PRELIMINARY ECONOMIC ASSESSMENT

LAWYERS GOLD-SILVER PROJECT

STIKINE TERRANE, BC

EFFECTIVE DATE – SEPTEMBER 30, 2022
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NOTICE

JDS Energy & Mining, Inc. prepared this National Instrument 43-101 Technical Report, in accordance with Form 43-101F1, for Benchmark Metals Inc. The quality of information, conclusions and estimates contained herein is based on: (i) information available at the time of preparation; (ii) data supplied by outside sources, and (iii) the assumptions, conditions, and qualifications set forth in this report.

Benchmark Metals Inc. filed this Technical Report with the Canadian Securities Regulatory Authorities pursuant to provincial securities legislation. Except for the purposes legislated under provincial securities law, any other use of this report by any third party is at that party's sole risk.

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1 EXECUTIVE SUMMARY

1.1 Introduction

JDS Energy & Mining Inc. (JDS) was commissioned by Benchmark Metals Inc (Benchmark) to carry out a Preliminary Economic Assessment (PEA) of the Lawyers Gold-Silver Project (Lawyers), a resource development gold and silver project owned by Benchmark located in the Golden Horseshoe area of Northern British Columbia, Canada.

1.2 Project Description and Location

The Lawyers Property (the Property) is a gold-silver exploration property located in the Golden Horseshoe area of north-central British Columbia (Canada), 450 km north-northwest of the City of Prince George, 275 km north of the Town of Smithers, and 45 km northwest of the Kemess South Mine, a past-producing open pit copper-gold operation.

The Lawyers Property consists of 46 contiguous mineral claims covering 14,392 ha. These mineral claims are 100% owned by Benchmark Metals Inc., either directly or through its wholly-owned subsidiary PPM Phoenix Precious Metals Corp. The claims are all in good standing until year 2031.

1.3 Accessibility, Climate, Local Resources, Infrastructure and Physiography

The Property is accessible from the Finlay Forest Service Road (Finlay FSR) south of the Town of Mackenzie, which connects to the Omineca Resource Access Road (ORAR). The ORAR continues beyond the Kemess South Mine access road, past the Sturdee River Airstrip, through Baker Mine, and the Tigers Notch Pass up to the Lawyers Camp.

The Lawyers Property is in a cool continental climate. The operating field season is generally from June to September, although weather conditions during these months can be unpredictable. Snow fall is possible in the summer months with snow depths of up to 3 m in winter. Temperatures range from -32°C in January to 26°C in June.

In terms of physiography, the Lawyers Property is located in moderate terrain with elevations in the range from 1,200 masl to 1,900 masl. The tree line is at 1,630 masl elevation. Below the tree line, there is only sparse cover of birch and willow shrubs, with white spruce and sub-alpine fir. Grass, lichen, and dwarf shrubs are found above the tree line. Creeks and gullies are distributed throughout the Property, providing good exposure of bedrock. The creeks are an excellent source of water for exploration drilling and may be sufficient for mining facilities.

Regarding established infrastructure, Mackenzie is the closest major centre accessible by road, 400 km to the southeast of the Property. Mackenzie is primarily a base for the forestry industry. There is a rail line connecting Mackenzie to the Canadian National Railway (CNR) mainline, which provides rail access to Prince Rupert and Vancouver. Smithers is the closest major centre accessible by air, located 275 km south of the Property and lies along the Yellowhead Highway the CNR mainline. Available exploration services include contract diamond drilling, expediting/camp services, and helicopter companies.

The Kemess South Mine, owned by Centerra Gold Inc. (Centerra), provides the closest infrastructure to the Lawyers Property. The Kemess South Mine is connected to the B.C. Hydro grid via a powerline from Mackenzie and has road access via the ORAR. A large mining camp and a 1,424 m gravel airstrip is also present at Kemess South. Eleven km southeast of the Lawyers Property is the Baker Mine and process plant site (currently under care and maintenance), owned by TDG Gold Corp.

1.4 History of Exploration, Development and Mining

Gold and base metals were first documented in the region from 1824-1929. Early exploration in the Lawyers Property area began in earnest in the 1960s and mineralised prospects were identified by the 1980s, leading to the development of the Lawyers Mine. The Lawyers Mine operated by Cheni Gold Mines from 1989 to 1992 and was focused on high-grade underground opportunities at the Cliff Creek, Dukes Ridge (aka Dukes Ridge) and AGB mineralised zones. Overall mine production totaled 682,353 t processed for 171,066 oz gold Au and 3,546,400 oz silver.

1.5 Geology and Mineralisation

1.5.1 Regional Geologic Setting

Regionally, the Lawyers Property covers 140 km^2 of highly prospective rocks in the northeastern region of the prolific metal-endowed Stikine Terrane, British Columbia (Canada). Magmatic events in Stikine during the Late Triassic and Early Jurassic drove the development of mineralising porphyry and epithermal systems in this region. On the east and west sides of the Bowser Basin, the same magmatic and mineralising events are recognized and formed an arch of gold and polymetallic mineralisation, depicted herein as the ‘Golden Horseshoe’, which includes the Golden Triangle.

1.5.2 Property Scale Geology

At the property scale, the Lawyers Property straddles an important stratigraphic horizon between rocks of the Upper Triassic Stuhini Group and the Lower Jurassic Hazelton Group that define an important geological unconformity, with many of the deposits in the Golden Horseshoe concentrated along it. At the centre of the Lawyers Trend are the structurally controlled. Cliff Creek, Dukes Ridge, Phoenix, and AGB zones are located within a large 5 km by 8 km radiometric anomaly that is coincident with potassic alteration and associated with a low-sulphidation epithermal system.

1.5.3 Stratigraphy

Stratigraphically, the Lawyers Property is predominantly a shallow northwest-dipping sequence of volcanic and sedimentary rocks of the Lower Jurassic Toodoggone Formation, part of the Hazelton Group that is exposed throughout the Stikine Terrane. The Toodoggone Formation is sub-divided into upper and lower volcanic cycles. The Lawyers Property is predominantly underlain by lower cycle rocks composed of thick sequences (>300 m) of dacitic and andesitic tuffs and flows. These volcanic strata erupted concurrently with the development of deeply rooted faults that focused magmatism and mineralisation. Magmatism is expressed as the Black Lake intrusive suite that outcrops in the southern region of the Property. Locally Asitka and Takla Group rocks are exposed along the margins of the Black Lake Intrusive and, in part, fault bounded. Similar relationships are observed in the southern Toodoggone and spatially associated with porphyry-style mineralisation, including at Kemess.

Localized conglomerates and volcaniclastics within the lower cycle are confined within blocks dropped along steeply dipping syn-volcanic faults, which can potentially be used as a vector towards epithermal mineralisation. The entire Toodoggone Volcanic sequence is unconformably overlain by the younger Sustut sedimentary rocks.

1.5.4 Structure

The Lawyer's Property has undergone a relatively simple brittle deformation history of syn-volcanic graben development and subsequent strike-slip deformation. The most dominant structural features on the Property are a series of NW-NNW (310º to 340°) striking faults that are subvertical to steeply SW- or NE-dipping. These faults typically show evidence of normal displacement with localized, late, strike-slip reactivation. They are the oldest structures on the Property and represent syn-volcanic growth faults formed during Lower Jurassic extension and block faulting.

The orientation and characteristics of the mineralised zones in the Lawyers Trend are consistent with the development of robust hydrothermal systems within a pre-existing NW-NNW trending fault and fracture system. This system likely reflects the original volcanic basin geometry, and these structures acted as a conduit for fluid migration and metal precipitation. The NW structures and associated mineralisation are locally offset by E-W and SW-NE trending strike-slip faults, typically with <10 m displacement. The structural relationships observed in outcrop and drill core are also observed in magnetic and Very Low Frequency (VLF) data, providing numerous new exploration targets.

1.5.5 Alteration

Volcanic strata on the Property are only very weakly altered and original textures generally well preserved. Narrow localized zones associated with mineralisation in the main zones show intense silicification and potassic alteration. A variety of alteration facies are observed across the Property, ranging from a massive advanced argillic zone north-west of Cliff Creek to the strong quartz-sericite-pyrite alteration concentrated along structures in the Marmot area. The alteration, variation and zonation suggest that the epithermal mineralisation on the Lawyers Property was part of a large-scale hydrothermal system.

1.5.6 Mineralisation

The Lawyers Zones consist of a combination of quartz veins, stockwork zones and chalcedony breccia bodies developed along northwest and north-northwest trending fracture systems. Low-sulphidation epithermal gold-silver mineralisation consists of predominantly pyrite, with minor chalcopyrite, sphalerite, galena, native gold, native silver, electrum and acanthite in a gangue of quartz, chalcedony, jasperodial chert, amethyst, minor calcite and barite. Veins occasionally display banded and crusti-form textures typical of low-sulphidation epithermal systems, however brecciation and alteration related to faulting are more common than classic epithermal textures. The three principle mineralised zones are the Amethyst Gold Breccia (AGB) Zone, the Cliff Creek Zone with its many sub-zones, and the Dukes Ridge-Phoenix Zone. Subsidiary zones (or prospects) include Marmot Lake and Silver Pond Zones.

Low sulphidation (adularia-sericite) epithermal type alteration is characterized by core zones of intense silicification ± adularia and bleaching. At higher elevations within the AGB Zone and within Cliff Creek and Dukes Ridge zones, adularia forms narrow, pink boundaries on vein margins, and outbound of veins replaces plagioclase phenocrysts and groundmass silicate minerals, partly obscuring the porphyritic texture of the wall rocks. At AGB, the central potassic alteration grades outward to a propylitic assemblage of epidote-carbonate-chlorite-pyrite. At Cliff Creek and Dukes Ridge zones, adularia on vein margins occurs with sericite flanked by kaolinite. The argillic alteration, accompanied by pyrite and chlorite, forms wide envelopes on the veins and grades outward to a propylitic assemblage similar to the AGB Zone.

The Silver Pond Group of prospects, most of which lie along the Silver Pond Trend, a north-northwest trend that sub-parallels the Cliff Creek Zone, is centred approximately 3 km west of the AGB Zone and approximately 1 km to 2 km west of the Cliff Creek Zone. Two general styles of high-sulphidation (acid-sulphate) epithermal gold-silver mineralisation occur along this trend: 1) vein and breccia-type shoots and pods, such as the West and Silver Creek zones; and 2) high-level stockwork-type mineralisation. Gold and silver are generally absent from the areas of intense alteration, and pyrite and magnetite are the only visible metallic minerals. The Silver Pond Group of prospects is characterized by an intense central zone of quartz-dickite ± pyrite ± barite that obliterates original rock textures. This central alteration assemblage envelopes northwest-trending veins and (or) fracture fillings of microcrystalline quartz with drusy quartz-lined cavities. The central zones grade outward to dickite-quartz ± natroalunite argillic alteration and peripheral chlorite-carbonate-epidote ± montmorillonite propylitic alteration.

1.6 Deposit Types

The Cliff Creek, Dukes Ridge-Phoenix and AGB zones are all considered to be structurally controlled, low-sulphidation type epithermal gold-silver deposits. Evidence for a number of different mineral deposit styles occur in the Lawyers Property region, including low- and high-sulphidation epithermal gold-silver mineralisation, calc-alkalic porphyry copper-gold mineralisation, and uncommon iron or copper (± gold and silver) skarn mineralisation.

1.7 Exploration

Benchmark has actively explored the Lawyers Property during the 2018, 2019, 2020, 2021 and 2022 field seasons. These exploration programs included extensive soil, rock, and ground magnetic (MAG), Very Low Frequency (VLF) and induced polarization (IP) surveys, airborne geophysics (VTEM), Aerial Drone Surveys (UAV), LiDAR Survey, geological mapping, Shortwave Infrared (SWIR) analysis, thin-section petrography, and biogeochemical sampling.

1.8 Sample Preparation, Analyses and Security

The drill core sampling program was undertaken by Company personnel under the direction of APEX Geoscience Ltd. (APEX), who are contracted by Benchmark to plan and manage exploration programs on the Lawyers Property. A secure chain of custody is maintained in transporting and storing of all samples. Drill core samples were assayed at ALS Global Laboratories (Geochemistry Division) (ALS) in Vancouver, Canada. Samples returning silver and base metal grades over-limits were re-analysed by atomic absorption or emission spectrometry.

APEX implemented and monitored a thorough QA/QC program for the drilling undertaken at the Lawyers Property over the 2018 to 2022 period including the insertion of certified standards, blanks and field duplicates. Examination of all QA/QC results for all recent 2018-2022 sampling, presents no indication of material issues with accuracy, contamination, or precision in the data.

It is the opinion of the author that sample preparation, security and analytical procedures for the Lawyers Property were adequate and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in Section 14 of this Technical Report.

1.9 Data Verification

Detailed verification of the Lawyer's drill hole data, used for the current Mineral Resource Estimate, has been undertaken, including verification of historical drilling data (prior to 2015) from hard-copy reports, drill hole logs, cross-sections and maps. This work provides confidence in the historically reported mineralisation of the Cliff Creek North, Dukes Ridge, Phoenix and AGB zones. The detailed review and digitization of historical reports, and the information obtained from recent drilling (planned to drill through voids and backfill) gives a higher degree of confidence in the location and models of the underground workings and stope models at Cliff Creek and AGB. The small stope model for the Phoenix zone has the lowest confidence but is still assumed to be generally representative of the previously mined material, based on historical cross-sections, reports, and recent drilling.

The author also carried out independent verification of a select subset historical drill hole data. No material errors were observed in the data. The author also reviewed the results of the 2015 verification drilling undertaken at the Cliff Creek North and Dukes Ridge Zones, and Benchmark's own verification drilling, and is satisfied that the collective verification drilling undertaken at the Project confirms the tenor of historic drill data, for which complete assay and location information is known.

The author conducted verification of the Lawyers Property drill hole assay database for gold and silver, by comparison of the database entries with assay certificates, downloaded directly from ALS Webtrieve. Very few minor discrepancies were encountered in the data, which are not considered by the author to be material to the current Mineral Resource Estimate.

P&E conducted two separate site visits to the Lawyers Property. The presence of a nugget effect in the data is evident. However, the author considers that there is acceptable correlation between the gold and silver assays in Benchmark's database and the independent verification samples collected by P&E and analysed at ALS and Actlabs.

The author is satisfied that sufficient verification of both the historic and recent drill hole data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimate for the Cliff Creek, Dukes Ridge, Phoenix and AGB Zones.

1.10 Mineral Processing and Metallurgical Testing

The preliminary metallurgical testing for a bulk tonnage open pit mining scenario at Lawyers was initiated in Spring 2020 and concluded in mid-2021. There is limited historic information of relevance prior to 2020 to contribute technical information for this type of operating scenario.

The 2020/2021 metallurgical laboratory testing included investigations into both flotation, and cyanide leaching. Leaching was evaluated on whole rock and on float concentrate under various operating conditions. Based on the tests results and economic considerations the PEA flowsheet design was directed to whole rock cyanide leaching. Leaching would be accommodated in aerated tanks following gravity pre-treatment to remove coarser precious metal particles. The mined rock is considered to be moderately hard to hard. Based on optimization laboratory testing the required feed particle size to the leach is considered to be at a modest grind, of 80% passing particle size (P_{80}) of 106 µm. The laboratory data suggests an appropriate tank leach retention time of 32 hours. Washing of the pregnant leachate solution (PLS) would be by counter current decantation (CCD) with the PLS going to zinc precipitation in order to subsequently produce doré on site.

The PEA level testing was performed on composite samples from Cliff Creek (including Dukes Ridge) and AGB zones. Based on optimization studies, the variability testing gave consistent gold leach dissolution recoveries ranging from 91% to 97% on head grades of 0.46 g/t to 3.04 g/t. Due to changes in mineralogy, primarily relating to electrum particle size and composition the variation the silver recovery was more variable. Silver showed a 50% to 92% leach dissolution recovery on composite samples with a head grade range of 3.8 g/t to 165 g/t. Based on the preliminary data average precious metal design recovery for the AGB Zone is provided at 92.1% for gold and 60.6% for silver. For the Cliff Creek Zone average gold recovery is 92.5%, and for silver 83.0%.

1.11 Mineral Resource Estimate

The 2022 Updated Mineral Resource Estimate for the Lawyers Gold-Silver Property is summarized below in Table 1-1. A total of 1,103 drill holes totalling 218,178 m collectively from the Cliff Creek, AGB, Dukes Ridge and Phoenix Zones were used in the Mineral Resource Estimate, which was completed by P&E Mining Consultants Inc. (P&E) and APEX Geoscience Ltd.

Table 1-1: Lawyers Mineral Resource Estimate [1-8]

Mineral Resource Area	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (Moz)	AuEq (koz)
Pit-Constrained Mineral Resource Estimate @ 0.4 g/t AuEq* Cut-off								
Cliff Creek	Measured	13,671	1.19	20.5	1.45	522	9.0	635
	Indicated	40,762	1.16	16.3	1.33	1,477	21.4	1,744
	Inferred	2,114	0.93	11.8	1.08	63	0.8	73
AGB	Measured	6,633	1.24	51.1	1.88	264	10.9	401
	Indicated	4,740	0.78	33.9	1.21	119	5.2	184
	Inferred	151	0.58	27	0.92	3	0.1	4
Total	Measured	20,304	1.21	30.5	1.88	787	19.9	1,036
	Indicated	45,502	1.09	18.2	1.32	1,596	26.6	1,928
	Inferred	2,265	0.91	12.8	1.07	66	1.0	78
Out-of-Pit Mineral Resource Estimate @ 1.5 g/t AuEq* Cut-off								
Cliff Creek	Indicated	1,158	3.17	50.1	3.80	118	1.9	141
	Inferred	2,302	3.52	59.4	4.26	260	4.4	315
AGB	Indicated	411	1.55	89.3	2.66	20	1.2	35
	Inferred	306	1.83	33.5	2.25	18	0.3	22
Total	Indicated	1,569	2.74	60.6	3.50	138	3.1	177
	Inferred	2,608	3.32	56.3	4.02	278	4.7	337
Total Mineral Resource Estimate @ 0.4 g/t Au-Eq* Cut-off Pit-Constrained & 1.5 g/t AuEq* Cut-off Out-of-Pit								
All	Measured	20,304	1.21	30.5	1.88	787	19.9	1,036
	Indicated	47,071	1.15	19.6	1.39	1,734	29.6	2,105
	M & I	67,376	1.16	22.9	1.45	2,521	49.6	3,141
	Inferred	4,873	2.20	36.1	2.65	345	5.7	415

Notes:

1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
4. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
5. Historical mined areas were removed from the block modelled resources.
6. Metal prices used were US$1,750/oz Au and US$20/oz Ag and 0.78 US$ CDN$ FX with process recoveries of 90% Au and 83% Ag. A C$14.50/t process cost and C$5/t G&A cost were used. The Au:Ag ratio was 80:1 for the purposes of calculating AuEq.
7. The constraining pit optimization parameters were C$3.15/t mineralised and waste material mining cost and 50° overall pit slopes with a 0.40 g/t AuEq cut-off.
8. The Out-of-Pit Mineral Resource grade blocks were quantified above the 1.5 g/t AuEq cut-off, below the constraining pit shell and within the constraining mineralised wireframes. Out-of-Pit Mineral Resources selected exhibited continuity and reasonable potential for extraction by the long hole underground mining method. Differences may occur in totals dues to rounding.

Source: APEX (2022)

Mineral resources can be sensitive to the selection of the reporting cut-off grade. For sensitivity analyses, other cut-off grades are presented for review. Mineral resources at various cut-off grades are presented for the open pit and underground resources in Table 1-2.

Table 1-2: Sensitivities of Combined In-Pit and Out-of-Pit Mineral Resource Estimate

Cut-off AuEq (g/t)	Tonnes (k)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (Moz)	AuEq (koz)
Global Measured & Indicated							
0.20/1.5	99,483	0.94	18.14	1.08	3,004	58,012	3,444
0.30/1.5	81,834	1.09	21.11	1.25	2,871	55,549	3,294
0.35/1.5	74,107	1.08	21.34	1.35	2,584	50,842	3,219
0.4/1.5	**67,376**	**1.26**	**24.39**	**1.45**	**2,738**	**52,867**	**3,141**
0.5/1.5	56,205	1.44	27.78	1.65	2,596	50,191	2,980
0.6/1.5	47,762	1.61	31.09	1.84	2,465	47,734	2,831
Global Inferred							
0.2/1.5	6,396	1.90	30.99	2.09	392	6,372	430
0.3/1.5	5,615	2.14	34.82	2.35	386	6,287	424
0.35/1.5	5,193	2.29	37.30	2.51	382	6,228	419
0.4/1.5	**4,873**	**2.39**	**39.41**	**2.63**	**378**	**6,187**	**415**
0.5/1.5	4,368	2.64	43.40	2.91	371	6,095	408
0.6/1.5	4,046	2.81	46.33	3.09	366	6,026	402

Source: APEX (2022)

1.12 Mineral Reserve Estimate

Mineral reserves can only be estimated as a result of an economic evaluation as part of a preliminary feasibility study or a feasibility study of a mineral project. Accordingly, at the present level of development, there are no mineral reserves at the Project.

1.13 Mining

The Project contains two near-surface low-grade gold deposits (AGB and Cliff Creek) situated on the top of a ridge separated by approximately 2 km. Conventional, owner-operated open pit mining is appropriate for these near-surface deposits with its relative low cost and high productivity. Approximately 47 Mt of open pit mineable resources have been defined with a grade of 1.46 g/t AuEq containing 1,770 koz of gold and 34,064 koz of silver and a strip ratio of 6:1. Mining activities will average 70 kt/d with a peak of 108 kt/d over a 12-year life of mine, in order to meet a proposed mill process rate of 10,600 t/d (3.9 Mt/a). The parameters used to quantify the mined material and mill feed resources are shown in Table 1-3. The mine production schedule generated is shown in Figure 1-1.

Table 1-3: Final Mine Design Criteria

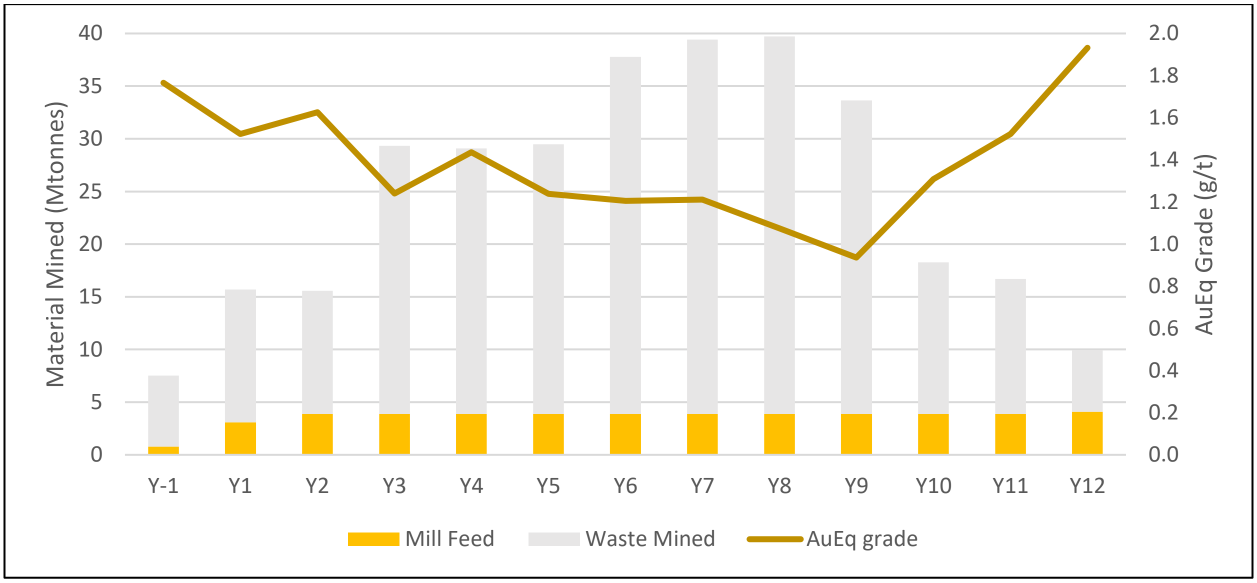
Parameter	Unit	AGB Deposit	Cliff Creek Deposit
Gold price	US$/oz Au	1,725	
Silver Price	US$/oz Ag	22	
Exchange Rate	US$/oz Au	0.77	
Payable metal – Au	%	99.7	
Payable metal – Ag	%	99.0	
TC/RC/Transport	US$/oz	5	
OP Mining Cost	C$/t mined	3.50	
Mill Process Cost	C$/t processed	20.20	19.40
Sustaining CAPEX	C$/t processed	2.00	
G&A	C$/t processed	5.60	
External Mining Dilution	%	8	
Mining Recovery	%	96	
Gold Recovery	%	92.1	92.5
Silver Recovery	%	60.6	83.0
Gold Equiv Cut-off Grade	g/t Au	0.46	0.44
Inter-ramp Pit Slope Angles	degrees	52	
Overall Slope Angle	degrees	44	47
Discount Rate	%	5	
Process Production Rate	t/d	10,600	
Process Production Rate	Mt/a	3.9	

Note:

These parameters differ slightly from those used in the economic model due to subsequent, more detailed estimation work but the differences are not considered material.

*TC/RC/Transport have been applied to both Au and Ag.

Figure 1-1: Mine Production Schedule



Note:
AGB AuEq = Au + Ag/155; CC AuEq = Au + Ag/114

1.14 Recovery Methods

The processing plant is to be located at the top of a ridge and in between the two proposed open pits at Cliff Creek and AGB. The process chosen for the Lawyers deposit consists of crushing, grinding, thickening, leaching, counter current decantation, Merrill Crowe, and cyanide detoxification. The flowsheet allows for the mineralized material to have a mined product size F_{100} of 800 mm and is crushed to a product size P_{80} of 150 mm. The crusher discharges onto a crushed material stockpile.

The crushed material stockpile is reclaimed by 2 apron feeders onto the SAG mill feed belt which feeds an 8.53 m dia. x 3.81 m EGL SAG mill in closed circuit with a Metso HP500 Pebble crusher. The mill feed will be further ground in a 6.4 m dia. x 11.22 m EGL Ball mill. The ball mill will operate in closed circuit with a set of Multotec HC900 cyclones. The ball mill circuit will operate with a circulating load of 300%, feeding the cyclones by a pair (1 operating and 1 standby) of 16 x 14 Krebs slurry pumps.

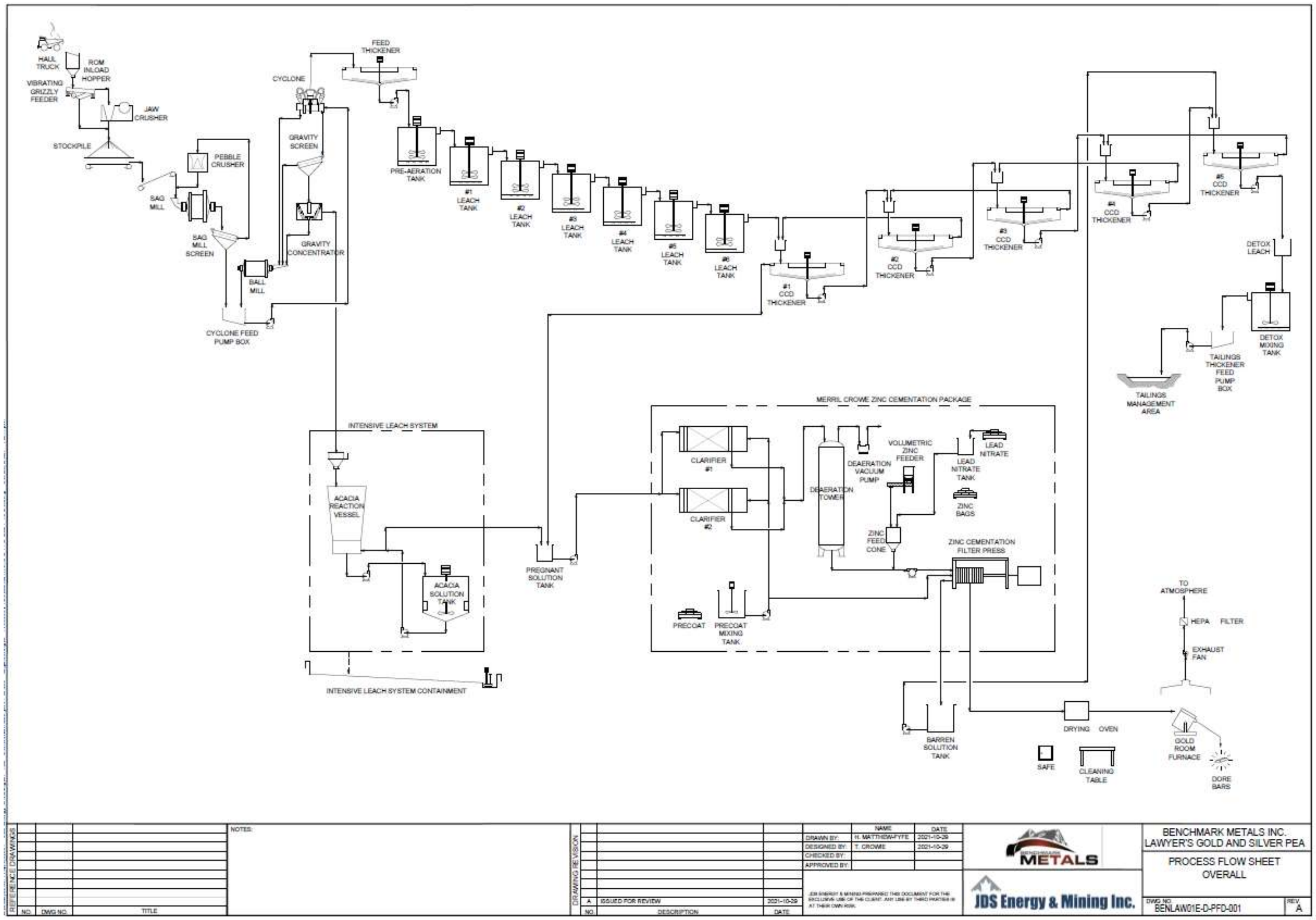
Within the circulating load of the ball mill, there will be an FL Smidth Knelson QS40 centrifugal concentrator. The concentrate produced by the centrifugal concentrator will be leached in a Concep Acacia CS3000 intensive leaching unit with a dedicated electrowinning cell.

The cyclone overflow reports to a pre-leach thickener where the slurry is thickened to 50% solids to feed the leaching circuit. The leaching circuit consists of a pre-aeration tank and 6 leaching tanks for a leaching residence time of 32 hours (the pre-aeration residence time is additional to this). The leach circuit discharges into the counter current decantation (CCD) circuit to produce a pregnant leach solution which will have the precious metals extracted via Merrill Crowe precipitation. The CCD circuit consists of 5 CCD thickeners, which will act to replace the pregnant solution with barren solution.

The solution from the CCD circuit is fed to a Merrill Crowe package, which includes filters (to produce a clear solution), de-aeration, and zinc precipitation. The solution is then filtered to recover gold precipitate to the refinery. The remaining zinc contained in the precipitate is then dissolved in a weak acid and the precious metals can then be dried and melted in the doré melting furnace. The barren solution from the Merrill Crowe process is returned to the pre-leach thickener.

The slurry product from the CCD circuit reports to a detox circuit which consists of an agitated tank with 2 hours of residence time. Lime, SO_2 and oxygen are added to the tank to react with remaining cyanide, which will reduce the cyanide concentration to between 1 ppm and 5 ppm. The detox tailings will report to a conventional tailings pond. The flowsheet can be seen in Figure 1-2.

Figure 1-2: Process Plant Flowsheet



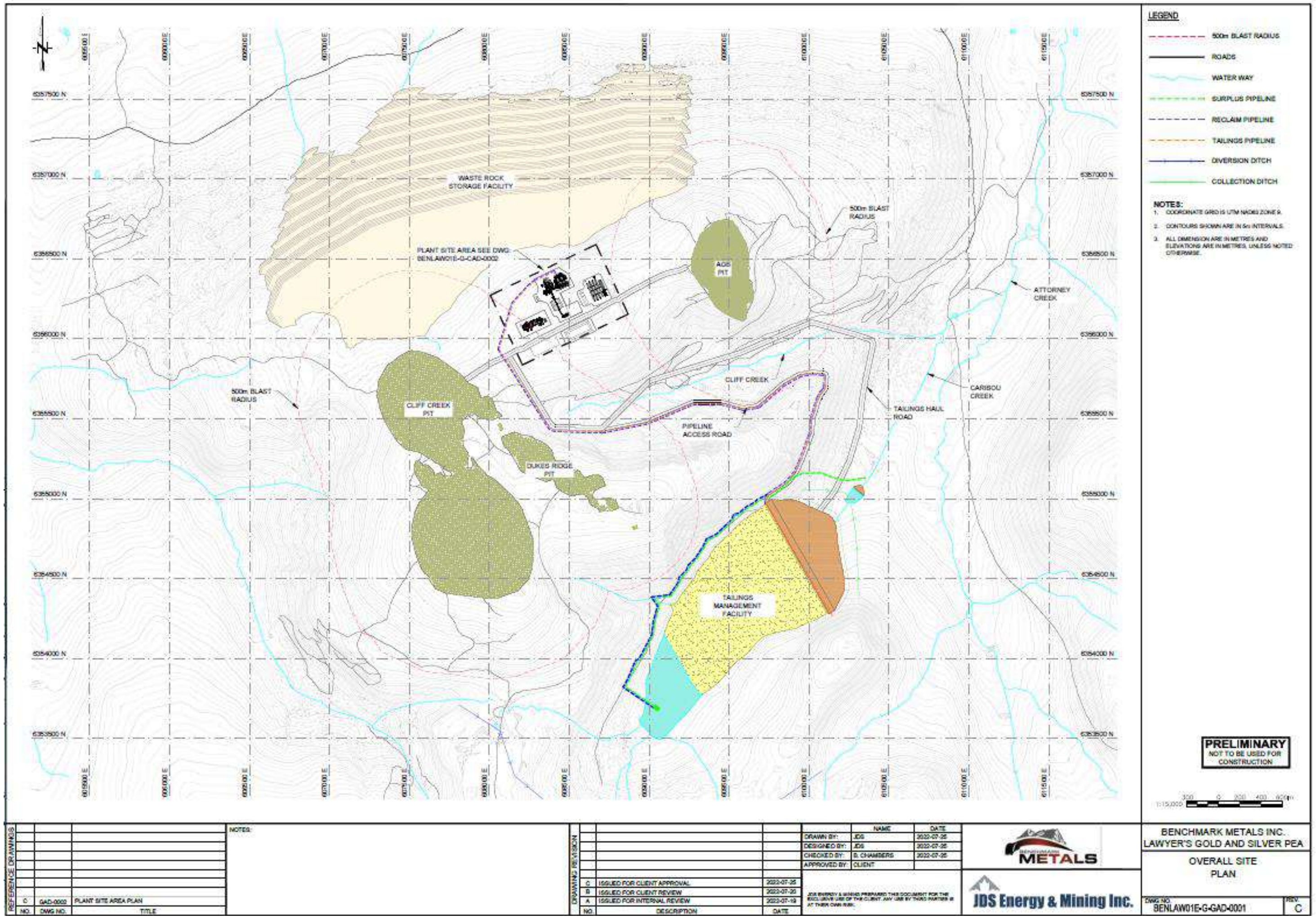
1.15 Project Infrastructure and Services

The Project infrastructure is designed to support a mining and milling operation with a 10,600 t/d throughput, operating on a 24 hour per day, seven day per week basis. The overall site layout will include open pit mines, a processing plant, tailings storage facility, waste rock storage facility, and supporting infrastructure including an accommodation complex, administration office, mine dry, mine maintenance facility, assay lab, and bulk fuel storage.

Site access will be via the existing access road connecting site to the Kemess mine. Power will be supplied by a new 230kV transmission line connecting site to Kemess, which is subsequently connected to BC Hydro's Kennedy Siding Substation near Mackenzie BC. 13.8 kV distribution will be constructed to support site infrastructure.

The overall layout showing the proposed location of on-site infrastructure is provided in Figure 1-3.

Figure 1-3: Overall Site Plan



1.15.1 Water

Water on site will be managed by pumps and gravity-fed channels. The water management plan assumes that non-contact water will be diverted around mine facilities to downstream waterways wherever possible. Diversion channels will be constructed to direct run-off from the upslope catchments of the tailings management facility (TMF), waste rock storage facility (WRSF) and other stockpiles on site (i.e., run-of-mine (ROM) mineralised material stockpile, topsoil stockpiles, etc.) away from these facilities.

Run-off from the TMF will be directed to the seepage collection pond downslope of the TMF embankment. The seepage collection pond will contain run-off from the local catchment, seepage from the TMF, and precipitation directly on the pond itself. Collected flows will be recycled to the TMF.

Supernatant water in the TMF will consist of bleed water from tailings deposition, direct precipitation, and run-off from undiverted catchments. It will be managed in the TMF. Water will be reclaimed from the TMF and pumped to the mill at the Process Plant for use in processing.

Excess water that accumulates in the TMF will be removed using the Surplus Water System and discharged to Caribou Creek, downstream of the TMF. It is not anticipated that water treatment is required at this time.

Groundwater inflows and run-off from the walls of the Open Pits will be pumped to the mill for use in processing, to supplement the reclaim from the TMF.

Run-off from the WRSF will be collected in ditches along the toe of the WRSF and directed to one of two settling ponds where precipitates and suspended solids will settle out before water is allowed to be discharged to the downstream receiving environment. It is assumed that WRSF run-off will be suitable for direct discharge to the environment after sedimentation in the settling ponds has occurred.

1.15.2 Waste Rock Management

A total of 276 million tonnes (Mt) of run-of-mine (ROM) waste rock will be generated through development of the open pits. Approximately 251 Mt will be generated from the development of the Cliff Creek Open Pit, with the remaining 25 Mt generated from the development of the AGB Open Pit.

Waste rock will be stored in a single WRSF located on a north-facing slope, to the northwest of the Cliff Creek Open Pit, with some waste rock being backfilled in to AGB during later years.

1.15.3 Tailings Management Facility

A single tailings management facility (TMF) will be constructed in the Caribou Creek valley to the south of the Cliff Creek Open Pit for storage of tailings and process water. The TMF has capacity to store approximately 46 Mt of tailings.

The TMF is created by constructing one cross-valley embankment, to a maximum height (crest to downstream toe) of approximately 130 m. The embankment will be constructed using NPAG waste rock from open pit mining activities and will be expanded in raises using the downstream method of construction.

A HDPE geomembrane liner will be installed on the upstream face of the TMF embankment for seepage control and management.

1.16 Environmental Studies, Permitting and Social or Community Impacts

Environmental studies have been historically performed prior to the construction of Cheni Mine, and subsequently by the Ministry of Environment and Climate Change Strategy when the Cheni Mine was operating. Environmental monitoring in the area of the historic tailings facility has also been conducted more recently, under purview of the management of that impoundment by the BC Ministry of Energy, Mines and Low Carbon Innovation.

In the past two years, Benchmark has initiated comprehensive environmental studies to inform both the ongoing exploration activities and prepare for submission of an environmental assessment application.

Exploration activities are conducted and bonded under Mineral Exploration Permit MX-13-100, but the construction of the Lawyers Project will require additional permits, following the receipt of an Environmental Assessment Certificate (EAC) under the British Columbia Environmental Assessment Act. The project will also require a federal decision statement before the issuance of any permits to construct or operate under the federal *Impact Assessment Act*. The proposed Project will undergo a concurrent environmental assessment / impact assessment, by way of either a substituted or coordinated process between the federal and provincial regulators (i.e., BC Environmental Assessment Office and the Impact Assessment Agency). The determination of substituted versus coordinated processes will come once both regulators have been notified of the Project with the submission of an Initial Project Description.

The project is on Crown land administered by the Province of British Columbia, within the traditional lands of the Tsay Keh Dene Nation, Kwadacha Nation and Takla Nation and within Tahltan Territory. The region is a sparsely populated and relatively undeveloped. Many of the smaller communities have predominantly Indigenous populations that are isolated from one another as well as from the main regional centers of Smithers and Terrace. Land and resource use within the region include trapping, guided hunting, commercial recreation and outdoor recreation including fishing, hunting, camping, hiking, snowmobiling, all-terrain vehicle (ATV) riding and skiing. In the vicinity of the Project, there are mineral, guide outfitter, and trapline tenures. Community and socio-economic impacts of the Project can potentially be very favourable for the region, as new long-term opportunities are created for local and regional workers.

Benchmark has established several agreements with Indigenous groups, including a trilateral Exploration Cooperation and Benefit Agreement with the Takla Nation, Tsay Keh Dene Nation and Kwadacha Nation and an Exploration Agreement with the Tahltan Central Government (TCG). Through the trilateral agreement, Benchmark has established and funds an Implementation Committee, with sub-committees, including an Environmental Management Committee and Business Opportunities Committee that meet regularly to share project updates, detail economic opportunities, and consult with Indigenous groups. Through the Exploration

Agreement, Benchmark provides information regarding its ongoing and potential economic activities, in order to keep the TCG and its members informed throughout the evolution of the Property and provides economic benefits through community funding. Engagement with local Indigenous groups will continue throughout the Project design, construction, operations, closure, and post-closure.

1.17 Operating and Capital Cost Estimates

The capital cost estimate was prepared using a combination of benchmarking and first principles where applicable, with applied project experience. The estimate is derived from engineers, contractors, and suppliers who have provided similar services to existing operations and have demonstrated success in executing the plans set forth in the study. Given that assumptions have been made due to the level of engineering available for this study, the accuracy of the estimate and/or ultimate construction costs arising from the engineering work cannot be guaranteed. The estimate is deemed to be at the level of an AACE Class 5 Estimate, with a target accuracy of ± 30%, reflective of the current level of engineering and design.

Costs are expressed in CAD$ and do not include allowances for escalation or exchange rate fluctuations unless stated otherwise.

Pre-Production capital costs amount to $484M. Total Life of Mine capital costs are estimated to be $626M. Individual contingency rates were applied to each of the pre-production capital cost categories. This was preformed to reflect the level of engineering effort undertaken and the estimate/engineering accuracy. This resulted in a blended contingency rate of 17.6%, or $72.5M in pre-production capital contingency. Sustaining and Closure capital costs total $142M, of which closure costs are estimated to be $45M. Capital Costs are summarized in Table 1-4.

Table 1-4: Summary of Capital Cost Estimate

Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Open Pit Mining	52.5	31.5	84.0
On-site Development	5.5	-	5.5
Mineral Processing	140.1	-	140.1
Tailings and Waste Management	48.2	49.7	98.0
On-site Infrastructure	29.0	10.5	39.6
Off-site Infrastructure	46.2	-	46.2
Project Indirects	51.4	2.9	54.3
Engineering & Project Management	24.5	2.3	26.8
Owner's Costs	14.1	-	14.1
Closure	-	45.0	45.0
Subtotal	**411.5**	**142.0**	**553.5**

Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Contingency	72.5	-	72.5
Total Capital Costs	**484.1**	**142.0**	**626.1**

Operating costs include all costs associated with owner-operated mining, processing, and general & administration costs up to the production of doré on site. Mine operating costs incurred during the construction phase (pre-production Years -2 and -1) are capitalized and form part of the capital cost estimate.

Total operating costs over the life of mine are $2,205M, with average annual operating costs over the life of mine of $184M, as summarized in Table 1-5. The total operating unit cost is $47.25/t processed. Operating costs are presented in CAD$ and do not include allowances for escalation or exchange rate fluctuations unless stated otherwise.

Table 1-5: Summary of Operating Cost Estimate

Operating Costs	$/t Processed	Average Annual M$	LOM M$
Mining	24.79	96.4	1,156.7
Processing	17.31	67.3	807.9
G&A	5.15	20.0	240.2
Total	**47.25**	**183.7**	**2,204.8**

The main assumptions used in the preparation of the operating cost estimate are shown in Table 1-6.

Table 1-6: Summary of Key Operating Cost Assumptions

Item	Unit	Value
Average power consumption	MW	16.3
Diesel cost (delivered)	$/litre	1.60
LOM average manpower (including contractors, excluding corporate)	employees	364

1.18 Economic Analysis

An economic model was developed to estimate annual cash flows and evaluate sensitivities for the Lawyers Project. All costs, metal prices, and economic results are reported in Canadian currency ($C) unless stated otherwise.

Pre-tax estimates of Project values were prepared for comparative purposes, while after-tax estimates were developed to approximate the true investment value. It must be noted, however, that tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are only approximations.

This Technical Report contains forward-looking information regarding projected mine production rates, mine construction schedule, and forecasted resulting cash flows. The mill head grades are based on sampling that is reasonably expected to be representative of the realized grades from actual mining operations. Factors such as the ability to obtain permits to construct and operate a mine, to obtain major equipment or skilled labour on a timely basis, or to achieve the assumed mine production rates at the assumed grades may cause actual results to differ materially from those presented in this economic analysis.

The reader is cautioned that the gold prices and exchange rates used in this study are only estimates based on recent historical performance and there is absolutely no guarantee that they will be realized if the Project is taken into production. The price of gold is based on many complex factors and there are no reliable methods of predicting the long-term gold price.

At the base case metal prices (US$1,735 per ounce Au, US$21.75 per ounce Ag, and a $0.77 US$/C$ exchange rate), the Project generates an after-tax $NPV_{5\%}$ of $589M and an after-tax IRR of 24.1%. Payback on initial capital is 2.8 years.

1.18.1 Main Assumptions

Table 1-7 outlines the LOM summary and the basis for the economic analysis.

Table 1-7: LOM Summary

Parameter	Unit	Value
Resource Mined	Mt	46.7
Au Grade	g/t	1.18
Ag Grade	g/t	22.71
AuEq Head Grade*	g/t	1.41
Waste Mined	Mt	275
Strip Ratio	w:o	5.9
Mine Life	years	12

Parameter	Unit	Value
Mill Average Daily Production	t/d	10,600
Gold Contained	koz	1,770
AGB Gold Recovery	%	92.1
Cliff Creek Gold Recovery	%	92.5
Gold Recovered	koz	1,636
Average Gold Production	koz/year	136
Silver Contained	koz	34,064
AGB Silver Recovery	%	60.6
Cliff Creek Silver Recovery	%	83.0
Silver Recovered	koz	25,749
Average Silver Production	koz/year	2,124
Initial Capital Cost	$M	484
Sustaining Capital Cost	$M	142
Life of Mine Capital	$M	626

Note:
*Includes recovery and payability factors.

The main assumptions used in the economic analysis of the Project are outlined in Table 1-8 and Table 1-9 below.

Table 1-8: Economic Assumptions

Item	Unit	Value
NPV Discount Rate	%	5
Federal Income Tax Rate	%	15
State/Provincial Income Tax Rate	%	12
BC Mining Tax Rate	%	13
Equity Finance	%	100
Capital Contingency (Overall)	%	17.6%

Table 1-9: Net Smelter Return Assumptions

Off-site Costs and Payables	Unit	Value
Au Payable	%	99.9%
Ag Payable	%	99.0%

Off-site Costs and Payables	Unit	Value
Au Refining Charge	US$/payable oz Au	5.00
Ag Refining Charge	US$/payable oz Ag	0.25

Note:
*Includes transport costs.

Table 1-10 outlines the metal prices and exchange rates used in the economic analysis.

Table 1-10: Net Smelter Return Assumptions

Assumptions	Unit	Value
Au Price	US$/oz	1,735
Ag Price	US$/oz	21.75
FX Rate	US$:C$	0.77

1.18.2 Results

The economic results for the Project, based on the assumptions outlined above are presented in Table 1-11.

Table 1-11: Economic Results

Parameter	Unit	Pre-Tax Results	After-Tax Results
$NPV_{0\%}$	M$	1,531	1,000
$NPV_{5\%}$	M$	939	589
IRR	%	31.4	24.1
Payback period	Production years	2.0	2.8

This preliminary economic assessment is preliminary in nature and includes the use of inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

The break-even gold price for the project After-Tax ($NPV_{0\%}$) is US1,041/oz (assuming silver price at the base case of US$21.75/oz).

1.18.3 Sensitivities

Sensitivity analyses were performed using metal prices, F/X rate, mill head grade, CAPEX, and OPEX as variables. The value of each variable was changed plus and minus 15% independently while all other variables were held constant. The results of the sensitivity analyses are shown in Table 1-12.

Table 1-12: Sensitivity Analysis Results

Variable	After-Tax $NPV_{5\%}$ (M$)			Pre-Tax $NPV_{5\%}$ (M$)		
	-15% Variance	0% Variance	15% Variance	-15% Variance	0% Variance	5% Variance
Metal Price	292	589	883	477	939	1,401
F/X Rate	934	589	332	1,480	939	539
Head Grade	293	589	882	479	939	1,399
OPEX	738	589	439	1,173	939	705
CAPEX	674	589	504	1,024	939	854

1.19 Conclusions and Recommendations

1.19.1 Conclusions

It is the conclusion of the Qualified Persons (QPs) that the PEA summarized in this technical report contains adequate data and information to support a PEA. Standard industry practices, equipment and design methods were used in the PEA.

Based on the assumptions used for this evaluation, the Project shows positive economics and should proceed to the next stage of study.

To date, the QPs are not aware of any fatal flaws for the UG Project.

1.19.2 Recommendations

It is recommended that the Lawyers Project proceed to the Feasibility Study (FS) stage to advance the project. It is also recommended that environmental and permitting efforts continue as needed to support Lawyers project development plans.

The next stage of study will further detail:

- Mineral resources;
- The potential inclusion of an underground development;
- Engineering design;
- Project scheduling;
- Process flowsheet parameters; and
- Capital and operating costs.

Total costs to progress the project through the next stage of study is approximately $18M, in addition to approximately $5M for exploration of targets outside the immediate study area.

2 INTRODUCTION AND TERMS OF REFERENCE

JDS Energy & Mining Inc. was commissioned by Benchmark to prepare a Preliminary Economic Assessment Technical Report following the guidelines of the Canadian Securities Administrators' National Instrument 43-101 and Form 43-101F1, collectively referred to as National Instrument (NI) 43-101 for the Lawyers Project in British Columbia Canada.

2.1 Scope of Work

This technical report summarizes the work of several consultants with the scope of work for each company listed below, which combined, comprises the total Project scope.

JDS Energy & Mining Inc. (JDS):

- Establishing an economic framework for the PEA;
- Mine engineering, design and scheduling;
- Development of detailed flowsheets, specifications and selection of process equipment;
- Design oversight related to site infrastructure, access road, power line, plant facilities and other ancillary facilities;
- Estimating mining, process plant, G&A and site services OPEX and CAPEX;
- Preparing a financial model and conducting an economic evaluation including sensitivity and Project risk analyses;
- Interpreting the results and making conclusions that lead to recommendations to improve Project value and reduce risks; and
- Developing and compiling the technical report and integrating sub-consultant report sections.

P&E Mining Consultants Inc (P&E):

- Deposit geology and mineralisation;
- QA/QC, data verification; and
- Mineral Resource Estimation.

F. Wright Consulting Inc. (F. Wright)

- Establishing metal recovery values; and
- Development of the conceptual flowsheet.

Knight Piésold (KP):

- Tailings management facility and waste rock management facility design;
- Overall project water balance; and
- Water management, including design of ditches, channels and ponds for storm water controls.

One-Eighty Consulting Group Inc. (One-Eighty):

- Environment, Permitting, Social and Community Impacts.

2.2 Qualifications and Responsibilities

The Qualified Persons (QPs) preparing this report are specialists in the fields of geology, exploration, environmental management, mineral resource estimation, metallurgy, mineral processing and mining.

None of the QPs or any associates employed in the preparation of this report has any beneficial interest in Benchmark and neither are any insiders, associates, or affiliates. The results of this report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Benchmark and the QPs. The QPs are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience and professional association, are considered QPs as defined in the NI 43-101, and are members in good standing of appropriate professional institutions / associations. The QPs are responsible for the specific report sections as listed in Table 2-1.

Table 2-1 presents the authors and co-authors of each section of the Technical Report, who acting as Qualified Persons as defined by NI 43-101, take responsibility for those sections of this Technical Report as outlined in Section 30 “Certificate of Author”.

Table 2-1: Qualified Persons Responsible for this Technical Report

Qualified Person	Employer	Area	Site Visit Date	Sections of Technical Report
Carly Church, P.Eng.	JDS	Project Management, Economic Analysis	August 19, 2020	1.1,1.18-1.19, 2-3, 19, 23-29 (except 27.4 and 27.5)
Michael Levy, P.E.	JDS	Geotechnical	None	16.3
Tad Crowie, P.Eng.	JDS	Recovery Methods	None	1.14, 17, 22.4

Qualified Person	Employer	Area	Site Visit Date	Sections of Technical Report
Brandon Chambers, P.Eng.	JDS	Infrastructure, CAPEX, OPEX	None	1.15 (except 1.15.1-1.15.3), 1.17, 18 (except 18.5-18.7), 21 (except 21.4 and 21.6), 22 (except 22.3 and 22.4)
Tysen Hantelmann, P.Eng.	JDS	Mining Methods	None	1.12, 1.13, 16 (except 16.3 and 16.4), 21.4, 22.3
Eugene Puritch, P.Eng.	P&E	Mineral Resource Estimate	None	14
William Stone, P.Geo.	P&E	Geology	None	1.2-1.9, 1.11 ,4-10
Brian Ray, P.Geo.	P&E	Exploration, QA/QC	July 5-8, 2022	Co-author 12
Jarita Barry, P.Geo.	P&E	Exploration, QA/QC	None	11, Co-author 12
Frank Wright, P.Eng.	F. Wright	Metallurgy	None	1.10, 13
Jim Fogarty, P.Eng.	KP	TMF & WRMF design, Water Management	August 19, 2020	1.15.1-1.15.3, 16.4, 18.5-18.7, 21.6, 27.4-27.5
Mary Mioska, P.Eng.	One-Eighty	Environment & Permitting	Sept 21, 2020	1.16, 20

2.3 Sources of Information

This report is based on information collected by JDS and KP during a site visit on August 19, 2020, by P&E on a site visit July 6-7, 2022 and by One-Eighty on a site visit on September 21, 2020, and on additional information provided by Benchmark and APEX throughout the course of JDS's investigations. Other information was obtained from the public domain. JDS has no reason to doubt the reliability of the information provided by Benchmark and APEX.

2.4 Site Visit

QP Carly Church, P.Eng. and Jim Fogarty, P.Eng., along with Tawnya Thornton P.Eng. (JDS) visited the property on August 19, 2020, Mary Mioska, P.Eng. visited the property on September 21, 2020. Additionally, Brian Ray, P.Geo. of P&E visited the site on July 5 to 8, 2022.

The site visits included an inspection of the property, the current camp, offices, drill sites, outcrops, drill collars, core storage facilities, historical Cliff Creek portal and historical tailings facility.

QP Carly Church, P.Eng. along with Tawnya Thornton, P.Eng., provided site information, to the JDS QPs so they had a fully informed picture of the project. QPs Hantelmann, Chambers, Crowie and Levy did not visit as there was little or no further information which would assist them in their work beyond what was provided by others referenced above.

2.5 Units and Currency

The units of measure used in this report are as per the International System of Units (SI) or "metric" except for Imperial units that are commonly used in industry (e.g., ounces (oz.) and pounds (lb.) for the mass of precious and base metals).

All dollar figures quoted in this report refer to Canadian dollars (CAD$ or $) unless otherwise noted.

Frequently used abbreviations and acronyms can be found in Section 29. This report includes technical information that required subsequent calculations to derive subtotals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, the QPs do not consider them to be material.

This report may include technical information that requires subsequent calculations to derive sub-totals, totals and weighted averages. Such calculations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, JDS does not consider them to be material.

3 RELIANCE ON OTHER EXPERTS

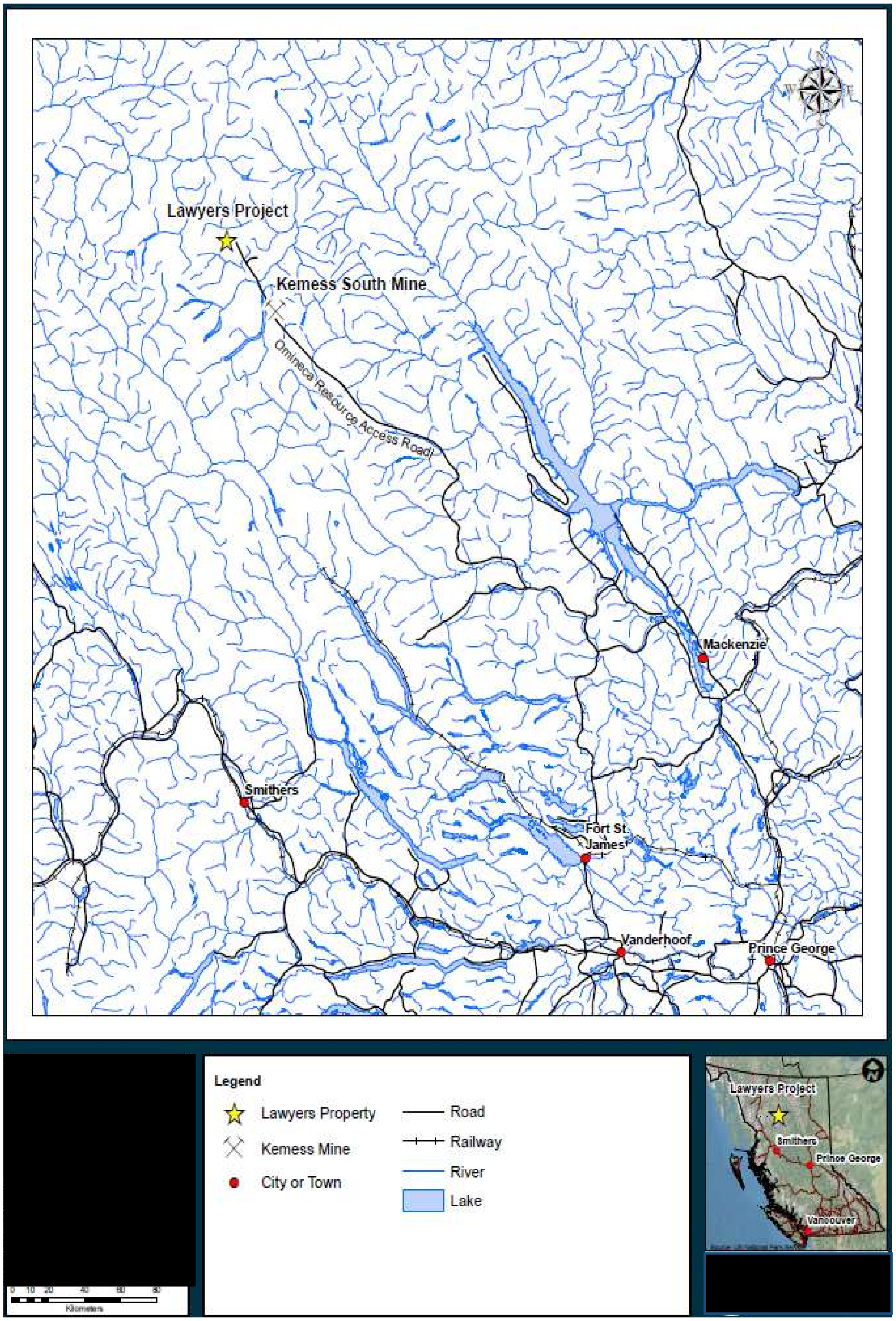
The QPs opinions contained herein are based on information provided by Benchmark and others throughout the course of the study. The QPs have taken reasonable measures to confirm information provided by others and take responsibility for the information.

4 PROPERTY DESCRIPTION AND LOCATION

4.1 Location

The Lawyers Property (Property) is located in north-central British Columbia, 450 km north-northwest of the City of Prince George and 45 km northwest of the Kemess South Mine, a past-producing copper-gold operation (Figure 4-1). The Lawyers Property is in the Omineca Mining Division and centered at Latitude 57°18'44''N and Longitude 127°11'55''W, or in the local North American Datum 83 (NAD 83) coordinate system, Zone 9N, at 608,505 m E, 6,353,577 m N. The Property overlays portions of British Columbia Geological Survey (BCGS) map sheets: 094E.024, 094E.025, 094E.034 and 094E.035 and National Topographic Service (NTS) Map Sheets 094E/03, 05, 06, 11 and 12.

Figure 4-1: Location of the Lawyers Property in North-Central BC



Source: Modified from Lane et al., (2018)

4.2 Property Description and Land Tenure

The Lawyers Property encompasses 46 contiguous mineral claims covering approximately 14,392 ha (Figure 4-2). These mineral claims are 100% owned by Benchmark Metals Inc., either directly or through its ownership of PPM Phoenix Precious Metals Corp. A list of claims and ownership is presented in Table 4-1. The mineral claims tenure information was verified on May 2022 using the BC government website.

