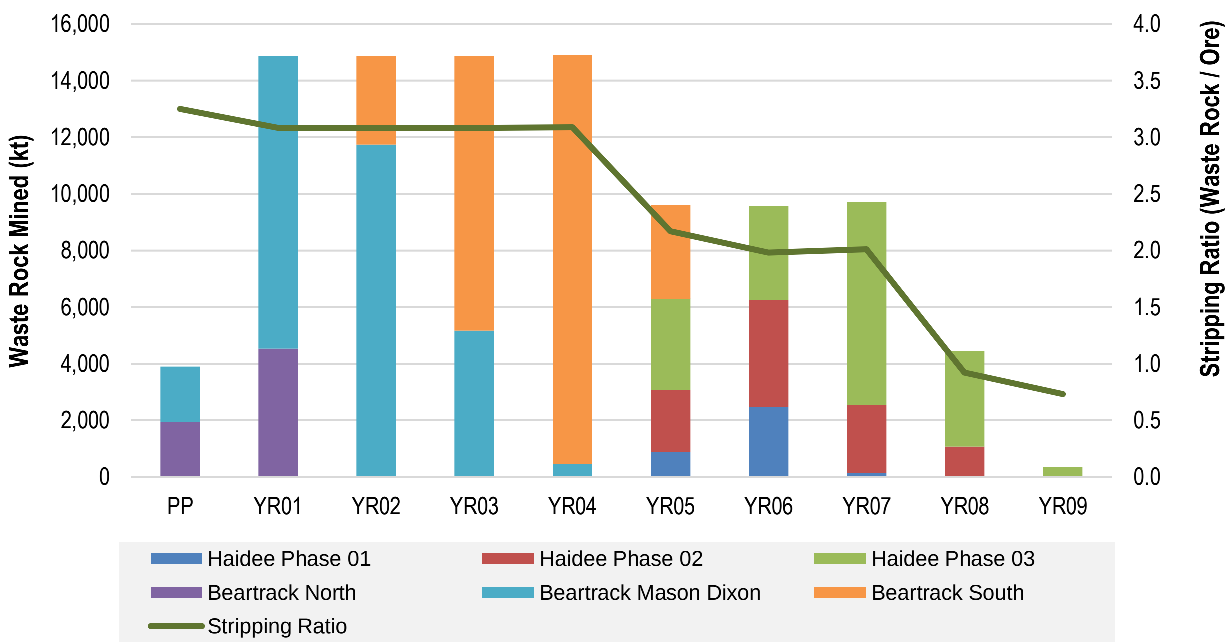


Figure 16-2: Waste Rock Mining Schedule by Deposit and Phase



16.4 Mine Schedule

The mine schedule was developed based on the phase designs and the block models. The material contained within each pushback design was tabulated at multiple cutoff grades for input to the mine schedule process. Only Measured and Indicated Mineral Resource categories were tabulated from the pushback designs. All other material (including Inferred Mineral Resources) was treated as waste rock in the mine schedule.

The mine schedule was developed to provide 4.8 million tons of mined material to the primary crusher every year (13,600 tons per day) after ramp up for approximately 9 years of mine life. Scheduled ore is planned to be processed in a conventional heap leach operation.

In the process of developing a sound mine operating strategy, multiple schedules were evaluated. Elevated cutoff grade schedules were developed to try to move gold ounces forward in the mine plan. After multiple schedule evaluations, IMC determined there was no measurable benefit to applying a declining cutoff strategy and the best economic approach to the project was to utilize the internal or marginal cutoff for the mine life.

Internal economic cutoffs were based on income Net of Process Revenue (NPR) in dollars per ton of ore ($/t ore) at $1,700/oz gold price and the economic inputs from Table 15-1. Net of Process Revenue, defined as Net Smelter Return (NSR) less process operating expenditures (OPEX), general and administrative costs (G&A) was calculated on a block-by-block basis in dollars per ton of ore ($/t ore) to indicate the value of a block.

NPR = NSR – Process OPEX - Site G&A

NSR=(Gold Price($/oz) – Sales Cost ($/oz))*recoverable gold (oz/t)

The internal economic cutoff would be $0.01/ton NPR for both pits. Haidee Process Plant OPEX includes the ore haulage differential from Table 15-1.

A tabulation of the mine schedule by deposit is provided in Table 16-6. Figure 16-3 is a graphic summary of the material movements of ore and waste rock by deposit. Figure 16-4 details the ore mined by ore type from each deposit by year and includes the blended annual average gold head grade.

Table 16-6: Production Schedule by Deposit

Year	Cutoff Net of Process ($/t)	Total Ore to Crusher (kt)	Beartrack Ore Ore (kt)	Beartrack Ore Net of Process ($/t)	Beartrack Ore FA Gold Grade (oz/t)	Beartrack Ore Recovered Au Grade (oz/t)	Beartrack Ore CN/FA (ratio)	Haidee Ore Ore (kt)	Haidee Ore Net of Process ($/t)	Haidee Ore FA Gold Grade (oz/t)	Haidee Ore Recovered Au Grade (oz/t)	Ore to Stockpile Ore (kt)	Ore to Stockpile Net of Process ($/t)	Ore to Stockpile FA Gold Grade (oz/t)	Ore from Stockpile Ore (kt)	Ore from Stockpile Head, Net of Process ($/t)	Ore from Stockpile FA Gold Grade (oz/t)	Waste Rock (kt)	Total Material (kt)
PP	$0.01	1,200	1,200	18.72	0.022	0.015	0.84											3,900	5,100
YR01	$0.01	4,828	4,828	12.41	0.018	0.011	0.82											14,872	19,700
YR02	$0.01	4,828	4,828	13.32	0.018	0.011	0.81											14,872	19,700
YR03	$0.01	4,828	4,828	16.77	0.022	0.014	0.79											14,872	19,700
YR04	$0.01	4,828	4,828	19.88	0.030	0.015	0.69											14,905	19,733
YR05	$0.01	4,426	3,760	19.97	0.048	0.016	0.50	666	13.83	0.015	0.013	362	2.71	0.007				9,602	14,390
YR06	$0.01	4,828						4,828	13.15	0.015	0.013				362	2.71	0.007	9,562	14,390
YR07	$0.01	4,828						4,828	13.33	0.015	0.013							9,703	14,531
YR08	$0.01	4,828						4,828	11.64	0.014	0.012							4,444	9,272
YR09	$0.01	478						478	14.02	0.015	0.013							349	827
Total	$0.01	39,900	24,272	16.43	0.026	0.013	0.74	15,627	12.80	0.014	0.012	362	2.71	0.007	362	2.71	0.007	97,081	137,342

Figure 16-3: Ore and Waste Rock Mined by Deposit by Year

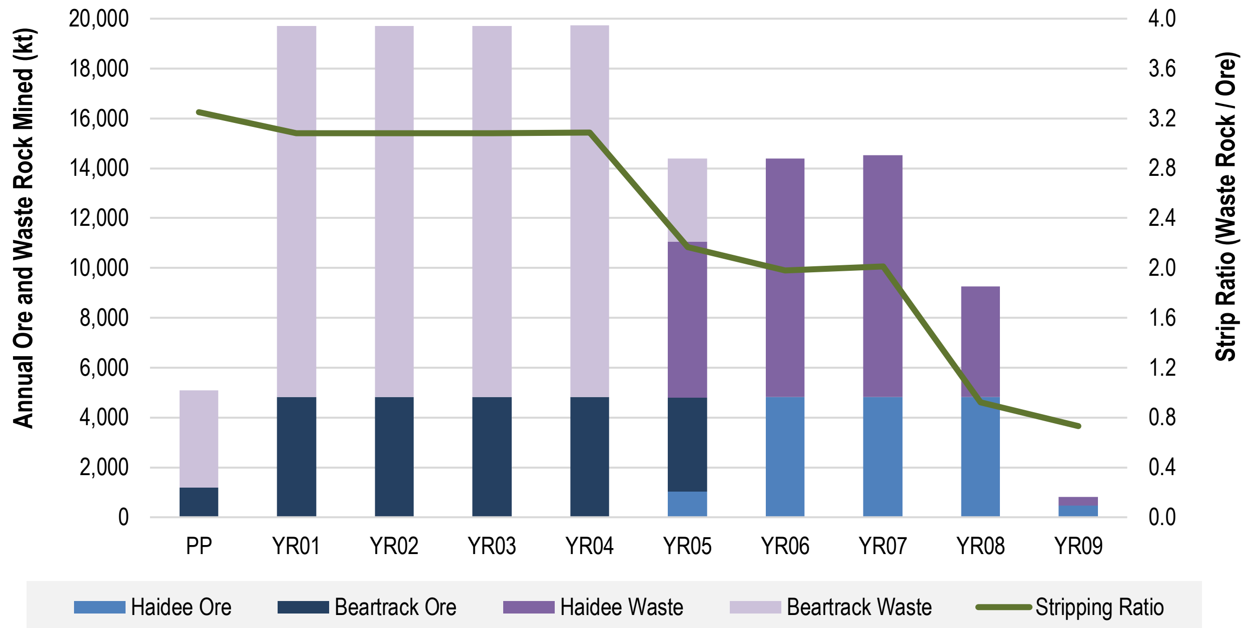
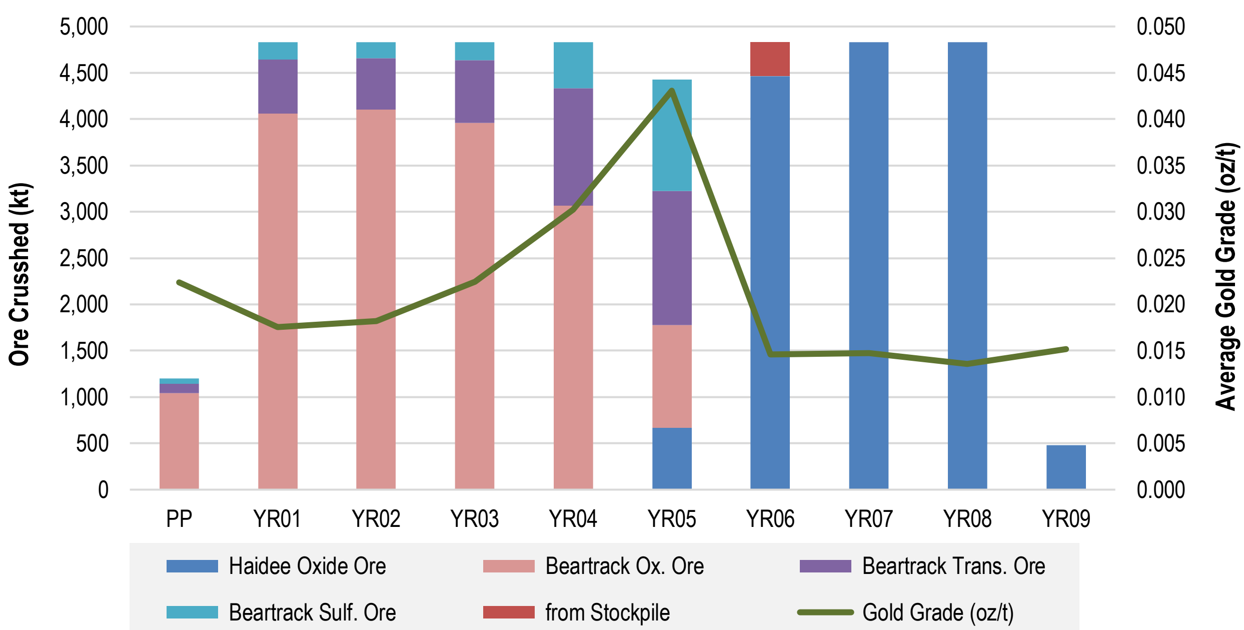


Figure 16-4: Ore Mined from Each Deposit by Type and by Year



16.5 Waste Rock Storage and Allocation

Waste rock from the three open pits is planned to be sent to four different destinations over the mine life. The Beartrack pit requires two NAG waste rock dumps (NAG 01 and NAG 02) and one PAG waste rock dump (PAG 01). The NAG 02 waste rock dump backfills the North pit. The Haidee pit requires only one waste rock dump (ARWD) as there is no PAG material identified at Haidee. From Pre-Production to Year 2, approximately 2.4 million tons of backfill from historical mining operations is mined and sent to NAG 01 waste rock dump. Waste quantities by year to each destination are provided in Table 16-7 and show graphically on Figure 16-5.

Figure 16-5: Waste Rock Destination by Period

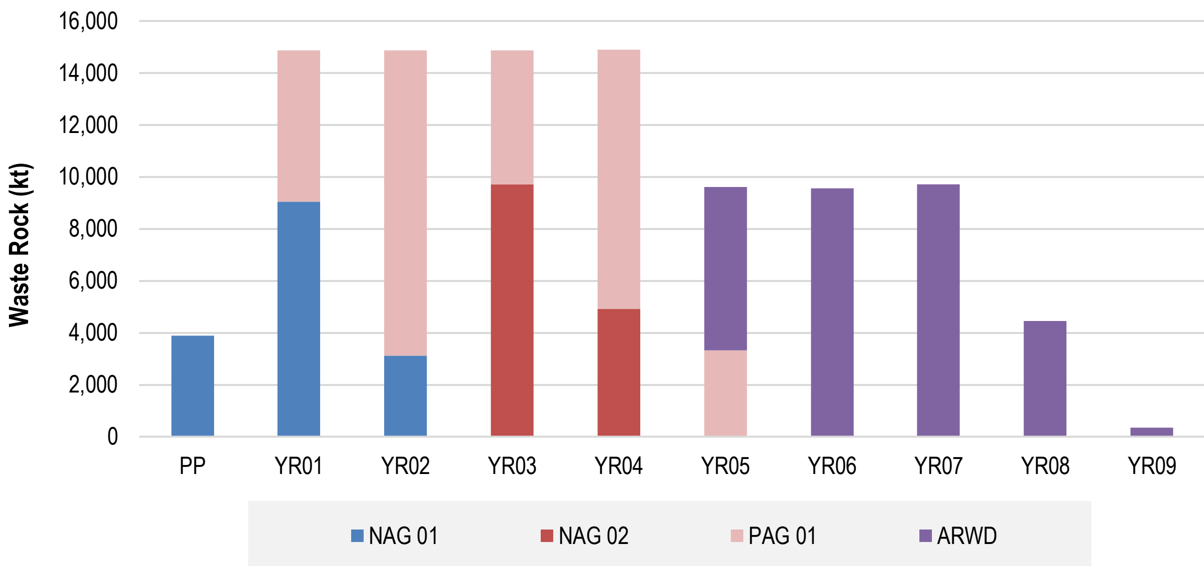


Table 16-7: Waste Rock Destination by Period

Period	NAG 01 (kt)	NAG 02 (kt)	PAG 01 (kt)	ARWD (kt)
PP	3,900			
YR01	9,035		5,837	
YR02	3,122		11,750	
YR03		9,715	5,157	
YR04		4,913	9,992	
YR05			3,336	6,266
YR06				9,562
YR07				9,703
YR08				4,444
YR09				349

16.6 Mine Operations & Equipment

Mine mobile equipment was selected to meet the production requirements summarized in Table 16-2. All mine equipment selected for this study is standard off-the-shelf units.

Mining is scheduled for 365 days/year and 2 shifts/day of 12 hours duration. Ten shifts per year are assumed to be lost due to weather delays and holidays. A 4-crew has been assumed when calculating mine equipment operators and maintenance personnel.

Production drilling is planned to be accomplished with 45,000-lb pull-down capable downhole hammer drills. These drills were selected based on the physical characteristics of the mine plan and the required mining rate. A drill bit diameter of 6-$^{7}/_{8}$" has been assumed based on historical mine production. All dry holes would be loaded with ANFO while wet holes would be loaded with emulsion slurry.

Production loading is planned to be accomplished with 14 cubic yard front end loaders. Wheel loaders were chosen over shovels because the maneuverability would be beneficial at the Project since mining occurs in two separate pits and a total of six phases. The 14 cubic yard loaders are also well suited for snow clearing and loading area cleanup. Ore and waste rock hauling is planned to be accomplished with 100-ton haul trucks.

Other equipment selected for the mining fleet include: 436-hp (D9 class) track dozers; graders with 16-foot moldboards, 20,000-gallon water trucks on 100-ton haul truck chassis, small track mounted drills are included in the equipment requirements for secondary blasting and road pioneering duties. Also, these small drills would do some production drilling on the very highest benches of the phases where the working areas would not be large enough for the main production fleet. One 36-ton articulated truck would be used for general support. A small 7 cubic yard loader is also planned for loading the 36-ton articulated truck and feeding the crusher from stockpiles when trucked ore cannot meet the process plant throughput requirements. A 2-yard backhoe would be used for general support and maintenance of drainage structures.

Equipment productivity was calculated on a per-shift basis considering the Project material and operating conditions. The productivity per shift and the tonnage requirements set the number of operating shifts needed per year to move the required material. Availability and utilization were applied to determine the required number of operating units. Haul truck productivity was based on detailed haul time simulations over measured haul profiles. Haul profiles were measured for each material type by time period, from each phase and storage location to each destination. Table 16-8 summarizes the mine mobile equipment fleet requirements for the mine life. In some years the mobile equipment on hand may be greater than the average fleet required; this results from the need to account for short-term fluctuations in equipment requirements.

Table 16-8: Major Mine Mobile Equipment Requirements

Equipment Type	Time Period									
	PP	YR01	YR02	YR03	YR04	YR05	YR06	YR07	YR08	YR09
45,000 lb Blasthole Drill	2	3	3	3	3	3	3	3	2	1
14 Yard Loader	2	3	3	3	3	2	2	2	2	1
100 ton Haul Truck	6	11	11	13	13	13	13	13	11	7
436 HP Track Dozer	3	3	3	3	3	3	2	2	2	2
16' Grader	1	1	1	1	1	2	2	2	2	2
100 ton Class Water Truck	1	1	1	1	1	1	1	1	1	1
7 Yard Loader	1	1	1	1	1	1	1	1	1	1
36 Ton Artic Truck	1	1	1	1	1	1	1	1	1	0
Pioneer Drill	1	1	1	1	1	1	1	1	1	1
2 Yard Excavator	1	1	1	1	1	1	1	1	1	0
Totals	19	26	26	28	28	28	27	27	24	16

The requirements for mine supervision, operations, and maintenance personnel were calculated using the equipment list and mine schedule. For the first three periods, 23 salaried personnel were included for supervision, engineering, geology, and ore control; starting in Year 3, only 22 salaried personnel were included. For years 8 and 9, only 21 and 20 salaried personnel were considered, respectively.

Mine operations and maintenance labor increases to 139 persons in Year 1 and stays between 132 and 151 persons until labor requirements begin to decline in Year 8. Maintenance personnel requirements are set to be around 50% of operations labor required. The salary and hourly staff requirements are provided in Table 16-9 and Table 16-10, respectively. Figure 16-6 presents the mine staffing graphically.

Table 16-9: Salary Staff Requirements

Job Title	Time Period									
	PP	YR01	YR02	YR03	YR04	YR05	YR06	YR07	YR08	YR09
MINE OPERATIONS:										
Superintendent, Mine Operations	1	1	1	1	1	1	1	1	1	1
Supervisor, Mine Ops	4	4	4	4	4	4	4	4	4	4
Mine Training Supervisor	1	1	1	0	0	0	0	0	0	0
Mine Operations Total	6	6	6	5	5	5	5	5	5	5
MINE MAINTENANCE:										
Superintendent, Mine Maintenance	1	1	1	1	1	1	1	1	1	1
Sr Planner, Mine Maintenance	1	1	1	1	1	1	1	1	1	1
Supervisor, Mine Maintenance - Mechanical	4	4	4	4	4	4	4	4	4	4
Maintenance Clerk	1	1	1	1	1	1	1	1	1	1
Mine Maintenance Total	7	7	7	7	7	7	7	7	7	7

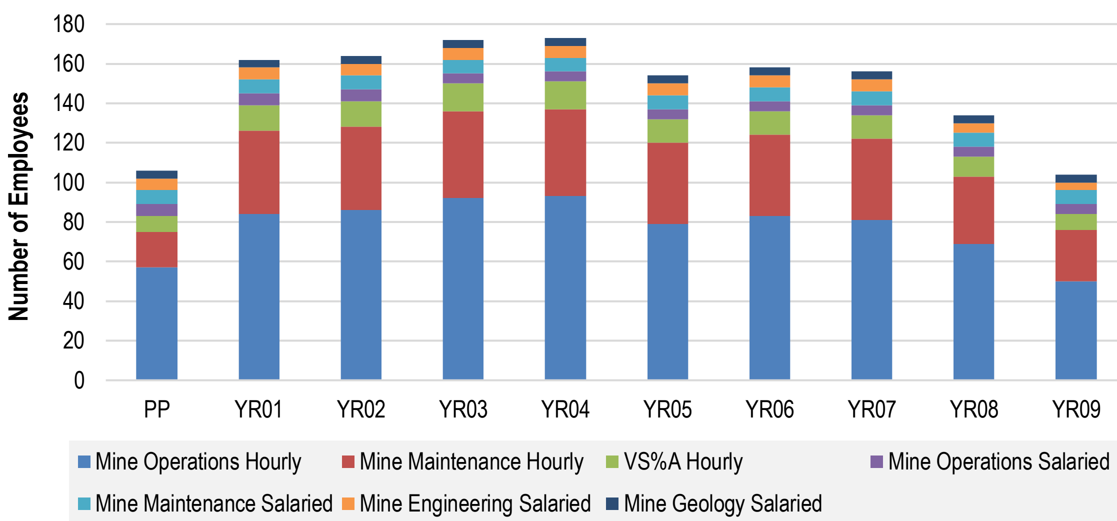
Job Title	Time Period									
	PP	YR01	YR02	YR03	YR04	YR05	YR06	YR07	YR08	YR09
MINE ENGINEERING:										
Chief Mine Engineer	1	1	1	1	1	1	1	1	1	1
Chief Surveyor	1	1	1	1	1	1	1	1	1	1
Sr. Engineer, Mine	1	1	1	1	1	1	1	1	1	0
Mine Engineer	1	1	1	1	1	1	1	1	1	1
Technician 3, Survey	2	2	2	2	2	2	2	2	1	1
Mine Engineering Total	6	6	6	6	6	6	6	6	5	4
MINE GEOLOGY:										
Chief Mine Geologist	1	1	1	1	1	1	1	1	1	1
Sr Geologist	1	1	1	1	1	1	1	1	1	1
Jr Geologist	1	1	1	1	1	1	1	1	1	1
Technician, Ore Control	1	1	1	1	1	1	1	1	1	1
Mine Geology Total	4	4	4	4	4	4	4	4	4	4
TOTAL PERSONNEL	23	23	23	22	22	22	22	22	21	20

Table 16-10: Hourly Staff Requirements

Job Title	Time Period									
	PP	YR01	YR02	YR03	YR04	YR05	YR06	YR07	YR08	YR09
MINE OPERATIONS:										
Drill Operator	4	8	8	8	8	8	10	11	7	4
Loader Operator	5	10	10	10	10	7	7	7	5	3
Haul Truck Driver	20	38	40	46	46	31	38	38	33	21
Track Dozer Operator	7	7	7	7	7	7	6	4	4	4
Grader Operator	3	3	3	3	4	7	5	5	5	5
Service Crew	10	10	10	10	10	11	9	8	8	7
Blasting Crew	4	4	4	4	4	4	4	4	4	4
Laborer	4	4	4	4	4	4	4	4	3	2
Operations Total	57	84	86	92	93	79	83	81	69	50

Job Title		Time Period									
		PP	YR01	YR02	YR03	YR04	YR05	YR06	YR07	YR08	YR09
MINE MAINTENANCE:											
Senior Maintenance Mechanics		3	16	16	17	17	15	15	15	12	7
Maintenance Technician		2	8	8	9	9	8	8	8	6	4
Welder / Mechanic		1	6	6	6	6	6	6	6	4	3
Fuel & Lube Man		4	4	4	4	4	4	4	4	4	4
Tire Man		4	4	4	4	4	4	4	4	4	4
Laborer		4	4	4	4	4	4	4	4	4	4
Maintenance Total		18	42	42	44	44	41	41	41	34	26
VS&A at	10.0%	8	13	13	14	14	12	12	12	10	8
TOTAL LABOR REQUIREMENT		83	139	141	150	151	132	136	134	113	84
Maintenance / Operations Ratio		32%	50%	49%	48%	47%	52%	49%	51%	49%	52%

Figure 16-6: Salaried and Hourly Mining Personnel by Department by Year



16.7 External Haul Roads & Mine Sequence Drawings

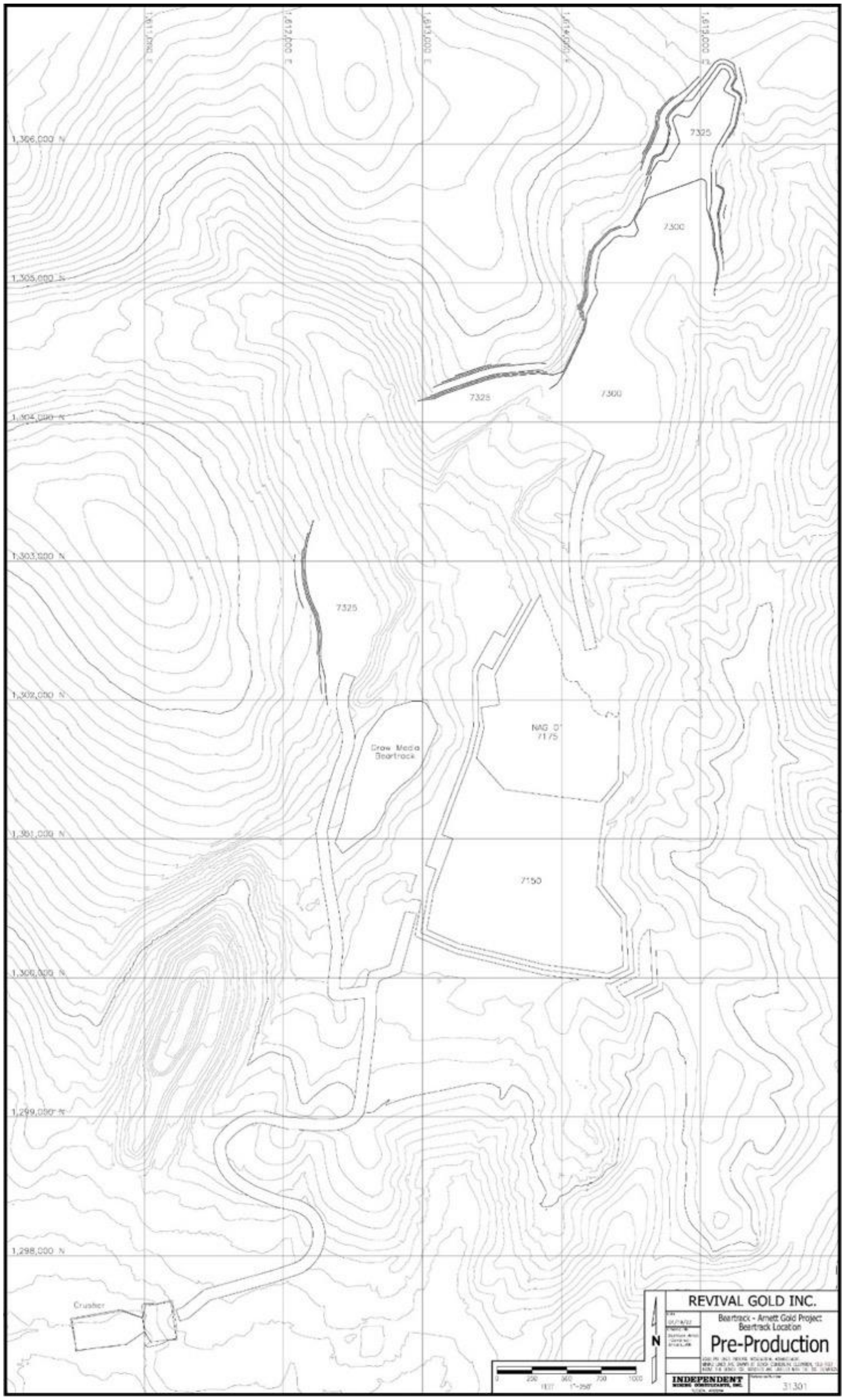
The terrain of the Beartrack-Haidee Gold property is relatively low relief and as a result, initial haul road access to the upper benches of the Beartrack and Haidee open pits would require minor effort in road pioneering. Construction of these roads is planned to occur ahead of phase mining so that access is available during scheduled mining. Designs of the initial access roads and other necessary external haul roads can be seen on the time sequence plans presented on Figure 16-7 to Figure 16-15. Key details for each year of mining are provided with each figure.

Mining at the Project would begin in the Beartrack deposit to target the lowest cost gold ounces and lower waste stripping requirement. Beartrack is scheduled to be mined as quickly as possible because it contains the lowest cost ounces, lower waste stripping and also because the Beartrack North Phase pit needs to be available for backfilling with waste rock generated during years 3 to 5 from Mason Dixon and South phases. The Beartrack phases are completed midway through year 5. While Beartrack is being completed waste stripping begins at Haidee in order to maintain crusher feed once Beartrack is finished.

The crusher requires 4,828,000 tons per year with the exception in Year 5 when the ore production is 4,426,000 tons due to crusher re-location.

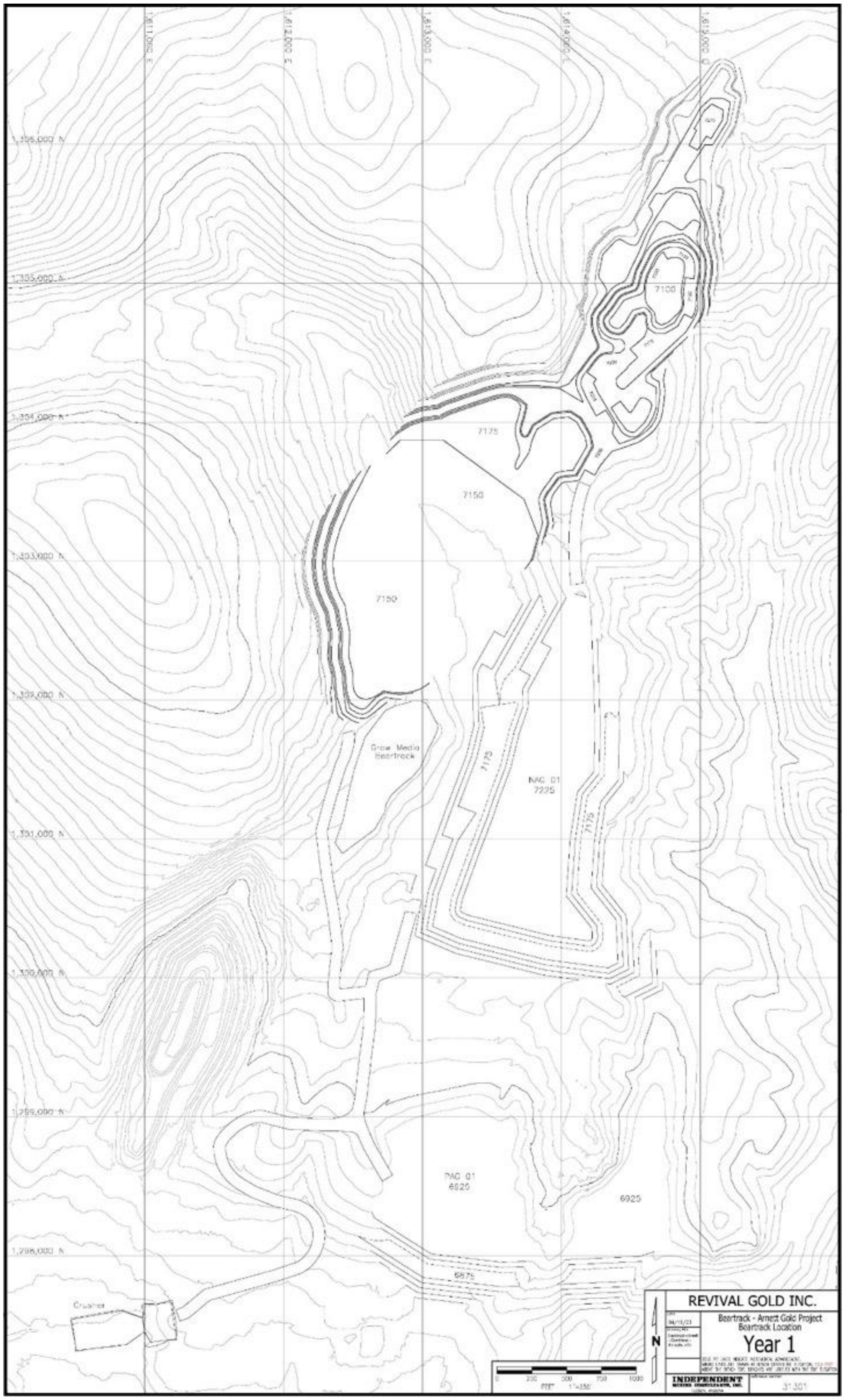
The NAG 01 waste rock dump is located east of Beartrack pits holding waste material from North and Mason Dixon phases. NAG 02 is the backfill placed in North pit and PAG 01 is located east of South pit. ARWD waste rock dump is located south-east of Haidee phases.

Figure 16-7: Beartrack End of Pre-Production Mine Plan



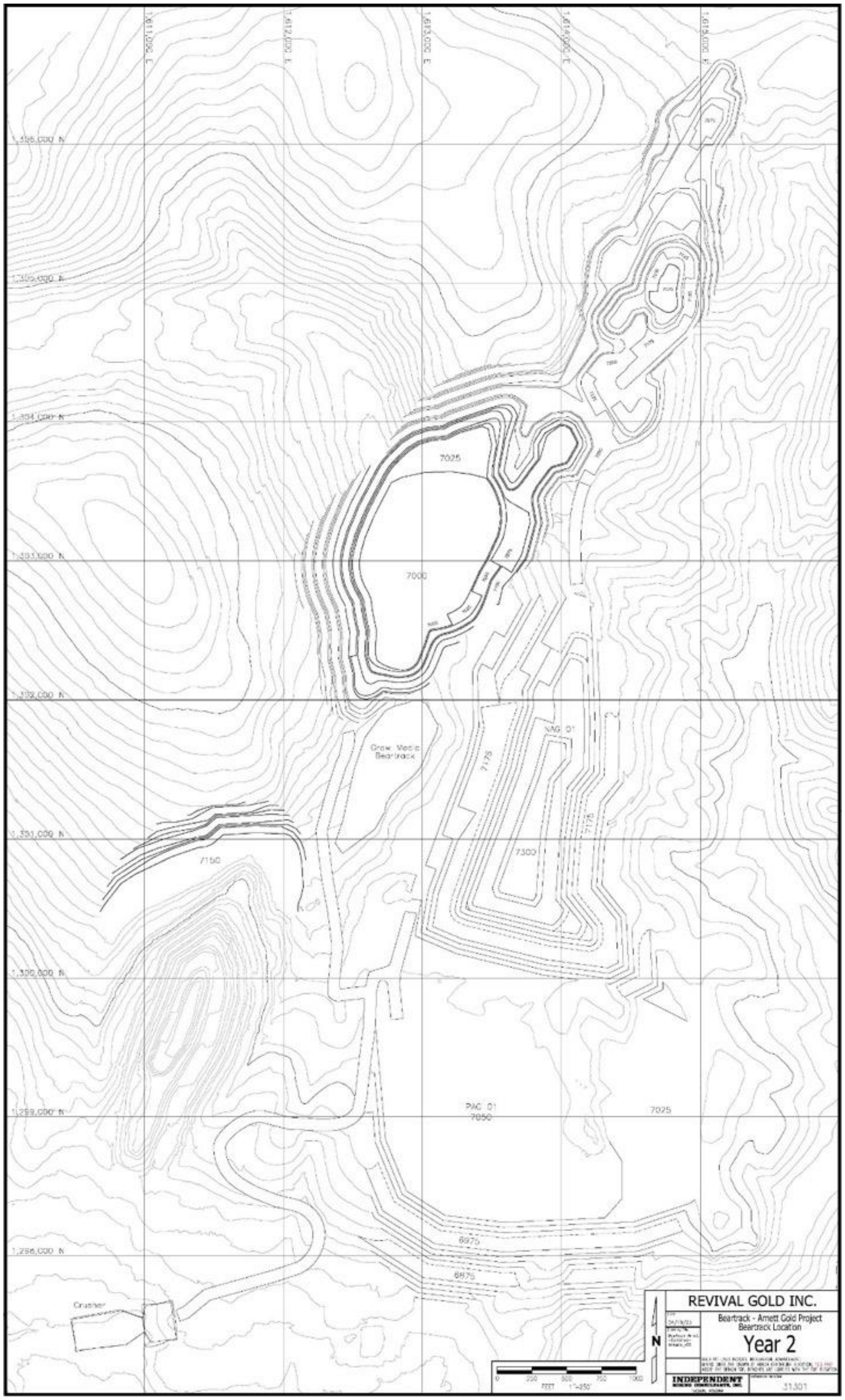
Source: IMC, 2023.

Figure 16-8: Beartrack End of Year 1 Mine Plan



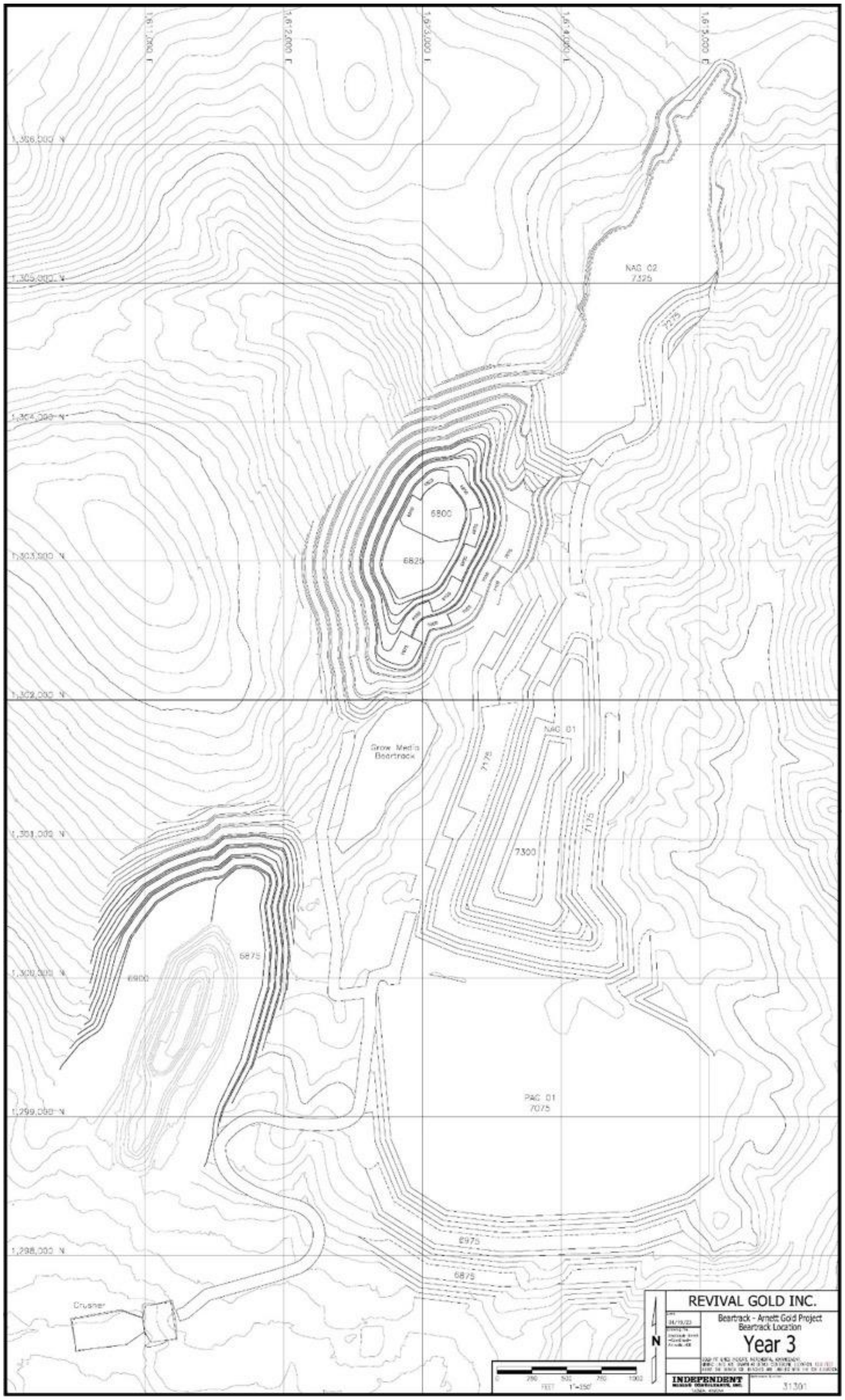
Source: IMC, 2023.

Figure 16-9: Beartrack End of Year 2 Mine Plan



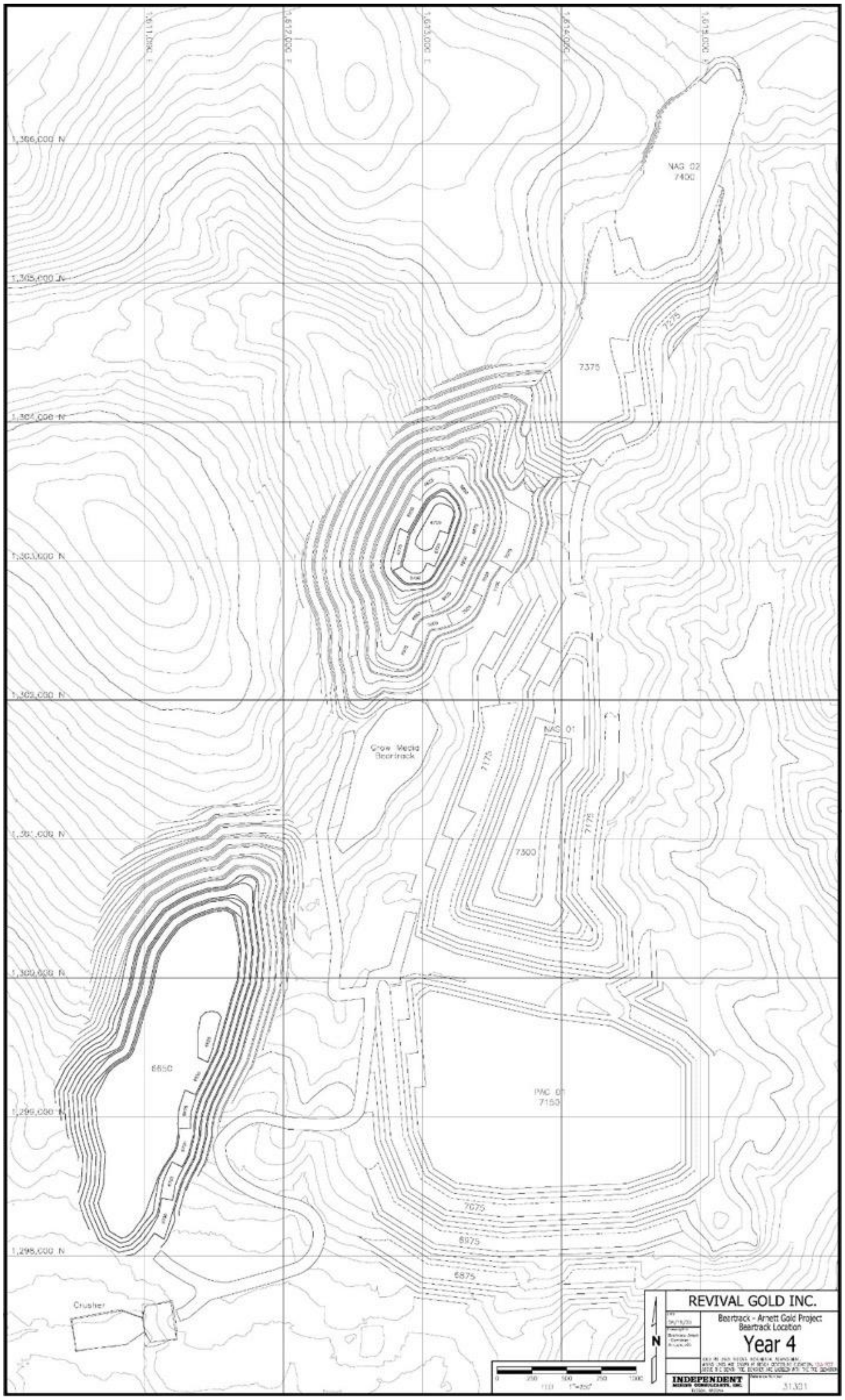
Source: IMC, 2023.

Figure 16-10: Beartrack End of Year 3 Mine Plan



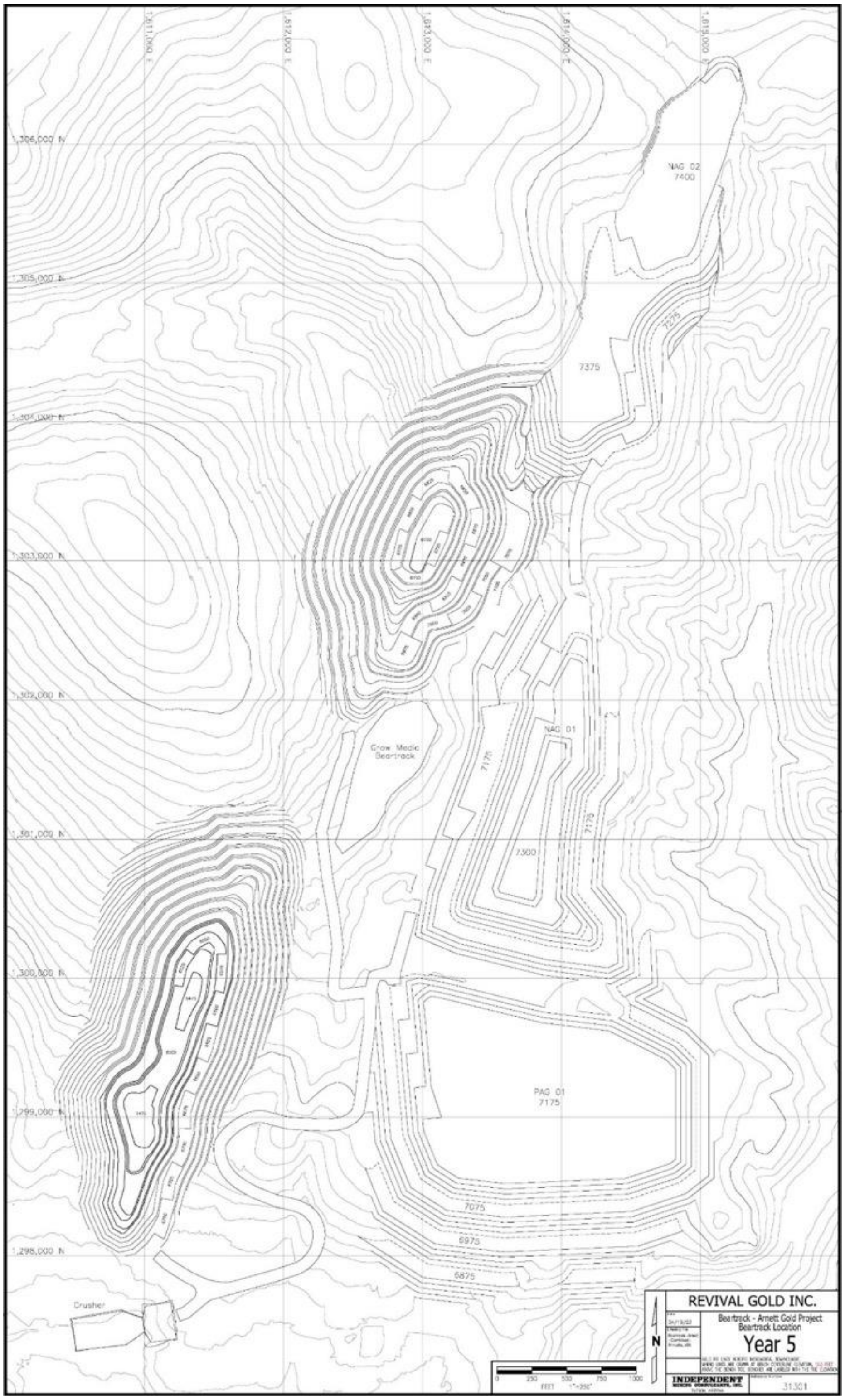
Source: IMC, 2023.

Figure 16-11: Beartrack End of Year 4 Mine Plan



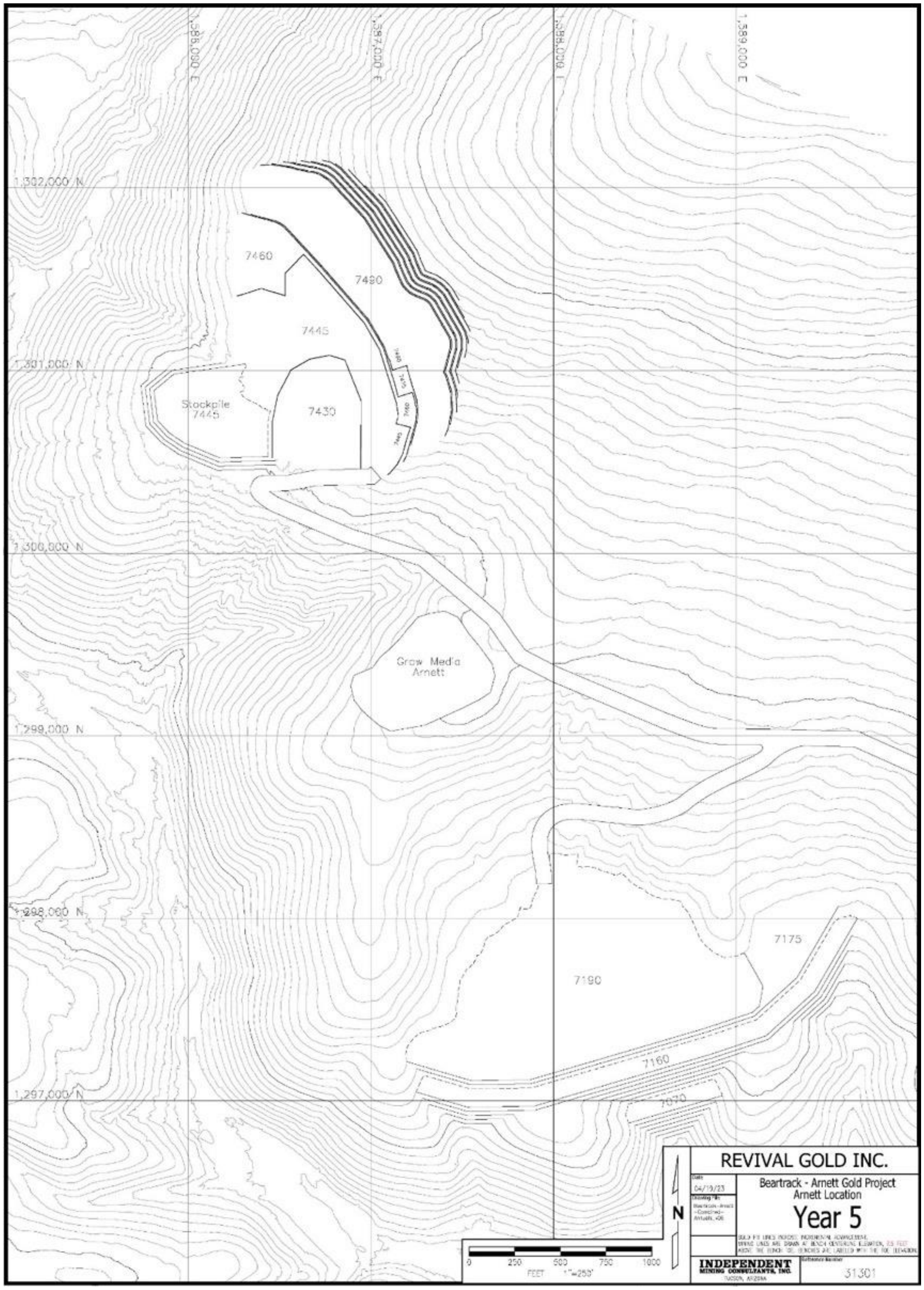
Source: IMC, 2023.

Figure 16-12: Beartrack End of Year 5 Mine Plan



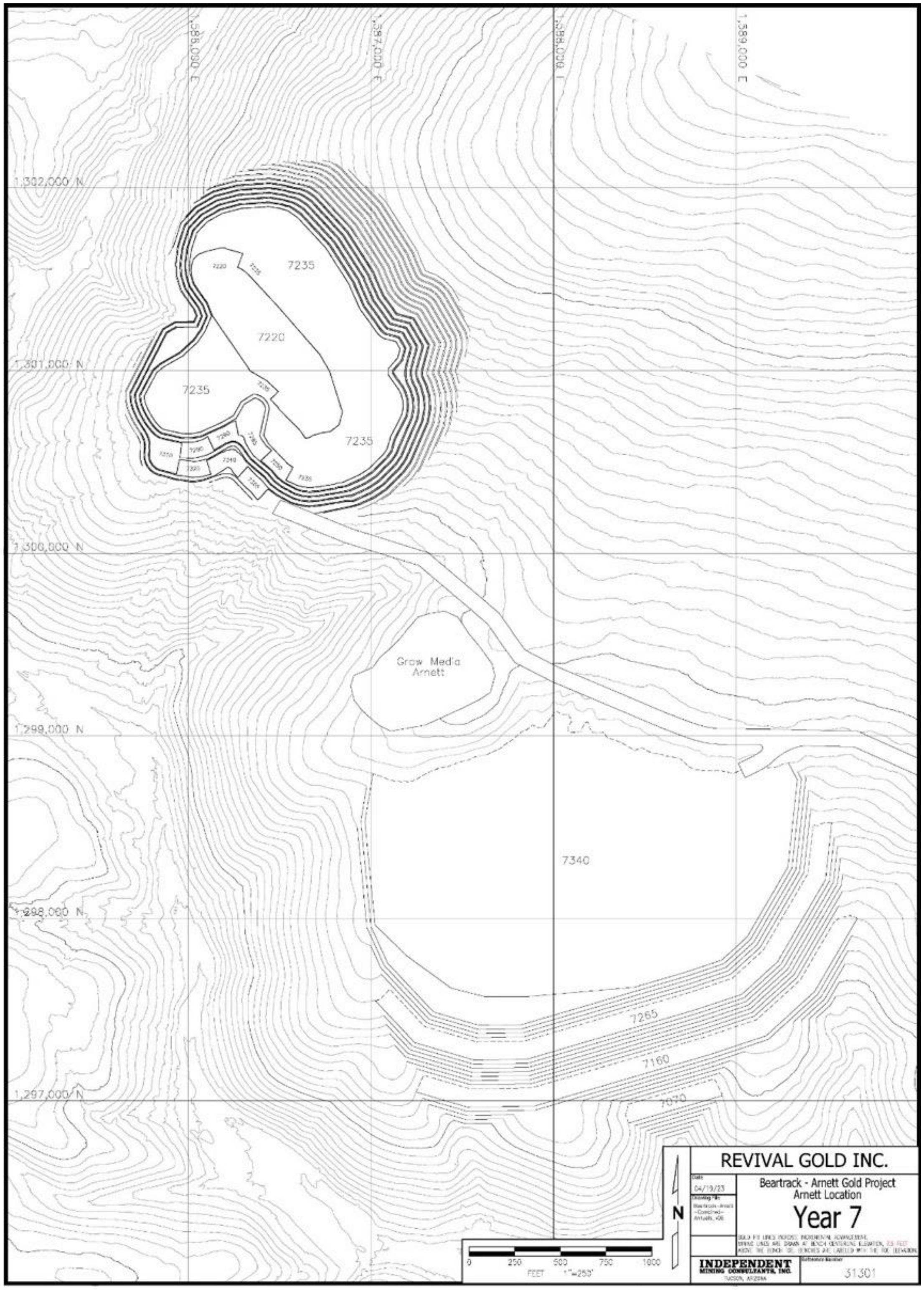
Source: IMC, 2023.

Figure 16-13: Haidee End of Year 5 Mine Plan



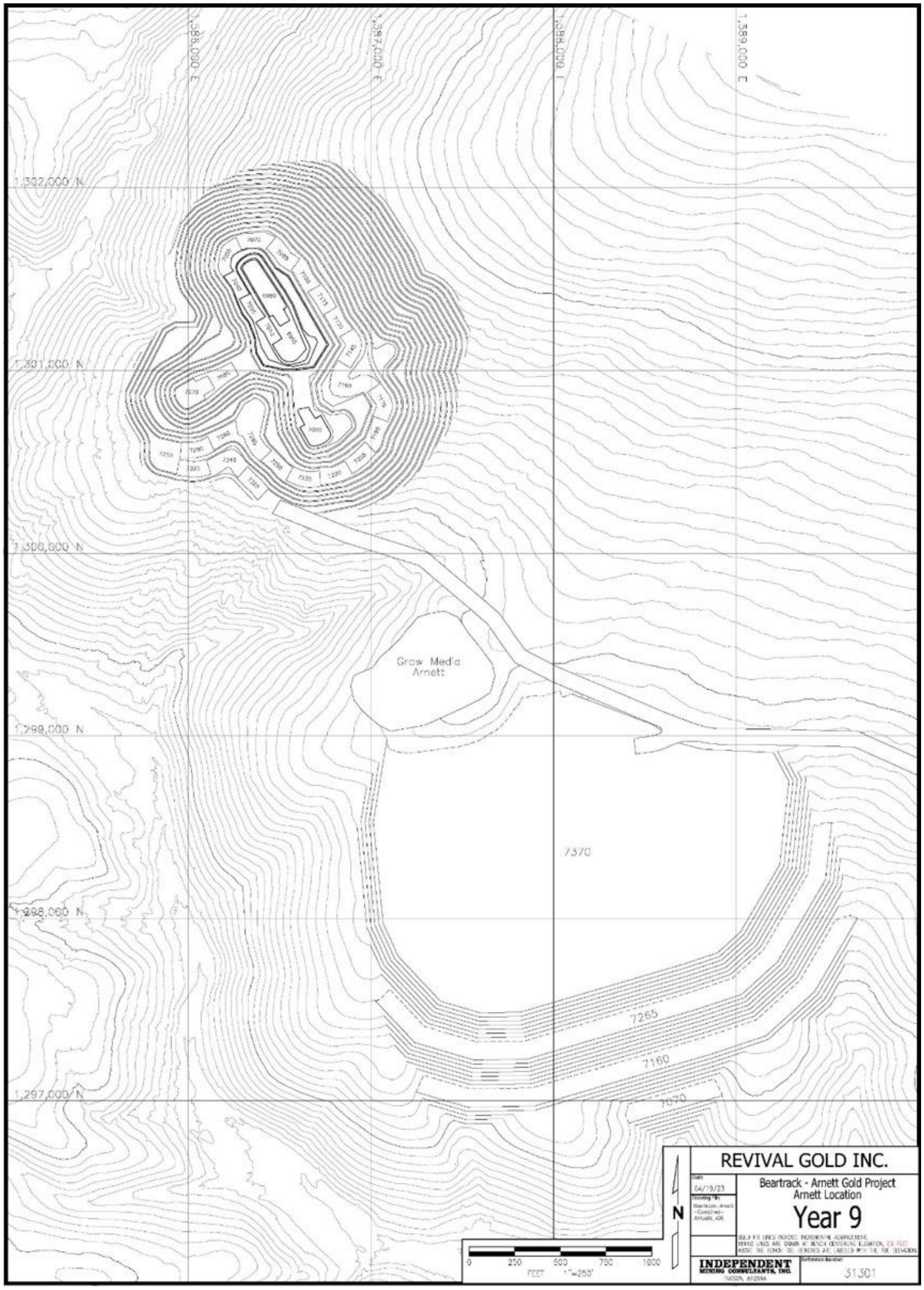
Source: IMC, 2023.

Figure 16-14: Haidee End of Year 7 Mine Plan



Source: IMC, 2023.

Figure 16-15: Haidee End of Year 9 Mine Plan



Source: IMC, 2023.

17.0 RECOVERY METHODS

17.1 Process Design Basis

Test work results completed to date indicate that the heap leachable Mineral Reserves for the Beartrack and Haidee pits are amenable to cyanide leaching for the recovery of gold. Based on the Mineral Reserve of 39.9 million tons and established processing rate of 13,200 tons per day, the project has an estimated life of 8.1 years.

Ore from the Beartrack and Haidee pits will be crushed to 100% passing 1½" (38 mm) at an average rate of 13,200 tons (12,000 tonnes) per day using a two-stage closed crushing circuit. Lime will be added to the crushed ore for pH control before being stacked in 33-foot (10 m) lifts and leached with a dilute cyanide solution. Solution will flow by gravity to an existing pregnant solution pond before being pumped to a carbon adsorption circuit, which is part of an existing gold recovery plant. Gold values will be loaded onto activated carbon and then periodically stripped from the carbon in a desorption circuit and recovered by electrowinning. The resulting precious metal sludge will be treated in a mercury retort to recover mercury values before being smelted to produce the final doré product.

A summary of the processing design criteria is presented in Table 17-1.

Table 17-1: Process Design Criteria Summary

Item	Design Criteria
Annual Tonnage Processed	4,828,000 tons (4,380,000 tonnes)
Crushing Production Rate	13,200 tons/day average (12,000 T/d)
Crushing Operation	12 hours/shift, 2 shifts/day, 7 days/week, 365 days/year
Crusher Availability	75%
Crushing Product Size	100% -1 1/2 inches (38 mm)
Conveyor Stacking System Availability	80%
Leaching Cycle	80 days
LOM Average Sodium Cyanide Consumption	0.75 lbs/short ton (0.38 kg/T)
LOM Average Lime Consumption	6.5 lbs/short ton (3.3 kg/T)
LOM Average Gold Recovery	62%

The existing ADR (Adsorption-Desorption-Recovery) plant and pregnant and overflow ponds will be refurbished as required for the planned operation. The ADR plant will utilize a combination of new and refurbished equipment, including new carbon regeneration kiln, electrowinning circuit, mercury retort and smelting furnace, with updated emission controls.

17.2 Process Summary

Ore will be mined by standard open pit mining methods from multiple pits and will be processed through a mobile crushing circuit where it will be crushed to 100% passing 1½ inches (38 mm) at an average rate of 13,200 tons (12,000 tonnes) per day. Crushing will be accomplished in two stages with an open circuit primary jaw crusher, and two closed-circuit secondary cone crushers operating in parallel. Ore will be direct-dumped into the primary crusher dump hopper by 100-ton (90 tonne) trucks; a front-end loader will feed material to the dump hopper as needed from a ROM stockpile located near the primary crusher. Mining, crushing, and leaching activities will be performed year-round.

Crushed ore will be stockpiled using a fixed stacker and reclaimed using belt feeders to a reclaim conveyor; pebble lime will be added to the reclaim conveyor belt for pH control. During the first five years of production, ore will be conveyed from the reclaim conveyor to the heap stacking system at the Beartrack heap leach pad using an overland conveyor. During the final three years, the mobile crushing circuit will be relocated west of the Haidee/Arnett leach pad and will be fed directly by the reclaim conveyor.

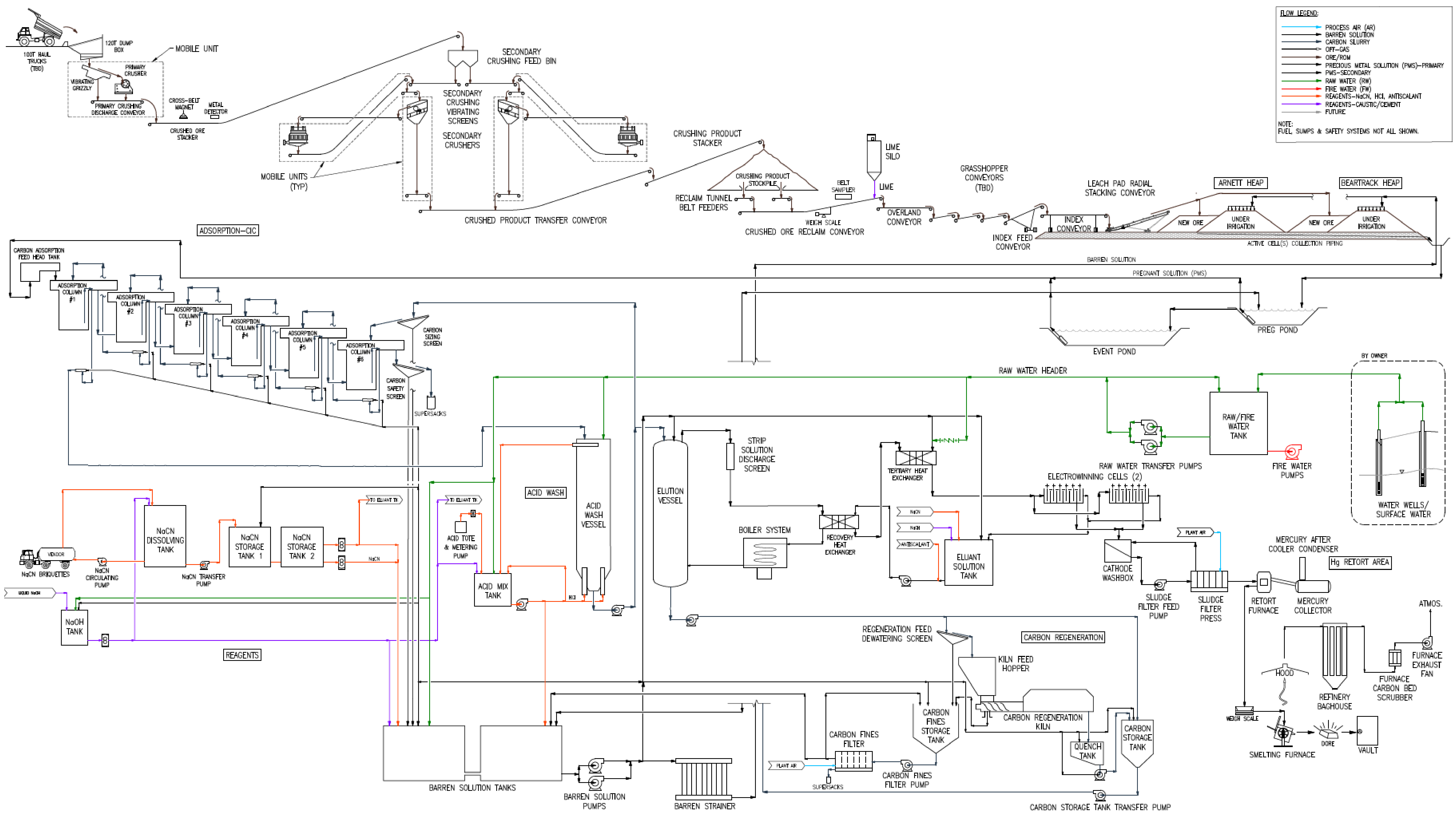
Crushed ore will be stacked in 33-foot-high (10 m) lifts and leached using a buried drip irrigation system for solution application. After percolating through the ore, the gold bearing pregnant leach solution will drain by gravity to an existing pregnant solution pond where it will be pumped to the carbon adsorption circuit, which is part of the existing ADR plant. Gold values will be loaded onto activated carbon in the adsorption circuit; the resulting barren solution will flow by gravity to the barren solution tanks and then be pumped to the heap for additional leaching. High strength cyanide solution will be injected into the barren solution to maintain the cyanide concentration in the leach solutions at the desired levels.

Loaded carbon from the adsorption circuit will be stripped using a modified pressure Zadra process where gold will be stripped from the carbon and recovered by electrowinning. Cathodes from the electrowinning cells will be washed and the resulting precious metal sludge treated in a retort to recover mercury values, followed by smelting to produce the final doré product.

Carbon will be acid washed before every strip to remove any scale and other inorganic contaminants. All activated carbon will be thermally regenerated after each strip using a rotary kiln. Line power will be used to supply electric power to all elements of the process plant. Process solution pipes will be insulated with heat tracing to prevent freezing. Water piping will be buried below the frost line.

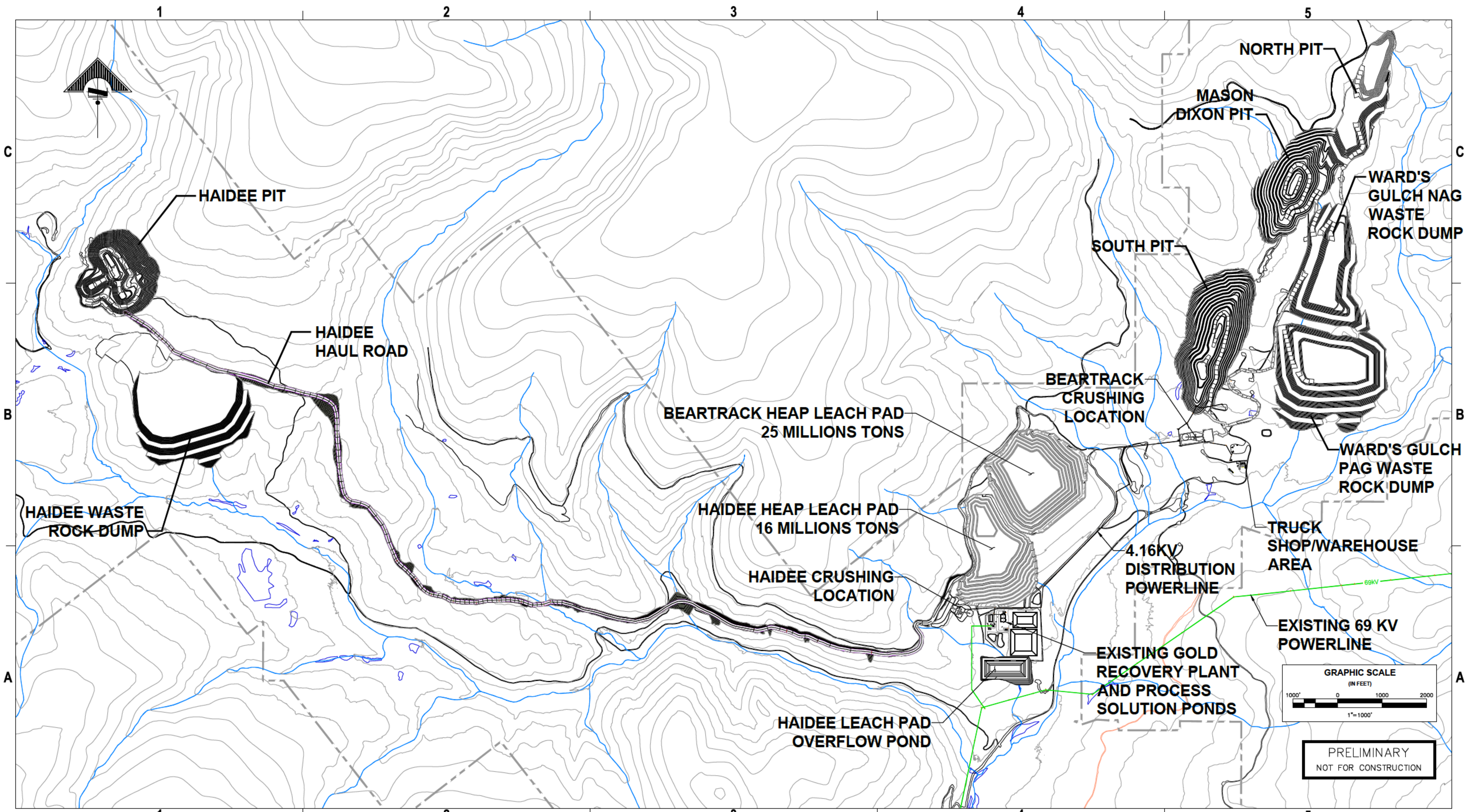
Figure 17-1 presents the overall process flowsheet. Figure 17-2 presents the overall site general layout. Figure 17-3 and Figure 17-4 show the staged process layouts for the first five and final three years of production, respectively. All selected processes and equipment are established technologies used in gold and silver processing plants.

Figure 17-1: Overall Process Flowsheet



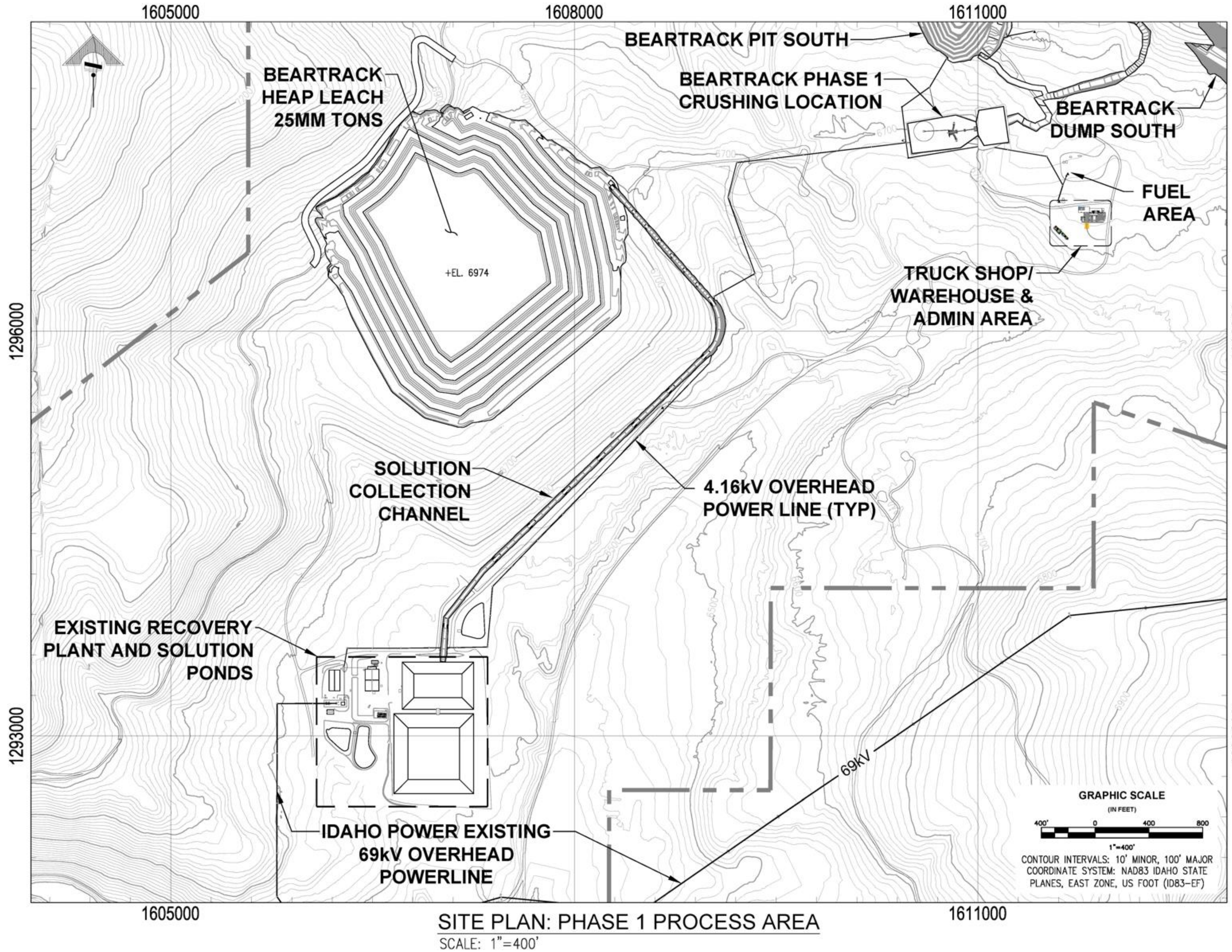
Source: KCA, 2023

Figure 17-2: Overall Site Layout



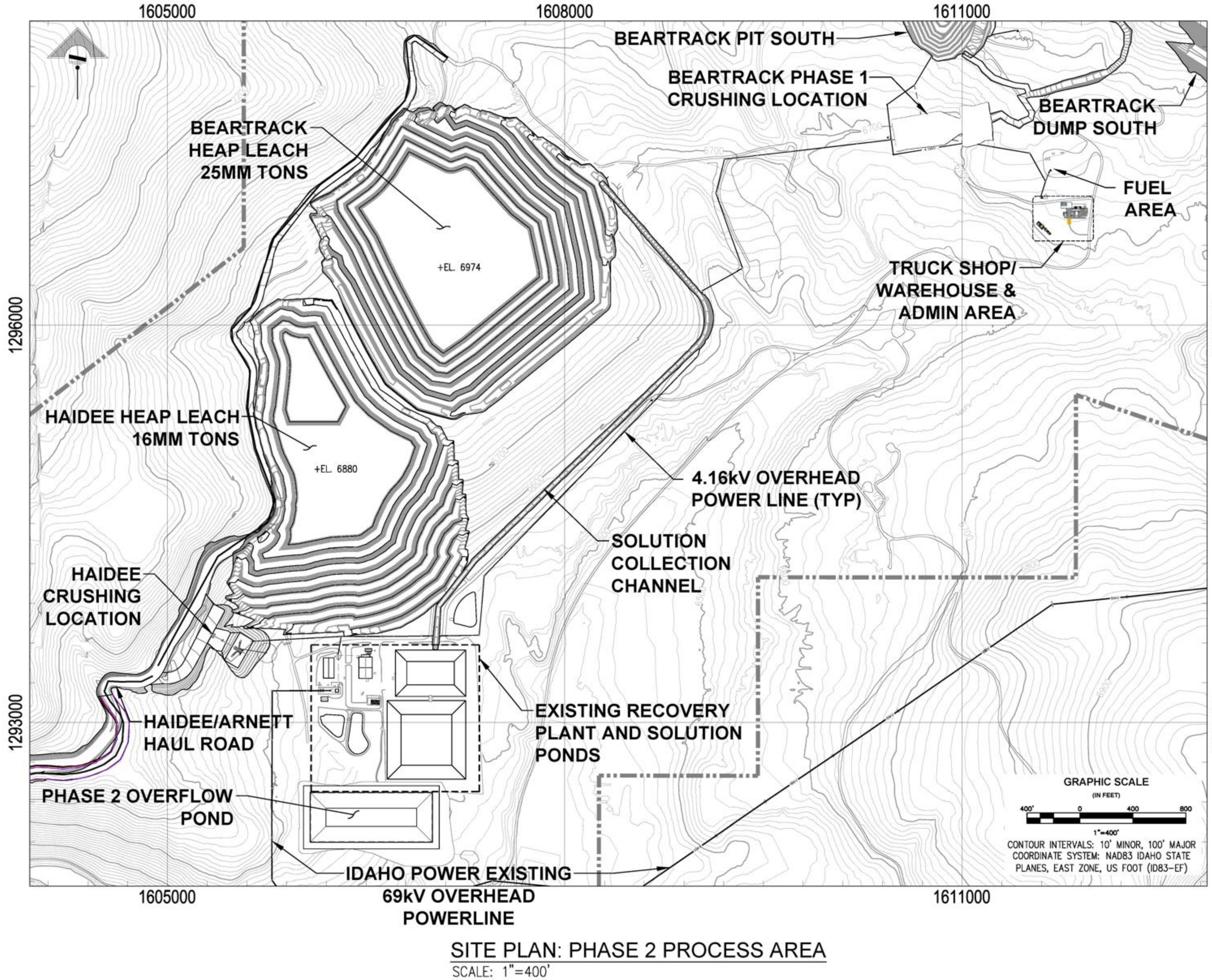
Source: KCA, 2023

Figure 17-3: Process Layout with Ultimate Beartrack Heap Leach Facility



Source: KCA, 2023

Figure 17-4: Process Layout with Ultimate Beartrack and Haidee Heap Leach Facilities



Source: KCA, 2023

17.3 Crushing

The crushing circuit at Beartrack-Arnett will consist primarily of mobile, trailer mounted crushing equipment interconnected by transfer conveyors. The crushing circuit is designed to process 735 tons (667 tonnes) of material per hour with an overall availability of 75% and will operate 365 days per year.