Table 4-1: Lawyers Property Claims

Claim Number	Claim Name	Claim Owner	Good To Date	Area (ha)
383411	WO 1	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
383412	WO 2	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
383414	WO 4	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
383417	WO 7	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
389432	SHOTGUN 4	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
389433	SHOTGUN 5	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
389435	SHOTGUN 7	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
389436	SHOTGUN 8	PPM Phoenix Precious Metals Corp.	2031/JUN/19	25.01
506499	Law 1	PPM Phoenix Precious Metals Corp.	2031/JUN/19	419.15
506501	Law 2	PPM Phoenix Precious Metals Corp.	2031/JUN/19	437.07
510068		PPM Phoenix Precious Metals Corp.	2031/JUN/19	69.92
510069		PPM Phoenix Precious Metals Corp.	2031/JUN/19	69.91
510070		PPM Phoenix Precious Metals Corp.	2031/JUN/19	52.42
510071		PPM Phoenix Precious Metals Corp.	2031/JUN/19	419.26
510072		PPM Phoenix Precious Metals Corp.	2031/JUN/19	87.37
510073		PPM Phoenix Precious Metals Corp.	2031/JUN/19	69.89
510074		PPM Phoenix Precious Metals Corp.	2031/JUN/19	366.78
510075		PPM Phoenix Precious Metals Corp.	2031/JUN/19	104.85
510076		PPM Phoenix Precious Metals Corp.	2031/JUN/19	769.17
510077		PPM Phoenix Precious Metals Corp.	2031/JUN/19	436.72
510078		PPM Phoenix Precious Metals Corp.	2031/JUN/19	541.39
510079		PPM Phoenix Precious Metals Corp.	2031/JUN/19	419.37
510080		PPM Phoenix Precious Metals Corp.	2031/JUN/19	698.20
510081		PPM Phoenix Precious Metals Corp.	2031/JUN/19	523.60
510082		PPM Phoenix Precious Metals Corp.	2031/JUN/19	122.24
510083		PPM Phoenix Precious Metals Corp.	2031/JUN/19	244.44
510084		PPM Phoenix Precious Metals Corp.	2031/JUN/19	69.86

Claim Number	Claim Name	Claim Owner	Good To Date	Area (ha)
510185		PPM Phoenix Precious Metals Corp.	2031/JUN/19	69.87
514101		PPM Phoenix Precious Metals Corp.	2031/JUN/19	489.45
517518	WO FRACTION	PPM Phoenix Precious Metals Corp.	2031/JUN/19	244.82
517521	BISHOP FRACTION	PPM Phoenix Precious Metals Corp.	2031/JUN/19	174.86
517522	ATTORNEY CREEK	PPM Phoenix Precious Metals Corp.	2031/JUN/19	296.99
517525	FRACTION	PPM Phoenix Precious Metals Corp.	2031/JUN/19	17.49
517527	STEALTH FRACTION	PPM Phoenix Precious Metals Corp.	2031/JUN/19	244.36
845896	SILVER POND EXTENSION	PPM Phoenix Precious Metals Corp.	2031/JUN/19	384.05
1038113	MARMOT LAKE	PPM Phoenix Precious Metals Corp.	2031/JUN/19	839.32
1038114	ACCESS ROAD	PPM Phoenix Precious Metals Corp.	2031/JUN/19	977.16
1065737	LAWYERS STH1	Benchmark Metals Inc	2031/JUN/19	874.96
1065738	LAWYERS STH2	Benchmark Metals Inc	2031/JUN/19	874.78
1066624	LAWYERS STH3	Benchmark Metals Inc	2031/JUN/19	525.19
1068270	LAWYERS STH4	Benchmark Metals Inc	2031/MAY/02	752.81
1072723	LAWYERS STH5	Benchmark Metals Inc	2031/NOV/15	875.72
1072724	LAWYERS WEST1	Benchmark Metals Inc	2031/NOV/15	279.50
1072726	LAWYERS STH6	Benchmark Metals Inc	2031/NOV/15	174.97
1072727	LAWYERS STH7	Benchmark Metals Inc	2031/NOV/15	17.51
1074384	LAWYERS CONNECTOR	Benchmark Metals Inc	2031/NOV/15	157.03

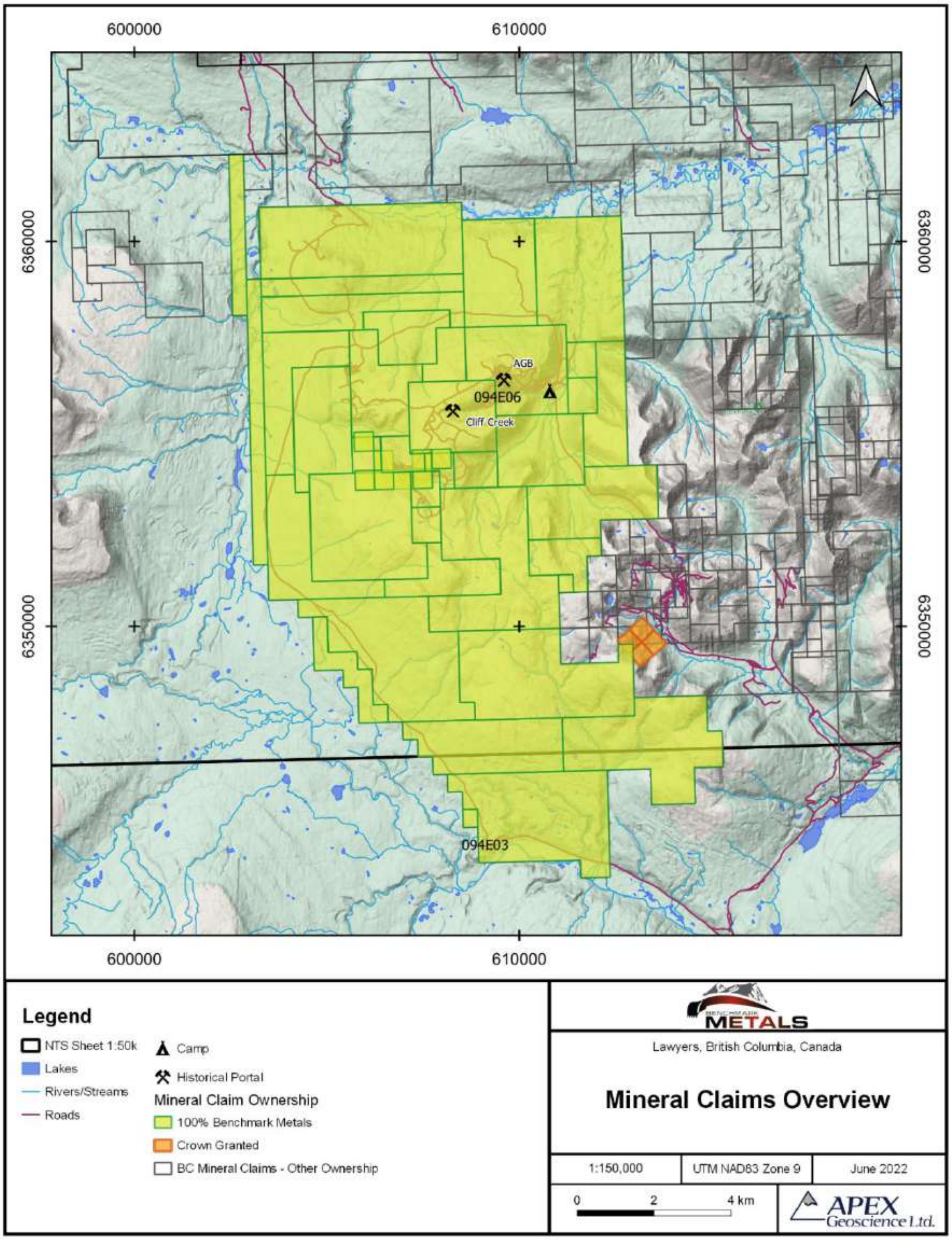
Notes:

Tenure information effective September 16, 2022.

All the PPM Phoenix Precious Metals Corp. owned claims are subject to a 0.5% net smelter return royalty from any production on the Lawyers Property.

Source: APEX (2022)

Figure 4-2: Land Tenure Map of the Lawyers Property



Source: APEX (2022)

As of the effective date of this Technical Report, forty of the mineral claims are in good standing until June 19, 2031; one is in good standing until May 2, 2031; and five are in good standing until November 15, 2031. The Mineral Resource Estimates stated in Section 14 of this Technical Report are on mineral claims 510070, 510071, 510075 and 510078, all of which are in good standing until June 19, 2031.

4.3 Tenure Agreements and Encumbrances

Benchmark announced in a press release dated September 19, 2019 that the Company closed its business combination with PPM Phoenix Precious Metals Corp., whereby they became a wholly owned subsidiary of Benchmark, completing the acquisition of 100% interest in the Lawyers Property. Pursuant to a share exchange agreement, Benchmark issued the following consideration in a series of three transactions:

1) Cash payment of $250,000;

2) 12 million common shares of Benchmark issued to the former shareholders of PPM Phoenix Precious Metals Corp; and

3) 0.5% net smelter return (NSR) royalty from any production from the Property. The 0.5% NSR was sold by Guardsmen (on behalf of the original shareholders of PPM Phoenix Precious Metals Corp.) to Royal Gold Inc. in 2022. This is the only outstanding royalty on the Property at present.

4.4 Property and Title in British Columbia Regulations

In British Columbia, a valid Free Miners' license is required to prospect for minerals, record a claim or acquire a recorded claim or interest in a recorded claim by transfer. Company licenses are available to any registered corporation in good standing. A Free Miners' license is valid for one year and it must be renewed annually to be kept current. The cost of obtaining a Corporate Free Miners License is $500 to issue and $500 to renew.

Mineral Titles in British Columbia are acquired and maintained through Mineral Titles Online, a computerized system that provides map-based staking. Acquisition costs for claims are $1.75 per ha. This confers ownership of the claim for one year beyond the date of staking. In order to hold the claims after the first year, the owner must complete assessment work, either physical or technical, on the Property. A report must be filed detailing the work performed and the results. Only work described in the *Mineral Tenure Act* Regulation is acceptable for registration as assessment credit (British Columbia Ministry of Energy and Mines, 2017). These assessment reports remain confidential for one year, and then become available for public access. If assessment work or cash in lieu is not filed by the required date, the claims will automatically lapse. For year 1 and 2, the work requirement is $5/ha per year; for years 3 and 4 it is $10/ha per year; for years 5 and 6 it is $15/ha per year; and thereafter $20/ha per year. If work is not done, cash in lieu may be paid to hold the claims, but at a rate twice the cost of doing work. The value of assessment work completed on the Lawyers Property holds it in good standing until year 2030.

The Lawyers Property is not directly encumbered by any provincial or national parks, or other protected areas. The Property occurs entirely within the Mackenzie Land and Resource

Management Plan (LRMPs). LRMPs provide strategic level direction for managing Crown land resources and identify ways to achieve community, economic, environmental and social objectives. The Mackenzie LRMP recognizes the importance of Mineral Resources and mining. Specifically, the Property lies within the Toodoggone Lake/River – Special Subzone (No. 7B) of the Thutade - Mining and Wildlife Special Resource Management Zone (No. 7). The Mackenzie LRMP describes the management intent for the Thutade RMZ and provides descriptions for management guidelines for the Toodoggone Lake/River Special Subzone. The Lawyers Property is located 14 km southwest of Toodoggone Lake and 4 km south of the Toodoggone River and there is no current road access to either of them.

4.5 First Nations Communications

Benchmark has established several agreements with Indigenous groups, including a trilateral Exploration Cooperation and Benefit Agreement with the Takla Nation, Tsay Keh Dene Nation and Kwadacha Nation and an Exploration Agreement with the Tahltan Central Government (TCG). Through the trilateral agreement, Benchmark has established and funds an Implementation Committee, with sub-committees, including an Environmental Management Committee and Business Opportunities Committee that meet regularly to share project updates, detail economic opportunities, and consult with Indigenous groups. Through the Exploration Agreement, Benchmark provides information regarding its ongoing and potential economic activities, in order to keep the TCG and its members informed throughout the evolution of the Property and provides economic benefits through community funding. Engagement with local Indigenous groups will continue throughout the Project design, construction, operations, closure, and post-closure.

4.6 Environment and Permitting

Exploration activities are conducted under Mineral Exploration Permit MX-13-100. The permit was issued in 2003 to Guardsmen Resources Inc. and subsequently transferred to PPM Phoenix Precious Metals Corp. in 2011. The latter conducted exploration programs under this authorization until transfer to Benchmark in 2018. Benchmark submitted a permit amendment request, which was granted on July 17th, 2019 to support a large-scale exploration program at the Lawyers Property. Following positive exploration results, an additional amendment request was submitted on November 9th, 2020 to further expand the scope of the authorized activities under MX-13-100. The current permit was updated June 30th, 2022 and allows for activities through to May 27th, 2027, including: reactivation of the 39 km of the former access road leading northeast from the Lawyers Camp along Attorney Creek and wrapping around to the west along the south side of the Toodoggone River valley as well as the portion that extends south along the Lawyers Creek valley and then south-southeast toward the Sturdee Airstrip; surface drilling; camp and associated buildings; exploration access trail construction; and fuel storage.

Financial security in the amount of $1,387,876 is currently held by EMLI under MX-13-100 for reclamation. The bond provides for the reclamation of all works, including drill pads and trails, test pits, deactivation of the Ring Road and other pre-existing mine roads (including removal of all culverts and bridges), re-establishment of natural drainage, and removal of all buildings, machinery, equipment, and debris, as well as appropriate ground preparation, re-application of salvaged soils, and revegetation.

Additional reclamation security is required to be paid in installments as follows:

1. Payment of an additional $392,960 prior to increase in camp disturbance with additional 84 structures;

2. Payment of an additional $181,016 prior to July 1, 2023; and

3. Additional reclamation security of $90,508 prior to July 1, 2024.

For a total reclamation liability of $2,052,360 to be held under exploration permit MX-13-100.

Benchmark also holds water licenses, and camp water system, food service facilities and general health approvals for industrial camp use. Benchmark has also acquired all necessary authorizations from EMLI, Fisheries and Oceans Canada (DFO), and BC Ministry of Forests (FOR) required for Ring Road reactivation.

4.7 Other Significant Factors and Risks

The Qualified Person is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform work on the Lawyers Property which has not been discussed in this Technical Report.

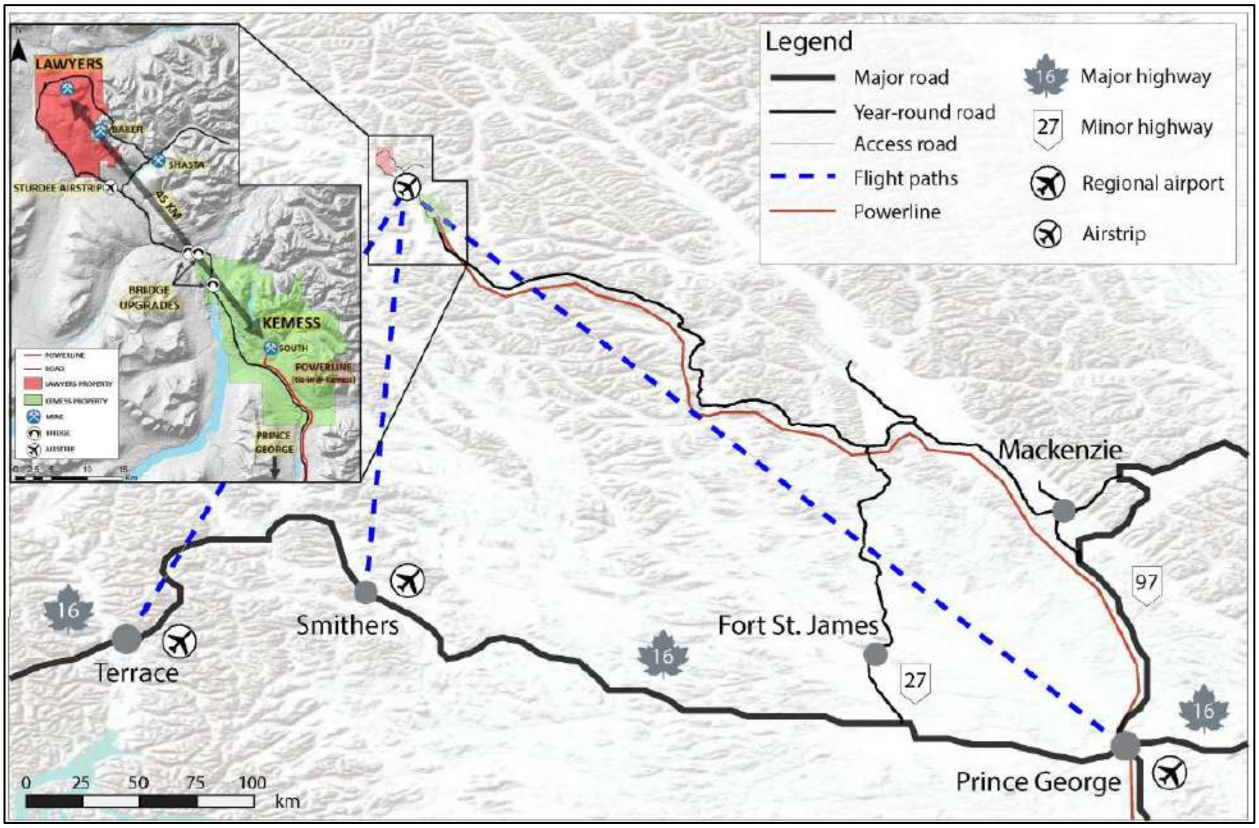
5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Access

The Lawyers Property can be accessed by following a network of Forestry Service Roads (FSR) that begin south of the Town of Mackenzie, just off the John Hart Highway (Highway 97) (Figure 5-1). The Finlay FSR heads north from Mackenzie towards the Property and is the primary access route to the Kemess South Mine. From the Finlay FSR, the access route follows the Finlay-Osilinka FSR followed by the Tenakihi FSR (Thutade FSR). From there, the ORAR (Kemess Rd) continues to the Kemess Mine, the Sturdee airstrip, and the Baker Mine, and finally to the Lawyers Camp.

Vehicle access to the Property is routed through the Baker Mine site and the ‘Tigers Notch’ Pass. The Lawyers Property is located 450 km NW from Prince George, which is an approximate 10-hour drive. No fuel stations are available past Highway 97. Within the Property boundaries, several historical mining and exploration roads facilitate access to large parts of the Property. Helicopter access is available year-round from Smithers or seasonally via Kemess South Mine during active exploration.

Figure 5-1: Lawyers Property Access and Local Infrastructure



Source: Benchmark (2021)

5.2 Climate

The Lawyers Property is in a cool continental climate. The operating field season is generally from June to September, although weather conditions during these months can be unpredictable. Snow is a major concern, with possible snow fall in the summer months and snow depths reaching up to 3 m in winter. Temperatures range from -32°C in January to 26°C in June.

5.3 Infrastructure

Mackenzie is the closest major centre accessible by road, 400 km to the southeast of the Property (Figure 5-1). Mackenzie is primarily a base for forestry and provides services for logging, lumber and pulp manufacturing facilities. Mackenzie also provides services for the Mt. Milligan copper-gold mine, located 95 km to the west. There is a rail line connecting Mackenzie to the Canadian National Railway (CNR) mainline, which provides rail access to Prince Rupert and Vancouver. Mackenzie is supported by the larger centre, Prince George, located 180 km to the south.

Smithers is the closest major centre accessible by air and has historically been heavily relied on by the mineral exploration industry in the area. It is located 300 km south of the Property and lies along the Yellowhead Highway and the CNR mainline. Exploration services available include contract diamond drilling, expediting/camp services, and helicopter companies.

The Kemess South Mine, owned by Centerra Gold Inc. (Centerra), provides the closest infrastructure to the Lawyers Property and may be utilized if it is actively being explored by Centerra. The Kemess Mine is connected to the B.C. Hydro grid via a powerline from Mackenzie and has road access via the ORAR. A large mining camp and a 1,424 m gravel airstrip is also present at Kemess South.

Eleven kilometres southeast of the Lawyers Property is the Baker Mine and process plant site, owned by TDG Gold Corp. Diesel-generated power, a 200 ton/day gold-silver processing plant, a trailer camp, mining and heavy-duty equipment are located at Baker.

The Lawyers Property itself has year-round road access (Figure 5-2) and buildings plus historical mine portals and a tailings facility (see Section 6).

5.4 Physiography

The Lawyers Property is located in moderate terrain with elevations in the range from 1,200 m to 1,900 m. The tree line is at 1,630 m elevation. Below the tree line, there is only sparse cover of birch and willow shrubs, with white spruce and sub-alpine fir. Grass, lichen, and dwarf shrubs are found above the tree line. Creeks and gullies are distributed throughout the Property providing good exposure of bedrock. These creeks are an excellent source of water for exploration drilling and may be sufficient for mining facilities.

Figure 5-2: Road Access Lawyers Property

Source: Benchmark (2022)

6 HISTORY

The exploration history of the Lawyers Property (the Property) below is largely based on assessment and technical reports by Hawkins (2003), Pegg (2003), Jacob and Nordin (2006), Bowen (2007), Lane et al., (2018), and Laycock et al., (2019).

6.1 Early History and Exploration in the Toodoggone Region

The first documented exploration in the Toodoggone area was in 1824 by Samuel Black, an explorer who noted gossans near the Finlay River. In 1915, Charles McClair mined for alluvial gold in a creek (McClair Creek) north of Toodoggone Lake. In 1929, Cominco explored several base metal showings in the region.

6.2 History and Development of the AGB, Cliff Creek, Dukes Ridge and Phoenix Mineralised Zones

The history and exploration of the Lawyers Property extends from the 1960s to present-day and was carried out by a number of companies. Note that the AGB, Cliff Creek, Dukes Ridge (aka Dukes Ridge) and Phoenix zones are included in the Mineral Resource Estimates described in Section 14 of this Technical Report.

6.2.1 1960s -1982 Kennco

In the 1960s, Kennco Explorations (Western) Ltd. (Kennco) commenced exploration work in the Property area. In 1968, gold and silver mineralisation was discovered from regional geochemical sampling. Kennco proceeded to stake the original Lawyers Property claims in 1970 and discover the AGB Deposit in 1973 (Gower and Grace, 1973). The first drilling on the AGB Zone occurred in 1974 and returned 43.20 g/t (1.26 oz/ton) Au and 487 g/t (14.20 oz/ton) Ag over a 3.05 m (10 ft) core length (Ryback-Hardy, 1974).

In 1979, Kennco optioned the Property and entered into agreement with SEREM Inc. (SEREM), who subsequently entered into a joint venture with Agnico-Eagle Mines Limited (Agnico-Eagle) and Sudbury Contact Mines Limited (Sudbury Contact). This joint venture proceeded to conduct exploration work, which included prospecting, mapping, trenching and 684 m (2,243 feet) of underground drifting and crosscut development on the 1750 m Level of the AGB Zone. By 1982, Agnico-Eagle and Sudbury Contact's interests were diluted and SEREM explored the Property independently.

6.2.2 1982 -1996 SEREM Inc. and Cheni Gold Mines Inc.

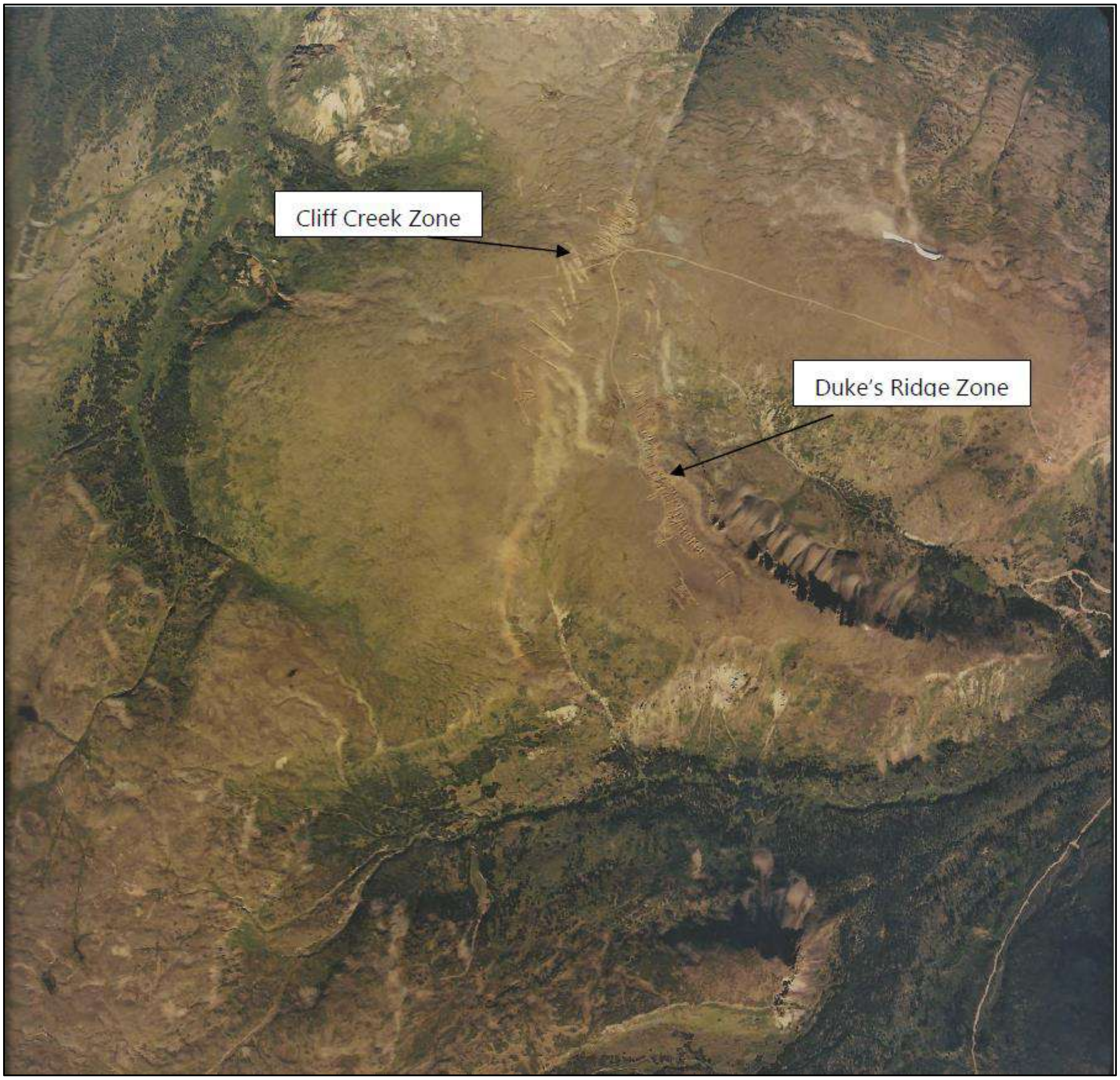
Exploration in 1982 focused on the underground development of the AGB Zone and 3,597 m of surface and underground drilling (Schroeter, 1983). In 1983, SEREM completed a total 3,054 m of surface diamond drilling in 17 holes on the AGB, Cliff Creek and Dukes Ridge zones, and

1,800 m of trenching on the Cliff Creek and Dukes Ridge zones (B.C. Geological Survey, 1984). Aerial photographs of the Property area in 1983 show access roads, drill sites, and two portal dumps at the AGB Zone and linear rows of tranches on the Cliff Creek and Dukes Ridge zones (Figure 6-1 and Figure 6-2).

Figure 6-1: Aerial Photograph of the AGB Zone in 1983

Source: Lane et al., (2018)

Figure 6-2: Aerial Photograph of the Cliff Creek and Dukes Ridges Zones In 1983

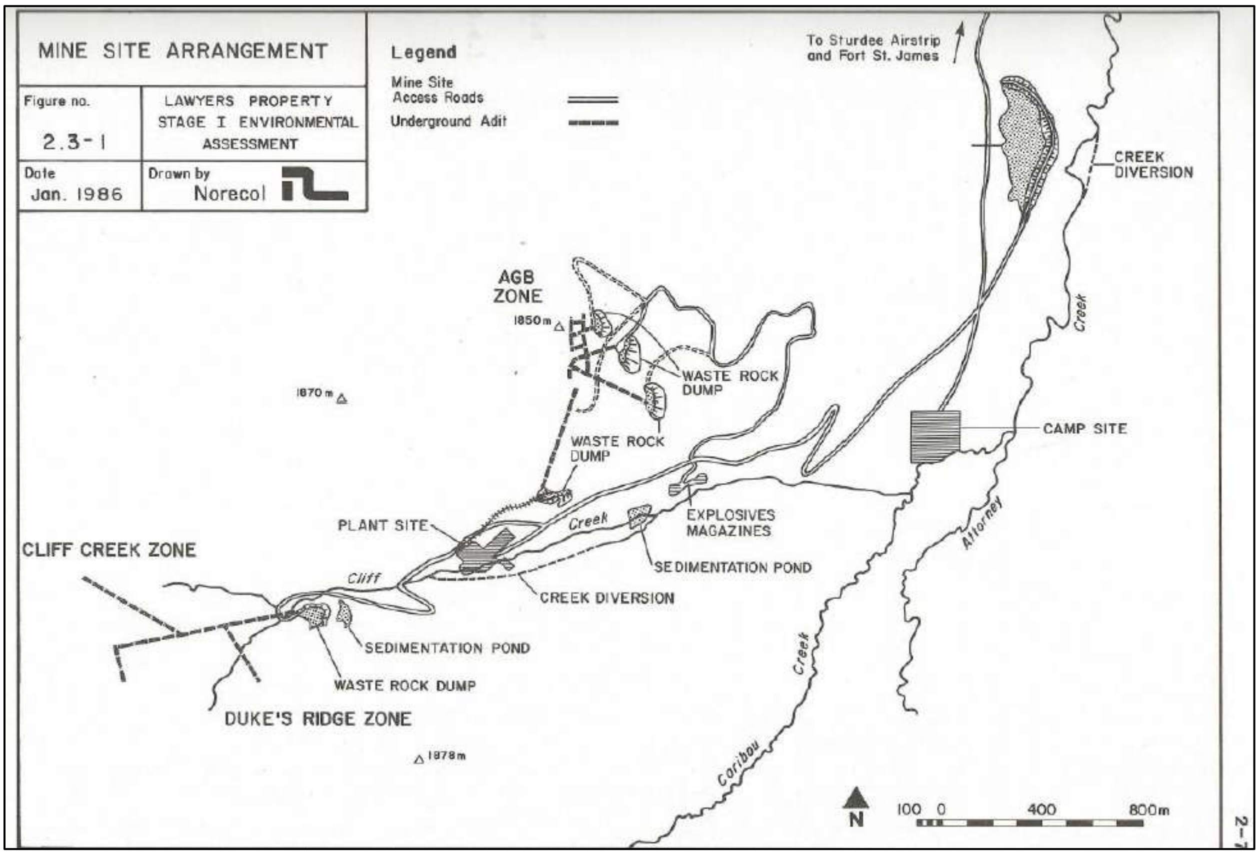


Source: Lane et al., (2018)

In 1984, SEREM completed 7,010 m of surface and underground diamond drilling on the AGB Zone, Cliff Creek Zone and Dukes Ridge Zone (B.C. Geological Survey, 1985). These results sparked SEREM to commission a Feasibility Study for the Property by Wright Engineers Limited (WEL). The Feasibility Study was completed February 1985 and included an estimate of mineral reserves (Wright, 1985).

In 1986, a Technical/Economic Study was completed by WEL (Wright, 1986a, 1986b), and a Stage 1 Environmental Assessment was completed by Norecol Environmental Consultants Ltd. (Norecol) (Norecol, 1986) (Figure 6-3). A Mine Plan for the Property was completed by WEL and submitted to the B.C. Ministry of Energy, Mines and Petroleum Resources, in June 1987 (Table 6-1) (Wright, 1987). WEL reported “Cut and Diluted” Mineable Reserves (Wright, 1985; Wright, 1986a, 1986b, 1987), using 95% of the proven and probable geological reserves, a conventional shrinkage stoping mining method, and an “approximate cut-off grade” of 5.15 g/t Au equivalent, at a conversion factor of 1 oz Au = 50 oz Ag.

Figure 6-3: Lawyers Mine Surface Development Plan 1986



Source: Lane et al., (2018)

Table 6-1: Historical Reserves Used in Mine Planning at Lawyers Project

Zone	Classification	Tonnes	Au (g/t)	Ag (g/t)
AGB	Proven	452,600	8.321	263.5
Cliff Creek	Probable	420,300	5.844	260.8
Dukes Ridge	Probable	68,400	7.868	226.0
Total Weighted Average		941,300	7.182	259.6

Source: Lane et al., (2018)

Underground development of the AGB Zone continued in 1985, with the addition of two cross cuts, drifting, and sampling (B.C. Geological Survey, 1986). No exploration work was completed in 1986. SEREM changed its name to Cheni Gold Mines Inc (Cheni). Sampling of all underground AGB Zone levels and drilling on the Cliff Creek and Dukes Ridge Zone in 1987 lead to a revision of the reserves in 1988. The Cliff Creek Deposit reserves were revised to 838,900 t (761,037 t) grading 0.183 oz/ton (6.274 g/t) Au and 7.12 oz/ton (244.1 g/t) Ag as Probable and diluted and 524,500 t (475,818 t) grading 0.170 oz/t (5.828 g/t) Au and 6.57 oz/ton (225.3 g/t) Ag as Possible and undiluted (Cheni Gold Mines Inc., 1990).

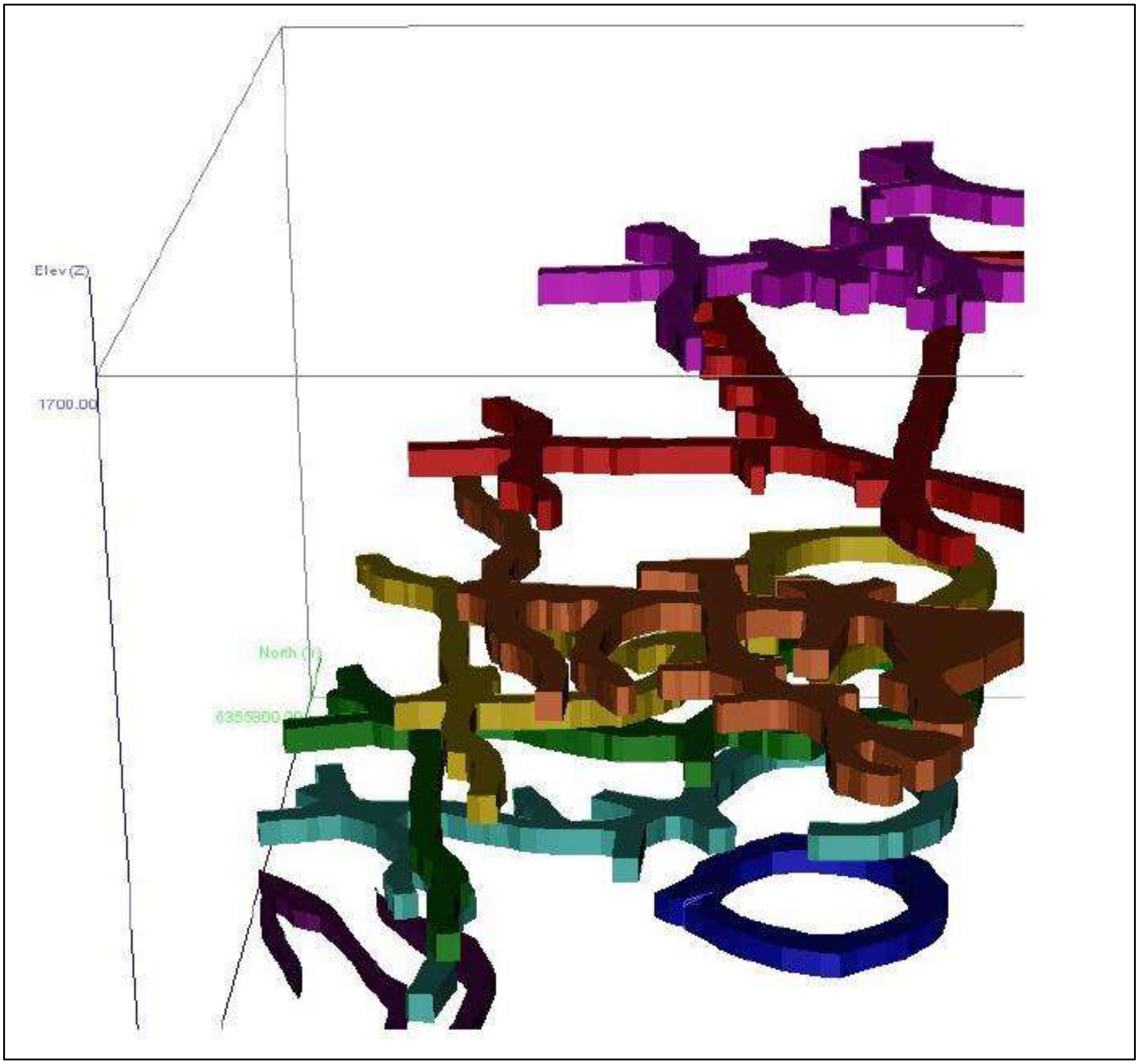
The reserve/resource classification terminology does not conform to the Canadian Institute of Mining, Metallurgy and Petroleum (the CIM Definition) Standards of Measured, Indicated, and Inferred Mineral Resource classifications, or Proven and Probable Reserve classifications. These historical estimates have not been sufficiently verified by a Qualified Person to classify them as current Mineral Reserves/Mineral Resources in compliance with National Instrument 43-101 qualifications and therefore should not be relied upon.

Mine development began on AGB in 1988, with production commencing in 1989 as a 500 t/d processing and underground mining operation, with a projected mine-life of 10 years (Cheni Gold Mines Inc., 1990). Overall projected recoveries were 95% for gold and 75% for silver (Wright, 1987).

The reserves were mined using blast-hole stoping and shrinkage mining, and processed using two-stage crushing, single-stage ball mill grinding, cyanidation and a Merrill-Crowe precipitation circuit. Flotation was used on the residue from the cyanide circuit to recover any unleached silver minerals, which subsequently went to a small cyanidation circuit for extraction of the silver and any remaining gold (Wright, 1987).

Work to access the Cliff Creek Deposit was initiated in 1989 (George Cross News Letter, September 7, 1989). Mining of the Cliff Creek North Zone began in 1991 when AGB was largely mined out (Hawkins, 2003) (Figure 6-4). In 1992, the Cliff Creek and the Dukes Ridge zones were determined to be uneconomic for extraction, due to a combination of high mining costs, declining metal prices, and an unfavourable CAD/USD exchange rate (Hawkins, 2003).

Figure 6-4: 3-D Model View of the Underground Workings at Cliff Creek North Zone



Source: Lane et al., (2018)

In 1990, a total of 13,764 m in 61 surface diamond drill holes were completed on the AGB, Cliff Creek and Dukes Ridge zones, 13 of which (1,082 m) were underground holes drilled at AGB. Narrow high-grade intersections reported from hole 87CC76 (Central Zone) and hole 87CC42 (Cliff Creek South) included 2 m averaging 1.20 oz/ton Au and 1.09 oz/ton Ag (87CC76), and 1 m averaging 1.170 oz/ton Au and 16.33 oz/ton Ag (87CC42). Broad lower-grade intersections included 11 m averaging 0.204 oz/ton Au and 15.22 oz/ton Ag in hole 87CC71 (Cliff Creek South).

Shallow drilling on the historical North Zone produced mineralised intersections, including 6.4 m averaging 0.245 oz/ton Au and 7.13 oz/ton Ag in hole 90CC110. High-grade float samples from Dukes Ridge in 1980 (Cheni Gold Mines Inc., 1992) that coincided with an ‘E-Scan’ resistivity anomaly led to the discovery of the Phoenix Deposit in 1991. A mineable zone, 25 m long and 35 m deep, was defined in 1992 from data acquired through trenching and 950 m of surface diamond drilling in 20 holes. The initial reserve for the Phoenix Zone was 3,245 t grading 1.69 oz/t Au and 101.7 oz/ton Ag. Mineralisation was stoped from the 1,830 m level through to the surface producing 5,439 t (4,934 t) of material to be processed, resulting in 6,713 oz of gold and 296,084 oz of silver (Cheni Gold Mines Inc., 1992). An underground drill program of 19 holes produced selected high-grade intersections of 3.646 oz/ton Au and 104.7 oz/ton Ag over 1.02 m in hole PX92-10, and 5.390 oz/ton Au and 208.2 oz/ton Ag over 0.79 m in hole PX92-14 (George Cross News Letter, December 14, 1992). Cheni chose to not pursue the Phoenix Deposit any further.

Exploration of the Dukes Ridge Zone included drilling in 1993 to target high-grade gold-silver mineralisation but produced “mixed results”. Results from infill drilling of Dukes Ridge Zone and a new area between the Dukes Ridge Zone and the Phoenix Zone were insufficient in size and grade for either zone to be economically viable at that time (George Cross News Letter, July 26, 1993).

This was the end of exploration on the Property by Cheni, who closed the Lawyers Mine in 1994, because they were unable to locate additional economic mineral deposits. In 1996, the plant site was decommissioned, and the plant equipment sold.

6.2.3 1997 to 1999 Americas Gold Corp. and Antares Mining and Exploration Corp.

The Property was optioned by Americas Gold Corp. (AGC) to form a joint venture with Antares Mining and Exploration Corp. (Antares) in 1997 (Hawkins, 2003). They carried out a regional airborne EM-MAG-Radiometric survey, which included coverage of the Lawyers Property.

In 1999, Antares sold their interest in the Property back to AGC and the claims and the mining lease was left to lapse.

6.2.4 2000 to 2010 Guardsmen Resources Inc. and Bishop Gold Inc.

Guardsmen Resources Inc. (Guardsmen) acquired the Property via ground staking in 2000 and 2001 and commenced exploration in 2001. The 2001 exploration program included 49 line-km of grid construction, 43.5 line-km of VLF and MAG geophysics, prospecting, geological mapping, and collection of 34 rock samples for analyses (Kaip and Childe, 2001). The possible southern strike extension of the AGB Zone was chip sampled and produced 12.14 g/t Au and 97.5 g/t Ag over 2 m (Kaip and Childe, 2001).

Exploration by Guardsmen continued in 2003 to evaluate two previously identified targets. Target evaluations included grid construction, trenches, geophysical surveys, geological mapping, and soil sampling. Trenching and channel sampling of the possible southern extension of the AGB Zone returned an average grade of 5.09 g/t Au and 20.8 g/t Ag over a 27.03 m sample length (Pegg, 2003). Ground geophysical surveys appear to indicate that the structure hosting the AGB Zone continued along strike.

Waste dump sampling at the Cliff Creek portal and test pitting of the tailings pond occurred in 2004. In addition, 514 soil geochemical samples were collected over 3 grids and 2,700 m of trenching were completed by excavator on the M-Grid Zone (Blann, 2005). The trenching revealed a series of 2 m to 10 m wide alteration and mineralisation zones over 400 m along strike. Grab samples from the zones returned assays of up to 9.91 g/t Au and 562.0 g/t Ag.

A drill program in the southern area of the Cliff Creek Deposit conducted by Bishop Gold Inc. (Bishop) in 2005 consisted of five (5) NQ diamond drill holes totalling 860.4 m. Four of the five holes intersected zones of quartz breccia and stockwork veining. The intersections were 12 m to 81 m wide low-grade gold-silver mineralisation. Two high-grade intervals were returned: 1) hole 05-CC-03 returned 3 m grading 12.34 g/t Au and 71.9 g/t Ag; and 2) hole 05-CC-05 returned 2.03 m grading 6.69 g/t Au and 37.9 g/t Ag (Jacob and Nordin, 2006).

Exploration in 2006 was continued by Bishop and consisted of five NQ2 diamond drill holes to target the central part of the Cliff Creek Deposit. A total of 647.7 m of drilling was completed over 400 m of strike length. All holes intersected quartz stockwork, but many of the assay results were <1.0 g/t Au. Two of the best 2006 intersections include 4 m grading 2.65 g/t Au and 69.9 g/t Ag in hole 06-CC-08 and 2.65 m grading 3.79 g/t Au and 97.3 g/t Ag in hole 06-CC-10 Bowen, 2007).

In 2010, Guardsman cleared the rock and debris from the rehabilitated Cliff Creek portal to find that the decline was flooded. Any further work would require dewatering the underground workings. Samples of mineralised material and host rock were collected from the floor of the adit and from the platform/dump, assay results returned high-grade gold and silver values (Lane, 2011). On June 8, 2011, Guardsmen transferred ownership of the Property to affiliated company PPM Phoenix Precious Metals Corp. (PPM).

6.2.5 2011 to 2017 PPM Phoenix Precious Metals Corp.

PPM Phoenix Precious Metals corp. (PPM) undertook Property development, surface exploration and drilling programs on the Lawyers Property. Each of these activities is summarized below.

6.2.5.1 Project Development

In 2011, PPM attempted to dewater the Cliff Creek underground workings, but was unsuccessful due to permit restrictions and equipment limitations. Although inspection of the portal determined that the upper part of the mine workings was structurally sound, the portal was resealed (Figure 6-5). Note that the portal continues to be sealed and work has been done in 2020, including periodic water testing, to maintain safe and secure conditions.

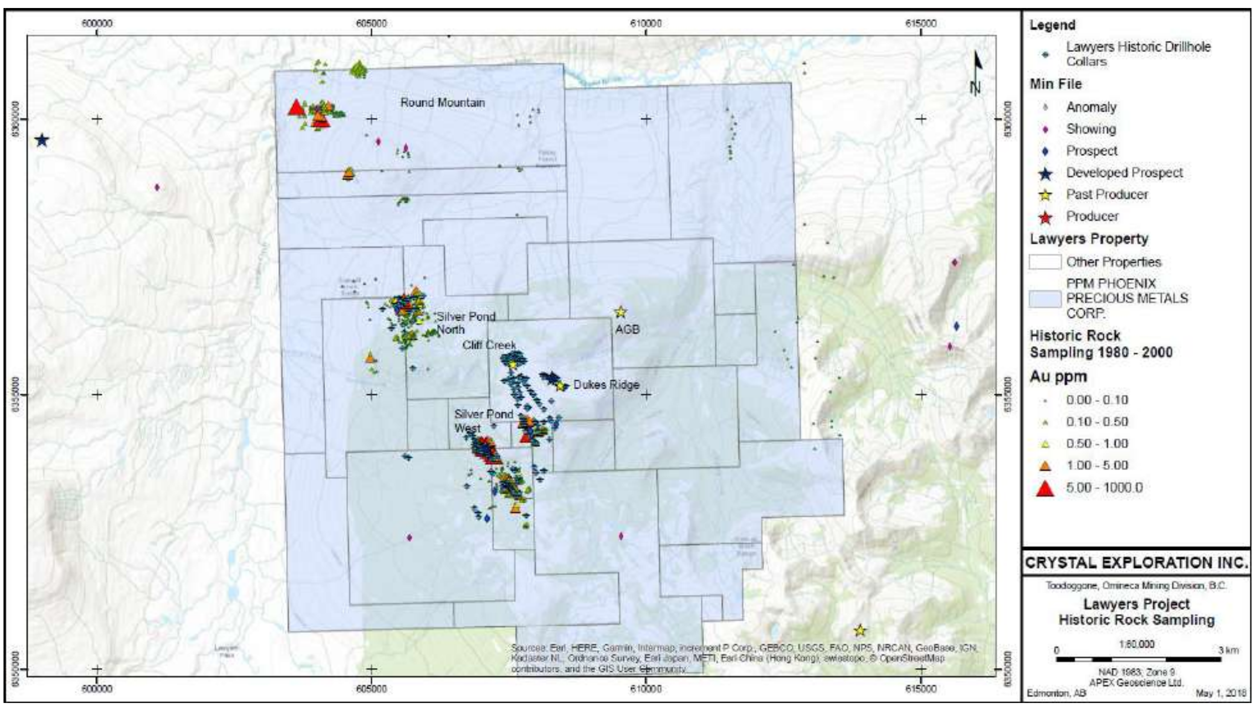
Figure 6-5: The Dewatered Cliff Creek North Portal IN 2011

Source: Lane et al., (2018)

6.2.5.2 Historical Surface Exploration

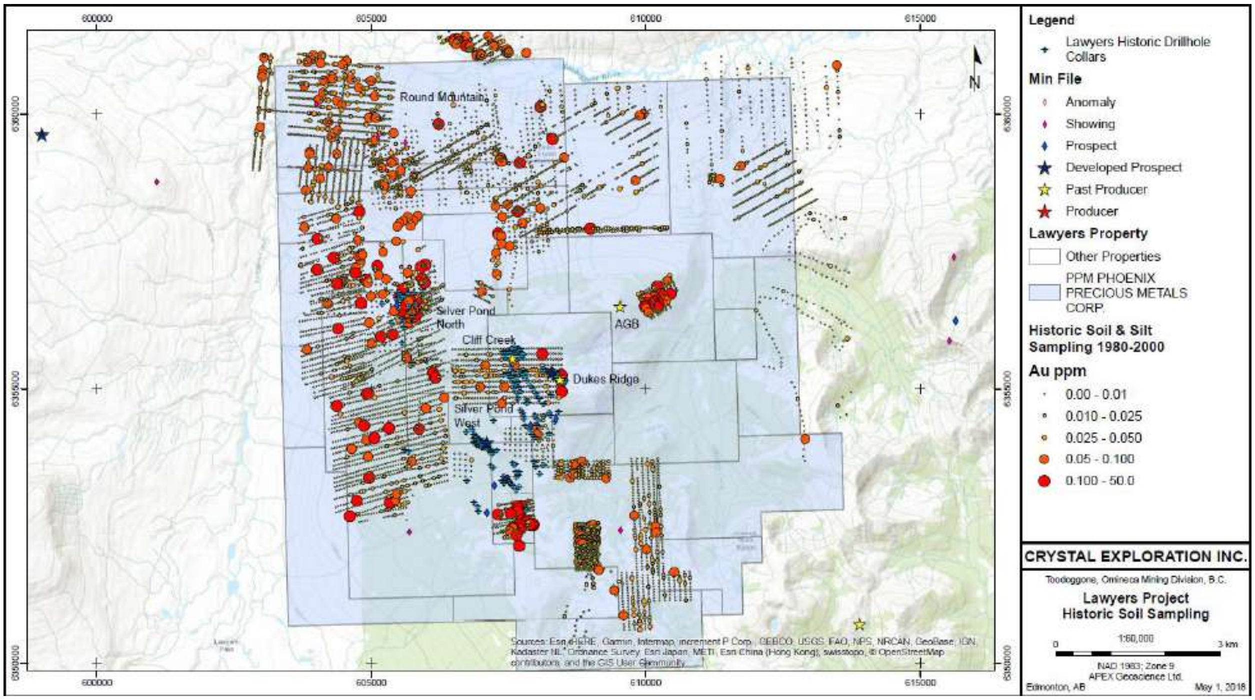
In April 2018, APEX Geoscience Ltd., on behalf of Crystal Exploration Inc. (Crystal) as part of its due diligence on the Lawyers Project. carried out a project-wide compilation showing historical anomalous rock, soil and silt values for gold and silver. The distribution of anomalous rock samples (defined as 1.00 ppm to 2.50 ppm Au, 2.50 ppm to 5.00 ppm Au, 5.00 ppm to 10.00 ppm Au, and >10.00 ppm Au) is shown in Figure 6-6, and the distribution of anomalous soil samples (defined as 0.1 ppm to 1.0 ppm Au and >1.0 ppm Au) and anomalous silt samples (defined as >0.1 ppm Au) is shown in Figure 6-7. Note that systematic (grid-based) soil sampling has not taken place over the entire Property area, and therefore any trends observed may only be apparent. Additionally, much of the historical surface geochemical data in the vicinity of the AGB, Cliff Creek, Dukes Ridge and Phoenix zones has been lost or is missing, possibly further biasing the interpretation of observed trends.

Figure 6-6: Historical Rock Sampling on the Lawyers Property



Source: Lane et al., (2018)

Figure 6-7: Historical Soil Sampling on the Lawyers Property



Source: Lane et al., (2018)

Historical, anomalous samples tend to cluster or align along known or inferred faults or lineaments; structures considered to be important in localizing gold-silver mineralisation. Anomalous rock and soil samples are widespread throughout the Property area, with stronger clustering present in the Kodah to Round Mountain showings area in the northwest part of the Project, and in the Marmot Lake showing area in the southeastern part. Anomalous samples also occur in the central part of the Property area, where some coincide with known prospects or mined areas, such as the anomalous rock samples proximal to the AGB Zone. In the northern part of the Property area, where no mineralised showings or prospects are known to exist, there are many anomalous soil sample locations.

6.2.5.3 Pre-2015 Drilling

Historical, anomalous samples tend to cluster or align along known or inferred faults or lineaments; structures considered to be important in localizing gold-silver mineralisation. Anomalous rock and soil samples are widespread throughout the Property area, with stronger clustering present in the Kodah to Round Mountain showings area in the northwest part of the Project, and in the Marmot Lake showing area in the southeastern part. Anomalous samples also occur in the central part of the Property area, where some coincide with known prospects or mined areas, such as the anomalous rock samples proximal to the AGB Zone. In the northern part of the Property area, where no mineralised showings or prospects are known to exist, there are many anomalous soil sample locations:

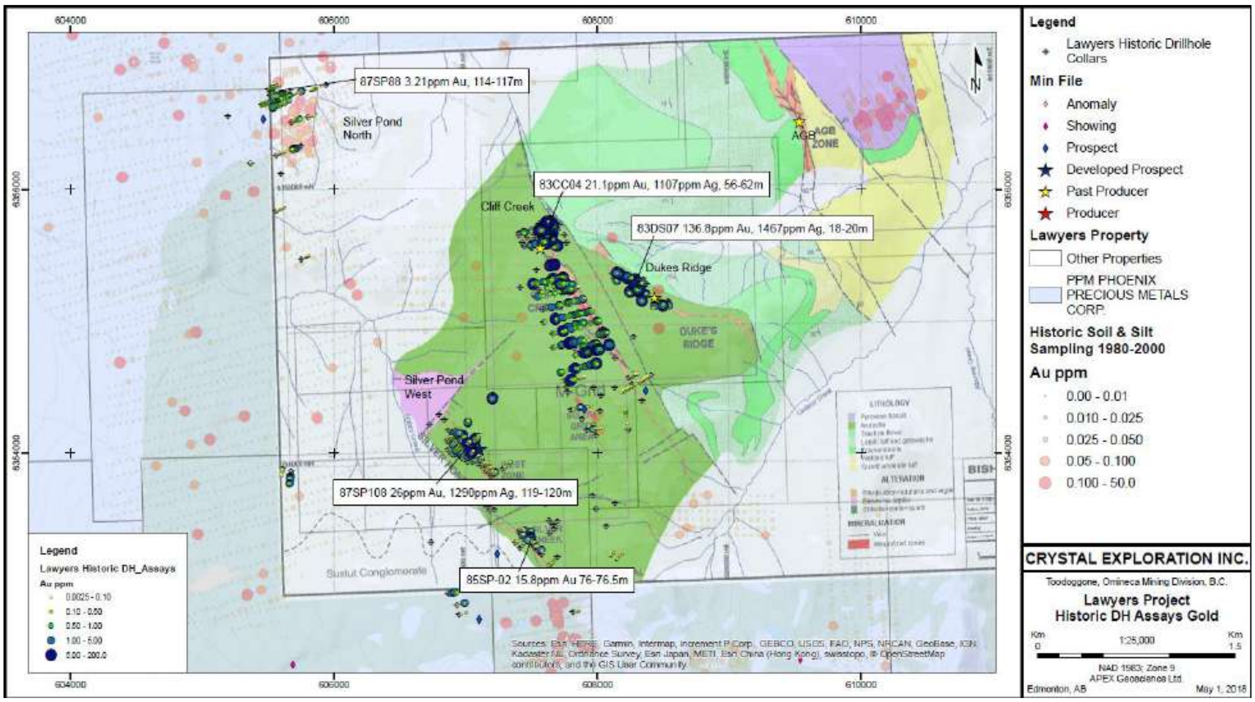
- From 1973 to 2006, >68,000 m of surface diamond drilling in more than 340 drill holes were completed on the Project, including drilling in the Silver Pond West and other Silver Pond prospect areas;
- Based on the Benchmark historical drill hole database, the surface diamond drilling sub-totals for the Project, excluding Silver Pond West and other Silver Pond prospect areas are:
  i) >15,000 m in an unknown number of holes in the AGB Zone;
  ii) >26,000 m in approximately 130 drill holes in the Cliff Creek Zone;
  iii) >2,400 m in 46 holes in the Dukes Ridge Zone;
  iv) 950 m in 20 holes in the Phoenix Zone; and
  v) >800 m in at least 12 holes on other prospect areas;
- From 1984 to 1988, surface diamond drilling in the Silver Pond West developed prospect area totaled approximately 9,000 m in more than 55 holes. During the same period, drilling completed in other Silver Pond prospect areas totaled >13,000 m in more than 77 drill holes; and
- Historical underground drilling is not well documented. In the AGB Zone. at least 3,000 m was completed in an unknown number of drill holes. In the Cliff Creek Zone, 2,500 m in 44 holes was reportedly completed in 1990. In addition, 19 underground drill holes were reportedly completed in the Phoenix Zone in 1992.

PPM's Gemcom compilation of the historical drilling in the Cliff Creek Zone includes 'header' and gold and silver assay data for 65 holes. Lane et al., (2018) suggest that approximately 130 holes were drilled. The Gemcom deficiency is mainly considered in the drilling completed in 1987. In that year, it is reported that 49 holes totalling 10,432 m were drilled in the Cliff Creek Zone. In PPM's Gemcom database for this zone, only two holes totalling 517 m are compiled. Additionally, for the year 1990, it is reported that 32 holes totalling 8,921 m were drilled in the Cliff Creek Zone. In the Gemcom database for this zone, only 16 holes totalling 5,505 m are compiled.

PPM's Gemcom compilation of the historical drilling in the Dukes Ridge Zone includes 'header' and gold and silver assay data for 30 holes. An unknown number of metres in 16 holes were drilled in 1990 and partial results, but no collar information, is reported in Lennan and Frostad (1990). This information is not included in PPM's Gemcom database.

The distribution of historical surface exploration holes drilled in the past-producing Cliff Creek and Dukes Ridge zones and in the Silver Pond prospects area is shown in Figure 6-8, with selected intersections highlighted. The distribution of holes over these parts of the Property area suggests fault-controlled continuity from the Cliff Creek, Dukes Ridge and Silver Pond zones. On the other hand, the distribution of drill holes at the Silver Pond (North) prospect does not appear to suggest any obvious structural control. This lack of control may be due to Silver Pond North's large alteration/mineralisation footprint, which is more suggestive of a porphyry-style, precious ± base metals deposit setting.

Figure 6-8: Historical Drill Assays for Gold from the Lawyers Property

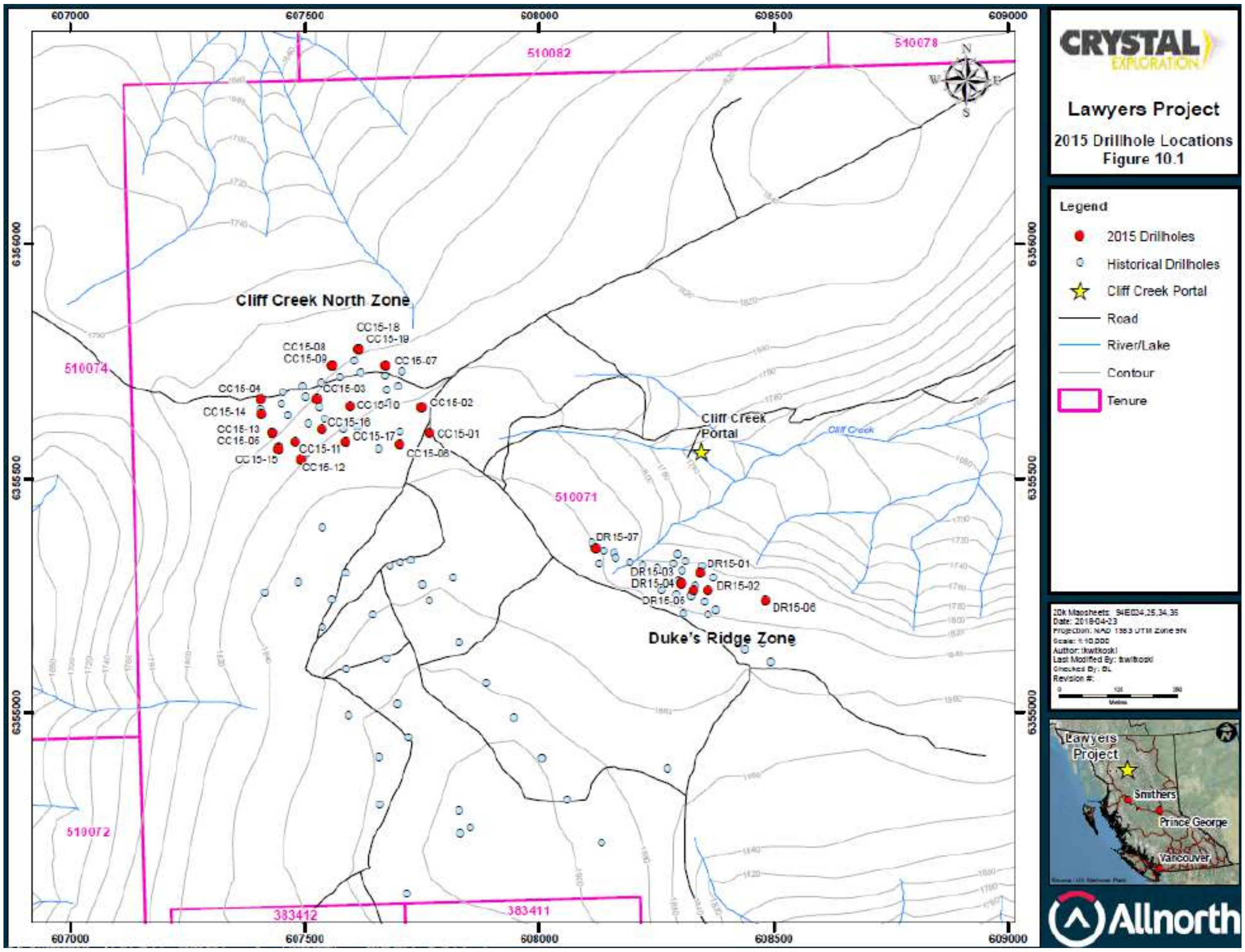


Source: Lane et al., (2018)

6.2.5.4 2015 Drilling Program Summary

PPM drilled the Cliff Creek North Zone and the central area of Dukes Ridge Zone in 2015 to corroborate historical data and support the initial NI 43-101 Mineral Resource Estimate for the Lawyers Project. PPM's 2015 drill program as described by Lane et al., (2018) is summarized below. In total, 26 holes were drilled totalling 4,001.62 m (see Figure 6-9 and Table 6-2).