ROM ore will be transported from the mine pit in 100-ton (90-tonne) haul trucks and will either be directly dumped into the 150-ton (136-tonne) crusher dump hopper or stockpiled in a ROM stockpile; stockpiled ore from the ROM stockpile will be fed to the mobile primary crushing system using a 988 (or equivalent) front-end loader as needed. The dump hopper will be equipped with a vibrating grizzly feeder which will scalp material at 4.0 inches (100 mm), with oversize material being fed to the primary jaw crusher and undersize material being combined with the primary crushed product on the primary jaw crusher discharge conveyor. A rock breaker positioned at the jaw crusher will be used to break any oversize rocks.

The primary jaw crusher will operate with a closed side setting of 6.9 inches (175 mm). Material from the primary jaw crusher discharge conveyor will be transferred to the secondary crushing feed bin feed conveyor, and then transferred into the secondary crushing feed bin.

The secondary crushing feed bin feed conveyor will be equipped with a cross-belt magnet and metal detector to protect downstream equipment from any tramp metal. Tramp metal collected by the magnet will be collected in a tramp metal bin to be discarded. The metal detector will sense any metals that pass beyond the magnet. If metal is detected, an alarm will sound and the conveyor will be stopped, which in turn will stop all upstream equipment. The metal detector will deploy a marker where the metal is detected.

The secondary feed bin feed conveyor will deliver the ore to a 100-ton (90-tonne) secondary crushing feed bin, which will be equipped with two belt feeders to feed the secondary crushing circuit. The secondary crushing circuit will consist of two secondary screen and secondary cone crusher trailer units operated in closed circuit and in parallel.

For each parallel secondary circuit, material from the secondary crushing feed bin will be reclaimed using a belt feeder and transferred to the secondary screen trailer by a secondary screen feed conveyor. The secondary screen trailer will include a double deck vibrating screen and secondary crushing screen undersize transfer conveyor. The secondary screen will include 3 inch and 1½ inch (75 mm and 38 mm) top and bottom deck openings, respectively, with oversize material (+1½ inches, 38 mm) being conveyed to the secondary cone crusher trailer, which includes the secondary cone crusher system and secondary cone crusher discharge recycle conveyor, by the secondary screen oversize transfer conveyor and secondary cone crusher feed conveyor.

Material from the secondary cone crusher feed conveyor will be fed directly to the secondary cone crusher which will operate with a closed side setting of 1½ inches (38 mm). The secondary crushed material will discharge onto the secondary cone crusher discharge recycle conveyor to be recycled back to the secondary screen feed conveyor.

The screen undersize material, which represents the final crushed product (100% passing 1½ inches (38 mm), 80% passing 7/8 inches (22 mm)), will be conveyed by the secondary crushing screen undersize transfer conveyor to the crushed product transfer conveyor where the screen undersize from the parallel secondary crushing circuits are combined before being stockpiled using the crushed product stockpile stacker.

The crushed product will be temporarily stored on a 16,200 ton (14,700 tonne) crushed product stockpile with a live capacity of 2,800 tons (2,540 tonnes) before being reclaimed, combined with lime for pH control, and conveyed to the leach pad stacking system.

Each of the mobile crushing systems will include all necessary motor starters and instruments and are equipped with a local control panel with push button start/stops for each piece of equipment as well as emergency stop buttons for the system. Strobe lights and horn alarms will also be included to signal the starting of equipment. A central PLC control unit will be located in a crushing control room which will allow for control and monitoring of all crushing equipment, as well as monitoring of the conveyor stacking equipment. All the conveyors will be interlocked so that if one conveyor is tripped, all upstream conveyors and the vibrating grizzly feeder will also stop. This interlocking is considered to prevent large spills and equipment damage. These features are considered necessary for safe operation as well as to meet the design utilization for the system.

Water sprays will be located at all material transfer points to reduce dust generation by the crushing circuit.

The mobile crushing circuit will be relocated during Year 5 of the project to reduce the haul distance from the Haidee pit and to facilitate stacking of ore at the Haidee/Arnett leach pad.

17.4 Reclamation & Conveyor Stacking

Material from the crushed product stockpile will be reclaimed by one of two belt feeders and fed onto the crushed product reclaim conveyor. Lime from a lime silo system will be metered directly onto the crushed product reclaim conveyor at an average rate of 6.5 lbs per ton (3.3 kg/T) of material for pH control; the actual lime addition will vary by material type. The crushed product reclaim conveyor will be equipped with a belt weigh scale which will provide a signal to the lime feeder to maintain the correct lime addition rate. The crushed product reclaim conveyor will also include a cross-belt sampler, which will take a sample of the material at regular intervals to generate a composite sample of the material delivered to the heap.

During the first five years of operations, the crushed product reclaim conveyor will discharge to an overland conveyor, which will transfer material to the heap conveyor stacking circuit. During Year 5, the mobile crushing circuit will be relocated to facilitate stacking at the Haidee heap and the crushed product reclaim conveyor will feed the conveyor stacking circuit directly at the Haidee leach pad.

The heaps will be constructed in 33-foot-high (10 m) lifts, in cells 260 feet (80 m) wide, using a mobile conveyor stacking system. The heap stacking system will consist of fifteen (15) total ramp grasshopper conveyors, nineteen (19) standard grasshopper conveyors, an index feed conveyor, a horizontal index conveyor and a radial stacker. Ore will be fed to the grasshopper conveyors in the active stacking zone, which will transfer the material to the index feed conveyor, horizontal index, and radial stacker conveyors. The horizontal index and radial stacker will be able to retreat and stack material onto the heap. The number of grasshopper conveyors required will vary depending on the area of the heap being stacked, with a maximum of 34 grasshopper and ramp conveyors for the Beartrack heap and 25 grasshopper and ramp conveyors for the Haidee heap being required.

Each of the grasshopper and stacking conveyors will include an onboard transformer and interlocked PLC to allow for the removal or addition of conveyors. The master PLC will be installed at the radial stacker for initiating the conveyor start sequence. Each of the stacking system conveyors will include a strobe and horn alarm which will sound before the equipment starts up. Movement for the radial stacker and horizontal index conveyor will be controlled manually at the equipment. Each conveyor will be equipped with pull-cords and emergency stops. If one conveyor in the stacking line is tripped, all upstream conveyors will also stop.

Once a lift of cells has finished leaching and is sufficiently drained, a new lift can be stacked over the top of the old lift. The old lift will be cross-ripped prior to stacking new material on top of any old heap area or access road/ramp to break up any compacted or cemented sections.

Stacked lifts will progress in a stair-step manner. The planned leach pad for the Beartrack ore will have a total of eight (8) lifts. The planned leach pad for the Haidee ore will have a total of nine (9) complete lifts and one partial lift. The maximum planned height for the Beartrack and Haidee heaps are 250 and 237 feet (76 m and 72 m), respectively.

17.5 Solution Application & Storage

Process solution storage for the Beartrack-Arnett Project includes existing pregnant and event/overflow ponds as well as two existing barren solution tanks located inside the recovery plant. An additional overflow pond will be constructed during Year 5 of the project, which along with the existing solution ponds will provide sufficient storage capacity for both leach pads during operation. The solution ponds will be maintained empty or at low levels whenever possible. Solution diverted to the ponds will be returned to the system as make-up water as soon as practical with every effort made to avoid storing excess solution over a long period of time.

Ore will be leached in a single stage using barren solution consisting of a dilute sodium cyanide solution; additional residual leaching of material will occur as leach solution from higher lifts percolate downward. Barren solution will be pumped from the barren solution tanks to the active leach site using a dedicated set of in-line vertical pumps (two operating, one standby) and will be applied to the heap by a system of drip emitters. The barren solution piping design considers insulated and heat-traced pipe to reduce the risk of freezing during winter operations with barren piping on the leach pad being buried. Buried drip emitters will be used for solution application and will be buried a minimum of 6 feet (1.8 m) below the heap surface during the winter. Barren solution will be applied to the heap at an average rate of 0.004 gpm/ft^2 (10 L/hr/m^2). Based on metallurgical test work results, a leach cycle of 80 days has been estimated. Concentrated cyanide will be added to the barren solution tank by metering pumps to maintain the cyanide in solution at 200 to 300 ppm NaCN. The barren solution tanks are sized for 0.12 hours of residence time at the recovery plant design flow rate of 2,984 gpm (678 m^3/h). Antiscalant polymer will be continuously added to the leach solutions at an average rate of 6 ppm to reduce the potential for scaling problems within the irrigation system. An additional barren solution circuit will be purchased during Year 5 to allow for continued leaching/rinsing of the Beartrack ore in parallel with Haidee.

Pregnant leach solution containing gold values from the heap will drain by gravity to the pregnant solution pond, which is shared by both leach pads. Pregnant leach solution leaving the heaps will be transferred to the pregnant solution pond via pipe in a lined solution collection ditch. Pregnant leach solution will then be pumped to the carbon adsorption circuit by the pregnant solution pumps (one operating one standby) where the gold and silver values will be adsorbed from the pregnant solution, and the resulting barren solution will then be returned to the barren solution tanks.

The solution storage system will be designed so that the barren solution tanks overflow to the pregnant solution pond, and the pregnant solution pond overflows to the event/overflow pond in case of an emergency or significant storm event. The pond design considers normal working solution volumes entering the pregnant solution pond, ensuring that the event/overflow solution pond(s) will be used very infrequently during operation.

The pregnant pond and event/overflow pond will each be equipped with a submersible high flow pump to return solution to the system. The submersible pumps will be mounted on pump slides on the pond side walls to facilitate the placement and extraction of the pumps in the pond. An additional textured protective liner panel and conveyor belting will be installed on the pond sidewalls in the area the pump slide is located to protect the pond liner.

17.6 Process Water Balance

17.6.1 Precipitation Data

Precipitation data used for the Beartrack-Arnett process water balance has been taken from the technical memo prepared by Bison Engineering Inc. titled "Precipitation Analysis: Revival Gold Beartrack Arnett Gold Project Water Balance Analysis" dated 15 February 2023. Precipitation and evaporation data are presented in Table 17-2. Snowfall and Snowmelt data are presented in Table 17-3 and Table 17-4, respectively.

The 100-year, 24-hour storm event is estimated at 3.0 inches (76.2 mm). The 100-year snowpack is estimated at 14.8 water equivalent inches (376 mm). Snow loss due to sublimation is assumed to average 30%.

Table 17-2: Annual Precipitation and Evaporation Data

Month	Average Year Precipitation* (inches)	Wet Year Precipitation* (inches)	Dry Year Precipitation* (inches)	Lake Evaporation (inches)
January	1.9	2.8	1.3	1.0
February	2.0	3.0	1.4	1.0
March	2.0	3.0	1.4	3.0
April	1.9	2.8	1.3	4.0
May	2.1	3.1	1.4	6.0
June	2.2	3.3	1.5	7.0
July	0.9	1.3	0.6	9.0
August	0.8	1.2	0.5	8.0
September	0.9	1.3	0.6	5.0
October	1.5	2.2	1.0	3.0
November	2.0	3.0	1.4	1.0
December	2.1	3.1	1.4	1.0
Total	**20.3**	**30.0**	**13.8**	**49.0**

Note: minor difference in totals due to rounding

* Includes snowfall precipitation as water equivalent

Table 17-3: Snowfall Data

Month	Average Snowfall (SWE inches)	Wet Year Snowfall (SWE inches)	Dry Year Snowfall (SWE inches)
January	1.9	2.8	1.3
February	2.0	3.0	1.4
March	2.0	3.0	1.4
November	2.0	3.0	1.4
December	2.1	3.1	1.4
Total	**10.0**	**14.8**	**6.8**

Note: minor difference in totals due to rounding

Table 17-4: Snowmelt Data

Month	Average Snowfall (SWE inches)	Wet Year Snowfall (SWE inches)	Dry Year Snowfall (SWE inches)
April	2.3	3.4	1.5
May	6.1	9.0	4.1
Total	**8.3**	**12.3**	**5.7**

Note: Assumes 30% sublimation

17.6.2 Water Balance

Based on the preceding precipitation and evaporation data, active water balances were calculated based on the requirement for processing 13,200 tons of ore per day (12,000 T/d). The model approximates the circulation of solutions within the heap leach and process facility, as well as the introduction of precipitation and evaporation as a function of time. The results of the water balance model predict make-up water flow rates and operation control strategies necessary in order to achieve a zero-discharge system. The model is based on the leach area of the heap over time based on normal operations at the project.

The model uses time steps of months, which provides monthly average flow rates and volumes, as opposed to peak daily or peak instantaneous rates. This approach may attenuate the peak rate, as it averages the volumes over a monthly period. Three models were created: average year, wet year, and dry year for each of production. Inputs for the water balance models is presented in Table 17-5. Pond evaporation is assumed to equal 60% of the pan evaporation over 50% of the pond area. Idle heap evapotranspiration is assumed to be 67% of the pan evaporation or rainfall, whichever is less, for the inactive heap area.

Table 17-5: Water Balance Model Inputs

Parameter	Unit	Input Y1-5	Input Y6+
Active Leach Area	ft^2	607,980	607,980
Lined Pad/Ditch Collection Area	ft^2	3,557,150	6,558,260
Lined Pond Collection Area	ft^2	517,520	1,004,395
Total Flow to Heap	gpm	2,432	2,432
Evaporation System Flow	gpm	0	0
Allowable Wet Season Accumulation in Process Ponds	ft^3	4,487,640	6,491,808
Wet Season Ore Moisture	%	6	6
Dry Season Ore Moisture	%	4	4
Ore Retained Moisture After Draindown	%	9.5	9.5
Average Annual Emitter Evaporation	%	1.5	1.5
Average Annual Sprinkler Evaporation	%	0	0
Ore Throughput per Year	ton	4,828,074	4,828,074

For all modeled scenarios, the Beartrack-Arnett process will have a water deficit during production and make-up water will be required. Makeup water requirements during the initial stage ranged from 53 to 113 gpm (12 to 26 m^3/h) (74 gpm (17 m^3/h) for an average year) and from 20 to 90 gpm (5 to 20 m^3/h) (35 gpm (8 m^3/h) for an average year) during the second stage. Treatment and discharge of heap process solution was not required during the original operation at the Beartrack Mine, which is consistent with the predictions of this model. Once stacking activities have concluded, the heap leach facility will operate with a net positive water balance and treatment and discharging of solution will be required.

The estimated water balance and accompanying diagram for average precipitation years for Years 1-5 are presented on Table 17-6 and Figure 17-5, respectively. The estimated water balance and accompanying diagram for average precipitation years for Years 6+ are presented on Table 17-7 and Figure 17-6, respectively.

The estimated water balance and accompanying diagram for wet precipitation years for Years 1-5 are presented on Table 17-8 and Figure 17-7, respectively. The estimated water balance and accompanying diagram for wet precipitation years for Years 6+ are presented on Table 17-9 and Figure 17-8, respectively.

Table 17-6: Average Year Water Balance (Years 1-5)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	**Annual**
Days in Month	30	31	30	31	31	30	31	30	31	31	28	31	365
Precipitation (in)	1.90	2.10	2.20	0.90	0.80	0.90	1.50	0.00	0.00	0.00	0.00	0.00	10.3
Pan Evaporation (in)	4.00	6.00	7.00	9.00	8.00	5.00	3.00	1.00	1.00	1.00	1.00	3.00	49.0
Snowfall (in eq.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.10	1.90	2.00	2.00	10.0
Snowmelt (in eq.)	2.28	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3
Emitter Evap. (%)	1.5	2.2	2.6	3.3	2.9	1.8	1.1	0.4	0.4	0.4	0.4	1.1	1.5
Sprinkler Evap. (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idle Heap Evapotrans. Area (sq. ft)	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170
Idle Heap Evapotrans. (in)	2.68	4.02	4.69	6.03	5.36	3.35	2.01	0.67	0.67	0.67	0.67	2.01	33
Ore Placed on Pad (tons)	396,828	410,056	396,828	410,056	410,056	396,828	410,056	396,828	410,056	410,056	370,373	410,056	4,828,074
Precip. Collected (gal)	4,826,102	5,334,113	5,588,118	2,286,048	2,032,043	2,286,048	3,810,081	0	0	0	0	0	26,162,554
Pond Snowfall Collected (gal)	0	0	0	0	0	0	0	645,219	677,480	612,958	645,219	645,219	3,226,096
Pad Snowmelt Collected (gal)	5,047,393	13,423,917	0	0	0	0	0	0	0	0	0	0	18,471,310
Ore Absorption (gal)	3,328,534	3,439,485	3,328,534	3,439,485	3,439,485	3,328,534	3,439,485	5,230,553	5,404,905	5,404,905	4,881,849	5,404,905	50,070,657
Emitter Evap (gal)	1,543,722	2,392,770	2,701,514	3,589,154	3,190,359	1,929,653	1,196,385	385,931	398,795	398,795	360,202	1,196,385	19,283,665
Sprinkler Evap. (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
Evapotrans. (gal)	2,340,339	2,586,691	2,709,866	1,108,582	985,406	1,108,582	1,847,636	0	0	0	0	0	12,687,101
Pond Evaporation (gal)	387,132	580,697	677,480	871,046	774,263	483,914	290,349	96,783	96,783	96,783	96,783	290,349	4,742,362
Evaporation System (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Net Precip. Gain(+)/Loss(-)	2,273,768	9,758,388	(3,829,276)	(6,722,218)	(6,357,470)	(4,564,634)	(2,963,774)	(5,068,047)	(5,223,002)	(5,287,524)	(4,693,615)	(6,246,419)	(38,923,824)
Excess Solution Pond													
Allowable Accum. in Excess	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	
Accum. into Excess	2,273,768	9,758,388	0	0	0	0	0	0	0	0	0	0	12,032,156
Recycled from Excess	0	0	(3,829,276)	(6,722,218)	(1,480,662)	0	0	0	0	0	0	0	(12,032,156)
Quantity in Excess	2,273,768	12,032,156	8,202,880	1,480,662	0	0	0	0	0	0	0	0	
Makeup Solution Required	0	0	0	0	4,876,809	4,564,634	2,963,774	5,068,047	5,223,002	5,287,524	4,693,615	6,246,419	38,923,824
Solution to Treat/Discharge	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average toTreatment	0	0	0	0	0	0	0	0	0	0	0	0	0
Makeup Water Req'd (gal/min)	0.0	0.0	0.0	0.0	109.2	105.7	66.4	117.3	117.0	118.4	116.4	139.9	74.1

Figure 17-5: Average Year Water Balance Diagram in GPM (Years 1-5)

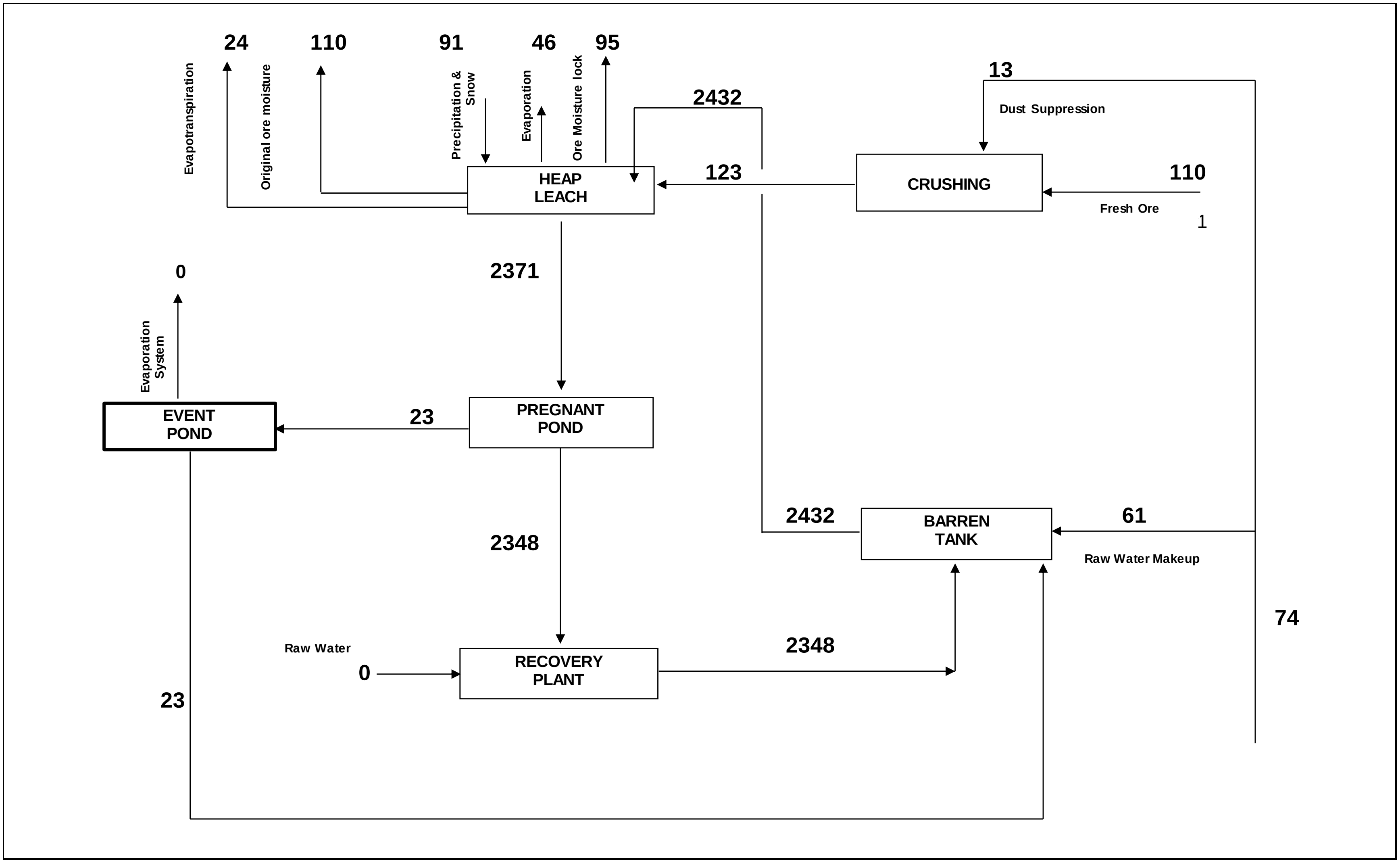


Table 17-7: Average Year Water Balance (Years 6+)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
Days in Month	30	31	30	31	31	30	31	30	31	31	28	31	365
Precipitation (in)	1.90	2.10	2.20	0.90	0.80	0.90	1.50	0.00	0.00	0.00	0.00	0.00	10.3
Pan Evaporation (in)	4.00	6.00	7.00	9.00	8.00	5.00	3.00	1.00	1.00	1.00	1.00	3.00	49.0
Snowfall (in eq.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.00	2.10	1.90	2.00	2.00	10.0
Snowmelt (in eq.)	2.28	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3
Emitter Evap. (%)	1.5	2.2	2.6	3.3	2.9	1.8	1.1	0.4	0.4	0.4	0.4	1.1	1.5
Sprinkler Evap. (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idle Heap Evapotrans. Area (sq. ft)	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280
Idle Heap Evapotrans. (in)	2.68	4.02	4.69	6.03	5.36	3.35	2.01	0.67	0.67	0.67	0.67	2.01	33
Ore Placed on Pad (tons)	396,828	410,056	396,828	410,056	410,056	396,828	410,056	396,828	410,056	410,056	370,373	410,056	4,828,074
Precip. Collected (cu.ft)	8,957,326	9,900,202	10,371,641	4,242,944	3,771,506	4,242,944	7,071,573	0	0	0	0	0	48,558,136
Pond Snowfall Collected (gal)	0	0	0	0	0	0	0	645,219	677,480	612,958	645,219	645,219	3,226,096
Pad Snowmelt Collected (gal)	9,305,797	24,749,459	0	0	0	0	0	0	0	0	0	0	34,055,256
Ore Absorption (gal)	3,328,534	3,439,485	3,328,534	3,439,485	3,439,485	3,328,534	3,439,485	5,230,553	5,404,905	5,404,905	4,881,849	5,404,905	50,070,657
Emitter Evap (gal)	1,543,722	2,392,770	2,701,514	3,589,154	3,190,359	1,929,653	1,196,385	385,931	398,795	398,795	360,202	1,196,385	19,283,665
Sprinkler Evap. (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
Evapotrans. (gal)	4,721,895	5,218,937	5,467,458	2,236,687	1,988,166	2,236,687	3,727,812	0	0	0	0	0	25,597,642
Pond Evaporation (gal)	751,339	1,127,009	1,314,844	1,690,514	1,502,679	939,174	563,505	187,835	187,835	187,835	187,835	563,505	9,203,907
Evaporation System (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Net Precip. Gain(+)/Loss(-)	7,917,632	22,471,461	(2,440,709)	(6,712,896)	(6,349,184)	(4,191,104)	(1,855,613)	(5,159,099)	(5,314,054)	(5,378,576)	(4,784,667)	(6,519,575)	(18,316,384)
Excess Solution Pond													
Allowable Accum. in Excess	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	
Accum. into Excess	7,917,632	22,471,461	0	0	0	0	0	0	0	0	0	0	30,389,093
Recycled from Excess	0	0	(2,440,709)	(6,712,896)	(6,349,184)	(4,191,104)	(1,855,613)	(5,159,099)	(3,680,488)	0	0	0	(30,389,093)
Quantity in Excess	7,917,632	30,389,093	27,948,384	21,235,488	14,886,305	10,695,201	8,839,588	3,680,488	0	0	0	0	
Makeup Solution Required	0	0	0	0	0	0	0	0	1,633,566	5,378,576	4,784,667	6,519,575	18,316,384
Solution to Treat/Discharge	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average toTreatment	0	0	0	0	0	0	0	0	0	0	0	0	0
Makeup Water Req'd (gal/min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	36.6	120.5	118.7	146.0	34.8

Figure 17-6: Average Year Water Balance Diagram in GPM (Years 6+)

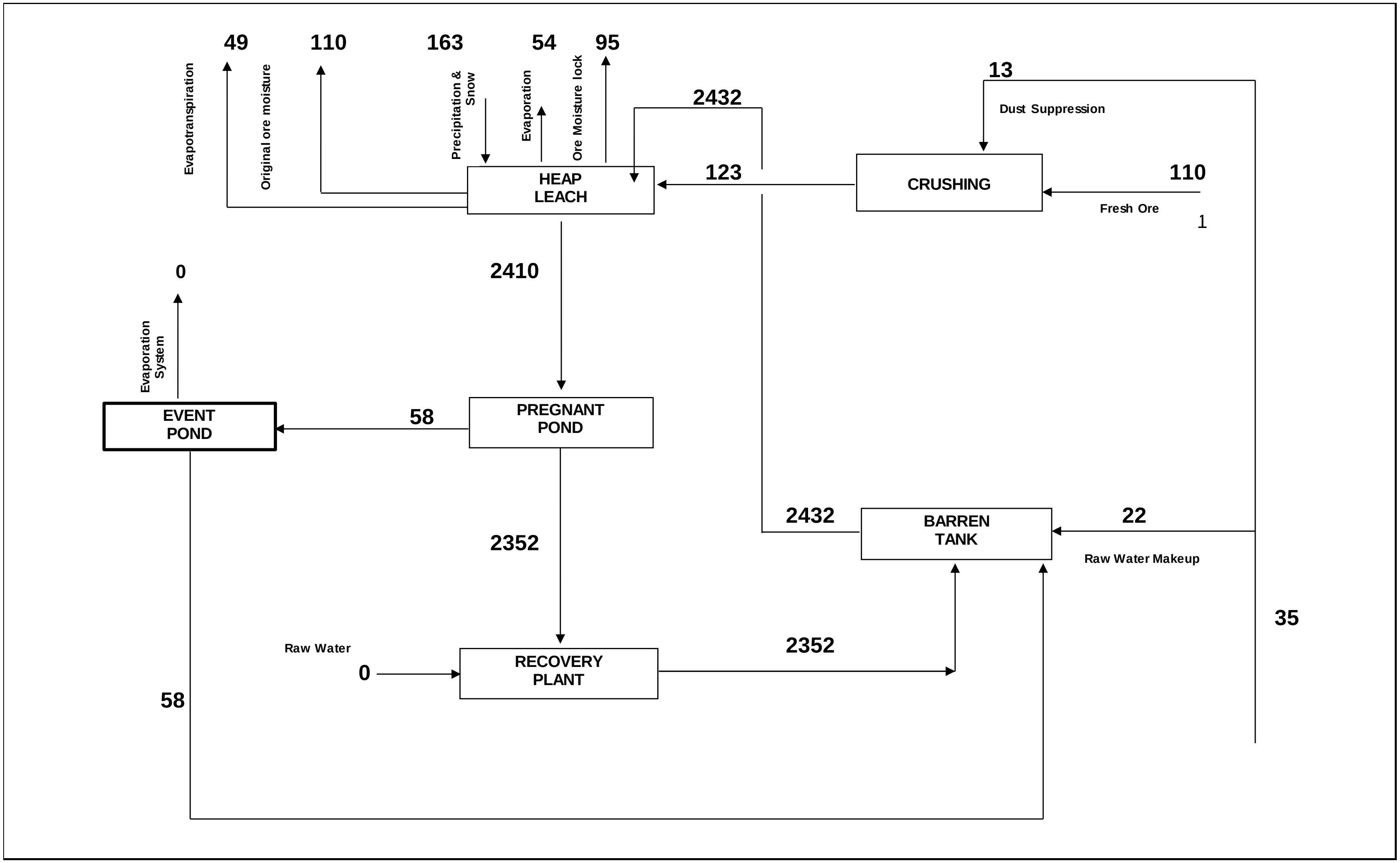


Table 17-8: Wet Year Water Balance (Years 1-5)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
Days in Month	30	31	30	31	31	30	31	30	31	31	28	31	365
Precipitation (in)	2.81	3.11	3.26	1.33	1.18	1.33	2.22	0.00	0.00	0.00	0.00	0.00	15.2
Pan Evaporation (in)	4.00	6.00	7.00	9.00	8.00	5.00	3.00	1.00	1.00	1.00	1.00	3.00	49.0
Snowfall (in eq.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	3.11	2.81	2.96	2.96	14.8
Snowmelt (in eq.)	3.37	8.96	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	12.3
Emitter Evap. (%)	1.5	2.2	2.6	3.3	2.9	1.8	1.1	0.4	0.4	0.4	0.4	1.1	1.5
Sprinkler Evap. (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idle Heap Evapotrans. Area (sq. ft)	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170	2,949,170
Idle Heap Evapotrans. (in)	2.68	4.02	4.69	6.03	5.36	3.35	2.01	0.67	0.67	0.67	0.67	2.01	33
Ore Placed on Pad (tons)	396,828	410,056	396,828	410,056	410,056	396,828	410,056	396,828	410,056	410,056	370,373	410,056	4,828,074
Precip. Collected (gal)	7,142,631	7,894,487	8,270,415	3,383,352	3,007,424	3,383,352	5,638,919	0	0	0	0	0	38,720,580
Pond Snowfall Collected (gal)	0	0	0	0	0	0	0	954,925	1,002,671	907,178	954,925	954,925	4,774,623
Pad Snowmelt Collected (gal)	7,470,141	19,867,397	0	0	0	0	0	0	0	0	0	0	27,337,539
Ore Absorption (gal)	3,328,534	3,439,485	3,328,534	3,439,485	3,439,485	3,328,534	3,439,485	5,230,553	5,404,905	5,404,905	4,881,849	5,404,905	50,070,657
Emitter Evap (gal)	1,543,722	2,392,770	2,701,514	3,589,154	3,190,359	1,929,653	1,196,385	385,931	398,795	398,795	360,202	1,196,385	19,283,665
Sprinkler Evap. (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
Evapotrans. (gal)	4,927,030	7,390,544	4,010,602	1,640,701	1,458,401	1,640,701	3,695,272	0	0	0	0	0	24,763,251
Pond Evaporation (gal)	387,132	580,697	677,480	871,046	774,263	483,914	290,349	96,783	96,783	96,783	96,783	290,349	4,742,362
Evaporation System (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Net Precip. Gain(+)/Loss(-)	4,426,355	13,958,388	(2,447,715)	(6,157,034)	(5,855,084)	(3,999,450)	(2,982,571)	(4,758,342)	(4,897,812)	(4,993,304)	(4,383,910)	(5,936,714)	(28,027,193)
Excess Solution Pond													
Allowable Accum. in Excess	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	33,569,879	
Accum. into Excess	4,426,355	13,958,388	0	0	0	0	0	0	0	0	0	0	18,384,744
Recycled from Excess	0	0	(2,447,715)	(6,157,034)	(5,855,084)	(3,924,910)	0	0	0	0	0	0	(18,384,744)
Quantity in Excess	4,426,355	18,384,744	15,937,029	9,779,994	3,924,910	0	0	0	0	0	0	0	
Makeup Solution Required	0	0	0	0	0	74,540	2,982,571	4,758,342	4,897,812	4,993,304	4,383,910	5,936,714	28,027,193
Solution to Treat/Discharge	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average toTreatment	0	0	0	0	0	0	0	0	0	0	0	0	0
Makeup Water Req'd (gal/min)	0.0	0.0	0.0	0.0	0.0	1.7	66.8	110.1	109.7	111.9	108.7	133.0	53.3

Figure 17-7: Wet Year Water Balance Diagram in GPM (Years 1-5)