Figure 6-9: Collar Location for PPM's 2015 Drill Program



Source: Lane et al., (2018)

Table 6-2: Collar Information for PPM's 2015 Drill Holes

Drill Hole ID	Easting	Northing	Elev (m)	Start (m)	Length (m)	Dip (°)	Azimuth (°)
CC15-01	607,765	6,355,597	1,831	0	61.87	-50	257
CC15-02	607,749	6,355,652	1,823	0	78.64	-49	260
CC15-03	607,526	6,355,668	1,808	0	164.94	-60	75
CC15-04	607,406	6,355,669	1,798	0	395.73	-60	75
CC15-05	607,430	6,355,597	1,802	0	279.88	-50	74
CC15-06	607,702	6,355,571	1,831	0	60.37	-50	260

Drill Hole ID	Easting	Northing	Elev (m)	Start (m)	Length (m)	Dip (°)	Azimuth (°)
CC15-07	607,671	6,355,739	1,806	0	60.2	-50	260
CC15-08	607,558	6,355,739	1,802	0	124.36	-50	70
CC15-09	607,558	6,355,739	1,802	0	126.8	-69	75
CC15-10	607,597	6,355,653	1,817	0	118.26	-65	75
CC15-11	607,479	6,355,576	1,811	0	224.33	-50	75
CC15-12	607,492	6,355,539	1,816	0	225.61	-50	75
CC15-13	607,430	6,355,597	1,802	0	322.56	-58	75
CC15-14	607,407	6,355,637	1,797	0	316.18	-58	75
CC15-15	607,444	6,355,563	1,809	0	327.05	-61	75
CC15-16	607,537	6,355,604	1,817	0	146.91	-50	70
CC15-17	607,587	6,355,576	1,819	0	118.26	-50	75
CC15-18	607,614	6,355,775	1,792	0	60.35	-50	77
CC15-19	607,614	6,355,774	1,792	0	69.49	-65	81
DR15-01	608,343	6,355,298	1,821	0	134.72	-51	210
DR15-02	608,360	6,355,259	1,822	0	112.17	-50	200
DR15-03	608,303	6,355,275	1,829	0	127.41	-50	200
DR15-04	608,303	6,355,276	1,829	0	63.40	-65	200
DR15-05	608,329	6,355,261	1,835	0	69.49	-50	200
DR15-06	608,482	6,355,237	1,825	0	158.19	-50	225
DR15-07	608,121	6,355,348	1,842	0	54.25	-50	20

Source: Lane et al., (2018)

Cliff Creek North Zone

The Cliff Creek North Zone was tested with a total of 19 drill holes, 17 of which successfully penetrated the north-to-northwest trending, moderately to steeply southwest-dipping vein system. The drilling showed that the main zone has a minimum strike length of 225 m and remained open along strike to the northwest beyond Holes CC15-18 and -19 and to the southeast beyond Holes CClS-06 and -12 (Figure 6-10 and Figure 6-11), and at depth on some sections below the deepest levels of drilling and mine workings. The intersection of underground workings by some of the 2015 drill holes confirmed that parts of the Zone have been mined. Analysis of core recovered from the immediate hanging wall and footwall of some of the voids shows that good grades of gold-silver mineralisation remain and suggests that past underground development was likely limited to narrow stoping.

Figure 6-10: Drill Core from an Upper Mineralised Intersection in Hole CC15-12

Source: Lane et al., (2018)

Figure Description: Typical fracture fillings, stockwork veins and breccias with silic and potassic alteration.

Figure 6-11: Drill Core from a Lower Mineralised Intersection in Hole CC15-12

Source: Lane et al., (2018)

Figure Description: Typical fracture fillings, stockwork veins and breccias with argillic alteration.

The narrow precious metals-enriched, semi-massive sulphide vein and associated stockwork zone (the 'P2' Vein) intersected in Hole CC15-15 occurs approximately 70 m into the hanging wall of the main Cliff Creek North Zone (Figure 6-12). Hanging wall mineralisation of note was also encountered in several additional 2015 and earlier drill holes.

Figure 6-12: P2 Vein and Stockwork Zone Intersection in Hole CC15-15

Source: Lane et al., (2018)

The 52.0 m-long intersection of low grade mineralisation in Hole CC15-13 on Section 2300NW and the 39.0 m- and 36.0 m-long intersections of higher grade mineralisation in drill holes 84CS32 and 84CS36, respectively (Table 6-3; Figure 6-13) on Section 2350NW suggest that locally, in the central and deeper parts of the Cliff Creek North Zone, there may be zones of structural thickening that represent a potential bulk tonnage target.

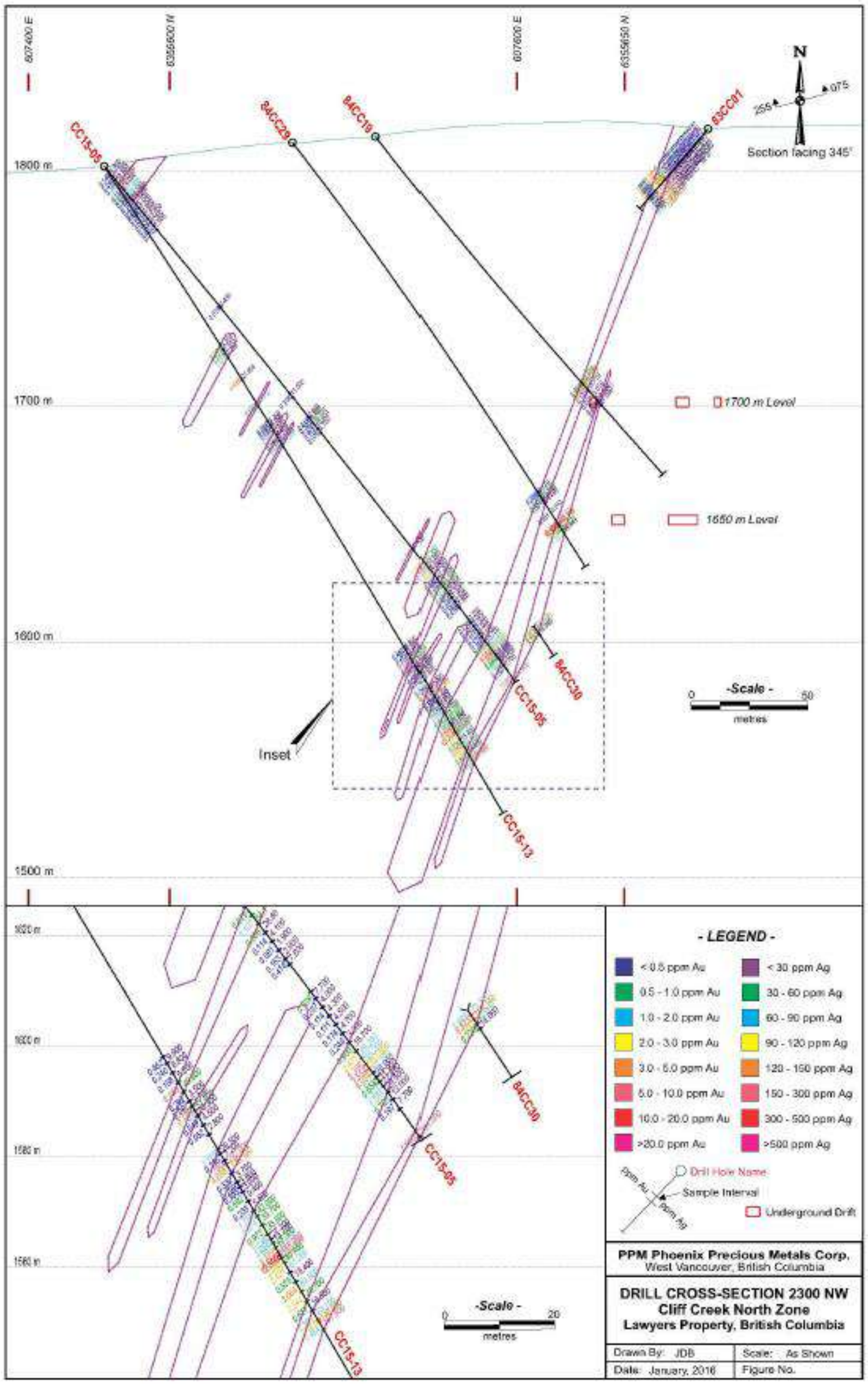
Table 6-3: Select Assay Results from 2015 Drilling

Dill Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Zone	Section
CC15-01	no significant results					Cliff Creek North	2225NW
CC15-02	no significant results					Cliff Creek North	2275NW
CC15-03	no significant results					Cliff Creek North	2350NW
CC15-04	244.07	299.00	54.93	1.00	27.8	Cliff Creek North	2375NW
including	244.07	250.00	5.93	3.35	21.4	Cliff Creek North	2375NW
including	283.00	287.00	4.00	3.76	316	Cliff Creek North	2375NW
CC15-05	2.50	23.00	20.50	0.65	72.6	Cliff Creek North	2300NW
including	9.50	19.30	9.80	1.10	137.1	Cliff Creek North	2300NW
and	215.00	223.00	8.00	2.87	19.5	Cliff Creek North	2300NW
and	258.00	271.00	13.00	2.34	44.2	Cliff Creek North	2300NW
including	261.60	265.00	3.40	5.63	89.5	Cliff Creek North	2300NW
CC15-06	10.37	19.00	8.63	9.64	307	Cliff Creek North	2200NW
including	10.37	14.55	4.18	17.75	557	Cliff Creek North	2200NW
CC15-07	59.44	60.20	0.76	15.70	622	Cliff Creek North	2375NW
CC15-08	89.00	109.65	20.65	1.81	62.8	Cliff Creek North	2400NW
including	89.00	93.50	4.50	5.23	164.5	Cliff Creek North	2400NW
CC15-09	111.00	126.80	15.80	1.01	24.6	Cliff Creek North	2400NW
including	115.00	117.00	2.00	4.49	49.8	Cliff Creek North	2400NW
CC15-10	83.00	98.45	15.45	2.95	110.9	Cliff Creek North	2325NW
including	93.60	98.45	5.45	5.29	231.9	Cliff Creek North	2325NW
including	94.71	98.45	0.74	12.80	654	Cliff Creek North	2325NW
and	101.80	103.12	1.32	10.40	272	Cliff Creek North	2325NW
and	109.00	110.00	1.00	6.21	58.8	Cliff Creek North	2325NW
CC15-11	31.60	332.50	0.90	1.12	332	Cliff Creek North	2275NW
CC15-12	70.00	75.86	5.86	5.12	252.3	Cliff Creek North	2225NW
including	71.00	75.86	4.86	7.74	355.1	Cliff Creek North	2225NW
and	198.90	203.00	4.10	5.98	246.3	Cliff Creek North	2225NW
including	200.00	202.00	2.00	10.83	445.8	Cliff Creek North	2225NW
CC15-13	133.54	140.80	5.65	2.60	21.2	Cliff Creek North	2300NW
and	246.01	298.00	51.99	1.71	42.3	Cliff Creek North	2300NW
including	246.01	248.00	1.99	6.08	49.6	Cliff Creek North	2300NW
including	262.50	265.10	2.60	5.50	164.1	Cliff Creek North	2300NW
including	280.79	282.93	2.14	6.86	154.9	Cliff Creek North	2300NW
CC15-14	264.00	302.60	38.60	1.20	59.9	Cliff Creek North	2350NW
including	266.20	269.20	3.00	3.45	136.1	Cliff Creek North	2350NW
including	300.00	302.60	2.60	5.96	182.4	Cliff Creek North	2350NW

Dill Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Zone	Section
CC15-15	87.00	89.00	2.00	6.63	191	Cliff Creek North	2275NW
and	125.20	126.20	1.00	2.76	173.4	Cliff Creek North	2275NW
and	141.15	142.65	1.50	2.31	424	Cliff Creek North	2275NW
and	169.80	172.20	2.40	87.04	2407	Cliff Creek North	2275NW
including	171.50	172.20	0.70	293.40	7622	Cliff Creek North	2275NW
and	218.40	296.50	78.10	0.68	18.2	Cliff Creek North	2275NW
including	238.00	242.00	4.00	2.60	116.9	Cliff Creek North	2275NW
including	287.00	289.00	2.00	6.08	25.3	Cliff Creek North	2275NW
CC15-16	anomalous, but sub-economic gold and silver grades					Cliff Creek North	2275NW
CC15-17	anomalous, but sub-economic gold and silver grades					Cliff Creek North	2275NW
CC15-18	38.49	45.20	6.71	2.73	152.7	Cliff Creek North	2425NW
CC15-19	14.38	15.28	0.90	20.00	229	Cliff Creek North	2425NW
and	49.70	54.25	4.55	3.84	166.2	Cliff Creek North	2425NW
DR15-01	98.45	104.35	5.86	1.56	57.7	Dukes Ridge	5625NW
DR15-02	72.70	85.05	12.35	0.63	24	Dukes Ridge	5575NW
including	72.70	74.98	2.28	1.51	49.7	Dukes Ridge	5575NW
including	84.73	85.05	0.32	9.15	278	Dukes Ridge	5575NW
and	97.47	98.76	1.29	1.76	119.1	Dukes Ridge	5575NW
DR15-03	1.21	23.50	22.29	0.72	24.8	Dukes Ridge	5625NW
including	19.00	21.00	2.00	3.09	34.4	Dukes Ridge	5625NW
and	119.52	119.77	0.25	2.37	103.7	Dukes Ridge	5625NW
DR15-04	2.10	38.00	35.90	2.09	51.2	Dukes Ridge	5625NW
including	24.00	36.00	12.00	5.30	112.7	Dukes Ridge	5625NW
including	27.00	31.00	4.00	8.54	171.8	Dukes Ridge	5625NW
DR15-05	1.25	52.00	50.75	1.41	42.3	Dukes Ridge	5600NW
including	7.00	8.53	1.53	8.22	11.2	Dukes Ridge	5600NW
including	33.50	42.06	8.56	3.85	106.5	Dukes Ridge	5600NW
including	37.75	39.25	1.50	6.14	127.3	Dukes Ridge	5600NW
DR15-06	70.58	72.48	1.90	2.10	17.7	Dukes Ridge	5500NW
DR15-07	24.77	25.27	0.50	7.59	33	Dukes Ridge	5825NW
and	34.02	39.10	5.08	1.24	21.9	Dukes Ridge	5825NW

Source: Lane et al., (2018)

Figure 6-13: Cliff Creek North Zone Cross-Section Projection 2300NW



Source: Lane et al., (2018)

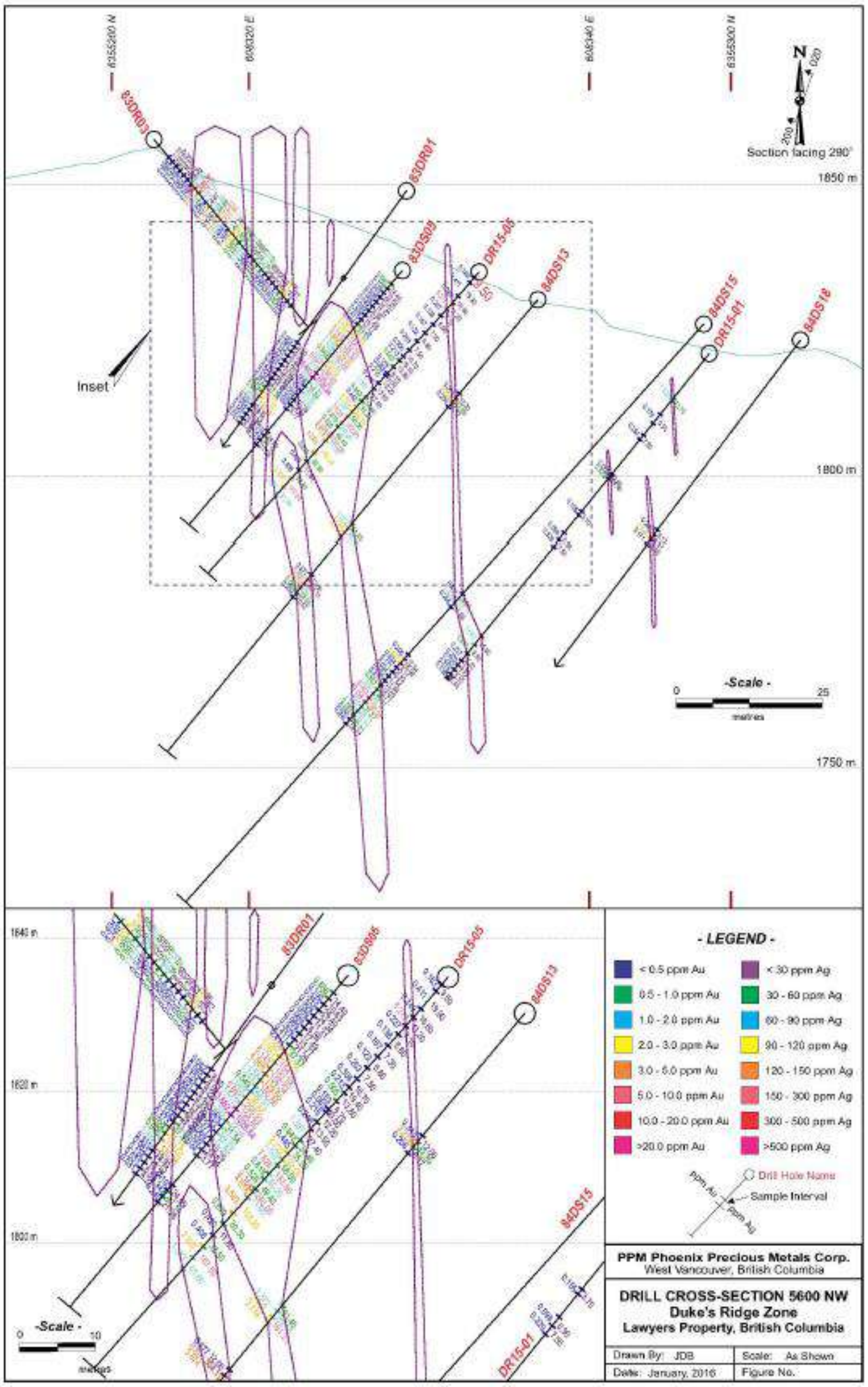
Dukes Ridge Zone (aka Dukes Ridge)

The Dukes Ridge Zone was tested with a total of seven drill holes, all of which intersected the sinuous northwest-trending sub-vertical vein and stockwork system (Figure 6-14). The majority of holes targeted the central, higher-grade part of the Zone. Although this drilling did not reproduce some of the highest assay values encountered in historical drill holes, it did confirm a near-surface zone of mineralisation with low to moderate gold and silver grades. Intercepts in Holes DR15-04 and -05 returned some of the better gold and silver grades encountered in the 2015 drilling program here (Table 6-3; Figure 6-15).

Figure 6-14: Intersected Mineralisation Characteristic of the Dukes Ridge Zone

Source: Lane et al., (2018)

Figure 6-15: Cross-Section Projection 5600NW of the Dukes Ridge Zone



Source: Lane et al., (2018)

Holes DR15-06 and -07 evaluated the southeastern and northwestern parts of the Zone, respectively, and encountered narrow. low-grade intercepts within broader weakly anomalous zones (Table 6-3). These two holes determined that the Dukes Ridge Zone has a minimum strike length of 380 m.

In 2018, PPM optioned the Property to Benchmark Metals (Benchmark Metals Inc., 2018b).

6.2.6 2018 Crystal Exploration Inc.

On March 21, 2018 Crystal Exploration Inc. (Crystal) entered into a binding letter of intent with PPM wherein Crystal was granted a series of options to acquire up to 75% interest in the Lawyers Project. In a press release dated May 25, 2018, Crystal announced that it changed its name to Benchmark Metals Inc. (Benchmark). Exploration programs completed by Benchmark in 2018 to 2021 are described in Sections 9 and 10 of this Technical Report.

6.3 History and Development of the Silver Pond Zone(S)

6.3.1 1979 to 1983

Silver Pond is located in the west portion of the Property, was first staked by Chuck Kowall in 1979 and 1980, and also includes some drilling and work to the south of the Cliff Creek Zone (Lane et al., 2018; Kowall, 1980). Zones of alteration and mineralisation sub-parallel the Cliff Creek Zone, running southeast to northwest. In 1981, the Silver Pond claims were optioned to Great Western Petroleum Corporation (GWP), who performed soil and rock chip sampling and geological mapping (Caira, 1982; Eccles, 1982). The claims changed hands again in 1983, optioned to St. Joe Canada Inc (St. Joe), who created a joint venture with Imperial Metals Corp. (Imperial Metals) (Kennedy and Weston, 1986).

6.3.2 1983 to 1986 St. Joe

Work by St. Joe discovered the Silver Pond West Zone. Samples of the mineralisation graded up to 17.8 g/t Au and 252 g/t Ag. Further exploration led to identification of a 600 m long gold soil anomaly trending northwest that is coincident with a MAG low and partly coincident with a resistivity high (Kennedy et al., 1984; Weston, 1984). Trenching of the resistivity high uncovered a zone of quartz breccia that averaged 9 g/t Au and 24.2 g/t Ag over a width of 5 m.

In 1984, grab samples by St. Joe from the Silver Creek Zone returned values of up to 45 g/t Au and 3,610 g/t Ag. Trenching and outcrop samples returned values ranging from 1.99 g/t Au and 41.4 g/t Ag to 6.26 g/t Au and 288.0 g/t Ag over 5 m (Kennedy and Weston, 1985). That same year, the Silver Pond North Zone (marked by a gossan) underwent soil geochemical sampling, resulting in an 800 m north-northwest trending gold soil anomaly coincident with the margin of a silica cap (Kennedy, 1988).

St. Joe took conducted a trenching and drilling exploration program in 1985, drilling 29 holes totalling 3,003 m. Nineteen of the holes were drilled on the Silver Creek Zone (Kennedy and Weston, 1985). Thirteen holes returned at least 1 m of gold-silver mineralisation. Highlights include hole SP-85-08, which graded 5.38 g/t Au and 255.0 g/t Ag over 2 m (Kennedy and Weston, 1985). Four holes were drilled into the West Zone and each intersected multiple intervals of silicification, most notably hole SP-85-26 with 2 m averaging 8.07 g/t Au and 9.9 g/t Ag (Kennedy and Weston, 1985). Three holes were drilled on Silver Pond South Zone. Hole SP-85-22 returned 1 m grading 0.89 g/t Au and 3.9 g/t Ag). Two holes were drilled into the Amethyst Zone, which produced weakly anomalous results and chalcedonic breccia similar to that at the Cliff Creek Zone.

6.3.3 1987 to 1991 Bond Gold Inc. and Nexus Resources Corp.

Bond Gold Inc. (Bond) (formerly St. Joe) and joint venture partner Nexus Resources Corp. (Nexus) undertook a drill program in 1987 that consisted of 98 NQ diamond drill holes totalling 12,936 m. The holes encountered weak grade mineralisation and alteration up to 200 m vertical depth. Sixty-two holes were drilled on the Silver Pond West Zone, with a maximum intersection of 2.3 g/t Au and 324.4 g/t Ag over a true width of 2.12 m (Kennedy and Vogt, 1987). Lane et al., (2018) state that in 1987 the Property consisted of 128 contiguous claim units immediately west and adjacent to the Lawyers claims.

Trenching was also done by Bond and Nexus in 1987 with an excavator on the North Zone, which exposed low-grade gold mineralisation in the area. Trench TR 18.75 N averaged 1.20 g/t Au, and local high grades ranging up to 28.8 g/t Au over 1 m (Kennedy and Vogt, 1987). Trenching also revealed argillic alteration and disseminated pyrite correlating with IP chargeability anomalies. Nineteen follow-up holes were drilled, totalling 2,860 m, which defined low-grade quartz stockwork mineralisation in the area. Intersection results ranged from 2.1 g/t Au over a true width of 3 m including 5.98 g/t Au over a true width of 0.5 m in hole SP87-88 (Kennedy and Vogt, 1987).

Drilling in 1988 by Bond and Nexus consisted of 17 holes (3,729 m) distributed between the Silver Pond Amethyst, Creek, West and North zones (Kennedy, 1988). Drilling at the Silver Creek Zone was the most successful, as it intersected a mineralised felsic dyke that graded 28.75 g/t Au over 1 m. Holes at the Amethyst Zone only returned “sub-economic” gold and silver values. The West Zone drilling was unable to extend the zone any further northwest. Hole SP-88-145 was drilled to test the North Zone at depth, but only reached 405 m and was terminated due to technical difficulties.

6.3.4 1992 to 2017

Even Resources Ltd. optioned the Property in 1992 and performed excavator trenching and blasting in the northeast of the North Zone grid that resulted in the discovery of two barren quartz veins (Smith, 1993).

An area southeast of the North Zone and northwest of the West Zone was undertaken for exploration in 1994 by Ocean Crystal Resources Ltd. The work included grid rehabilitation, IP survey, mapping, excavator trenching and nine drill holes (522.8 m) (Figure 6-16). Results were poor, with 12 quartz veins and argillic alteration found in trenching that did not return any anomalous gold values with drilling (Symonds, 1997). The mineral claims were allowed to lapse. Silver Pond was acquired by Guardsmen and exploration work in 2001 maintained the claims, but no recent drilling (prior to 2020) has been completed on any of the historical Silver Pond Zones (Hawkins, 2003).

Figure 6-16: Excavator Trenching on the Silver Pond North Zone in 1994

Source: Lane et al., (2018)

6.3.5 2018 Crystal Exploration Inc.

On March 21, 2018 Crystal entered into a binding letter of intent with PPM, wherein Crystal was granted a series of options to acquire up to 75% interest in the Lawyers Project. In a press release dated May 25, 2018, Crystal announced a name change to Benchmark Metals Inc (Benchmark). Exploration programs completed by Benchmark in 2019 to 2021 are described in Sections 9 and 10 of this Technical Report.

6.4 History and Development of the Marmot Zone

6.4.1 1969 to 1970

Little is known on early exploration efforts on the Marmot Zone. In 1969 to 1970, five holes were drilled and trenching by an unknown operator do not have assay results recorded. It appears that the primary target was porphyry copper (Renning, 2007).

6.4.2 1971 to 1972 Kennco

In 1971, Kennco collected soils and rocks on a N-S grid that encountered anomalous Au and Ag, base metals and Mo over the Marmot Zone (Gower and Stevenson, 1971). In 1972, Kennco collected 81 rock samples in a 30 m x 30 m grid over a 350 m^2 area covering anomalies from 1971 and the historical trench and drilling area (Hegge and Grace, 1972). The results of the rock grid revealed a NW trending anomaly with grades of up to 6.6 g/t Au and 870.0 g/t Ag.

6.4.3 2007 Guardsmen Resources

In 2007, when Guardsmen Resources collected rock samples within and around the historical trenches (Renning, 2007). There were 59 rock samples collected from the Marmot area, but only two samples from the historical trenching area returned high grades. Sample GR9 returned 12.3 g/t Au and 996 g/t Ag and sample MA6 returned 8.86 g/t Au and 1020.0 g/t Ag.

6.4.4 2018 Crystal Exploration Inc.

On March 21, 2018 Crystal Exploration Inc. (Crystal) entered into a binding letter of intent with PPM wherein Crystal was granted a series of options to acquire up to 75% interest in the Lawyers Project. In a press release dated May 25, 2018, Crystal announced a name change to Benchmark Metals Inc. (Benchmark). Exploration programs completed by Benchmark in 2018 to 2021 are described in Sections 9 and 10 of this Technical Report.

6.5 Historical Mineral Resource Estimates

Inferred Mineral Resource Estimates for the Cliff Creek and Dukes Ridge zones were presented by Hawkins (2003) and a preliminary mineral inventory estimate for the Silver Pond West Zone was provided by Kennedy and Vogt (1987). Those estimates are summarized below. **The historical resource and reserve estimates summarized and tabulated below are historical in nature and, as such, are based on prior data and reports prepared by previous operators and are not in compliance with NI 43-101. A Qualified Person has not done the work necessary to verify the historical estimates as current estimates under NI 43-101 and the estimates should not be relied upon. There can be no assurance that any of the resources, in whole or in part, will ever become economically viable. Benchmark is not treating the historical estimates as current Mineral Resources or Mineral Reserves. The Company has completed the necessary work to establish a current Mineral Resource on the Lawyers Property as presented in Section 14 of this Technical Report.**

6.5.1 Cliff Creek Zone

The estimated Inferred Mineral Resource from Hawkins (2003) at the Cliff Creek Zone is 69,981 t at 0.225 oz Au per ton and 6.91 oz Ag per ton (63,500 t at 7.71 g/t Au and 237.0 g/t Ag) using a gold-equivalent (AuEq) cut-off grade of 0.20 oz per ton (6.86 g/t) and a conversion factor for gold equivalency of 1 oz Au = 93 oz Ag.

6.5.2 Dukes Ridge Zone

The estimated Inferred Mineral Resource from Hawkins (2003) at the Dukes Ridge Zone is 23,991 t at 0.232 oz Au per ton and 6.3 oz Ag/t (21,764 t at 7.95 g/t Au and 217.0 g/t Ag) using a gold equivalent (AuEq) cut-off grade of 0.20 oz per ton (6.86 g/t) and price conversion factor of 1 oz Au = 93 oz Ag.

6.5.3 Silver Pond West Zone

Kennedy and Vogt (1987) reported a “drill-indicated” mineral resource for combined Subzones A, B, and C of 62,101 t at 5.85 g/t Au, undiluted. Calculations were conducted using Geostat software and the polygonal method in longitudinal section. Polygons were determined by the mid-point between holes. Cut-off grade was 2.4 g/t Au over a true width of 1.2 m and the specific gravity used was 2.88 t/m^3. Note that the Kennedy and Vogt (1987) estimates predate NI 43-101 regulations and Canadian Institute of Mining, Metallurgy and Petroleum (the CIM Definition Standards) of Measured, Indicated and Inferred Mineral Resource classifications.

The tonnage and grade estimates for the Cliff Creek, Dukes Ridge and Silver Pond zones summarized above are historical estimates. The historical estimates do not use classifications that conform to current CIM Definition Standards on Mineral Resources and Mineral Reserves as outlined in NI 43-101 Standards of Disclosure for Mineral Projects and have not been redefined to conform to current CIM Definition Standards. The historical estimates were prepared in the 1980s prior to the adoption and implementation of NI 43-101.

Note that the Qualified Person has not done sufficient work to classify the historical resource estimate as current Mineral Resources or Mineral Reserves. The calculations were not made by a Qualified Person. The historical resource estimate is not being treated as current Mineral Resources or Mineral Reserves. The economic projections are invalid, because many of the assumptions were not based on factual data, they are based on outdated economic parameters and are no longer acceptable.

6.6 Recent Mineral Resource Estimates

Recent Mineral Resource Estimates were released in 2018 and 2021. Each of these Mineral Resource Estimates is summarized below.

6.6.1 2018 Mineral Resource Estimate

A Mineral Resource Estimate for the Lawyers Property was reported on April 30, 2018 (Lane et al., 2018). The Mineral Resource Estimate at a cut-off value of 4.0 g/t gold equivalent (AuEq) is presented in Table 6-4.

Table 6-4: Lawyers Inferred Mineral Resources Effective Date April 30, 2018, at Cut-Off 4.0 G/T AuEq

Zone	Tonnes (k)	Au (g/t)	Ag (g/t)	AgEq (g/t)	Contained Au (koz)	Contained Ag (koz)
Cliff Creek North	550	4.51	209.15	6.69	80	3,700
Dukes Ridge	58	4.30	139.13	5.75	8	260
Total	**608**	**4.50**	**202.58**	**6.60**	**88**	**3,960**

Source: Lane et al., (2018)

6.6.2 2021 Mineral Resource Estimate

The previous public Mineral Resource Estimate for the Lawyers Property was reported in May 2021 (P&E, 2021). The pit constrained and Out-of-Pit Mineral Resource Estimates at cut-off grades of 0.5 g/t AuEq and 2.0 g/t AuEq, respectively, gold equivalent (AuEq) is presented in Table 6-5.

Table 6-5: Lawyers Mineral Resource Estimate (1-8)

Resource Zone	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (Moz)	AuEq (koz)
Pit Constrained Mineral Resource @ 0.5 g/t AuEq Cut-off								
Cliff Creek	Indicated	30,008	1.18	36.6	1.58	1,134	35.4	1,525
	Inferred	12,875	0.95	24.4	1.22	393	10.1	505
Dukes Ridge Phoenix	Indicated	2,618	0.91	34.1	1.29	77	2.9	109
	Inferred	964	0.83	25.9	1.12	26	0.8	35
AGB	Indicated	7,340	1.27	45.5	1.77	300	10.7	419
	Inferred	1,132	1.13	33.0	1.50	41	1.2	55
Total	**Indicated**	**39,966**	**1.18**	**38.1**	**1.60**	**1,511**	**49.0**	**2,053**
	Inferred	**14,971**	**0.96**	**25.1**	**1.24**	**460**	**12.1**	**595**
Out of Pit Mineral Resource @ 2.0 g/t AuEq Cut-off								
Cliff Creek	Indicated	274	3.57	93.1	4.60	31	0.8	41
	Inferred	1,230	4.03	152.3	5.72	160	6.0	226

Resource Zone	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (Moz)	AuEq (koz)
AGB	Indicated	59	1.69	188.7	3.78	3	0.4	7
	Inferred	2	0.89	198.6	3.08	0	0	0
Total	**Indicated**	**333**	**3.24**	**110.1**	**4.45**	**35**	**1.2**	**48**
	Inferred	**1,232**	**4.03**	**152.3**	**5.71**	**160**	**6.0**	**226**
Total Mineral Resource								
All	**Indicated**	**40,299**	**1.19**	**38.7**	**1.62**	**1,546**	**50.2**	**2,101**
	Inferred	**16,203**	**1.19**	**34.7**	**1.58**	**620**	**18.1**	**821**

Notes:

1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
4. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
5. Historical mined areas were removed from the percent of block model.
6. Metal prices used were US$1,600/oz Au and US$20/oz Ag and 0.80 US$/CDN$ FX with process recoveries of 90% Au and 83% Ag. A C$24/t process cost and C$5 G&A cost were used. The Au:Ag ratio was 90.5:1.
7. The constraining pit optimization parameters were C$3/t mineralised and waste material mining cost and 50º pit slopes with a 0.50 g/t AuEq cut-off. See constraining pit shells in Appendix J.
8. The out-of-pit parameters were at a C$100/t mining and $15/t sustaining development cost. The Out-of-Pit Mineral Resource grade blocks were quantified above the 2.0 g/t AuEq cut-off, below the constraining pit shell and within the constraining mineralised wireframes. Out–of-Pit Mineral Resources selected exhibited continuity and reasonable.

Source: P&E (2021)

This previous Mineral Resource Estimate is superseded by the current Mineral Resource Estimate reported in Section 14 of this Technical Report.

6.7 Historical Mineral Processing and Metallurgical Studies

The historical technical reports primarily focused on reserve estimates, although some authors provided abbreviated statements relating to the metallurgical response. These statements are of limited benefit, as sample source and specific laboratory procedures were not provided at the time. In addition, historical metallurgical testing was performed on samples that had gold and silver grades that could be an order of magnitude or higher than for the current processing concept.

Among the technical reports cited are Hawkins (2003) covering the Lawyers and AL Properties for Bishop Resources, which included the following statement on metallurgical response:

> *"several process routes pointed to the considerable variability in metallurgical responses for [mineralised material] types on the properties. Some [mineralised material] close to surface is fully oxidized with clean sulphides at depth following a*

transition zone. Variable amounts of copper are present and will cause problems with a cyanidation circuit like that used at the previous Lawyers mill. For possible heap leaching, the exfoliation of some [mineralised material] types will most likely cause plugging of the pile and disintegration of pellets if agglomeration, which it appears will be essential for some material. Freezing during the winter months will also probably cause disintegration of agglomerates."

The reference of Mineral Resource variability, copper as a cyanicide, and challenges to heap leaching are worthy to note. Unfortunately, the corresponding sample origin for supporting these statements was not available. The copper content has not been shown to be a significant factor for the 2020 metallurgical samples provided.

Pegg Geological indicated in their December 2003 technical report (Pegg, 2003) that during 1982 to 1986, Cheni Mines Ltd. (Cheni) had metallurgical testwork carried out by Lakefield Research, of Lakefield, Ontario (Lakefield). This testwork was performed on samples from the AGB and Cliff Creek zones, although no specific information on head grades or sample location was provided. It was also reported that Lakefield stated that the results indicated that the optimum grind would be 80% minus 90 µm. Gold recovery increased slightly at finer grinds, whereas silver recovery increased more rapidly. Lakefield testing indicated that cyanidation of the mineralised material, and a subsequent cyanidation of the flotation concentrate resulted in total recoveries of approximately 95% Au and 82% Ag.

In another summary of the Lakefield studies by Lane et al., (2018) for Crystal Exploration Inc, it was noted (as in the Pegg, 2003), that Lakefield had performed periodic testing between 1982 to 1986, primarily on the AGB, and with one sample from Cliff Creek. It was also noted that the sample origins are not known, although the AGB material is considered to have been collected from underground workings. Overall head grades are not provided, although it is stated from a reference that "the samples being tested were too rich in gold and silver to be representative". The work index (believed to be Bond Ball Work Index) was given as 19.2 kWh/t for the Cliff Creek sample and range from 16.7 to 19.2 kWh/t for the AGB samples. The summary indicates that the optimum grind for cyanide leaching was 80% passing 90 µm. The optimum leach time was 48 hours for gold and considerably longer for silver. The overall recovery during the 48-hour primary leach was 93.4% Au and 46.6% Ag, although there was no distinguishing between Cliff Creek and AGB samples. Flotation and intense leaching of the concentrate from primary leach residue added a further 1.6% to recovered gold and 35.4% to the silver recovery. This resulted in total reported recoveries of 95% Au and 82% Ag, matching the Pegg report data.

A January 1986 report issued by SEREM Inc. (SEREM, 1986), was provided in April 2021. This report consisted of two sections, with the first section focusing on geotechnical and infrastructure issues. The second section provided metallurgical data generated from Lakefield Research. In the initial Lakefield test program six samples with head grades ranging from ~3.5 g/t Au up to ~60 g/t Au, and ~220 g/t Ag up to 1600 g/t Ag were submitted for cyanide bottle roll tests. Standard bottle roll conditions maintained 1 g/L NaCN, at pH 11 to 11.5, with a leach retention time of 48 hours. The grind was varied from ~70% -200 Tyler mesh (mesh) to ~92% passing 200 mesh on each sample. The best response was from finer grinding and higher-grade material. Apart from the lowest grade sample (3.5 g/t Au and 219 g/t Ag), the recoveries averaged approximately 95% to 96% for gold at the coarser grind and improving to a 97% to 98% range with the finer grind. For the lower grade sample, the gold recovery was 91.6% at the coarser grind, and 94.2% at the finer grind. For silver, the lowest grade sample provided a recovery of 59.9% Ag at the coarser grind, improving to 64.5% at the finer grind. Silver recovery on the other samples was variable from 69% to 87% at ~70% passing 200 mesh; and 75% to 91% at ~92%

passing 200 mesh. Decreasing retention time or cyanide addition adversely affected precious metal recovery.

A 2012 laboratory report by Inspectorate Services, of Richmond BC (Inspectorate Services, 2012) for Mountainside Exploration, was obtained for review. This was a limited test program focused on a single composite sample from the Cliff Creek Zone, grading 13.1 g/t Au 762 g/t Ag, and 1.42% total S. A series of three conventional flotation test procedures were completed by Inspectorate varying grind of the flotation feed. Using a primary grind product size of 80% particle passing (P_{80}) of 108 µm, provided for a recovery of 89% Au and 83% Ag. The corresponding sulphide concentrate had a grade 318 g/t Au and 18,500 g/t Ag. Inspectorate indicated that further improvements to flotation cleaning performance might be accomplished with regrind of the rougher concentrate.

In March 2021, the historical Lakefield Reports (Lakefield, 1987, 1988, 1989) issued for Cheni were sourced directly from SGS Canada Ltd., Burnaby BC (SGS). The earliest of these reports (Lakefield, 1987) has the highest composite sample head analyses with progressively lower heads as testwork proceeded. Lakefield (1987, 1988) generally corroborate the summaries from the technical reports referenced above. Lakefield (1989) is the most pertinent, building on the previous laboratory studies and having slightly better recovery than the earlier work. This final Lakefield report also used samples of a lower more representative head grades that was more in line with the then projected process plant feed.

Three composite samples were provided for the 1989 study, with the sample sources identified simply as from Cliff Creek. The composites were described as Comp. 1, being close to projected mill feed grade; Comp. 2 of a higher grade and having a high work index; and Comp. 3 as having elevated clay content.

A mineralogy examination did not identify native gold in any of the three samples, rather as electrum inclusions in pyrite or in one instance in goethite in Comp. 1. Native and electrum silver appeared generally as inclusions in pyrite, and the silver minerals argentite and (or) acanthite were noted.

Only Comp. 1 and 3 were submitted for cyanide bottle roll studies. Comp. 2 was used for grinding evaluation and Comp. 3 for liquid/solid separation studies. The leach procedures used 72 hours of retention at pH 11 maintaining 1 g/L NaCN and indicated most of the precious metal dissolution occurred within the first 48 hours, although silver lagged gold. There is no indication in the reporting if gravity pre-treatment was incorporated. A summary of the Progress 3 report results including from the Bond Ball Mill Work Index (BBMWi) and cyanide leach results is provided in Table 6-6.

Table 6-6: Lakefield (1989) Progress 3 Report - Summary of 1989 Test Results

Comp. ID	Head Analyses			BBMWi kWh/ton	72-hour CN Recovery		CN Tailing Grade	
	Au (g/t)	Ag (g/t)	SG		% Au	% Ag	Au (g/t)	Ag (g/t)
1	4.4	210	2.69	17.2	93.6	67.8	0.3	61.4

Comp. ID	Head Analyses			BBMWi kWh/ton	72-hour CN Recovery		CN Tailing Grade	
	Au (g/t)	Ag (g/t)	SG		% Au	% Ag	Au (g/t)	Ag (g/t)
2	39	1,484	2.76	19.1	not avail.	not avail.	not avail.	not avail.
3	7.2	339	2.66	17.3	94.1	61	0.45	125

Source: Lakefield (1989)

The Lakefield Progress 3 report conclusions indicated an expected leach recovery of 94% gold and 64% silver. Cyanide was maintained at 1 g/L, and consumption was given at approximately 0.7 g/t. Flotation of the leach residue recovered an additional 3% gold and 13% silver into a low-grade concentrate that might be subjected to further processing, such as high intensity leaching (IC). The estimated thickener area was calculated at 0.08 m^2/t/day at pH 11 with using 40 g/t Percol™ 156. From this a vacuum filter cake could be produced with a moisture content of 18%. The full-scale filtration rate for the anticipated process plant feed was given as 212 kg/m^2 – h.

In summary, all of the historical laboratory studies had been performed on samples representing mineralised material from high grade intervals. Gold recoveries were shown to be consistently >90%, whereas silver recoveries trended significantly lower. The findings of the testwork, including those in subsequent historical technical reporting, indicates that the mineralisation is suitable to conventional precious metal processing, including both froth flotation and cyanide leaching.

6.8 Past Production

6.8.1 Historical Operations

The Lawyers Property was reported by Hawkins (2003) to be put into production in 1989 at a design rate of 550 tons/day, as an underground operation, with a projected life of ten years. Proven and probable mineral reserves at opening were 1,037,600 t @ 0.209 oz. Au/ton (7.2 g/t) and 7.57 oz. Ag/ton (Wright, 1986). Mineralisation was hosted in a quartz vein stockwork and breccia zones. Although there are no process plant data available from the operating period, the historical technical reports indicated no major issues with the processing circuits. Operations were closed in 1992 due to considerations of mineable grades and economics. Between 1989 and 1992, Cheni produced 171,177 oz. Au and 3,548,459 oz Ag. During the mid-1990s, Cheni removed the process plant equipment, reclaimed the mine site and subsequently allowed the mineral tenures covering the area to lapse.

Information such as metallurgical balances and operating reports from historical production at the Cheni operation were not able to be sourced. There is some design data provided through a document by Wright Engineers of Vancouver BC that was issued in 1987 (Wright, 1987).

This document outlined that mining would commence in the AGB Zone, and then proceed to the Cliff Creek and Dukes Ridge zones. In commissioning the plant, it appears likely some changes were made to this design, although the information still provides insight into the metallurgical response. The proposed process was for 500 t/d using cyanidation with Merrill Crowe. The product grind size was given as 70% passing 200 mesh, with a work index of 19.5 kWh/t. Unfortunately, the primary cyanide circuit retention time was not provided, but the projected reagent requirements were for 0.7 kg/t NaCN at pH 11, using 2.15 kg/t lime.

This leach circuit recovered most of the gold and some of the silver. Whole mineralised material leaching was to be followed by flotation (20 minutes rougher retention with cleaning) of the cyanide residues to recover additional silver. The float concentrate was to be subjected to a strong cyanide leach using 10 g/L NaCN with a 96-hour leach retention time. The plant process design criteria suggested 95% gold recovery and 75% silver recovery on head grades of 7.2 g/t Au and 260 g/t Ag.

6.8.2 Historical Production

The Lawyers Mine was operated by Cheni Gold Mines Inc. from 1989 to 1992. Mine production per year of operation is summarized below in Table 6-7.

Table 6-7: Historical Lawyers Mine Production

Year	Au (oz)	Ag (oz)	Tonnes Processed	Information Source
Pre-Production to Feb 28, 1989	3,045	37,467	11,220	George Cross News Letter, No.47 (March 8, 1989)
March 1 to December 31, 1989	45,524	878,474	154,960	Cheni Gold Mines Inc. 1990 Annual Report for 1989
1990	52,630	1,160,426	203,097	Cheni Gold Mines Inc. 1991 Annual Report for 1990
1991	38,350	720,706	193,086	Cheni Gold Mines Inc. 1992 Annual Report 1991
1992	31,517	749,327	119,990	Cheni Gold Mines Inc. 1993 Annual Report for 1992
Total*	**171,066**	**3,546,400**	**682,353**	

Notes:

* Totals include estimated 10,000 oz gold recovered from an estimated 45,400 t that Cheni mined from the nearby Al Property and processed at Lawyers in 1991 and 1992 (Hawkins, 2003).

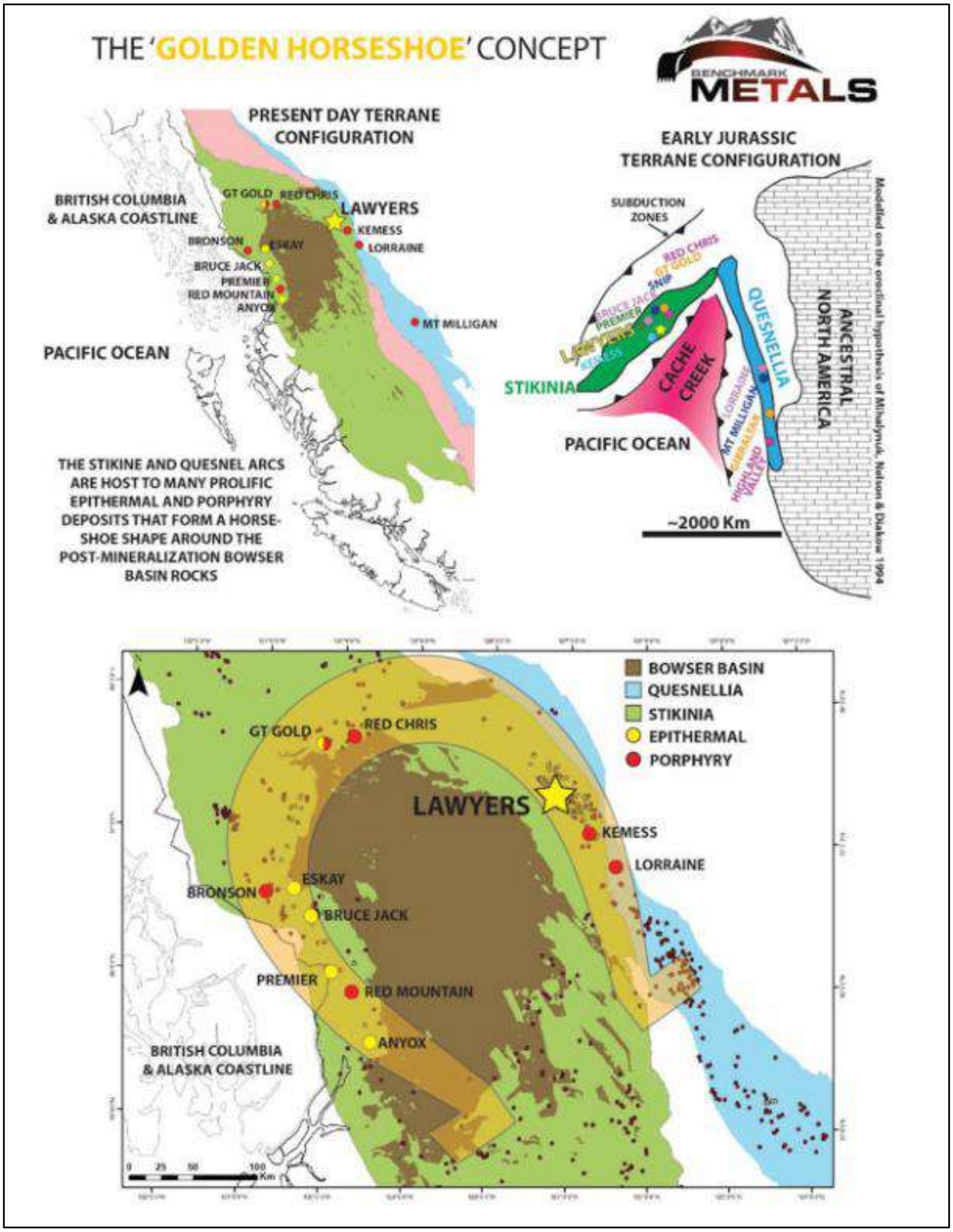
Source: Lane et al, (2018)

7 GEOLOGICAL SETTING AND MINERALISATION

7.1 Regional Geology

Regionally, the Lawyers Property covers 140 km^2 of highly prospective rocks in the northeastern region of the prolific metal-endowed Stikine Terrane, British Columbia (Canada). Magmatic events in Stikine during the Late Triassic and Early Jurassic drove the development of mineralising porphyry and epithermal systems in this region. On the east and west sides of the Bowser Basin, the same magmatic and mineralising events are recognized and formed an arch of gold and polymetallic mineralisation, depicted herein as the 'Golden Horseshoe', which includes the Golden Triangle (Figure 7-1).

Figure 7-1: Regional Geological Setting of the Lawyers Project



Source: Benchmark (April 2021)

7.2 Property Geology

The following description of the Toodoggone Formation is based largely on Lane et al., (2018) and was compiled from several reports on the Property area. These reports include past Assessment Reports, publications of the B.C. Geological Survey, internal and external reports by PPM, including the WEL 1985 Feasibility Study, 1986 Technical/Economic Study and 1987 Mine Plan, and a Technical Report Covering the Lawyers and Al (Ranch) Properties written by Paul Hawkins, P.Eng.

The Lawyers Property geology is primarily Lower Jurassic volcanic rocks of the Toodoggone Formation. The Toodoggone Formation is a compositionally uniform subaerial volcanic succession, which consists of six lithostratigraphic Members divided into Lower and Upper Eruptive Cycles (Table 7-1). The Members are comprised of high potassium, calc-alkaline latite and dacite volcanic strata emplaced along a north-northwest trending, elongate volcano-tectonic depression (Diakow et al., 1993).

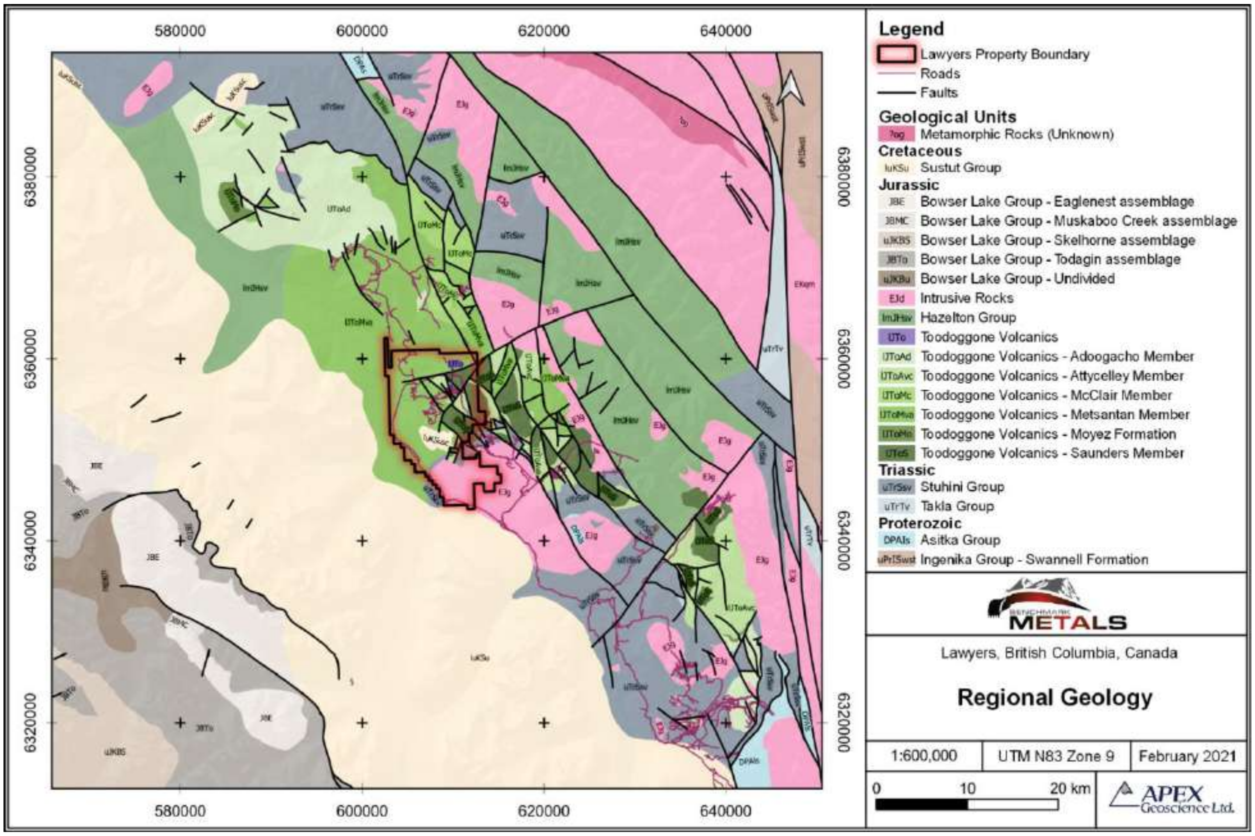
Table 7-1: Toodoggone Lithostratigraphy

Formation	Member	Eruptive Cycle	Age (Ma)	Description
Toodoggone	Saunders	Upper	192.9 to 194	Trachyandesite tuff
	Attycelley		193.8	Dacite tuffs and related feeder dykes and sub-volcanic domes
	McClair			Heterogeneous lithic tuff, andesite flows and sub-volcanic dykes and plugs
	Metsantan	Lower	197 to 200	Trachyandesite tuff
	Moyez			Well-layered crystal and ash tuff
	Adoogacho		197.6	Trachyandesite ash flows to lapilli tuff and reworked equivalents

Source: Diakow et al., (1993)

The Lower Eruptive Cycle rocks at Lawyers consist of a lower quartz andesite overlain by a sequence of trachyandesites (Vulimiri et al., 1986). A sequence of welded tuffs overlies the ash tuffs that compose the Adoogacho Member. The Metsantan Member, which overlies large sections of the Lawyers Property, is composed predominantly of trachyandesite tuffs that contains block-sized trachyte porphyry (Lane et al., 2018). Following the first period of volcanism that produced the units of the Lower Eruptive Cycle, K-Ar dates indicate an 8 Ma intercycle hiatus in volcanism, which resulted in the partial erosion of earlier volcanic and plutonic rock sequences. After the intervolcanic cycle hiatus, resurgent volcanism produced the pyroclastic Attycelley and Saunders Members of the Upper Eruptive Cycle (Table 7-1), which are composed mainly of bedded lapilli tuffs, dacitic ash and lava flows (Diakow et al., 1991). Historical mapping by the B.C. Ministry of Energy and Mines identified the volcanic Attycelley, Metsantan and Saunders members as the largest components of the eruptive cycles present on the Lawyers Property (Figure 7-2).

Figure 7-2: Geology of the Lawyers Area (Geological Units from BC Geofile 2005-2)



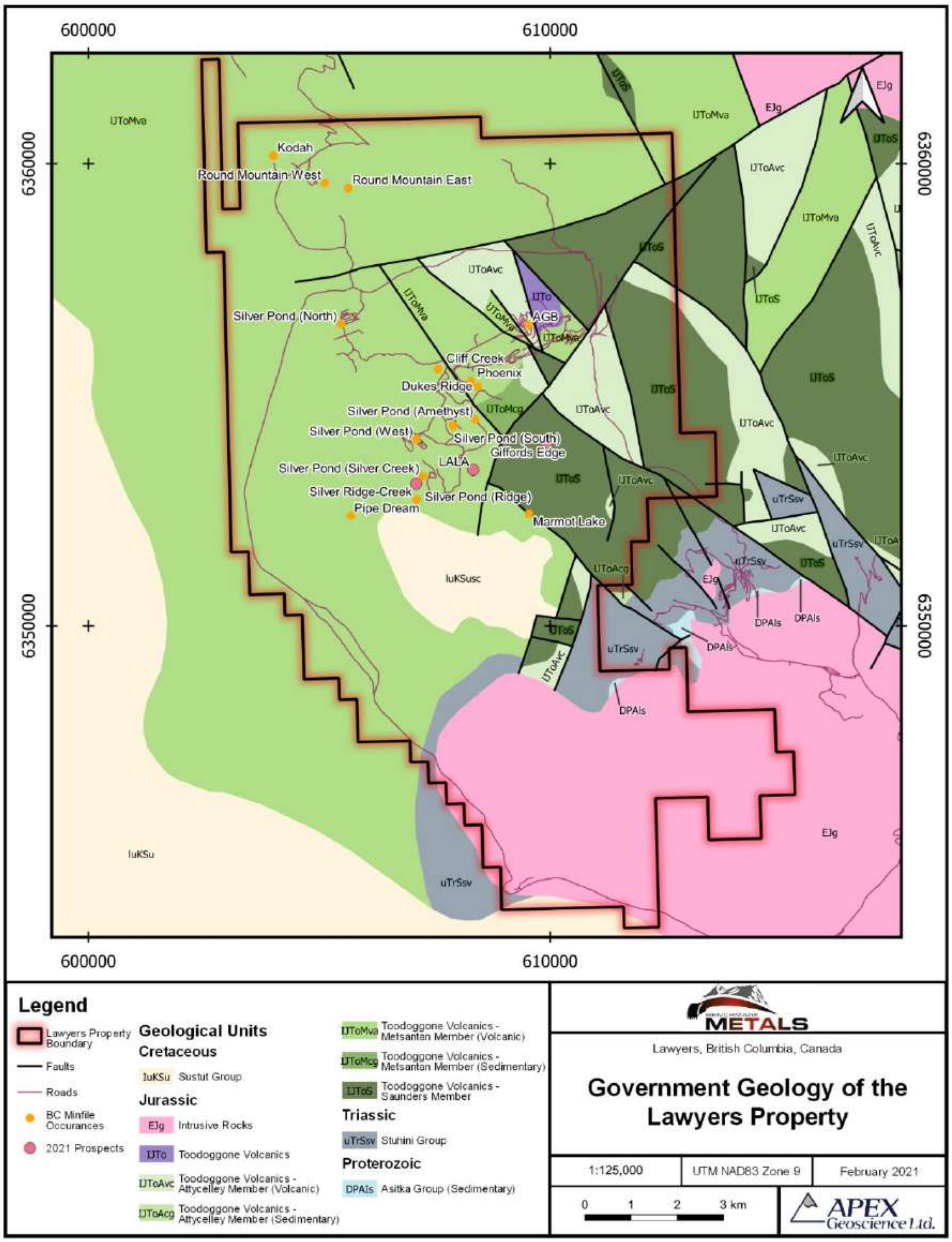
Source: Laycock et al., (2021)

A majority of known mineralisation on the Lawyers Property is hosted in a sequence of intermediate porphyritic rocks, which are divided into mappable units based on volcanic textures and phenocryst mineralogy (Figure 7-2). Key mineralogical identifiers in units of the 2019 mapping program include quartz eye, hornblende with variable modal abundance, fine-medium grained k-feldspar, and rare biotite. Previous workers have interpreted these mineralised units as being part of the Metsantan Member of the Lower Eruptive Cycle, described as a thick sequence of trachytic, k-feldspar megacrystic ash falls and flows (Lane et al., 2018). This sequence is overlain by hornblende-bearing andesite crystal tuffs and breccias (Vulimiri et al., 1986). A thick package of flood basalts overlies the trachyandesites and marks the base of the Upper Eruptive Cycle (Figure 7-3). Additional surface mineralisation hosted in lapilli tuffs of the Saunders Member, in the east-central portion of the Lawyers Property, was identified by historical work and in 2019 mapping (Figure 7-2, Figure 7-4 and Figure 7-5).