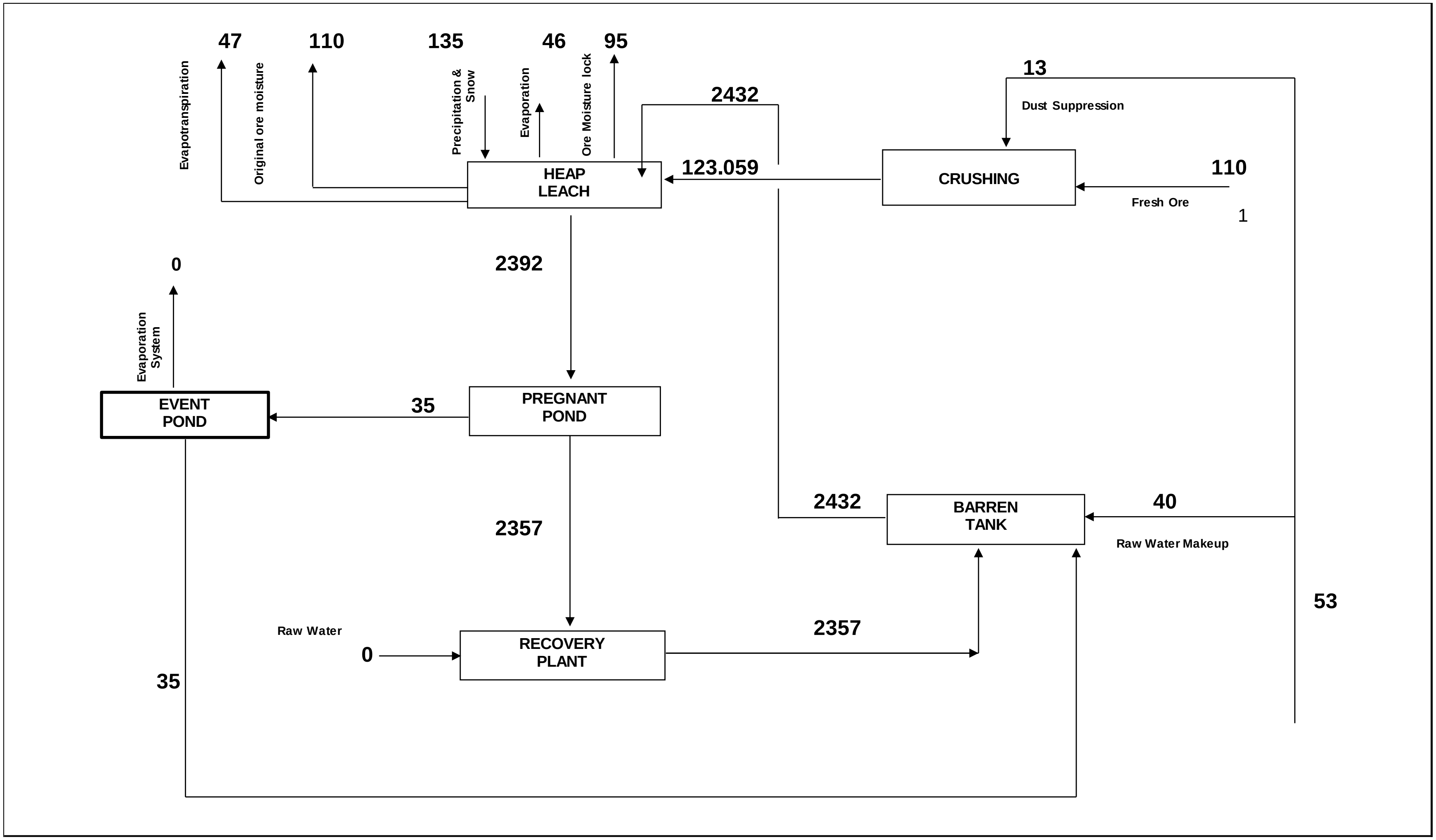
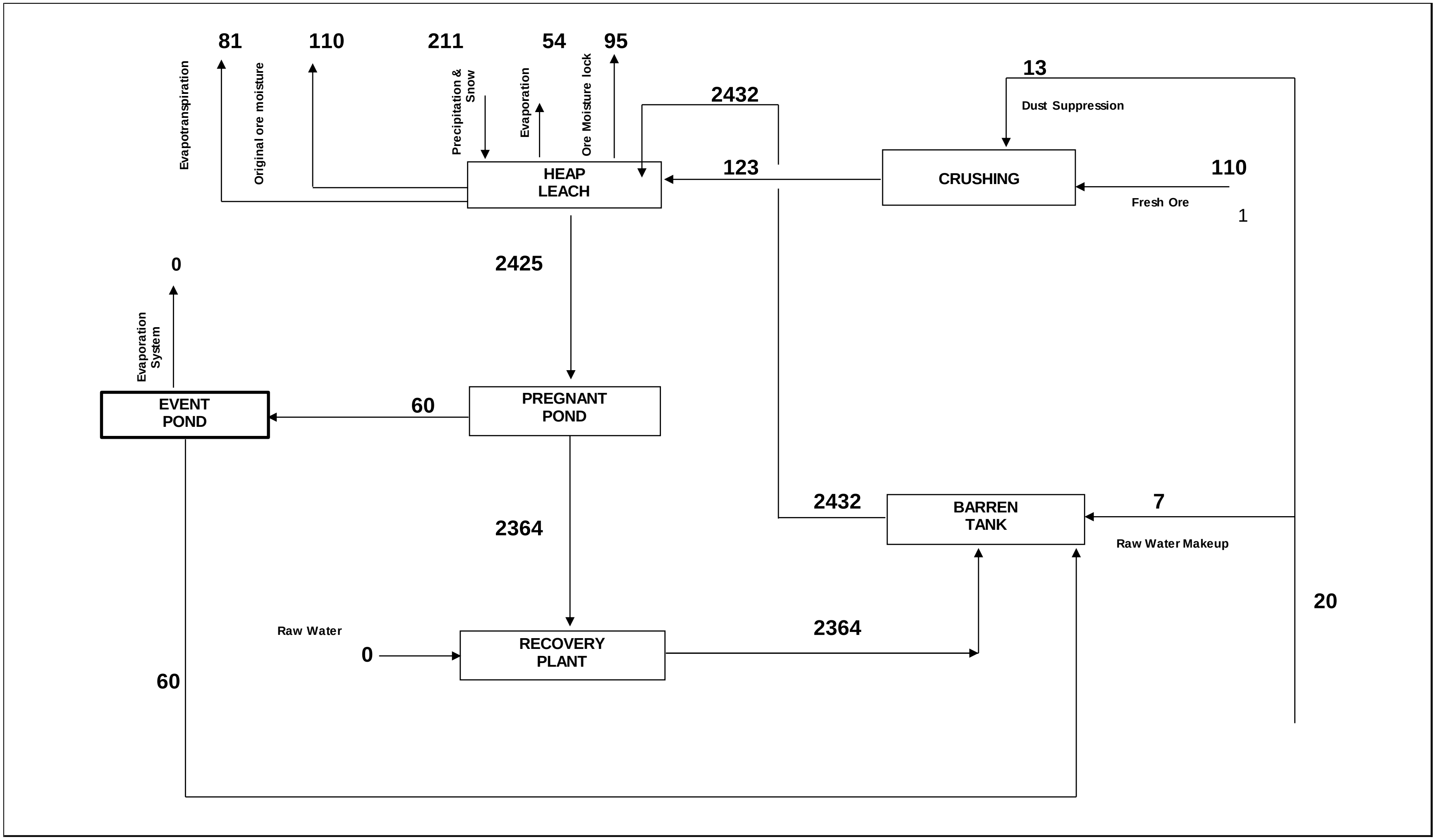


Table 17-9: Wet Year Water Balance (Years 6+)

	Apr	May	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Jan	Feb	Mar	Annual
Days in Month	30	31	30	31	31	30	31	30	31	31	28	31	365
Precipitation (in)	2.81	3.11	3.26	1.33	1.18	1.33	2.22	0.00	0.00	0.00	0.00	0.00	15.2
Pan Evaporation (in)	4.00	6.00	7.00	9.00	8.00	5.00	3.00	1.00	1.00	1.00	1.00	3.00	49.0
Snowfall (in eq.)	0.00	0.00	0.00	0.00	0.00	0.00	0.00	2.96	3.11	2.81	2.96	2.96	14.8
Snowmelt (in eq.)	2.28	6.05	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	8.3
Emitter Evap. (%)	1.5	2.2	2.6	3.3	2.9	1.8	1.1	0.4	0.4	0.4	0.4	1.1	1.5
Sprinkler Evap. (%)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Idle Heap Evapotrans. Area (sq. ft)	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280	5,950,280
Idle Heap Evapotrans. (in)	2.68	4.02	4.69	6.03	5.36	3.35	2.01	0.67	0.67	0.67	0.67	2.01	33
Ore Placed on Pad (tons)	396,828	410,056	396,828	410,056	410,056	396,828	410,056	396,828	410,056	410,056	370,373	410,056	4,828,074
Precip. Collected (cu.ft)	13,256,842	14,652,300	15,350,028	6,279,557	5,581,828	6,279,557	10,465,928	0	0	0	0	0	71,866,041
Pond Snowfall Collected (gal)	0	0	0	0	0	0	0	954,925	1,002,671	907,178	954,925	954,925	4,774,623
Pad Snowmelt Collected (gal)	9,305,797	24,749,459	0	0	0	0	0	0	0	0	0	0	34,055,256
Ore Absorption (gal)	3,328,534	3,439,485	3,328,534	3,439,485	3,439,485	3,328,534	3,439,485	5,230,553	5,404,905	5,404,905	4,881,849	5,404,905	50,070,657
Emitter Evap (gal)	1,543,722	2,392,770	2,701,514	3,589,154	3,190,359	1,929,653	1,196,385	385,931	398,795	398,795	360,202	1,196,385	19,283,665
Sprinkler Evap. (gal)	0	0	0	0	0	0	0	0	0	0	0	0	0
Evapotrans. (gal)	9,940,832	7,724,026	8,091,837	3,310,297	2,942,486	3,310,297	7,455,624	0	0	0	0	0	42,775,400
Pond Evaporation (gal)	751,339	1,127,009	1,314,844	1,690,514	1,502,679	939,174	563,505	187,835	187,835	187,835	187,835	563,505	9,203,907
Evaporation System (gal)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0
Net Precip. Gain(+)/Loss(-)	6,998,212	24,718,469	(86,701)	(5,749,893)	(5,493,181)	(3,228,101)	(2,189,070)	(4,849,394)	(4,988,864)	(5,084,356)	(4,474,962)	(6,209,870)	(10,637,710)
Excess Solution Pond													
Allowable Accum. in Excess	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	48,562,095	
Accum. into Excess	6,998,212	24,718,469	0	0	0	0	0	0	0	0	0	0	31,716,680
Recycled from Excess	0	0	(86,701)	(5,749,893)	(5,493,181)	(3,228,101)	(2,189,070)	(4,849,394)	(4,988,864)	(5,084,356)	(47,121)	0	(31,716,680)
Quantity in Excess	6,998,212	31,716,680	31,629,979	25,880,087	20,386,906	17,158,805	14,969,735	10,120,341	5,131,477	47,121	0	0	
Makeup Solution Required	0	0	0	0	0	0	0	0	0	0	4,427,841	6,209,870	10,637,710
Solution to Treat/Discharge	0	0	0	0	0	0	0	0	0	0	0	0	0
Monthly Average toTreatment	0	0	0	0	0	0	0	0	0	0	0	0	0
Makeup Water Req'd (gal/min)	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	109.8	139.1	20.2

Figure 17-8: Wet Year Water Balance Diagram in GPM (Years 6+)



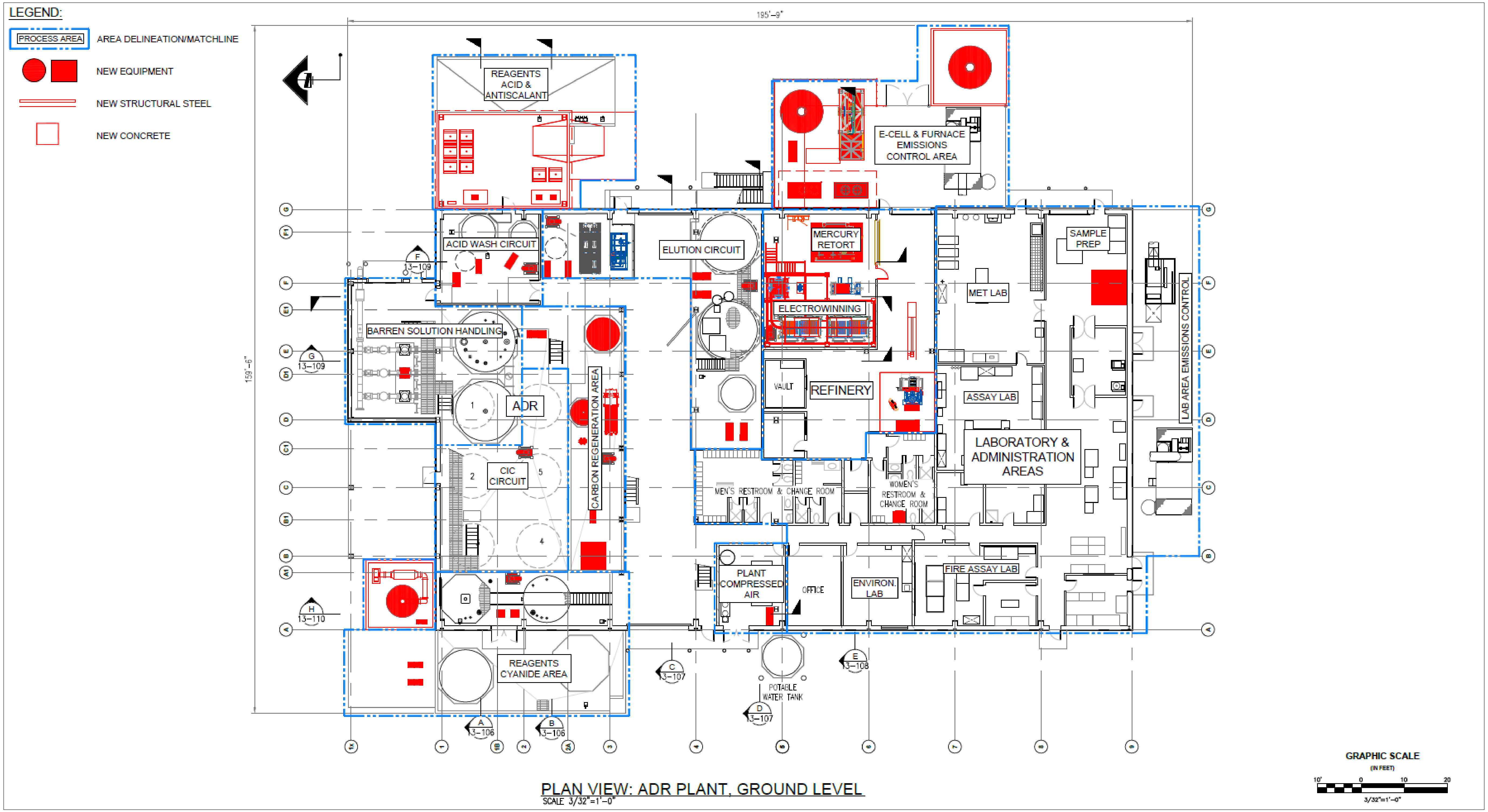
17.7 Recovery Plant

The existing and refurbished recovery plant at Beartrack-Arnett will be designed to recover gold values using an adsorption-desorption-recovery (ADR) process. Pregnant leach solution from the heap leach will be pumped to the carbon in column circuit (CIC) and adsorbed onto activated carbon (adsorption). Loaded carbon from the CIC circuit will then be desorbed or stripped in a high-temperature elution process coupled to an electrowinning circuit (desorption), followed by retorting to recover mercury and smelting of the resulting sludge to produce doré (recovery). Prior to elution, each batch of carbon will be acid washed to remove any scale and other inorganic contaminants that might inhibit gold adsorption on carbon. All activated carbon will be thermally reactivated using a rotary kiln after each elution batch.

The recovery plant will be semi-automatic with local human machine interfaces (HMI) panels displaying unit functions and controlling primary flow streams. Non primary, or batch flow streams, such as acid washing, will be controlled manually. All local sensors will provide a signal for monitoring to the main PLC/control station.

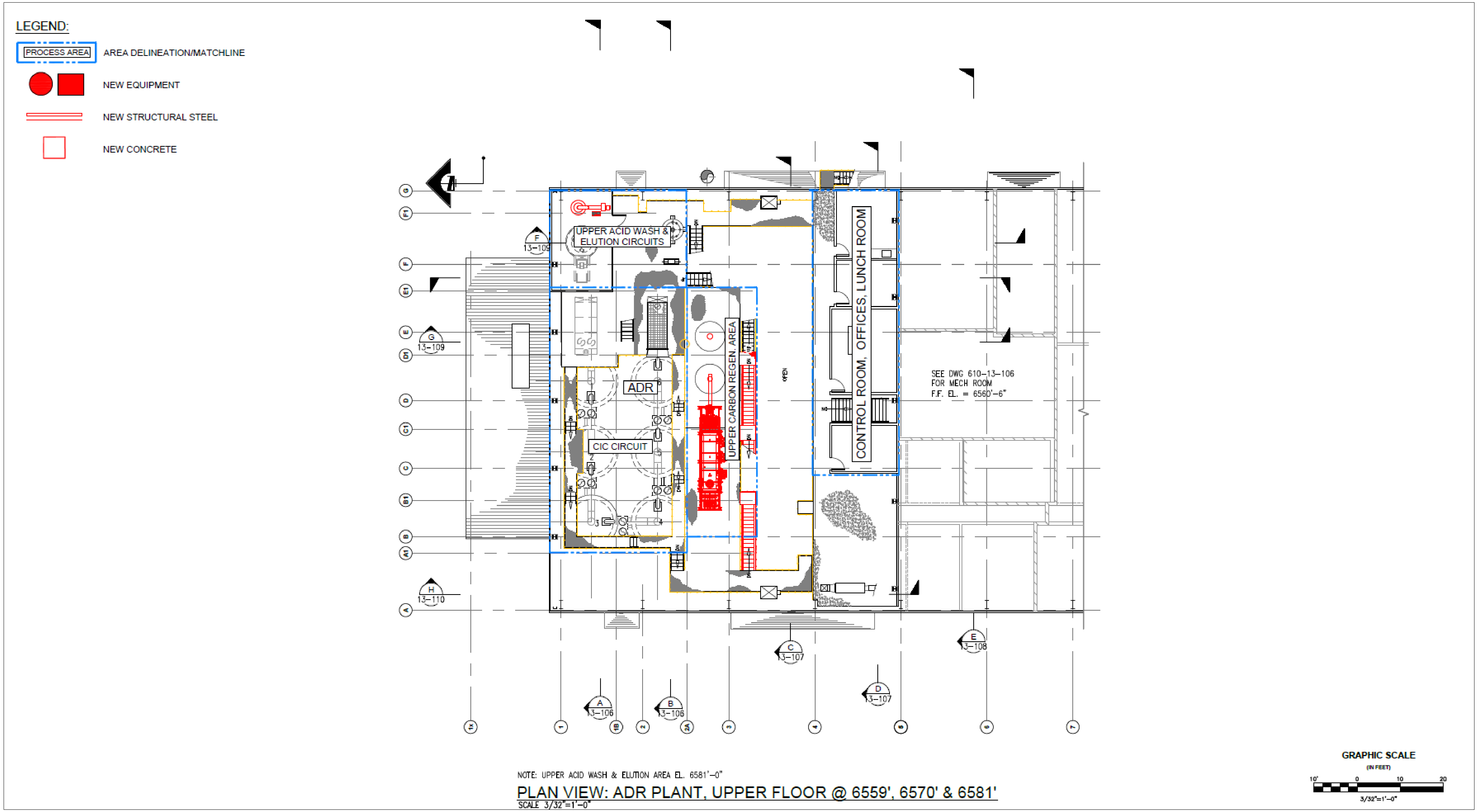
The recovery plant and refinery will be indoors in the existing recovery plant building. The recovery plant layout is presented on Figure 17-9 and Figure 17-10 with new and replaced items shown in red.

Figure 17-9: ADR Plant Layout – Ground Floor



Source: KCA, 2023

Figure 17-10: ADR Plant Layout – Upper Floors



Source: KCA, 2023

17.7.1 Adsorption

Adsorption of gold onto activated carbon will be accomplished in the existing carbon adsorption circuit comprised of one column train of six (6) cascade type, open-top adsorption columns. Each column is 10.50 feet (3.20 m) in diameter x 9.0 feet (2.74 m) tall, with capacity for 4.0 tons (3.6 tonnes) of carbon. Pregnant solution from the pregnant solution pond will be pumped to the adsorption circuit at a nominal rate of 2,486 gpm (565 m^3/h). Barren solution exiting the last carbon adsorption column in the train will pass through a static carbon safety screen to separate any floating carbon from the solution, then flow by gravity into the barren tank.

Antiscalant will be added at the pregnant solution pond to prevent scaling of the carbon which reduces the carbon loading ability. Magnetic flowmeters equipped with totalizers will measure solution flow to the adsorption circuit. Pregnant solution will flow by gravity through each of the six (6) columns in series, exiting the lowest column as barren solution. Continuous samplers of the pregnant and barren solutions will be installed at the feed and discharge ends of the carbon column train. Solution samples will be used to measure gold concentrations in the pregnant and barren solutions, and to monitor the carbon adsorption efficiency.

The process of gold adsorption from the pregnant leach solution is continuous. Once the carbon in the lead column achieves the desired precious metal loading, it will be transferred to the carbon acid wash circuit using an eductor. Carbon in the remaining columns will then be advanced, counter current to the solution flow, to each preceding column in series by eductors. New or acid washed/regenerated carbon will be added to the final column in the train. The installed eductors will function by using the “venturi effect” to pump the carbon slurry, with push solution for carbon transfer provided by the process solution pump at the barren solution tanks.

17.7.2 Carbon Acid Wash

Acid washing consists of circulating a dilute acid solution through a bed of activated carbon to dissolve and remove scale and other inorganic contaminants. Acid washing of the Beartrack-Arnett carbon will be completed before each desorption cycle on a batch basis.

Loaded carbon from the adsorption circuit will first be transferred to the loaded carbon dewatering screen. Process solution will be added at the dewatering screen to rinse the carbon and to remove any carbon fines. The screen undersize will flow by gravity to the carbon fines tank, and the screen oversize will be transferred to the existing acid wash vessel. The acid wash vessel is designed for a total capacity of 4.0 tons (3.6 tonnes) of loaded activated carbon.

After the carbon is transferred to the acid wash vessel, but before any acid is introduced, fresh water will be circulated through the carbon bed to remove any entrained alkaline cyanide solution. After rinsing, a dilute hydrochloric acid solution will be prepared in the existing acid mix tank and cycled through the acid wash vessel and the acid mix tank using the acid wash circulation pump. Concentrated acid will be injected into the recycle stream to achieve and maintain a pH ranging from 1.0 to 2.0. Completion of the acid wash cycle is indicated when the pH stabilizes between 1.0 and 2.0 without acid addition for a minimum of one hour of circulation.

After acid washing has been completed, the spent acid solution will be drained from the acid wash vessel into the acid mix tank. The spent acid solution can either be retained for reuse, or pumped from the acid mix tank to the neutralization tank where it will be neutralized by the addition of caustic solution to a pH ranging from 7.0 to 8.0. The neutralized acid solution will then be pumped to the barren tanks by the neutralization pump.

To remove any residual acid in the acid washed carbon, a dilute caustic solution will be prepared in the neutralization tank and cycled through the acid wash vessel and the neutralization tank by the neutralization pump. After the neutralization rinse is complete, the acid washed carbon will be pumped to the elution vessel using the acid wash carbon transfer pump. Total time required for acid washing a 4.0-ton (3.6-tonne) batch of carbon is approximately 6 hours.

17.7.3 Desorption

A Zadra pressure elution, hot caustic desorption circuit has been selected for the Beartrack-Arnett Project. This type of circuit requires 24 hours or less to complete a cycle, and is sized for 4-ton (3.6-tonne) batches of carbon. During the desorption process, gold will be eluted, or “stripped,” from the batch of carbon into pregnant eluate solution. The gold is then extracted by electrowinning from the pregnant eluate produced by the desorption circuit. A complete desorption cycle will require approximately 18 hours.

After a batch of carbon has been transferred to the existing elution vessel, barren strip solution (eluant) containing sodium hydroxide and sodium cyanide will be pumped through a recovery heat exchanger and solution heating system, which will include a propane fired hot water boiler, hot water circulation pump, and primary heat exchanger. Hot water from the boiler will be pumped through the primary heat exchanger to heat the strip solution to the strip temperature of 275°F (135°C), before being introduced to the elution vessel with a nominal operating pressure of approximately 65 psig (450 kPa). The final gold content of the stripped carbon will typically be less than five ounces per ton of carbon.

The elution vessel contains internal stainless-steel inlet screens to hold carbon inside the vessel and to distribute incoming stripping solution evenly. Pregnant eluant solution leaving the elution vessel will pass through external stainless-steel strip solution discharge screens, before passing through the recovery heat exchanger and tertiary heat exchanger to reduce the eluate temperature to 195°F (90°C) or less (to prevent boiling). The cooled pregnant eluate solution will then discharge into the existing pregnant eluant tank, where it will be pumped to the electrowinning cells by the pregnant eluant pump.

After desorption is complete, the stripped carbon will be pumped to either the kiln feed dewatering screen to dewater the carbon and remove fines before thermal regeneration, or to the existing carbon storage tank to be added back to the circuit.

17.7.4 Electrowinning

The electrowinning circuit will be operated in series with the elution circuit. Pregnant eluate solution in the pregnant eluant tank will be pumped through the electrowinning cells by the pregnant eluant pump. Gold values will be recovered from the pregnant eluant solution as the solution passes through the electrowinning cells. Barren eluate solution leaving the electrowinning cells will flow by gravity to the barren eluant return tank where it will then be pumped by the barren eluant return pump to the eluant storage tank.

Gold will be won from the eluant in the electrowinning cells using stainless steel cathodes at a current density of approximately 5 amperes per square foot of anode surface (54 amperes/m^2). Caustic soda (sodium hydroxide) in the eluate solution will act as an electrolyte to encourage free flow of electrons and promote precious metal winning from solution. To keep the electrical resistance of the solution low during the electrowinning cycle, make-up caustic soda will occasionally be added to the eluant storage tank.

Periodically, all or part of the barren eluant will be dumped to the carbon fines tank and new solution will be added to the eluant storage tank. Typically, about one-third of the barren eluant will be discarded after each elution or strip cycle. Sodium hydroxide and sodium cyanide will be added as required from the reagent handling systems to the eluant storage tank during fresh solution make-up.

The precious metal-laden cathodes in the electrowinning cells will be removed periodically and processed to produce the final doré product. The loaded cathodes will be transferred to the cathode wash box using the cathode hoist. Precipitated precious metals will then be removed from the cathodes with a high-pressure sprayer. The resulting sludge will be pumped using a sludge filter feed pump to a plate-and-frame sludge filter press to remove water. The filter cake will then be loaded into pans and sent to the refinery to be treated in the mercury retort furnace.

17.7.5 Carbon Handling & Regeneration

The carbon handling and regeneration circuit will include all equipment required to regenerate, store, prepare, and transfer carbon. The carbon regeneration system will include a kiln dewatering screen, kiln feed hopper with screw feeder, carbon regeneration kiln, carbon quench tank, and carbon quench pump. The carbon preparation and storage system will include a carbon sizing screen, a 4.0-ton (3.6-tonne) carbon storage tank (existing), a carbon attritioning tank with agitated mixer, a carbon fines tank, a carbon fines filter press, and various carbon transfer pumps.

Thermal regeneration will consist of drying the carbon thoroughly and heating it to approximately 1,400°F (760°C) for ten minutes to maintain carbon activity levels. Carbon will be regenerated in the propane-fired carbon regeneration kiln at a rate of up to 330 lbs/hr (150 kg/hr), with 100% of the carbon from each strip cycle being regenerated.

Carbon from the desorption circuit to be thermally reactivated will first be dewatered using a static kiln dewatering screen, then transferred to the kiln feed hopper and fed to the carbon regeneration kiln by the kiln screw feeder. The kiln dewatering screen undersize will discharge to the carbon fines tank. Carbon fines collected in the carbon fines tank will be periodically pumped through the carbon fines filter press; carbon fines from the filter press are stored in bulk bags for removal from the system.

Hot, regenerated carbon leaving the kiln will pass into a water-filled quench tank for cooling before being transferred to the carbon sizing screen by the carbon quench pump. New carbon being added to the circuit will first be processed in the carbon attritioning tank and then transferred to the carbon sizing screen. The sizing screen undersize will discharge into the carbon fines tank, and the screen oversize will discharge into the carbon storage tank. The new and regenerated carbon stored in the carbon storage tank will be returned to the CIC circuit.

17.7.6 Refinery

Cathode sludge filter cake recovered from the sludge filter press will be treated in a mercury retort furnace to remove and recover any mercury that might be present. To volatilize the mercury, the sludge filter cake will be placed into pans and heated in the retort for up to 48 hours at approximately 900°F (480°C).

A vacuum pump system will continuously remove mercury vapor from the retort oven and passes the vapor through the water-cooled retort primary condenser. Condensed mercury will be trapped in the mercury collector, and then transferred and stored in flasks. Cooled exhaust leaving the mercury collector will pass through the retort scrubbing system to remove any residual mercury. The retort scrubbing system will be comprised of three (3) units connected in series: the mercury after cooler condenser, retort air filter, and retort carbon scrubber filled with sulfur-impregnated activated carbon.

After mercury removal, the dried cathode filter cake will be mixed with fluxes and fed to a tilting crucible induction furnace. After melting, slag will be poured off into cast iron molds until the remaining molten furnace charge is mostly molten metal (doré). Doré will then be poured off into bar molds, cooled, cleaned, and stored in a vault pending shipment to a third-party refiner. The doré poured from the furnace represents the final product of the processing circuit.

Periodically, slag produced from the smelting operation will be re-smelted on a batch basis to recover residual metal values. Reprocessed slag will be jaw crushed and placed on the heap leach pad.

Furnace fumes will be pulled through the furnace fume hood at a rate of 12,500 scfm (21,250 m^3/h) by the furnace exhaust fan. Collected fumes pass through the existing refinery bag house to remove particulates, then through the furnace carbon bed scrubber as a final exhaust cleaning step. The system will be designed to remove over 99.5% of the particulates present in the exhaust fumes.

17.8 Process Reagents and Consumables

The reagent handling system will include equipment used to mix and/or store all reagents required for the Beartrack-Arnett process. Reagent mixing and storage will be at ambient temperature and pressure. Average estimated annual reagent and consumable consumption quantities for the processing area are shown in Table 17-10.

Table 17-10: Projected Annual Reagents and Consumables

Item	Form	Average Annual Usage
Sodium Cyanide	Briquettes or Liquid	1,800 t (1,633 T)
Lime	Bulk Delivery Trucks	15,700 t (14,243 T)
Activated Carbon	1,100 lb Supersacks	27 t (24.5 T)
Sodium Hydroxide	Liquid Delivery Trucks	50 t (45 T)
Antiscalant	Liquid Bulk	15,680 gal (59 m^3)
Hydrochloric Acid 32%	Liquid Totes	29,000 gal (110 m^3)
Fluxes	Dry Solid Sacks	2.6 t (2.4 T)

17.8.1 Sodium Cyanide

Sodium cyanide (NaCN) is used in the leaching process and will be mixed in 20-ton (18-tonne) batches onsite using an SLS (solid to Liquid) cyanide mix system. Cyanide will be delivered in certified iso-containers in solid form. At site, process solution will be added to the existing NaCN dissolution tank and circulate through the delivery container and back to the dissolution tank at ambient temperature. Once the cyanide is completely dissolved, the connecting hoses and pipes are cleared pneumatically to ensure there is no remaining cyanide solution in the delivery container or piping. The concentrated cyanide solution (25% NaCN by weight) is then transferred to the existing cyanide storage tanks for delivery to the process by metering pumps.

Cyanide is primarily consumed during the leaching process at an average rate of 0.75 lbs per ton (0.38 kg/T) of ore processed, not including additional cyanide for residual leaching of the Beartrack ore. A small amount of cyanide will also be added to the elution circuit.

17.8.2 Lime

Pebble lime (CaO) is used to treat ore to maintain an alkaline pH. Lime will be delivered in bulk by 20-ton trucks, which off-load pneumatically into the lime silo with a total capacity of 200 tons (181 tonnes).

Lime from the lime silo system will be metered directly onto the crushed product reclaim conveyor by the lime silo screw conveyor at an average rate of 6.5 lbs per ton (3.3 kg/T) of ore; the actual lime addition will vary by material type.

17.8.3 Activated Carbon

Activated carbon will be used to adsorb precious metals from the leach solution in the adsorption columns. Make-up carbon will be 6 x 12 mesh and will be delivered in 1,100 lb (500 kg). supersacks. It is estimated that approximately 4% of the carbon stripped will have to be replaced due to carbon fines losses. Carbon consumption has been estimated at 27 tons (24.5 tonnes) per year.

17.8.4 Sodium Hydroxide

Sodium hydroxide (caustic) solution will be prepared in the existing caustic solution mix tank. Sodium hydroxide is delivered to site as a 50% liquid concentrate. The delivered high concentrate caustic solution will be diluted to yield a solution containing 20% by weight sodium hydroxide for use in the process. Distribution of the caustic solution will be by the caustic transfer pump to points of use.

Sodium hydroxide will primarily be used in the elution strip solution and will be consumed at an estimated rate of 575 lbs (260 kg) per strip. Sodium hydroxide will also be consumed during the acid neutralization process as well as during cyanide mixing.

17.8.5 Antiscalant

Antiscalant is used to prevent the build-up of scale in process solutions and heap irrigation lines. Antiscalant will be delivered to site in liquid form in bulk trucks. Antiscalant will be added directly to the pregnant solution pond pump inlet, barren tanks, and the elution vessel feed line using variable speed, chemical-metering pumps.

Antiscalant consumption will vary depending on the concentration of scale-forming species in each treated process stream. On average, antiscalant consumption is expected to be about 6 ppm for leach solutions and 10 ppm for strip solutions.

17.8.6 Hydrochloric Acid

Hydrochloric acid is used in the acid wash section of the elution circuit. Hydrochloric acid (32% by weight, 1.16 s.g.) will be delivered to site in 264-gallon (1 m^3) tote bins and will be added directly to the acid mix tank using a variable speed acid metering pump.

Acid washing consists of circulating a dilute acid solution through the bed of carbon to dissolve and remove scale from the carbon and is completed prior to each desorption cycle. Consumption of 32% HCl is estimated at 160 gallons per strip.

17.8.7 Fluxes

Various fluxes are used in the smelting process to remove impurities from the bullion in the form of a glass slag. Dry fluxes will be delivered in 50 lb (23 kg) bags.

The normal flux components will be a mix of silica sand, borax, and sodium carbonate (soda ash). The flux mix composition is variable and will be adjusted to meet individual project smelting needs: fluorspar and/or potassium nitrate (niter) may also be added to the mix. Average consumption of the mixed fluxes is estimated to be 1 lb of flux per lb of gold produced.

18.0 PROJECT INFRASTRUCTURE

18.1 Infrastructure

18.1.1 Existing Installations

Much of the infrastructure from the original Beartrack mining operation is still present at site and remains in serviceable condition. Wherever possible, it is planned to refurbish and reuse the existing infrastructure, including the following:

- Site access road
- Various site roads
- Fencing and gates
- Fuel and water tanks
- Process solution and overflow (event) ponds
- Various retention ponds
- Solution ditches
- Water treatment plant
- Septic systems
- Core warehouse
- ADR plant / laboratory
- Power substation and overhead power distribution lines

All other major infrastructure from the previous operations were removed as part of site reclamation efforts and will need to be replaced for new operations.

18.1.2 Access & Site Roads

The Beartrack-Arnett site is accessible year-round from the community of Salmon, Idaho by paved and gravel roads, which include 6 miles on paved highway to the Salmon River crossing at the Shoup Bridge, followed by 26 miles on Forest Service roads to the mine site. The access road is partially maintained by Lehmi County.

An existing network of dirt and gravel roads connect the various areas of the project site and exploration areas. The existing roads will be upgraded as needed for the planned operations.

18.1.3 Haulage Roads

Production haul roads from the previous operation were largely reclaimed with only service roads left for accessing the pits. New haul roads will be constructed for the planned operation including 2.2 miles of haul roads for servicing the Beartrack North, South and Mason Dixon pits and associate waste storage facilities and 4.8 miles of haul road connecting the Haidee pit to the Beartrack site. All haul roads and in-pit roads will be constructed to allow for two lane traffic with 100-ton haul trucks. Double-lane haul roads will be 75 feet wide.

18.2 Project Buildings

Site buildings for the Beartrack-Arnett project will include both new and existing units. Existing buildings include the ADR/laboratory facility, core warehouse, water treatment facility, and main electrical room, which are all insulated steel buildings. New units will include the administration office trailer, process office trailer, and mine truck shop.

All project buildings will be located at the Beartrack site.

18.2.1 ADR Process Plant / Laboratory (Existing)

The existing ADR plant and laboratory is a two-story 16,400 ft^2, insulated steel-sided building. The building houses the complete ADR plant, refinery and reagent handling facilities as well as the laboratory facility and associated process support facilities. The building will be upgraded and expanded as required for the process and include all necessary eyewash/safety shower water and fire water provisions.

The laboratory facilities will be located on the ground floor of the process plant building and will provide full support for the mine operation. Facilities will include a sample preparation area, wet lab, atomic adsorption spectroscopy (AAS) equipment, and fire assay capabilities. The laboratory will process samples taken from the heap leach and process plant areas and have a capacity to process approximately 125 chemical and fire assays per day. Doré samples will be assayed on-site, with duplicate samples sent to an external lab for assay by a third party.

18.2.2 Truck Shop / Warehouse

The mine truck shop and warehouse will be an insulated steel-sided building with three bays, which will be utilized for fleet maintenance. An attached wash bay will be used for washing mine equipment. An oil skimmer will be installed adjacent to the wash bay to collect any oil in the wash water drained from the wash bay. Offices, lunchroom, men and women’s washrooms and dry facilities, and warehouse area will also be included. The facility will be fully equipped with a fire water supply and distribution system.

Crane work will be conducted within the mine truck shop with a 10-ton overhead crane. Maintenance fluids will be distributed to each bay by means of lubrication stations, each with a supply of compressed air, clean water, grease, and lubricants.

18.2.3 Process Office Trailer

A single-wide, 12 ft x 60 ft prefabricated office trailer will be installed on-site for use as the process plant office. The trailer will include two (2) office areas, a washroom, and a central common area.

18.2.4 Administration Office

A double-wide, 24 ft x 60 ft prefabricated trailer will be installed on-site for use as the administration office. The trailer will include four (4) office areas, men and women's washrooms, a storage area, and a central common area.

18.2.5 Water Treatment Plant (Existing)

The existing Pall microfiltration water treatment system is housed in an insulated steel-sided building. The system is currently being utilized to decrease suspended solids concentrations and turbidity of mine discharge water. The system will be expanded for continued use during the proposed mine life.

18.2.6 Core Warehouse (Existing)

The existing core warehouse is an insulated steel-sided building and is currently being used to house core samples. Primary use of this building will be for sample storage during mining.

18.3 Leach Pad Design

The project considers two (2) independent leach pads for the Beartrack and Haidee ores, respectively, with separate solution collection trenches to contain and transfer process solutions from the two leach pads.

The Beartrack and Haidee leach pads will be single-use, multi-lift type heaps and have been designed with a lining system in accordance with the International Cyanide Code requirements and meets or exceeds the lining system requirements set forth by the Idaho Administrative Procedures Act (IDAPA) to minimize the environmental risk of the facilities impacting local soils, surface water and ground water in and around the site. The Beartrack heap will be constructed on top of and adjacent to the existing reclaimed leach pad and will process a combination of oxide, transitional and sulfide ore. The final pad design considers a total of eight (8) lifts and 25 million tons of material. Pad drainage will be constructed to transfer process solution to the existing pregnant solution pond. Initial leaching of the Beartrack ore is estimated to be completed in approximately 5.2 years.

Stacking and leaching of the Haidee ore will commence when initial leaching of the Beartrack pad is nearing completion. The Arnett heap leach pad will be constructed to the west of the Beartrack heap and will contour against the existing reclaimed leach pad. The final pad design will incorporate a total of nine (9) complete lifts and one partial lift and will accommodate 16 million tons of oxide material. Pad drainage will be kept separate from that of the Beartrack leach pad and will be constructed to transfer process solution to the existing pregnant solution pond. Leaching of the Arnett ore is estimated to be completed in approximately 3.3 years.

The leach pads will be constructed by clearing the pad area and stripping any vegetation and growth media. Only minor grading will be required for the Beartrack heap with the current slopes being within the required range for solution drainage and stability. A 200-foot-wide section at the toe of the Arnett heap will be graded to a slope of 2-3% for heap stability.

The leach pad liner for both heaps will be composed of the following lining system from top to bottom:

- Overliner consisting of 24 inches of crushed and screened material (-5/8”, +40 mesh)
- 80 mil single side textured Linear Low-Density Polyethylene (LLDPE) geomembrane
- 24 inches of compacted soil liner with a minimum permeability of $1x10^{-6}$ cm/s
- Leak detection system under the primary solution collection pipes which route solution to the solution collection trench
- Prepared subgrade.

Clay borrow sources are available around the project site for use as soil liner and are suitable to meet the $1x10^{-6}$ cm/s permeability requirement. Gravity solution collection pipes will be installed on top of the geomembrane liner and covered with overliner material. These pipes are sized to operate at 50% full to contain the design production flows from the upgradient tributary area, allowing additional capacity to accommodate excess solution from storm events.

The gravity solution collection pipes will consist of 4” diameter perforated corrugated polyethylene (PCPE) tertiary pipes spaced on 26-foot centers flowing into larger double walled PCPE secondary pipes of 18” in diameter. The secondary solution collection pipes will flow into primary solution collection pipes composed of double-walled 24” PCPE pipes that will run along the primary solution collection corridors. The primary solution collection pipes will exit the heap through a concrete weir to the solution collection channel. The pipes will be solid walled as they enter the solution collection channel that flows into the pregnant pond.

Should solution flows exceed the capacity of the heap outlet pipes, solution head will build at the leach pad discharge area, causing excess solution to overflow the concrete weir into the solution collection channel.

The overliner material will act as a protective layer that resides above the LLDPE geomembrane. The main purpose of this material is to promote solution collection, reduce hydraulic heads over the liner and protect the composite liner system and solution collection piping from damage during material placement.

The leak detection system will consist of 2" perforated corrugated pipe which will be installed under the main solution collection pipes. The leak detection pipes will discharge to the solution collection channel outside of the heap perimeter berm. At the perimeter berm the perforated pipe will transition to solid pipe and will pass through a 3-foot bentonite plug to ensure solutions are contained. The leak detection pipes will be checked daily to ensure no leaks are present.

A summary of the heap design parameters is presented in Table 18-1.

Table 18-1: Heap Leach Design Parameters

Item	Design Criteria
Stacking Rate, t/d (T/d)	13,200 (12,000)
Total Capacity, t (T) Beartrack, t (T) Arnett (Haidee), t (T)	41 million (37 million) 25 million (23 million) 16 million (15 million)
Lift Height, ft (m)	33 (10)
Maximum number of Complete Lifts (Beartrack / Haidee)	8 / 9
Maximum stacking height, ft (m). (Beartrack / Haidee)	250 / 237 (76 / 72)
Stacked Density, lb/ft^3 (kg/m^3)	106.13 (1,700)
Front of Heap Slope, H:V	2.5
Side and Back Slopes of Heap, H:V	2.5
Setback Between Lifts, ft (m)	35 (10.7)
Angle of Repose, º	37
Leaching Cycle, days	80
Number of Leach Cycles	1
Leaching Schedule, hours/d / d/a	24 / 365
Tons Under Leach, t (T)	1,056,000 (958,000)
Active Leach Area, ft^2 (m^2)	607,844 (56,500)
Solution Application Method	Buried Driplines
Solution Application Rate, Nominal, gpm/ft^2 (L/hr/m^2)	0.004 (10)
Heap Irrigation Rate, Nominal, gpm (m^3/h)	2,486 (565)
Heap Leach Material Moisture Retention, % of Total Material Weight	9.5 %

Geotechnical slope stability and foundation settlement analyses have been performed by WSP (2023) to support the heap leach facility design, as discussed in Section 24.2.

18.4 Process Solution Storage Design

Solution storage at the Beartrack-Arnett project includes the existing pregnant solution and overflow ponds and two (2) existing barren solution tanks. An additional overflow pond will be constructed during Year 5.

During normal operations, the pregnant solution pond will be maintained in the mid-to-lower range of its working capacity with the overflow ponds being maintained empty, or at low levels whenever possible. It is important that the overflow ponds be at minimum levels at the start of spring (April to May) to ensure that the ponds will have the required capacity to contain the large influx of solution from the seasonal snow melt, as well as a short-term extreme precipitation event.

The existing pregnant solution pond has a total volume of 25 million gallons (94,635 m^3) and has sufficient capacity for the following criteria being contained within the pond:

- Working volume for 24 hours at 2,486 gpm (565 m^3/h) of solution
- A 48-hour heap drain down volume of the leach solution (due to an event such as loss of power or pump) also at the solution application rate of 2,486 gpm (565 m^3/h)
- Allowable accumulation of up to 1.7 million gallons (6,435 m^3)
- Dead storage volume assuming 3.3 feet (1 m) of slimes at the bottom of the pond
- Freeboard of 3.3 feet (1 m)

The pregnant solution pond will be equipped with two submersible, high flow pumps (one operating, one standby) which will pump solution to the carbon adsorption circuit. The submersible pumps will be mounted on pump slides on the pond side walls to facilitate the placement and extraction of the pumps in the pond. An additional textured protective liner panel and conveyor belting will be installed on the pond sidewalls in the area where the pump slide is located to protect the pond liner.

The existing pregnant solution pond was constructed using the following composite liner system from top to bottom:

- 80 mil smooth High-Density Polyethylene (HDPE) primary liner
- Geonet
- 40 mil smooth HDPE secondary liner
- 12 inches (0.3 m) compacted soil liner with a permeability of 1×10^{-6} cm/s
- Prepared subgrade

Leak detection pipes are provided beneath the primary pond liner to allow for monitoring and pumping of solutions from within the leak detection sumps.

The existing overflow pond has a total volume of 67 million gallons (253,623 m^3) and has sufficient capacity for the following criteria being contained withing the pond:

- A 100-year, 24-h storm event of 3.0 inches (76.2 mm) over the Beartrack heap lined area
- A 100-year snowpack of 14.8 inches (376 mm) of snow water equivalent over the Beartrack heap lined area
- Allowable accumulation of up to 2.7 million gallons (10,220 m^3)
- Dead storage volume assuming 1.7 feet (0.5 m) of slimes at the bottom of the pond
- Freeboard of 3.3 feet (1 m)

The existing overflow solution pond was constructed using the flowing composite liner system from top to bottom with leak detection pipes provided beneath the primary pond liner to allow for monitoring and pumping of solutions from within the leak detection sump:

- 80 mil smooth HDPE primary liner
- Geonet
- 40 mil smooth HDPE secondary liner
- 12 inches (0.3 m) compacted soil liner with a permeability of $1x10^{-6}$ cm/s
- Prepared subgrade

The overflow pond will include a submersible pump mounted on a pump slide on the pond side slope to return solution to the active leach circuit.

During Year 5 of operations, an additional overflow pond with a total capacity of 55 million gallons (208,198 m^3) will be constructed and is sized along with the existing overflow pond to contain the 100-year, 24-h storm event of 3.0 inches (76.2 mm) along with the 100-year snowpack of 14.8 water equivalent inches (376 mm) over the entire lined area, along with dead storage volume and freeboard. The new overflow solution pond will be constructed using the following composite liner system from top to bottom with leak detection pipes provided beneath the primary pond liner to allow for monitoring and pumping of solutions from within the leak detection sump:

- 80 mil smooth HDPE primary liner
- Geonet
- 80 mil smooth HDPE secondary liner
- 24 inches (0.6 m) compacted soil liner with a permeability of $1x10^{-6}$ cm/s
- Prepared subgrade

The new overflow pond will include a submersible pump mounted on a pump slide on the pond side slope to return solution to the active leach circuit.

It is noted that the existing ponds lining systems do not meet the current IDAPA requirements. The current IDAPA regulations state that any cyanide facilities with a permit approved prior to 1 July 2005 will be subject to the applicable rules during that time and it is assumed that the previously permitted liner systems for these ponds will be adequate for the operation moving forward.

18.5 Reagent Storage

Reagents will be stored in the ADR process plant building. Existing building facilities include storage and containment for sodium cyanide, caustic, and fluxes. The existing building will be upgraded to include a covered storage and containment area for hydrochloric acid and antiscalant.

18.6 Fuel Storage (Existing)

The fuel storage system consists of several existing above ground tanks; including a diesel tank, a gasoline tank, and various propane tanks. All existing fuel tanks are planned to be utilized for the process. The diesel and gasoline fuel tanks will require a new key and fuel dispensing system to bring them into operation. Fuel will be delivered to the mine site via tanker trucks.

The diesel and gasoline tanks are insulated and heated to prevent fuel gelling. The tanks are currently contained in a lined containment berm to assure no fuel can leak into the environment.

The existing propane tanks are located near the ADR process plant in a fenced enclosure.

18.7 Power Supply, Communication Systems & IT

18.7.1 Power Supply

Power will be supplied by Idaho Power to the existing Beartrack Project substation via an existing 69 kV transmission line. The process requires a peak load of 3.3 MW and site power distribution will be at 4.16 kV using the existing distribution power line. Peak demand is estimated based on detailed electrical loads with estimated utilization and demand factors.

The existing electrical infrastructure at the Beartrack area is designed for a peak demand of 3.9 MW, and 4.16 kV power distribution by overhead lines, which is sufficient for the planned heap leach operation.

18.7.2 Site Distribution

Power will be distributed through the site using the existing overhead powerlines at 4.16 kV, 3 phase, 60 Hz, and stepped down to 480 V, 220 V and 110 V as required. Power will be supplied at 480 V or 220/110 V to motor control centers or distribution panels in their respective areas; power to the conveyor stacking system will be supplied at the distribution voltage. All overhead distribution power lines will be connected to the main switchgear, which will include synchronization, control panels, disconnects, circuit breakers, instrumentation, data logging, and a 1,200-amp bus.

18.7.3 Estimated Electric Power Consumption

The estimated electrical power demand for the life of the Project is presented in Table 18-2.

Table 18-2: Power Demand

Area Description	Years 1-5 (Maximum)		Years 6+	
	Attached Power (kW)	Average Demand (kW)	Attached Power (kW)	Average Demand (kW)
Area 110 – Site & Utilities General	75	56	75	56
Area 140 – Water Distribution & Treatment	52	34	52	34
Area 210 – Primary Crushing	301	185	301	185
Area 220 – Secondary Crushing	1,061	685	1,061	685
Area 350 – Conveyor Stacking	1,274	545	961	406
Area 400 – Heap Leach & Solution Handling	270	87	270	87
Area 610 – Recovery Plant	837	498	1,584	882
Area 610 – Electrowinning & Refining	240	100	240	100
Area 610 – Reagents	18	12	20	12
Area 610 – Laboratory	235	132	235	132
Totals	**4,365**	**2,335**	**4,798**	**2,581**

Note: Minor Difference in Totals Due to Rounding.

18.7.4 Emergency Power

In the event of a power failure or power interruption, a diesel-fired backup generator will be used to supply emergency power for project safety and security.

In order to maintain critical solution balances in the solution handling systems during power outages, a 1,500-kW generator is required for the ADR area for the critical pumps. This emergency generator will be located next to ADR plant. A fuel tank will be provided for the generator to maintain a 24-hr fuel supply. The fuel storage system will also include a concrete containment area sized for 110% of the capacity of the tank(s).

18.7.5 Communications

The existing system at the project site includes a mini-microwave suitable for phone and internet communication. A system upgrade is planned for the new operation.

18.8 Waste Rock

Waste rock from the three open pits is planned to be sent to four different destinations over the mine life. The Beartrack pit requires two NAG Waste Dumps (NAG 01 and Nag 02) and one PAG Waste Dump (PAG 01). The NAG 02 Waste Dump backfills the North Phase. The Arnett pit requires only one Waste Dump (ARWD) as there is no PAG material identified at Arnett. From Pre-Production to Year 2, approximately 2.4 million tons (2.2 million tonnes) of backfill from historical mining operations is mined and sent to NAG 01 Waste Dump. Additional details on the waste rock dumps are included in Section 16.

18.9 Water

18.9.1 Water Supply & Distribution

Raw water for process requirements and makeup water will primarily be taken from the water treatment facility discharge pond and pumped to an existing head tank for distribution to other areas. A portion of the head tank will be used to provide fire water storage.

Water from the head tank will be distributed to a water storage tank at the ADR plant and other project areas by transfer pumps. Water piping will be a combination of buried and insulated / heat traced pipes to prevent freezing.

Water demand during Phase 1 will average 74 gpm (17 m^3/h) with a peak demand of 140 gpm (32 m^3/h) for an average precipitation year. Water demand during Phase 2 will average 35 gpm (8 m^3/h) with a peak demand of 146 gpm (33 m^3/h). The peak water demand for a dry precipitation year will average 160 gpm (36 m^3/h).

18.9.2 Potable & Domestic Water

There is currently no existing potable water source at the Beartrack-Arnett site. Two (2) existing freshwater wells are planned to be refurbished to service the operation facilities.

18.9.3 Fire Water

The existing fire water tank will be refurbished to supply fire water to the automatic sprinklers, standpipe systems, and hydrants in the ADR plant and laboratory building, and to other areas of the operation. Installation of new recharge and water distribution lines are required.

18.9.4 Surface Water Management

Surface water management will be planned to minimize the overall amount of water collected, treated, and handled on site. The water management plan will account for emergency storm events, pond sizing, and water treatment processing rates. Diversion ditches will be incorporated to reduce contact from clean runoff water.

The existing storm water collection ponds and water treatment facility will be utilized at the Beartrack area. Pit water will be pumped to a storm water collection pond, and then processed through the water treatment facility. Water treatment will include acid neutralization and/or turbidity reduction depending on the water source. Optimization of the water treatment process may include separating water sources into different collection ponds to minimize individual treatment requirements. Treated water exiting the water treatment facility will be discharged into a retention pond, where it will either be pumped back to the process or discharged.

A storm water collection pond will be constructed at the Arnett area. This pond will contain pumped flows from the open pit and localized drainage. It is not anticipated that water collected in the Arnett area will require treatment before being discharged.

Solutions draining from the heap leach pads in the Beartrack area will drain through new or refurbished solution ditches to the existing process solution and overflow ponds.

Additional details on the proposed surface water management plan and water balance are provided in Section 20.2.

18.10 Sewage

Sewage for the planned operations will be treated in a sewage disposal system consisting of septic tank system with leach field.

Portable toilet facilities will be utilized at the Arnett project site (Haidee) with no permanent infrastructure facilities planned for this area.

19.0 MARKET STUDIES & CONTRACTS

No market studies were completed, and no contracts are in place in support of this Technical Report. Gold production can generally be sold to any of a number of financial institutions or refining houses and therefore no market studies are required.

It is assumed that the doré produced at Beartrack-Arnett will be of a specification comparable with other gold and silver producers and as such, acceptable to all refineries.

Gold produced by the Beartrack-Arnett Gold Project would be sold to Bullion Banks or other financial institutions and the settlement price would be based on the then-current spot prices for gold and silver on public markets. There would be no direct marketing of the metal. The base case financial model for the project utilizes a gold price of US$1,800/oz.

Currently, there are no contracts material to Revival that are required for property development, including mining, concentrating, smelting, refining, transportation, handling, sales and hedging and forward sales.

20.0 ENVIRONMENTAL STUDIES, PERMITTING & SOCIAL OR COMMUNITY IMPACT

This section presents the environmental studies and permitting required for the Project (20.1); key considerations for water management and water treatment (20.2) and environmental geochemistry (20.3); social and community impacts, relations, and consultation (20.4); closure and reclamation planning (20.5), and risks to mineral resources and mineral reserves (20.6). This information was developed based on the conceptual Project design presented in this PFS and current regulatory requirements. The conceptual approach to closure and reclamation and the associated estimated costs are based on the anticipated development for the Project. Information included herein will require review and reassessment if changes to the scope, area, or design of the Project occur as Project planning and design advance.

20.1 Environmental Studies & Permitting

The Project is located on NFS lands administered by USFS and private lands controlled by Revival (Section 4). As such, approval of the Project Plan of Operations (Plan) by USFS will be subject to review under NEPA. NEPA establishes the requirement for USFS to prepare an environmental impact analysis for certain proposed actions (in this case, the proposed action will be USFS approval of the Project Plan). Project development will also require permits from Federal, State of Idaho, and Lemhi County agencies.

To support Project planning for construction, operations, closure, and reclamation; permitting; and the environmental impact analysis required for the NEPA review, a comprehensive program of studies characterizing the existing natural resources, cultural resources, and socioeconomic resources in the Project area will be completed by Revival.

Historical mining activity, livestock grazing, USFS road development, timber harvest, recreation, and wildfires have affected natural resources in the Project area. The Project area in the vicinity of the Beartrack Mine is considered a brownfield development of a reclaimed mine. Thus, while the term “baseline” is used in this section, it is noted that for some resources, a more appropriate description is “pre-Project” characterization, because pre-disturbance baseline conditions can no longer be directly assessed in all areas.

Environmental studies required for Project permitting and NEPA review are described in Section 20.1.1. The NEPA process and required permitting are described in Section 20.1.2. These requirements are based on the Project description presented in this PFS and include the following major components:

- Four open pit areas

- Modular crushing plant and conveyor
- Heap leach facility
- Pregnant solution pond and overflow pond
- Adsorption-desorption-recovery (ADR) plant
- Waste rock storage facilities
- Mine roads and haul roads
- Truck shop and warehouse
- Explosives storage facilities
- Fuel storage and distribution facilities
- Chemical and reagent storage facilities
- Process laboratory
- Water treatment plant and effluent discharge line
- Stormwater diversion, distribution, storage and treatment systems
- Process water distribution, storage and treatment systems
- Potable water distribution, storage and treatment systems
- Electrical substation and overhead distribution lines
- Septic system for domestic wastewater

20.1.1 Environmental Baseline Studies

Environmental baseline studies in the Project area were previously completed by USFS for the Beartrack Gold Project (USFS, 1991) and more recently for Revival's exploration drilling programs (USFS, 2013; USFS 2022). Revival has contracted qualified third parties to perform reviews of available environmental baseline reports and monitoring data collected during the Beartrack Mine operations, closure, and reclamation to assess data adequacy and data needs to support Project permitting and preparation of the Project EIS during the NEPA review. The baseline studies that will be required to support Project permitting and EIS preparation will include study of:

- Air Quality and Meteorology
- Aquatic Resources and Aquatic Habitat
- Cultural Resources
- Geochemistry
- Geological Resources
- Geotechnical Hazards
- Ground Water Hydrology

- Hazardous Materials
- Noise
- Scenic Resources
- Soil Resources and Reclamation Cover Materials
- Surface Water Hydrology
- Timber Resources
- Vegetation, Botanical Resources and Non-Native Plants
- Wetlands and Riparian Resources
- Wildlife Resources and Wildlife Habitat
- Access and Transportation
- Climate Change
- Environmental Justice
- Land Use and Land Management
- Public Health and Safety
- Recreation
- Social and Economic Conditions
- Special Designations
- Tribal Rights and Interests

Beginning in 2021, Revival worked with USFS and State of Idaho agencies to develop and implement Project baseline environmental studies that included the following:

- Air quality and meteorology
- Aquatic resources and aquatic habitat
- Geochemistry
- Ground water hydrology
- Surface water hydrology
- Wetlands and riparian resources

These studies will continue until adequate data to support the Project is obtained. Additional baseline study plans will be developed and implemented in 2023 and 2024 and will continue until adequate data are obtained to support Project permitting and the NEPA review.

20.1.2 Permitting

20.1.2.1 *Federal Permitting Framework*

The Project is located primarily on Federal lands managed by USFS; consequently, Federal law governs operations and environmental compliance, with State of Idaho and local governments having concurrent authority over certain aspects of the Project, such as permitting and water rights. The major Federal laws applicable to the Project permitting are the General Mining Law of 1872, as amended (30 USC §§ 22 et seq.) and the Organic Administration Act of 1897, as amended (16 USC §§ 473-475, 477-482 and 551). The USFS implementing regulations for these laws, 36 Code of Federal Regulations (CFR) 228 Subpart A, require that locatable mineral prospecting, exploration, development, mining and processing operations, and associated means of access, be conducted in a manner that minimizes adverse environmental effects on NFS surface resources. USFS conducts analysis of environmental effects in accordance with NEPA. The NEPA review process involves consideration of all relevant environmental statutes, including but not limited to the Federal Clean Air Act of 1970, as amended (42 USC §§ 7401 et seq.), the Clean Water Act of 1972, as amended (33 USC §§ 1251-1388), the Endangered Species Act of 1973, as amended (16 USC §§ 1531-1544), the Wilderness Act of 1964, as amended (16 USC §§1131 – 1136), the Wild and Scenic Rivers Act of 1968, as amended (16 USC §§ 1271-1287), and the National Historic Preservation Act of 1966, as amended (54 USC 300101 et seq.).

20.1.2.2 *USFS Permitting: Project Plan of Operations & NEPA Review*

The Project Plan submitted to USFS will describe the proposed methods of construction, operation, closure and reclamation. Key components of the Project Plan will be the descriptions of mining and processing, water and waste rock management plans, and the closure and reclamation plan. The Project Plan will also describe the best management practices and environmental design features for protection of air, surface and ground water, terrestrial and aquatic habitat, wetlands and riparian areas, and soils.

The NEPA process will require a thorough series of environmental baseline studies and an EIS that provides a complete property description, identification and analysis of all environmental impacts (both positive and negative) of the Project Plan, and the development of environmental design features to reduce or eliminate negative impacts for the proposed action.

The USFS regulations at 36 CFR Part 228 Subpart A require a mine be operated in accordance with an approved Plan. USFS will have the primary role in evaluating and approving the Project Plan. The evaluation process will follow the requirements set forth in NEPA, with USFS as the lead Federal agency for the NEPA review. The requirements defined in the Council on Environmental Quality (CEQ) NEPA implementing regulations (40 CFR Parts 1500–1508) will apply. The major phases of the NEPA review process are scoping (inviting review and comment on the Plan by the public and other interested parties to define the scope of issues to be addressed in the EIS), preparation of a draft EIS and public comment period, preparation of a final EIS, and issuance of a ROD.

After the Project Plan is submitted to USFS, the agency will review the Plan to identify preliminary issues; cooperating agencies (Federal and State of Idaho) that should be formally consulted and participate in EIS development; and interested and affected agencies, Tribes, persons or parties that should be invited to participate in the review process by providing comments for consideration during EIS development. Once the Plan is deemed complete, a Notice of Intent to prepare an EIS will be published in the Federal Register. Information collected by USFS during formal consultation and scoping will be used to identify and prioritize the resources and issues to be considered and to develop alternatives to be used in the EIS analyses.

Data from baseline studies and other available reports and studies relevant to the Project area will be used to develop a draft EIS. The draft EIS will include a summary of the comments received during scoping. USFS will publish the draft EIS on the USFS website and announce the next comment period according to the USFS NEPA communication plan. USFS will also directly communicate with other Federal, State of Idaho, Tribal, and local governments with jurisdiction or interest in the proposed action. USFS will file the draft EIS by submitting it to EPA, and EPA will publish the draft EIS and a Notice of Availability in the Federal Register, establishing the beginning of the comment period. Detailed procedures and requirements for the pre-decisional administrative review are included in 36 CFR Part 218. The comment period will be at least 45 days long, but agencies can grant requests to extend the comment period. After the comment period on the draft EIS, USFS will analyze and summarize comments. Modifications such as changes to proposed alternatives or additional analysis may be made to the draft EIS based on the comments received from the public and from other government agencies. USFS will work with the cooperating agencies to address any remaining issues or mitigation requirements. A no-action alternative, which would in this case mean USFS not approving the Project Plan or any proposed alternatives to the Plan, is required under NEPA to be included in the EIS analysis. USFS will then prepare and publish the final EIS, including responses to comments, and distribute the final EIS to EPA, other agencies, and the public according to the USFS NEPA communications plan. EPA will review and publish the final EIS and a Notice of Availability in the Federal Register.

The USFS decision will be made and recorded at the same time the final EIS is published. USFS will issue a ROD as the final step in the EIS process. The ROD by USFS to approve the Project Plan is the primary authorization allowing Revival to proceed with development of the Project. The ROD will describe the proposed action, the decision, the environmentally preferred alternative, the approved alternative, and mitigation and monitoring requirements. USFS will publish the ROD on the USFS website and notify the interested parties. The ROD will define any modifications that are required to be made to the Project Plan and approved by USFS prior to Revival beginning Project activities. The ROD will also define the requirements for supporting plans as components of the Project Plan. These supporting plans will describe the environmental design features, monitoring programs, and mitigation measures developed for the Project. Finally, the ROD will define the permits that must be obtained from Federal, State of Idaho, and Lemhi County agencies prior to Revival beginning Project activities. The Project Plan must be updated as necessary to incorporate the terms of the ROD prior to final approval.

Table 20-1 identifies anticipated USFS permitting and approval requirements and plans anticipated to be required in the ROD to support the Project Plan.

Table 20-1: USFS Anticipated Authorizations, Permits, & Plans

Requirement	Type
Record of Decision to Approve Project Plan of Operations	Authorization
Reclamation Bond (Surface)	Authorization
Reclamation Bond (Long Term Water Treatment)	Authorization
Road Use Permit	Permit
Special Use Permits, Rights-of-Way, and Easements for upgrades or extension of power transmission lines, pipelines or roads	Permit
Timber Sale Permits and Contracts	Permit
USFS Plan of Operations - Supporting Plan Requirements	Plan
Snow Removal Plan	Plan
Explosives Management Plan	Plan
Hazardous Materials Management Plan	Plan
Waste Management Plan	Plan
Spill Prevention Countermeasure and Control Plan	Plan
Emergency Response Plan	Plan
Fire Prevention and Response Plan	Plan
Wildlife Management Plan	Plan
Greenhouse Gas Inventory Management Plan	Plan
Public Access Control Plan	Plan
Waste Rock Management Plan	Plan
Geochemical Characterization and Monitoring Plan	Plan
Spill Prevention and Response Plan	Plan
Road Use and Maintenance Plan (including Traffic Management Plan)	Plan
Fugitive Dust Control Plan	Plan
Terrestrial and Aquatic Habitat Management Plan	Plan
Water Quality Monitoring Plan (surface water, groundwater, and stormwater)	Plan
Closure and Reclamation Plan (including surface reclamation and long-term water treatment)	Plan
Revegetation Plan	Plan
Weed Control Plan	Plan

20.1.2.3 *Federal, State of Idaho, & Local Permitting*

During the NEPA review, it is anticipated the USFS interdisciplinary team will initiate the Idaho Joint Review Process (JRP), which will continue throughout the evaluation of the Project Plan; review of supporting technical reports; and development of the EIS. The JRP will involve consultation with the cooperating State of Idaho, Federal and local agencies. In addition to routine interagency cooperation and joint reviews of baseline information and technical reports, formal JRP meetings will be held to discuss the review of pertinent Project-related information necessary to complete a science-based impact evaluation for the Project's EIS.

Table 20-2 identifies anticipated permitting and approval requirements from other Federal, State of Idaho, and local agencies.

Table 20-2: Anticipated Federal, State & County Permitting & Authorizations

Regulatory Agency	Authorizations & Permits
United States Army Corps of Engineers (USACE)	CWA Section 404 Permit (Nationwide or Individual)
Idaho Department of Lands (IDL)	Approval of Closure and Reclamation Plan
Idaho Department of Environmental Quality (IDEQ)	Idaho Pollutant Discharge Elimination System (IPDES) Individual Industrial Discharge Permit
IDEQ	IPDES Construction General Permit for Discharge Activities (CGP)
	IPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP)
	Ground Water Point of Compliance Determination
	Ore Processing by Cyanidation Permit
	Air Quality Permit to Construct
	CWA Section 401 Certification (companion permit for CWA Section 404 Permit)
	Approval of Drinking Water Treatment and Distribution System
Idaho Department of Water Resources (IDWR)	Water Rights - mining use and storage
IDWR	Water Rights - commercial use and storage
	Dam Safety Permit
	Drilling Permit for the Construction of a Well
	Stream Channel Alteration Permit (companion permit for CWA Section 404 Permit)
Lemhi County	Building Permits
	Special Use Permits
Eastern Idaho Public Health	Septic System Permit

20.1.2.4 *Existing Authorizations & Permits*

Several key authorizations and permits associated with the Beartrack Mine will be acquired and maintained by Revival for the Project. These include the IPDES Individual Industrial Discharge

Permit (Permit Number ID-002702-2) for treated contact water, the IPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (MSGP; Permit Number IDR-050000), and active IDWR authorizations for water withdrawal and storage to support mining and commercial activities. These authorizations and permits remain in good standing with their respective administrating agencies (IDEQ and IDWR).

With these permits in place, Revival can continue the existing water management program as well as the existing water treatment system and supporting infrastructure in the Beartrack area in a manner that accommodates the Project mine plan.

Permit Number ID-002702-2 is currently Administratively Continued. Discussions with IDEQ confirmed that the permit is in the queue to be assigned and prepared, meaning that the permit renewal timeline is pending. As part of the permit renewal process, IDEQ will review the basis of the discharge requirements and effluent limits, including updates to State water quality criteria and current water quality in the receiving stream. Data from the surface water and contact water monitoring programs initiated by Revival in 2021 will support and expedite the permit renewal process. It is assumed for the PFS that water treatment system upgrades will be installed and begin operating at the beginning of the Project, as discussed in Section 20.2.2. Should effluent limits be decreased for any constituents to the extent that the proposed water management program requires modification, appropriate treatment system upgrades should be selected after an alternatives evaluation.

As contact water storage and treatment requirements and makeup water demands vary through the Project life cycle, it is anticipated the proposed water management program can be optimized to ensure adequate supply for operations while minimizing active treatment requirements. A preliminary water management plan and preliminary site-wide water balance (SWWB) are presented in Section 20.2.2.

20.2 Water Management & Water Treatment

Water management at the Beartrack Mine is conducted in accordance with Federal and State of Idaho regulations administered by USFS and IDEQ. Contact water and stormwater are collected, monitored, treated, and discharged in compliance with the IPDES Individual Industrial Discharge Permit (Permit Number ID-002702-2) and the IPDES MSGP (Permit Number IDR-050000). Contact water includes water from the open pit disturbance areas and waste rock storage facility. A comprehensive Stormwater Pollution Prevention Plan (SWPPP) is maintained in accordance with the IPDES MSGP.

In addition to conducting water quality monitoring and reporting for the two IPDES permits, the Beartrack Mine also maintains and implements a Water Quality Monitoring Plan that incorporates monitoring and reporting requirements of the Meridian Beartrack Mine Final EIS, Final Plan of Operations, USFS ROD, IDEQ Ore Processing by Cyanidation Permit #CN-000021, and requirements under the State of Idaho's antidegradation policy for surface mining operations (codified under Idaho Administrative Procedures Act [IDAPA] 20.03.02 – Rules Governing Mined Land Reclamation).

The current water management program and conceptual Project plan for water management are described in the following subsections.

20.2.1 Existing Water Management

The existing water management program at the Beartrack Mine consists of the following physico-chemical processes:

- Contact water (not eligible for discharge as stormwater) is routed to the South Pit, which serves as a temporary storage impoundment for water that will be treated prior to discharge. Caustic soda is added to the South Pit to increase the pH and promote solids settling.
- Draindown from the reclaimed heap leach facility is routed to the process ponds where caustic soda and reagents are added for pH adjustment and metal precipitation and settling.
- Following chemical treatment, the contact water quality in the South Pit and the process ponds is analyzed to determine whether a second treatment step is required prior to discharge. If further treatment is required to meet discharge criteria, the water is treated in the onsite microfiltration plant.
- Stormwater is either collected and treated in the onsite microfiltration plant to decrease suspended solids concentrations or discharged to stormwater outfalls in accordance with the IPDES MSGP.
- Discharge to the IPDES outfall consists of a controlled blend of treated contact water and stormwater.
- Stormwater diversion channels and best management practices are used to segregate stormwater flows, prevent degradation of stormwater quality, and minimize the volume of water requiring treatment.

20.2.2 Conceptual Project Plan for Water Management

The ongoing operation and maintenance of the Beartrack Mine site, including water treatment and permit compliance activities, will be assumed by Revival as part of the agreement between the parties for Revival to acquire the property. Revival considers these ongoing long-term obligations to be corporate responsibilities and independent of the specific mine development proposal.

In the Beartrack area, the Project will need to accommodate existing water collection, treatment, and discharge requirements concurrently with site development, including expansion of the heap leach facility and recommissioning of the process ponds currently being used for water treatment. Continued use of the existing water management infrastructure is assumed during the transition from existing site water management requirements to Project construction, operations, closure and post-closure. Additional water collection from the expanded pits and Ward's Gulch WRSFs will be incorporated into the water management program.

It is assumed for the PFS that water treatment system upgrades will be installed and begin operating at the beginning of the Project. The upgrades will include a mix tank to optimize chemical and reagent performance, a lamella clarifier and filter press, and associated motors, mixers, pump skids, instrumentation and programmable logic controls, and chemical and reagent feed systems. The upgrades will be sized for contact water sources requiring the most extensive treatment (e.g., seepage from the PAG WRSF and heap leach facility draindown), which are estimated to total approximately 25 to 30 million gallons (Mgal) combined, with proportions from different contact water sources varying through the operations and closure phases. Estimated costs presented in the PFS for water treatment include the capital and operating costs associated with these upgrades.

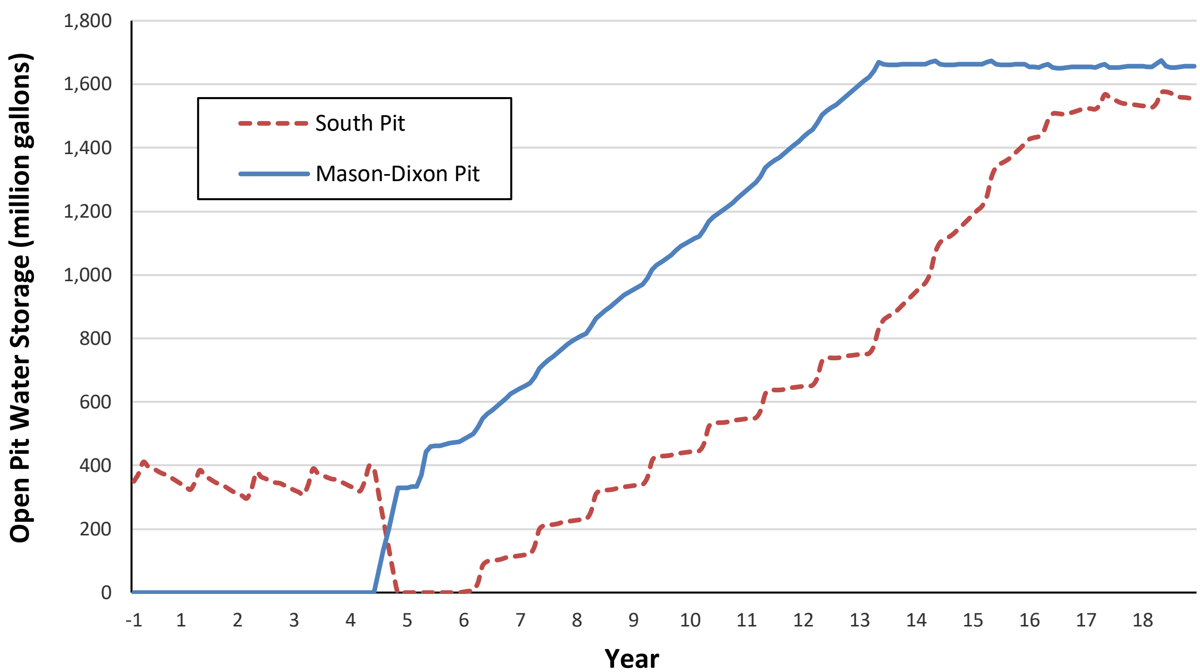
The SWWB assumes a closure scenario consisting of development of permanent lakes in the South Pit and Mason-Dixon Pit at the end of mining operations. It is assumed that the North Pit will be backfilled, regraded, covered, and revegetated at closure.

In the Haidee area, site development will also require water management during the construction, operations, closure and post-closure periods. Water management for the Haidee area will be independent of the water management system in the Beartrack area and will need to address stormwater management and contact water associated with the WRSF and open pit. The SWWB assumes a closure scenario consisting of development of a permanent lake in the Haidee Pit.

The SWWB accounts for the major inputs to and withdrawals from the Project area water management system during construction, mining, heap leach operations through the end of ore production from the Beartrack and Haidee pits, continued leaching post-ore production, closure, and post-closure through the pit filling phase. The SWWB indicates a positive water balance through operations, with water demand being supplied by reuse of treated stormwater, contact water, and pit dewatering volumes.

In the Beartrack area, runoff from areas outside the pit boundaries generally reports to either Ray's Lake Stormwater Pond or the Sediment Dam and is then transferred to the South Pit. Flows from the Ward's Gulch PAG WRSF French drain will report directly to the upgraded water treatment plant. From Year -1 through the middle of Year 4, collected runoff not reporting to the upgraded water treatment plant will be diverted to the South Pit. The South Pit inventory will need to be transferred into the Mason-Dixon Pit starting in Year 4, after mining is completed in the Mason-Dixon Pit. After mining in the South Pit is complete, the Ray's Lake Stormwater Pond and Sediment Dam flows (except for PAG WRSF French drain flow) will be rerouted to the South Pit. South Pit and Mason-Dixon Pit lake volumes from Year -1 through Year 18 are shown on Figure 20-1.

Figure 20-1: South Pit & Mason-Dixon Pit Lake Volumes with Time



The existing IDWR Water Right 75-7062 is included in the SWWB, with water being used during closure from Year 6 to Year 13 for rapid filling of the Mason-Dixon Pit and from Year 13 to Year 15 for rapid filling of the South Pit. This water right authorizes diversion of Napias Creek water for mining use at a total volume of 408.9 acre-feet (ac-ft) (114.5 Mgal) per year. During rapid filling, it is assumed that this entire volume is diverted.

In the Beartrack area, it is assumed that water treatment and discharge will be required during all Project phases. For the SWWB, it is assumed that water collected in the French drains at the PAG WRSF reports to the upgraded water treatment plant during all Project phases. From Year -1 through Year 4, water treatment and discharge from IPDES Permit Number ID-002702-2 Outfall

001 on Napias Creek are assumed to occur at the maximum effluent flow rates defined in the current permit. These flow rates are approximately 208 gpm during the low flow period (July through April) and 729 gpm during the high flow period (May and June), with an annual discharge volume of 155 Mgal. The existing microfiltration plant and the upgraded water treatment plant are assumed to be operating during this period. Beginning in Year 5, collected water not required for makeup water or ancillary use is assumed to be diverted to the South Pit and Mason-Dixon Pits for rapid filling, with the exception of the PAG WRSF French drain flows. From Year 5 to Year 16, it is assumed that active water treatment and discharge under the IPDES permit will be limited to this volume, which will be treated in the upgraded water treatment plant. During this period, continued filling of the pit lakes will occur and operation of the microfiltration plant will be on an intermittent basis until closure pit lake water levels are achieved.

In Year 13, the target inventory is reached in the Mason-Dixon Pit. This inventory is maintained by diverting excess flows to the South Pit. By Year 16, the Mason-Dixon and South Pit lakes are estimated to contain 3,169 Mgal of stored water, representing the target inventory of approximately 85 percent of the spill elevation capacity for the two pit lakes. Beginning in Year 16, after South Pit has reached target inventory, excess inflows to the South Pit will report to the water treatment plant, and discharge under the IPDES permit will occur as needed to maintain target pit inventories.

Once pit filling is achieved, an estimated volume of 167 Mgal of water will require active treatment prior to IPDES discharge from the site, assuming average climatic conditions. Post-closure, these volumes will vary based on the water quality of the contact water and process water sources (e.g., seepage from the PAG WRSF and heap leach facility draindown) and will decrease as reclamation success criteria are achieved. Until the water volumes decrease, it is assumed that South Pit will be used to store collected volumes above the permitted IPDES annual discharge volume.

Final design and closure planning will need to carefully consider the hydrogeology of the pits, the pit lake water balance, and long-term pit lake water quality.

The water management at the Haidee site will require active management for contact water and accumulated stormwater runoff and seepage from the WRSF during mining. Disposal options may include spray evaporation, land application, an infiltration gallery, or beneficial uses such as dust suppression. At closure, a pump back system may be used to transfer stormwater and other managed water into the pit lake. This system will be needed until suitable post-closure water quality is achieved such that stormwater discharge from the reclaimed site is possible.

The closure evaluation of the Haidee Pit indicates formation of a pit lake during the post-closure period. This assumption is based on limited hydrogeologic data and more detailed review must be undertaken to validate current assumptions related to the pit lake levels and geochemistry.