The south-central portion of the Lawyers Property is unconformably capped by a younger early to late Cretaceous package of continental clastic conglomerates that are part of the sedimentary Sustut Group. The horizontal overlying sedimentary strata of the Sustut Group formed due to sedimentation in the post-volcanic Toodoggone Depression and are likely responsible for the preservation of the underlying epithermal systems by protecting them from erosion following regional uplift (Diakow et al., 1991).

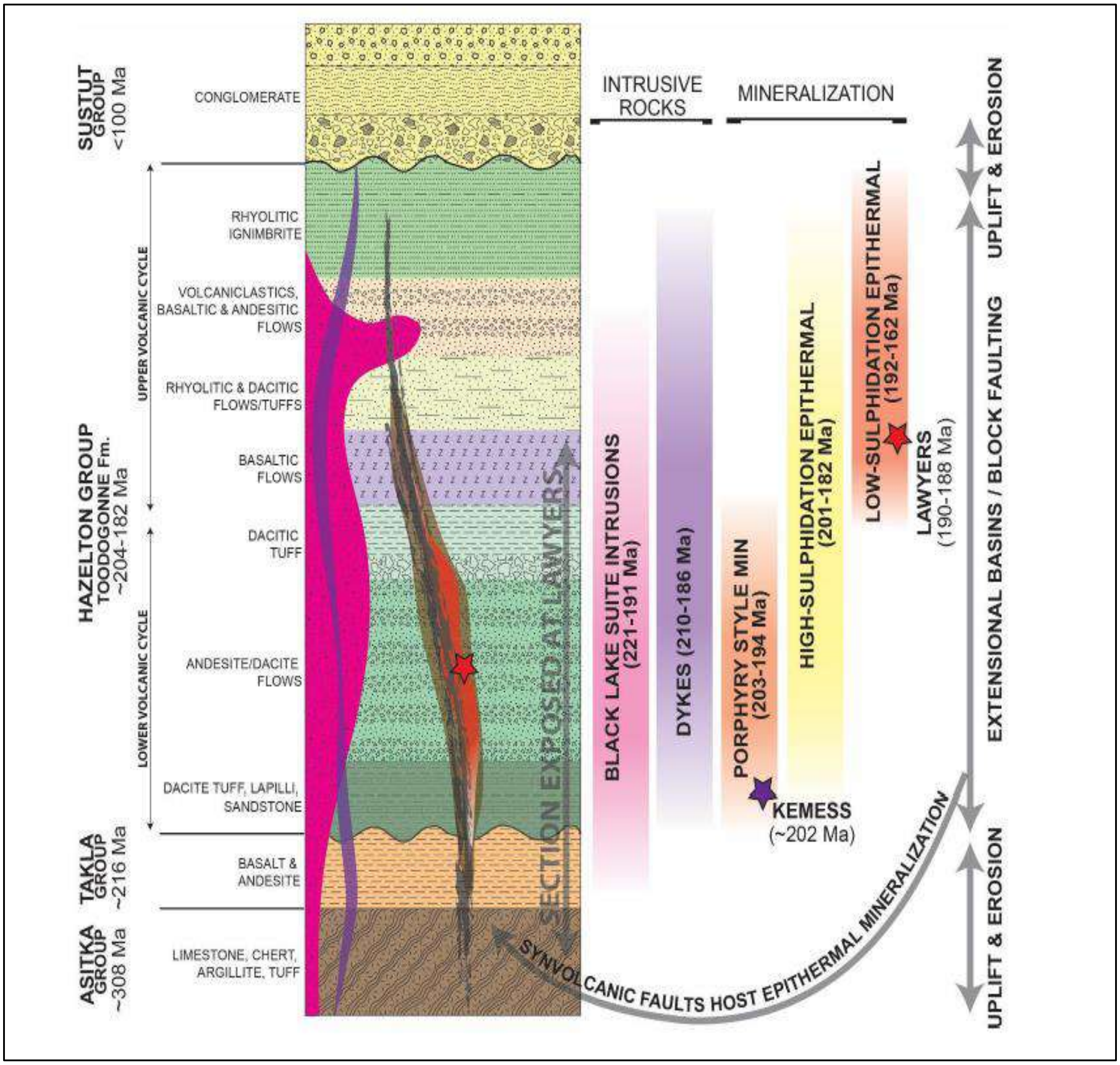
Locally, mafic dykes, which typically strike northwest with sub-vertical dips, are unaltered and cut mineralisation (Vulimiri et al., 1986). These dykes may be feeder dykes to pyroxene basalts of the Attycelley Member located east of the Attorney Fault (Diakow et al, 1993). In the western part of the Property, a series of northwest-striking rhyolite dykes occur along the same structures that host mineralisation at the M-Grid Zone (Blann, 2005) and at some of the Silver Pond Zones (Caira, 1982; Kennedy and Weston, 1985). The southern portion of the Lawyers Property contains the Black Lake Intrusive Suite, which is comprised of granodiorite to quartz monzonite and cogenetic intermediate dykes. Magmatism was likely focused by deep rooted fault systems formed during extension as a result of earlier volcanic cycles (Figure 7-3), as indicated by the general NW elongation of plutons along major regional faults. Late-stage dykes with compositions ranging from rhyolite to basalt crosscut the intrusive pluton (Benchmark Metals 2020 Internal Report).

Figure 7-3: Lawyers Property Geology (Geological Units from BC Geofile 2005-2)



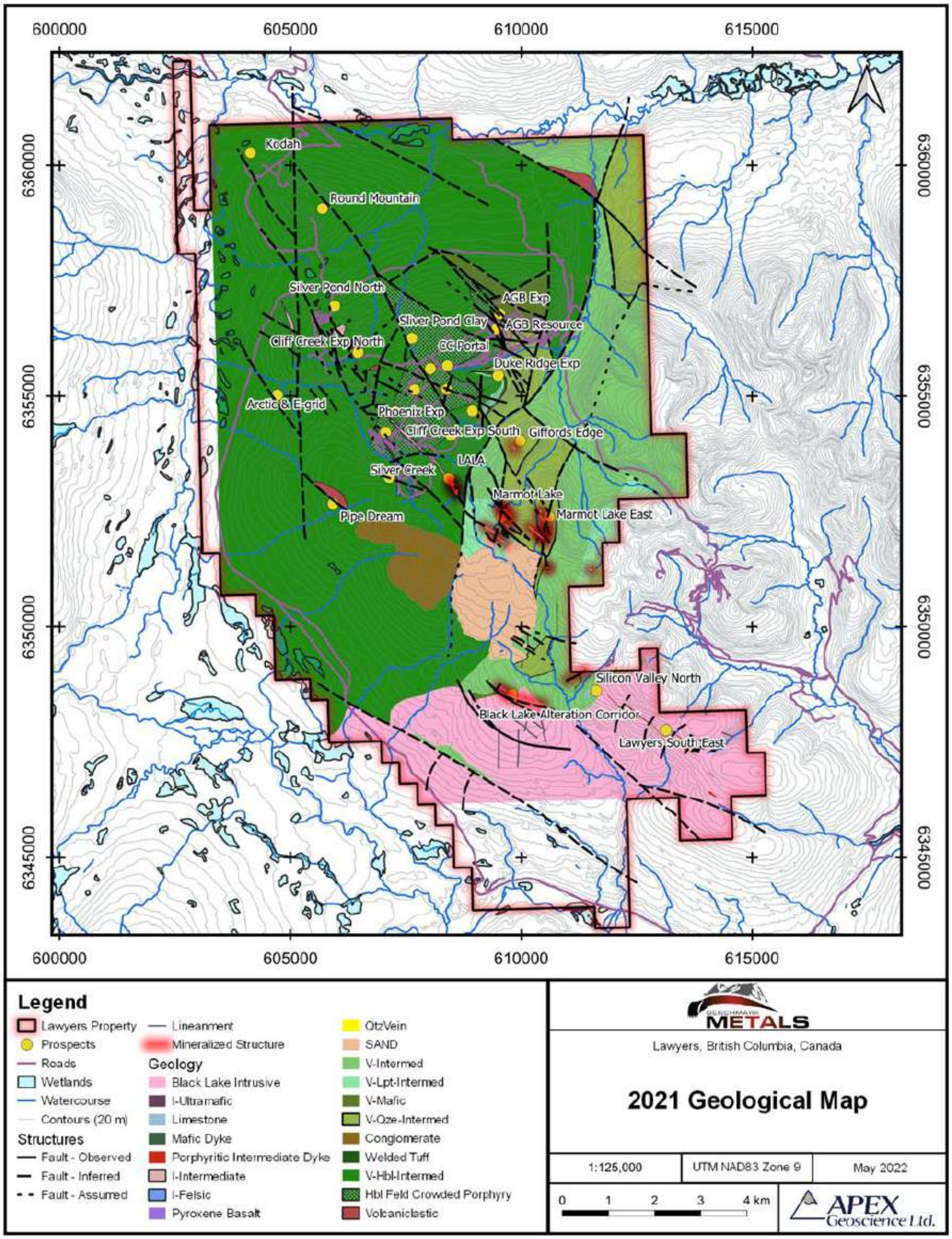
Source: Laycock et al., (2021)

Figure 7-4: Simplified Stratigraphic Section of the Lawyers Property and the Toodoggone Region



Source: Laycock et al., (2021)

Figure 7-5: Lawyers Property 2021 Geological Mapping



Source: Laycock et al., (2021)

7.3 Structure

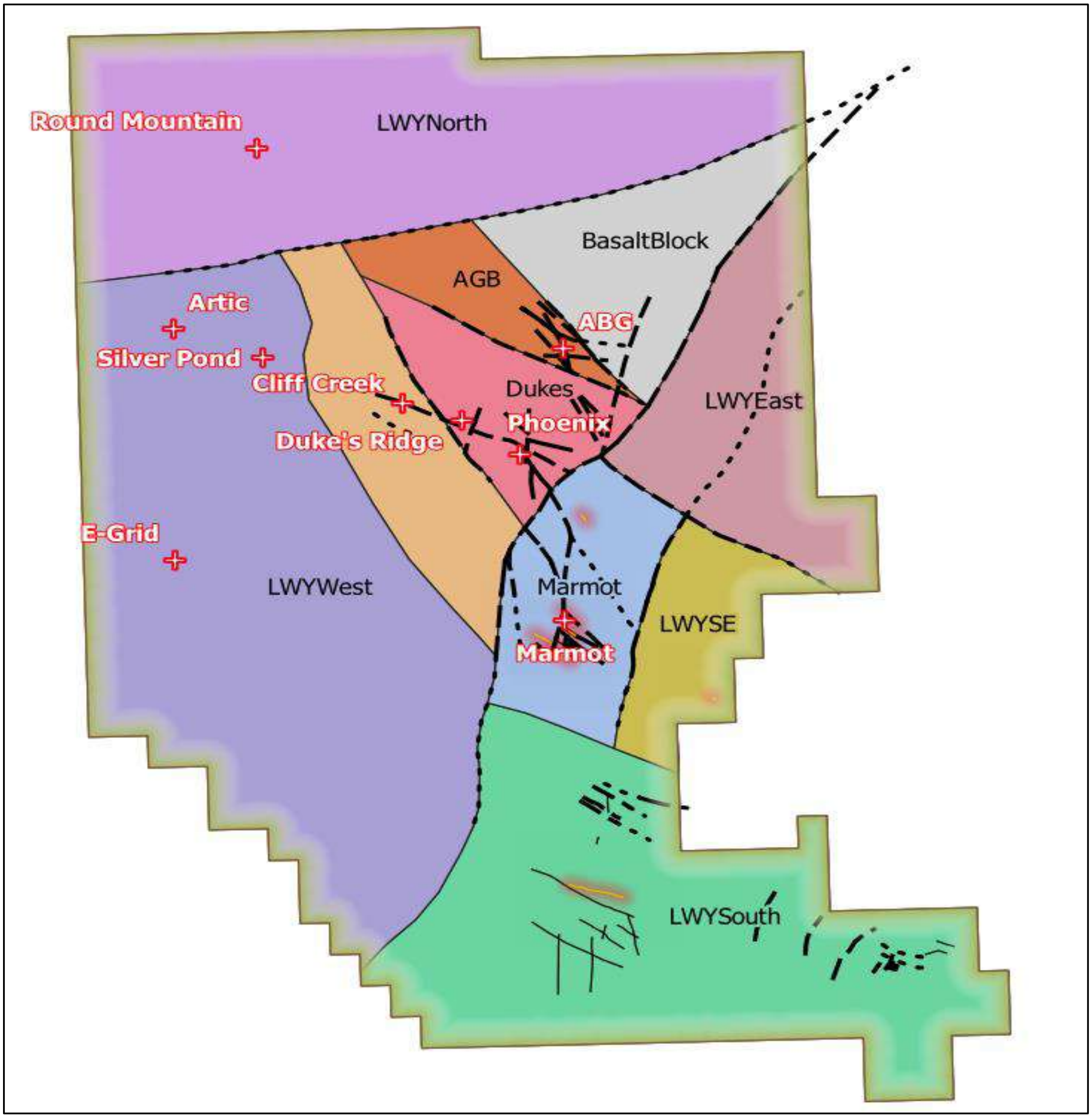
The distribution of map units and the dominant structures that are significant to mineralisation on the Property originated as a result of broad scale intra-arc extensional faults that formed within a broader magmatic arc (Diakow et al., 1993). The Lawyers Property's structural geometry is described by a simple brittle deformation history with syn-volcanic graben development and a minor degree of subsequent strike-slip deformation (Benchmark Metals 2020 Internal Report).

Historical mapping on the Lawyers Property (Kennedy et al., 1985; Vulimiri et al., 1986; Diakow, et al., 1993), and elsewhere in the Toodoggone region, identified a series of steeply-dipping, northwest- to north-northwest striking normal faults, which are interpreted to be extensional faults related to graben development during the formation of the Toodoggone Depression. Volcanic strata within the fault blocks generally dip shallowly to the west (Lane et al., 2018) and were later tilted within rotational blocks of the large graben features that characterize the structural domains of the Lawyers Property. The sedimentary packages of the Sustut that overlay the volcanics of the Toodoggone Formation (Figure 7-3) were deposited within an extensional basin, and commonly contain volcanic breccia clasts.

The 2019 mapping of the Property defined ten (10) major structural domains (Figure 7-6) that are delineated by major fault bound blocks formed during extension. There are four main fault orientations identified on the Property with varying relationships to mineralisation and related alteration. The first major structural feature is a series of steep to subvertical, 310º to 340º striking faults that dip SW or NW. This fault system exhibits normal displacement with minimal strike-slip movement likely as a result of reactivation. The 310º to 340º faults are syn-post mineralisation and generally have a similar orientation as the mineralised zones at Cliff Creek, Dukes Ridge, Phoenix and AGB, and could be related to mineralisation forming hydrothermal processes of the main Lawyers trend. Localized sections of the stratigraphy contain conglomerates adjacent to major fault zones are associated with infill of extensional basins that occurred concurrently with the Toodoggone eruptive cycles (Figure 7-3). A younger post-mineralisation north-dipping, E- to W-trending fault system offsets NW-NNW trending structures and stratigraphy.

The Marmot area of the Property has another series of subvertical north-trending fault structures that are likely syn-post mineralisation. The north trending faults have associated mineralised fracture zones and returned several anomalous grab samples. Another series of steeply dipping, SW-SE (~205º) faults transect the Marmot Zone and separate it from the main Lawyers trend. The timing of the 205º faults is unknown, but they do not have any observable mineralisation or alteration at surface. The later stage fault series that occurred after the initial N-NW trending 310º to 340º extensional faults are responsible for the geometry and subsequent variable rotation of the graben blocks that constitute the identified structural domains of Lawyers Property. Variable reactivation and minimal displacement of the different fault systems is indicated by kinematic indicators (conjugate riedel structures, lineations) identified in the mapping program, and common macro- to micro-scale fault gouge and fault breccia zones in drill core.

Figure 7-6: Lawyers Property Structural Domains



Source: Laycock et al., (2021)

Results of the 2020 geological mapping program indicated that the Silver Pond Zone, though more structurally complex, has undergone similar structural controls to the remainder of the Property. Silver Pond is dominated by steeply-dipping NW structures and secondary N-S and

SW-NE structures. Kinematic indicators show that the NW structures rotated into N-S orientations and, where structures of different orientations intersect, offset is minimal.

The 2021 mapping program identified a series of NW-NNW faults within the Black Lake Alteration Corridor in the southern part of the Property. Displacement of large blocks of the Black Lake pluton and contacting volcanic rocks is observed at surface. The dip of the faults cannot be measured from surface but are assumed to follow the near-vertical orientation of the similar NW to NNW trending faults on the Property. The apparent northerly rotation of the major faults in the Black Lake Alteration Corridor is largely an artifact due to topography in the area. The major structures appear to be associated with mineralisation; basalt and limestone near the contact of the pluton and proximal to NW/NNW structures are intensely silicified and contain large (up to 15%) concentrations of sulphides. A series of subparallel white quartz veins oriented ~280/65 crosscut all lithologies and structures, defining a late E-W structural fabric across the area.

7.4 Alteration and Mineralisation

Volcanic strata on the Property are typically very weakly altered and the primary depositional textures are generally well preserved. Narrow, localized zones associated with mineralisation in the main zones do show intense silicification and potassic alteration. A variety of alterations is observed across the Property, ranging from a massive advanced argillic zone at Silver Pond, northwest of Cliff Creek, to the strong quartz-sericite-pyrite alteration concentrated along structures in the Marmot area. The alteration, variation and zonation suggest that the epithermal mineralisation on the Property was part of a large-scale hydrothermal system.

With proximity to mineralised zones, a range of different alteration assemblages are recognized, which from distal to proximal are:

- Propylitic – epidote, chlorite, albite;
- Hematite – pervasive alteration and replacement of mafic minerals;
- Argillic – kaolinite, smectite, illite, sericite;
- Advanced Argillic – pyrophyllite, dickite, alunite;
- Phyllic – quartz-sericite-pyrite (QSP) alteration;
- Silicic – microcrystalline quartz, silica flooding; and
- Potassic – fine-grained potassium feldspar as adularia ± sericite.

The style of alteration and associated mineralisation on the Lawyers Property is predominantly low sulphidation epithermal systems. Low sulphidation systems appear restricted to the central and eastern parts of the Property, referred to here as the Lawyers Group of prospects. A km-scale advanced argillic alteration zone known as the Silver Pond Clay Zone, occurs to the NW of the Cliff Creek, amongst historical work areas Silver Pond North and Silver Pond West. No mineralisation is observed in the clay at surface. However, zonation of the clays could indicate presence of a possible porphyry intrusion centre or potential for high sulphidation mineralisation at depth (Laycock et al., 2021).

The low sulphidation style mineralisation present in the Lawyers Trend is structurally-controlled, with the main N-NW faults acting as fluid conduits and eventual localities of deposition. Dilation as a result of extension and displacement along fault structures resulted in the targeted high-grade mineralised vein shoots, such as those seen in Dukes Ridge, Cliff Creek and Phoenix zones, with intersecting fault planes resulting in convergence of fluid conduits that appear to concentrate high-grade mineralisation zones. Deposits are occasionally truncated and offset likely due to a series of post mineralisation faults. Observations made during mapping and core logging identified sections of the hanging wall that contain higher degrees of mineralisation and related alteration, which could be due to it being a preferred fluid pathway (microfractures, strain induced permeability?), or as a function of displacement causing the juxtaposition of mineralised zones over relatively unaltered host rock.

High grade mineralisation on the Property is commonly associated with hydrothermal breccia zones composed of translucent to milky/opaque quartz-chalcedony veins and veinlets with varying concentrations of sooty metallic grey fine-grained sulphides (acanthite and pyrite). The hydrothermal breccia zones typically display intense pervasive potassic alteration that commonly resulted in complete replacement of visible phenocrysts. Multiphasic veining and hydrothermal brecciation as well as alteration that overprint volcanic textures indicates that multiple fluid pulses occurred. Variations in the textures and composition of the breccia zones on the Property indicate multiple fluid sources. Mineralisation at Marmot Lake does not appear to be controlled by hydrothermal breccia zones but rather in intervals of strong propylitic and/or potassic alteration often with increased epidote veining and in the groundmass. Mineralisation at Silver Pond has been observed in highly sericitized/QSP altered zones with significant 10% to 20% disseminated pyrite.

Multiple styles of mineralisation are present at the Black Lake Alteration Corridor and Silicon Valley North. Mafic volcanic rocks along the contact of the intrusion are highly silicified and contain up to 15% pyrite and minor chalcopyrite and arsenopyrite. Limestone/calc-silicate rocks present within the Corridor are variably skarnified, containing up to 2% galena and minor sphalerite. Epithermal-style veins and veinlets are present distal to the central zone of the Black Lake Alteration Corridor.

The 2019, 2020, and 2021 core logging programs used a fluid domain classification scheme developed to estimate the degree of influence potentially mineralising fluids had on the surrounding lithologies. The domains can be used to trace the geometry of the epithermal systems along key structural features and through host rocks. The characteristics of the domains are uniquely defined for each major prospect on the Property and categorized by intensity on a scale, from strongest to weakest, of 1 to 3 (for example, Cliff Creek has the domains CC1, CC2, and CC3). Zones that contain mineralisation are usually held within a domain (Domain 1) that is characterized by a high degree of intense pervasive alteration, multiphasic brecciation and stockwork veining, and intense silicification. These sections typically range from total to near-total replacement of the host rock. Sections with less veining and alteration (Domain 2) typically form an envelope around Domain 1 and contain lesser amounts of mineralisation features associated with high grade zones. Domain 3 contains minor amounts of weak alteration (any assemblage) and rare veining. Both Domains 2 and 3 can occur as variably zoned gradients surrounding mineralised shoot veins, or as isolated occurrences that could have formed as minor offshoots of the main epithermal zone. All domains have potential for mineralisation.

Fluid inclusion analysis, completed by T.J Reynolds in an unpublished report for DuPont of Canada Exploration Ltd.,1983, 9 p. and referenced by During on the low sulphidation systems at the Lawyers Property, indicate that there is no demonstrable genetic association with magmatic fluid due to the low temperature (175-335 ºC), low salinity (1-11 equivalent wt% NaCl) character of the fluids responsible for metal deposition. Isotopic data suggests that the source of the fluids in the hydrothermal system is likely meteoric and/or metamorphic as the Property experienced low grade burial metamorphism (Duuring et al., 2009). Past studies on the Silver Pond Group of prospects have indicated the involvement of relatively low-temperature (180-200 ºC) and low salinity (<3 equiv. wt% NaCl) fluids (Clark and Williams-Jones, 1986), which does not provide any clear connection to magmatic fluids or typical high sulphidation characteristics. Limited conclusive research has been completed to provide insight as to whether there is a clear magmatic link to the hydrothermal fluids responsible for mineralisation of the different prospects at the Lawyers Property.

The age of epithermal mineralisation on the Property is constrained by Ar-Ar and K-Ar age dating techniques on adularia. The age of potassic alteration at the AGB Zone and Cliff Creek Zone, determined by Ar-Ar dating is 188.0±2.3 Ma and 189.7±2.6 Ma, respectively (Clark and Williams-Jones, 1991). A K-Ar age on adularia collected from Stage 2 vein envelopes exposed in the 0+75N crosscut on the 1750 m level of the AGB Zone is 180±6 Ma (Diakow et al., 1993). None of the Silver Pond Group of prospects have been dated.

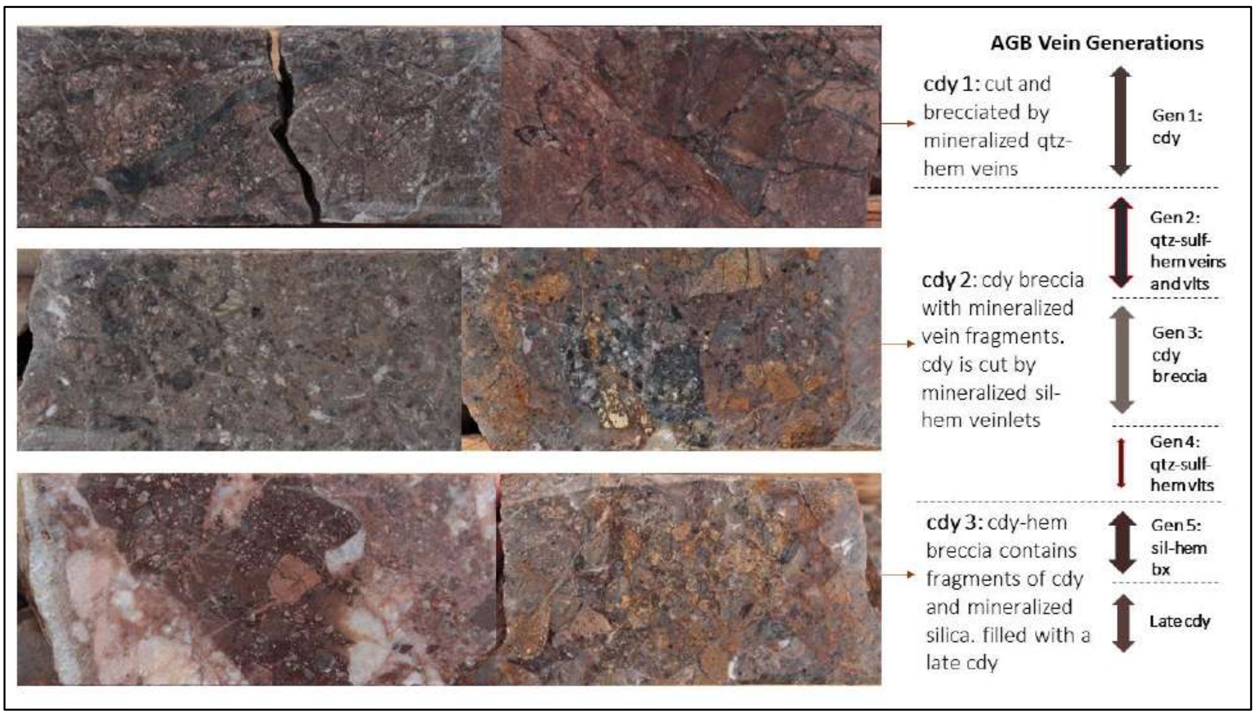
7.4.1 Amethyst Gold Breccia (AGB) Zone (094E 066)

From Lane et al., (2018);

> *"The AGB deposit is a north-northwest striking, steeply west-dipping zone that occupies a topographic high situated immediately west of the Attorney fault. The zone has been traced for more than 500 m along strike, greater than 225 m vertically, and is up to 75 m wide. To the north, the AGB Zone appears to be terminated by the Attorney fault, but reconnaissance mapping conducted beyond the fault in 2001 identified chalcedonic quartz veining in outcrop and float (Kaip and Childe, 2001). The [AGB] one has been traced to the south of the mine downward to Cliff Creek and across the valley towards Dukes Ridge. Detailed surface and underground mapping and sampling by SEREM/Cheni determined that the AGB Zone forms a discrete vein system at depth that flares upwards forming distinct hanging wall and footwall zones (Vulimiri et al., 1986). The hanging wall zone, which dips steeply to the east, is regarded to be a splay from the footwall zone. Approximately 100 m below surface, the two zones coalesce to form a shoot 20 m wide.*
>
> *The high-grade portion of the deposit is enveloped by a potassic alteration zone; the age of the potassic alteration, constrained by an Ar-Ar adularia date, was determined to be 188.0±1.8 Ma (Clark and Williams-Jones, 1991).*
>
> *The deposit consists of fracture-controlled, elongate breccia bodies and stockwork veins. The principle economic minerals are fine-grained electrum, acanthite ('argentite'), native gold and native silver accompanied by minor pyrite, chalcopyrite, sphalerite and galena. Silver to gold ratios average 20:1.*
>
> *The highest grades are associated with chalcedony and hematite which, along with crystalline quartz, are the main gangue minerals. Minor, and late stage, gangue minerals include amethyst, calcite and barite."*

The 2019 exploration program by Benchmark identified at least five generations of veining (Figure 7-7) identified by textural relationships with chalcedony events in the mineralised hydrothermal breccia zone at AGB (Figure 7-7). Banded quartz-hematite-sulphosalt veins and mm scale veinlets with variable cross cutting relationships (early-late) occur associated with increased sulphidation within hydrothermal breccia zones. Late-stage amethyst infill of banded veins and cross cutting calcite veins are common in mineralised zones and host rock. Intervals with intense silica flooding and hydrothermal brecciation are accompanied by localized potassic alteration and hematite alteration of the matrix. Evidence for multiple generations of fluid pulses includes cross cutting relationships of the chalcedony and mineralised veins. Other evidence includes zoned K-feldspar and hematite alteration rims, which occur on relict phenocrysts and intensely silicified breccia clasts composed of earlier veins and (or) host rock. Typical low sulphidation epithermal characteristics, such as open space filling, vuggy and banded vein textures, are observed in AGB.

Figure 7-7: AGB Vein Generations



Source: Laycock et al., (2021)

"Alteration assemblages display weak spatial zonation with argillic at higher elevations, silica-adularia-sericite at intermediate levels and silica-adularia at lower elevations. These alteration assemblages are enveloped laterally by zones of propylitic alteration which consist of chlorite and minor epidote, calcite and hematite.

The AGB Zone is cut by a number of post-mineral faults thought to be related to the Attorney fault system. Principle among them is the D1 fault, a northwest trending 60° southwest-dipping structure with demonstrated left lateral and normal displacement. Where the fault cuts the AGB Zone, mineralisation is re-brecciated, containing angular clasts of vein material in a matrix of limonite and hematite.

The AGB Zone was tested historically by over 15000 m of surface diamond drilling and at least 3000 m (likely considerably more) of underground drilling and as well, it was explored by 1,481 m of underground workings. AGB was the first deposit to be discovered, drilled, developed and mined at Lawyers, ultimately contributing approximately 75% of the material milled. Underground and surface drilling in 1990 failed to expand the zone and reserves were exhausted in 1991."

Multi-element analysis results from Benchmark's 2018 to 2020 drill programs confirm a geochemical relationship of alteration, veining and mineralisation. Relative enrichments in Cu, K, Zn, Sr, Rb, Pb and Cd, and relative depletions in S, Na, Al, Be and Fe, have been recognized in the Au- and Ag-bearing zones at the AGB Zone.

Results from the 2021 drill program help to resolve a new set of mineralisation host characteristics in the south AGB zone. This differs from the primary deposits strong relation to potassic alteration and silica veining to a hematite propylitic assemblage. Common occurrences of hematite and epidote salvage in carbonate and silica veining related to both broad zones of mid-low-grade gold and silver as well as discrete high-grade zones in both deep and shallow drilling of the AGB south zone. Drill hole 21AGBDD015 provides new information on both wide moderate grade from 193.00 to 225.8 5 m (32.85 m) of 1.50 g/t Au and 3.07 g/t Ag, and discrete high grade from 208.67 to 210.70 m (2.03 m) of 15.87 g/t Au and 7.58 g/t Ag. Drill hole 21AGBDD055 returned shallow grades of 1.22 g/t Au and 37.32 g/t Ag from 11.32 to 47.00 m (35.68 m), and 5.95 g/t Au and 125.20 g/t Ag from 25.00 to 27.00 m (2 m). This diversion from established mineralisation provides insight for the further development of the AGB prospect.

7.4.2 Cliff Creek Zone

From Lane et al., (2018);

"The Cliff Creek Zone, a north-northwest trending zone located 1930 m west of the AGB Zone, has a strike length of at least 1600 m, has been explored to a depth of greater than 300 m and has widths ranging from 9 – 30 m. It is comprised of the Cliff Creek North, Cliff Creek Central and Cliff Creek South subzones that form a continuous band of alteration and mineralisation primarily contained in dilational structures along the West fault, located between the northwest-trending Cliff Creek fault and the Ptarmigan fault.

Mineralisation at the Cliff Creek Zone, in contrast to the AGB Zone, consists primarily of discrete banded quartz-chalcedony±amethyst veins, fracture-fillings and vein stockworks, and minor silicified breccia bodies with narrow mineralised clay gouge zones. Adularia occurs adjacent to the veins and is commonly accompanied by sericite. Argillically-altered wall rock, comprising kaolinite and minor illite, forms symmetrical envelopes that extend for up to 10 m from vein margins beyond which propylitic alteration, consisting of chlorite, epidote, calcite *and hematite, prevails. A supergene alteration assemblage of clays and limonite is superimposed on the zone and penetrates to depths of up to 30 m from surface."*

The 2018 drill program by Benchmark indicated that hydrothermal breccia zones are commonly demarcated by fault boundaries mainly composed of gouge and breccia. Veining generations at Cliff Creek are comparable to AGB, with multiple generations of cross cutting chalcedony-quartz and frequent re-brecciation upon subsequent silica flooding events, followed by late-stage calcite veining. Higher grade intervals are strongly correlated with mm scale metallic grey fine-grained sulphide veinlets, with rare occurrences of native silver and gold. Mineralised breccia zones have a strong association with pervasive potassic (potassium feldspar and sericite) alteration and to a lesser degree patchy hematite overprinting of the matrix.

"The P2 vein, a massive sulphide, precious metals-bearing vein and stockwork zone located in the hangingwall of the main Cliff Creek North Zone, is distinct from the typical Cliff Creek mineralisation. It appears to have been emplaced in a single mineralising event and sealed from later episodes. The vein was intersected in 2015 (CC15-15) at a depth of 171.5 m and extended 0.7 m in length. It yielded spectacular grades of 293.4 g/t Au and 7,622.0 g/t Ag over 0.7 m and is reminiscent of the high-grade vein mined at the Phoenix Zone. Silver to gold ratios in Cliff Creek mineralised material are extremely variable, ranging from <1 to more than 100, but are typically in the 25 - 40 range.

Of the three sub-zones, Cliff Creek North received most of the early exploration (up to 1984), including extensive surface trenching and 5,515 m of surface diamond drilling over 207 m of strike length. The work provided sufficient data for calculation of reserves in 1985 that were included in feasibility studies and mine planning.

An extensive 1987 surface drilling program totalling 10,432 m in 49 drill holes covered the three subzones and resulted in more than doubling the zones' reserves. Development of a 750 m ramp to access the Cliff Creek North Zone began in 1990 and was followed with development of a spiral decline and an incline in preparation for underground mining. In 1990, additional surface exploration drilling, completed mainly on the Central and South sub-zones, totaled 8,921 m in 32 holes. The program determined that precious metal values in the Central Zone were erratic and hosted by a relatively tight structure (Lennan, 1990). This resulted in a downgrading of overall reserves for the Cliff Creek Zone.

Underground development continued in 1990-1991 with advancement on seven levels in the footwall of the Cliff Creek North Zone. It became apparent that mineralisation there was also erratic and discontinuous, and that repeated episodes of late-stage brecciation, silica flooding and veining resulted in the overall dilution of precious metal grades locally. However, drifting on the 1700, 1633 and 1616 levels encountered encouraging grades and thicknesses (e.g., 5.0 m averaging 0.324 oz/ton Au and 8.0 oz/ton Ag on the 1700 Level; 10.0 m averaging 0.317 oz/ton Au and 8.2 oz/ton Ag on the 1633 Level; and 7.5 m averaging 0.217 oz/ton Au and 10.2 oz/ton Ag on the 1616 Level). Also, 2500 m of underground drilling (44 holes on sections spaced at 15 m intervals) in a proposed stope development block indicated that mineable grades would improve by 20% to 25% (George Cross News Letter, Jan. 11, 1991).

Ultimately, reserves for the entire zone were recalculated using the new data and a much higher cut-off grade than that previously used. The necessity of using a higher cut-off grade was in part as a consequence of falling precious metal prices. The revised reserves were dramatically reduced and by the end of 1991, Cheni concluded that most of the zone, given the weak metal prices and high mining costs at the time, was uneconomic. Only limited development continued targeting select areas in the upper levels of the Cliff Creek North Zone. In 1992, Cheni extracted the remaining broken [mineralised material] from several stopes and determined that most of the previously reported reserves were uneconomic. Low grade surface stockpiles were also written off. The mine entrance and vent raise were sealed in 1993 and 1994 during early phases of site reclamation."

A 2020 analysis of the soil data from the Cliff Creek Zone indicates that the ratios of Au/Al, S/Al, and P/Al have the highest median enrichments relative to the background values. Similarly, Ag/Al shows a relatively high mean enrichment. The base metals (Cu, Zn and Pb) normalized to Al are all moderately depleted in soils, along with Ca, Bi, Cd and Te. All other trace and major elements analysed in the Cliff Creek Zone show no significant relative enrichments or depletions.

Correlations between analysed elements in the Cliff Creek Zone shows strong positive correlation of Au with Ag, Tl, and Rb, and negative correlation with Sr. Silver has strong positive correlations with Au, Ce, La, U, Cs, Rb, Y, P and Be, and negative correlations with Sr, Te, Ti and V. The pathfinder ratios Ce/La, Sr/Ca, and Tl/Rb, which are all correlated with Au and Ag at Cliff Creek, are identified as possible indicators of mineralisation. The 2020 drilling of the Cliff Creek Zone revealed a new mineralisation style. This mineralisation is base metal-rich relative to the main mineralisation and occurs deeper in the deposit, at approximately 300 m depth. This deep zone is associated with the conjunction of the Dukes Ridge and Cliff Creek fault/vein systems. Similarities between the deep zone in Cliff Creek South and Cliff Creek North indicated a possible structural intersection comparable to the intersection between Dukes Ridge and the main basal fault which controls much of Cliff Creek. This base metal rich mineralisation is associated with a general decrease in potassic and silica alteration intensity but much higher amounts of epidote propylitic alteration, with epidote replacement of host rock matrix and phaneritic phenocrysts. Lower overall vein density with an increase in carbonate over silica veining. Higher grade intervals are associated with discrete sooty-sulphide stringers and quartz veins, often with visible base metals and rare observations of precious metals. The deep Cliff Creek zone produced encouraging grades of gold, silver, and base metal mineralisation.

Drill hole 20CCDD070 returned grades of 19.85 g/t Au and 1,620.0 g/t Ag from 436 m to 437 m and 0.108 g/t Au, 21.9 g/t Ag, 549 ppm Cu, 3,300 ppm Pb, and 4,240 ppm Zn from 453.15 m to 454 m. Drill hole 20CCDD074 returned grades of 12.55 g/t Au, 597 g/t Ag, 309 ppm Cu, 3,480 ppm Pb and 5,170 ppm Zn. The deep Au mineralisation has a strong correlation with base metals, specifically Pb, Sb, Zn and Cu.

7.4.3 Dukes Ridge Zone

From Lane et al., (2018);

"The Dukes Ridge Zone is located just southeast of the Cliff Creek Zone on the east side of the Cliff Creek fault. The zone was discovered in 1982 and explored by extensive trenching and surface diamond drilling in 1983 to 1984 that defined a

1200 m long, northwest-trending zone. The zone is sub-vertical to steeply west-dipping and typically 2 m to 4 m wide.

Mineralisation consists mainly of banded quartz-chalcedony-amethyst stockwork veining and breccias with traces of pyrite, base metal sulphides and local, fine-grained electrum and acanthite. The bulk of the exploration work targeted a 430 m-long central segment of the zone where better grades and widths encountered in trenching and shallow drilling were encouraging. The zone's reserve was also located in the central area of the structure, where narrow zones of higher-grade gold-silver mineralisation are flanked by broad lower-grade zones, suggesting bulk tonnage potential. Several splays from the main Dukes Ridge trend have been recognized, one of which may be the high-grade Phoenix Zone discussed below.

In 1990, six trenches and sixteen drill holes tested the north extension of the Dukes Ridge Zone, an area between Dukes Ridge 'proper' and the Cliff Creek Central subzone, and where the Cliff Creek decline (ramp) is located. One of the trenches, TR-90-DR-4 discovered an east-trending fault, thought to be a splay of the Cliff Creek fault, along which a 1 to 2 m thick chalcedony vein and vein breccia zone occurs.

The fault is exposed in the decline, but not associated with any mineralisation. Trench chip samples across the zone ranged up to 1.07 oz/ton Au and >15 oz/ton Ag over 1.0 m (Lennan, 1990). Follow-up drilling included hole 90-DR-35A that intersected the vein at a position approximately 75 m above the decline and returned 2.0 m grading 0.264 oz/ton Au and 12.9 oz/ton Ag. In 1993, in-fill drilling (number of holes, meterage and locations unknown) on the Dukes Ridge Zone confirmed additional mineralisation, but not of sufficient size and grade to warrant development.

Unfortunately, data from several programs conducted on the Dukes Ridge Zone is incomplete or lacking altogether. Therefore, the total amount of work completed on the zone is unknown. Encouraging grades encountered in surface trenching and drilling in several areas of the Dukes Ridge Zone and a lack of deep drill testing provide exploration targets worthy of consideration."

The 2019 drill program by Benchmark revealed the Dukes Ridge Zone mineralisation most commonly occurs in intervals of potassic alteration whether pervasive or vein halos. Unlike Cliff Creek, increased alteration intensity is linked to increased vein density. Veining is dominated by multiple phases of stockwork and cross cutting quartz, and lesser extent of sulphides, these quartz stockwork zones are surrounded by well-defined intense potassic alteration envelopes.

A 2020 geochemical analysis conducted on soil sample results determined the elemental ratios that are significantly enriched in Dukes Ridge soils relative to selected background samples outside the Lawyers Property prospect areas are, in order of decreasing median, Au/Al, Sb/Al, and Ag/Al. The ratios of K/Al, Rb/Al, and Tl/Al also show weak to moderate enrichments relative to the background values. Conversely, the ratios of Cu/Al, Cd/Al, Bi/Al, S/Al, Mo/Al, and Te/Al are median depleted relative to the background. All other trace and major elements analysed at Dukes Ridge show no significant relative enrichments or depletions.

Gold at Dukes Ridge has strong positive correlations with Ag, Cu and Tl, weak positive correlations with Co, Sb, Sc, K, and Rb, and a weak negative correlation with Ga. Silver is strongly correlated with Au, weakly correlated with Cu, Pb, Tl and Sb, and shows a weak negative correlated with Na. The enrichments in Tl, Rb and K at Dukes Ridge, combined with their positive correlations with Au and Ag, are used to identify the pathfinder ratios Tl/K, which is unique to the zone, and Tl/Rb as possible indicators of Dukes Ridge-style mineralisation in surface samples.

Modelling and drilling in 2020 and 2021 in conjunction with past drilling and structural models, appears to show Dukes Ridge as a repeating set of WNW trending mineralised structures cut by NW trending structures. The WNW structures appear to be narrow high-grade vein systems while the NW truncating structures are cataclasite and hydrothermal breccias with a basal gouge fault. This faulting formed the footwall and hanging wall contact and is nearly always the base of mineralisation. At the junction of these mineralised structures are the broader and higher-grade intervals in the zone. This may be a smaller scale example of the main Cliff Creek North mineralisation trend.

The 2021 drill program identified a deeper high-grade mineralised shoot at the conjunction of the WNW and NW structures by extending drilling north towards the Cliff Creek connector zone and south towards the Phoenix zone. Drill hole 21DRDD012 intersected a broad low-grade zone returning grades of 0.32 g/t Au and 7.44 g/t Ag from 238.00 to 255.00 m (17 m) and informed a general trend in mineralisation. In the process of expanding the known mineralisation, the 2021 program confirmed an intersection of a shallower narrow high-grade zone. The zone was interpreted with a general EW trend and supported by 2020 holes such as drill hole 20DRDD009, which returned grades of 3.40 g/t Au and 180.55 g/t Ag from 150.00 to 151.50 m (1.5 m).

7.4.4 Phoenix Zone

From Lane et al., (2018);

> *"The Phoenix Zone is located approximately 75 m south of the east end of the Dukes Ridge Zone, at an elevation of 1,865 m on the crest of Dukes Ridge itself. The northwest trending, near-vertical zone has a strike length of approximately 60 m and extends from surface to a depth of at least 80 m. The zone consists of a precious metals-bearing quartz ± chalcedony vein hosted by siliceous orthoclase megacrystic tuffs. Pervasive hematite with abundant sulphides form an alteration envelope 0.5 m to 2.0 m wide; it gives way to epidote-dominated, propylitically-altered wall rock. Large feldspars are typically altered to kaolinite and calcite, and late calcite stringers cut the vein and altered wall rock. The mineralised zone is narrow, ranging up to 0.5 m in true width and averaging 0.3 m. The principle economic minerals are acanthite (argentite), electrum, and leaf and wire silver (Cheni Gold Mines Inc., 1992).*
>
> *In 1992, a 20-hole, 950 m grid drilling program was conducted on a 1991 'E-Scan' resistivity anomaly in an area of high-grade float. The program encountered weakly anomalous to locally spectacular grades of mineralisation including a 1.75 m interval in Hole DR-92-47 that averaged 78.5 oz/ton Au and 1,330 oz/ton Ag.*
>
> *The drilling outlined an upper mineable zone, measuring 25 m in length and 35 m in depth, that could be mined to a minimum width of 1.2 m. The initial reserve for the Phoenix Zone was 3,245 t grading 1.69 oz/t Au and 101.7 oz/ton Ag. It was accessed by a 90 m decline and mined to a depth of 30 m below surface in several stopes. Milling took place in November 1992, prior to shutdown of the operations.*

A total of 5,439 t (4,934 t) was ultimately extracted from the zone and milled to produce 6,713 oz of gold and 296,084 oz of silver. A 19-hole underground diamond drilling program, completed in 1992, indicated that the zone remains open to depth and to the east. The Phoenix workings were backfilled and reclaimed in the mid-1990s."

Benchmark's 2019 and 2020 drilling of the Phoenix Zone intersected the high-grade Phoenix Vein below the historical mining and drilling, extending the Zone to 100 m vertical depth. This result confirmed that high-grade gold and silver mineralisation is present beyond the historical workings.

7.5 Other Prospects and Occurrences

Lane et al., (2018) provided an extensive summary of all the prospects and associated MinFile occurrences for the Lawyers Property. Descriptions of these occurrences from Lane et al., (2018) are provided below in italics. The 2018 to 2019 program undertaken by Benchmark provided additional information on the targeted Lawyers Group prospects.

7.5.1 M-Grid Zone and Marmot Lake Zone Prospects

7.5.1.1 M-Grid Zone

"The M-Grid Zone lies west, and in the hanging wall of the Cliff Creek Central subzone. It is 300 m to 400 m northwest and along strike from the original Silver Pond South Zone of similar description, and 400 m to 500 m northeast of the heavily drilled Silver Pond West Zone. The M-Grid Zone consists of four principal zones of clear to white, massive, comb and druse quartz, quartz-chalcedony veining, brecciation and silicification with local mm-scale vein selvages of pale pink adularia, trace to 5% pyrite, and local traces of fine-grained acanthite. The zones, exposed by trenching in 2004, are from 1 m to 10 m wide and have been traced for 400 m along their northwest strike. Just 50 m to the northeast of the trenches is the collar for Hole 90-CC-107; it encountered multiple vein intersections, including 0.5 m grading 0.184 oz/ton Au and 23.85 oz/ton Ag from 37.2 m (Lennan, 1990). Enveloping the mineralisation are zones of argillic alteration that consist of kaolinite, smectite and illite with locally abundant, partly oxidized pyrite, and iron and manganese oxides. A northwest-trending 2 m to 3 m wide pink-orange feldspar porphyry dyke was also encountered in a number of the trenches but did not appear to have a genetic relationship to mineralisation. Results from channel sampling in Trench 11 include: 4.02 g/t Au and 291.0 g/t Ag over 1.0 m; 7.06 g/t Au and 66.0 g/t Ag over 1.5 m; 0.79 g/t Au and 131.7 g/t Ag over 4.0 m; 1.47 g/t Au and 20.2 g/t Ag over 5.0 m; 0.11 g/t Au and 3.4 g/t Ag over 12.0 m, and 1.82 g/t Au and 241.0 g/t Ag over 3.0 m (Blann, 2005). Gold soil geochemical anomalies to the northwest and southeast of the M-Grid trenches outline an additional 600 m of potential strike-length that remain unexplored."

Several RC and diamond drill holes were completed by Benchmark in 2020 over M-Grid, some of which were extended at depth to intersect the deep Cliff Creek South mineralisation.

Anomalous gold and silver were intersected in all M-Grid holes, with the best results returning 12 m at 5.6 g/t Au and 24.8 g/t Ag in hole 20CCRC019.

Drilling in 2021 continue over M-Grid and extended known mineralisation further and while adding confidence to historic drilling in the area. Some more exploratory M-Grid holes targeting soil and geophysical anomalies returned poor results.

7.5.1.2 Marmot Lake (094E 073)

> *"The Marmot Lake gold-silver prospect is located about 4 km southeast of the Cliff Creek North deposit area. It is underlain by Toodoggone Formation volcanic and interbedded epiclastic rocks assigned to both the Attycelley and Metsantan Members. An outlier of Sustut Group sedimentary rocks crops out less than one kilometre to the southwest of the prospect area.*
>
> *Several major structures disrupt the moderately-dipping volcanic strata which underlie the occurrence. These structures are thought to be the southeastward extensions of major NW-NNW (310-340) faults related to epithermal gold-silver mineralisation in the Silver Pond and Cliff Creek Zones.*
>
> *In 2007, Christopher James Gold Corp. carried out a prospecting and rock geochemical sampling program in and around the Marmot Lake showings area, which had been hand trenched and drilled by earlier operators in the 1960s to early 1970s. A series of east-southeast oriented trenches were excavated at an oblique angle to a zone of narrow, en echelon mineralised structures containing quartz stringers and silicified andesite breccia over a northerly distance of about 200 m. The altered and mineralised structures contain minor amounts of pyrite, tetrahedrite, chalcocite, chalcopyrite and malachite.*
>
> *A Christopher James' sample location plan of the showings area (Assessment Report 29529) shows five historic drill hole collars immediately to the west of the trenched area. It's likely that the historic drill holes were inclined easterly to test the mineralised structures at depth. No results from the historic drilling are available.*
>
> *Four of Christopher James' 2007 rock samples returned significant gold and silver values from samples collected in the northern half of the historically trenched area. These samples were taken from variably altered (silica ± clay ± carbonate) and brecciated rhyodacite; they returned values ranging from 2.87 ppm to 50.6 ppm Au and 24.8 ppm to 1,020 ppm Ag. The 50.6 ppm Au value, accompanied by a value of 24.8 ppm Ag, was from a 1.0 m x 1.0 m panel-chip sample of brecciated rhyodacite exhibiting intense argillic alteration. The 1,020 ppm Ag value, accompanied by a value of 8.88 ppm Au, was from a 1.0 m chip sample of brecciated rhyodacite containing argillically-altered fragments. Tetrahedrite rims the fragments and is also present as disseminations."*

The 2019 exploration program by Benchmark confirmed historic anomalies and identified additional areas ~500 m east of the Marmot Lake occurrences with significant mineralisation and alteration along N-NW trending faults in the Marmot East Prospect (Figure 7-3). A high degree of silicification, intense potassic alteration, and sulphosalt bearing mineralisation was observed, which is analogous to other high-grade drill targets in the targeted prospects on the Lawyers

Property. The highest-grade samples occurred along fault intersections that truncate the major N-NW structures of the Property that are associated with other key mineralised zones.

The drilling conducted in Benchmark's 2020 exploration program returned several intervals of gold and silver mineralisation. Though data are limited, few observations can be made about the Marmot Lake Mineralisation. Mineralisation is captured within moderate to strong propylitic or potassic alteration and there is an association with epidote veining and increased epidote and sericite in the groundmass. Mineralisation appears related to structure. Alteration zones are fault bounded and mineralisation occurs proximal to fault gauge and breccias. Marmot does not appear to show the same trend as Cliff Creek, AGB, Dukes Ridge, and Phoenix where an increase in veining is related to an increase in silica. At Marmot, increasing vein density occurs with increased sulphidation and sulphide mineralisation (dominantly pyrite). Higher grade intervals are strongly correlated with mm-scale metallic grey sulphide veinlets and quartz and chalcedony veins. Unlike Cliff Creek and AGB, hydrothermal breccia intervals seldom host mineralisation. Rock grab samples taken from outcrops returned values of up to 61.3 g/t Au and 3,890 g/t Ag.

The 2021 drill program further expanded the Marmot Lake subsurface model, and targeted zones of interest identified in the 2020 program. A North-South fault structure was determined to be offsetting mineralisation into two zones, and assay results identified both broad mid-low grade and discrete high-grade zones in both areas. Drill hole 20MLDD005 in the south returning grades of 0.55 g/t Au and 21.82 g/t Ag from 146.00 to 247.00 m (101 m), and 9.83 g/t Au and 375.00 g/t Ag from 146.00 to 148.00 m (2 m). Drill hole 21MLDD012 in the north zone returned grades 0.51 g/t Au and 26.01 g/t Ag from 91.00 to 131.10 m (40.1 m), and 3.56 g/t Au and 132.00 g/t Ag from 102.91 to 103.93 m (1.02 m).

The structural model for Marmot Lake appears to be quite complex resulting in repeated offsets of truncations of mineralisation. In the south there appears to be some more consistent mineralised intercepts were associated with mapped structures, surface geochemical samples, IP, and VLF data. In the north the mineralisation is much more difficult to model along strike. The majority of the geological and geochemical correlations identified in 2020 hold true for both the North and the South Marmot Lake zones.

7.5.2 Silver Pond Group of Prospects

> *"Most of the Silver Pond Group of prospects is underlain by a sequence of gently northwest-dipping green porphyritic trachyandesite lavas and tuffs of the Metsantan Member. The southern part of the Silver Pond trend is capped by horizontal conglomerates of the Cretaceous Sustut Group. Steeply-dipping, quartz-bearing rhyolite to rhyodacite dykes cut the volcanic rocks and occur in association with regional north-northwest trending, steeply dipping faults that are locally offset by younger east trending faults. The north-northwest trending faults are considered to be the conduits along which mineralising fluids were channeled and coincide with the Silver Pond North (North), Silver Pond West (West), Silver Creek, Heavy Mineral and Amethyst Zones (Kennedy, 1988), which comprise the Silver Pond trend. The North, West, Silver Creek and Heavy Mineral Zones are more or less aligned along a north-northwest trending structure that has been traced for about 6.8 km. It is centered about 1.3 km southwest of the Cliff Creek Fault, whereas the Amethyst Zone is likely the southern continuation of the Cliff Creek Zone and the Silver Pond South (South) Zone lies in the hanging wall of the*

Cliff Creek Zone. The Silver Pond trend is cut by an east-northeast striking fault between the West and Silver Creek Zones.

Two general styles of high-sulphidation (acid-sulphate) epithermal gold-silver mineralisation characterize the Silver Pond Group of prospects. These consist of vein and breccia-type shoots and pods, such as the West and Silver Creek Zones, and high-level stockwork-type mineralisation such as the North Zone. Gold and silver are generally absent from areas of intense alteration, with pyrite and magnetite being the only visible metallic minerals (Forster, 1984). Low-sulphidation epithermal mineralisation is represented by the Amethyst Zone."

7.5.2.1 Silver Pond West (094E 163)

"The West Zone is located on relatively steep west-facing slopes on the east side of Cloud Creek. The zone was discovered as the result of prospecting by St. Joe in 1984 and is outlined by a 600 m northwest-trending gold soil geochemical anomaly that is coincident with linear magnetic lows and a 700 m long resistivity high anomaly.

Two main styles of mineralisation and alteration are present: 1) stockwork zones consisting of a dense network of narrow multi-stage stringers composed of silica, calcite, epidote, chlorite, pyrite, laumontite, rare amethystine quartz, and traces of galena, chalcopyrite, sphalerite, electrum, native silver and acanthite; and 2) zones of intense to pervasive silicification typically associated with hydrothermal brecciation and intense veining that form a complex system of gold-silver bearing subzones separated by barren, weakly propylitically-altered andesite. Mineralisation was found to be erratic both vertically and horizontally.

In 1984, trenching of the resistivity high anomaly discovered a zone of hydrothermally altered volcanic rocks that averaged 9.0 g/t Au and 24.2 g/t Ag over 5.0 m. In 1985, an initial four-hole drill program evaluated the zone and returned encouraging results including 8.07 g/t Au and 9.9 g/t Ag over 2.0 m in Hole SP85-26. The holes were drilled 200 m southeast and along strike from the above-mentioned high-grade trench suggesting that the zone may have a meaningful strike length. In 1987, the West Zone was systematically drilled to test continuity along strike and at depth and provide sufficient data for the calculation of a resource. That year a total of 6011 m in 55 holes evaluated the zone over 400 m of strike length and to a 200 m vertical depth below surface (Kennedy and Vogt, 1987).

A total of 6,565 m of drilling in 59 holes tested the West Zone during the period 1984-1987. The mineralised body is characterized by a 30 m to 40 m wide alteration zone that envelopes at least three 1 m to 3 m wide tabular bodies (named A, B and C) of intense silicification, stockwork veining and brecciation that carry minor amounts of sulphides, and erratic gold and silver grades. The three bodies are separated by 10 m to 20 m of altered wall rock, are sub-parallel, trend 320°, and have sub-vertical dips. The alteration and mineralisation occur in both the hanging wall and footwall of a rhyolitic dyke that has the same orientation as the mineralisation. The dyke is weakly altered at its contacts and is in places cut by stockwork veining. The significance of the dyke and its possible genetic relationship to gold-silver mineralisation in the West Zone is uncertain.

Each of the A, B and C zones, with an average true width of 1.34 m, contributed tonnage to the overall drill indicated reserve for the West Zone of 62,100 t grading 5.86 g/t Au using a cut-off grade of 2.4 g/t Au (Kennedy and Vogt, 1987). Silver values rarely exceed 100 g/t; most values are in the 3 g/t to 10 g/t Ag range. The cut-off grade used excluded a number of wider, lower grade intersections including 9.0 m grading 1.57 g/t Au and 6.6 g/t Ag in Hole SP87-80.

The [Silver Pond West] deposit remains open along strike and at depth, and additional well-mineralised tabular bodies have also been identified. A gold soil geochemical anomaly located along strike to the northwest of the West Zone has not been thoroughly tested."

The Silver Pond West trend displays epithermal-style mineralisation as found historically. The 2021 VLF survey identified a NW oriented resistive body where the 2021 and historic drilling both intersected Au and Ag mineralisation. There is another NW trending strong resistive body paired with a strong conductor to the SW on the historic Silver Pond West trend. This newly identified resistor extends down to Silver Creek and has a moderate soil geochemical trend along its flank.

The 2021 drilling confirmed the narrow and spotty nature of the Silver Pond West mineralisation. The highest grade encountered as part of the 2021 Silver Pond West drilling was 12.52 g/t AuEq over 5.96 m (drill hole 21SPWDD006). This occurred within a zone of propylitic alteration containing vuggy weakly stock working quartz carbonate veins. Veins are consistent with those of Cliff Creek, dark to medium grey quartz with fine black sulphides and minor pyrite. Rare blebs of native gold were also observed. Some weak potassic altered vein halos were also seen along with some trace base metal mineralisation in other holes.