The SWWB does not forecast the process water balance for the heap leach pad and related process and storage ponds. Makeup water requirements forecasted for the heap leaching process have been incorporated as outflows in the SWWB. Operation of the heap leach pad after ore stacking is discontinued assumes a closed system will be maintained and that discharge of treated process water will occur as needed during capping and final draindown of the ore heaps. The SWWB assumes average climatic conditions and does not forecast extreme events.

In general, based on the current understanding of site water management requirements, it is anticipated the proposed water management program can be optimized to ensure adequate supply for operations while minimizing active water treatment requirements, even as the contact water storage and treatment requirements and makeup water demands vary through the Project life cycle.

As reclamation advances, the volume of water requiring active treatment will decrease as direct discharge of stormwater from reclaimed areas becomes possible and reclamation covers limit contact water volumes.

20.3 Environmental Geochemistry

The following subsections summarize the existing information related to management of mined materials from Beartrack and Haidee for environmental protection during operations and closure. Detailed analysis of the geochemistry of waste rock and ore generated during operation of the Beartrack Mine and the additional test work on samples from the Beartrack and Haidee drilling programs completed by Revival to support Project development are presented in KC Harvey (2023).

20.3.1 Beartrack

Gold (Au) mineralization at Beartrack lies along the Panther Creek Shear Zone (PCSZ), which is currently thought to be part of the regionally extensive Coiner Fault System. Mineralization at Beartrack is sub-vertical and consists of disseminated and stockwork quartz-pyrite-arsenopyrite veinlets and mineralized siliceous breccias hosted primarily by the metasedimentary rocks of the Yellowjacket quartzite and rapakivi granite. Geochemically, Beartrack is an Au-arsenic (Au-As) (+/- mercury [Hg]) system with a separate silver- (Ag-) base metal event. Oxidation is believed to be related to Tertiary weathering.

Geochemical data including static and kinetic testing results reported in documents spanning the life of the original Beartrack Mine project, including the project baseline report (Meridian Gold Company, 1990) and several technical memoranda and reports related to mine waste and ore characterization and mine closure (Schafer & Associates, Inc. 1996, 1998a, 1998b, 1998c), were reviewed. Historical data documented the presence of waste rock and ore with the potential to produce ARD associated with sulfide oxidation and the low NP of host lithologies.

Previous mining at Beartrack generated PAG materials as mining proceeded into the oxide/sulfide transition zones and into more sulfide-rich refractory materials. During the later stages of operations, operational quality control used NAG pH testing of blasthole samples to identify and manage PAG waste based on a site-specific correlation developed between NNP and NAG pH. This testing identified PAG material that was placed in a "repository" area in the North Pit during closure. Management of this material for closure included addition of lime amendments to PAG, the use of clay liners to minimize contact of meteoric water, and a contact water collection system. Drainage from this repository is characterized by low pH and elevated metals concentrations and is currently managed as contact water under the existing water management program described in Section 20.2.1.

Given the current understanding of the historical data related to PAG materials at Beartrack, a preliminary estimate of the quantity of PAG waste rock from the Beartrack area of the Project was developed. A conservative AuCN/AuFA of 0.75 was utilized in conjunction with the resource block model to define the approximate oxide/sulfide transition zone elevation for each of the three proposed pits. Modeling with this criterion estimated that approximately 54% of waste rock would be PAG, with most of the PAG material coming from the Mason-Dixon and South Pits. The majority of PAG material would be encountered during later mining stages as mining progresses into and through the transition zone and sulfide zones.

No recent core samples from the Beartrack area have been submitted for metal leaching (SPLP) analyses. Further geochemical testing of representative core samples, including static and kinetic testing focused on transition and sulfide waste rock, and the integration of these results into the block model for each deposit, will be performed to refine the volume and location of PAG waste rock and PAG exposed in final pit walls and to guide development of PAG waste management and final closure planning. Additionally, PAG waste rock currently stored in the North Pit will be managed operationally and at closure to minimize contact with meteoric water and ground water.

The Project Plan will include management of the material that will be excavated from the North Pit and new waste rock generated during mining. The NEPA review will address the potential impacts related to the geochemistry of the mined materials, and waste rock geochemical characterization, monitoring, and management requirements will likely be included in the preferred alternative developed for the EIS and approved in the ROD.

20.3.2 Haidee

Mineralization at Haidee consists of widely spaced, moderately dipping, sheeted quartz-Fe oxide (after pyrite) veins and veinlets striking to the northwest and dipping moderately to the southwest. The primary host rock is a granite, informally called the Crowded Porphyry. Alteration consists of early secondary biotite-magnetite alteration, followed by the hypogene oxidation of magmatic and hydrothermal magnetite to specularite and most closely related to mineralization, sericitic alteration of primary and secondary biotite. Geochemically, Arnett exhibits very low sulfide and trace element values. Bismuth (Bi) and tellurium (Te) have the strongest correlations with Au while iron (Fe), copper (Cu), Hg and molybdenum (Mo) have weaker correlations with Au.

To ascertain the potential for waste rock mined from the proposed Haidee pit to produce acid rock drainage (ARD) or metal leaching (ML), 72 core samples were selected to represent the spatial, lithologic and mineralization variability (WSP, 2022). Samples were classified as "waste" or "transition (waste)" based on gold assay values. Samples with redox descriptions noted in logs as "unoxidized with visible sulfides" and "mixed oxides and sulfides" were specifically selected for analyses. Primary lithologies identified in drill core include:

- Crowded Porphyry Granite 69%
- Fault Breccia 18%
- Foliated Rapakivi Granite 3.5%
- Gouge 2.0%

The 72 core samples were analyzed for total elemental analysis and acid-base accounting (ABA), including sulphur (S) fractionation, acid neutralization potential (NP) (modified Sobek method) and paste pH. Sulfide-S was calculated as the difference between total S and sulphate-S.

Results of the analyses are summarized below:

- Total S was low in all samples and ranged between <0.01% and 0.12% with 51.4% of samples < 0.01%. Crowded Porphyry comprised 74.3% of samples with measurable total S. Sulfide-S was used to calculate acid generation potential (AP). AP values were correspondingly low, ranging between 0.3 $tCaCO_3$/kt and 3.4 $tCaCO_3$/kt, with mean and median values of 0.5 $tCaCO_3$/kt and 0.3 $tCaCO_3$/kt, respectively.
- NP values were low and ranged between 1.0 tCaCO3/kt and 11.0 tCaCO3/kt, with mean and median values of 2.2 and 2.0 tCaCO3/kt, respectively.
- The majority (98.6 %) of NNP values (calculated as NP – AP) were positive, except for a single Crowded Porphyry sample (NNP = -0.4 tCaCO3/kt). Values ranged between -0.4 tCaCO3/kt and 10.1 tCaCO3/kt, with mean and median values of 1.8 tCaCO3/kt and 1.7 tCaCO3/kt, respectively.

- The neutralization potential ratio (NP/AP) was used to classify ARD potential in accordance with MEND (2009) criteria:
    - Sample is potentially acidic drainage generating (PAG) if NP/AP < 1
    - Sample is not potentially acidic drainage generating (non-PAG) if NP/AP > 2
    - Sample classification is Uncertain if 1 ≤ NP/AP ≤ 2
- Overall, 94.4% of samples were non-PAG. A single sample was classified as PAG and three (4.2%) samples as Uncertain. The PAG and Uncertain samples were Crowded Porphyry samples and represented 2.0% and 6.1%, respectively, of samples from that lithology.
- Total elemental analysis indicated that most samples showed little enrichment (defined as ten times the crustal average) in most constituents of potential environmental concern. As a percentage of total samples, only antimony (Sb) (6.9%), As (2.8%), Mo (2.8%), selenium (Se) (1.4%) and Ag (1.4%) were enriched relative to this criterion.

Based upon the results of the analyses above, 30 representative sample splits, including all samples classified as PAG or Uncertain based on NP/AP values, were selected for NAG pH and metal mobility (Synthetic Precipitation Leaching Procedure [SPLP]) analyses. Thirteen samples, 12 of which were splits from the NAG pH and SPLP samples, were selected for Rietveld X-ray (XRD) diffraction analysis. Results are summarized as follows:

- Samples with NAG pH values > 4.5 are considered non-PAG. All but one sample (96.7 %) had NAG pH values > 4.5, including samples classified Uncertain based on ABA test results. A single sample of Crowded Porphyry with mixed oxide and sulfide mineralization (waste) had a NAG pH value of 4.37. NAG pH values ranged between 4.37 and 7.07, with mean and median values of 5.9 and 5.8, respectively.
- SPLP concentrations of metals of potential environmental concern were below detection limits in almost all samples. Sb, As, cadmium (Cd), chromium (Cr), Cu, lead (Pb), nickel (Ni), Se, and thallium (Tl) were below their respective detection limits in all samples. Hg, Mo, uranium (U) and zinc (Zn) were each above detection limits in single samples. SPLP extract pH values ranged between 6.28 and 8.51 with mean and median values of 7.03 and 6.58, respectively.
- XRD analysis confirmed the presence of Fe oxides and low sulfide content in waste rock of all lithologies. Eleven of 13 samples had hematite present between 0.9% and 2.0%. The two samples which did not contain hematite contained magnetite between 1.2 % and 1.7 %. A single sample of Crowded Porphyry with visible sulfides had pyrite present at 0.2%.

In summary, environmental geochemistry analytical results to date indicate the Haidee deposit is characterized by low sulfide content with little enrichment of metals of environmental concern. ABA, NAG pH and SPLP testing indicate the potential for ARD formation and ML from waste rock from the predominantly quartzo-feldspatic Haidee deposit is low. A single sample of Crowded Porphyry with mixed oxide and sulfide mineralization (waste) (representing 1.4% of all samples and 2.0% of Crowded Porphyry samples) met the criteria of NP/AP < 1 and NAG pH < 4.5 for PAG classification. Based on these results, 98.6% of all waste rock samples from Haidee were classified as non-PAG.

20.4 Social & Community Impacts, Relations & Consultation

20.4.1 Cultural, Social, & Economic Resources

The Project is located on the Salmon-Challis National Forest, approximately 51 km (32 mi) by road northwest of Salmon, Idaho. The economy of this rural region of central Idaho has been shaped primarily by natural resource-based industries, including mining and forestry, and more recently by recreation tourism.

The Project area has a long history of mineral exploration and development, dating back to the mid 1800s. More recently, the Beartrack Mine utilized open pit mining and cyanide heap leach extraction to recover gold, with production beginning in 1995 and continuing until 2006. Currently the Beartrack Mine is in the post-closure phase which involves finalizing reclamation and water management. Within the vicinity of the Beartrack Mine, mining for gold, copper, and cobalt historically occurred at the Blackbird Mine, and other mineral exploration and development projects, e.g., for cobalt, have been fully permitted by Federal, State, and Local agencies. Currently, the Project area is managed by USFS, with areas outside the Beartrack Mine boundary primarily used for recreational activities, including big-game hunting and angling. USFS also manages timber resources and grazing allotments in the Project area.

The NEPA review will consider Project impacts on cultural, social, and economic resources in the nearby communities as well as the broader region. It is anticipated that most Project employees would reside in the local communities of Salmon and Challis, Idaho. Construction workers with specialized skills may be hired from outside the local labor market to support construction and commissioning. The Project would have a positive impact on the local communities by providing direct employment in the mining industry and secondary employment in the local community, income generated from wages and by secondary job employers, and taxes paid to local and State of Idaho jurisdictions. Negative impacts related to the Project may be experienced due to the increased demand for community services and housing related to the number of Project employees moving to the area. However, because only a relatively low number of construction and mine workers with specialized skills are expected to be hired from outside the local labor area, these negative impacts are not expected to be significant.

20.4.2 Community Engagement, Relations & Employment

Revival strives to engage the local communities of Lemhi and Custer Counties. Community engagement activities by Revival include:

- Hosting annual open house meetings where the public can meet the Project management team, learn more about the Project, express their views, reflect any concerns and have their questions answered.
- Hiring local contractors, engaging local service providers, and procuring goods locally wherever possible.
- Maintaining active membership in the Greater Salmon Valley Chamber of Commerce.
- Contributing financial donations to support community recreational interests, food banks, and other neighborly initiatives.
- Hosting periodic Project site visits for State of Idaho and local government representatives and other interested parties.
- Maintaining active and constructive engagement with non-profit organizations.

Revival currently employs or contracts approximately 8 people on a full time and seasonal basis to carry out permitting, exploration and project development activities. Many of these people are residents of Lemhi and Custer Counties. Where possible, Revival's priority is to hire locally and to engage local businesses.

20.4.3 Community & Tribal Consultation

Environmental review of the Project Plan under NEPA will include public scoping to obtain input from the local community and Tribal members and to develop alternatives to the proposed action. Furthermore, Federal actions for environmental justice defined in Executive Orders 12898, 13985, and 14008 will be incorporated in the NEPA review. No environmental justice issues are anticipated to be identified for the Project.

The NEPA review will also include Government-to-Government consultation between USFS and the Nez Perce and Shoshone-Bannock Tribes. During this consultation, a determination will be made if traditional cultural properties, cultural landscapes, sacred sites, or tribal resource collection areas exist in the areas that would be impacted by the Project. Tribal consultation on other projects in the region has identified instream water quality and fisheries as priority issues. These issues will be thoroughly addressed, and impacts avoided, due to the existing comprehensive regulatory framework protecting water quality and aquatic resources and the associated permit compliance requirements that will apply to the Project.

Tribal consultation will be aided using the cultural report completed in 2021 and paid for by Revival for the BTAC Exploration Project (USFS, 2022). A Class III field survey covered nearly 5,000 acres, revisited cultural sites identified in 77 previous reports, and identified 13 new sites with only two considered eligible. The majority of sites were historic and related to mining activities that occurred in the late 1800s. The majority of the Project is located within the footprint of this 2021 survey report. An additional survey would be required for the haul road route between Arnett and Beartrack. The paucity of prehistoric sites (Native American artifacts) indicates the area was not used extensively by the Tribes. Therefore, it is unlikely to have special meaning for the Tribes; however, this would be determined during consultation with the Tribes during the NEPA process.

20.5 Closure & Reclamation Planning

The Project closure and reclamation plan will address all disturbances and infrastructure associated with the Project. The primary goals of the closure and reclamation plan will include the following:

- Reclaim disturbed and affected land to its original or another beneficial use.
- Re-shape disturbed areas and re-establish diverse and self-sustaining plant communities.
- Minimize erosion.
- Remove hazards.
- Isolate, remove or control toxic materials.
- Control water runoff and maintain water quality.
- Rehabilitate aquatic and terrestrial habitats.

This closure and reclamation plan is preliminary, and the level of detail is consistent with a PFS level of design. The final Project Plan will include the closure and reclamation plan as a key component. The closure and reclamation standards and requirements, conceptual approach based on the current plan for Project development, cost estimate and financial assurance requirements are discussed in the following subsections.

20.5.1 Closure & Reclamation Standards & Approach

Prior to commencing mining operations, the closure and reclamation plan must be approved by USFS and IDL. The closure and reclamation standards and requirements set forth in 36 CFR 228 Subpart A, the Idaho Rules Governing Mined Land Reclamation (IDAPA 20.03.02), and the Idaho

Rules for Ore Processing by Cyanidation (IDAPA 58.01.13), as well as best management practices developed by IDL for protection of water quality will be incorporated into the closure and reclamation plan.

During the closure and reclamation phases, site activities including water management and treatment will continue to be conducted to maintain compliance with Project permits. Monitoring and maintenance during these phases will address water quality monitoring, site stabilization, revegetation, weed control, and public access controls for health and safety.

Key assumptions used to develop the conceptual approach for closure and reclamation included the following:

- Given the conceptual plan of development, the North and Mason Dixon Pit areas would initially be mined, followed by the South Pit, and the Arnett area mining and development would occur during the final phase of mining. This sequence will accommodate concurrent reclamation practices and development of pit lakes for operational and post-closure water management.
- The management of the material excavated from the North Pit and new waste rock generated during mining, including segregation of PAG and Non-PAG materials, will be conducted in accordance with the approved Project Plan.
- Waste rock disposal areas would be regraded to a maximum 3 Horizontal to 1 Vertical (3H:1V) slope, covered with 12 inches of growth media and revegetated. Low-permeability covers would be used on areas containing PAG material to minimize contact with meteoric water.
- Concurrent reclamation activities, including regrading and revegetating disturbed areas no longer required for operations, would occur to the extent practicable prior to closure.
- The North Pit would be backfilled, regraded to promote natural surface drainage, covered with growth media, and revegetated.
- The Mason-Dixon and South Pits would be closed as pit lakes and used for water management during the closure and post-closure periods.
- The Arnett Pit would be closed as a pit lake.
- The leach pad would be rinsed and regraded to a maximum slope of 3H:1V.
- The regraded leach pad would be capped using a geomembrane liner with a two-foot-thick soil cover and revegetated.
- Water management in the Beartrack area would include collection and treatment of leach pad drain-down and any other contact water in accordance with the IPDES discharge permits for the facility.

- Water management in the Arnett area would include passive treatment technologies and land application in accordance with the IPDES discharge permits for the facility.
- Long-term monitoring and maintenance for the Project would involve monitoring for water quality as required for the IPDES discharge permits, monitoring for successful establishment of vegetation and appropriate stormwater management, and control of invasive plant species.

During closure and post-closure, water discharge under the IPDES Program will consider future in-stream water quality criteria that would define closure water treatment requirements. This may require modifications to the currently proposed water management process.

20.5.2 Cost Estimate & Financial Assurance for Closure & Reclamation

Key assumptions used to develop the closure cost estimate include the following:

- Costs assume the work will be completed by mining company personnel and equipment rather than by an independent contractor.
- Costs include the applicable staffing and operations and maintenance costs during closure, mobilization costs, engineering and design, and contingencies.
- The estimated cost includes a budget for post-closure activities, and a credit has been applied for the remaining closure obligations for the Beartrack Mine.

Experience on comparable projects in the region and estimated closure and reclamation costs for the Beartrack Mine informed the cost estimate. Details of the closure costs are incorporated in the financial model discussed in Section 22.

Prior to commencing mining operations, financial assurance (FA) for closure and reclamation costs must be provided to USFS (36 CFR 228.13).

The FA is generally developed to account for both the short-term and long-term closure and reclamation phases of the Project. The short-term phase typically addresses the activities immediately following mine closure, including removal of infrastructure no longer required for post closure management of the site and initial reclamation of disturbed areas.

The long-term phase includes long-term activities such as monitoring, maintenance, and water treatment and is typically developed using a Net Present Value (NPV) determination. The NPV determination allows the amount of a FA to be discounted for long-term obligations generally exceeding a five-year period.

20.6 Discussion of Risk to Project Permitting & Development

For a mineral resource to have "reasonable expectations for economic recovery," the legal and regulatory permission to mine must be present or there must be reasonable expectation that such permission is possible. There is a legal framework in place at both the State and Federal levels and precedent for permitting the Project.

As discussed in Section 20.1.2, NEPA requires the EIS for the Project to consider a no-action alternative. The definition of the no-action alternative for newly proposed actions means USFS will not implement the proposed action or alternative actions considered for the EIS. The potential for implementation of the no action alternative is possible, but not likely. During NEPA, USFS will evaluate the environmental consequences of the Plan and alternatives will be developed for consideration in order to mitigate or reduce impacts.

Considering the current regulatory framework, the Project plans that maximize the use of existing infrastructure to limit new disturbance and include environmental design features to promote environmental protection, the ongoing collaboration between Revival and the regulatory and administrative agencies at Federal, State, and local levels, and the continued stakeholder engagement actions by Revival in the local communities as well as at the regional level, it is reasonable to expect that all required permits and authorizations can be obtained for the Project.

20.7 Comments on Section 20

Key findings presented in this section include the following:

- Development of the Project would have a positive impact on the local communities by providing direct employment in the mining industry and secondary employment in the support industries, income generated from wages and by secondary job employers, and local and State revenues generated through taxes paid by Revival.
- The proposed new development for the Project would accommodate ongoing water treatment and discharge concurrent with development of new heap leach facility and recommissioning of the ADR plant and process ponds currently being used for water treatment.
- In general, based on the current understanding of site water management, it is anticipated the existing water management program can be optimized to ensure adequate supply for operations while minimizing active water treatment requirements, even as the contact water storage and treatment requirements and makeup water demands vary through the Project life cycle. Based on the current estimates of process water requirements, the preliminary SWWB developed for the Project indicates a positive water balance through

operations, with water demand being supplied by reuse of treated stormwater, contact water, and pit dewatering volumes.

- Final Project plans will require management of the waste rock and fill material excavated from the North Pit as well as overburden and waste rock generated during mining. The NEPA review will address the potential impacts related to the geochemistry of the mined materials, and waste rock management and mitigation measures will likely be incorporated in development of the preferred alternative for the EIS and the ROD.

21.0 CAPITAL & OPERATING COSTS

Capital and operating cost expenditures (CAPEX and OPEX, respectively) for the process, infrastructure, and general and administrative (G&A) components of the Project, were estimated by KCA. Mining costs were estimated by IMC. Reclamation and closure costs were estimated by KC Harvey, with support from IMC and KCA. All CAPEX and OPEX estimates were based on first quarter 2023 US dollars and are considered to have an accuracy of +/-25%.

The total Life of Mine (LOM) CAPEX for the Project is $214.6 million, which includes working capital and all applicable sales tax; costs for reclamation and closure are not included in this cost but have been estimated at $31.8 million. The Project will be developed in two main stages with the initial stage constructed in preproduction to mine and process ore from the Beartrack pits and the second stage constructed in mine year five for mining and processing ore from Haidee with other sustaining capital required throughout the mine life. Table 21-1 presents the preproduction, working, sustaining, and reclamation and closure CAPEX requirements for the Project.

Table 21-1: PFS Capital Cost Summary

Description	Costs ($,000)
Preproduction Capital	
Process & Infrastructure Capital	$55,895
Spare Parts	$924
Mining Capital & Preproduction	$28,230
Indirect & Owner's Costs	$4,258
Engineering Procurement Construction Management (EPCM)	$5,682
Contingency	$12,089
Process Preproduction	$2,252
Total Preproduction Capital	**$109,331**
Working Capital & Initial Fills	
Mining Working Capital	$2,988
Processing Working Capital	$1,704
G&A Working Capital	$367
Initial Fills	$166
Total Working Capital	**$5,225**

Description	Costs ($,000)
Sustaining Capital	
Process & Infrastructure	$40,663
Indirect & EPCM	$7,319
Mining	$43,916
Contingency	$8,133
Total Sustaining Capital	**$100,031**
Reclamation & Closure Capital	
Direct Costs	$12,510
EPCM & Indirect Costs	$1,877
Operating Costs	$6,258
Heap Leach Rinsing & Neutralization	$7,009
Contingency	$4,148
Total Reclamation & Closure Capital	**$31,802**

Table 21-2 presents the LOM operating cost requirements for the Project.

Table 21-2: PFS Operating Cost Summary

Description	LOM Costs	
	($/t) Ore	($/T) Ore
Mine	7.53	8.30
Process & Support Services	4.29	4.73
Site G&A	0.93	1.02
Totals	**12.75**	**14.06**

Sales Tax is excluded from the operating cost estimate.

21.1 Capital Expenditures

The CAPEX estimates were developed based on the designs outlined in this PFS. The scope of these costs includes all preproduction and sustaining capital expenditures for mining and process facilities and equipment, mine and process preproduction, infrastructure, and construction indirect costs for the Project.

CAPEX estimates have been made primarily from budgetary supplier quotes for all major and most minor equipment as well as contractor quotes for major construction contracts. Where Project specific quotes were not available, an estimate was developed based on recent quotes from analogue projects.

All CAPEX estimates are based on the purchase of equipment quoted new from the manufacturer or estimated to be fabricated new.

Preproduction capital costs by area are presented in Table 21-3.

Table 21-3: PFS Preproduction CAPEX Summary

Preproduction CAPEX Items	Total Supply Cost ($,000)	Install Cost ($,000)	Grand Total ($,000)
General Site & Utilities	$5,376	$2,790	$8,166
Water Distribution & Treatment	$70	$61	$130
Emergency Power	$844	$333	$1,177
Mobile Equipment	$2,127	-	$2,127
Primary Crushing	$3,096	$1,371	$4,467
Secondary Crushing	$5,832	$882	$6,714
Conveyor Stacking	$10,383	$2,751	$13,134
Heap Leach & Solution Handling	$2,947	$8,187	$11,134
Recovery Plant (existing Refurbished)	$5,976	$2,870	$8,846
Process & Infrastructure Preproduction Direct Costs	**$36,651**	**$19,245**	**$55,895**
Spare Parts			$924
Construction Indirect Costs			$1,838
Owner's Construction Costs			$2,420
EPCM			$5,682
Contingency			$12,089
Sub Total Process & Infrastructure Construction Costs			**$78,849**
Mining Costs (Including Mine Preproduction)			$28,230
Process Preproduction			$2,252
Initial Fills			$166
Working Capital (30 days)			$5,059
Total Preproduction Capital Cost (Sales Tax Included)			**$114,556**

21.1.1 Mining Capital Costs

Mine capital cost estimates for mobile equipment were developed for the mine equipment listed in Section 16. Mining equipment purchase and leasing costs were developed from recent vendor budgetary quotes. After a comparison of purchase versus leasing, equipment leasing was selected as the preferred approach for the Project. Lease rates were based on a four-year term; consequently, all leased equipment was assumed to be owned by Revival before the end of the mine life. Minor equipment items were assumed to be purchased.

Mine capital costs include:

1. All mine mobile equipment required to drill, blast, load, and haul the material from the pit to the appropriate destinations.

2. Auxiliary equipment to maintain the mine and material storage areas in good working order as well as construct the mine haul roads and maintain them. The haul road from Haidee to Beartrack is not included in the mining cost and was developed by KCA in the infrastructure costs. The rehandle loader at the primary crusher is included in the mine capital costs.
3. Equipment to maintain the mine fleet such as tire handlers and forklifts.
4. Light vehicles for mine operations and staff personnel.
5. An allowance is included for initial shop tools.
6. An allowance is included for initial spare parts inventory.
7. Mine engineering equipment (computers, survey equipment etc.) is included.
8. Mine communication network & system.
9. Equipment replacements as required based on the useful life of the equipment.
10. Units are shown added to the lease package in the year they are required.

Mine capital costs exclude:

1. Mine office buildings, or shop facilities.
2. Mobile equipment that is not required by the mine (i.e., no mobile units for the plant).
3. Infrastructure or process plant related costs.
4. Allowance for clearing and grubbing.
5. Equipment salvage value credit.
6. Contingency.

Table 21-4 summarizes the LOM mining capital costs.

Table 21-4: LOM Mining Equipment and Preproduction CAPEX

Mine Year	Mine Mobile Equipment		Mine Preproduction CAPEX ($,000)	LOM Mine CAPEX ($,000)
	Leased Equipment ($,000)	Purchased Equipment ($,000)		
PP	10,585	6,160	11,485	28,230
YR 1	12,357	613	-	12,970
YR 2	9,129	-	-	9,129
YR 3	10,852	-	-	10,852
YR 4	6,746	817	-	7,563
YR 5	1,555	-	-	1,555
YR 6	1,147	-	-	1,147
YR 7	351	-	-	351
YR 8	351	-	-	351
Totals	**53,071**	**7,589**	**11,485**	**72,146**

Major mine equipment are assumed to be leased over a four-year term. The schedule of the equipment leases is such that all equipment would be owned by Revival at the end of the mine life. Minor items like engineering equipment, light plants, mine radios, pickup trucks, and maintenance vehicles were assumed to be purchased.

A summary of the leased major mine equipment is provided in Table 16-8 and includes: blast hole drills, 14-yard loaders, 100-ton haul trucks, track dozers, graders, a water truck, auxiliary loader, auxiliary truck, a pioneer drill, and a 2-yard excavator.

21.1.2 Process and Infrastructure Capital Cost Estimate

21.1.2.1 *Process and Infrastructure Capital Cost Basis*

All equipment and material requirements are based on the design information described in previous sections of this PFS. Budgetary capital cost estimates were developed based on Project specific quotes for all major and most minor equipment as well as contractor quotes for all major construction contracts. Supplier and contractor quotes used in the cost estimates were selected based on a combination of factors including price, completeness of proposal and capabilities of the vendor. Where Project specific quotes were not available, an estimate was made based on recent quotes from analogue projects. All capital cost estimates are based on the purchase of equipment quoted new from the manufacturer or to be fabricated new.

Each area from Table 21-3 in the process cost build-up has been separated into the following disciplines, as applicable:

- Major earthworks & liner;
- Civil (concrete);
- Structural steel;
- Platework;
- Mechanical equipment;
- Piping;
- Electrical;
- Instrumentation; and
- Infrastructure & Buildings.

Construction process and infrastructure costs by discipline are presented in Table 21-5.

Table 21-5: Process & Infrastructure Construction Capital Costs by Discipline

Discipline	Cost @ Source ($,000)	Freight ($,000)	Sales Tax ($,000)	Total Supply Cost ($,000)	Install ($,000)	Grand Total ($,000)
Major Earthworks & Liner	$1,319	-	-	$1,319	$8,035	$9,354
Civils (Supply & Install)		-	-		552	$552
Platework	$320	$51	-	$371	$185	$556
Mechanical Equipment	$23,107	$1,529	$1,204	$25,839	$6,691	$32,530
Piping	$1,538	$145	-	$1,683	$1,284	$2,967
Electrical	$1,882	$141	$63	$2,086	$1,124	$3,209
Instrumentation	$579	$18	$14	$611	$213	$823
Infrastructure	$3,964	$15	$25	$4,004	$1,899	$5,903
Plant Total Direct Costs	**$32,708**	**$1,899**	**$1,305**	**$35,913**	**$19,982**	**$55,895**

Freight, sales tax, and installation costs are also considered for each discipline. Freight costs are based on loads as bulk freight and have been estimated at 10% of the equipment cost. Where applicable, supplier quoted freight cost estimates for equipment were used in place of estimated freight.

Sales tax for Lemhi County in Idaho is 6% and has been applied to the supply cost of all equipment and materials.

Installation estimates for items not quoted turnkey from the supplier have been estimated based on the equipment type and include all installation, labor, and equipment usage. Installation costs are based on KCA's experience from recent projects and include costs for labor, small equipment and tools, light vehicles, and forklifts. Hourly installation costs are estimated at $124.73 per hour and assume six-man crews. Costs for cranes for installation are included in the construction indirect costs.

EPCM, indirect costs, and initial fills inventory are also considered as part of the capital cost estimate.

21.1.2.2 *Major Earthworks and Liner*

Earthworks and liner quantities for the Project have been estimated by KCA for all Project areas. Earthworks and liner supply and installation were assumed to be performed by contractors. Cost estimates for these activities were developed based on contractor quotes. The earthworks and liner discipline also includes cost for materials to construct the crushing retaining wall.

Total preproduction earthworks costs are estimated at $9.4 million including an allowance of $2.4 million for pad cover production and placement, which is based on an estimated cost of $14.52 per cubic yard of pad cover produced.

21.1.2.3 *Civils*

Civils include detailed earthworks and concrete. Concrete quantities have been estimated by KCA based on layouts, similar equipment installations, vibrating equipment, major equipment weights and on slab areas. Unit costs for concrete supply, which include production (supply of aggregates, water, and cement, batching and mixing), and delivery of concrete and concrete installation which include all excavations, formwork, rebar, placement, and curing are based on recent contractor quotes in KCA's files. Total costs for concrete are estimated at $552,000.

21.1.2.4 *Structural Steel*

Costs for structural steel, including steel grating, and handrails have all been included as part of equipment supply packages or included in supplier turnkey proposals. No additional structural steel costs are anticipated for the project.

21.1.2.5 *Platework*

The platework discipline includes costs for the supply and installation of steel tanks, bins, and chutes. Much of the original platework, including fuel and water tanks, are still in place at site and are suitable for use in the planned operation with minimal refurbishment. Platework costs have been primarily quoted as part of complete equipment supply packages.

Total platework costs not included in the mechanical equipment supply costs are estimated at $556,000 including the quoted crushing circuit platework costs and quoted field erected raw water tank.

21.1.2.6 *Mechanical Equipment*

Costs for mechanical equipment are based on a detailed equipment list developed of all major equipment for the process. Costs for all major and most minor equipment items are based on budgetary quotes from suppliers. Where Project specific supplier quotes were not available, reasonable allowances were made based on recent quotes from KCA's files. All costs assume equipment purchased new from the manufacturer or to be fabricated new.

The mechanical equipment costs consider a complete turn-key bid for the recovery plant and laboratory refurbishment and equipment supply package. Installation costs for mechanical equipment are based on estimated installation hours and hourly contractor rates from KCA's experience on recent projects or are included as part of turn-key vendor packages.

The total installed mechanical equipment cost is estimated at $32.5 million.

21.1.2.7 *Piping*

Major piping, including heap irrigation and gravity solution collection pipes, are based on material take-offs and recent supplier quotes in KCA's files. Piping for the recovery plant is included in the turn-key vendor package and are included in the mechanical equipment costs. Additional ancillary piping, fittings, and valve costs have been estimated on a percentage basis of the mechanical equipment supply costs by area ranging from 0% to 1%.

Installation costs for major piping is based on contractor quotes. Installation of ancillary piping has been estimated based on estimated installation hours and hourly contractor rates from KCA's experience on recent projects. The total installed piping cost is estimated at $3.0 million.

21.1.2.8 *Electrical*

Major electrical equipment including transformers, substations, motor control centres and VFDs have been considered in the electrical equipment list and have been costed based on supplier / contractor quotes or have been included as part of vendor supply packages. A 69 kV power transmission line and 4.16 kV site distribution line, along with associated distribution transformers, are existing and are assumed to be adequate to meet the needs of the project. The electrical costs consider replacing the main switchgear and include an allowance of $1 million for refurbishing the existing distribution line as needed.

Miscellaneous electrical costs have been estimated as percentages of the mechanical equipment supply cost for each process area and range between 0% and 5%.

Installation of electrical equipment and ancillary electrical items not included in turn-key vendor packages have been estimated based on estimated installation hours and hourly contractor rates from KCA's experience on recent projects.

The total installed electrical cost is estimated at $3.2 million.

21.1.2.9 *Instrumentation*

Instrumentation costs are primarily included as part of turn-key or complete vendor supply packages. Minor miscellaneous instrumentation costs have been estimated as percentages of the mechanical equipment supply cost for each process area and range between 0% and 1.5%. An allowance of $350,000 has been included for communication equipment.

The total installed instrumentation cost is estimated at $823,000.

21.1.2.10 *Infrastructure & Buildings*

Existing buildings on site include the recovery plant and laboratory building, core warehouse building, main electrical room, and water treatment building. New buildings for the Beartrack-Arnett Project will include an administration office trailer, process office trailer, mine truck shop, warehouse, and guard house. Costs for the new site buildings have been quoted by contractors.

The total infrastructure and buildings cost is estimated at $5.9 million.

21.1.2.11 *Process Mobile Equipment*

Mobile equipment included in the capital cost estimate is detailed in Table 21-6.

Table 21-6: Process Mobile Equipment

Description	Quantity
CAT D6 Dozer or Equiv.	1
Mechanical Service Truck	1
Forklift, 2.5 ton	1
Telehandler, 4 ton	1
Pickup Truck, ¾ ton	6
Flatbed Truck	1
Personnel Vans	1
Backhoe w/ Fork Attachment, 1.1 cu. yd.	1
Boom Truck, 10 ton	1
Crane, 50 ton	1
Bobcat	1

Costs for process mobile equipment are based on cost guides or other published data. Mobile equipment costs are considered in the mechanical equipment cost estimate.

21.1.2.12 *Spare Parts*

Spare parts costs are estimated at 4% of the mechanical equipment supply costs. Total spare parts costs are estimated at $924,000.

21.1.2.13 *Construction Indirect Costs*

Indirect construction field costs include temporary construction facilities, construction services, quality control, survey support, warehouse and fenced yards, support equipment, etc. These costs have been estimated based on 10 months of field construction, contractor quotes, and reasonable allowances based on KCA's recent experience. Construction indirect costs are summarized in Table 21-7.

Table 21-7: Construction Indirect Costs

Construction Indirect Items	Cost ($,000)
Miscellaneous Accommodations, etc.	$137
QA/QC Earthworks, Liner, and Concrete	$381
Surveying	$160
Miscellaneous Support Equipment	$300
Office Equipment (Copiers, Printers, Computers, Plotter)	$75
Construction Vehicle Operating & Maintenance (3 Pickups + Flatbed)	$100
Construction Phone / Internet	$80
Construction Power OPEX	$50
Portable Toilet Service	$150
Outside Consultants / Vendor Reps	$100
Commercial Van Service	$305
Sub-Total Indirect Costs	**$1,838**

Indirect costs for sustaining capital costs have been estimated at 5% of the direct costs and are presented with the sustaining capital costs.

21.1.2.14 *Other Owner's Construction Costs*

Other Owner's construction costs are intended to cover the following items:

- Owner's costs for labor, offices, home office support, vehicles, travel and consultants during construction;
- Subscriptions, licence fees, etc.;
- Taxes and permits; and,
- Workplace health and safety costs during construction.

Other Owner's construction costs are estimated based on 10 months of site construction and are summarized in Table 21-8.

Table 21-8: Other Owner's Construction Costs

Other Owner's Costs	Basis	Total ($,000)
Labor	50% of G&A labor for 10 months	$1,035
Maintenance Supplies	5% of G&A Labor	$52
Office Supplies/Software	5% of G&A Labor	$52
Vehicles	three each light duty trucks	$150
Vehicle Operating Costs	75 miles per day, $0.665 per mile, 365 days/year	$55
Local Office Rental	$5k/month	$60
Public Relations Expense	10% of G&A Labor	$104
Communications	5% of G&A Labor	$52
Insurance	Allowance based on other similar projects, $500k/year	$417
Safety Supplies	Allowance	$30
Training Supplies	Allowance	$15
Outside Audit (Accounting, Metallurgy, etc.)	Allowance	$50
Legal	Allowance	$150
Access Road Maintenance (Snow Removal)	Allowance	$200
Total Other Owner's Costs		**$2,420**

21.1.2.15 *Engineering, Procurement & Construction Management (EPCM)*

The estimated EPCM costs for the development, construction, and commissioning are based on a percentage of the direct capital cost. The total EPCM cost is estimated at $5.7 million for preproduction or 10% of the process and infrastructure direct costs. EPCM for sustaining capital costs have been estimated at 10% of the sustaining capital direct costs and are presented with the sustaining capital costs.

The EPCM costs cover services and expenses for the following areas:

- Project Management.
- Detailed Engineering.
- Engineering Support.
- Procurement.
- Construction Management.
- Commissioning.
- Vendors Reps.

For some major equipment packages, costs associated with detailed engineering, commissioning, and installation supervision have been included in the vendor's quotes; these costs have been considered when estimating the EPCM costs and are not included in this estimate.

21.1.2.16 *Process & Infrastructure Contingency*

Contingency for the process and infrastructure has been applied to the total direct costs by discipline. Contingency has been applied ranging from 15% to 25% as detailed in Table 21-9 for all preproduction costs. The overall contingency for process and infrastructure, including indirect and owner's construction costs, is estimated at 18% of the direct costs.