Multielement analysis shows a correlation between Au and Mo, Cd, Pb, and As. K enrichment and Na depletion are also associated with Au mineralisation even when potassic alteration was not logged in the core.

7.5.2.2 Silver Pond North (094E 069)

"The [Silver Pond] North Zone is located 2.4 km north-northwest of the [Silver Pond] West Zone and occurs along the same regional structure. This Zone is marked by a pronounced wide-spread gossan and silicic-argillic hydrothermal alteration more than 2 km wide. The central part of the zone consists of pervasive silicification grading outward into weaker silicic, sericitic, argillic and propylitic alteration. Quartz, alunite, kaolinite, montmorillonite, dickite, illite, sericite, and minor amounts of barite, fluorite, limonite and pyrite comprise secondary minerals in intermediate to advanced argillic alteration zones (Forster, 1984). Peripheral propylitic alteration consists of calcite-epidote-chlorite-pyrite (-hematite). Mineralisation is sporadic. It consists of multistage silica stockwork veining with variable amounts of pyrite, epidote, chlorite, barite and laumontite, and occasional traces of chalcopyrite and galena.

An 800 m-long, north-northwest trending gold soil geochemical anomaly was outlined in 1984 (Kennedy and Weston, 1984). It is coincident with the margin of a silica cap, the strongest area of alteration observed at the [Silver Pond] North Zone (Kennedy, 1988). Gold mineralisation is most commonly associated with multistage silica stringers and veinlets and not associated with disseminated pyrite.

Locally, gold mineralisation is spatially associated with rhyolite dykes, suggesting a possible genetic relationship between the two.

About 3000 m of backhoe trenching was excavated on the [Silver Pond] North Zone in 1987. Trenching of coincident gold soil geochemical/resistivity high anomaly revealed the presence of widespread low-grade gold mineralisation, including a 38 m interval averaging 1.20 g/t Au in TR 18.75 N, as well as sporadic high-grades ranging up to 28.8 g/t Au over 1 m (Kennedy and Vogt, 1987). Trenching of several IP chargeability anomalies encountered wide zones of strong argillic alteration with abundant disseminated pyrite, but no gold-silver mineralisation.

Follow-up drilling in 1987 (2,860 m in 19 holes) outlined an area of widespread, low-grade quartz stockwork mineralisation. A total of 23 holes with an aggregate length of 3,460 m have been drilled on the [Silver Pond] North Zone (Kennedy, 1988). Gold values range up to 2.05 g/t Au over a true width of 3.0 m (Hole SP87-88), including 5.98 g/t Au over a true width of 0.5 m (Kennedy and Vogt, 1987). Silver to gold ratios range from <1 to about 20 but are typically in the 0.5 to 3.0 range. The 1987 drilling program encountered weak grades of mineralisation and alteration to vertical depths of about 200 m. Hole SP- 88-145, drilled to assess the roots of the alteration system, reached a depth of 405 m before being terminated because of technical difficulties. It encountered strong silicification and argillic alteration throughout, but gold and silver values were only weakly anomalous.

The depth potential of the [Silver Pond] North Zone has not been adequately tested. Its large surface alteration footprint and its high-sulphidation epithermal style of mineralisation warrant further studies and follow-up work, particularly in light of the deep drilling successes at Kemess Underground and Kemess East and also in light of the fact that world-wide, many high sulphidation epithermal districts have associated with them porphyry-style mineralisation."

The Silver Pond North Trend in soils displays elemental ratios characteristic of both epithermal-style and porphyry style, based on recent the results of 2018 to 2020 soils sampling programs (for details, see Section 9). Silver Pond North soils are enriched in Cu/Al and Mo/Al, which suggests porphyry style mineralisation along the north trend. The soils are also enriched in Te/Al and Ag/Al, which suggests epithermal style mineralisation extending northward to the limits of the Zone. This Zone has a high Au/Al ratio and low Au/S ratio, which suggests that Au present in this area is related to sulphidation.

The 2021 drilling intersected wide zones of porphyry style alteration and mineralisation. Alteration was dominantly potassic and QSP with lessor sulphate and propylitic alteration. The QSP alteration is regularly overprinted by potassic alteration and contains moderate disseminated pyrite and vein stockworks. Moderate to strong potassic zones occur with increasing stockwork intensity, irregular pyrite veinlets, and rare chalcopyrite, galena, and sphalerite. A depth there are sulphate altered zones with moderate anhydrite/gypsum present as veins and altered groundmass. Magnetite rich veins have been identified within the sulphate zones. The main intercept was in drill hole 21SPNDD004 with 98.93 m at 0.26 g/t AuEq. Copper results are elevated at 500-800 ppm and localized zinc results are as high as 0.3%.

7.5.2.3 Silver Creek Zone (094E 075)

> *"The Silver Creek Zone is located 450 m southeast of the [Silver Pond] West Zone and interpreted to be the southern extension of a splay off of the [Silver Pond] West Zone (Demczuk, 1995). Mineralisation consists of hydrothermal breccias and banded and stockwork veins within intensely altered andesite consisting mainly of quartz, calcite, epidote and pyrite.*
>
> *The [Silver Creek] zone has been tested by a total of 31 drill holes with an aggregate length of 3,123 m. The holes tested the zone for 350 m along its northwesterly strike length and to a vertical depth of 166 m (Kennedy, 1988). Drilling mainly targeted the down-plunge extension of mineralisation. The best grades encountered were in well-developed breccias and include 3.90 g/t Au and 189.1 g/t Ag over 3.0 m in Hole SP-85-8 (Kennedy and Weston, 1986). Anomalous gold and silver values were encountered in 13 of 19 holes drilled in 1985."*

Silver Creek as with Silver Pond West is an epithermal-style mineralisation zone located at a NW oriented resistive body identified by the 2021 VLF survey. There appears to be an offset between Silver Creek and Silver Pond West as seen in the ground magnetics data.

The 2021 drilling at Silver Creek encountered small zones of mineralisation with only minimal continuity between holes. The strongest mineralisation is associated with variable potassic alteration containing vuggy weakly stockwork quartz carbonate veins. Veins are medium grey quartz with minimal sulphides. Veining and mineralisation appear to be related to the NW trending fault intersected in a number of holes.

Multielement geochem shows a reasonable correlation between economic mineralisation and K/Na ratios, Mo, and As.

7.5.2.4 Silver Pond Amethyst (094E 160)

> *"The [Silver Pond] Amethyst Zone is regarded to be the southern extension of the Cliff Creek South subzone. It is described as a siliceous multi-phase, weakly pyritic, hydrothermal breccia emplaced along the footwall contact of the Cliff Creek fault. The hydrothermal breccia consists of angular to sub-rounded clasts of andesite and vein or stockwork silica in a gangue comprising quartz, chalcedony, amethyst and calcite, with up to 3% disseminated pyrite. Stockwork veining with the same mineralogy occurs in both the hangingwall and footwall of the breccia (Kennedy, 1988).*
>
> *Twelve holes totalling 3,231 m have been drilled on the zone to a maximum vertical depth of 290 m; eleven of the holes intersected hydrothermal breccia, its associated fault, and hangingwall and footwall stockwork mineralisation. Several holes drilled within 200 m of the former Lawyers-Silver Pond claim boundary produced interesting results including Hole SP-88-129 that returned a hangingwall stockwork zone grading 4.46 g/t Au and 10.3 g/t Ag over 2.0 m and two intervals of hydrothermal breccia grading 0.778 g/t Au and 6.1 g/t Ag over 5.0 m and 0.460 g/t Au and 8.6 g/t Ag over 15.0 m. The Amethyst Zone may add significantly to the strike length of the Cliff Creek Zone. It and any untested ground between it and the Cliff Creek South subzone warrant further investigation."*

7.5.2.5 Silver Pond South (094E 161)

"The [Silver Pond] South Zone is located southwest of the Cliff Creek South subzone and occurs in a structure subparallel to the Cliff Creek fault. The Zone was identified by a northwest-trending magnetic low, a coincident VLF conductor, and an 850 m long gold soil geochemical anomaly (Kennedy and Vogt, 1987).

The area was trenched in 1984 with only one trench reaching bedrock. Chip sampling of it returned two 1.0 m-long gold intervals, the first grading 2.40 g/t Au and the second grading 1.37 g/t Au (Kennedy and Weston, 1986). A total of 10 holes with an aggregate length of 2,139 m were drilled in 1985 and 1987.

It was determined that gold mineralisation is confined to mm to cm-scale silica veins. The veins were commonly subparallel to the core axis; intersections were typically <1 m in length and carried grades of 1 g/t to 5 g/t Au. A re-evaluation of the [Silver Pond South] Zone is warranted."

7.5.2.6 Heavy Mineral Zone

"The Heavy Mineral Zone is located south of the [Silver Pond West] West Zone at the headwaters of Cloud (Silver) Creek where heavy mineral stream sediment geochemical sampling returned a number of high gold values. A resistivity high anomaly is present in the target area which is underlain by weakly altered to unaltered volcanics of the Metsantan Member. Topographically, the area is characterized by a relatively flat plateau.

Two 1987 drill holes which tested the resistivity high anomaly encountered no significant silicification and only narrow zones containing weakly anomalous gold values, including a 0.57 m interval in Hole SP87-55 grading 0.62 g/t Au. A satisfactory explanation of the geochemical anomalies and the resistivity high anomaly has not been determined from the historic drill results."

7.5.3 Additional Prospects and Occurrences

7.5.3.1 Ridge Zone (094E 162)

"The Ridge Zone is located 800 m southwest of the Silver Creek Zone. The zone was identified by prospecting where sampling of mineralised float returned encouraging gold values. It is characterized by a linear resistivity high, the occurrence of gold-mineralised float and a partially coincident gold soil anomaly. These surveys were carried out to follow-up prospecting that discovered siliceous float assaying 5.28 g/t Au and 5.34 g/t Au (Kennedy et al., 1984). Mineralised float collected 125 m along strike returned 2.40 g/t Ag and 3.40 g/t Au (Kennedy and Weston,1986). The [Ridge] zone as currently outlined is 220 m long by 20 m wide and consists of mm to cm scale quartz veinlets, and a stockwork of quartz stringers.

Three drill holes tested the [Ridge] zone in 1987. The highest grades encountered were 1.29 g/t Au over a true width of 0.71 m in Hole SP-87-57 and 3.96 g/t Au over 0.34 m in Hole SP-87-59 (Kennedy and Vogt, 1987)."

7.5.3.2 Kodah Prospect (094E 068)

"The Kodah gold-silver prospect is located about 6 km northwest of the Cliff Creek North deposit area. It is underlain by Toodoggone Formation volcanic rocks assigned to the Metsantan Member. Intermittent past work during the period 1971 to 2006 by various operators identified a coincident, northwest-trending gold-silver soil anomaly within which three rock grab samples collected in 1982 returned significant values of 27.73 g/t Au and 2,134.3 g/t Ag, 19.72 g/t Au and 1,241.1 g/t Ag, and 1.78 g/t Au and 1,426.3 g/t Ag. These specimens reportedly contained re-brecciated grey chalcedony, in contrast to the white quartz veinlets and "bleached" pyritic and altered pale-green tuffs in the area which yielded only low precious metals values. A trenching program completed in 1990 partially exposed bedrock over a distance of about 250 m along a fault zone, in a north-northwesterly direction coincident with the gold-silver soil anomaly. The highest assay from trench samples was 2.22 g/t Au and 4.6 g/t Ag over a 1.0 m-long chip sample taken from grey, pyritic quartz vein material within fault gouge.

Only one shallow drill hole is reported to have been completed in the Kodah prospect area. It was drilled by Kennco in 1973 and tested a massive white quartz vein 0.5 m thick. Results of this drill hole are not known."

Nine grab rock samples were collected by Benchmark from the Kodah [Prospect] Zone in 2020, with several returning anomalous gold and silver including a sample with 3.11 g/t Au and 57.8 g/t Ag.

The 2021 exploration program expanded the soil sampling and rock grab coverage over Kodah. A north-south Au-Ag soil trend was observed running into Kodah, along the western flank of Round Mountain. One rock sample along this trend returned a grade of 5.68 g/t Au and 73.50 g/t Ag. It was described as propylitic alteration overprinted by quartz-sericite-pyrite assemblage with strong oxidization stained quartz veins. This alteration and oxidation combination was commonly described in the eight samples that graded >0.1 g/t Au.

7.5.3.3 Round Mountain East (094E 158) and West (094E 159) Prospects

"The Round Mountain East and West prospects are located about 4.5 km northwest of the Cliff Creek North deposit area, on the east and west slopes of a locally-named topographic high, Round Mountain.

They are underlain by Toodoggone Formation volcanic rocks assigned to the Metsantan Member. Host rocks are cut by the assumed projection of, or splays off of, the Cliff Creek fault, along which the showings areas lie.

At Round Mountain East, an area of advanced argillic alteration with minor quartz veining strikes NNW and is exposed over a length of about 200 m and a width of about 150 m. Within the alteration zone, one- to two-metre-long chip samples, collected in 1987, returned generally low gold and silver values. One sample taken within an area of quartz veining returned values of 2.59 g/t Au and 2.0 g/t Ag. Also, *in 1987, approximately 10 km of IP surveys were completed in the prospect area. The survey identified several zones of high resistivity 100 m to 200 m in length; it was concluded that all resistivity anomalies warranted further investigation. To the author's knowledge, no drilling has been carried out in the Round Mountain East area.*

At Round Mountain West, the showing consists of a northerly-trending zone of quartz-chalcedony veins, stockworks and replacement masses exposed intermittently over a 500 m length and over irregular widths, from a few m to 50 m. The zone of silicification follows a possible splay off of the assumed projection of the Cliff Creek fault which passes through the nearby Round Mountain East showings area a few hundred metres to the east. Several rock samples taken from this zone in 1986 yielded mostly background or weakly anomalous gold and silver values. One sample taken from the northern end of the silicified zone returned values of 0.80 g/t Au and 6.8 g/t Ag."

Twenty-three rock grab samples were collected by Benchmark from Round Mountain Prospect in 2020, but none showed significant Au and Ag grades.

A further thirty-nine rock samples were collected during the 2021 exploration program with none returning significant Au or Ag grades. Two-hundred-and-forty-eight soil samples were collected on the Round Mountain prospect. The soil program identified a north-south Au-Ag trend passing along the western flank of the Round Mountain zone, continuing on a mineralised trend from Silver Pond North zone and into the Kodah zone.

7.5.3.4 Dream Silver Prospect (094E 191)

"The Dream silver prospect is located about 4 km southwest of the Cliff Creek North deposit area. It is underlain by Toodoggone Formation volcanic rocks assigned to the Metsantan Member. An outlier of Sustut Group sedimentary rocks crops out less than one km to the east of the [Dream] prospect area.

At Dream, a northwest-trending zone of intense pervasive silicification ± quartz veining is enveloped by a zone of kaolinite alteration outwards from which propylitic (carbonate-epidote) alteration is present.

The silicified zone is 150 m long and a few centimetres to about one metre wide. A total of eight rock samples were taken from this showing in 1983; all consisted of quartz-veined and/or intensely silicified country rocks. Assay results from these samples were weakly to moderately anomalous in silver. Two samples taken about 75 m apart along the strike of the silicified zone returned values of 8.1 g/t Ag and 0.03 g/t Au and 8.9 g/t Ag and 0.30 g/t Au."

7.5.3.5 LaLa Occurrence (094E, new)

The LaLa Occurrence is located 1.25 km to the northwest of the Marmot Lake Zone and occurs along strike of the major NW-SE Lawyers Trend. Grab samples returning grades up to 8.22 g/t Au and 897.0 g/t Ag were taken from north-northeast structures, which control and host fine-grain sulphide mineralisation.

The 2021 geophysics and prospecting programs confirmed a structural relationship with mineralisation and identified by an abrupt resistor/conductor contact on a known fault. Geologic description of rock samples supports a low sulphidation epithermal system similar to that of the main deposits. Mineralised rock sample descriptions include silicate vein hosted sooty sulphides and disseminated pyrite associated with increased potassic alteration. One of the rock samples returned grades of 2.26 g/t Au and 24.2 g/t Ag.

7.5.3.6 Gifford's Edge Occurrence (094E, new)

The Gifford's Edge Occurrence is located 1 km north of the Marmot Lake East Zone. Host rock contains pervasive propylitic alteration with disseminated pyrite throughout and mapped northwest-southeast structures show strong potassic alteration silica and pyrite veining. Grab samples returned up to 27.9 g/t Au and 378 g/t Ag. The 2020 soil sampling program by Benchmark identified a 250 m by 250 m size soil anomaly.

7.5.3.7 Black Lake Alteration Corridor Occurrence (094E, new)

The Black Lake Alteration Corridor (BLAC) Occurrence is new and was discovered by Benchmark in 2019. BLAC is a zone of strong, silica-pyrite alteration following the contact between intermediate volcanics and the Black Lake Intrusion on the southern part of the Lawyers Property. Benchmark's sampling defined a gold-silver soil anomaly over the area. A few rock samples from the area contained anomalous gold and silver, including one with 1.36 g/t Au and 31.2 g/t Ag. Limited sampling has been completed in this area; additional prospecting is recommended.

Prospecting and rock sampling in 2021 expanded the BLAC, extending the area of anomalous rock samples along the previously identified NW-NNW structural trend. The mineralisation appears to be associated with major NW-NNW structures, occurring where basalts and limestones are mapped along the contact of the Black Lake pluton. Mapped structures in this area are intensely silicified and contain high concentrations of sulphides (dominantly pyrite). A series of subparallel white quartz veins orientated at ~280/65 crosscut all lithologies and structures, defining a late E-W structural fabric across the area.

7.5.3.8 Silicon Valley North Occurrence (094E, new)

Silicon Valley North Occurrence is new and was discovered by Benchmark in 2019. Metre-scale massive quartz veins were mapped in this area hosted in intermediate volcanics near the contact with the Black Lake Intrusion, to the east of the BLAC occurrence. Rafts of limestone, assumed to be the Asitka Group, also occur in this area. Rock and soil samples with weak to moderate gold and silver mineralisation were collected in 2019. Limited sampling has been completed in this area; additional prospecting is recommended.

7.5.3.9 Lawyers South East Occurrence (094E, new)

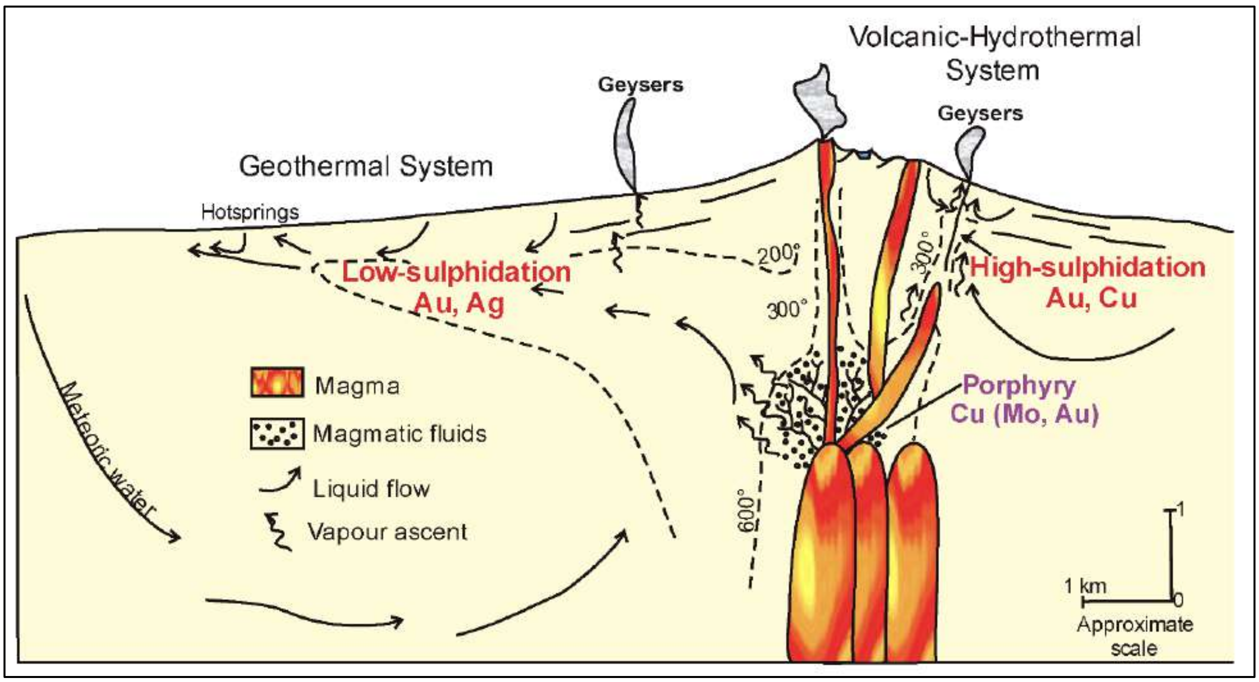
The Lawyers South East Occurrence is new and was discovered by Benchmark in 2019. Weakly mineralised quartz vein float was found in this area. However, the source of the float was never established. Lawyers South East occurs within the Black Lake Intrusion, and several NW-trending intermediate intrusions cross cut the Black Lake Intrusion, showing minor along a SW-NE trend.

The 2019 soil program identified porphyry style zonation of mineralisation, strong molybdenum grades haloing a gold and copper anomaly. Geologic interpretation of rock samples is potassic alteration with mineralisation hosted as fine grained or disseminated in silica veins and veinlets. The K-radiometric produced by the 2021 VTEM survey return a high K% congruent with the Cu results from the 2019 soil program. The Cu results, moderate Mo halo surrounding them and the K radiometrics are all typical of porphyry style deposits.

8 DEPOSIT TYPES

A number of different mineral deposit types occur in the Toodoggone region, including low- and high-sulphidation epithermal gold-silver mineralisation, calc-alkalic porphyry copper-gold mineralisation, and uncommon iron or copper (± gold and silver) skarn mineralisation. A simplified schematic shows the relationship between these different types of deposits in Figure 8-1.

Figure 8-1: Schematic Model for Low- and High-Sulphidation Epithermal Mineralisation and Porphyry Mineralisation



Source: Modified after Hedenquist and Lowenstern (1994)

A detailed synthesis of the mineral deposit types in the Toodoggone region was completed by Lane et al., (2018), based on the work of Diakow et al., (1991 and 1993), Duuring et al., (2009), and Bowen (2014). Descriptions of specific deposit types in the region are based largely on a technical report by Hawkins (2003) and by observations made by Bowen during his on-site core logging and supervision of diamond drilling programs on the Lawyers Property in July 2006 and on the Ranch Property in September 2006 and May, June and September 2007, and by Lane during his on-site core logging and supervision of a diamond drilling program on the Lawyers Property in August to September 2015.

Diakow et al., (1993) concluded that all the mineralisation styles at Lawyers are genetically related to Early Jurassic volcanic and intrusive activity in an extensional setting. Epithermal gold-silver mineralisation is hosted primarily by strata of the Toodoggone Formation, to a lesser degree by coeval intrusions, and locally within strata of the Takla Group. Panteleyev (1986) noted that the epithermal mineralisation is structurally controlled, and the mineralisation is vertically and laterally zoned with alteration being common. High-sulphidation epithermal mineralisation systems formed at about 201 Ma to 182 Ma and coincide with district-wide plutonism and porphyry copper–gold ± molybdenum mineralisation, whereas low-sulphidation systems formed later at 192 Ma to 162 Ma, commonly coinciding with the emplacement of felsic dykes and Toodoggone Formation volcanism (Duuring et al., 2009).

Three different deposit models are described in detail by Lane et al., (2018), included here in italics below, with an additional updated model (Figure 8-2) and discussion of the Lawyers Property.

8.1 Low Sulphidation Epithermal Deposits

The following text is taken from Lane et al., (2018):

> *"Low sulphidation epithermal gold-silver deposits are also called adularia-sericite or quartz-adularia types which form in high-level (epizonal) to near-surface environments. They consist of quartz veins, stockworks and breccias commonly exhibiting open-space filling textures and are associated with volcanic-related hydrothermal or geothermal systems. The deposits occur within volcanic island and continent-margin magmatic arcs and/or continental volcanic fields in an extensional structural setting.*
>
> *The depth of formation of these high-level deposits is from surface (in hot springs systems) to about 1 km below surface along regional-scale fracture zones related to grabens, resurgent calderas, flow-dome complexes and rarely, maar diatremes. Settings also include extensional structures (normal and splay faults, ladder veins and cymoid loops, etc.) in volcanic fields; locally graben or caldera-fill clastic rocks are present. High-level, subvolcanic stocks and/or dykes and pebble breccia diatremes occur in some areas.*
>
> *Locally resurgent or domal structures are present and are related to underlying intrusive bodies.*
>
> *The age of this type of epithermal mineralisation varies. Tertiary deposits are most abundant world-wide but in B.C. Jurassic deposits are important. Mineralisation appears closely related in time to the host volcanic rocks but invariably it is slightly younger in age.*
>
> *Mineralised zones are typically localized in fault or fracture systems, but also may occur in permeable lithologies. Upward-flaring mineralised zones centered on structurally controlled hydrothermal conduits are typical. Large (>1 m wide and hundreds of metres in strike length) to small veins and stockworks are common with lesser disseminations and replacements. Vein systems can be laterally extensive but shoots have relatively restricted vertical extents. Significant zones of*

mineralisation may form where dilational openings and cymoid loops develop, typically where the strike or dip of veins change. Hangingwall fractures adjacent to mineralised structures are particularly favourable for the development of high-grade shoots.

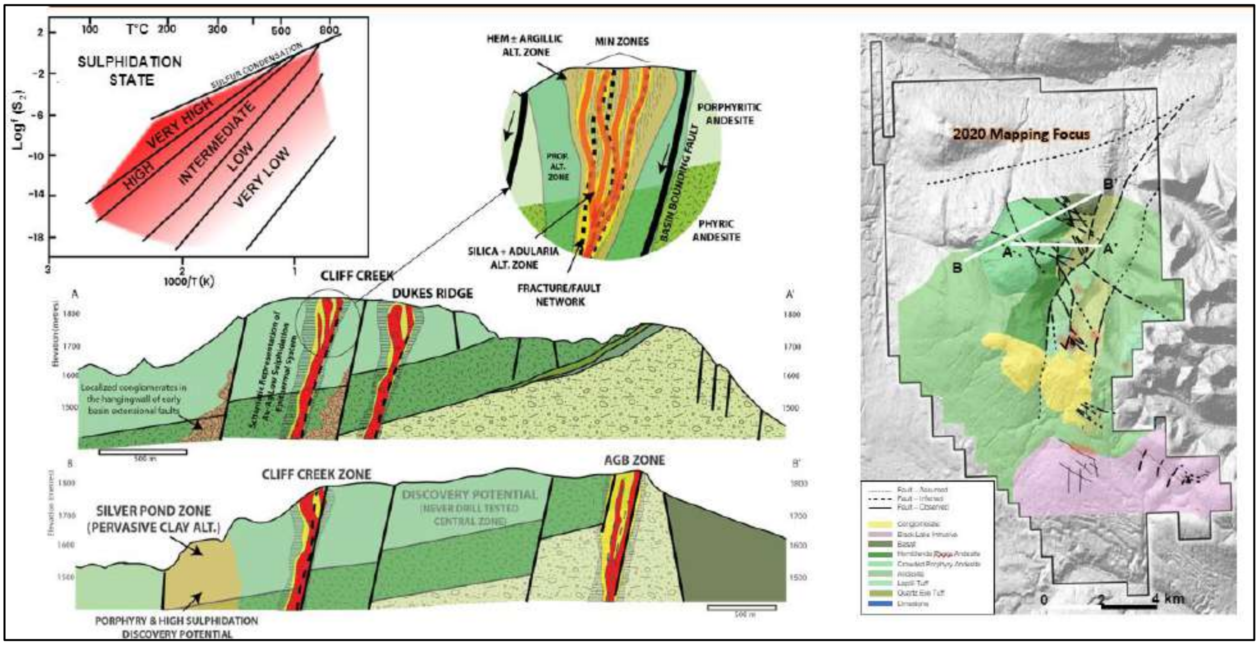
Textural features associated with mineralisation include open-space filling, symmetrical layering, crustification, comb structures, colloform banding and multi-phase breccias. Metallic minerals present include pyrite, electrum, gold, silver, acanthite (argentite) and lesser amounts of chalcopyrite, sphalerite, galena, tetrahedrite, silver sulphosalts and/or selenide minerals. Gangue minerals include quartz, amethyst, chalcedony, quartz pseudomorphs after calcite, with lesser amounts of adularia, sericite, barite, fluorite, Ca-Mg-Mn-Fe carbonate minerals (such as rhodochrosite), hematite and chlorite. Epithermal silver deposits generally have higher base metals contents than do gold or gold-silver types.

Deposits can be strongly zoned horizontally and vertically. Downward vertical zonation occurs over a 250 to 350 m interval, from a base metals-poor, gold and silver-rich top to a relatively silver-rich base metals intermediate zone, to an underlying base metals-rich zone grading at depth into a sparse base metals-bearing pyritic zone. At depth, deposits can be postulated to occur above or peripheral to porphyry and possibly skarn-type mineralisation.

Silicification of host rocks is extensive, occurring as multiple generations of quartz and chalcedony commonly accompanied by adularia and calcite. Pervasive silicification in vein envelopes is flanked by sericite-illite-kaolinite assemblages. Intermediate argillic alteration (kaolinite-illite-montmorillonite [smectite]) forms adjacent to some veins and advanced argillic alteration (kaolinite-alunite) may form at the tops of mineralised zones. Propylitic alteration dominates at depth and peripherally. Weathered outcrops are often characterized by resistant quartz ± alunite 'ledges' flanked by extensive bleached, clay-altered zones with supergene alunite, jarosite and limonite."

The epithermal system(s) present on the Lawyers Property are structurally related. Much of the significant epithermal-style mineralisation occurs associated with a series of deep-rooted, subvertical N-NW trending faults with pervasive variably zoned alteration of the wall rock. The Lawyers Group prospects generally exhibit low-sulphidation characteristics with intense quartz-adularia-sericite alteration within the mineralised zone and variably contain a narrow argillic zonation halo (Figure 8-2). Hematite alteration is common within and surrounding the main mineralised zones, particularly at the Dukes Ridge and AGB zones. The Lawyers Group Zones, however, do not exhibit certain low sulphidation features, such as the base metal-Au-Ag zonation pattern described by Lane et al., (2018). The alteration patterns of epithermal veins also do not show regular broad-scale chlorite-calcite, smectite, sericite/illite alteration zonation patterns. Additionally, there is a notable absence of the "chalcedonic blanket" that is typically present in classic low-sulphidation deposits, although this could be due to post-mineralisation erosion.

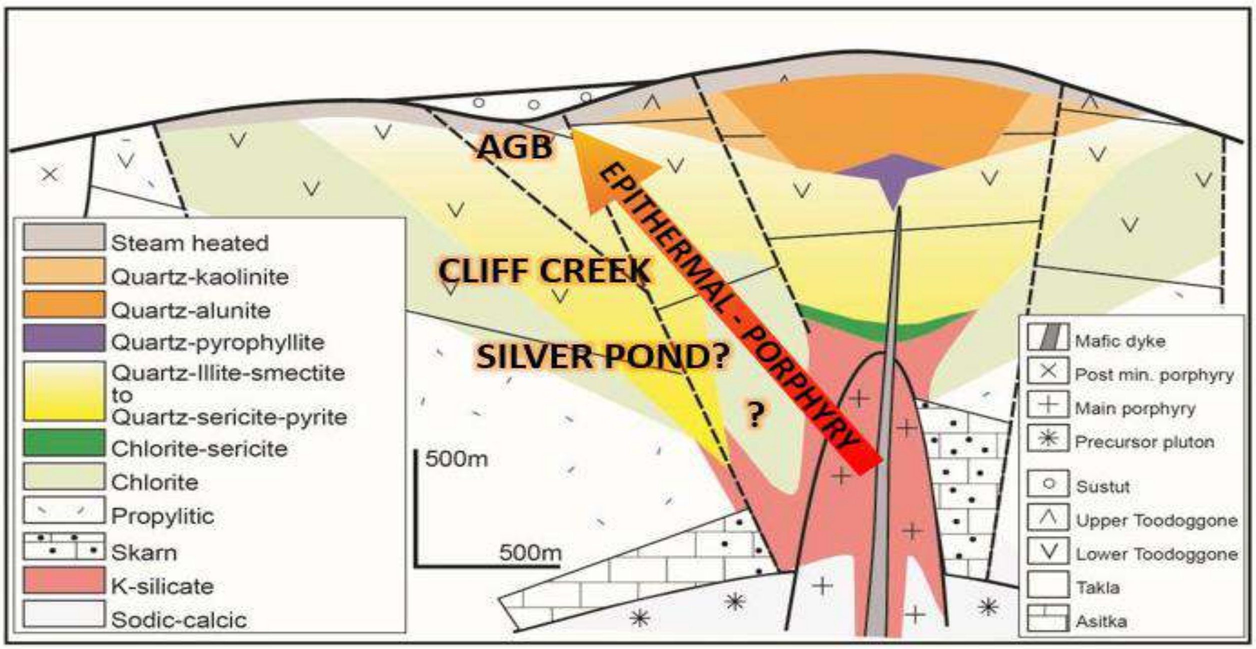
Figure 8-2: Lawyers Low-Sulphidation Epithermal Geologic Model (Webster, Unpublished)



Source: Laycock et al., (2021)

A prominent clay alteration zone with advanced argillic alteration and local quartz-alunite occurs in the Silver Pond Prospect area, located northwest of the Lawyers Group prospects. The presence and distribution of the clay alteration zone at Silver Pond, and high temperature quartz-sericite-pyrite assemblages in the deeper zone of Cliff Creek (Figure 8-3), indicate that these hydrothermal systems could be the expression of a porphyry-epithermal transition zone.

Figure 8-3: Generalized Cross-Section of Suggested Epithermal-Porphyry System in the Toodoggone District



Source: Based on Sillitoe (2010); modified from MDRU/GBC 2019 Report. Laycock et al. (2021)

Fluid inclusion analysis completed by T.J. Reynolds in an unpublished report for DuPont of Canada Exploration Ltd.,1983, 9 p. referenced by Duuring et al., (2009) on the low sulphidation systems at the Lawyers Property, indicate that there is no demonstrable genetic association with magmatic fluid, due to the low temperature (175º to 335 ºC) and low salinity (1 to 11 equiv. wt% NaCl) character of the fluids responsible for metal deposition. Isotopic data suggests that the source of the fluids in the hydrothermal system is likely meteoric and (or) metamorphic, as the Property experienced low-grade burial metamorphism (Duuring et al., 2009). Past studies on the Silver Pond Group of prospects indicated involvement of relatively low-temperature (180º to 200 ºC) and low salinity (<3 equiv. wt% NaCl) fluids (Clarks and Williams-Jones, 1986), which does not point to any obvious connection to magmatic fluids or typical high sulphidation characteristics. Limited conclusive research has been completed to provide insight as to whether there is a clear magmatic link to the hydrothermal fluids responsible for mineralisation of the different prospects at the Lawyers Property.

8.2 High Sulphidation Epithermal Deposits

The following text is taken from Lane et al., (2018):

> *"High sulphidation epithermal deposits are also called acid-sulphate, quartz-alunite, alunite-kaolinite-pyrophyllite or advanced argillic types. They occur as*

veins, vuggy breccias and sulphide-silica replacement pods to massive lenses within volcanic host rocks associated with high level hydrothermal systems marked by acid-leached, advanced argillic and silicic alteration. Their setting is usually within extensional and trans-tensional environments, commonly in volcano-plutonic continent-margin and oceanic arc and back-arc settings. They occur in zones with high-level magmatic emplacements, where strato-volcanoes and other volcanic edifices are constructed above plutons.

Deposits are commonly irregular in shape, controlled in part by host rock permeability and the geometry of controlling structures. Multiple, cross-cutting composite veins are common; texturally the mineralisation is characterized by vuggy, porous silica derived as a residual product of acid leaching.

Hydrothermal breccias and massive wall rock replacements associated with fine-grained quartz are also common features associated with high sulphidation deposits.

Mineralisation consists of pyrite, enargite/luzonite, chalcocite, covellite, bornite, gold, electrum, and less commonly chalcopyrite, sphalerite, tetrahedrite/tennantite, galena, marcasite, arsenopyrite, silver sulphosalts and tellurides including goldfieldite. Two types of mineralisation are commonly present: (i) massive enargite-pyrite and/or (ii) quartz-alunite-gold. Gangue mineralogy consists principally of quartz-pyrite or quartz-barite; carbonate minerals are absent.

Alteration minerals consist principally of: quartz, kaolinite/dickite, alunite, barite, hematite, sericite/illite, amorphous clays, pyrophyllite, andalusite, diaspore, corundum, tourmaline and native sulphur with subordinate amounts of dumortierite, topaz, zunyite and jarosite. Advanced argillic alteration is a common alteration type and can be aerially extensive and visually prominent. Quartz occurs as fine-grained replacements and as vuggy, residual silica in acid-leached rocks. Weathered rocks may contain abundant limonite, jarosite, goethite and/or hematite, generally in a groundmass of kaolinite and quartz. Fine-grained supergene alunite veins and nodules are common.

Structural controls in volcanic edifices are commonly caldera ring and radial fractures, (particularly at their intersections), fracture sets in resurgent domes and flow-dome complexes, and hydrothermal breccia pipes and diatremes. Faults and breccias in and around intrusive centers appear to be important controls. Permeable lithologies can also be favourable host rocks, capped in some deposits by less permeable, hydrothermally altered silica, clay and alunite-bearing 'lithocaps'. The deposits can occur over considerable depths, ranging from high-temperature solfataras (sulphurous fumaroles) at the paleosurface down into cupolas of intrusive bodies at depth.

Recent research into the high sulphidation genetic model, mainly in the southwest Pacific and in the Andes of South America, has shown that these deposits are commonly genetically related to high-level intrusions and at several locales, they tend to overlie and flank porphyry copper-gold deposits. Multiple stages of mineralisation are common, presumably related to periodic tectonism with associated intrusive activity and magmatic hydrothermal fluid generation.

The high sulphidation deposit type has become a focus for exploration throughout the circum-Pacific region because of the economically important gold and copper grades in some deposits."

The Silver Pond Prospects had generally been considered to be high sulphidation-style mineralisation. However, based on current mapping and prospecting by Benchmark, clear evidence of high sulphidation mineralisation has not been observed to date. The mineralisation in the Silver Pond North and Silver Pond West Prospect areas appears to be restricted to narrow translucent and banded grey silica veinlets, similar to those at Cliff Creek. Extensive advanced argillic and high sulphidation-style alteration and gangue minerals occur over Silver Pond, including alunite, pyrophyllite, vuggy quartz, and bladed barite. This could suggest potential for future discovery of high sulphidation mineralisation in this area. A leach zone that corresponds to extensive clay alteration at surface appears to be transported down paleo-surface. At lower elevations, the advanced argillic zones occur as discrete NW-trending subparallel zones. Discrete m-scale secondary silica lineaments defined by pervasive secondary silica, breccias and goethite/jarosite stockworks and stringers also occur in NW-trending zones through the Silver Pond Clay Prospect. On the Ranch Property to the north of the Lawyers Property, extensive high sulphidation mineralisation is described. This style of mineralisation exists in the region and should be considered for Property-scale exploration.

8.3 Porphyry Deposits

Although the primary exploration target is low sulphidation epithermal gold-silver deposits, a secondary target type on the Lawyers Property is porphyry style of mineralisation. Many epithermal districts worldwide are associated with porphyry-style mineralisation. A descriptive geological model showing the possible spatial relationship between epithermal and porphyry deposits is provided above in Figure 8-1. The Lawyers Group Zones (Cliff Creek, AGB and Dukes Ridge) would plot in the upper left part of Figure 8-1, labelled "Low sulphidation Au, Ag".

The Lawyers deposits are characterized by low sulphidation bulk-tonnage style mineralisation, as exemplified by the long mineralised intercepts in both historical and 2015-2019 drill holes in the central and deeper parts of the Cliff Creek and Dukes Ridge Zones, where structural thickening appears to have occurred along the Cliff Creek fault and Dukes Ridge faults. It is unclear if the bulk-tonnage style of gold-silver mineralisation is related to an underlying or adjacent porphyry style system at Lawyers, but it is possible.

The Lawyers South-East prospect displays typical porphyry zonation as identified in the 2019 soil program, with a Cu-Au core surrounded by Mo halo, VTEM survey radiometrics, high K% results, coincide with the zonation displayed in the soil data, these in combination warrant further investigation.

The depth potential of the Silver Pond Trend remains under-tested. Its large surface alteration footprint of advanced argillic clay minerals (alunite, pyrophyllite, kaolinite), which occurs in close proximity to a magnetic anomaly at depth, warrants further investigation and follow-up work. The style of alteration could be indicative of some spatial and (or) genetic relationship to a porphyry style hydrothermal system.

8.4 Skarn Deposits

The Black Lake Alteration Corridor (BLAC) exploration target has been identified as a potential skarn deposit during the 2021 rock sampling and mapping program. Skarn deposits are characterized by hydrothermal fluid interaction with carbonate bearing host rock regionally associated with porphyries, greisen or other intrusions like those seen in adjacent properties.

Characterized by metasomatism of limestones and dolomites to calc-silicates bearing a suite of minerals containing Cu-Au and Zn-Pb-Ag (Ridley, 2013). Skarnified limestones and intense silicification observed in rock samples collected in the Black Lake Alteration Corridor and Silicon Valley North prospects bear Cu and Pb sulphides They are regional proximal to identified porphyry systems and host suites, the Black Lake Intrusives. This suggests potential for new deposit types and mineralisation on the property and warrants further investigation.

9 EXPLORATION

Benchmark actively explored the Lawyers Property during the 2018, 2019,2020, 2021 and 2022 field seasons. These exploration programs included soil, rock, and ground geophysical surveys (MAG, VLF and IP), airborne geophysics (VTEM), Aerial Drone Surveys (UAV), geological mapping, Shortwave Infrared (SWIR) Analysis, petrography, biogeochemical sampling, and water sampling.

9.1 Soil Sampling

The 2018 soil sampling program aimed to verify anomalies identified from historical data compilation and to extend known occurrences of mineralisation. The 2019 and 2020 soil sampling program aimed to constrain anomalies identified from the previous year and to extend known anomalies and occurrences of mineralisation. Soil grid lines ran approximately NE-SW perpendicular to major structural and mineralisation trends on the Property. Both broad-spaced, property-scale regional grids, and tighter spaced local grids over areas of interest, have been completed, as described below.

The 2021 soil sampling program aimed to acquire surface geochemistry in unexplored areas, constrain anomalies identified from the 2019 and 2020 exploration programs, and to extend known anomalies and occurrences of mineralisation. Soil grid lines ran approximately NE-SW perpendicular to major structural and mineralisation trends on the Property. A total of 2,329 soil samples were collected and assayed, including 112 duplicate samples.

In 2022, a total of 492 soil samples, including 25 duplicates, were collected along 50 m spaced infill lines at Kodah, Round Mountain and AGB North to better define new anomalies identified in the 2021 soil grids.

9.1.1 Sampling Parameters

The soil sampling medium was the C Horizon or, wherever possible, frost boils. Areas of the proposed soil grids that were composed of glacially derived sediments or fluvial sediments were not sampled because of the dominance of transported material and they are not geochemically representative of the local underlying geology and not useful for the applied exploration strategy.

9.1.2 Sampling Methods and Quality

Soil sampling pits were dug using a tree planting shovel to a minimum depth of 30 cm in order to access the C horizon. The organic layer and rock fragments were removed, and up to 500 g of soil material was placed in a Kraft bag. The Kraft bag was labelled with a unique sample number and a corresponding tag was placed inside the bag with the soil sample. The sample site and hole were photographed with the Kraft bag visible to verify the sample ID.

All soil samples were dried for up to three days in a heated tent. Sample Kraft bags were then tied closed using flagging tape or zip ties and placed into a large rice bag weighing approximately

15 kg. The rice bags were secured with a zip tie and security tag. The samples were shipped via truck or small plane to ALS Global Laboratories (ALS) in Kamloops, British Columba for standard soil sample preparation prior to being shipped to ALS in North Vancouver, British Columbia for geochemical analysis.

9.1.3 Results and Interpretation

The 2018 soil sample results reveal anomalous Au, Ag and Cu values across all the target areas. Of the 1,038 soil samples collected, 141 samples returned gold values >0.05 ppm, 164 samples returned silver values >1 ppm and 13 samples returned copper values >50 ppm. Table 9-1 summarizes the number of samples for each zone with anomalous results. The results of the 2018 soil sampling program confirm the historical results at AGB, Marmot Lake, Silver Pond North, and South. Soil samples collected at Cliff Creek and Phoenix identified mineralisation in those areas lacking historical soil samples.

The 2019 soil sample results also revealed anomalous Au values across all the target areas and anomalous Cu and Ag at AGB, Lawyers South and Marmot Lake. Of the 1,467 soil samples collected, 73 samples returned Au values >0.05 ppm, 154 samples returned Ag values >1 ppm and 250 samples returned Cu values >50 ppm. Table 9-1 summarizes the number of samples for each zone with anomalous results. A linear N-NW trending Au anomaly in the Marmot Lake East grid, and a cluster of six samples in the Marmot Lake grid all returned >0.05 ppm Au in areas and orientations, which correspond with mapped mineralised fault structures.

The 2020 soil sample results also revealed anomalous Au values across all the target areas and Cu and Ag at AGB, Arctic and E-Grid, Silver Pond Clay, Phoenix, LaLa and Gifford’s Edge prospects (Figure 9-2 and Figure 9-7). Of the 2,110 non-duplicate soil samples collected, 103 samples returned Au values >0.05 ppm, 135 samples returned Ag values >1 ppm, and 37 samples returned Cu values >50 ppm.

The 2021 soil sample results revealed anomalous Au values across all the target areas, as well as frequent anomalous Ag and Cu at Arctic & E-Grid, Black Lake Alteration Corridor, Kodah, Lala, Round Mountain, Silver Creek and Silver Pond West prospects (Figure 9-2 -Figure 9-7).

. Of the 2,221 non-duplicate soil samples collected, 104 samples returned Au values >0.05 ppm, 176 samples returned Ag values >1 ppm, and 79 samples returned Cu values >50 ppm. Table 9-1 summarizes the number of samples for each zone with above threshold results for the 2018 - 2021 Benchmark soil sampling programs.

The soil geochemistry was successful in establishing zones of interest by identifying linear soil anomaly trends, as well as improving the resolution of 2019 and 2020 soil grids. Several new well-defined gold silver anomalies were defined along the western side of Round Mountain and into Kodah. Gold, silver, and copper anomalies occur together starting from Silver Pond North, through Round Mountain, and into Kodah along a generally SE-NW trend. Along this trend, 6 samples returned >0.1 ppm Au, 22 returned >2.0 ppm Ag, and 23 samples returned >50 ppm Cu. In Silver Pond West and Silver Creek prospects, 7 samples returning >0.1 ppm Au, and 4 samples returning >2.0 ppm Ag highlight another SE-NW trend. Off-prospect to the north of Black Lake there is a SE-NW trend of 4 soil samples returning >0.1 ppm Au, which appear to align with the soil trend at Silver Pond West and Silver Creek. These two areas are separated by a topographic high composed of overlying Sustut sandstones and conglomerates, where there is a gap in sampling due to the unprospective surface geology. To the west of, and in Black Lake

Alteration Corridor, 28 soil samples returned >50 ppm Cu extending the Cu anomaly that occurs in the southeastern corner of the Property. Anomalous concentration in pathfinder elements, Te, Tl, As, and Sb, associated with porphyry and epithermal systems, are observed along the Kodah and Round Mountain trend and at BLAC.

The 2022 soil results are pending from the assay laboratory as of the effective date of this Report.

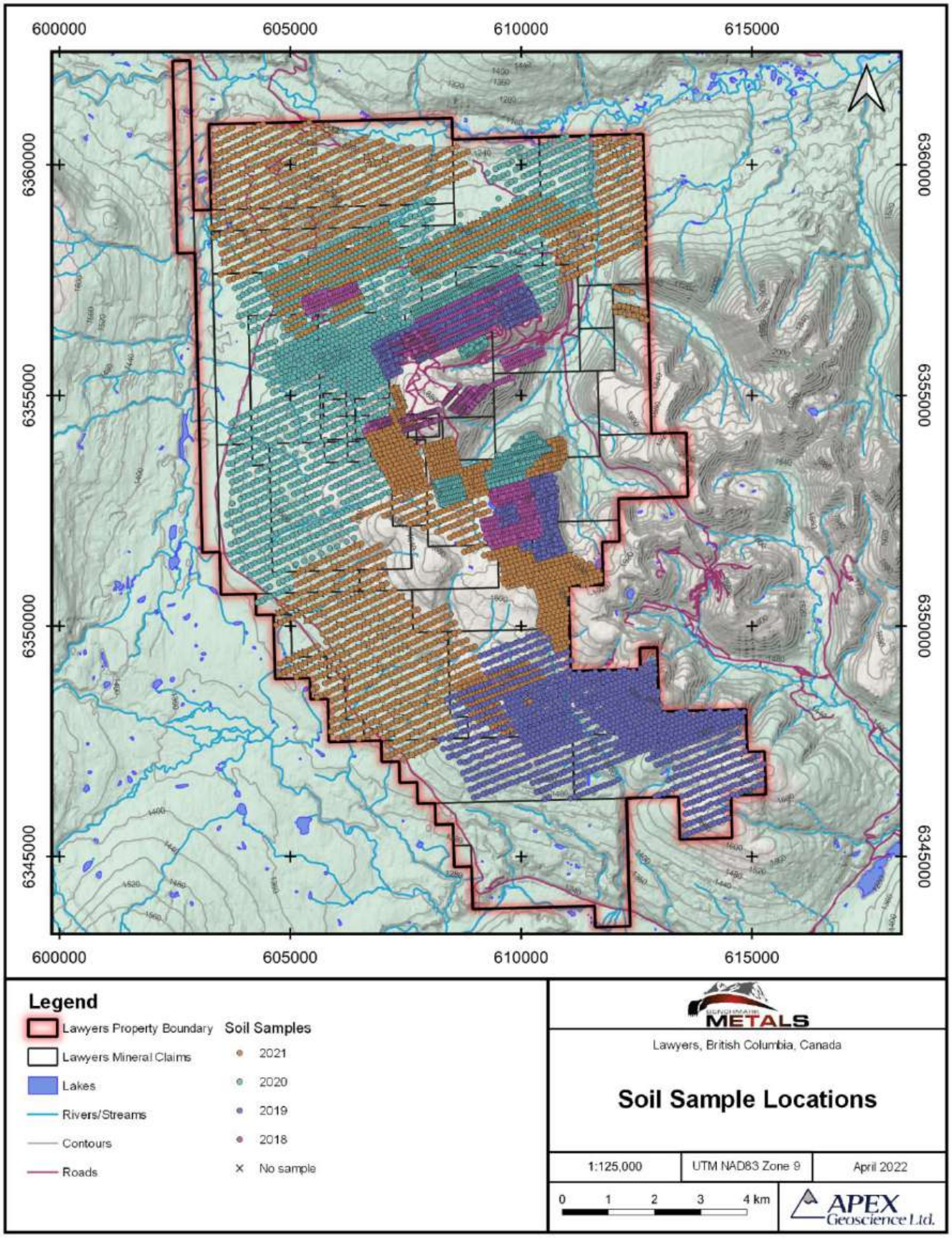
Table 9-1: Number of Soil Samples Exceeding Threshold Geochemical Assay Values by Year and Area

Zone	Year	Au (>0.05 ppm)	Ag (>1 ppm)	Cu (>50 ppm)
AGB	2018	11	35	3
Cliff Creek	2018	38	23	0
Marmot	2018	29	50	4
M-Grid	2018	11	6	0
Phoenix-Dukes Ridge	2018	44	37	0
Silver Pond North	2018	6	13	6
Silver Pond West	2018	6	8	0
AGB	2019	35	61	2
Cliff Creek	2019	3	1	0
Lawyers South	2019	16	72	245
Marmot Lake	2019	18	20	3
AGB Exp	2020	4	2	3
Arctic & E-grid	2020	9	15	2
Cliff Creek Exp North	2020	1	0	0
Gifford's Edge	2020	17	24	0
LaLa	2020	1	2	0
Marmot Lake	2020	0	0	0
M-Grid	2020	2	2	0
Pipe Dream	2020	3	15	3
Round Mountain	2020	2	0	0
Silver Pond North	2020	16	27	6
Silver Pond West	2020	1	0	0
Silver Ridge-Creek	2020	2	1	0
Silver Pond Clay	2020	4	4	0
Arctic & E-grid	2021	2	10	1
Black Lake A. C.	2021	4	10	15
Cliff Creek Exp South	2021	2	1	0
Gifford's Edge	2021	2	3	0
Kodah	2021	3	11	10

Zone	Year	Au (>0.05 ppm)	Ag (>1 ppm)	Cu (>50 ppm)
Lala	2021	3	11	0
Marmot Lake	2021	1	3	0
Marmot Lake East	2021	2	0	0
M-Grid	2021	9	1	0
Round Mountain	2021	10	34	13
Silver Creek	2021	4	7	0
Silver Pond North	2021	0	1	0
Sliver Pond West	2021	4	6	0
Off-prospect	2021	58	78	40

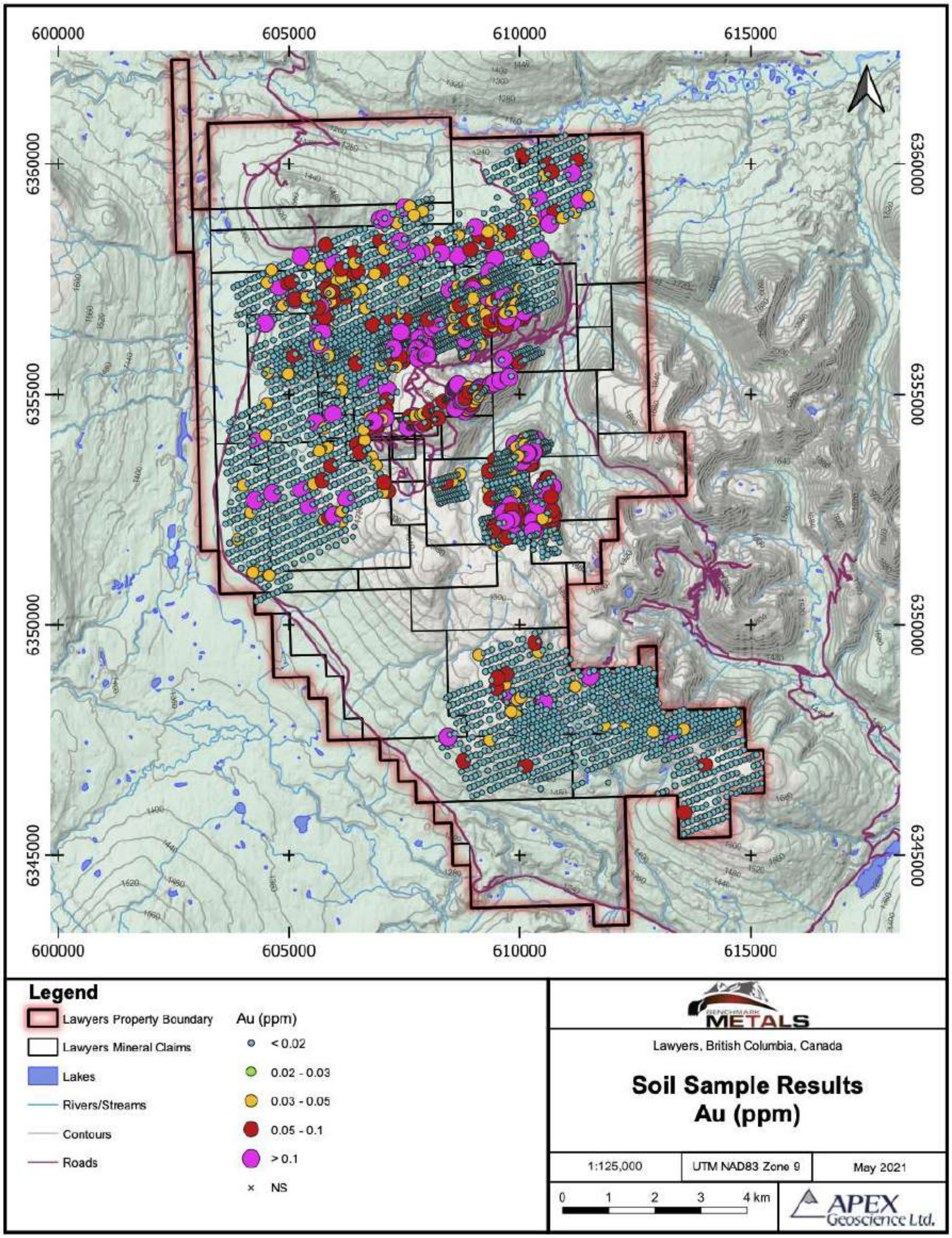
Source: APEX (2022)

Figure 9-1: Soil Sample Locations



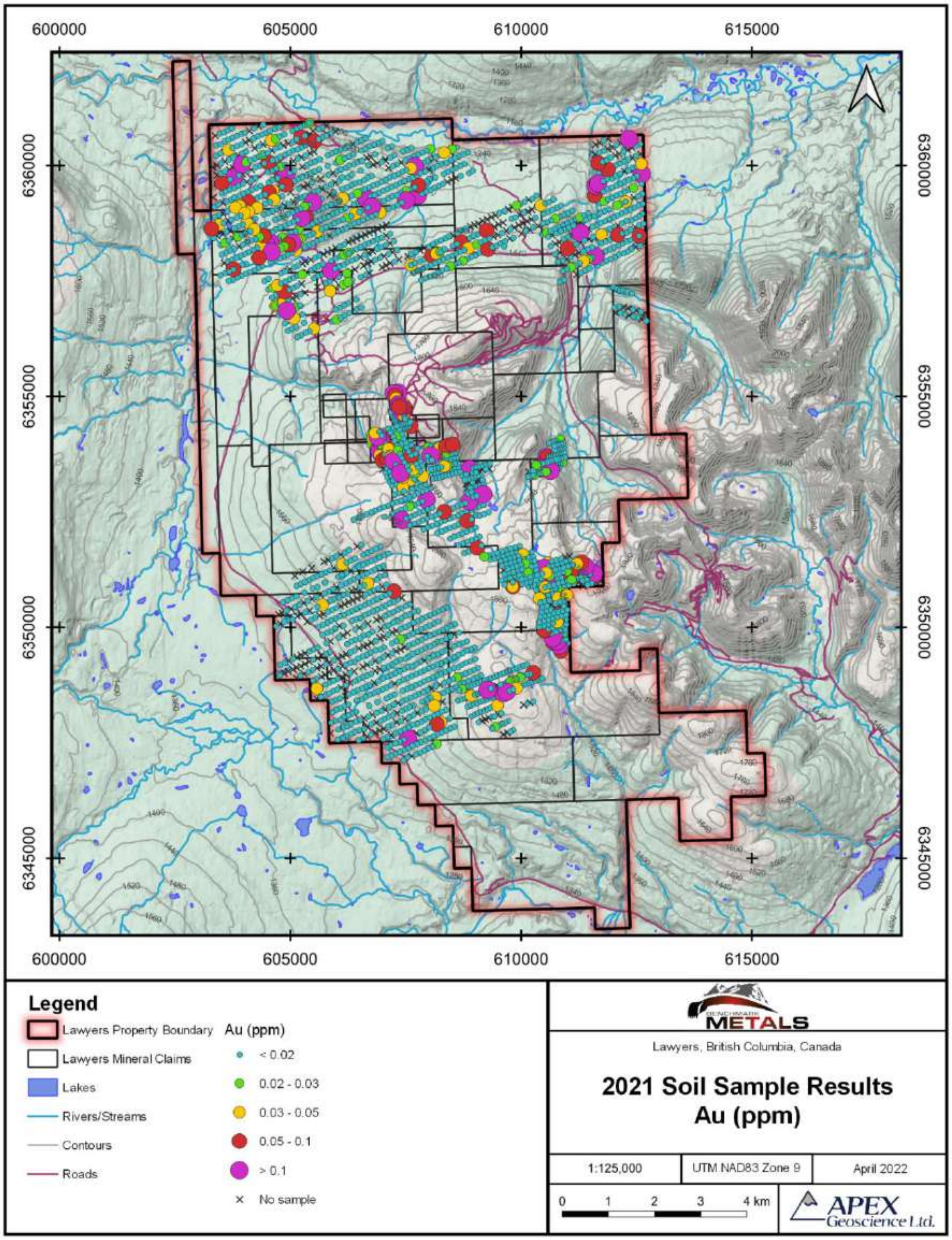
Source: APEX (2022)

Figure 9-2: 2018 to 2020 Soil Sample Assay Results for Gold



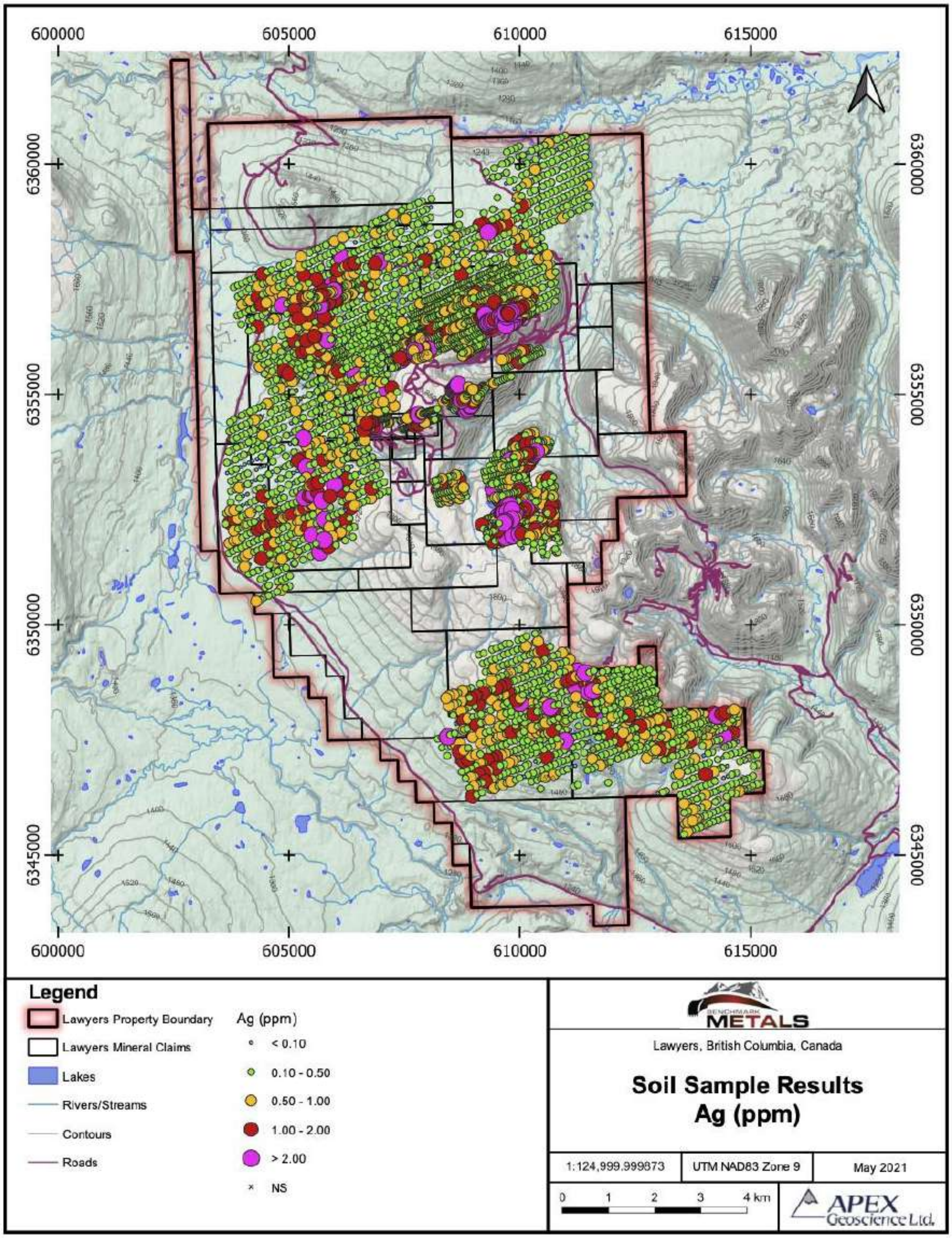
Source: Laycock et al., (2021)

Figure 9-3: 2021 Soil Sample Results Au (ppm)



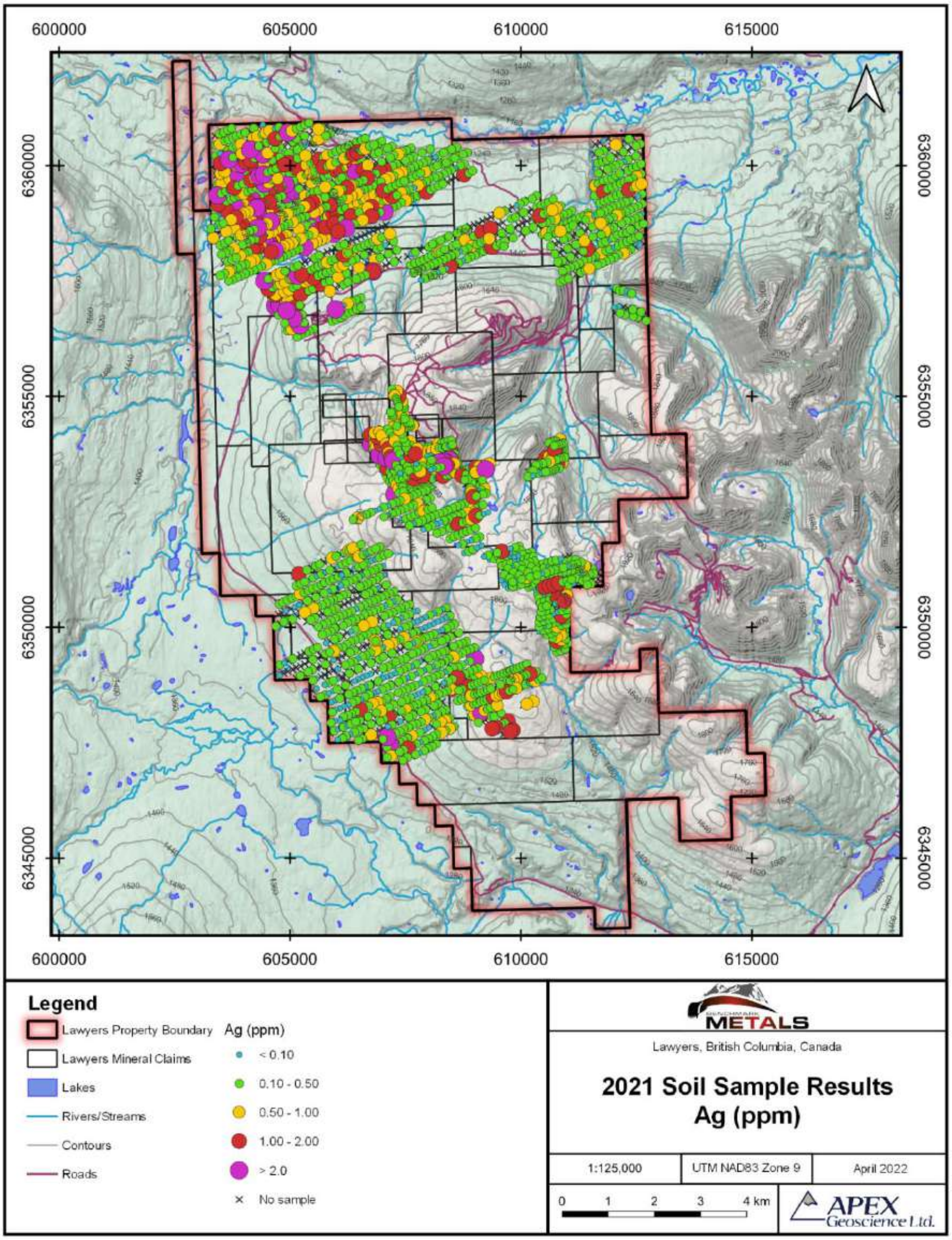
Source: Laycock et al., (2021)

Figure 9-4: 2018 to 2020 Soil Sample Assay Results for Ag (ppm)



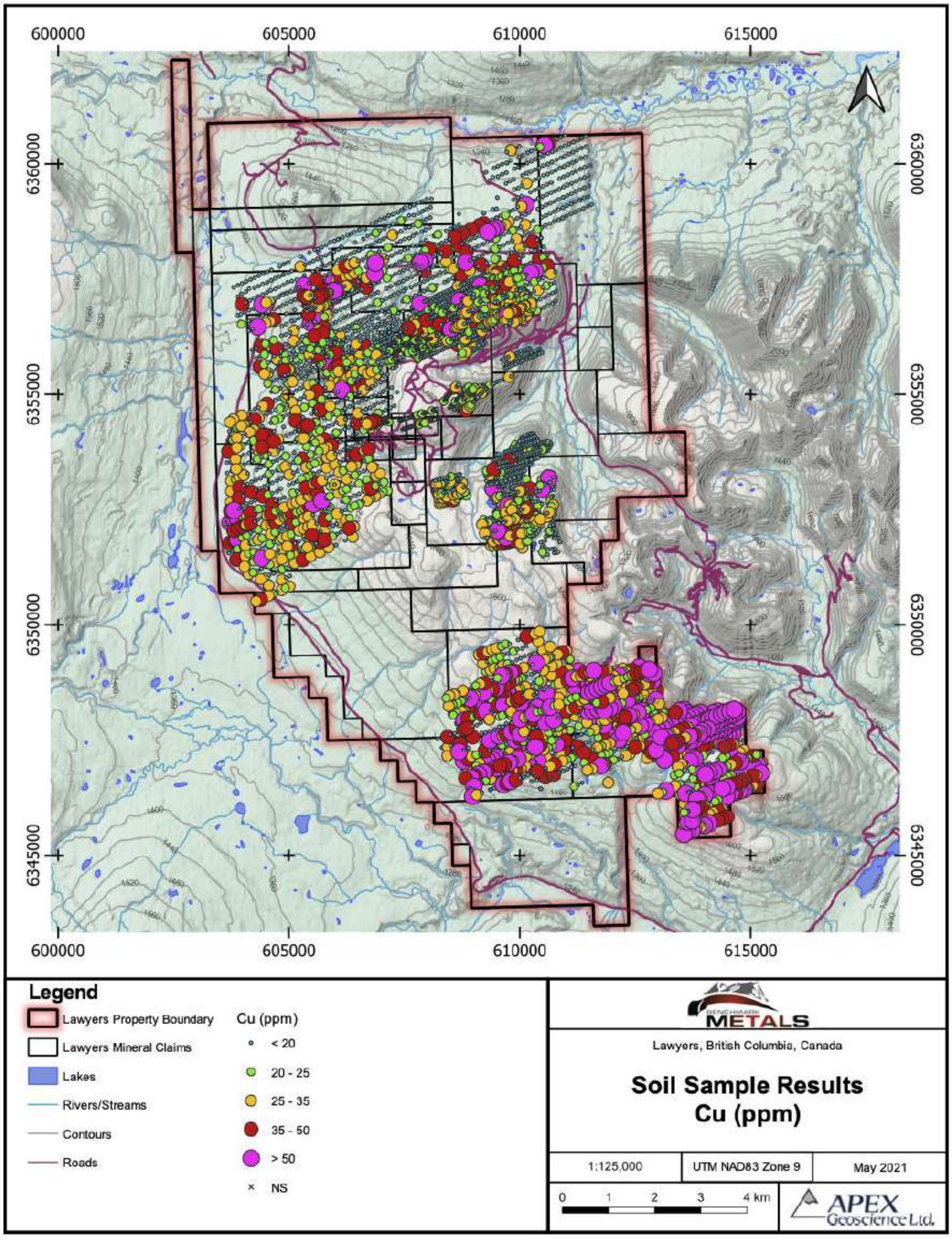
Source: Laycock et al., (2021)

Figure 9-5: 2021 Soil Sample Results Au (ppm)



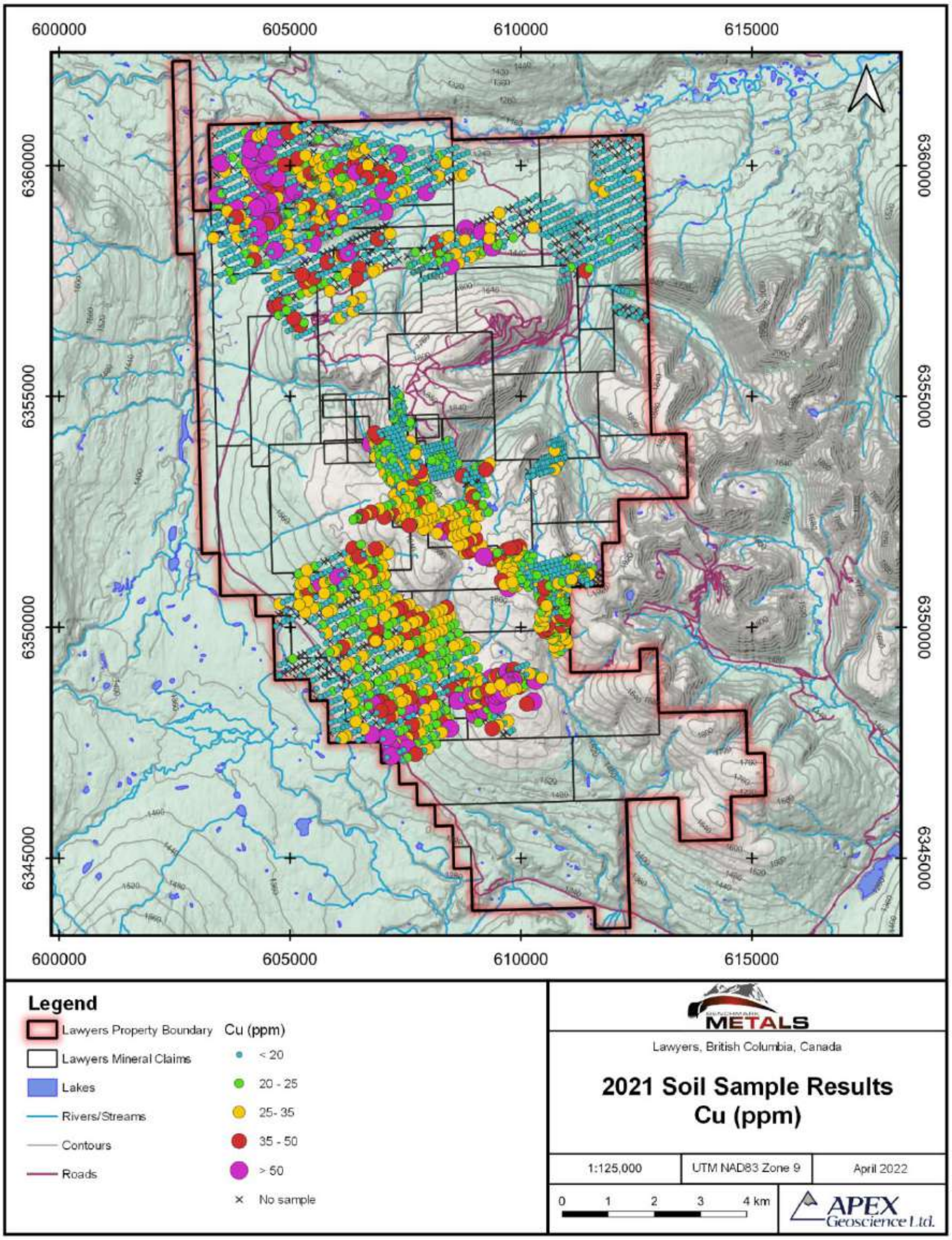
Source: APEX (2022)

Figure 9-6: 2018 to 2020 Soil Sample Assay Results for Cu (ppm)



Source: Laycock et al., (2021)

Figure 9-7: 2021 Soil Sample Results Cu (ppm)



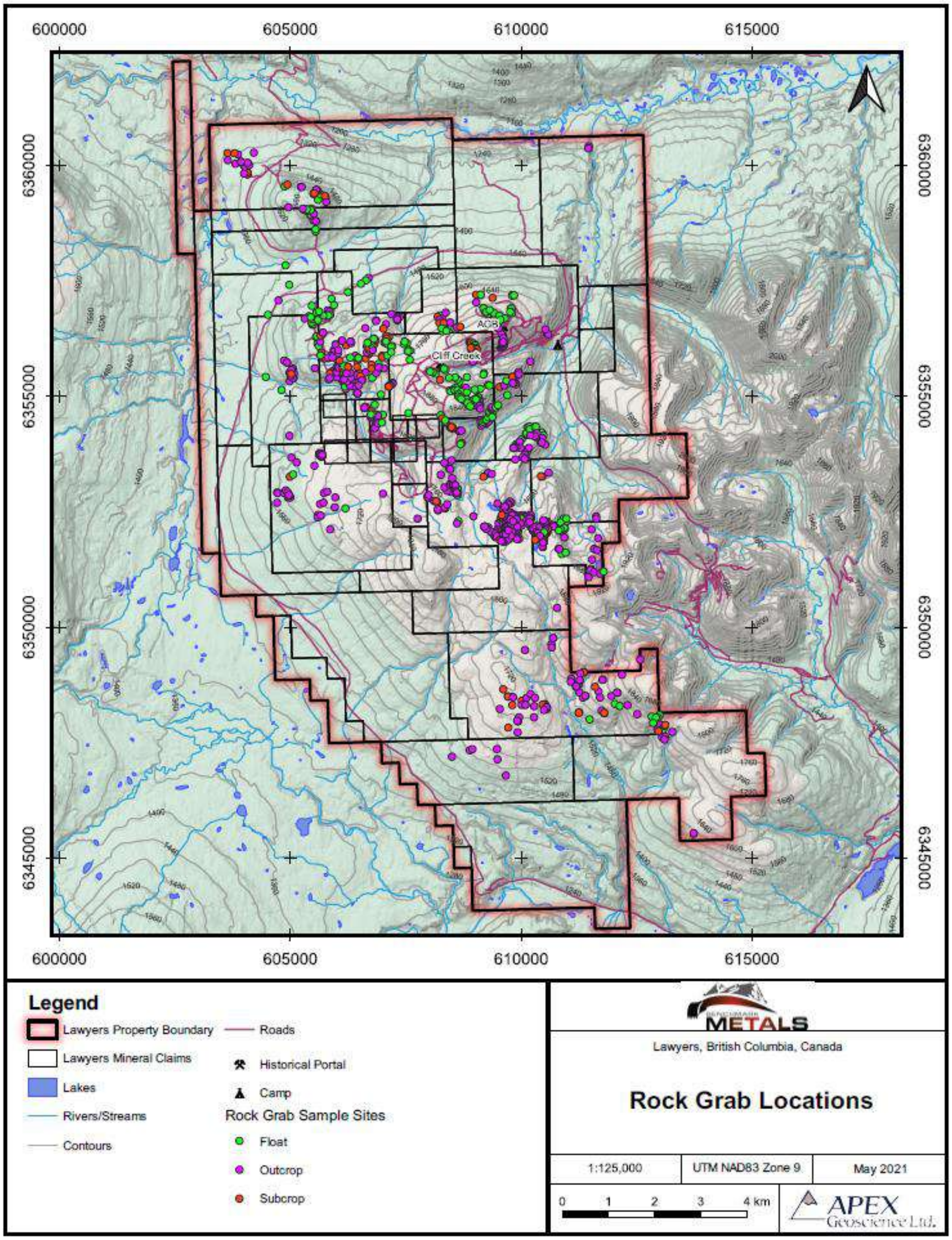
Source: APEX (2022)

9.2 Rock Sampling

9.2.1 Sampling Overview

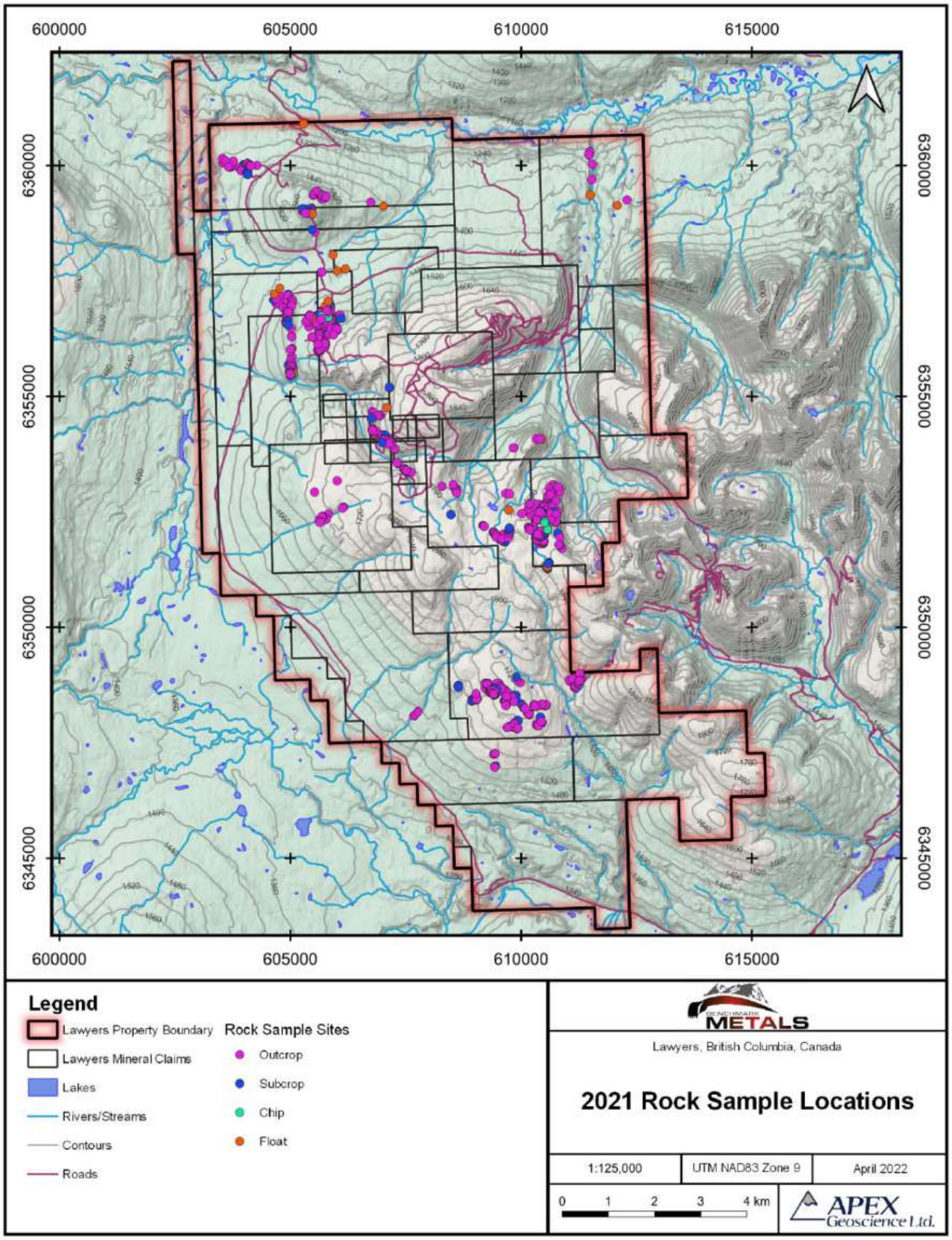
Benchmark has collected a total of 2589 rock samples from 2018-2021 for assay across the Lawyers Property (Figure 9-8) and an additional 230 rocks have been collected to date, during the 2022 field season. During the 2018 exploration program, 315 grab samples were collected. Five samples were also collected for whole-rock analysis and geochronology to gain a better understanding of the stratigraphy. In total, 575 grab samples were collected during the 2019 field season. This total was comprised of 42 channel samples, 213 trench samples, and 320 grab samples. Samples for whole-rock analysis were also collected at 20 locations to gain a better understanding of the stratigraphy and host rock composition. During the 2020 exploration program 651 rock grab samples were collected. During the 2021 exploration program, 1049 rock grab samples were collected. The intent of these rock sampling programs was to follow-up on and verify samples identified from the historical data compilation, identify and better define mineralisation identified in 2018-2020, and to extend known mineralisation in preparation for drilling.

Figure 9-8: 2018 to 2020 Rock Grab Sample Locations



Source: Laycock et al., (2021)

Figure 9-9: 2021 Rock Sample Locations



Source: APEX (2022)

9.2.2 Sample Methods and Quality

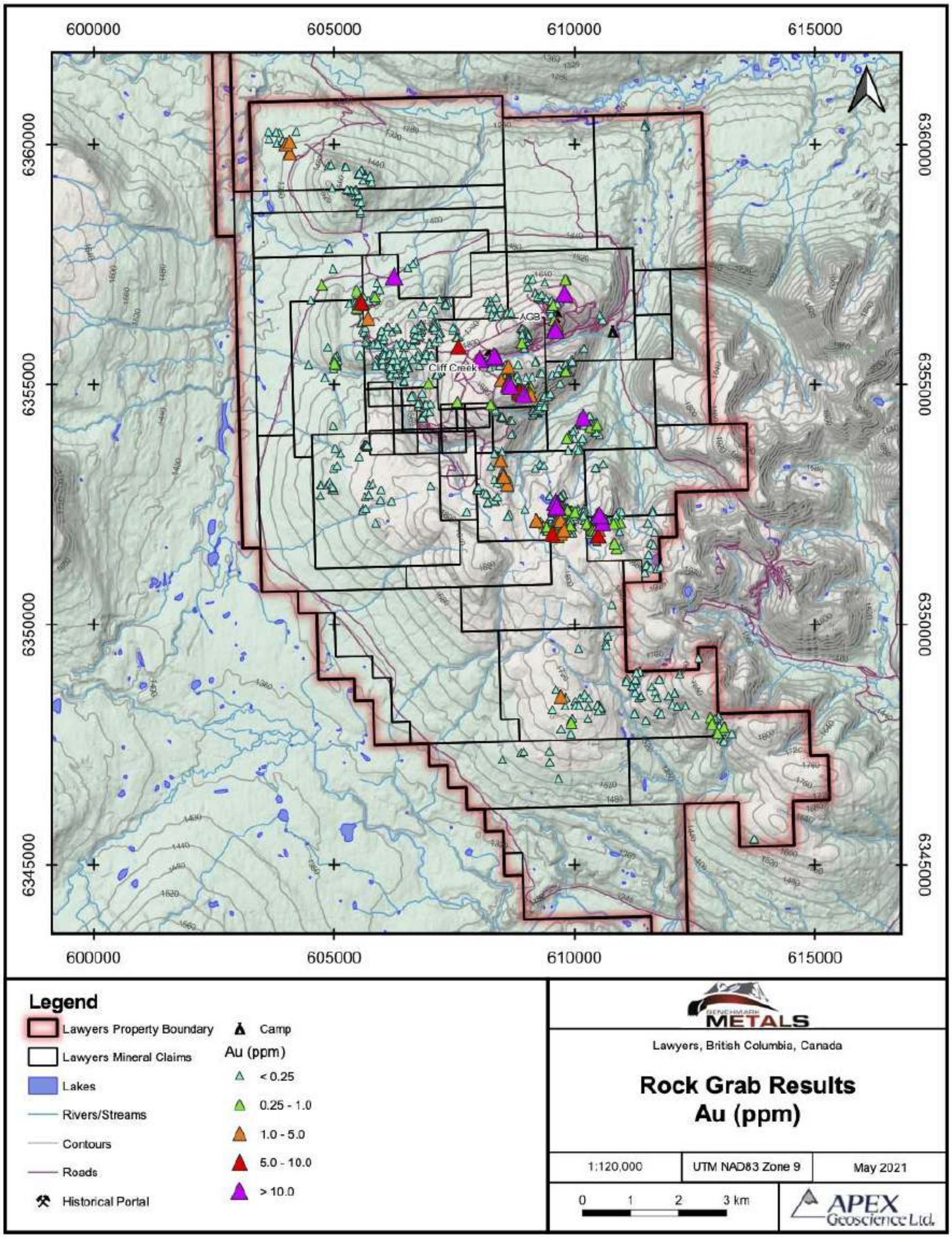
Individual rock grab samples were selected based on the presence of alteration, veining, or mineralisation, and known structural features related to the epithermal-style mineralisation. Where no indicators of potential mineralisation were present, rock samples were still regularly collected as background reference. Rock grab samples were approximately 1 kg to 2 kg in size and collected using a geological hammer. The location, material type, and a brief geological description were recorded.

The rock samples were dried, crushed to 2 mm (70% passing mesh), riffle split (250 g), and pulverized to 75 µm (85% passing mesh). Assays for gold were conducted using a 50 g fire assay with an ICP-AES finish. This method has a lower detection limit of 0.001 ppm and an upper limit of 10 ppm. Any sample that exceeded the upper limit was re-assayed using a fire assay and a gravimetric finished, which has an upper detection limit of 10,000 ppm. Silver and 48 other elements were assayed using four-acid digestion and finished with ICP-MS. In 2020, the analysis method was modified to an ICP-AES finish and the suite of elements was adjusted slightly for cost savings. These changes did not affect the data quality for exploration purposes. Samples with silver exceeding 1,500 ppm were re-assayed using a fire assay and gravimetric finish with an upper detection limit of 10,000 ppm. Blind QA/QC samples were not inserted for the rock sampling programs, because the sampling was conducted for prospecting and exploratory purposes.

9.2.3 Results and Interpretation

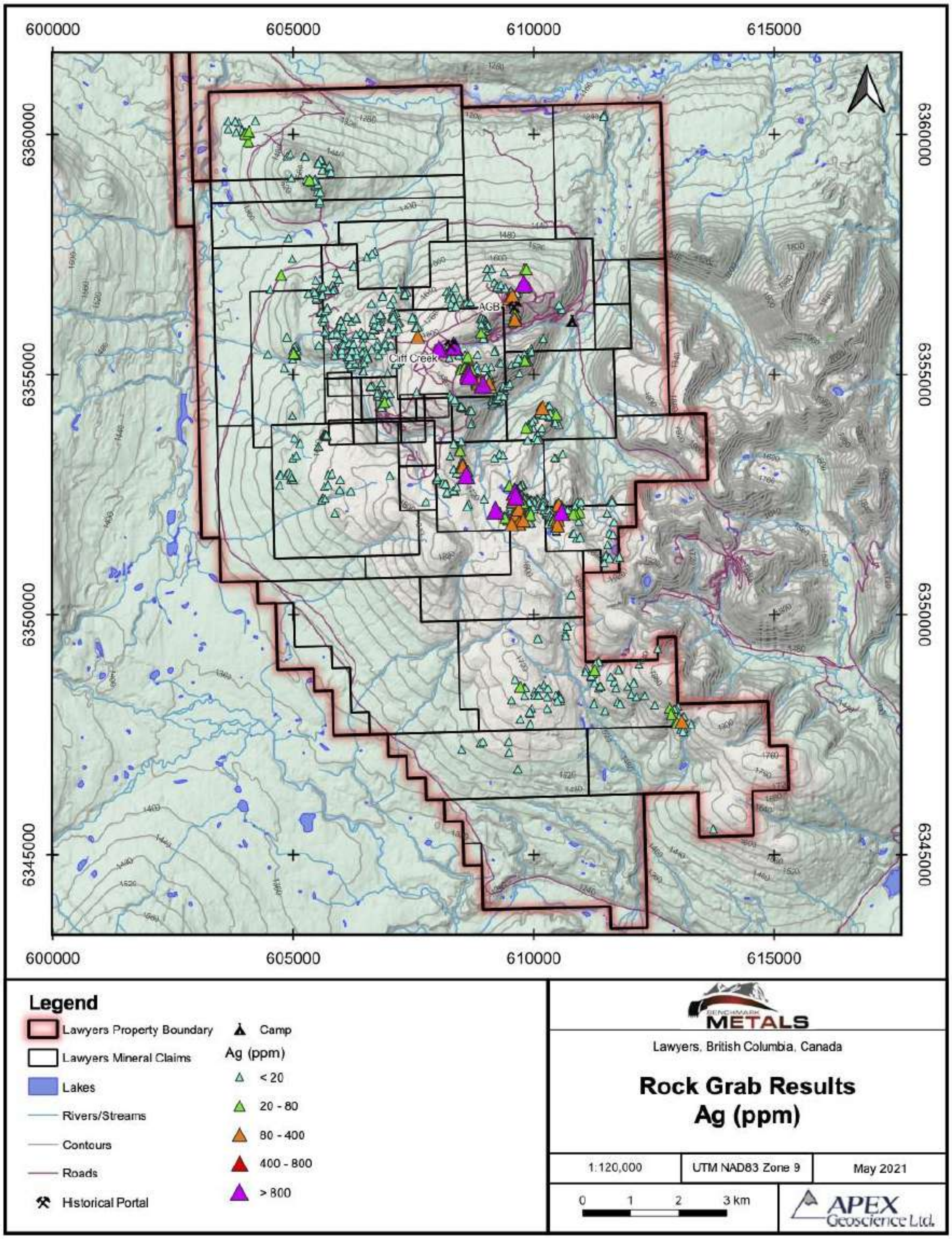
The rock sampling program was successful in defining areas of interest and confirming known occurrences of mineralisation. Results from Benchmark's rock grab samples are shown in Figure 9-10, Figure 9-11 and Table 9-2.

Figure 9-10: 2018 to 2020 Rock Grab Sample Results for Gold



Source: Laycock et al., (2021)

Figure 9-11: 2018 to 2020 Rock Grab Sample Results for Silver



Source: Laycock et al., (2021)

Table 9-2: Selected Geochemistry for Benchmark Rock Grab Samples by Year with AuEq >5 g/t

Zone	Year	Au (g/t)	Ag (g/t)	*AuEq (g/t)	As (ppm)	Cu (ppm)	Mo (ppm)	Sb (ppm)	Pb (ppm)	Zn (ppm)
AGB	2018	16.15	107	17	37	104	1.71	13.95	650	309
AGB	2018	17.70	62	18	7	133	1.01	3.54	85	291
AGB	2018	22.20	81	23	4	43	1.37	6.12	52	102
AGB	2018	7.94	1,265	23	9	125	3.79	45.6	469	573
Cliff Creek	2018	5.77	128	7	24	15	3.97	3.86	9	12
Dukes Ridge	2018	23.10	5,370	88	5	382	3.19	25.1	3,480	2,360
Marmot	2018	6.26	472	12	82	176	11.55	2.53	761	148
Marmot	2018	5.86	716	15	49	64	458	21.8	1,425	248
Marmot	2018	4.97	872	16	524	60	14.95	6.72	226	102
Marmot	2018	23.10	67	24	210	11	0.21	1.53	15	52
Marmot	2018	31.80	1,590	51	53	333	142	7.72	967	204
Marmot	2018	61.30	3,890	108	75	2,080	114.5	5.45	2,290	1,020
M-grid	2018	6.61	53	7	111	10	4.62	1.93	118	14
M-grid	2018	6.77	141	9	68	14	2.65	3.71	16	32
Marmot	2018	8.22	897	19	132	22	13.3	1.32	193	159
Phoenix	2018	160.00	1,440	177	8	294	20.7	10.75	72	328
Phoenix	2018	220.00	10,000	341	22	237	42.5	18.65	198	56
Phoenix East	2018	2.76	209	5	8	23	1.41	9.33	32	15
Silver Pond North	2018	5.33	3	5	11	1,205	3.11	0.61	26	66
Silver Pond North	2018	12.05	8	12	37	57	137.5	15.85	32	8
Marmot Lake	2019	8.28	100	10	143	12	78.4	4.97	104	62
Marmot East	2019	4.51	556	12	47	37	5.19	1.91	324	64
Marmot East	2019	6.00	318	10	756	42	246	21.5	113	13
Marmot East	2019	3.63	656	12	32	119	183.5	4.79	294	67
Marmot East	2019	16.10	1,425	34	62	289	159	8.19	437	72
Marmot East	2019	24.20	129	26	44	13	15.95	5.74	116	51
Phoenix	2019	5.13	309	9	27	42	4.53	15.35	33	22
Phoenix	2019	149.00	1,375	166	38	63	10.9	10.95	224	74
Phoenix	2019	19.30	1,115	33	23	80	7.86	9.46	48	24
AGB	2020	18.75	1,550	38	5	146	3	14	245	490
Marmot Lake	2020	25.00	2,330	54	195	208	33	2.5	2,180	130
Marmot Lake	2020	25.90	2,610	59	207	144	37	5	3,510	705
Marmot Lake	2020	1.09	342	5	111	50	3	2.5	140	139
Marmot Lake	2020	2.07	257	5	143	28	3	2.5	236	127
Marmot East	2020	3.37	159	5	309	41	157	18	93	28

Zone	Year	Au (g/t)	Ag (g/t)	*AuEq (g/t)	As (ppm)	Cu (ppm)	Mo (ppm)	Sb (ppm)	Pb (ppm)	Zn (ppm)
Off Prospect	2020	27.90	378	33	105	22	207	16	216	19
Off Prospect	2020	0.82	1,090	14	179	60	7	2.5	632	249
Silver Pond West	2021	20.30	1130	34	49	34	132	19	1355	29
Marmot East	2021	27.10	405	32	107	24	36	2.5	130	44
Silver Creek	2021	8.92	597	16	11	167	2	2.5	434	209
Marmot East	2021	11.65	343	16	94	19	223	6	213	17
Marmot East	2021	7.25	294	11	738	20	770	16	498	14
Marmot East	2021	8.60	47	9	54	8	9	2.5	55	59
Marmot East	2021	6.72	75.3	8	187	28	255	2.5	83	33
Kodah	2021	5.68	73.5	7	11	87	1	2.5	931	492
Marmot East	2021	3.58	22	6	43	17	68	2.5	86	33
Silver Pond West	2021	5.27	39.2	6	37	45	12	2.5	99	32
Arctic & E-grid	2021	4.31	110	6	2.5	84	0.5	8	112	58

Note:
n/a = not analysed
* AuEq calculated using 80:1 Ag:Au ratio
Source: APEX (2022)

The 2018 rock sampling program defined and confirmed historical anomalies at Cliff Creek, Dukes Ridge, Phoenix, Silver Pond North and Marmot Lake. Only weak localized mineralisation was identified at Kodah and Round Mountain, failing to confirm historical anomalies. Additional follow up sampling in these areas was recommended.

In 2019, samples from Marmot Lake, Marmot East and Phoenix returned values >5 g/t AuEq (AuEq calculated using 80:1 Ag:Au ratio). Highlights include a grab sample from Phoenix that returned 166.19 g/t AuEq and a grab sample from Marmot Lake East that returned 33.91 g/t AuEq. A total of 36 grab samples graded >1.0 g/t AuEq, with 12 above 4.0 g/t AuEq. The 2019 trench sampling was unsuccessful in identifying any significant surficial mineralisation along the VLF anomalies and inferred fault. Only 4 grab samples at Cliff Creek, and 1 grab sample at AGB returned values >0.1 g/t AuEq. A large interval of clay fault gouge was intersected in the trench confirming the inferred fault along the AGB Trench. However, no mineralisation was observed.

The 2019 channel sampling at Marmot was successful in identifying anomalous mineralisation, with 10 of 42 channel samples returning >0.2 g/t AuEq. The Marmot channel samples helped to define the extent of mineralisation along altered structural features. Marmot Lake and Marmot East (a new discovery to the East of the historical Marmot Lake Prospect), returned the highest number of high-grade samples, with six samples returning >1 g/t Au and >50 g/t Ag. Rock samples collected from different prospects show unique geochemical signatures, such as elevated Pb, Zn and Cu at Cliff Creek compared to samples at AGB and Marmot. This could suggest distinct mineralised deposition events at the different Zones, and (or) metal zonation indicating different levels or erosional depths within the mineralised system.

In 2020, rock samples from AGB, Marmot Lake, Marmot Lake East, Gifford's Edge and Lala returned values >5 g/t AuEq (AuEq calculated using 80:1 Ag:Au ratio). Highlights include a sample from Marmot Lake that returned 58.5 g/t AuEq and a sample from Gifford's Edge that returned 32.6 g/t AuEq. A total of 24 samples graded >1.0 g/t AuEq and 10 graded >4.0 g/t AuEq.

In 2020, Marmot Lake, AGB, LaLa and Gifford's Edge prospects all returned rock samples with anomalous Au values; specifically, 11 samples from AGB, 13 samples from Gifford's Edge, 75 samples in Marmot Lake zones, and 20 samples in LaLa returned >0.1 g/t AuEq. The anomalous samples exhibited alteration and mineralisation styles congruent with those observed in the main Zones. Marmot Lake and Marmot Lake East returned the highest number of high-grade samples, with six samples containing >1 g/t Au and >50 g/t Ag.

The 2021 rock sampling program returned several positive results. A total of 11 samples from Silver Pond West (SPW), Marmot Lake East (MLE), Silver Creek (SC), Kodah (KD) and Artic & E-grid (AE) returned values >5 g/t AuEq (AuEq is calculated using 80:1 Ag:Au ratio) (Table 9-3). Highlights include a sample from SPW that returned 34 g/t AuEq and a sample from MLE that returned 32 g/t AuEq. Additionally, there were two samples collected at Silicon Valley North (SVN) one of which returned 0.531% Zn (Fig. 9.12), and the other 1.195% Pb (Figure 9-13). A total of 52 samples graded >1.0 g/t AuEq, of which 20 were >3 g/t AuEq.

The 2021 rock sampling program was successful in defining areas of interest and confirming known occurrences of mineralisation. The Black Lake, Silver Pond North, and Marmot Lake East prospects frequently returned samples with anomalous Au values; 39 samples from Black Lake, 45 samples from Silver Pond North, and 75 samples from Marmot Lake East returned >0.1 g/t AuEq. The anomalous samples exhibited alteration and mineralisation styles congruent with that seen in the main resource areas.

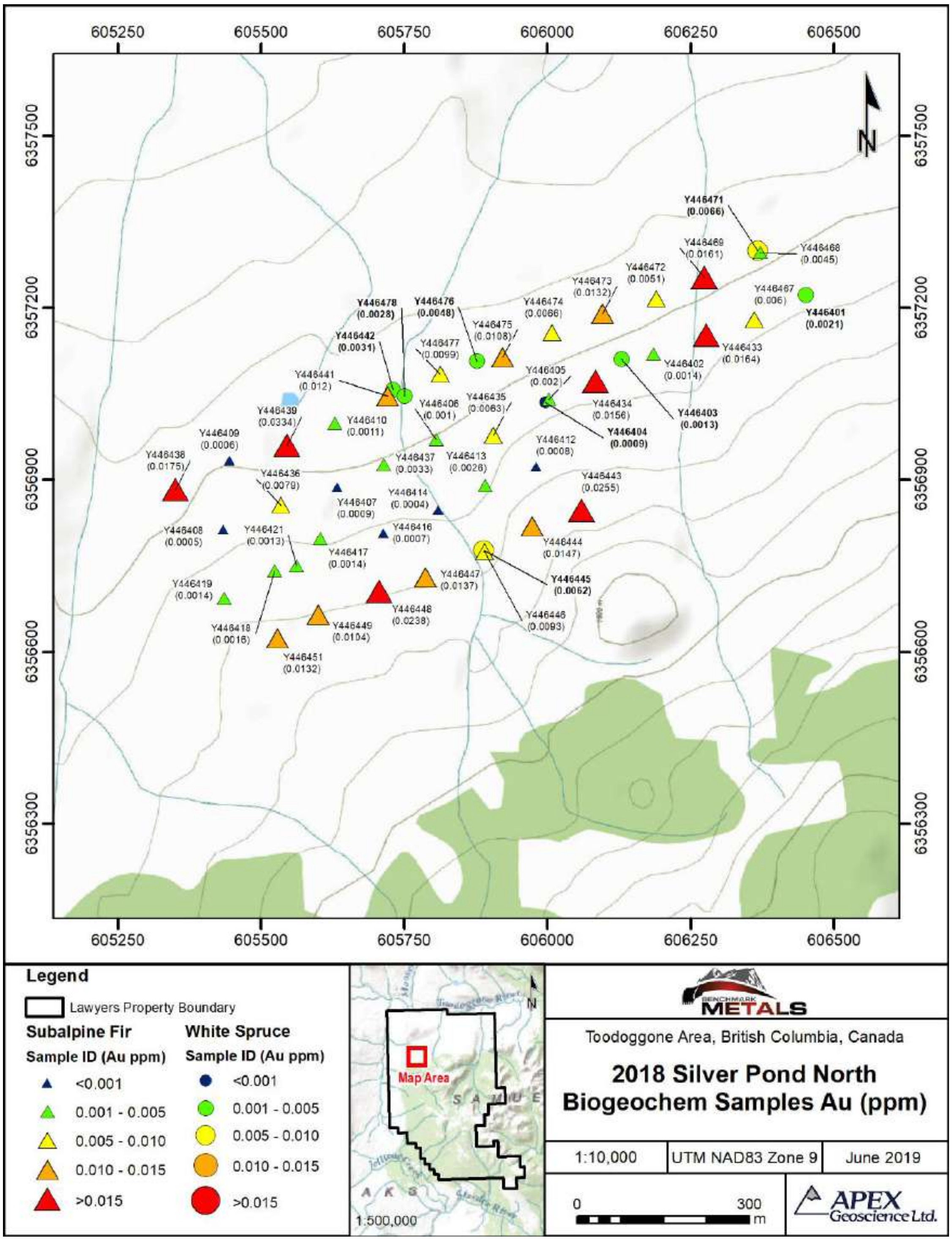
Marmot Lake East returned the highest number of high-grade samples in 2021, with 11 samples containing >1 g/t Au and 13 samples containing >50 g/t Ag. Mineralisation at MLE is associated with quartz veining and potassic alteration and some sulphides, hosted in andesitic volcanics. Many of the rock samples from the Black Lake Alteration Corridor were anomalous (>1 g/t AuEq), however, grades were not as high as expected. Mineralisation at BLAC was associated with highly silicified mafic volcanic containing pyrite, and vuggy quartz veining.

9.3 Biogeochemical Sampling

9.3.1 Sampling Overview

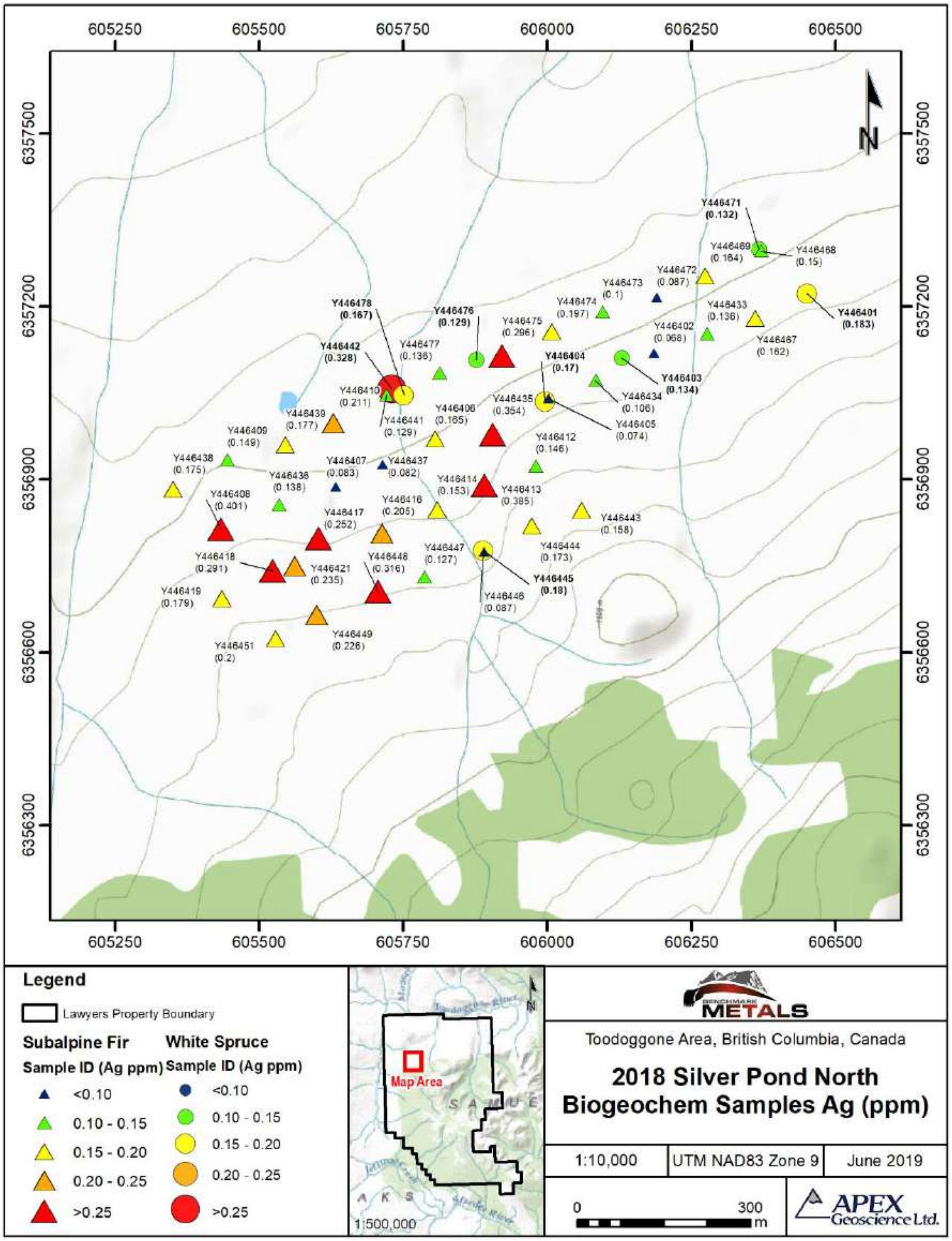
During the 2018 exploration program, a pilot biogeochemistry sampling study was conducted to test the value of biogeochemical sampling for the Lawyers Property. Biogeochemical sampling has the potential to identify mineralisation missed by soil or rock sampling. A total of 46 tree samples were collected over known mineralisation occurrences. The location and results of the 2018 biogeochemical sampling and results are illustrated in Figure 9-12 to Figure 9-13.

Figure 9-12: 2018 Biogeochemistry Gold Results and Sample Locations



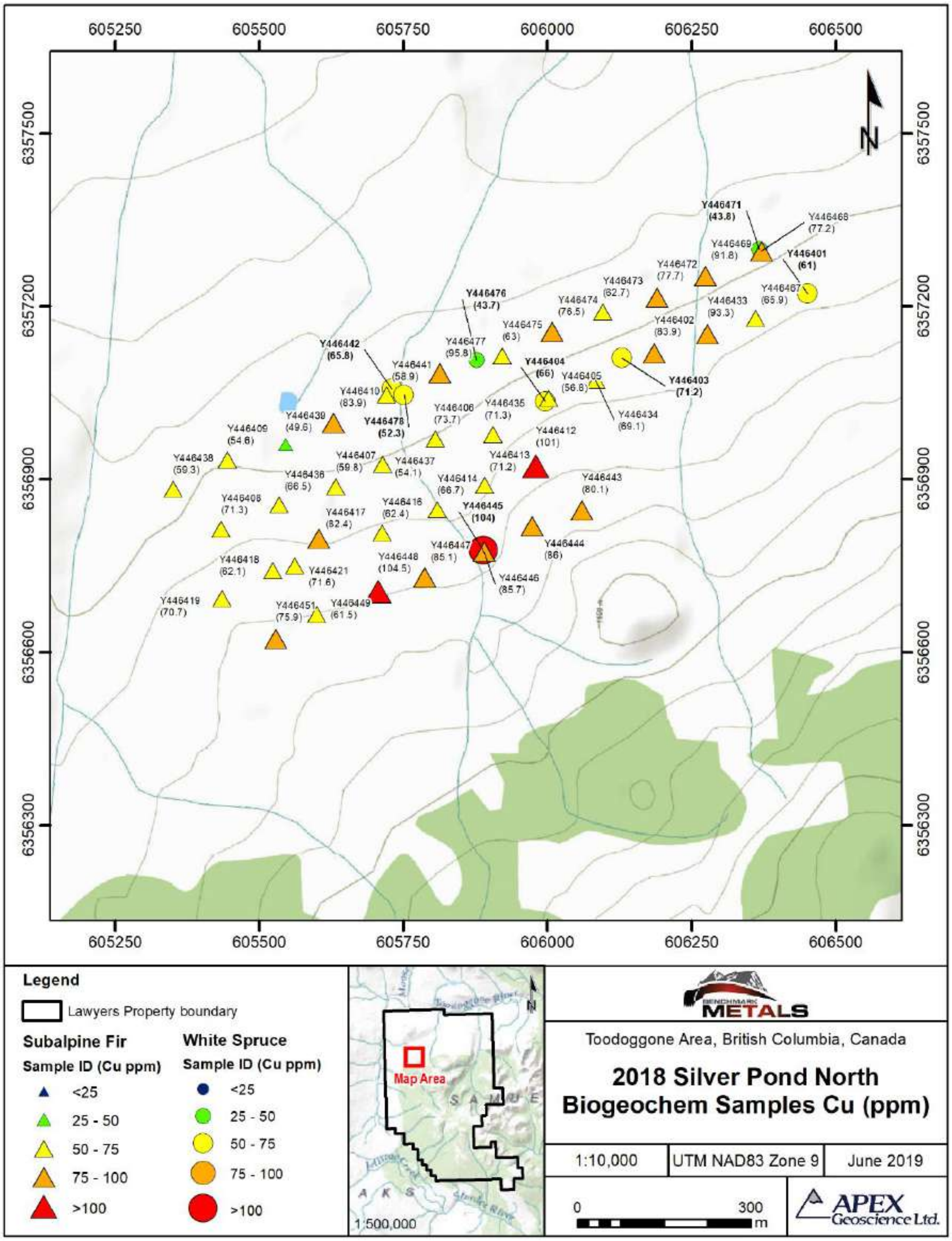
Source: Laycock et al., (2019)

Figure 9-13: 2018 Biogeochemistry Silver Results and Sample Locations



Source: Laycock et al., (2019)

Figure 9-14: 2018 Biogeochemistry Copper Results and Sample Locations



Source: Laycock et al., (2019)

9.3.2 Sampling Methods and Quality

Samples of crown twigs with their needles were collected from 1 to 2 trees of the same species in a 5 m^2 area for a single sample site. An effort was made to sample from trees with similar heights and diameters for a representative dataset. Samples were taken from branches growing from the trunk at chest height for consistency. Clean gloves were worn or bare hands to prevent contamination. Ten twigs broken at exactly 25 cm length from the crown were gathered from 1 to 2 trees at each site. They were placed in a HUBCO Sentry cloth bag with a unique sample number tag inside and the same unique sample number written on the exterior of the bag. A brief description of the area, tree species, growth rings etc. were noted in a smartphone using the fulcrum application.

All samples were dried in a heated tent, then individual samples were placed in a larger rice bag, zip tied closed and secured with a security tag. The samples were trucked to ALS Global Laboratories in Kamloops, British Columba for preparation, before being transported to ALS Global Laboratories in Vancouver, B.C. for geochemical analysis.

9.3.3 Sample Coverage

From the historical data compilation, the Silver Pond North area was selected for the pilot biogeochemical project. The area contains historical Au mineralisation confirmed through trench, rock, and soil samples and it is covered by trees. Tree species over the area include Subalpine Fir (abundant) and White Spruce (rare). Tree species were kept separate to identify if a specific species performs better. A sampling grid was chosen with 100 m line and station spacing with the same orientation as the historical soil grids in the area.

9.3.4 Results and Interpretation

The Silver Pond North area was dominated by Subalpine Fir. Only eight White Spruce samples were collected and 38 Subalpine Fir. Due to the unequal sampling of the different tree types, no determination could be made if one species performed better in identifying an anomaly over the mineralised zone.

From the limited dataset, the biogeochemical samples show anomalous silver values (Figure 9-13) that correlate with anomalous silver samples in the historical data and 2018 soil and rock samples. However, comparing the three datasets is difficult because of the small biogeochemical dataset, and because the 2018 rock and soil samples did not completely cover the extent of the biogeochemical program. From the limited overlap in datasets, the gold and copper values of the biogeochemical sampling (Figure 9-12 and Figure 9-14).

) did not correlate with the 2018 soil or rock samples.

In summary, the biogeochemical pilot study proved that it is a useful technique across the Property if there is adequate tree cover to produce consistent sampling material. Future biogeochemical sampling will be reserved to the periphery of the Property where tree cover exists and there is poor or no soil development.

9.4 Petrographic Study

In 2018, 28 rock samples displaying veining and mineralisation were sent to Vancouver Petrographics Ltd. for preparation of petrographic thin-sections. Of these samples, 21 were collected from diamond drill core and seven from rock samples. Additionally, three samples (At-9a/fi, At-10a/fi and At-15a/fi) had a duplicate thin section made for use in fluid inclusion analysis. The samples were collected from a variety of prospects, in order to evaluate the mineralisation style across the Property. A petrographic study by APEX geologists focusing on vein paragenesis, alteration style and time of mineralisation is currently in progress and results are pending. A set of six thin sections (including four from the 2018 set and two from 2019) were sent to Vancouver Petrographics Ltd. in 2019, and a detailed petrographic report was completed by Craig H.B Leitch. Additional samples from 2020 drilling have been selected for petrography, but at this time no work has been done on them.

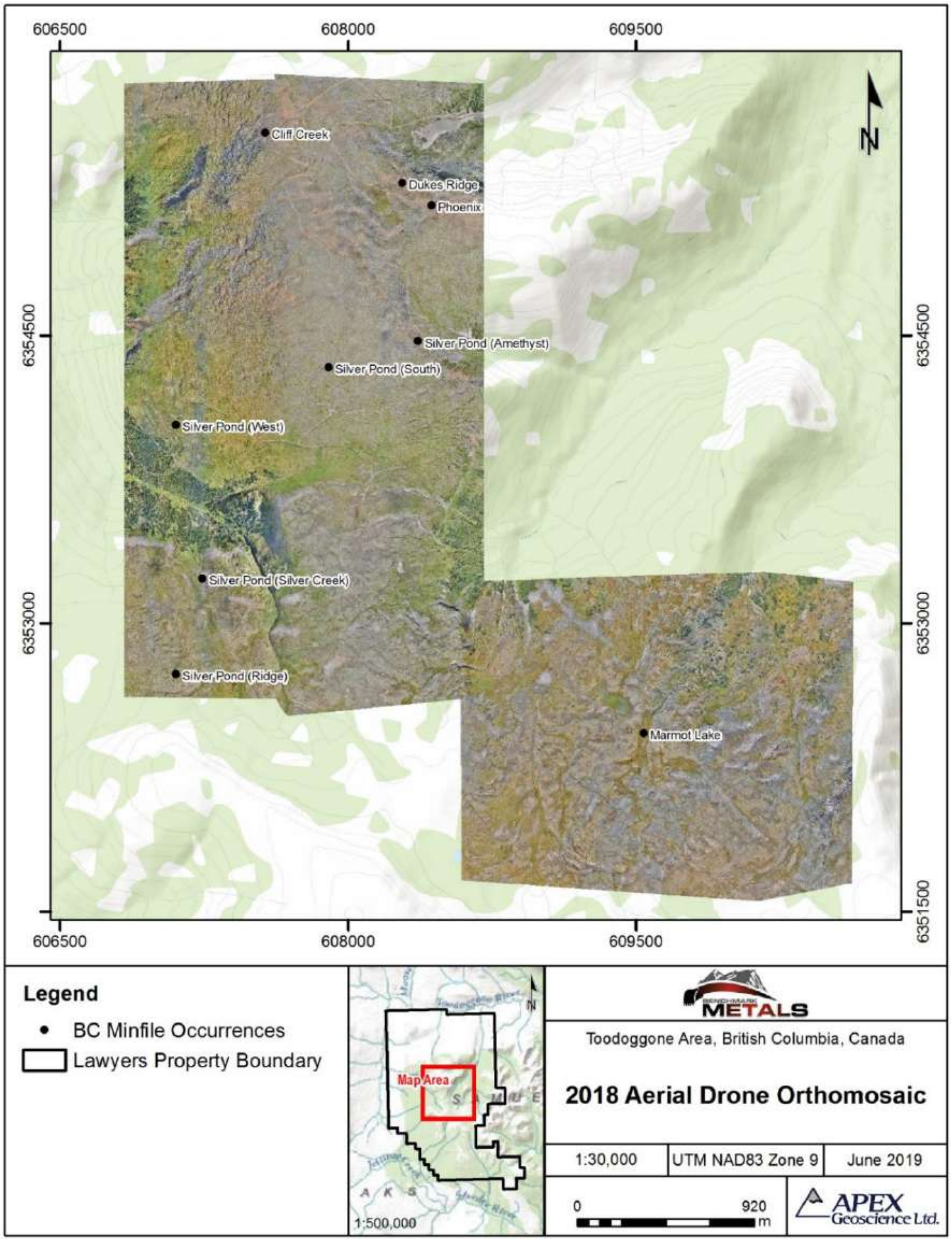
9.5 Aerial Drone Survey (UAV)

Aerial drone surveys were completed in 2018 and 2019 using hand launched senseFly eBee Plus drones. Four surveys were conducted to cover Dukes Ridge and Marmot Lake area in 2018, and AGB and the claims in the southern part of the Lawyers Property in 2019, including the new prospects; Black Lake Alteration Corridor, Lawyers South East and Silicon Valley North. In 2018, approximately 1,112 ha of combined area was covered by the surveys. A total of 10,330 images were captured during the 2018 surveys. In 2019, approximately 3,425 ha of combined area was covered by the surveys. A total of 28,454 images were captured during the 2019 surveys. Imagery resolution of <5 cm per pixel was maintained throughout. The drone imagery was collected at high resolution to guide interpretation of surficial geology and reconnaissance for future exploration programs.