Table 21-9: Process & Infrastructure Preproduction Contingency

Contingency	%	Total ($000s)
Major Earthworks	25%	$2,339
Civils (Supply & Install)	25%	$138
Platework (Supply & Install)	20%	$111
Mechanical Equipment	15%	$4,880
Piping	20%	$593
Electrical	20%	$642
Instrumentation	20%	$165
Infrastructure	20%	$1,181
Spare Parts	18%	$168
Indirect Contingency	20%	$368
Owner's Costs Contingency	20%	$484
EPCM	18%	$1,022
Total Contingency Cost	**18%**	**$12,089**

Contingency for sustaining capital is estimated at 20% of the direct sustaining capital costs including EPCM and indirect costs with a total of $9.4 million over the life of the mine. Sustaining capital contingency by year is presented in the sustaining capital costs estimate.

21.1.2.17 *Process & Infrastructure Sustaining Capital*

Sustaining capital for process and infrastructure includes the costs for constructing Phase 2 of the Beartrack leach pad in Year 1 of operations ($5.4 million), purchase of additional grasshopper conveyors during Years 1 ($2.1 million) and 2 ($924,000) of operations, expansion of the existing water treatment plant in Year 1 of operations ($1.6 million), construction of the Haidee heap leach pad and associated process overflow pond ($15.0 million), haul road ($10.5 million), relocation of the crushing circuit ($3.3 million), replacement of select process mobile equipment ($974,000) and addition of a pumping system for residual leaching of the Beartrack leach pad ($750,000) during Year 5 of operation. Contingency, construction indirect costs, and ECPM are included in the sustaining capital estimates as a percentage of the direct costs. Total process and infrastructure sustaining capital is estimated at $56.1 million including contingency, EPCM and construction indirect costs and are presented by year in Table 21-10.

Table 21-10: Process & Infrastructure Sustaining Capital by Year

Description	Year 1 ($,000)	Year 2 ($,000)	Year 5 ($,000)
Major Earthworks	$5,325	-	$25,719
Civils (Supply & Install)	-	-	$431
Platework (Supply & Install)	-	-	-
Mechanical Equipment	$3,722	$924	$3,912
Piping	$45	-	$543
Electrical	-	-	$32
Instrumentation	-	-	$9
Infrastructure & Buildings	-	-	-
Spare Parts	-	-	-
EPCM	$909	$92	$3,065
Indirect Costs	$455	$46	$1,532
Contingency	$2,091	$213	$7,049
Totals	**$12,547**	**$1,276**	**$42,292**

21.1.3 Initial Fills Inventory

The initial fills consist of consumable items stored on site at the outset of operations, which includes sodium cyanide (NaCN), lime, activated carbon, hydrochloric acid (HCl), caustic soda (NaOH), antiscalants and fluxes. Initial fills are summarized in Table 21-11.

Table 21-11: Initial Fills

Item	Basis	Needed Weight (lbs or gal)	Unit Price ($)	Total Cost ($)
NaCN	Full Tank	36,000	$1.50	$53,896
NaOH	Full Tank	1,500	$0.32	$484
Lime	Full Silos	400,000	$0.11	$43,200
Antiscalant - Leach	Full Tank	4,000	$2.44	$9,760
Activated Carbon	Initial Loads + 2 weeks	48,500	$1.12	$54,185
Hydrochloric Acid	30 Days	4,000	$0.58	$2,328
Flux	30 Days			
Borax		500	$0.78	$390
Silica		500	$0.60	$300
Soda Ash		500	$0.61	$305
Niter		500	$1.50	$750
Total				**$165,598**

21.1.4 Working Capital & Process Preproduction Costs

Working capital is funds that are used to cover operating costs from start-up until a positive cash flow is achieved. Once a positive cash flow is attained, Project expenses will be paid from earnings. Working capital for the Project is estimated to be $5.1 million based on 30 days of operation and includes all mine, process, and G&A operating costs as well as process preproduction costs.

Process preproduction costs cover the cost for crushing and stacking ore during the initial ramp-up period prior to the start of full production. Process preproduction costs are estimated at $2.3 million.

21.1.5 Exclusions

The following capital cost considerations have been excluded from the scope of supply and estimate:

- Finance charges and interest during construction.
- Escalation costs.
- Currency exchange fluctuations.

21.2 Operating Costs

Process operating costs for the Project have been estimated based on information presented in earlier sections of this PFS. Mining costs were provided by IMC at $2.27 per ton moved (LOM $7.53 per ton of ore) and are based on leased equipment and owner operation.

Process operating costs have been estimated by KCA from first principles. Labor costs were estimated using project specific staffing, salary and wage and benefit requirements. Unit consumptions of materials, supplies, power, water and delivered supply costs were also estimated. LOM average processing costs are estimated at $4.29 per ton of ore.

G&A have been estimated by KCA with input from Revival. G&A costs include project specific labor and salary requirements and operating expenses. G&A costs are estimated at $0.93 per ton of ore.

Operating costs were estimated based on first quarter 2023 US dollars and are presented with no added contingency based upon the design and operating criteria present in this report. Sales tax is not included in the operating cost estimate.

The operating costs presented are based upon the ownership of all process production equipment and site facilities, including the onsite laboratory. The owner will employ and direct all operating maintenance and support personnel for all site activities.

Operating costs estimates have been based upon information obtained from the following sources:

- Owner operated mining costs from IMC;
- G&A costs estimated by KCA with input from Revival;
- Project metallurgical test work and process engineering;
- Supplier quotes for reagents and fuel;
- Recent KCA project file data; and
- Experience of KCA staff with other similar operations.

Where specific data do not exist, cost allowances have been based upon consumption and operating requirements from other similar properties for which reliable data exist. Freight costs have been estimated where delivered prices were not available.

21.2.1 Mining Operating Costs

Mine operating costs were developed based on first principals for the mine plan and equipment list presented earlier in Section 16. The unit costs for the mine major equipment consumables were derived from the IMC cost library and the 2022 InfoMine Cost Service. Labor costs were based on recent IMC projects in Nevada. The diesel fuel costs were set at $3.50 per gallon.

Preproduction development will use the mining fleet and operators and is planned to take 6 months. The mine is planned to operate with two 12-hour shifts per day for 365 days per year. Five days (10 shifts) per year of lost time are assumed due to weather delays.

The mine operating costs include:

1. Drilling, blasting, loading, and hauling of material from the mine to the crusher or waste storage facilities. Maintenance of the waste storage areas is included in the mining costs. Maintenance of mine mobile equipment is included in the operating costs.
2. Mine supervision, mine engineering, geology, geotechnical, surveyors and ore control are included in the G&A category.
3. Operating labor and maintenance labor (including burden) for the mine mobile equipment are included.
4. Mine access road construction and maintenance are included with the exception of the initial construction cost of the road from Haidee to Beartrack. If mine haul trucks drive on the road, the road maintenance is included in the mine operating costs.
5. A general mine allowance is included that is intended to cover dewatering, assaying, software licenses (dispatch, communication network and mine planning software) and general operating supplies that cannot be assigned to one of the unit operations.
6. The operating cost of the rehandle loader at the crusher is included.

7. A general maintenance allowance is included that is intended to cover the general operating supplies of the maintenance group.
8. Blasting costs are based on contracted delivery of blasting agents and owner personnel loading and initiating each blast.

The mine operating costs exclude: ore crushing, conveying, or processing, and reclamation or recontouring costs.

After preproduction, mine operating costs average $2.27/ton of total material moved, or $7.53/ton of ore delivered to the crusher.

Table 21-12 summarizes the mine operating costs per ton of total material moved for each of the mine unit operations. Preproduction is shown on the table, but not included in the bottom-line totals because such costs are capitalized.

Table 21-12: Estimated Mine Operating Costs

Mining Year	Total Material (kt)	Mine OPEX									LOM Costs ($,000)
		Drilling ($/t)	Blasting ($/t)	Loading ($/t)	Hauling ($/t)	Auxiliary ($/t)	General ($/t)	Maint. ($/t)	G&A ($/t)	Total ($/t)	
Preprod.	5,100	0.193	0.215	0.217	0.565	0.437	0.084	0.159	0.382	2.252	Capitalized
YR01	19,700	0.206	0.194	0.233	0.618	0.252	0.065	0.116	0.227	1.912	37,664
YR02	19,700	0.205	0.194	0.233	0.642	0.254	0.074	0.116	0.229	1.947	38,354
YR03	19,700	0.205	0.194	0.232	0.738	0.254	0.074	0.118	0.227	2.043	40,251
YR04	19,733	0.205	0.194	0.232	0.754	0.259	0.074	0.118	0.227	2.063	40,708
YR05	14,390	0.294	0.236	0.232	0.692	0.410	0.099	0.150	0.297	2.410	34,686
YR06	14,390	0.366	0.259	0.232	0.839	0.323	0.128	0.150	0.300	2.597	37,377
YR07	14,531	0.381	0.264	0.232	0.855	0.272	0.134	0.149	0.297	2.582	37,526
YR08	9,272	0.378	0.281	0.237	1.129	0.423	0.189	0.207	0.431	3.275	30,369
YR09	827	0.382	0.323	0.244	1.292	0.759	0.217	0.338	0.714	4.268	3,529
Totals	**137,342**	**0.265**	**0.220**	**0.233**	**0.758**	**0.296**	**0.097**	**0.135**	**0.268**	**2.272**	**300,463**

Note: Preproduction mining costs were capitalized and therefore were excluded from the LOM operating cost estimate.

21.2.2 Process and G&A Operating Costs

Average annual process and G&A operating costs are presented in Table 21-13.

Table 21-13: LOM Average Process, Support & G&A Operating Costs

Operating Cost Areas	Annual Costs ($,000)	Cost per Ton Ore ($/ton)
Labor - All Process Areas		
Process Labor	$4,585	$1.149
Laboratory Labor	$794	$0.199
SUBTOTAL	$5,378	$1.348
Primary Crushing		
Power	$47	$0.012
CAT 988 Loader or Equiv. (by mine)	$0	$0.000
Wear	$193	$0.048
Overhaul / Maintenance	$193	$0.048
SUBTOTAL	$434	$0.109
Secondary Crushing		
Power	$177	$0.044
Wear	$387	$0.097
Overhaul / Maintenance	$387	$0.097
SUBTOTAL	$951	$0.238
Conveyor Stacking		
Power	$124	$0.031
CAT D6 or Equiv.	$228	$0.057
Overhaul / Maintenance	$155	$0.039
SUBTOTAL	$506	$0.127
Heap Leach & Solution Handling		
Power	$25	$0.006
Piping/Drip tubing	$116	$0.029
Maintenance Supplies	$39	$0.010
SUBTOTAL	$180	$0.045
Recovery Plant		
Power	$158	$0.040
Propane (boiler & kiln)	$177	$0.044
Carbon	$45	$0.011
Misc. Operating Supplies	$77	$0.019
Maintenance Supplies	$39	$0.010
SUBTOTAL	$496	$0.124
Electrowinning & Refining		
Power	$9	$0.002
Misc. Operating Supplies	$39	$0.010
Maintenance Supplies	$39	$0.010
SUBTOTAL	$86	$0.022
Reagents		
Power	$3	$0.001
Cyanide (Ore)	$4,336	$1.087
Lime	$2,719	$0.681
Cyanide (Elution)	$27	$0.007
Cyanide (Beartrack Residual Leaching)	$119	$0.030
Caustic	$23	$0.006
Hydrochloric Acid	$36	$0.009
Antiscalant	$224	$0.056
Fluxes	$5	$0.001
Maintenance Supplies	$97	$0.024
SUBTOTAL	$7,588	$1.902
Emergency Power		
Power	$0	$0.000
Wear & Maintenance Supplies	$22	$0.005
SUBTOTAL	$22	$0.005

Operating Cost Areas	Annual Costs ($,000)	Cost per Ton Ore ($/ton)
Water Distribution & Treatment		
Power	$9	$0.002
Water Treatment	$320	$0.080
Wear & Maintenance Supplies	$77	$0.019
SUBTOTAL	$406	$0.102
Laboratory		
Power	$30	$0.007
Assays, Solids	$370	$0.093
Assays, Solutions	$111	$0.028
Miscellaneous Supplies	$77	$0.019
SUBTOTAL	$587	$0.147
Support Mobile Equipment & Facilities		
Facilities / Infrastructure		
Power - Buildings/Misc. (Line)	$16	$0.004
Heating - WH/Admin	$105	$0.026
Heating - ADR	$105	$0.026
Mobile Equipment		
Forklift	$14	$0.003
Boom Truck	$46	$0.012
Mechanic Service Truck	$16	$0.004
Backhoe/Loader	$30	$0.007
Telehandler	$35	$0.009
Flatbed Truck	$23	$0.006
Skid Steer	$11	$0.003
Pickup Truck	$95	$0.024
SUBTOTAL	$497	$0.124
Total Process Costs	**$17,130**	**$4.293**
G&A		
G&A Labor	$2,012	$0.504
G&A Expenses	$1,680	$0.421
Total G&A	$3,693	$0.925
Total Process Costs & G&A	**$20,823**	**$5.22**

21.2.2.1 *Personnel and Staffing*

Staffing requirements for process and administration personnel have been estimated by KCA based on experience with similar sized operations and input from Revival. Total process personnel are estimated at 64 persons including 11 laboratory workers. G&A labor is estimated at 22 persons.

Personnel requirements and costs are estimated at $9.1 million per year and are summarized in Table 21-14.

Table 21-14: Personnel & Staffing Summary

Description	Number of Workers	Cost ($,000/yr)
Process Supervision	8	$1,096
Crushing & Reclaim	6	$607
Heap Leach	18	$1,778
Recovery Plant	7	$714
Process Maintenance	14	$1,466
Subtotal Process	**53**	**$5,661**
Laboratory	11	$980
G&A	22	$2,485
TOTAL	**86**	**$9,126**

21.2.2.2 *Power*

Power usage for the process and process-related infrastructure was derived from estimated connected loads assigned to powered equipment from the mechanical equipment list. Equipment power demands under normal operation were assigned and coupled with estimated on-stream times to determine the average energy usage and cost. Power requirements for the Project are presented in in Section 18, excluding pit dewatering power requirements.

Power will be supplied by an existing powerline that currently feeds the Project site with sufficient capacity for the planned operation. The approximate power cost is estimated at $0.037/kWh and is based on published rates from Idaho Power.

21.2.2.3 *Consumable Items*

Operating supplies have been estimated based upon unit costs and consumption rates predicted by metallurgical tests and have been broken down by area. Freight costs are included in all operating supply and reagent estimates. Reagent consumptions have been estimated from test work and from design criteria considerations. Other consumable items have been estimated by KCA based on experience with other similar operations.

Operating costs for consumable items have been distributed based on tonnage and gold production or smelting batches, as appropriate.

21.2.2.4 *Heap Leach Consumables*

Pipes, Fittings and Emitters – The heap pipe costs include expenses for broken pipes, fittings and valves, and abandoned tubing. The heap pipe costs are estimated to be $0.03/t ore and are based on previous detailed studies conducted by KCA on similar projects.

Sodium Cyanide (NaCN) – Delivered sodium cyanide is quoted at $1.497/lb. Cyanide is primarily consumed in the heap leach at an average rate of 0.75 lbs/t ore, not including additional cyanide for residual leaching.

Pebble Lime (CaO) – Pebble lime is consumed at an average rate of 6.5 lbs/t ore for pH control at the heap. A delivered price of $216/ton based on a recent supplier quote has been used.

Antiscale Agent (Scale Inhibitor) – Antiscalant consumption is based on a dosage range of 0 to 20 ppm (6 ppm average) to the suctions of the barren and pregnant pumps. A delivered price of $2.44/lb has been used based on recent supplier quotes in KCA's files.

21.2.2.5 *Recovery Plant Consumables*

Activated Carbon – Carbon is used for the adsorption of gold from pregnant solution for the heap leach circuit. Carbon consumption is estimated at 4% per strip batch due to attrition. Carbon supply cost is estimated at $1.12 per lb based on recent supplier quotes.

Caustic Soda (NaOH) – Caustic is delivered to site as a liquid at 50% concentration by weight. Caustic is used in the ADR and is consumed in the strip and acid wash circuits. Caustic consumption is based on a 2% caustic strip solution with approximately one third of the solution being discarded each strip. Caustic supply cost is estimated at $0.32 per lb based on recent supplier quotes.

Hydrochloric Acid – Hydrochloric acid is used in the acid wash circuit to remove scale from the carbon which inhibits the adsorption of gold. Hydrochloric acid consumption is estimated at 159 gallons per strip with an estimated supply cost of $0.58 per lb based on recent supplier quotes.

Smelting Fluxes - It has been estimated that 1 lb of mixed fluxes per lb of precious metal produced will be required. The estimated delivered cost of these fluxes, which includes borax, silica, niter, and soda ash, is $0.85/lb, which is based on recent supplier quotes and assumed flux composition.

21.2.2.6 *Laboratory*

Fire assaying and solution assaying of samples will be conducted in the on-site laboratory. It is estimated that approximately 125 solids assays and solutions assays at $10 and $3 per assay, respectively, will need to be performed each day.

21.2.2.7 *Fuel*

Diesel fuel will be required for heavy equipment operation. Diesel delivered to site was quoted at $3.499/gal.

21.2.2.8 *Miscellaneous Operating & Maintenance Supplies*

Overhaul and maintenance of equipment along with miscellaneous operating supplies for each area have been estimated as allowances based on tons of ore processed. The allowances for each area were developed based on published data as well as KCA's experience with similar operations.

21.2.2.9 *Mobile / Support Equipment*

Mobile and support equipment are required for the process and include one forklift, one 4-ton telehandler with boom extension, one 10-ton boom truck, one backhoe, one telehandler, one skid steer, one flatbed truck, six pickup trucks and one maintenance truck. The costs to operate and maintain each piece of equipment have been estimated primarily using published information and project specific fuel costs. Where published information was not available, allowances were made based on KCA's experience from similar operations.

21.2.2.10 *G&A Expenses*

G&A expenses are expected to average $2.1 million per year and include costs for offsite offices, insurance, office supplies, communications, environmental and social management, health and safety supplies, security, travel, and legal expenses. For the cost estimate, G&A expenses are represented primarily as fixed costs. Fixed G&A expenses are presented in Table 21-15.

Table 21-15: Fixed G&A Expenses

Description	Basis	Total Annual Cost ($,000)
Maintenance Supplies	5% of G&A Staff / Labor	$124
Office Supplies/Software	3% of G&A Staff / Labor	$75
Personnel Transportation	Allowance	$100
Vehicles	Replace 0.5 Vehicles/Year + OPEX	$80
Local Office Rental	Allowance	$60
Public Relations Expense	10% of G&A Staff / Labor	$248
Communications	5% of G&A labor	$124
Insurance	Allowance	$500
Safety Supplies	Allowance	$25
Training Supplies	Allowance	$10
Outside Audit (Accounting, Metallurgy, etc.)	Allowance	$30
Travel	12 Trips @ $5,000/Trip	$60
Legal	Allowance	$250
Access Road Maintenance (Snow Removal)	Allowance	$200
Miscellaneous	10% G&A Expenses	$189
Total		**$2,075**

21.3 Reclamation & Closure Costs

The reclamation and closure plan cost estimate was developed by KC Harvey with input from KCA and IMC. Costs for reclamation and closure are based on a 3.9-year closure period (plus ongoing water treatment and monitoring) and are estimated at $31.8 million. Reclamation and closure include work to be conducted from the closure of the mine, end of operation activities and concurrent rehabilitation work. The main objectives of the reclamation and closure plan include:

- Progressive rehabilitation to allow rapid recovery of the vegetation cover and early recovery of the ecosystem;
- Sustainability of rehabilitation work including water and wind erosion;
- Recovery of land uses; and
- Implementation of a post-closure monitoring program.

Activities included as part of reclamation and closure are described in Section 20 of this Report. Reclamation and closure costs by year are summarized in Table 21-16.

Table 21-16: Reclamation & Closure Costs by Year

Description	Annual Costs ($,000)							Totals ($,000)
	Yr 9	Yr 10	Yr 11	Yr 12	Yr 13	Yr 14	Yr 15	
Beartrack Heap Leach Closure	$1,544	$1,544	-	-	-	-	-	**$3,088**
Haidee Heap Leach Closure	-	$811	$1,760	-	-	-	-	**$2,571**
North-Pit Backfill & Cover Placement	$152	-	-	-	-	-	-	**$152**
Wards Gulch WRSF Closure – NAG	$265	-	-	-	-	-	-	**$265**
Wards Gulch WRSF Closure – PAG	-	$1,653	$1,653	$1,653	-	-	-	**$4,958**
Haidee WRSF	$58	$261	-	-	-	-	-	**$320**
Haidee Haul Road Reduction	$389	-	-	-	-	-	-	**$389**
Seeding & Revegetation	$384	-	-	$384	-	-	-	**$768**
Sub-Total Direct Costs	**$2,792**	**$4,269**	**$3,412**	**$2,036**	**-**	**-**	**-**	**$12,510**
EPCM (10% of direct costs)	$279	$427	$341	$204	-	-	-	**$1,251**
Indirect Costs (5% of direct costs)	$140	$213	$171	$102	-	-	-	**$626**
Sub-Total EPCM & Indirect Costs	**$419**	**$640**	**$512**	**$305**	**-**	**-**	**-**	**$1,877**
Closure Operating Costs (incl. labor)	$817	$907	$907	$907	$907	$907	$907	**$6,258**
Heap Rinsing & Neutralization (incl. labor)	$2,708	$2,297	$2,005	-	-	-	-	**$7,009**
Sub-Total Before Contingency	**$6,736**	**$8,113**	**$6,836**	**$3,249**	**$907**	**$907**	**$907**	**$27,654**
Contingency (15%)	$1,010	$1,217	$1,025	$487	$136	$136	$136	**$4,148**
Total ($,000)	**$7,746**	**$9,330**	**$7,861**	**$3,736**	**$1,043**	**$1,043**	**$1,043**	**$31,802**

22.0 ECONOMIC ANALYSIS

Based on the estimated production schedule, capital costs, operating costs, royalties, and taxes, KCA prepared a Microsoft Excel spreadsheet-based Discounted Cash Flow (DCF) model for the Project, which measures the Net Present Value (NPV) of future cash flow streams. All information incorporated into this economic model has been derived from work completed by KCA and other consultants working on this Project as described in previous sections of this PFS.

The results of the economic analyses represent forward-looking information as defined under Canadian securities law. The results depend on inputs that are subject to several known and unknown risks, uncertainties and other factors that may cause actual results to differ materially from those presented here.

The PFS economic model was developed based on the following inputs and assumptions:

- The cash flow model is based on the mine production schedule from IMC.
- First gold production occurs Q1 2028.
- The period of analysis is 13 years including one year of investment and pre-production, 8.1 years of production and 3.9 years for reclamation and closure.
- Gold price of $1,800/oz.
- Processing rate of 13,200 tpd (12,000 T/d).
- Overall recoveries of 61.6% for gold.
- Capital and operating costs as developed in Section 21.
- Working capital equal to 30 days of operating costs during the pre-production and ramp up period is included for process, mining, and G&A costs as well as initial fills for process reagents and consumables. The assumption is made that all working capital and initial fills can be recovered in the final years of operation and the effective sum of working capital and initial fills over the life of mine is zero.
- Depreciation allowances for eligible items are included in the model.
- Royalties payable as described in Section 4.5 are included.
- A 0.362% Property tax for Lemhi County, Idaho and 1% Idaho Mine license tax are considered.
- A state income tax of 6% and federal income tax of 21% are considered.
- A refinery and transportation cost of $2.13/oz for gold is used in the model, including insurance. Gold is assumed to be 99.9% payable.
- A loss carry-forward of $17.4 million, which includes expenses for the Project to date, is included and is based on information provided by Revival.

- All-in sustaining costs (AISC) per payable ounce represent the mine site operating costs including mining, processing, metal transport, refining, administration costs and royalties as well as the LOM sustaining capital and reclamation and closure costs.
- Cash costs per payable ounce represents the mine site operating costs including mining, processing, metal transportation, refining, administration costs and royalties.
- The cash flow analysis evaluates the Project on a stand-alone basis. No withholding taxes or dividends are included. No head office or overheads for the parent company are included.

The key economic parameters are presented in Table 22-1 and the economic summary is presented in Table 22-2.

Table 22-1: Key Economic Parameters

Item	Value	Unit
Au Price	1,800	$/oz
Au Avg. Recovery	61.6	%
Treatment Rate	13,200 12,000	t/d T/d
Refining & Transportation Cost, Au	2.13	$/oz
Payable Factor, Au	99.9	%
Annual Produced Au, Avg.	65.3	koz
Lemhi County Rural Property Tax	0.362	%
Idaho Mine License Tax	1.0	%
Idaho State Income Tax	6.0	%
Federal Income Tax Rate	21.0	%
Royalties	Variable	%

Table 22-2: Economic Analysis Summary

Production Data		
Life of Mine	8.1	yrs
Annual Average Ore Mined and Leached	4.83 4.38	Mt/yr MT/yr
LOM Average Head Grade	0.022 0.74	oz/t g/T
LOM Gold Recovery	61.6	%
Average Annual Gold Production	65,324	ounces
Total Gold Produced	529,051	ounces
LOM Strip Ratio (Waste: Ore)	2.4	

Capital Costs		
Initial Capital	$109	million
Working Capital & Initial Fills	$5	million
LOM Sustaining Capital	$100	Million
Reclamation & Closure Capital	$32	Million
LOM Average Operating Costs		
Mining	$7.53 $8.30	/t ore /T ore
Processing & Support	$4.29 $4.73	/t ore /T ore
G&A	$0.93 $1.02	/t ore /T ore
Total OPEX	$12.75 $14.06	/t ore /T ore
Total Cash Cost	$986	/ounce
All-in Sustaining Cost	$1,235	/ounce
Financial Parameters		
Gold Price	$1,800	/ounce
Internal Rate of Return, Before Tax After Tax	27.7 24.3	% %
Average Annual Cashflow, Before Tax After Tax	$41 $37	million million
Net Present Value @ 5%, Before Tax After Tax	$130 $105	million million
Pay-Back Period	3.4	years

22.1 Methodology

The Beartrack-Arnett Heap Leach Project economics are evaluated using a discounted cash flow method. The DCF method requires that annual cash inflows and outflows are projected, from which the resulting net annual cash flows are discounted back to the Project evaluation date. Considerations for this analysis include the following:

- The cash flow model has been developed by KCA with input from Revival.
- The cash flow model is based on the mine production schedule from IMC.
- Gold production and revenue in the model are delayed from the time ore is stacked based on the mine production schedule and leach curves to account for time required for metal values to be recovered from the heap.
- The period of analysis is 13 years including one year of investment and pre-production, 8.1 years of production and 3.9 years for reclamation and closure.
- All cost estimates and cash flow amounts are in first quarter 2023 US dollars. Inflation is not considered in this model.
- The Internal Rate of Return (IRR) is calculated as the discount rate that yields a zero NPV.

- The NPV is calculated by discounting the annual cash back to Year -1 at different discount rates. All annual cash flows are assumed to occur at the end of each respective year.
- The payback period is the amount of time, in years, required to recover the initial construction capital cost.
- Working capital and initial fills are considered in this model and includes mining, processing, and G&A operating costs. The model assumes working capital and initial fills are recovered during the final two years of operation.
- Royalties and government taxes are included in the model.
- The model is built on an unlevered basis.
- Salvage value for the mining fleet and select process equipment is considered and is applied at the end of the Project.
- Reclamation and closure costs are included.

The economic analysis is performed on a before and after-tax basis in constant dollar terms, with the cash flows estimated on a project basis.

22.2 Capital Expenditures

Capital expenditures include initial capital (pre-production or construction costs), sustaining capital and working capital. The capital expenditures are presented in detail in Section 21 of this Report.

The economic model assumes working capital and initial fills will be recovered at the end of the operation and are applied as credits against the capital cost. Working capital and initial fills are assumed to be recovered during mine years 8 and 9. Salvage value for the mining fleet, as well as the crushing and stacking equipment is included and is applied during years 9 through 11 after equipment items are no longer in service.

22.3 Operating Costs

Operating costs were estimated by KCA for all process and support services. G&A operating costs were estimated by KCA with input from Revival. Mining costs were estimated by IMC. LOM operating costs for the Project are estimated at $12.75 per ton processed ($14.06/T). A detailed description of the operating cost build-up is included in Section 21 of this report.

22.4 Metal Production

Total metal production for the Beartrack and Arnett heap leach deposits is estimated at 529,100 ounces of recovered gold. The annual gold production is presented on Figure 22-1. Recovered gold by ore type is presented in Table 22-3. LOM average annual gold production is approximately 65,300 ounces.

Figure 22-1: Annual Gold Production

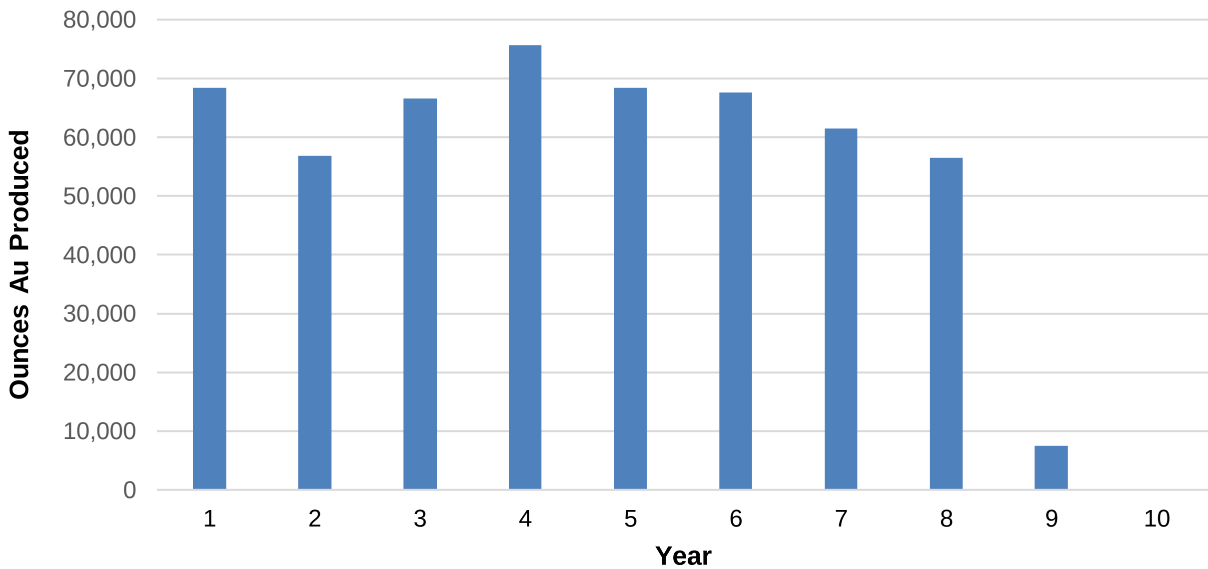


Table 22-3: Recovered Gold by Ore Type

Ore Source	Ore			Contained Gold		Recovered Gold	
	(k tons)	(k tonnes)	(%)	(oz)	(%)	(oz)	(%)
Beartrack Oxide	17,343	15,733	43%	343,95	40%	252,26	48%
Beartrack Transition	4,629	4,200	12%	149,24	17%	64,349	12%
Beartrack Sulfide	2,300	2,087	6%	141,22	16%	19,361	4%
Haidee Oxide	15,627	14,177	39%	224,50	26%	193,07	36%
Totals	39,900	36,196	100%	858,926	100%	529,051	100%

22.5 Royalties

The Beartrack-Arnett Project is subject to several royalties which are payable to different parties. Royalties payable include:

- 1% NSR to Meridian Beartrack Co. applied to all Beartrack ounces;
- 0.5% NSR to Meridian Beartrack Co. applied to all Beartrack ounces up to a maximum $2 million;
- 0.5% NPR to Mr. Raymond W. Threlkeld applied to net profit from Beartrack ounces;
- 2% NSR to Mapatsie applied to select Haidee load claims with a $2 million buyback option;

- 0.75% NSR to Bull Run Capital Inc. applied to select Haidee load claims with a $2 million buyback option;
- 1% NSR to Otis Capital USA Corp. (now Excellon Resources Inc.) applied to select Haidee load claims with a $2 million buyback option; and
- 2% NSR to McPherson et al applied to select Haidee load claims with a $1 million buyback option.

Total royalty and buyback payments are estimated at $11.2 million for the life of the project. Additional royalty agreement details are available in Section 4.5.

22.6 Closure Costs

Reclamation and closure include costs for works to be conducted for the closure of the mine at the end of operations and have been estimated primarily by KC Harvey with input from KCA and IMC for heap rinsing costs, material movement costs, and materials. The estimated LOM reclamation and closure costs is $31.8 million, or $0.80 per ton of ore processed ($0.88/T). Reclamation and closure activities are summarized in Section 20 of this Report and costs are summarized in Section 21.

22.7 Taxation

Taxation for the Project is based on the current laws and regulations as of the writing of this Report and projected project implementation date. The following taxes are considered in the economic model:

- Lemhi Rural Property Tax at 0.362% of the net revenue
- Idaho Mine License Tax at 1% less allowable deductions
- Idaho Corporate Income Tax at 6.0% less allowable deductions
- Federal income tax at 21% less allowable deductions

22.7.1 Depreciation

Depreciation is considered for the Idaho Mine License Tax, Idaho Corporate Income Tax and Federal Income Tax calculations and is based on the 7-year modified accelerated recovery system (MACRS) method for mining and process equipment, 39-year MACRS for buildings and structures and units of production for mining and processing pre-production costs. Salvage value is considered in the depreciation calculations.

22.7.2 Depletion

Depletion is considered for the calculation of the Idaho Corporate Income Tax and Federal Income Tax and is calculated as 15% of the annual gross income or 50% of the taxable income, whichever is less.

22.7.3 Loss Carry Forward

An opening loss carried forward balance of $17.4 million is included and is based on information provided by Revival.

22.8 Economic Model & Cash Flow

The DCF model for the Beartrack-Arnett Heap Leach Project is presented in Table 22-4 and is based on the inputs and assumptions detailed in this section.

The Beartrack-Arnett Heap Leach Project cash flows are net of royalties and taxes. The Project yields an after-tax internal rate of return of 24.3%.

Table 22-4: Cashflow Model Summary

Item	Units	-1	1	2	3	4	5	6	7	8	9	10	11	12	TOTAL
Mined Ore – Beartrack	tons	1,200,000	4,827,999	4,828,000	4,828,000	4,828,000	3,760,422	-	-	-	-	-	-	-	24,272,422
Mined Ore – Haidee	tons	-	-	-	-	-	665,578	4,827,999	4,828,000	4,828,000	477,556	-	-	-	15,627,133
Mined Ore – Total	**tons**	**1,200,000**	**4,827,999**	**4,828,000**	**4,828,000**	**4,828,000**	**4,426,000**	**4,827,999**	**4,828,000**	**4,828,000**	**477,556**	**-**	**-**	**-**	**39,899,555**
Gold Grade – Beartrack	oz/t	0.022	0.018	0.018	0.022	0.030	0.048	-	-	-	-	-	-	-	0.026
Gold Grade – Haidee	oz/t	-	-	-	-	-	0.015	0.015	0.015	0.014	0.015	-	-	-	0.014
Gold Grade – Total	**oz/t**	**0.022**	**0.018**	**0.018**	**0.022**	**0.030**	**0.043**	**0.015**	**0.015**	**0.014**	**0.015**	**-**	**-**	**-**	**0.022**
Waste Rock – Beartrack	tons	3,899,999	14,872,000	14,872,000	14,872,000	14,904,613	3,335,766	-	-	-	-	-	-	-	66,756,378
Waste Rock – Haidee	tons	-	-	-	-	-	6,266,220	9,562,000	9,703,007	4,443,760	349,143	-	-	-	30,324,130
Waste Rock – Total	**tons**	**3,899,999**	**14,872,000**	**14,872,000**	**14,872,000**	**14,904,613**	**9,601,986**	**9,562,000**	**9,703,007**	**4,443,760**	**349,143**	**-**	**-**	**-**	**97,080,508**
Stripping Ratio	waste:ore	3.2	3.1	3.1	3.1	3.1	2.2	2.0	2.0	0.9	0.7	-	-	-	2.4
Total Ore Processed	**tons**	**1,200,000**	**4,827,999**	**4,828,000**	**4,828,000**	**4,828,000**	**4,426,000**	**4,827,999**	**4,828,000**	**4,828,000**	**477,556**	**-**	**-**	**-**	**39,899,555**
Contained Gold	oz	26,836	84,727	87,976	108,308	146,000	190,610	70,542	71,136	65,530	7,261	-	-	-	858,926
Total Recoverable Gold	oz	-	72,695	57,248	67,559	77,178	69,928	60,666	61,177	56,356	6,244	-	-	-	529,051
Recoverable Gold Delayed	oz	-	4,346	4,741	5,763	7,249	8,775	1,790	1,449	1,335	148	-	-	-	-
Gold Produced	oz	-	68,350	56,852	66,537	75,692	68,402	67,651	61,518	56,470	7,431	148	-	-	529,051
Gold Payable	**oz**	**-**	**68,281**	**56,795**	**66,470**	**75,616**	**68,334**	**67,583**	**61,457**	**56,414**	**7,424**	**148**	**-**	**-**	**528,522**
Gross Revenue	$,000	-	122,906	102,232	119,647	136,109	123,001	121,650	110,622	101,545	13,363	266	-	-	$951,340
Refining & Transportation Charges	$,000	-	$145	$121	$142	$161	$146	$144	$131	$120	$16	-	-	-	1,126
Net Revenue	**$,000**	**-**	**$122,761**	**$102,111**	**$119,505**	**$135,948**	**$122,855**	**$121,506**	**$110,491**	**$101,425**	**$13,347**	**$266**	**-**	**-**	**950,214**
Mining OPEX	$,000	-	37,664	38,354	40,251	40,708	34,686	37,377	37,526	30,369	3,529	-	-	-	300,463
Processing OPEX	$,000	-	21,841	21,738	21,912	22,677	22,280	19,328	19,868	19,493	2,169	-	-	-	171,305
G&A OPEX	$,000	-	4,559	4,559	4,559	4,559	4,559	4,559	4,559	4,559	451	-	-	-	36,927
Operating Costs	**$,000**	**-**	**64,064**	**64,652**	**66,722**	**67,944**	**61,525**	**61,265**	**61,953**	**54,421**	**6,149**	**-**	**-**	**-**	**508,695**
Operating Profit	$,000	-	58,697	37,459	52,783	68,004	61,331	60,241	48,538	47,003	7,198	266	-	-	441,520
Total Royalties	$,000	-	$1,841	$1,532	$1,793	$1,638	$2,270	$579	$945	$389	$4	-	-	-	10,991
Pre-tax Operating Cashflow	**$,000**	**-**	**$56,855**	**$35,928**	**$50,991**	**$66,366**	**$59,060**	**$59,662**	**$47,592**	**$46,614**	**$7,195**	**$266**	**-**	**-**	**$430,529**
Preproduction Capital Costs	**$,000**	**$109,331**	**$25,517**	**$10,404**	**$10,852**	**$7,563**	**$43,847**	**$1,147**	**$351**	**$351**	**-**	**-**	**-**	**-**	**$209,362**
Working Capital & Initial Fills (recovery)	$,000	$5,225	-	-	-	-	-	-	-	-$3,135	-$2,090	-	-	-	-
Reclamation & Closure	$,000	-	-	-	-	-	-	-	-	-	$7,746	$9,330	$7,861	$6,865	$31,802
Salvage Value	$,000	-	-	-	-	-	-	-	-	-	$5,762	$1,363	$1,363	-	$8,488
Net Pre-tax Free Cashflow	**$,000**	**-$114,556**	**$31,338**	**$25,523**	**$40,139**	**$58,803**	**$15,213**	**$58,516**	**$47,242**	**$49,398**	**$7,300**	**-$7,701**	**-$6,498**	**-$6,865**	**$197,853**
Taxes	$,000	-	$946	$712	$3,494	$7,182	$7,062	$5,942	$3,374	$3,879	-	-	-	-	32,592
Net After-tax Free Cashflow	**$,000**	**-$114,556**	**$30,392**	**$24,811**	**$36,644**	**$51,621**	**$8,182**	**$52,626**	**$43,887**	**$45,096**	**$7,300**	**-$7,701**	**-$6,498**	**-$6,865**	**$164,941**
Beartrack Net Profit Royalty (NPR)	$,000	-	-	-	-	$145	$41	-	-	-	-	-	-	-	185
Net After-tax Free Cashflow After NPR	**$,000**	**-$114,556**	**$30,392**	**$24,811**	**$36,644**	**$51,477**	**$8,141**	**$52,626**	**$43,887**	**$45,096**	**$7,300**	**-$7,701**	**-$6,498**	**-$6,865**	**$164,755**

22.9 Sensitivity Analysis

To estimate the relative economic strength of the Project, base case sensitivity analyses have been completed analyzing the economic sensitivity to several parameters including changes in gold price, capital costs and average operating cash cost per ton of ore processed. The sensitivities are based on +/- 25% of the base case for capital costs and operating costs and select gold prices. The after-tax analysis is presented in Table 22-5.