The 2019 AGB survey covered areas of active drilling. For this reason, ground control points (GCP) were utilized to increase the absolute accuracy of the final products, in order to develop a more accuracy dataset for drilling. This involved setting out targets on the ground ahead of the aerial survey. When the survey was complete, those same targets were surveyed using RTK Trimble R10 GNSS System for highly accurate coordinates. During post-processing, the targets visible in the aerial imagery were assigned the specific coordinates captured by the RTK survey equipment. This assignment forces the software to honour those coordinates and extrapolate that data to all other data points, such as the individual images, for a higher degree of absolute accuracy of the coordinates for the final products (DSM and Orthomosaic). The 2019 AGB survey was merged with the partially overlapping 2018 Cliff Creek imagery to create a single dataset. The increased level of accuracy from the 2019 survey was applied to the 2018 to 2019 merged product based on the GCP coordinates.

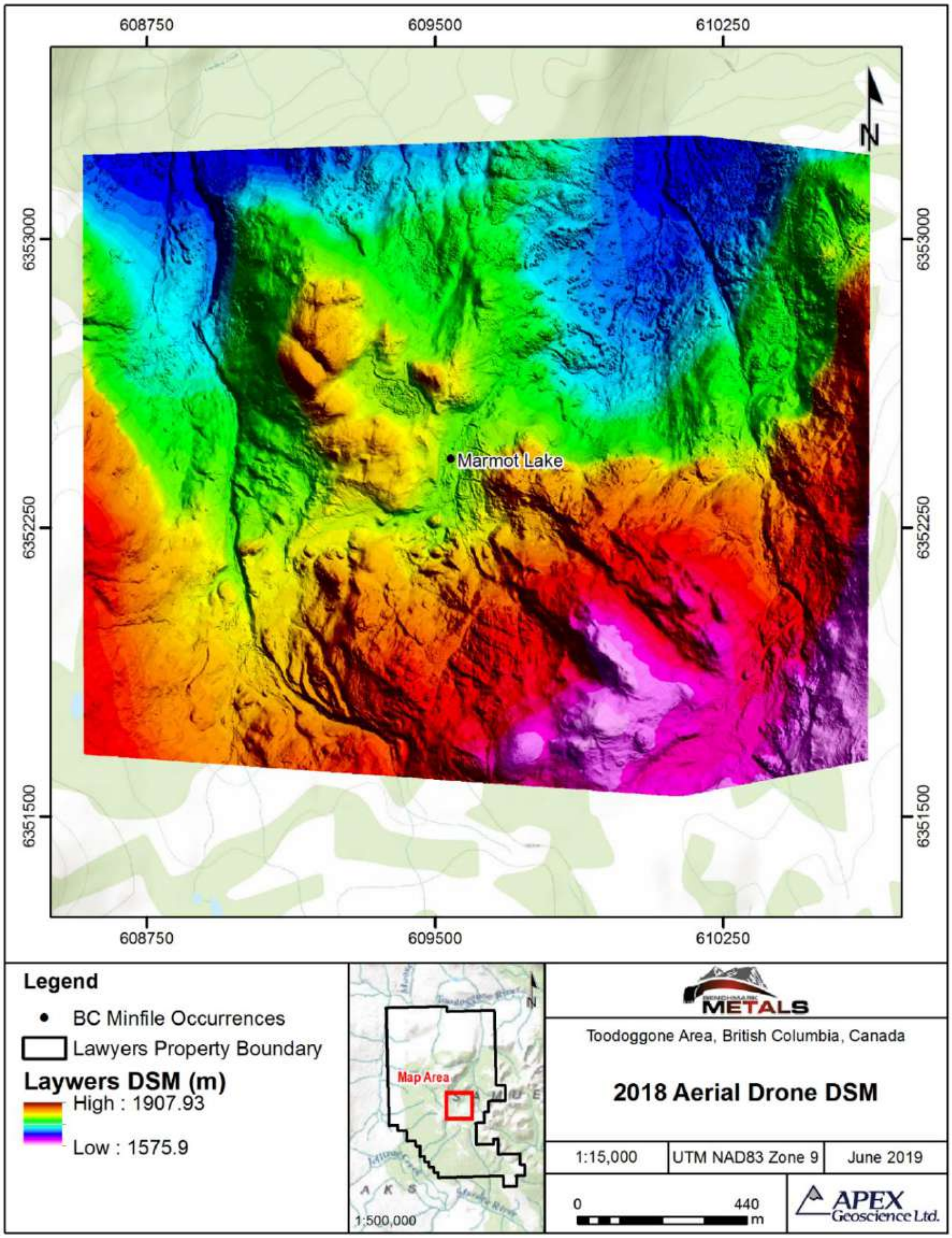
The drone imagery was post processed using Correlator 3-D software. The final products of the aerial drone survey were completed after the 2019 exploration program finished (Figure 9-15 to Figure 9-17). The aerial drone products included the digital surface model (DSM) and an orthomosaic color image.

Figure 9-15: 2018 Aerial Drone Survey Orthomosaic



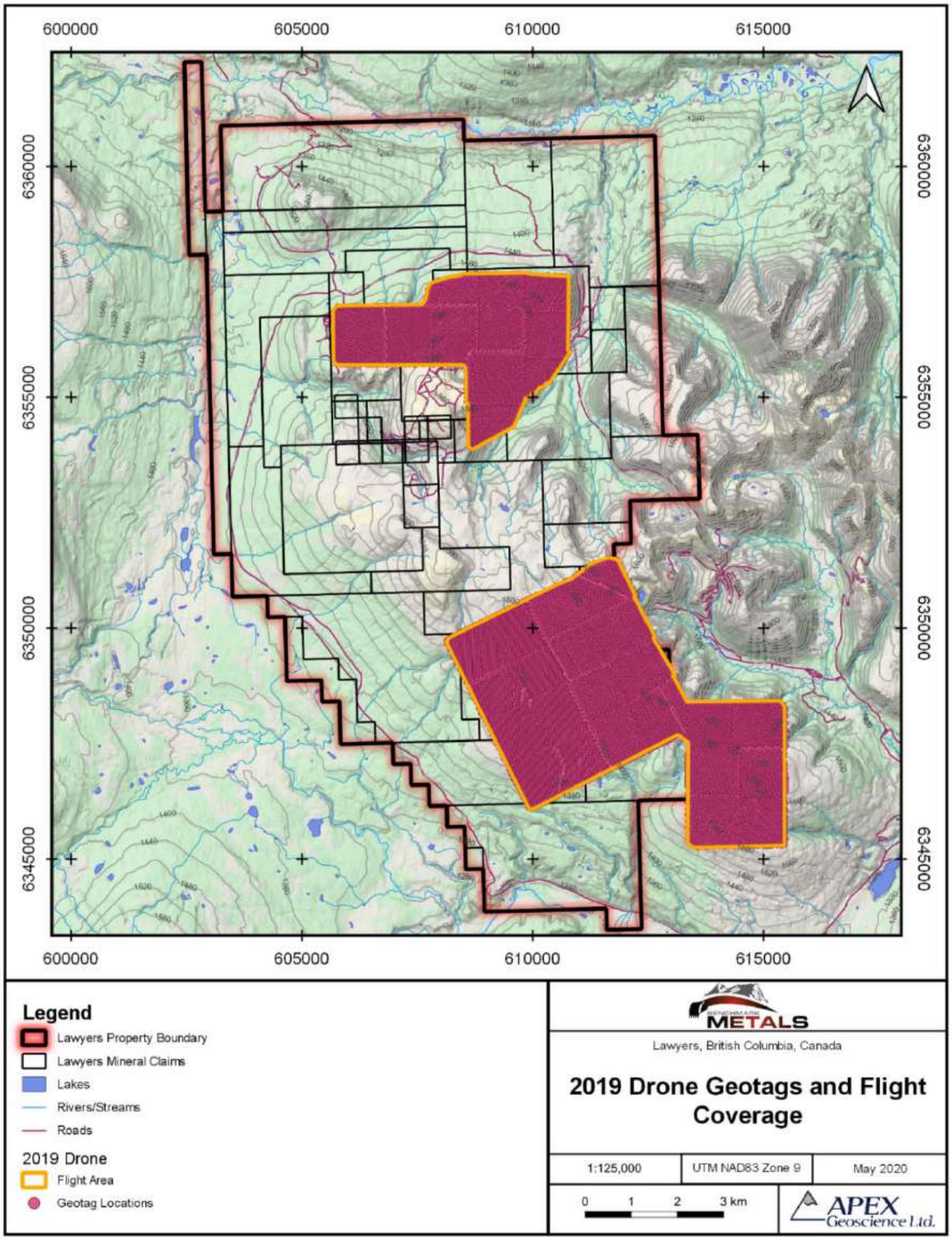
Source: Laycock et al., (2019)

Figure 9-16: 2018 Aerial Drone Survey DSM Over Marmot Lake Area



Source: Laycock et al., (2019)

Figure 9-17: 2019 Drone Flight Coverage



Source: Laycock et al., (2020)

9.6 Ground Geophysics

9.6.1 Survey Parameters

Benchmark completed ground magnetic (MAG) and Very Low Frequency (VLF) surveying during the 2019-2022field seasons. Surveys were completed over portions of the AGB, Cliff Creek, Phoenix, Dukes Ridge, Marmot, Silver Pond Prospects, AGB North, Arctic & E-grid, Black Lake, Cliff Creek North, Gifford's Edge, Lala, Pipe Dream, Silver Creek, and Silver Pond North, Kodah and Round Mountain at the Lawyers Property. The MAG and VLF surveys were completed over areas prospective for gold and silver mineralisation, based on historical and recent work. The AGB, Cliff Creek, Phoenix, and Dukes Ridge zones surveying was completed from June 27th to July 24th, 2019 (Table 9-3). The MAG and VLF surveying for the Silver Pond Zone and Marmot Prospects was completed from June 28th to August 15th, 2020 (Table 9-4). The 2021 surveying program had a total line-km length of 343.05 km and was completed over the course of 87 days, between the dates of June 22nd, and September 17th, 2021 (Table 9-5). The 2022 survey is currently being completed and processed. Results for Cliff Creek to AGB Zones are shown in Figure 9-18 and Figure 9-19, and for Silver Pond and Marmot are shown in Figure 9-22 and Figure 9-23.

Table 9-3: 2019 Ground Geophysical Grid Statistics for Cliff Creek, AGB, Phoenix and Dukes Ridge Zones

Method	Line Spacing (m)	Line Lengths (m)	Measurements	Nominal Spacing (m)	Total Line-km
MAG	25 to 50	1,600 to 3,500	212,975	0.72	143.3
VLF	25 to 50	1,600 to 3,500	16,275	25	143.3

Source: Laycock et al., (2021)

Table 9-4: 2020 Ground Geophysical Grid Summary Statistics

Zone	MAG Lines	MAG Line-km	VLF Lines	VLF Line-km	VLF Stations	DCIP Receiver Line-km	DCIP Transmitter Line-km	DCIP Lines
Marmot	35	63.39	35	63.39	3,333	0	0	0
Silver Pond	87	171.16	38	122.68	6,708	42.2	23.8	21

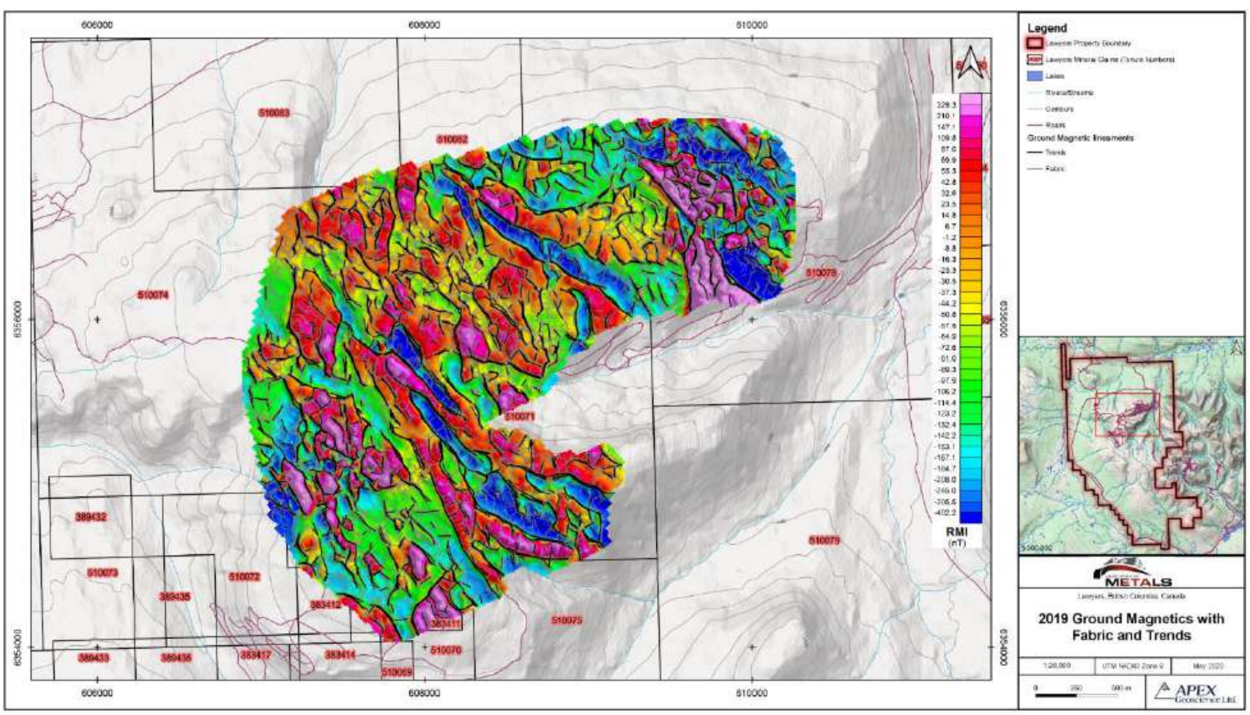
Source: Laycock et al., (2021)

Table 9-5: 2021 Ground Geophysical Grid Summary Statistics

Prospect	MAG & VLF Lines	MAG & VLF Line-km	VLF Stations	DCIP Lines	DCIP Line-km
AGB	0	0	0	2	2.7
AGB North	39	34.58	2473	0	0
Arctic & E-Grid	40	38.01	2719	0	0
Black Lake	40	64.84	4585	0	0
Cliff Creek North	24	6.77	484	0	0
Cliff Creek South	0	0	0	2	2.7
Dukes Ridge	0	0	0	1	1.3
Gifford's Edge & Lala	22	29.84	2134	0	0
Marmot Lake	0	0	0	21	34.6
Pipe Dream	42	31.67	2265	0	0
Silver Creek	44	74.5	5328	0	0
Silver Pond North	25	62.84	4495	14	30.6
Silver Pond West (VTEM target)	0	0	0	2	4.2

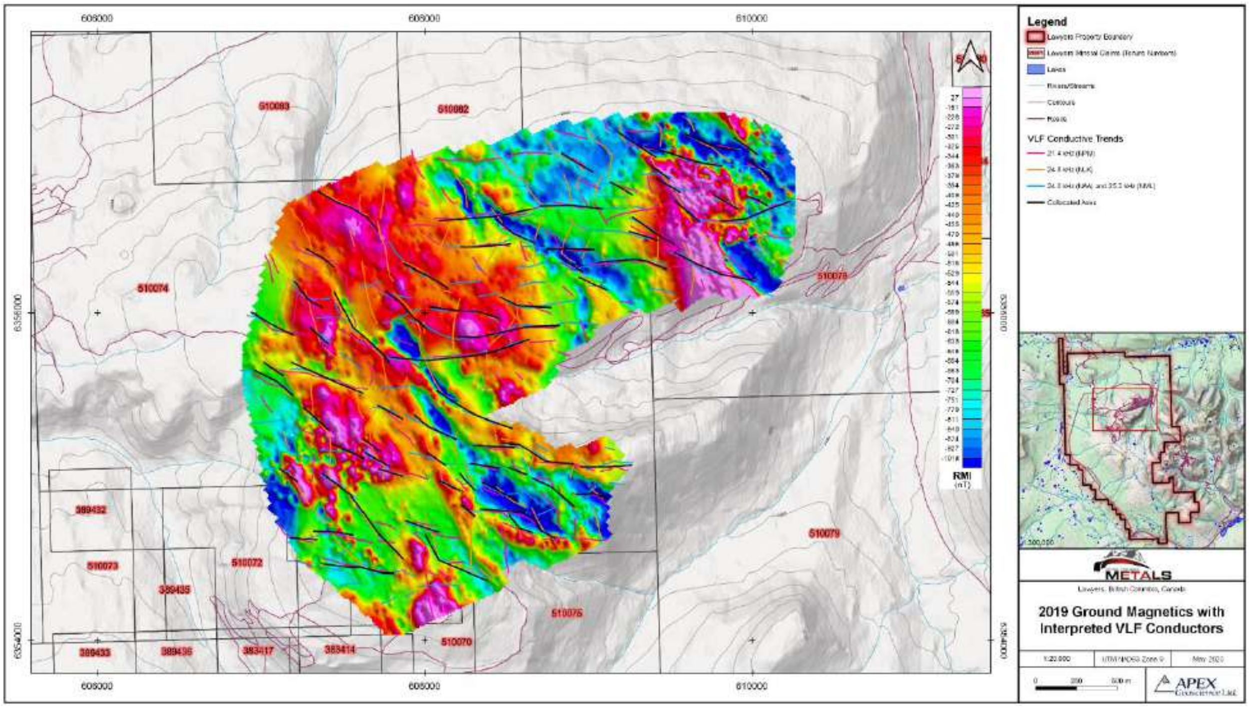
Source: APEX (2022)

Figure 9-18: 2019 Ground Magnetic Lineaments Overlaying the RMI Grid – Lawyers Resource Area



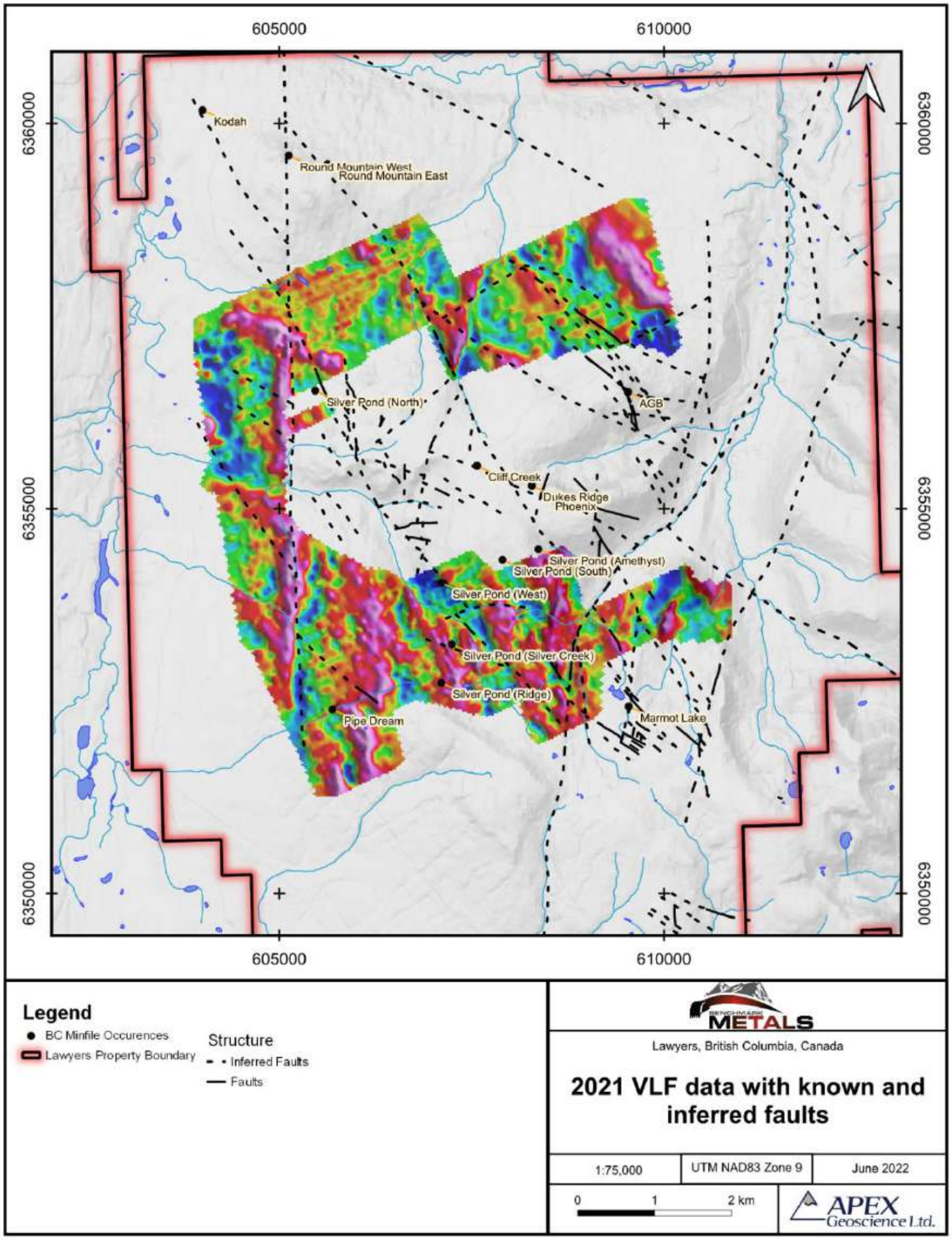
Source: Laycock et al., (2020)

Figure 9-19: 2019 VLF Conductive Trends Overlaying the RMI Magnetic Grid – Lawyers Resource Area



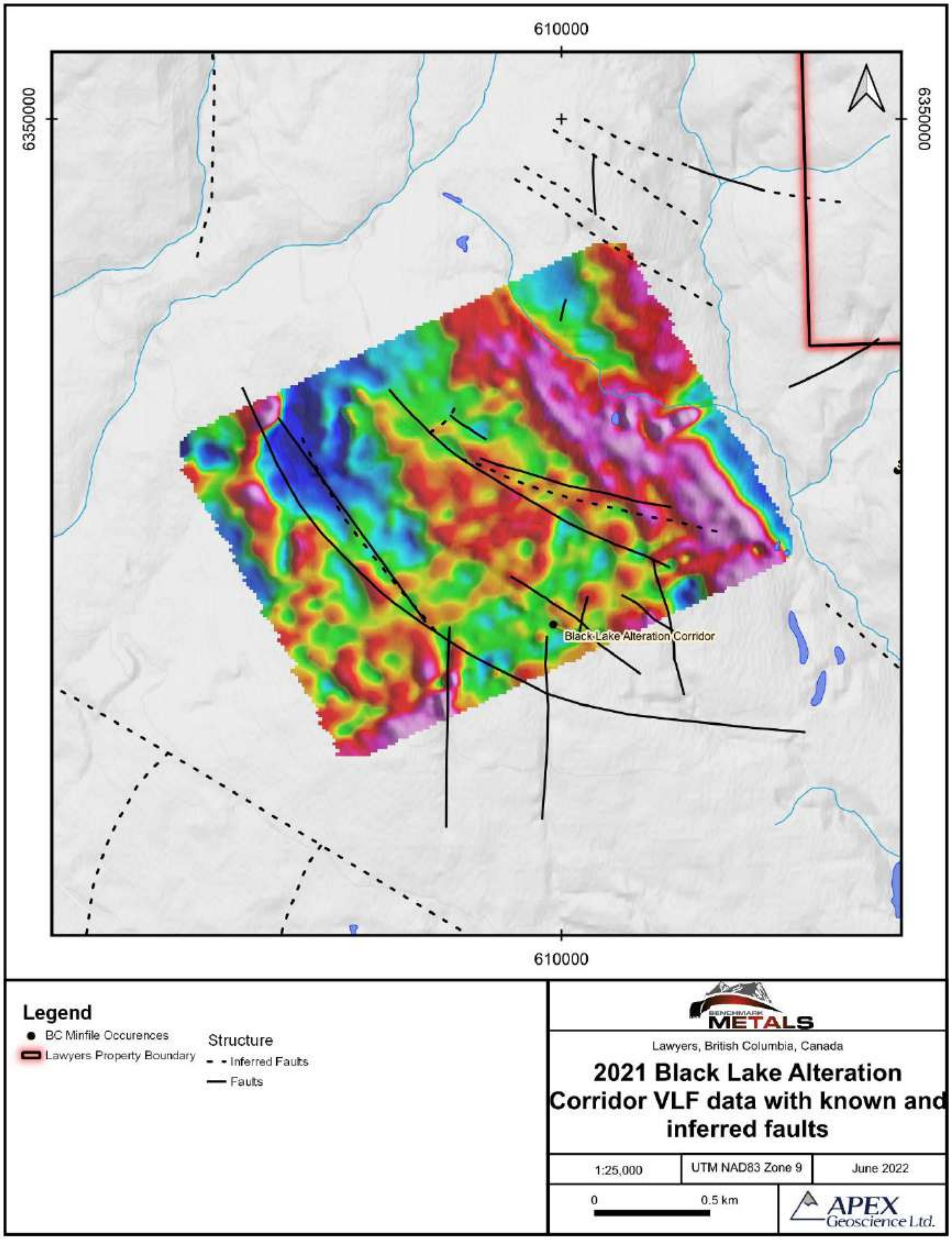
Source: Laycock et al., (2020)

Figure 9-20: 2021 VLF Data with Known and Inferred Faults



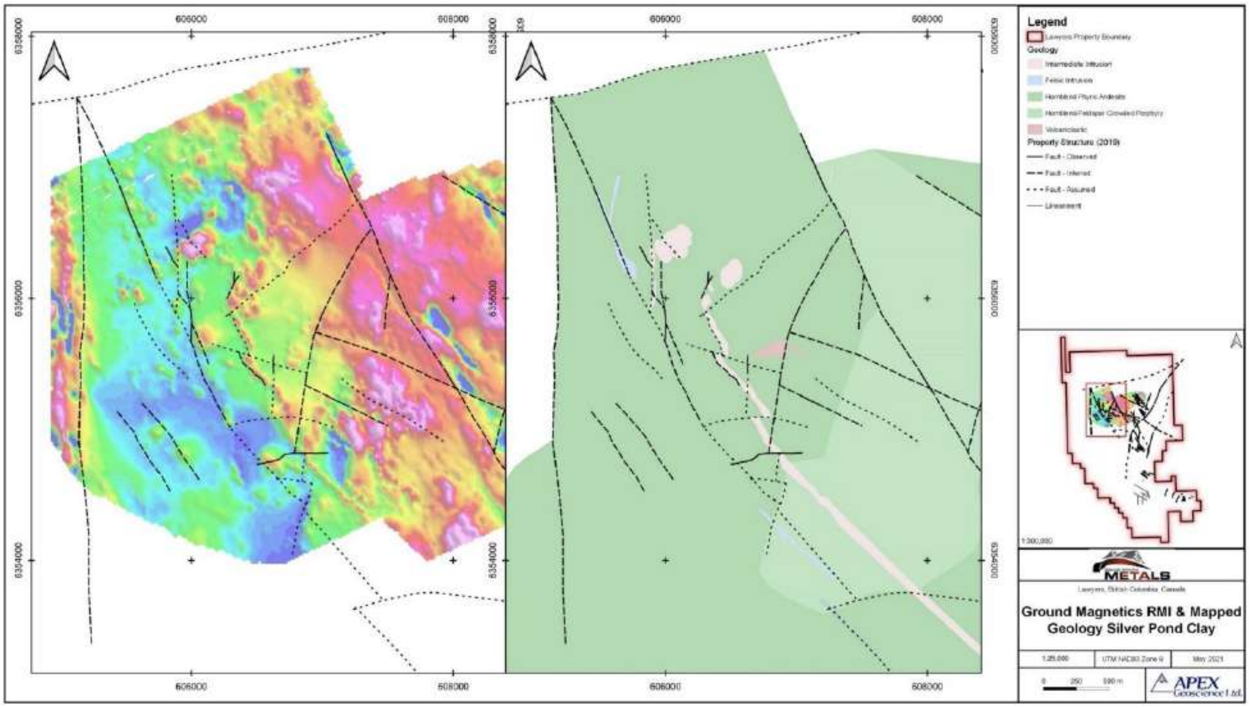
Source: APEX (2022)

Figure 9-21: 2021 Black Lake Alteration Corridor VLF Data with Known and Inferred Faults



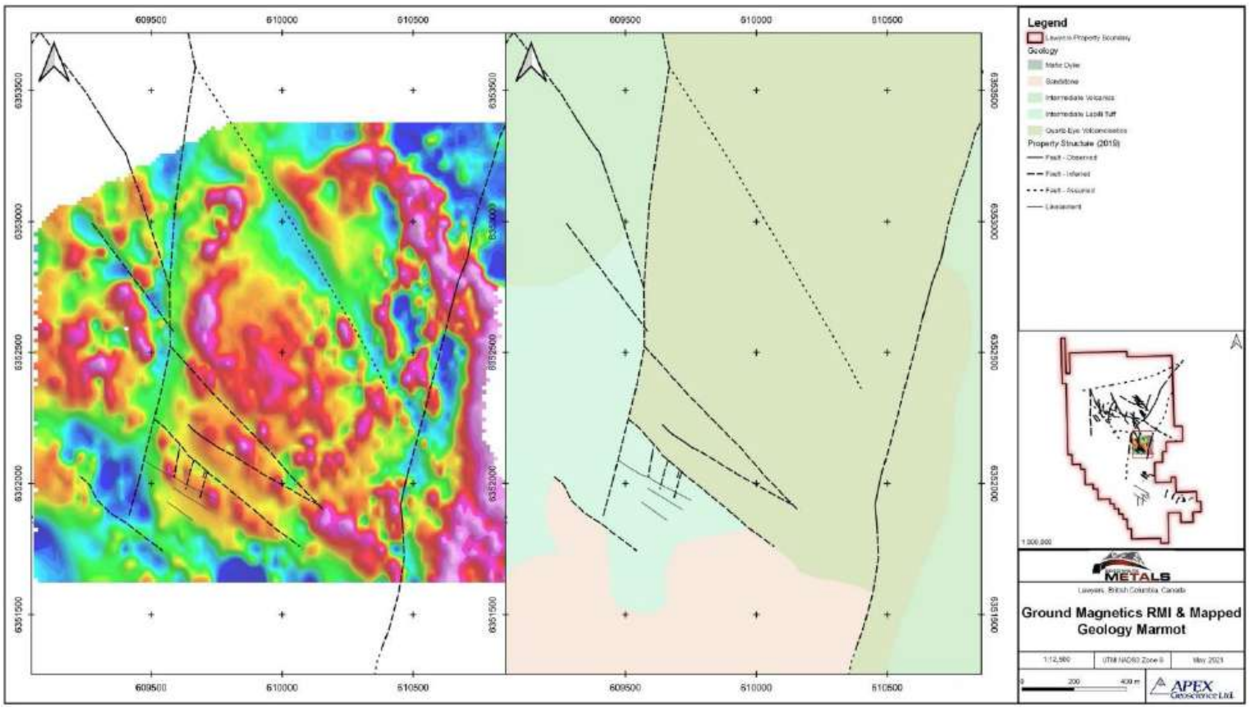
Source: APEX (2022)

Figure 9-22: 2020 Ground Magnetic Survey Coverage Over Silver Pond



Source: Laycock et al., (2021)

Figure 9-23: 2020 Ground Magnetic Survey Over Marmot Lake



Source: Laycock et al., (2021)

Benchmark commissioned Dias Geophysical Limited to conduct a 3-D DC-resistivity and induced polarization (DCIP) geophysical survey over the Silver Pond Prospect at the Lawyers Property. The survey used a rolling distributed partial 3-D DCIP array with a pole-dipole transmitter configuration and was designed to detect electrical resistivity and chargeability signatures associated with prospective target areas. The DCIP survey was completed from July 6 to July 23, 2020. Apparent resistivity and chargeability data over the grid and 3-D inversion models were generated (Figure 9-24 to Figure 9-29).

9.6.2 Sampling Methods

APEX used a GEM GSM-19V Overhauser magnetometer/VLF with an integrated GNSS receiver to collect both the ground magnetic and VLF survey measurements. The MAG data is recorded as total magnetic intensity readings at a cycle time of 1 second, while the GEM unit was in walk mode and collecting continuous measurements along the traverse lines. The VLF data is recorded as the in-phase and out-of-phase components of the secondary electromagnetic field, recorded as percentage of the primary field, along with X and Y components of the horizontal field amplitude and total field strength of the primary field. The VLF measurements are recorded while the GEM unit is held stationary every 25 m along the traverse lines and measurements are taken from up to three VLF transmitter (Tx) frequencies.

The VLF surveying utilized primary field signals generated by four unique transmitters located throughout the United States. The VLF transmitters undergo regular shut-down for maintenance and repairs, and the GEM system records signal from up to three transmitters during each measurement, so VLF datasets may contain gaps in recordings due to the Tx shutdowns. The transmitters located in Cutler, Maine and LaMoure, North Dakota are in similar directions from the survey grid, and their signals will maximally couple with the same bodies, so data measured using 24.0 kHz and 25.2 kHz frequencies are compiled into a common dataset.

The Silver Pond 3-D DC-resistivity and induced polarization (DCIP) survey used a rolling distributed partial 3-D DCIP array with a pole-dipole transmitter configuration and was designed to detect electrical resistivity and chargeability signatures associated with prospective target areas.

9.6.3 Survey Coverage

The 2019 survey grid over the main Mineral Resource area prospects (Cliff Creek, Dukes Ridge, Phoenix and AGB) encompassed an area covering approximately 650 ha and consisted of 53 traverse lines oriented at 065°/245° and spaced 50 m apart. The survey line lengths were nominally 3,500 m in the northern area and 1,600 m in the southern area. Infill lines were added over the AGB Mineral Resource area at 25 m line-spacing and nominally 550 m. Six tie lines were additionally completed at various orientations to acquire responses across larger structures and to facilitate data levelling procedures. The MAG surveying totaled 143.3 line-km of survey data (Table 9-3 and Figure 9-18) and the VLF measurements were collected at 16,275 station locations along the survey grid lines (Table 9-3 and Figure 9-19).

The Silver Pond MAG and VLF survey grid encompassed an area covering approximately 714 ha and consisted of 87 traverse lines oriented at 065°/245° and spaced 50 m apart. The total line-km of the Silver Pond MAG survey grid is 171.16 km, and the VLF measurements were collected at 6,708 station locations along the survey grid lines. MAG infill lines were added over areas of interest at 25 m line spacing and nominally 600 m.

The Marmot MAG and VLF survey grid encompassed an area covering approximately 322 ha and consisted of 35 traverse lines oriented east-west and spaced 50 m apart. The total line-km of the Marmot MAG survey grid is 63.39 km, and the VLF measurements were collected at 3,333 station locations along the survey grid lines.

The AGB North magnetic and VLF survey grid covered an area of approximately 4.09 km^2 and consisted of 39 lines oriented SW-NE and spaced 50 m apart. The total line-km of the AGB North magnetics survey was 34.58 km and the VLF measurements were collected at 2,473 station locations along the survey grid lines.

The Arctic & E-grid magnetic and VLF survey grid covered an area of approximately 4.85 km^2 and consisted of 40 lines oriented SW-NE and spaced 100 m apart. The total line-km of the Arctic & E-grid magnetic survey was 38.01 km, and the VLF measurements were collected at 2,719 station locations along the survey grid lines.

The Black Lake magnetic and VLF survey grid encompassed an area of roughly 3.5 km^2 and consisted of 30 lines oriented SW-NE and spaced 50 m apart. The total line-km of the Black Lake magnetic survey grid was 64.84 km, and the VLF measurements were collected at 4,585 station locations along the survey grid lines.

The Cliff Creek North magnetic and VLF survey grid covered an area of approximately 92.35 ha and consisted of 24 lines oriented SW-NE and spaced 50 m apart. The total line-km of the Cliff Creek North magnetic magnetics survey was 6.77 km, and the VLF measurements were collected at 484 station locations along the survey grid lines.

The Gifford's Edge and Lala magnetic and VLF survey grid covered an area of approximately 2.92 km^2 and consisted of 22 lines oriented SW-NE and spaced 50 m apart. The total line-km of the Gifford's Edge and Lala magnetics survey was 29.84 km, and the VLF measurements were collected at 2,134 station locations along the survey grid lines.

The Pipe Dream magnetic and VLF survey grid covered an area of approximately 3.75 km^2 and consisted of 42 lines oriented SW-NE and spaced 50 m apart. The total line-km of the Pipe Dream magnetic survey was 31.67 km, and the VLF measurements were collected at 2,265 station locations along the survey grid lines.

The Silver Creek magnetic and VLF survey grid covered an area of approximately 4.05 km^2 and consisted of 44 lines oriented SW-NE and spaced 50 m apart. The total line-km of the Silver Creek magnetic survey was 74.50 km, and the VLF measurements were collected at 5,328 station locations along the survey grid lines.

The Silver Pond North magnetic and VLF survey grid encompassed an area of roughly 4.18 km^2 and consisted of 25 lines oriented SW-NE, of which, 21 lines were spaced 50 m apart while 4 lines were spaced 100 m apart. The 100 m spaced lines were meant to infill and add resolution to previous 100 m spaced lines done in 2020. The total line-km of the Silver Pond North magnetic survey was 62.84 km, and the VLF measurements were collected at 4,495 station locations along the survey grid lines.

The Silver Pond DCIP survey grid encompassed an area covering approximately 2.5 km^2 and consisted of 21 lines oriented at 065°/245° and spaced 100 m apart. The total line-km of the receivers and transmitters is 42.2 km and 23.8 km, respectively. Receiver line-spacing and current line-spacing was 100 m for lines 800N to 2400N and 150 m for lines 2400N to 3000N, with a receiver sampling interval of 150 samples per second. A 3-D Rolling Distributed

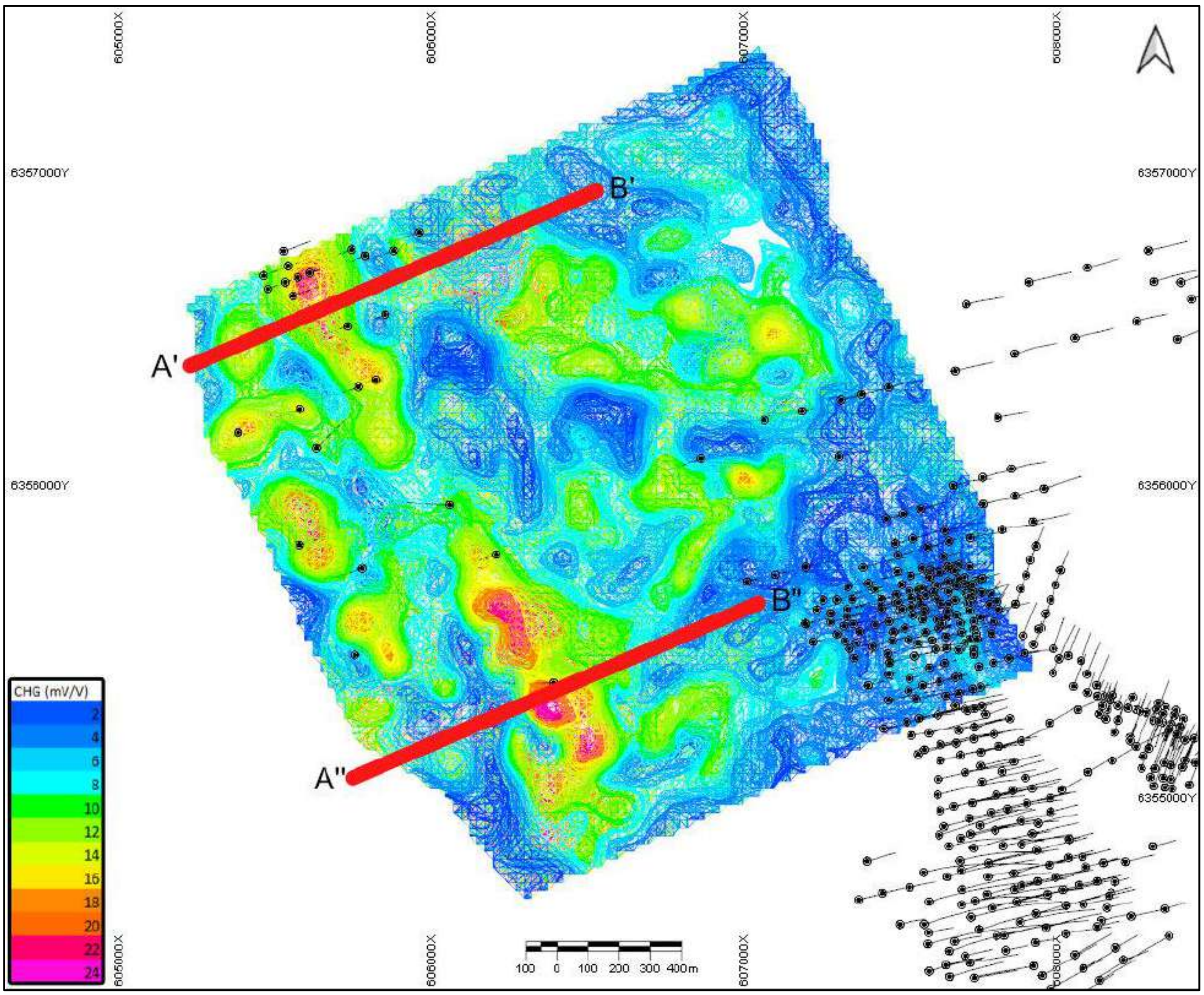
Pole-Dipole array with CVR was used. The current injection spacing for the transmitter was 100 m, and transmitter injection locations were at the midpoint between receiver stations along every second line.

9.6.4 Results and Interpretation

At Silver Pond, several trends and anomalies were identified in the DCIP survey and characterized in relation to mapped geology (Figure 9-24 to Figure 9-29). Anomalies identified were used to plan exploration drilling, completed in late August and early September. Areas where chargeability highs corresponded to resistivity lows, and sharp transitions between the highs and lows, were targeted, especially when they corresponded to mapped structures. Chargeability highs can represent massive sulphides, which have been observed locally in the Silver Pond, both at surface and in drill core. Resistivity highs can be useful for identifying pervasive massive secondary silica alteration commonly associated with Au-Ag±Cu mineralisation.

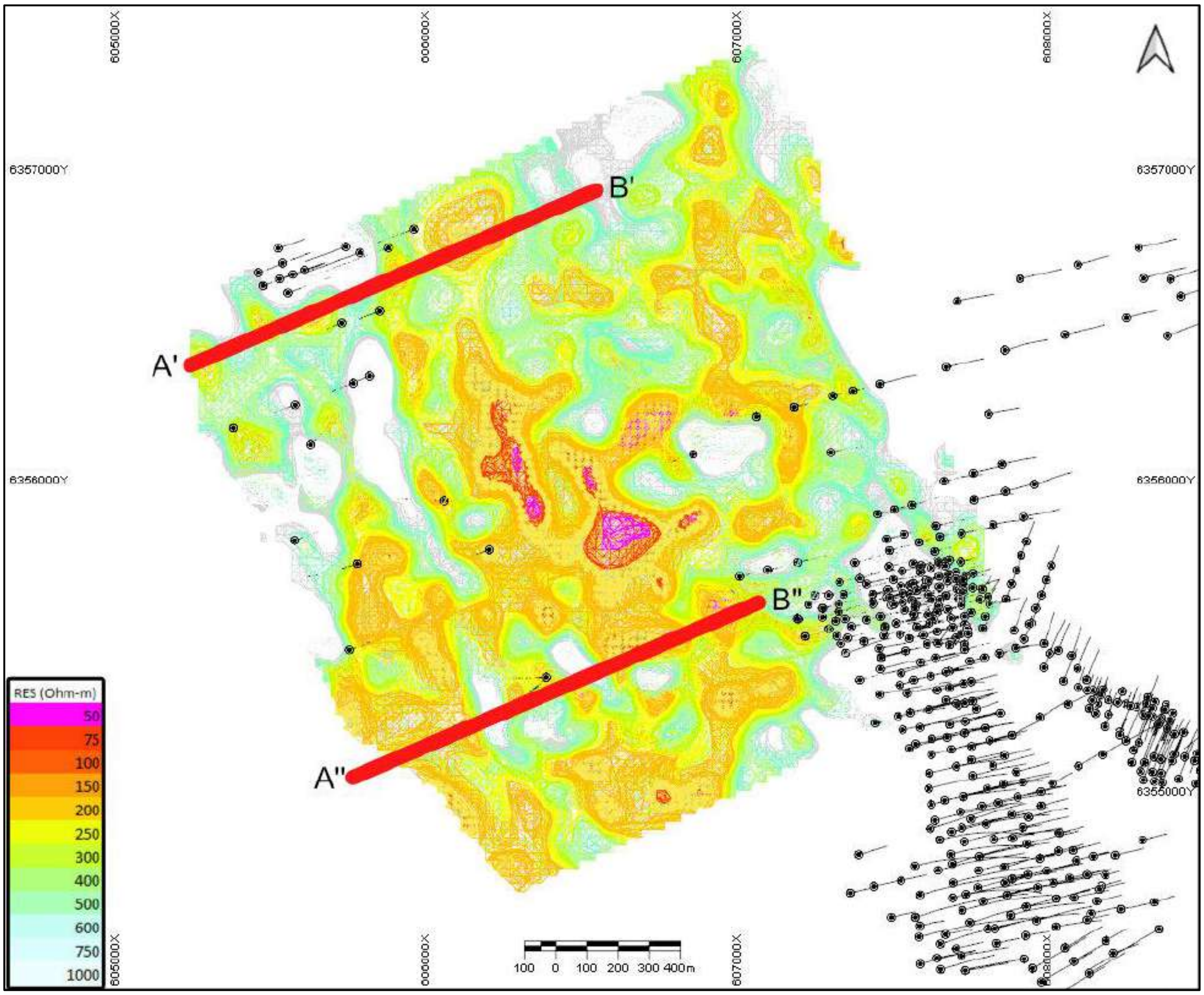
The magnetic and VLF surveys were useful to help define fault boundaries and geological boundaries, when used in conjunction with mapped geological features. Cross-overs between the in phase and the out phase in the VLF data, can represent resistive bodies and a sharp change from high to low VLF frequency commonly correspond to important fault structures. In some areas of the properties with no rock exposure, major NW fault structures can be inferred from both the magnetic and VLF data, may represent important targets for mineralisation, especially when coincident with gold and silver soil anomalies.

Figure 9-24: Plan View of Chargeability Over Silver Pond - Showing Drill Traces and Selected Cross-Section Orientation



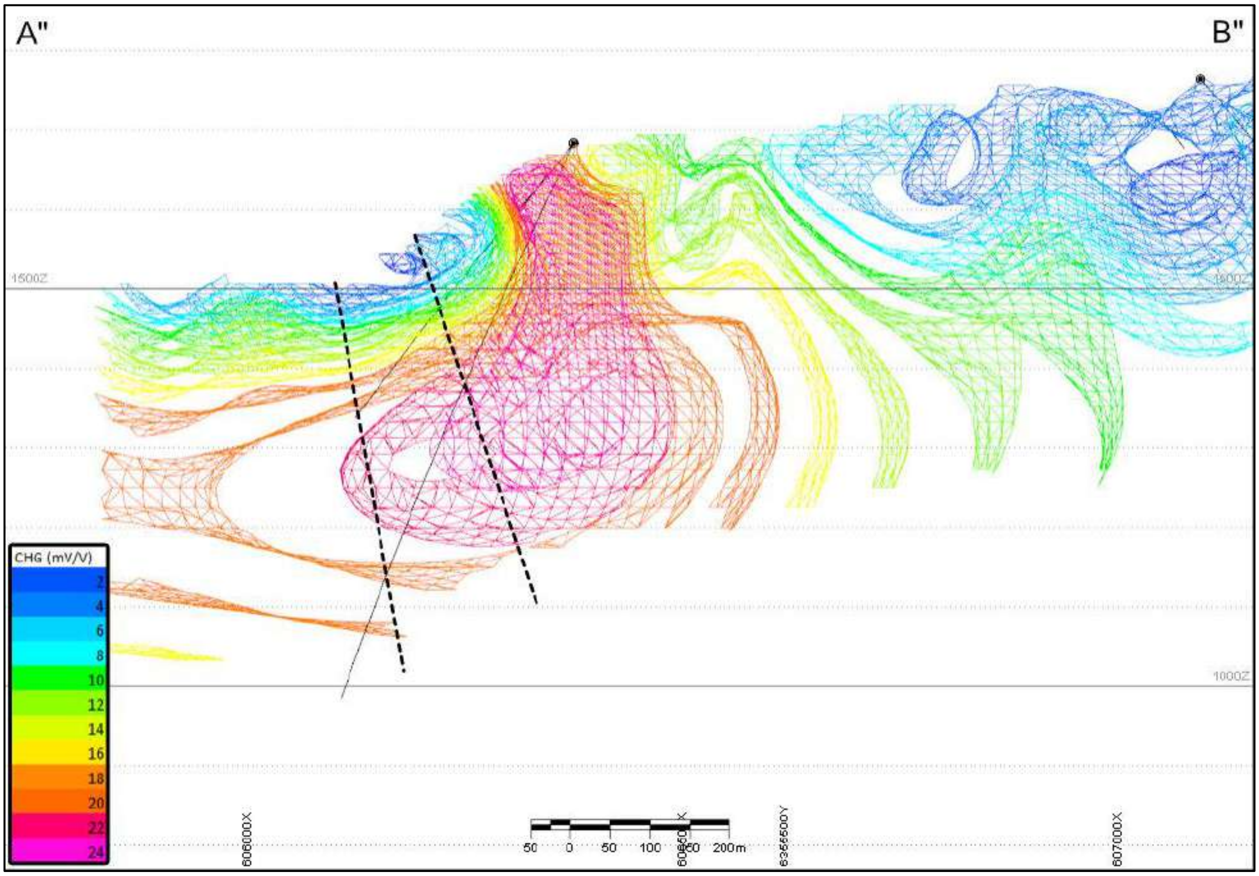
Source: Laycock et al., (2021)

Figure 9-25: Plan View of Resistivity Over Silver Pond - Showing Drill Traces and Selected Cross-Section



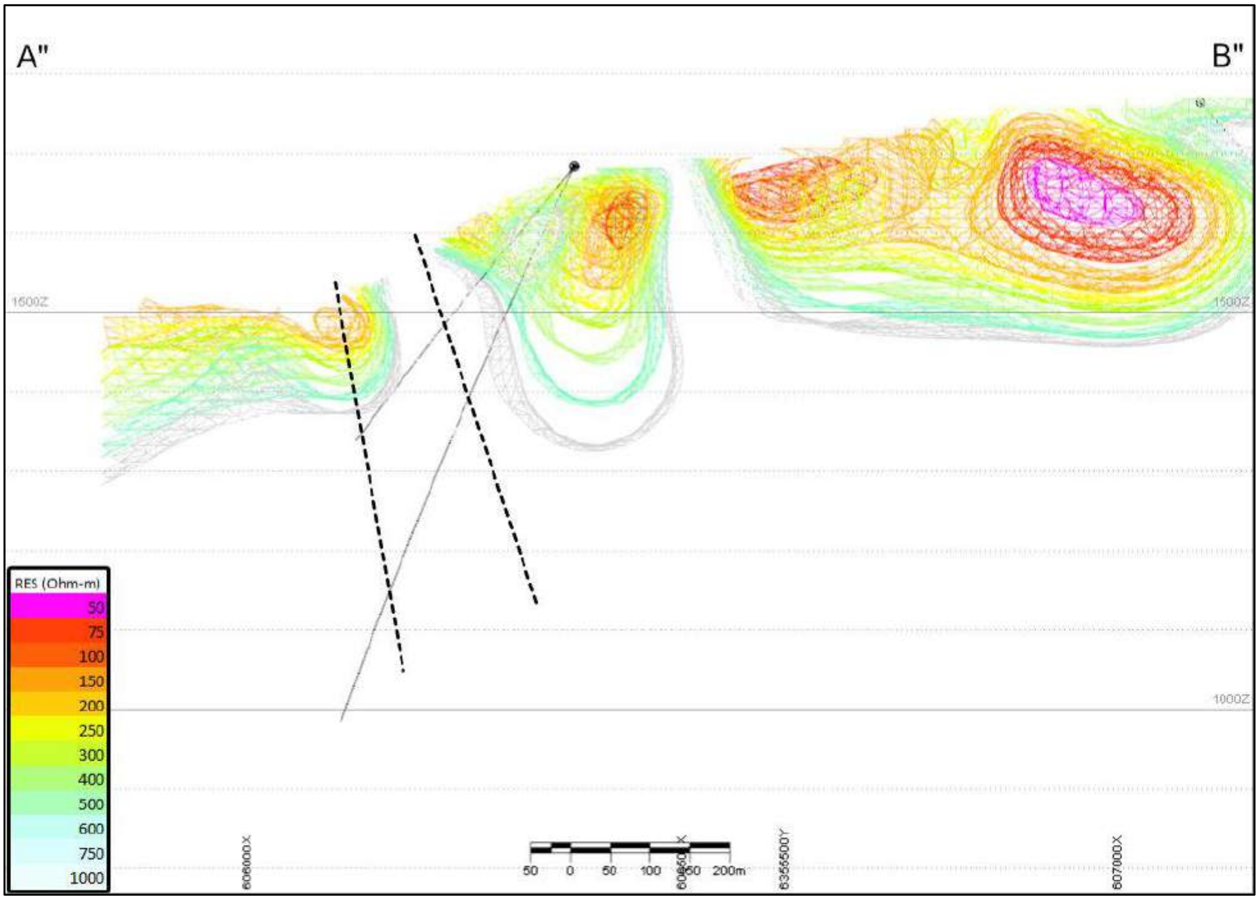
Source: Laycock et al., (2021)

Figure 9-26: Cross-Section A"-B" Showing Chargeability, Projected Map Structures (Dotted Mines), and Drill Traces, Looking NW with a 100 m Window



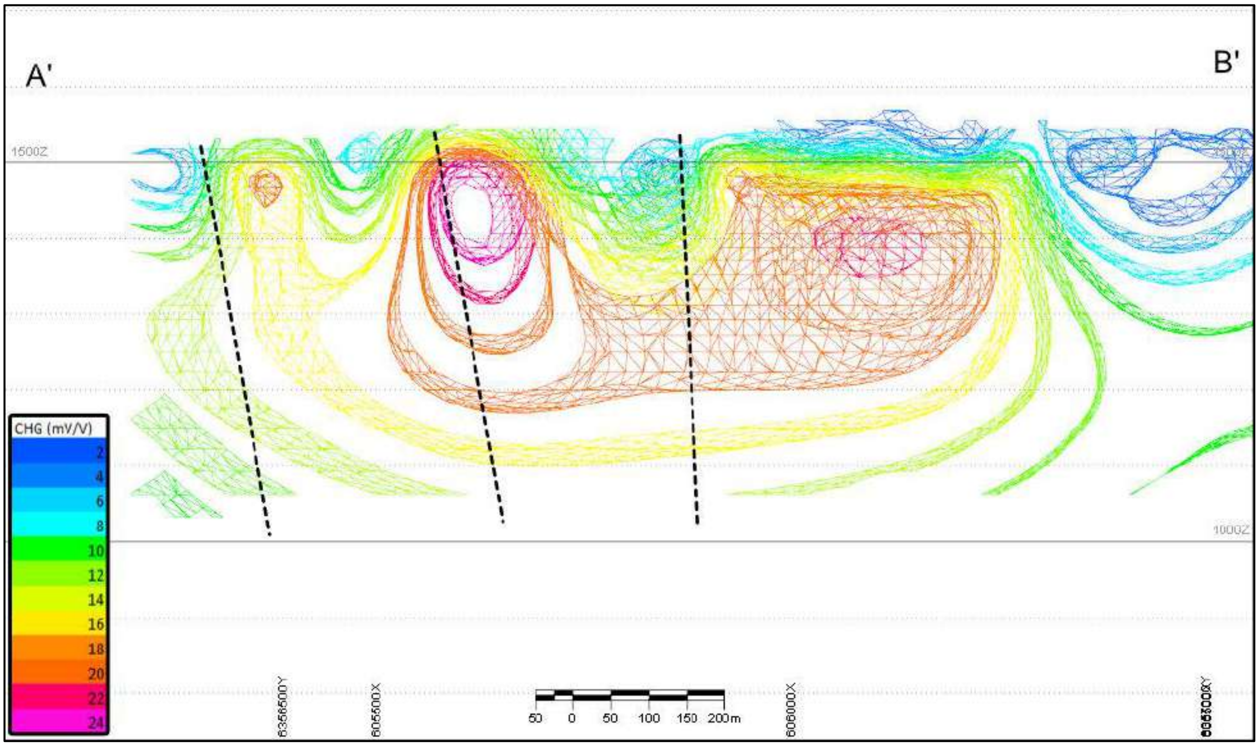
Source: Laycock et al., (2021)

Figure 9-27: Cross-Section A”-B” Showing Resistivity, Projected Map Structures (Dotted Lines), and Drill Traces, Looking NW with a 100 m Window



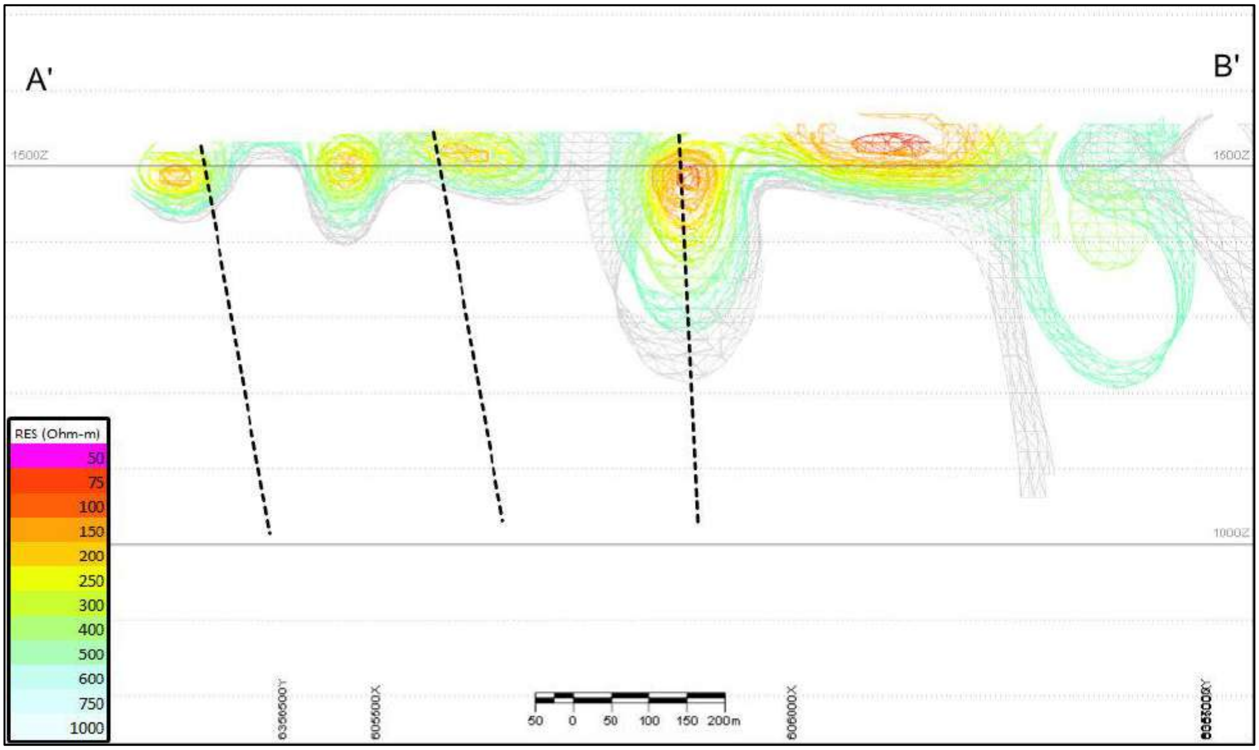
Source: Laycock et al., (2021)

Figure 9-28: Cross-Section A'-B' Showing Chargeability, Projected Map Structures (Dotted Lines), Looking NW with a 100 m Window



Source: Laycock et al., (2021)

Figure 9-29: Cross-Section A"-B" Showing Resistivity, Projected Map Structures (Dotted Lines), Looking NW with a 100 m Window



Source: Laycock et al., (2021)

9.7 Airborne Geophysics

9.7.1 Airborne Versatile Time Domain Electromagnetic (VTEM) Survey

Benchmark contracted Geotech Ltd. (Geotech) of Aurora, Ontario to complete a helicopter-borne time domain electromagnetic (VTEM) survey over the central and northern part of the Benchmark claim block in 2018 (Figure 9-23). In 2021, Geotech completed a second VTEM survey over the southern portion of the property.