Table 22-5: After-Tax Sensitivity Analysis Results

Parameter / Variation (%)	Variation	IRR (%)	NPV ($,000) at Discount Rate		
			0%	5%	10%
Gold Price					
78%	$1,400	-2.6%	-$13,230	-$32,356	-$45,256
89%	$1,600	12.6%	$77,312	$37,942	$10,620
100%	$1,800	24.3%	$164,755	$105,349	$63,865
111%	$2,000	34.6%	$248,983	$170,103	$114,845
122%	$2,200	44.2%	$332,020	$234,012	$165,212
Capital Costs					
75%	$157,021	39.4%	$216,836	$151,421	$105,216
90%	$188,426	29.5%	$185,588	$123,779	$80,407
100%	$209,362	24.3%	$164,755	$105,349	$63,865
110%	$230,298	19.9%	$143,923	$86,918	$47,322
125%	$261,702	14.3%	$112,600	$59,216	$22,463
Operating Costs					
75%	$381,521	36.5%	$263,026	$181,204	$123,819
90%	$457,825	29.4%	$204,597	$136,084	$88,143
100%	$508,695	24.3%	$164,755	$105,349	$63,865
110%	$559,564	18.9%	$123,150	$73,213	$38,430
125%	$635,868	9.7%	$58,687	$23,257	-$1,238

Figure 22-2 and Figure 22-3 present graphical representations of the after-tax sensitivities. Variations in gold price, ore grades and recovery rates have the largest influence on the sensitivity of the Project. The economic indicators chosen for sensitivity evaluation are the IRR and NPV at 5% discount rate.

Figure 22-2: After Tax Sensitivity – IRR

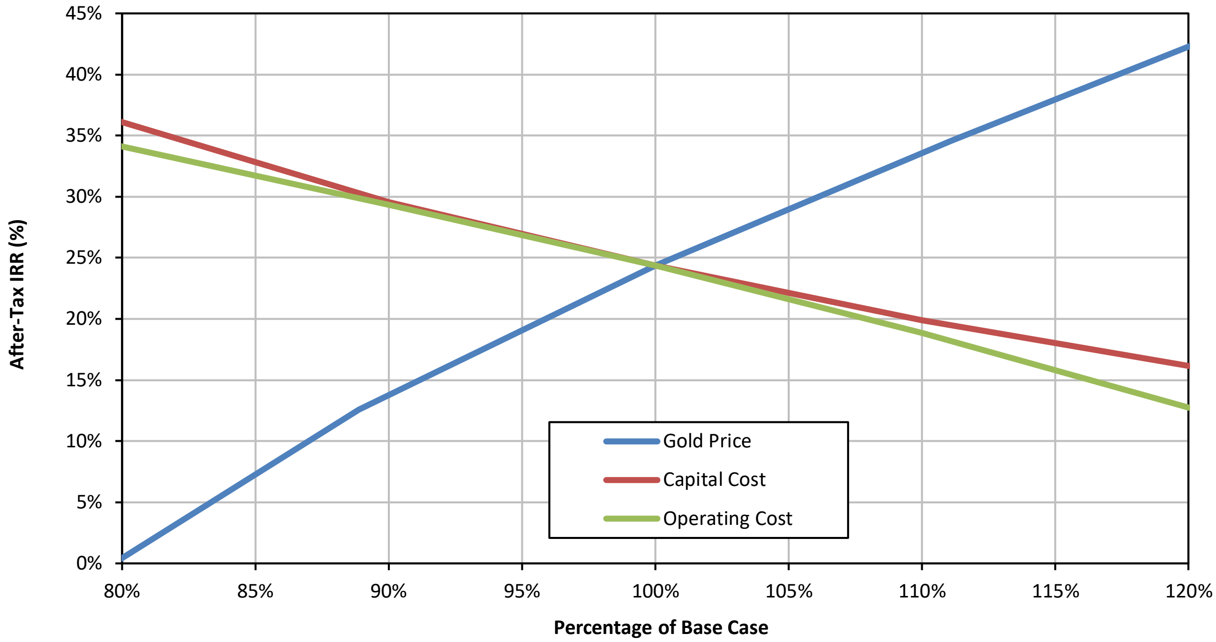
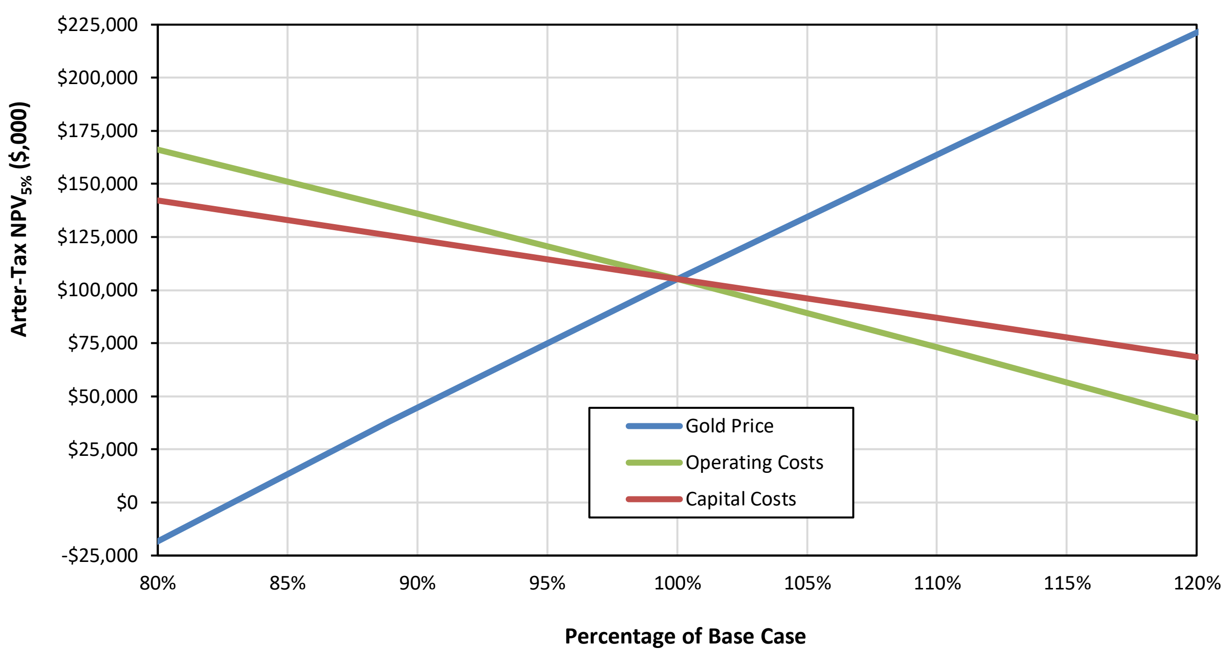


Figure 22-3: After Tax Sensitivity – NPV @ 5%



23.0 ADJACENT PROPERTIES

There are no active exploration properties or producing mines immediately adjacent to the Beartrack-Arnett Project.

24.0 OTHER RELEVANT DATA & INFORMATION

24.1 Project Implementation

Development of the Beartrack-Arnett Gold Project will continue with environmental baseline studies and confirmatory metallurgical test work programs. Once the baseline studies and test work are sufficiently advanced, a feasibility study will be prepared, which is tentatively planned for Q4 2024. Exploration and permitting activities will be conducted concurrently with the baseline and engineering studies.

Depending on the results of the feasibility study and project financing, detailed engineering and procurement are expected to begin starting in Q3 of 2025 with construction planned for Q1 2027 and first gold produced in Q1 2028 assuming all necessary permits are in place. Detailed engineering will be completed in two phases with the first phase focusing on information and detailed designs required for permitting.

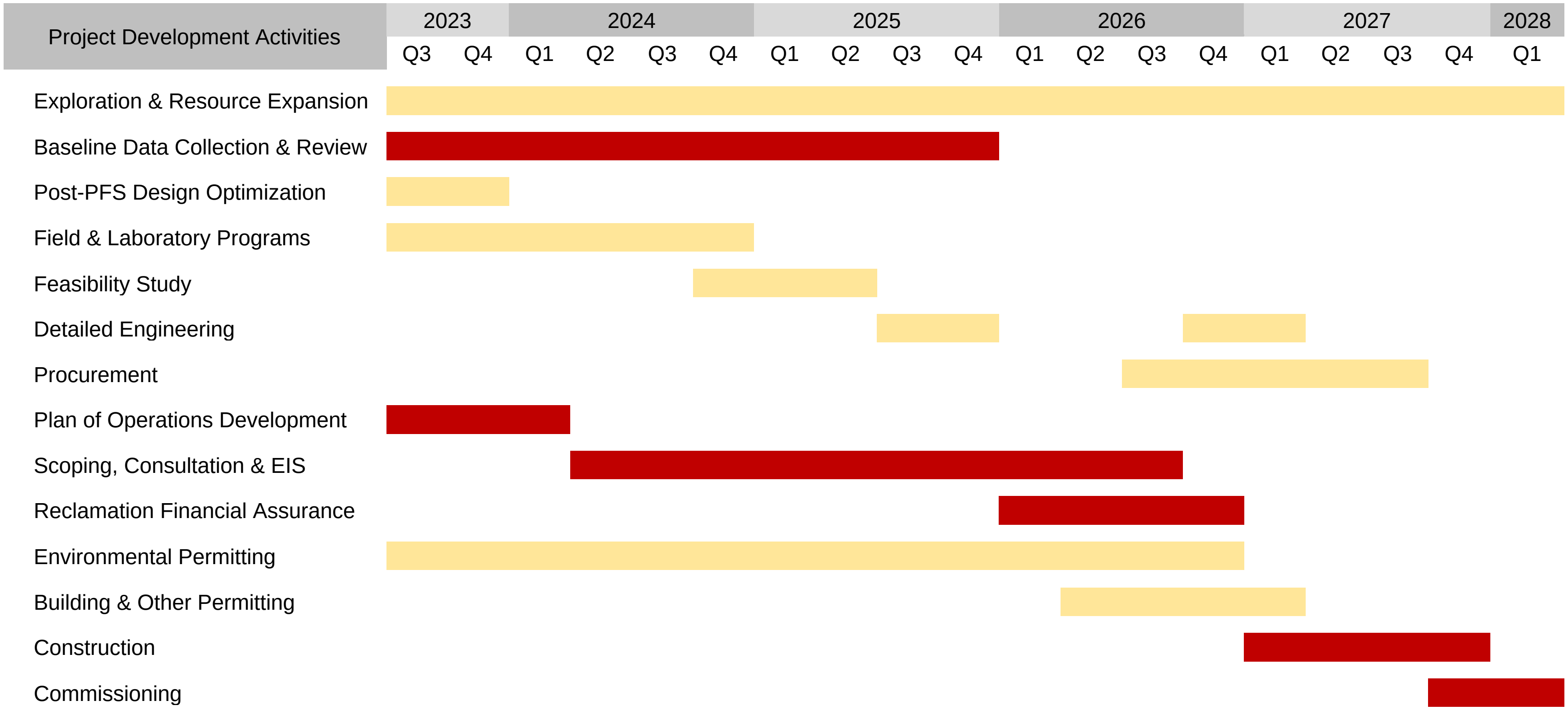
The philosophy for the Project construction assumes that Revival will hire an EPCM Project Management Company (PMC) to act on behalf of the owner to complete the detail engineering, procurement and project construction management. The PMC will also execute the following responsibilities:

- Procurement tasks for all equipment and supplies
- Logistics tasks
- Project controls
- Process all accounts payable documentation
- Scheduling
- Contracts management
- Project safety
- Client reporting

The PMC will provide the site construction management team and supplement the site staff with resources as required.

A proposed project development and implementation schedule is presented on Figure 24-1.

Figure 24-1: Project Development & Implementation Schedule



24.2 Site Geotechnical Analyses

WSP USA Environment and Infrastructure Inc. (WSP) and Wood Environment and Infrastructure Solutions, Inc. (Wood, now a part of WSP) completed several geotechnical studies for the project including heap leach stability (WSP, 2023), heap leach pad and geotechnical baseline studies (Wood, 2022c), and pit slope designs (WSP, 2022b) in addition to historical geotechnical reports completed by Golder for the previous operation. Additional discussions on pit slopes and waste rock dump are included in Section 16 of this study.

24.2.1 Heap Leach Pad Stability

WSP was retained by Revival to complete a slope stability analysis and foundation settlement evaluations of the Beartrack and Arnett (Haidee) heap leach facilities (HLF) designed by KCA as part of the PFS. The scope of the analysis includes the assessment of the heap leach slope stability, foundation settlements, and regulatory compliance review of the HLF liner and containment design in accordance with the Idaho Department of Environmental Quality (IDEQ) regulations.

The proposed leach pad designs consider an overall stacking slope of approximately 2.5:1 with a maximum stacking height of 280 ft (vertical slope height from crest to toe) for the Beartrack heap and 298 ft (vertical slope heigh from crest to toe) for the Arnett heap. Static and pseudo-static limit equilibrium analyses were performed at five critical cross sections (three for Beartrack and two for Arnett) which were considered to be representative of the critical configurations of the HLFs for stability evaluation purposes with all of the calculated factors of safety (FOS) exceeding the minimum required criteria. Estimated foundation settlements along the proposed solution collection systems due to loading of new ore on the heaps are not expected to cause substantial adverse impacts on the solution collection of the facilities.

Additional details of the heap stability analysis can be found in the WSP technical memo "Geotechnical Evaluations – HLF PFS Design Beartrack-Arnett Gold Project, Lemhi County, Idaho" dated 5 May 2023.

25.0 INTERPRETATIONS & CONCLUSIONS

25.1 Conclusions

The work that has been completed to date has demonstrated that the Beartrack-Arnett Heap Leach Project (Project) is a technically feasible and economically viable project. The Project site is accessible year-round via well maintained gravel roads from the town of Salmon, Idaho, and benefits from existing infrastructure from the previous operation including the site access road, electrical power transmission and distribution lines, process, and mine water management systems, and various process facilities.

In addition to the mineral resources incorporated into the PFS, the mill resources continue to grow, and additional exploration and technical studies to further define potential mill project development scenarios are warranted.

More specific and detailed conclusions are presented in the sections below.

25.1.1 Mineral Tenure, Surface Rights and Royalties

All unpatented lode and placer claims associated with the Project are in good standing until September 1, 2023, when the next filings and required maintenance fee payments to the U.S. Bureau of Land Management (BLM) are due.

25.1.2 Mineral Resources, Mineral Reserves & Mining

The PFS was developed based on mining the Measured and Indicated mineral resources via open pit mining techniques using conventional and readily available equipment. The mine plan and cost estimation for this study have drawn on the experience gained during the historical Beartrack operation as well as other applicable analogue projects.

The mine does not face significant technical challenges to the development of mine operations as presented within this report. Future work to expand and refine heap leachable mineral resources and mineral reserves will require updating the mine plans and mining cost estimates.

The Beartrack-Arnett mill open pit and underground mineral resources continue to grow with additional exploration drilling success and warrant further study. A scoping level economic study that defines potential development paths, and guides subsequent technical studies, is warranted for this potential next phase of development.

25.1.3 Metallurgy & Process

The PFS has been designed to recover gold from predominantly oxide and transition material from the Beartrack and Haidee deposits. Ore will be crushed to P_{100} 1½ inches (38 mm), stockpiled, reclaimed and conveyor stacked onto the Beartrack heap leach pad during the initial 5 years of operation and the Haidee heap leach pad during the final 3 years of operation at an average rate of 13,200 t/d (12,000 T/d). Stacked ore will be leached using low grade sodium cyanide solution and the resulting pregnant leach solution will be processed in an existing, refurbished ADR plant where gold will be adsorbed onto activated carbon, stripped, and recovered by electrowinning followed by treatment in a mercury retort and smelting to produce the final doré product.

Metallurgical test work indicates that the material is amenable to cyanide leaching for the recovery of gold with moderate reagent requirements. Gold recovery for the Beartrack ore has been estimated based on the ratio of cyanide soluble gold content to fire assay gold content. Gold recovery for the Haidee ore is estimated at 86% of contained gold. The overall gold recovery for the Project is estimated at approximately 61.6% and would produce an estimated 529 thousand ounces of gold.

25.1.4 Environmental & Permitting

The Project is located on a brownfield site with appreciable existing infrastructure; moreover, the proposed mining areas are predominantly on existing areas of disturbance. These aspects of the Project reduce the environmental impacts and permitting hurdles when compared to a greenfield project.

Considering the current regulatory framework, the Project plans to maximize the use of existing infrastructure to limit new disturbance and include environmental design features to promote environmental protection, the ongoing collaboration between Revival Gold and the regulatory and administrative agencies at Federal, State, and local levels, and the continued stakeholder engagement actions by Revival Gold in the local communities and at the regional level. It is reasonable to expect that all required permits and authorizations can be obtained for the Project.

25.2 Opportunities

25.2.1 Mineral Resources, Reserves & Mining

There is substantial opportunity to upgrade and expand the existing heap leachable mineral resources, which would enhance the Project economics. The current mineral resource at Haidee is open in all directions and IMC holds the opinion that the best immediate benefit to the Project would be to focus drilling on expanding the leachable mineral resources in the Haidee area. Beyond Haidee, the potential for near surface, higher-grade resources exist on the Arnett Property, primarily in the Roman's Trench area, and should be explored.

The potential to upgrade current Inferred mill resources to the Measured and Indicated categories is excellent and additional drilling to expand and better define the mineral resources underlying the existing open pit mill resources is warranted.

Construction of the Haidee haul road between the Beartrack and Arnett sites represents a significant sustaining capital cost. An analysis should be completed to determine if a more optimal alignment is viable to reduce haul road construction costs.

25.2.2 Metallurgy & Process

Silver was historically recovered at the Beartrack Mine and is present in the Beartrack ore but has not been considered as part of the resource, reserve, or project economics. Silver grades from the recent SGS test work program for the Beartrack ore ranged between 0.15 to 0.71 oz/t (5 g/T to 24.5 g/T) with an average recovery of 29%, which would provide additional revenue and value to the project. Although there will be some additional costs associated with processing and recovering silver, these costs should easily be covered by the added revenue for silver sales and no changes to the processing circuit would be anticipated.

Based on the recent column and bottle roll leach tests completed by SGS, the Haidee ore does not appear to be sensitive to crush size within the crush ranges tested. The PFS was developed based on crushing the Haidee ore to 100% passing 1½ inches (38 mm); however, similar recoveries may be possible with a coarser crush size, which would reduce operating costs. Test work on coarser crush sizes should be investigated as part of future work.

To date, metallurgical testing of the Beartrack sulfide mineral resources has focussed on oxidation of low-grade pyrite and arsenopyrite concentrates followed by cyanide leaching, which appears to be a viable flowsheet process. Consideration should be given to completing additional flotation testing to produce higher-grade concentrates that may be suitable for offsite processing to reduce the onsite complexity and capital expenditure associated with a potential future mill project.

While the Project proposed to refurbish the existing site infrastructure, there is potential to increase the level of automation, electrification, and emerging mining and processing technologies in both the ore processing and mining areas of the Project and should be considered in future design studies.

25.3 Risks

25.3.1 Mineral Resources, Reserves & Mining

Risks associated with the mine development include sensitivity to metal price, open pit geotechnical conditions, permit delays and the uncertainty around the U.S. mining law.

Geotechnical conditions for the underground portion of the Beartrack mineral resources are not well defined. As additional infill and step-out drilling is undertaken in the underground mineral resource areas, gathering geotechnical information to better define the mining techniques applicable to developing the underground mineral resources should be a key focus.

The assumed process method for the mill Mineral Resources requires significant capital expenditure and there is a risk that there would be insufficient tonnage and grade to provide reasonable payback on the capital.

25.3.2 Metallurgy, Process & Infrastructure

To account for the long leach tail observed during historical Beartrack operations, the metallurgical recovery calculated from column leach testing was increased by 2.3% of contained gold (approximately 11 koz in total) for Beartrack Oxide and Transition ores. Although the data supports this assumption, there is a risk that this added recovery might not be realized or may be delayed relative to the economic model assumptions.

The Beartrack site is currently serviced by an Idaho Power Co. (IPCo) 69 kV powerline that has limited excess capacity beyond the PFS project demand. Power from the existing line is available on a first come, first served basis and other users could impact the availability of power for the project. If power from the existing line is not available, the existing IPCo electrical system would need to be upgraded, which would increase pre-production capital costs.

Humidity cell testing on leached Beartrack transition and sulfide samples indicate the material could generate acid, which could compromise the heap leach operation and result in lower gold recoveries and higher operating and closure costs. Humidity cell testing on leached Haidee samples suggest that the material is unlikely to produce acid; however, the Haidee ore has minimal neutralization potential and if transition and sulfide material are stacked on the heap leach facility, acid drainage could also result in lower gold recoveries and higher operating and closure costs.

Since the original Beartrack Mine was constructed there have been changes to the IDAPA liner design requirements for process solution ponds and the current pregnant and event ponds are not in compliance with the current requirements. This study assumes that the ponds can be used in their current configuration because of their previous permit status and excellent performance history; however, if IDEQ requires that the pond lining systems be upgraded, additional project costs would be incurred.

The Project considers refurbishing the existing gold recovery plant for the planned operation, which has some inherent risk. The most likely risk is increased costs associated with additional refurbishment work; however, more significant risks are present including the integrity of the concrete and secondary containment liner, and the presences of hazardous materials which will need to be adequately decontaminated prior to any refurbishment work.

25.3.3 Environmental & Permitting

There is a legal framework in place at both the State and Federal levels and precedents for permitting the Project. However, in addition to standard resource impact evaluations, the NEPA review will consider any site-specific issues related to the Clean Water Act, Clean Air Act, and Endangered Species Act, and other environmental legislation and policies which may be revised prior to Project permitting. Based on the outcome of the environmental review under the NEPA process, the Record of Decision may advance an alternative that differs from Revival's proposed plan.

During closure and post-closure, water discharge under the IPDES Program will consider future in-stream water quality criteria that would define closure water treatment requirements. This may require modifications to the currently proposed water management process.

25.3.4 Other Risks

Skilled labor in Salmon and the surrounding area is limited. While Idaho has a history of recent mining, such as Thompson Creek near Challis, in the Coeur d'Alene District in northern Idaho and in the phosphate mines in southeastern Idaho, bringing labor to Salmon from other parts of the state will likely increase local labor costs and, as with most small communities, availability of housing will be limited.

26.0 RECOMMENDATIONS

This section provides recommendations from KCA, IMC, KC Harvey and WSP. The estimated costs for select recommendations are provided in Table 26-1.

26.1 KCA Recommendations

This PFS presents an economically viable project that warrants continued development. Based on these results, KCA recommends that the following process and infrastructure development work be undertaken:

- Additional metallurgical testing should be completed to verify the metal recoveries and reagent requirements estimated for the PFS. Test work should include column leach tests at varying crush sizes, as well as the target crush size of 100% passing 1½ inches (38 mm) assumed for this study. The goal of this test work is to determine if recovery improvements may be possible with finer crushing at Beartrack, and if similar recoveries are obtained with a coarser crush for the Haidee ore. Compacted permeability testing should also be completed to confirm cement agglomeration is not required for heap permeability. Estimated costs for this are approximately $600,000, excluding drilling for met samples.
- Construction of the Haidee haul road between represents a significant cost and should be further studied. A geotechnical study should be conducted to confirm the assumptions made for the PFS, and an analysis should be completed to determine if the alignment can be modified to reduce haul road construction costs. Estimated costs for the geotechnical and engineering cost study are approximately $350,000.
- Revival should engage with IDEQ staff to determine if the existing Beartrack pond lining systems would require modifications to be permitted under the current IDAPA Ore Processing by Cyanidation rule.
- Consideration should be given to assaying for silver in future Beartrack exploration drilling as the column leach testing indicates silver recoveries could have a meaningful increase in project revenue.
- Once test work is sufficiently advanced, a feasibility level study should be completed on the project. Costs for a feasibility study including all disciplines is estimated at $1 million.
- Evaluate the potential to produce an economically shippable concentrate from underground mill Mineral Resources at Beartrack.

- A scoping level economic assessment for mining and processing sulfide material should be completed to determine the viability of developing that project. The estimated cost for this scoping assessment is approximately $300,000.

26.2 IMC Recommendations

IMC concurs with the KCA recommendations as the results could impact the development of future feasibility-level mining studies. In addition, the following recommendations should be considered to improve or de-risk future mineral resource estimates and mine plans:

- Increasing the heap leachable mineral resources would extend the PFS mine life and offers an effective way to improve project economics. Infill and step-out drilling at the existing Haidee deposit, with a focus on identifying higher-grade zones of mineralization, is an obvious next step. Estimated core drilling (±39,000 ft / 12,000 m) costs are approximately $6.6 million.
- Drilling of "grassroots" exploration targets is recommended for the purpose of identifying targets for future mineral resource development. Section 9 discusses several exploration targets throughout the Beartrack-Arnett area and investigating those targets could involve a combination of core and reverse circulation drilling. Estimated core (±5,000 m) and RC (±20,000 ft / 6,000 m) drilling costs are approximately $3.4 million. Additional drilling would be contingent upon the success of initial "grassroots" exploration.
- Update open pit slope and waste rock storage facility stability analyses geotechnical design recommendations to feasibility level.
- Continue to evaluate mine equipment finance and lease options.

26.3 KC Harvey Recommendations

KC Harvey recommends the following environmental site characterization work be undertaken to support advancing the project through Feasibility and in preparation for Project permitting:

- Additional hydrogeologic characterization is recommended to refine the current estimates on the site-wide water balance and pit lake modeling to support operational, closure and post-closure water management. Estimated costs are approximately $3.2 million.
- Additional environmental geochemistry characterization is recommended to support operational waste management planning and closure design of the waste rock storage areas. Estimated costs are approximately $0.3 million.
- The current environmental baseline study program should be maintained to prepare for Project permitting and NEPA review. Estimated costs are approximately $6.5 million.

- Develop a draft Plan of Operations in preparation for Project permitting. Estimated cost is approximately $0.3 million.

26.4 WSP Recommendations

WSP recommends that the following HLF geotechnical characterization program be completed to support a feasibility-level stability analysis, in addition to geotechnical investigations required for HLF foundation characterization and borrow studies:

- To assess the durability and permeability of the leach ore and liner cover fill, LA Abrasion, rock soundness, and rigid-wall load-permeability tests are recommended (estimated cost is $10,000).
- To assess the strength of the leach ore and liner interface; direct shear testing is recommended (estimated cost is $17,000).
- To assess the puncture resistance of the heap leach liner to Beartrack and Haidee ore loading, liner puncture testing is recommended (estimated cost is $3,000).

WSP recommends that the following open pit geotechnical characterization program be completed to support a feasibility-level stability analysis:

- Complete additional oriented core drilling, sampling and laboratory testing to improve the geotechnical characterization of the open pits (estimated engineering cost is $200,000).
- Complete hydrological field studies, including one or more pumping tests, to support geotechnical studies and to provide inputs for development of a sitewide groundwater model (estimated engineering cost is $200,000; this scope overlaps with a preceding recommendation from KC Harvey).

Table 26-1: Estimated Costs for Select Recommendations

Recommendations	Estimated Costs	
	Discretionary ($ millions)	Core Items ($ millions)
Heap leach metallurgical testing – crush size optimization	-	$0.60
Haidee haul road study	-	$0.35
Heap leach geotechnical characterization of ore and liner assembly	-	$0.03
Hydrogeological studies	-	$3.20
Geochemical characterization studies		$0.30
Open pit geotechnical studies	-	$0.20
Remaining permitting baseline data collection & studies	-	$6.50
Plan of Operations	-	$0.30
Phase 1 Heap Leach Project feasibility study	-	$1.00
Phase 2 Mill Project scoping level economic study	$0.30	-
Mineral resource expansion core drilling (±12,000 m)	$6.60	-
Grassroots exploration core (±5,000 m) and RC (±6,000 m) drilling	$3.40	-
Totals	$10.30	$12.48

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28.0 DATE & SIGNATURE PAGE

This report, entitled “Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho” has the following report dates:

Report Effective Date is:	June 30, 2023
Report Signed Date is:	August 2, 2023
Mineral Resource Effective Date is:	June 30, 2023
Mineral Reserve Effective Date is:	June 30, 2023

The report was prepared as per the following signed Qualified Persons’ Certificates

CERTIFICATE OF QUALIFIED PERSON

I, Caleb Cook, P.E., of Reno, Nevada, USA, Project Engineer/Manager at Kappes, Cassiday & Associates, as an author of this report entitled "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", prepared for Revival Gold Inc. (the "**Issuer**") do hereby certify that:

1. I am employed as a Project Engineer/Manager at Kappes, Cassiday & Associates, an independent metallurgical and engineering consulting firm, whose address is 7950 Security Circle, Reno, Nevada 89506.

2. This certificate applies to the technical report "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", effective date 30 June 2023 (the "**Technical Report**").

3. I am a Professional Engineer in the state of Nevada (No. 025803) and my qualifications include experience applicable to the subject matter of the Technical Report. In particular, I am a graduate of the University of Nevada with a B.S. in Chemical Engineering (2010) and have practiced my profession continuously since graduating. Most of my professional practice has focused on the development of gold-silver leaching projects.

4. I am familiar with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") and by reason of education, experience and professional registration I fulfill the requirements of a "qualified person" as defined in NI 43-101.

5. I visited the Beartrack and Arnett properties for a total of two days on October 16-17, 2022.

6. I am responsible for Sections 1.1, 1.2, 1.3, 1.5, 1.8, 1.12, 1.13, 1.16, 2, 3, 4 except for 4.5, 5, 6, 12.4, 13, 17, 18 except for 18.1.3 and 18.8, 19, 21 except for 21.1.1 and 21.2.1, 22, 23, 24.1, 25.1, 25.1.1, 25.1.3, 25.2.2, 25.3.2, 25.3.4, 26.0, 26.1 and 28 and co-responsible for of Sections 1.15, 1.17, 1.18, 1.19, 1.20 and 27. as they pertain to metallurgy, processing and infrastructure of the Technical Report.

7. I am independent of the Issuer as described in section 1.5 of NI 43-101.

8. I have had no prior involvement with the property that is the subject of the Technical Report.

9. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101.

10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 2nd day of August, 2023

(Signed and Sealed) Caleb D. Cook

Caleb Cook, P.E. Chemical Engineering
Project Engineer/Manager at
Kappes, Cassiday & Associates

CERTIFICATE OF QUALIFIED PERSON

I, John M. Marek P.E. do hereby certify that:

1) I am currently employed as the President and a Senior Mining Engineer by:

   Independent Mining Consultants, Inc.
   3560 E. Gas Road
   Tucson, Arizona, USA 85714

2) This certificate is part of the report titled: "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", effective date 30 June 2023, (the "**Technical Report**") prepared for Revival Gold Inc.

3) I graduated with the following degrees from the Colorado School of Mines:

   Bachelors of Science, Mineral Engineering – Physics 1974
   Masters of Science, Mining Engineering 1976

   I am a Registered Professional Mining Engineer in the State of Arizona USA
   I am a Registered Professional Engineer in the State of Colorado USA
   I am a Professional Engineer, Yukon Territory, Canada
   I am a Professional Engineer, Ontario, Canada
   I am a Registered Member of the American Institute of Mining and Metallurgical Engineers, Society of Mining Engineers

   I have worked as a mining engineer, geoscientist, and reserve estimation specialist for more than 47 years. I have managed drill programs, overseen sampling programs, and interpreted geologic occurrences in both precious metals and base metals for numerous projects over that time frame. My advanced training at the university included geostatistics and I have built upon that initial training as a resource modeler and reserve estimation specialist in base and precious metals for my entire career. I have acted as the Qualified Person on these topics for numerous Technical Reports.

   My work experience includes mine planning, equipment selection, mine cost estimation and mine feasibility studies for base and precious metals projects worldwide for over 47 years.

4) I am familiar with National Instrument 43-101 – Standards of Disclosure for Mineral Projects and by reason of education, experience, and professional registration I fulfill the requirements of a "qualified person" as defined in NI 43-101.

5) I visited the Beartrack-Arnett project during the period of: August 3-4, 2022.

6) I am responsible for Sections 1.6, 1.7, 1.9, 1.10, 1.11, 7, 8, 9, 10, 11, 12 except for 12.4, 14, 15, 16, 18.1.3, 18.8, 21.1.1, 21.2.1, 25.1.2, 25.2.1, 25.3.1, 26.2 and am co-responsible for Sections 1.15, 1.17, 1.18, 1.19, 1.20 and 27 as they relate to mining, mineral resources and reserves, geology and drilling.

7) I am independent of Revival Gold Inc and their subsidiaries, applying the tests in Section 1.5 of National Instrument 43-101.

8) Independent Mining Consultants, Inc. (IMC) and John Marek have not worked on the Beartrack-Arnett project in the past.

9) I have read National Instrument 43-101 and Form 43-101F1, and to my knowledge, the Technical Report has been prepared in compliance with that instrument and form.

10) As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated: 2 August 2023

Signed and Stamped

John M. Marek
Registered Member – SME 2021600

CERTIFICATE OF QUALIFIED PERSON

I, David P. Cameron, P.E., of Bozeman, Montana, USA, Project Manager at KC Harvey Environmental, LLC, as an author of this report entitled "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", prepared for Revival Gold Inc. (the "Issuer") do hereby certify that:

1. I am employed as a Project Manager at KC Harvey Environmental, LLC, an independent environmental consulting firm, whose address is 376 Gallatin Park Drive, Bozeman, Montana 59715.
2. This certificate applies to the technical report "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", effective date 30 June 2023 (the "Technical Report").
3. I am a Professional Engineer in the state of Montana (Registration Number PE- 13019) and my qualifications include experience applicable to the subject matter of the Technical Report. I am a graduate of the University of Colorado, Denver, Colorado with a B.S. in Civil Engineering (1993). My experience includes environmental review, permitting, reclamation, and closure for numerous new mines and mine expansions, engineering design, environmental permitting, reclamation, and closure.
4. I am familiar with National Instrument 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and by reason of education, experience, and professional registration I fulfill the requirements of a "qualified person" as defined in NI 43-101.
5. I most recently visited the Beartrack and Arnett properties for a total of one day on May 11, 2021.
6. I am responsible for Sections 1.14, 4.5, 20, 21.3, 25.1.4, 25.3.3, 26.3 and co-responsible for Sections 1.17, 1.19, 1.20, 22.6, and 27 as they pertain to permitting, environment, and closure matters in the Technical Report.
7. I am independent of the Issuer as described in section 1.5 of NI 43-101.
8. I have prior involvement with the Meridian Beartrack mine which is related to the Technical Report. KC Harvey Environmental, LLC has previously worked as a consultant to the Meridian Beartrack Mine since 2011 supporting mine closure and discharge permitting and is currently providing consulting services to Revival Gold Inc. related to environmental planning for the project.
9. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 2nd day of August, 2023

(Signed and Sealed) David P. Cameron

David P. Cameron, P.E. Civil Engineering
Project Engineer/Manager
KC Harvey Environmental, LLC

CERTIFICATE OF QUALIFIED PERSON

I, Haiming (Peter) Yuan, P.E., of Reno, Nevada, USA, as an author of this report entitled "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", prepared for Revival Gold Inc. (the "**Issuer**") do hereby certify that:

1. I am employed as a Senior Associate Geotechnical Engineer at WSP USA Environment & Infrastructure Inc (WSP), of 9460 Double R Blvd, Suite 201, Reno, Nevada 89521.

2. This certificate applies to the technical report "Preliminary Feasibility Study NI 43-101 Technical Report on the Beartrack-Arnett Heap Leach Project, Lemhi County, Idaho, USA", effective date 30 June 2023 (the "**Technical Report**").

3. I am a Professional Engineer in the state of Idaho (No. 16913) and my qualifications include experience applicable to the subject matter of the Technical Report. In particular, I am a graduate of Clemson University with a PhD in Geotechnical Engineering (2003) and have practiced my profession continuously since graduating. Most of my professional practice has focused on geotechnical and civil engineering services on mining projects.

4. I am familiar with National Instrument 43-101 – *Standards of Disclosure for Mineral Projects* ("**NI 43-101**") and by reason of education, experience and professional registration I fulfill the requirements of a "qualified person" as defined in NI 43-101.

5. I visited the Beartrack and Arnett properties on June 14, 2021.

6. I am responsible for Sections 24.2, 26.4, and co-responsible for Sections 1.17, 1.18, 1.19, 1.20, 16.2, 16.3, 16.5, 18.3, 18.8, 25, and 27, as they pertain to geotechnical considerations in pit slope design, waste rock facilities and heap leach facility designs of the Technical Report.

7. I am independent of the Issuer as described in section 1.5 of NI 43-101.

8. I have had no prior involvement with the property that is the subject of the Technical Report, other than the technical work of WSP referenced in the Technical Report.

9. I have read NI 43-101 and the Technical Report has been prepared in compliance with NI 43-101.

10. As of the effective date of the Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 2nd day of August 2023

Dr. Haiming (Peter) Yuan, P.E.
Senior Associate Geotechnical Engineer at
WSP USA Environment & Infrastructure Inc