Geotech used an Eurocopter Aerospatiale (Astar) 350 B3 helicopter, owned and operated by Access Helicopters. Installation of the geophysical and ancillary equipment was carried out by the Geotech Ltd. crew. The electromagnetic system was a Geotech Time Domain EM (VTEM™) full receiver-waveform streamed data recorded system, a caesium magnetometer, an RSI AGRS RSX-5 spectrometer with GPS navigation systems and radar altimeter as ancillary equipment. During the 2019 survey the average transmitter-receiver lop terrain clearance was 54 m and the magnetic sensor clearance was 75 m. The helicopter was maintained at a mean altitude of 88 m above the ground with an average survey speed of 80 km/h. During the 2021 survey an average transmitter-receiver loop terrain clearance was 54 m and the magnetic sensor clearance of 78 m. The helicopter maintained a mean altitude of 91 m above the ground with an average survey speed of 97 km/h.

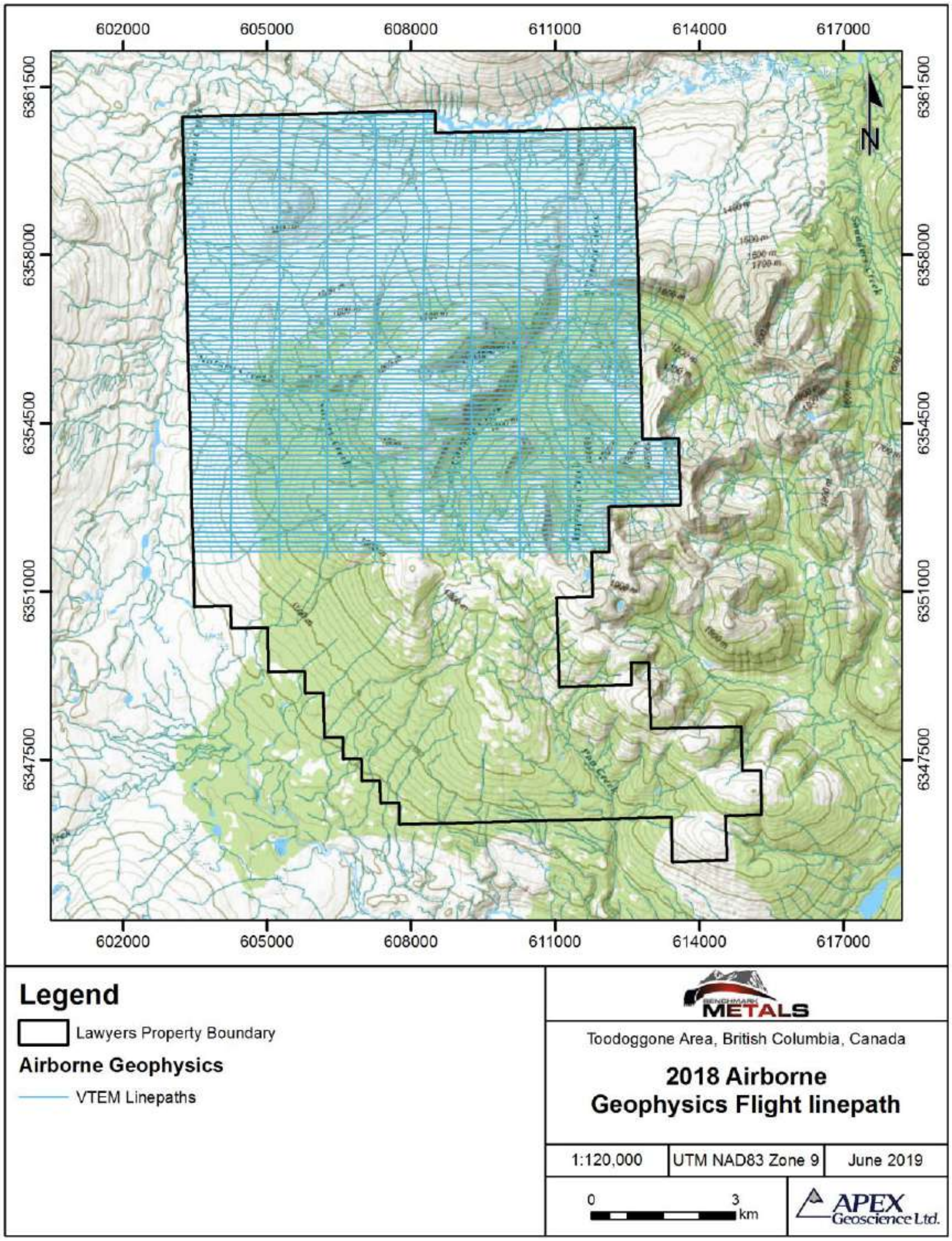
In 2019, the helicopter and crew were based at the Lawyers camp and completed the survey from September 8 to September 18, 2018. A total of 1,272 line-km was flown, covering an area of approximately 115 km^2. Survey lines were spaced at 100 m, whereas the tie lines were spaced at 1,000 m. Survey lines were flown at 90°/270° orientation and tie lines were flown at 0°/180° (Figure 9-30).

In 2021, the helicopter and crew were based out of the Lawyers camp and completed the survey from August 31 to September 9, 2021. A total of 640 line-km was flown, covering an area of approximately of 58 km^2. Survey lines were spaced at 100 m, the tie lines were spaced at 1000 m. Survey lines were flown at 90°/270° orientation and tie lines were flown at 0°/180°.

The VTEM data was compiled and processed by Geotech using Geosoft OASIS Montaj and programs proprietary to Geotech. Geotech carried out airborne inductively induced polarization (AIIP) chargeability mapping and EM anomaly picking of the EM data, and the interpretation of the magnetic and radiometric data.

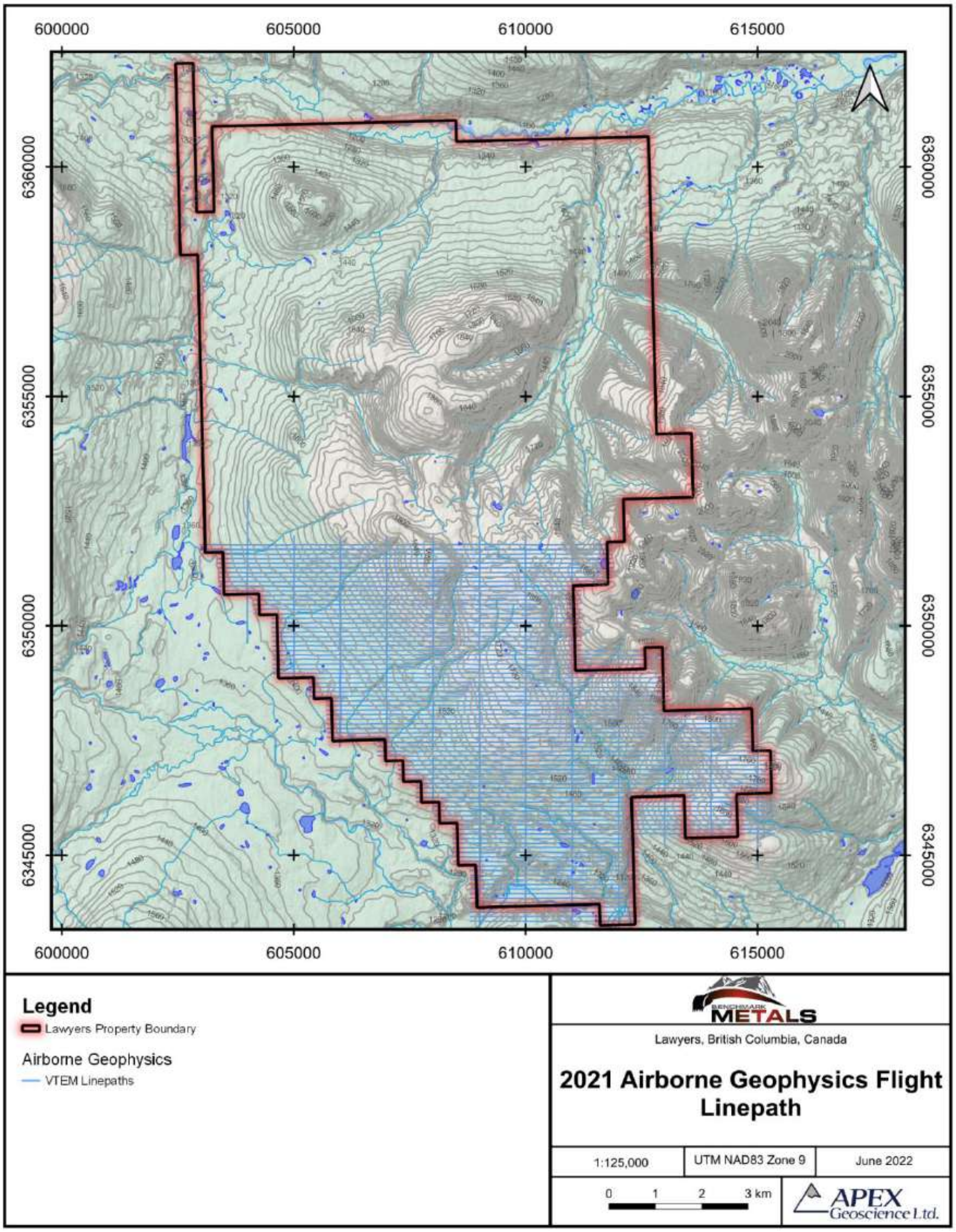
Five potential exploration target zones, for possible epithermal Au-Ag mineralisation at the Property were identified. The targets were selected based on a combination of airborne inductively induced polarization product of apparent resistivity (RES) and Cole-Cole time-constant (Tau), and the radioelement ratio of potassium thorium measured in percentage and equivalent ppm, respectively.

Figure 9-30: 2018 VTEM Survey Coverage



Source: Laycock et al., (2019)

Figure 9-31: 2021 Airborne Survey



Source: APEX (2022)

9.7.1.1 Magnetic Data Interpretation

The magnetic interpretation of the 2018 VTEM data showing known faults and thrusts and interpreted lithological contacts is presented as Figure 9-32. Geotech ran the Centre for Exploration Targeting (CET) analysis tool from the University of Western Australia to produce the magnetic edge and ridge vectors (CET Ridges and CET Edges) shown in Figure 9-32.

In the Lawyers Mineral Resource area, there appeared to be a strong spatial relationship between knife sharp magnetic lineaments and mineralisation. This spatial relationship was the impetus for completing the detailed ground MAG and VLF survey. This survey revealed a strong relationship mineralisation to structure and particularly structural intersections and high-grade shoots.

The strong magnetics in the eastern portion of the VTEM survey are interpreted to represent the Upper members of the Toodoggone Formation, i.e., Saunders, Attycelley and McClair. The moderate magnetics in the central and western regions of the Lawyers Property are interpreted to correspond to the Lower members of the Toodoggone Formation, i.e., Metsantan, Moyez and Adoogacho.

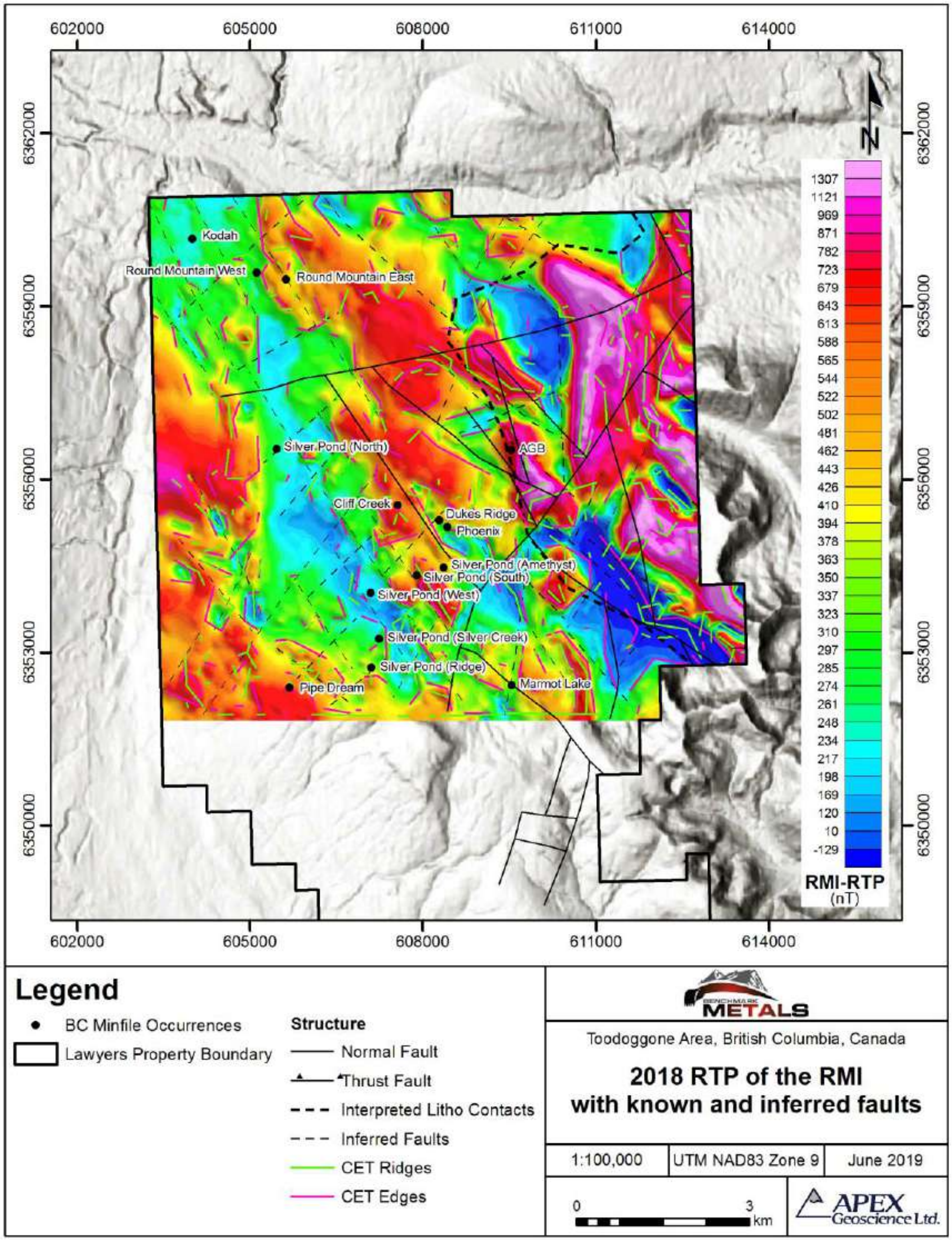
The magnetic interpretation of the 2021 VTEM data shows known faulting and interpreted lithologic contacts is present in Figure 9-33 and Figure 9-34. The strong magnetics in the south portion of the VTEM survey are interpreted to represent the Black Lake Intrusive Suite, which is mapped as granodiorite on the property. This is the same intrusive suite that hosts the Kemess porphyry.

9.7.1.2 Electromagnetic Anomalies

Geotech identified local electromagnetic (EM) anomalies representing both discrete and structural conductors. All time domain geophysical channels for the B-Field and dB/dt profiles were used for anomaly recognition which resulted in the selection of 298 discrete anomalies. The ranked anomalies based on their conductance (>2 Siemens to >6 Siemens) are shown in Figure 9-33. None of the picked EM anomalies making up the conductive zones in the south, southeast, central west and northwestern parts of the Property were coincident with the known epithermal Au-Ag showings or occurrences. Geotech has stated that silicification or disseminated pyrite associated with epithermal mineralisation may be identified in VTEM data that has been processed to highlight AIIP responses. Based on the analysis of Cole-Cole forward modelling results of selected VTEM decays, the AIIP depth of investigation was found to be up to 100 m below surface.

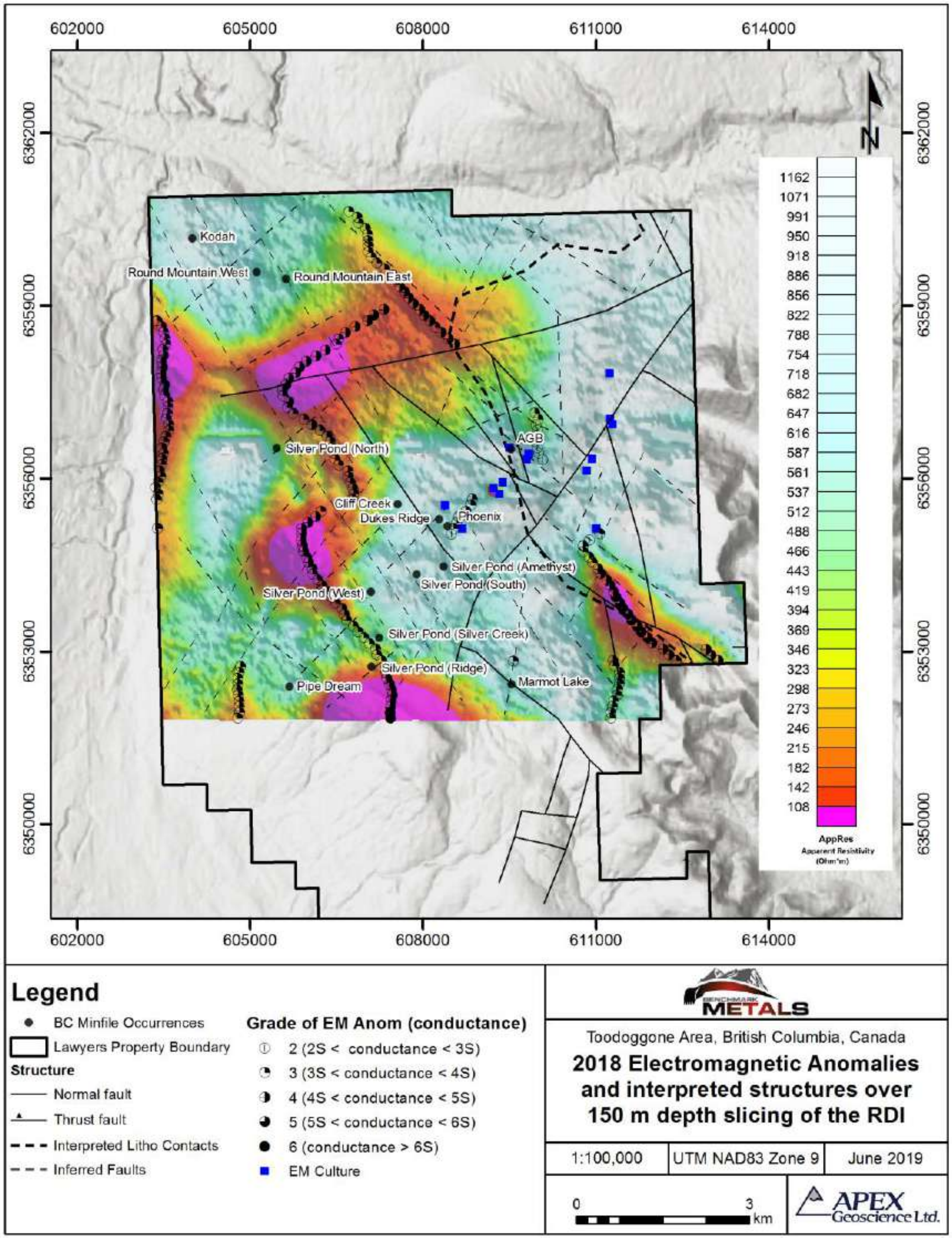
Analysis of the 150 m resistivity depth imaging (RDI) depth slice shows that the known epithermal Au-Ag deposits and occurrences are located within zones of high apparent resistivity (Figure 9-33).

Figure 9-32: Reduced to Magnetic Pole (RTP) Transformation of Residual Magnetic Intensity (RMI) Response with known and Inferred Structures



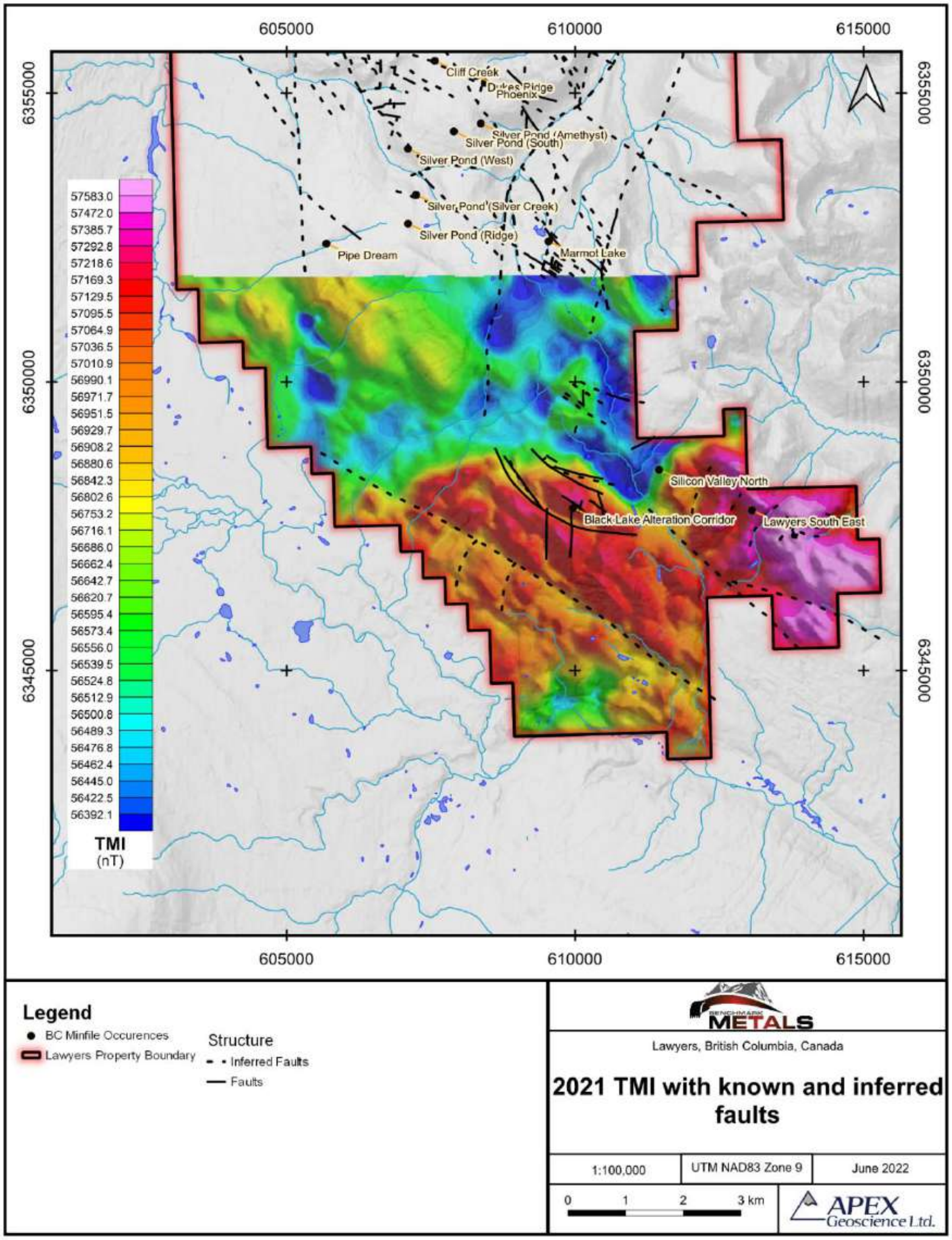
Source: Laycock et al., (2019)

Figure 9-33: Electromagnetic Anomalies and Interpreted Structures over the 150 m Depth Slice of the Resistivity Depth Imaging



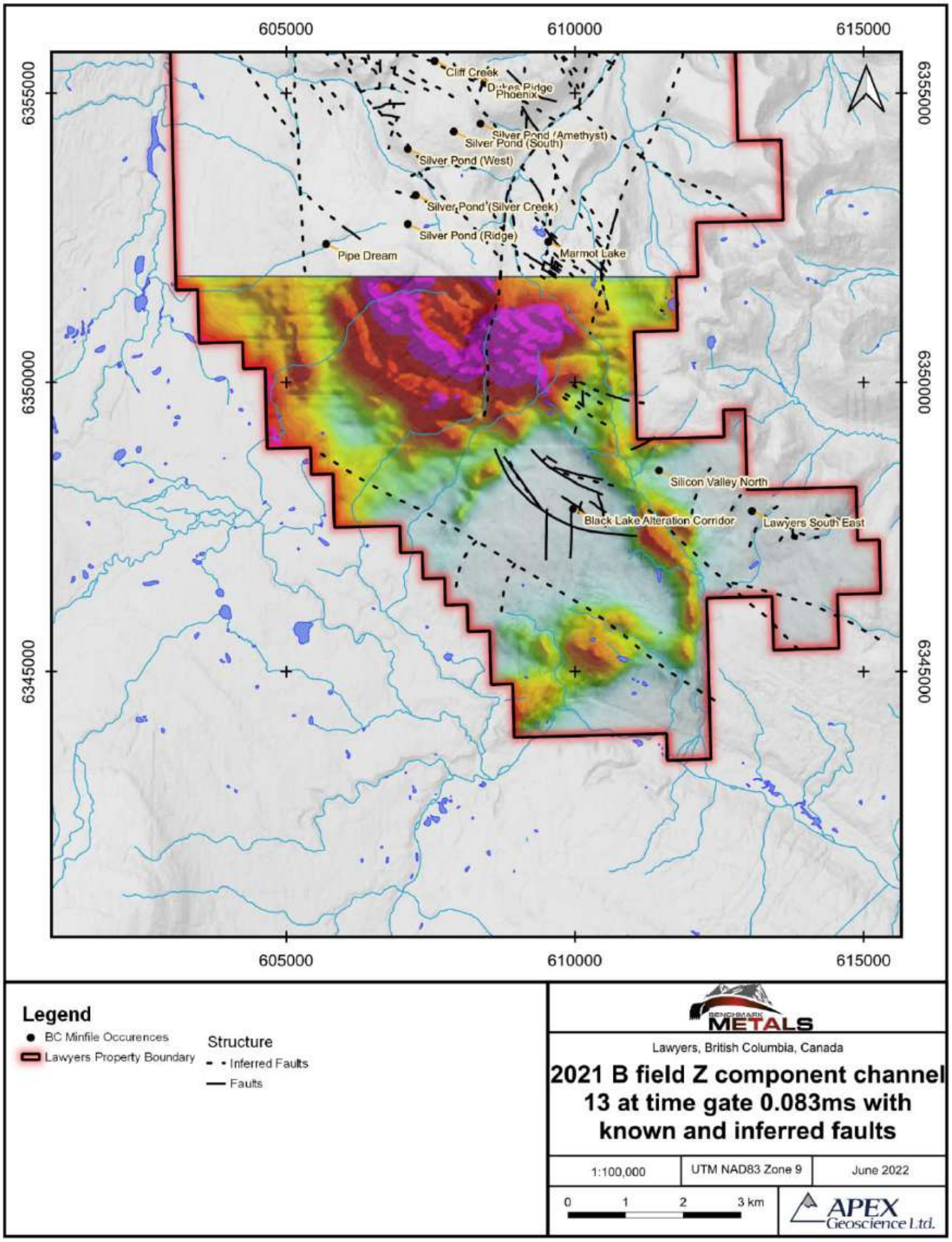
Source: Laycock et al., (2019)

Figure 9-34: 2021 TMO with Known and Inferred Faults



Source: APEX (2022)

Figure 9-35: 2021 B Field Z Component Channel 13 and Time Gate 0.083 ms with Known and Inferred Faults



Source: APEX (2022)

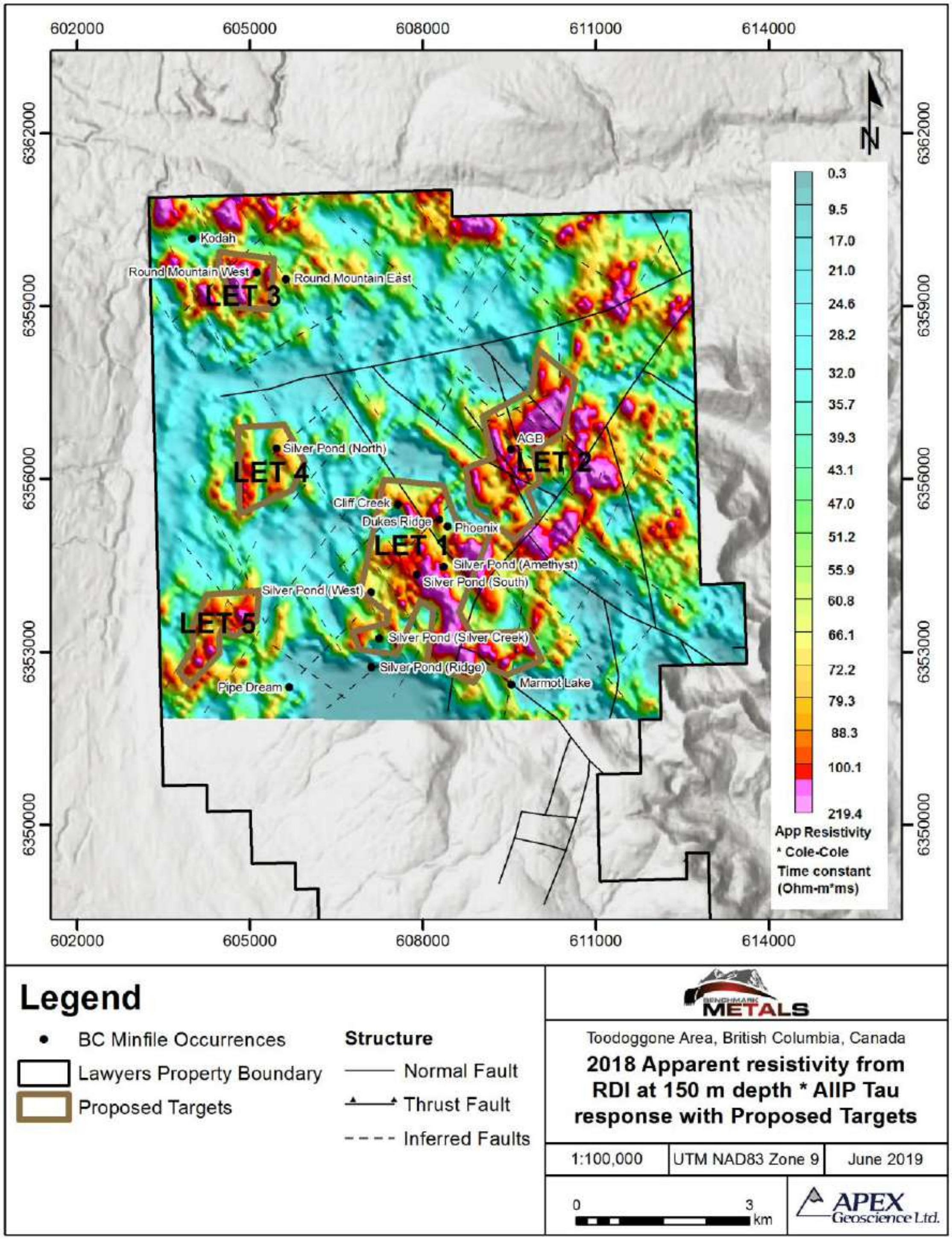
9.7.1.3 AIIP Chargeability Mapping Results

The known epithermal Au-Ag deposits and occurrences on the Property are located at relatively higher ground, where AIIP responses are less likely to correspond to responses due to clays or fine-grained sediments found in drainages and low-lying areas.

When the AIIP Cole-Cole time constant is calculated, higher Cole-Cole time-constants correspond to relatively coarse-grained polarizable material, such as disseminated sulphides or hydrothermally altered clays. Cole-Cole time-constant highs coincide with known Au-Ag mineralisation, i.e., Round Mountain W and E, Silver Pond N, whereas the Cliff Creek group of deposits have moderate Cole-Cole time-constant responses. The Cliff Creek, Silver Pond and AGB Deposits are also surrounded by Cole-Cole time-constant highs.

Weak to moderate Cole-Cole time-constant responses are observed close to the known mineralisation on the Property. The main EM signature of the known epithermal Au-Ag deposits and occurrences are due to silicification. The product of the AIIP apparent resistivity and the Cole-Cole time-constant (RES*Tau) may be a useful targeting tool for identifying possible epithermal Au-Ag mineralisation located with depths up to 100 m below surface (Figure 9-36).

Figure 9-36: Airborne Inductively Induced Polarization Mapping of VTEM Data with Resistivity * Cole-Cole Time Constant (RES*Tau)



Source: Laycock et al., (2019)

9.7.1.4 Radiometric Data Interpretation

The Au-Ag epithermal style of mineralisation present at the Lawyers Property is characterized by hydrothermal alteration resulting in potassium enrichment. Potassic alteration zones commonly manifest as K/Th highs (Shives et al., 2000).

Airborne gamma ray spectrometry and systematic ground truthing have been shown to be effective in more than thirty examples of geological mapping and mineral deposit characterization (Shives et al., 1995 and Shives et al., 2000).

Two areas were identified in the 2019 survey, with strong K/Th highs, namely targets LET_01 and 02, were identified by Geotech (Figure 9-37). The remainder of the targets (LET_03 to 05) have low to moderate K/Th responses.

Figure 9-38 shows two areas identified in the 2021 survey, with strong K/Th highs, in Black Lake Alteration Corridor, Silicon Valley North and Lawyers South-East. Soil samples in these zones have returned anomalous Au, Ag, and Cu grades, and grab samples show signs of epithermal Au-Ag mineralisation associated with potassic alteration.

Proposed Exploration Targets

Geotech selected exploration targets in the 2019 survey, and based t on the following criteria:

1) The targets should have moderate to high Resistivity * Cole-Cole Time constant (RES*Tau) responses;

2) The targets should be in or close to known or inferred faults;

3) The targets should be located at elevated ground (non-drainage areas) with less erosion thus better chances for mineral preservation; and

4) The targets should have moderate to high K/Th ratios (indicating strong potassic alteration).

Figure 9-39 depicts the five on-Property targets proposed by Geotech draped over the RES*Tau product:

1) LET_01: This target zone covers all the Cliff Creek, Marmot Lake and Silver Pond areas of mineralisation, excluding Silver Pond North;

2) LET_02: The AGB Zone is covered by Target LET_02;

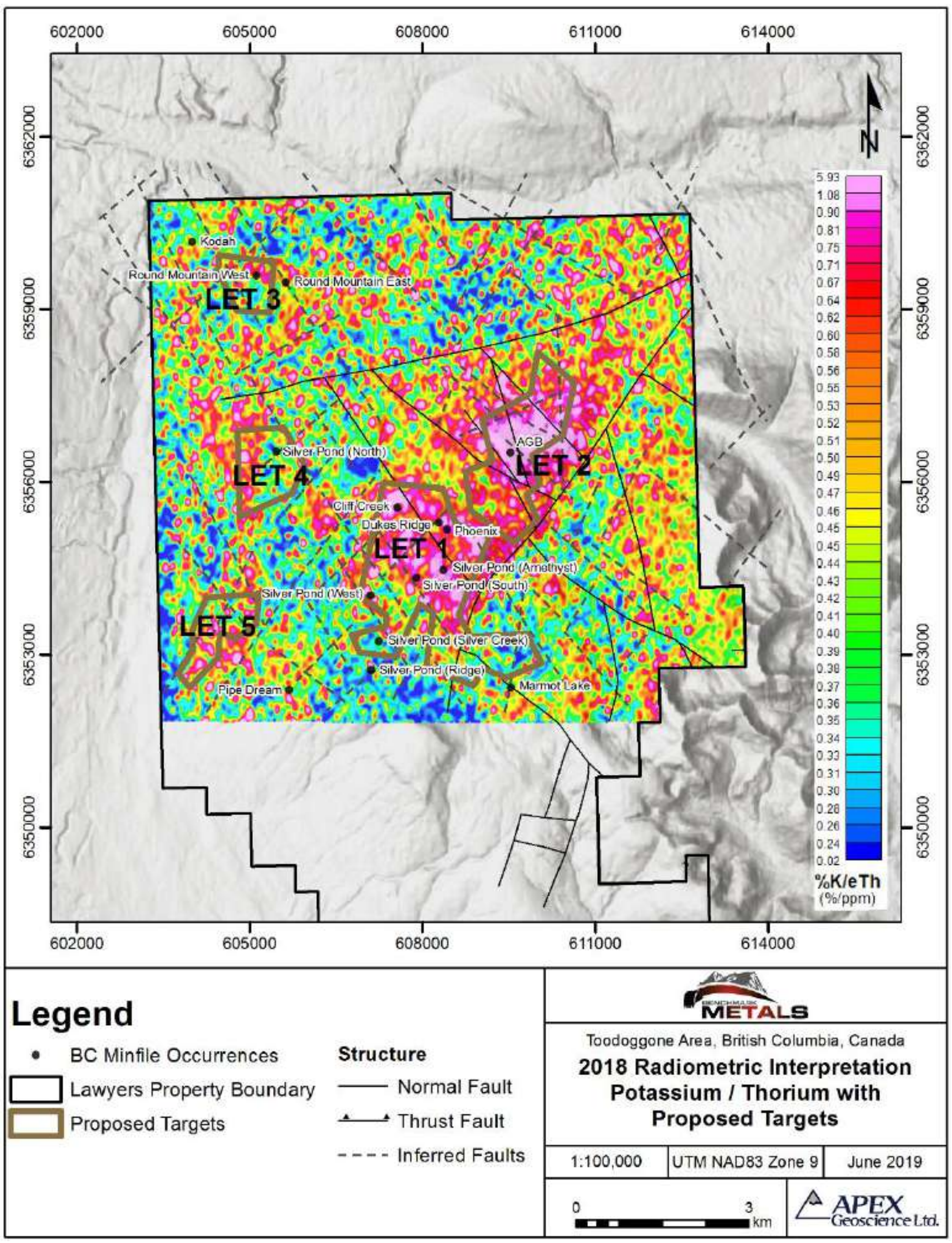
3) Geotech suggests that these two targets could belong to the same mineral system, which is divided by major NW-SE striking faults;

4) LET_03: This target covers the Round Mountain showing in the northwest part of the Property, excluding the Kodah Prospect;

5) LET_04: The Silver Pond North showing is covered by this target, which is situated on a northwest facing slope; and

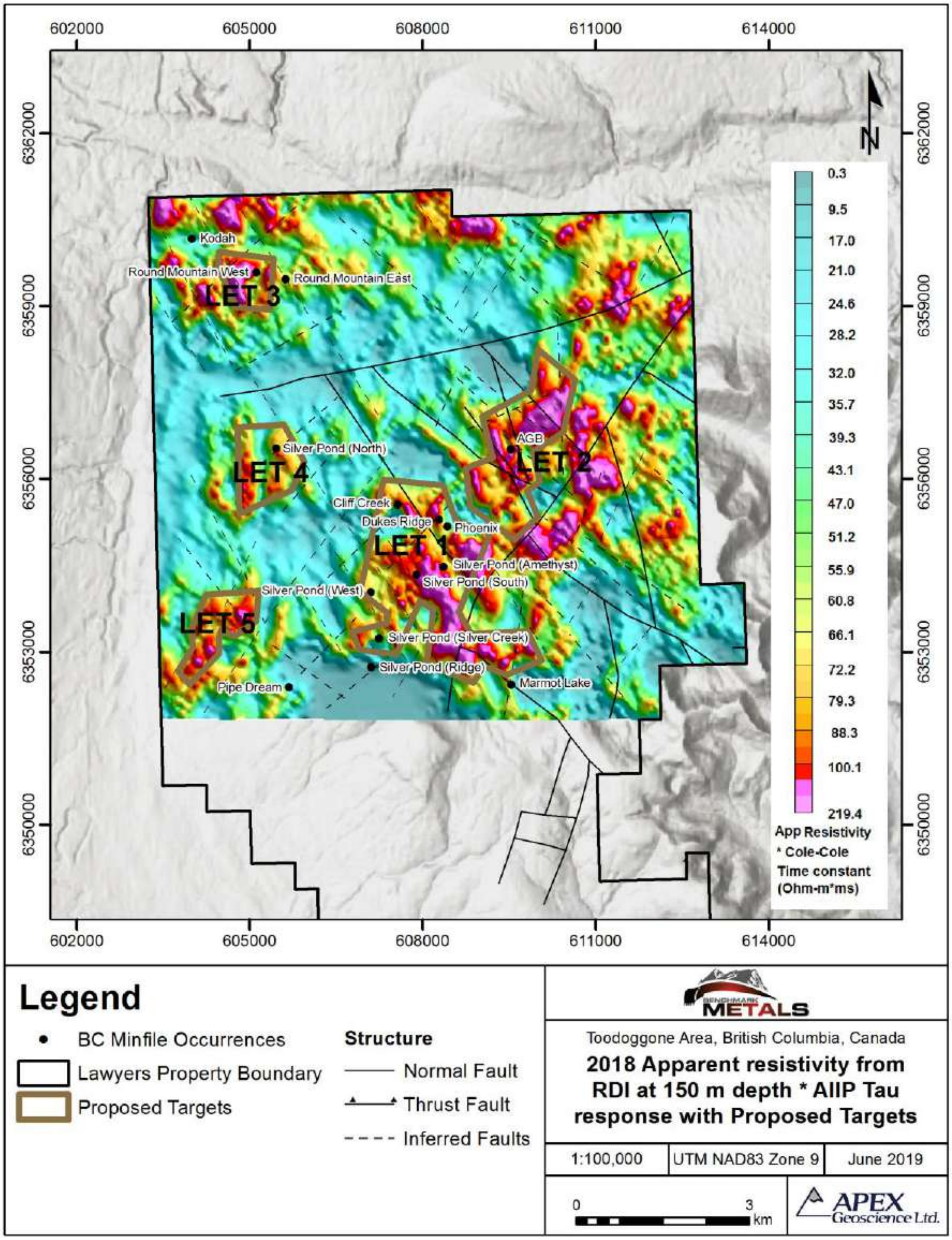
6) LET_05: Similarly, this target is also situated on a northwest facing slope with no known mineralisation associated to date. Geotech thinks it could be situated along the LET_01/02 trend.

Figure 9-37: K/Th Ratio Values with Proposed Exploration Targets



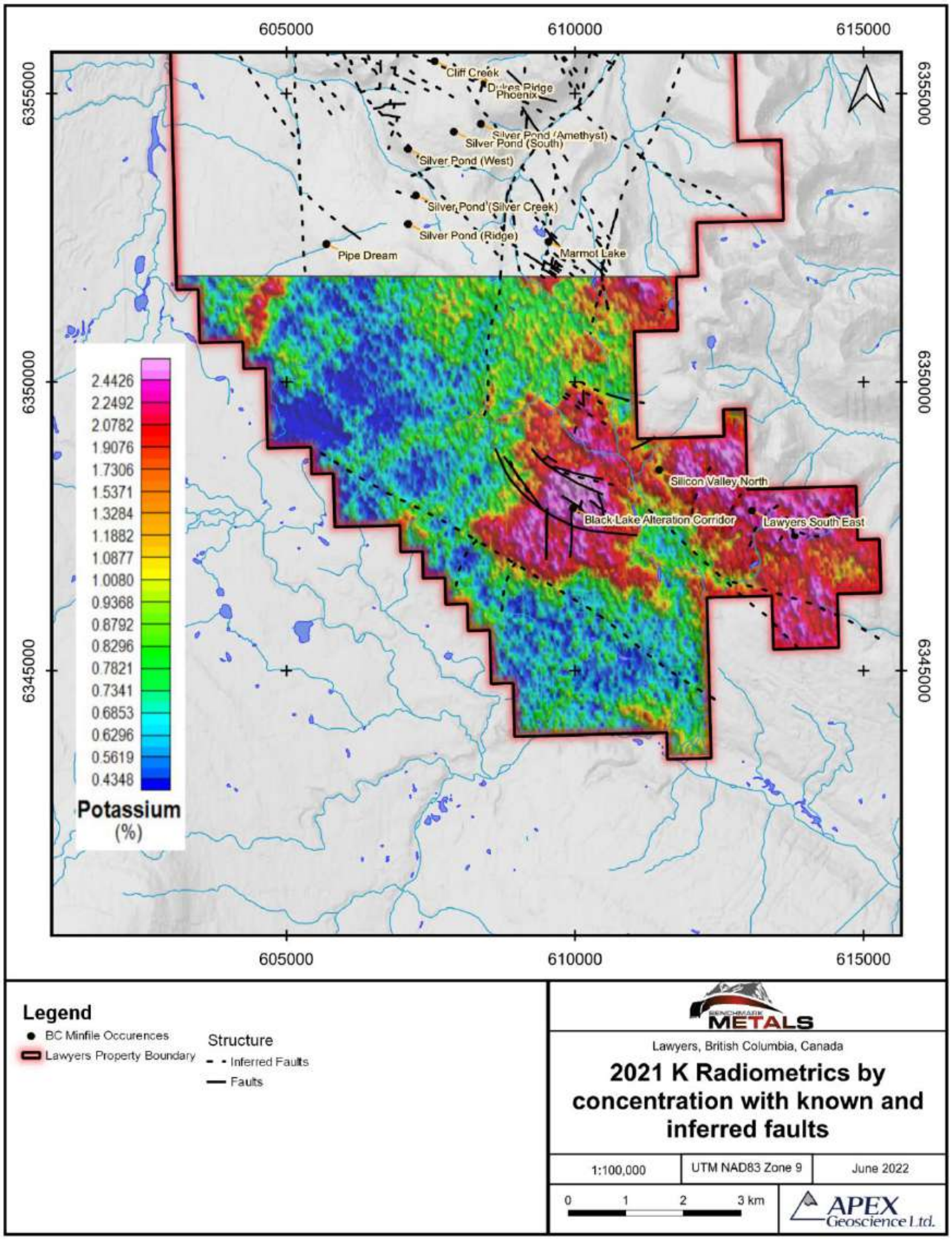
Source: Laycock et al., (2019)

Figure 9-38: Apparent Resistivity from RDI at 150 m Depth * AIIP Tau Response with Proposed Targets



Source: Laycock et al., (2019)

Figure 9-39: 2021 K Radiometrics by Concentration with Known and Inferred Faults



Source: APEX (2022)

9.8 LiDAR and Orthophoto

McElhanney Ltd. preformed a LiDAR and aerial photo acquisition across the entire Lawyers Property over the 2020 and 2021 field seasons.

All airborne GPS and IMU Data was processed using Inertial Explorer v8.9 software. The laser data was extracted using Leica HxMap 3.3 software. The GPS antenna position in the airplane was calculated by post–processing the raw data at one (1) second intervals for the entire flight. We have used Precise Point Position (PPP) to process the trajectory as this alleviated the need for a GNSS base-station on-site.

The survey was designed to collect LiDAR data at a nominal design density of 8 pulses/m². The point densities and mean point spacing stated below are nominal average values for the entire project area and vary locally with tree canopy closure, low vegetation and topographic features. The mean density of the point cloud (all points) was measured at 20.1 pts/m² and the mean bare-earth (ground) point density was measured at 5.8 pts/m². The mean bare-earth point spacing is 0.4 m.

LiDAR data acquired in 2021 was leveled to 2020 LiDAR data and the relative accuracy of 2021 data compared to 2020 data at the ground control site was determined to be 3.5 cm RMSE. Horizontal accuracy was visually assessed at the control site and estimated at 30 cm or better, relative to ground control data defining the edges of the Cheni tailings dam. The ability to assess horizontal accuracy is limited by the mean bare-earth point spacing at site.

Orthophoto was processed using Leica Hxmap and Pix4D software and controlled with refined Exterior Orientation and LiDAR intensity points.

9.9 Shortwave Infrared (SWIR) Program

9.9.1 Introduction

A shortwave infrared (SWIR) or hyperspectral identification program was conducted on samples over the Silver Pond Zone (both rock/clay surface samples and drill core) in 2018 and 2020. Downhole drill core samples were scanned in a few of the drill holes from Cliff Creek and AGB. In 2021, SWIR was conducted on drill core samples from four Silver Pond North and five Silver Pond Clay holes as well as three holes from Marmot, one from AGB, and one from Cliff Creek. This was carried out to determine alteration assemblages and large-scale zonation patterns in clay-rich rock sample which can help indicate proximity to porphyry or high-sulphidation mineralisation. Mineral assemblages and crystallinity were examined.

9.9.2 Sample Methods

All samples were cleaned and left to dry at room temperature. The samples must be dry as any water will absorb critical SWIR wavelengths. The lens is cleaned, and the instrument is calibrated when turned on and every five samples. Analysis of samples was conducted using the ASD Terraspec 4 in 2020 and 2021, and the Terraspec Halo in 2018, and the spectra were exported into The Spectral Geologist (TSG) software and aiSIRIS software for mineral identification and interpretation. The calculations in this study were based on recommendations by Halley (2008) and GMEX (2008). These calculations determine the crystallinity of white mica focused on 2200 nm, the solid solution change in white micas (from paragonite at 2180 nm to phengite at 2280 nm), the crystallinity of kaolinite (the crystallinity is calculated by looking at the ratio between the bottom of the 2161 nm doublet and the 2181 nm reflectance values >1 having higher crystallinity), the solid solution of chlorite (the 2250 nm feature with Mg-chlorite at 2240 nm to Fe-chlorite at 2270 nm), and the solid solution in alunite (Na-alunite at 1474 nm to K-alunite at 1496 nm). These calculations are not reliable if the desired mineral is of mixed composition, thus the spectra cannot be used where there is overlap. Once the overlapping spectra is removed the scalar can be used.

9.9.3 Sample Coverage

Data was collected on 14 grab samples, nine drill holes from the Silver Pond Zone, two holes from AGB, and four holes from Cliff Creek. In 2018, a total of 519 surface clay samples were analysed, 370 drill core samples (average 3 m spacing), 220 surface rock samples and 142 soils samples. In 2020, a total of 1,412 intervals were analysed, at an average spacing of three m throughout the drill holes and 14 grab samples were collected. In 2021, data was collected on 11 drill holes from the Silver Pond Zone, one hole from AGB, and one hole from Cliff Creek. A total of 1,674 intervals were analysed at an average spacing of 3 m throughout the drill core.

9.9.4 Results and Interpretations

Four alteration assemblages have been classified across the Silver Pond drilling (Argillic, Advanced Argillic, Propylitic, and Gypsum) through SWIR analysis. In addition to alteration assemblages, variance in mineral chemistry is useful in determining the system extent and proximity to hydrothermal fluid conduits. The SWIR analysis identified argillic and advanced argillic assemblages within a fault wedge block at the Silver Pond zones. Drill holes within this block (e.g., drill hole 21SPCDD001) contained contains dickite, alunite, and pyrophyllite. This composition along with the kaolinite crystallinity values suggest temperatures between 200 and 350 C with low PH (1-3). Outside this block there is a distinct change to more propylitic alteration assemblage minerals, lower white mica 2200 nm composition values, and lower crystallinity values. This suggests less acidity and lower temperatures, more distal from a mineralisation source. There are narrow intersections at depth (drill hole 21SPCDD005) that contain pyrophyllite and are associated with mineralised intersections and faulting suggesting a conduit for deeper hot fluids. To the north within the argillic altered block, there are broader argillic assemblages with minor gypsum this along with the cores silicification and the mineralisation present suggest porphyry proximity.

The SWIR analysis of the Marmot Lake drill core indicated three mineral features correlating with mineralisation and structures. Higher Mg to Fe ratio chlorites were dominant across all drill holes, with high Mg chlorite directly related to mineralisation. Higher muscovite and phengite concentrations are also associated with mineralisation suggesting lower pH conditions. Epidote identified in the logs as well as the SWIR data is also closely associated with mineralisation. These assemblage changes support the overall Marmot Lake structurally control model with the broad fluid system suggesting relative proximity to the source.

The AGB and Cliff Creek drill holes analysed both indicated an association between mineralisation and kaolinite. White mica concentration also increases proximal to mineralised zones in the Cliff Creek hole.

9.10 Geological Mapping

9.10.1 Introduction

The 2018-2022 mapping program conducted by APEX focused on characterizing lithology, alteration, structure and mineralisation and veining (where applicable). Descriptions and measurements from rock sampling and prospecting were also used for the final geological maps and interpretations.

9.10.2 Sampling Methods

Geologist were sent to the field and focused on characterizing lithology, alteration, structure, mineralisation, and veining. Observations were recorded on a variety of applications and in notebooks and compiled in QGIS and mapping journals at the end of the field day. Geological mapping stations were uploaded to the cloud-based database. When initial reconnaissance mapping was completed in an area, traverses over areas of interest were designed to cross major stratigraphic and structural boundaries.

9.10.3 Sample Coverage

The 2019 geological mapping program covered ~8,130 ha and focused on three main areas; 1) The Lawyers Group of Prospects, which define the main Lawyers Trend and includes Cliff Creek, Dukes Ridge, Phoenix and AGB; 2) Marmot prospect area, which includes the Marmot Lake and Marmot East Prospects; and 3) the newly acquired southern claims, which includes the new Black Lake Alteration Corridor, Silicon Valley North and Lawyers Southeast Prospects. The 2020 geological mapping program covered ~435 ha and focused on the Silver Pond Zone. Basic mapping and geological observations were also completed in 2018 during the rock sampling program. The 2021 geological mapping program covered approximately 1000 Ha and focused on the Black Lake Alteration Corridor and Silver Pond North. The 2022 geological mapping program was mainly focused on limited rock exposure at Round Mountain and Kodah.

9.10.4 Results and Interpretation

The 2019 geological mapping of the Lawyers Property defined 10 major structural domains delineated by major fault bound blocks formed during extension (see Figure 7-6). Four main fault orientations were identified on the Property. The first major structural feature is a series of steep to sub-vertical, 310º to 340º striking faults that dip SW or NW. This fault system exhibits normal displacement with minimal strike-slip movement likely as a result of reactivation. The 310º to 340º faults are syn-post mineralisation and generally have a similar orientation as the Cliff Creek, Dukes Ridge, Phoenix and AGB zones. These faults could be related to ore-forming hydrothermal processes of the main Lawyers Trend. Localized sections of the stratigraphy contain conglomerates adjacent to major fault zones, which are associated with infill of extensional basins that occurred concurrently with the Toodoggone eruptive cycles. A younger, post-mineralisation, north-dipping, E-W (~90º) trending fault system offsets the NW-NNW trending structures and stratigraphy.

The Marmot area of the Property has another series of subvertical north (010º) trending fault structures, which are likely syn-post mineralisation. The north-trending faults have associated mineralised fracture zones and returned several anomalous grab samples. Another series of steeply dipping, SW to SE (~205º) faults transect the Marmot Zone and separate it from the main Lawyers Trend. The timing of the 20º faults is unknown, but they mineralisation or alteration are not apparent at surface. The later stage fault series that occurred after the initial N-NW trending 310º to 34 º extensional faults are responsible for the geometry and subsequent variable rotation of the graben blocks of the structural domains. Variable reactivation and minimal displacement of the different fault systems is indicated by kinematic indicators (conjugate riedel structures, lineations) identified in the mapping program, and common macro-micro scale fault gouge and fault breccia zones visible in core.

The Silver Pond area is mapped as crystal tuffs, flows, epiclastics and volcanic breccias of the Toodoggone Volcanics, which are cut by intermediate to felsic dykes. Stratigraphic horizons can be traced up to 500 m along strike and generally terminate in gullys or incised valleys. Relict quartz grains are observed in the North-Eastern part of the zone in the leach cap. Dominant structural orientations at Silver Pond are NW-trending and steeply-dipping, with secondary N-S and SW-NE orientations. Relative timing relationships remain unclear and are assumed to be similar to relationships observed in the South (AGB, Lawyers South and Marmot). The NW structures are the oldest and appear to have been the main conduit for hydrothermal fluids for quartz-sericite-pyrite (QSP) and argillic to advanced argillic alteration zones. The N-S structures appear to be associated with sericite-quartz-pyrite alteration. Dykes preferentially intrude the NW and N-S trending structures, and movement was dextral.

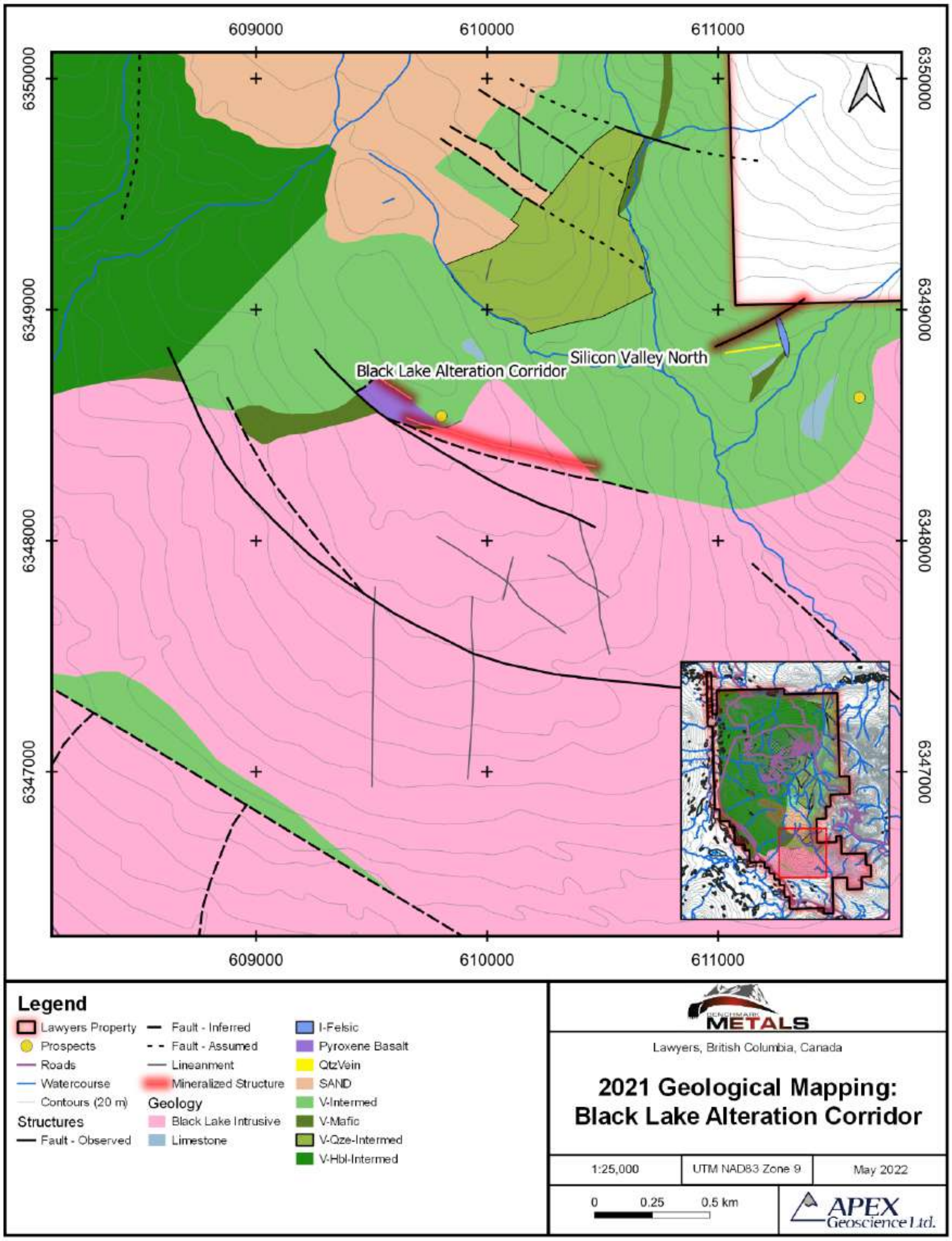
The leach zone at Silver Pond occurs over a 2 km x 3 km area bounded by a major fault and remains to be mapped in detail. The extensive clay alteration at surface appears to be leached and transported down the paleo-surface. The NE portion of the leach cap is the highest elevation and covers 10 ha. At lower elevations, argillic and advanced argillic alteration zones occur as 5 m to 30 m wide discrete NW and possibly N trending sub-vertical zones. The argillic and advanced argillic alteration is well defined by low Ca, Na, and Mg in soils and bound sharply to the East by the ELF fault. The western boundary is more diffuse.

The Black Lake Alteration Corridor is located along the contact between the Black Lake Intrusive Suite and volcanic rocks of the Takla/Stuhini Group and Toodoggone Formation in the south part of the Lawyers Property (Figure 9-40). The Black Lake Intrusive Suite in this area consists of hornblende quartz-monzonite, monzonite, and minor syenite. No consistent zonation of the felsic intrusive rocks was noted in the field. Very fine-grained basalts are in contact with the intrusion to the north and can be traced along the entire extent of the pluton on the property. The mafic volcanic rocks vary from unaltered to intensely silicified and sulphidized with up to 15% pyrite. Ratty limestones with large amounts of barren white quartz veining are in contact with the basalts and sporadically outcrop where ground cover is thin. Outcrops of the ratty limestone unit often form shallow caves near surface. Variable degrees of skarnification are present in the limestone, forming mineralised, garnet-bearing calc-silicate rocks. Skarnification intensity is strongest where the basaltic rocks are similarly silicified and sulphidized. Porphyritic pyroxene-basalt contacts the limestone unit and similarly has variable degrees of silicification and sulphidization. No direct contacts between the volcanic and limestone units were observed in the field due to increased cover to the north of the intrusive suite. A series of 300 striking subparallel 0.3-3 m thick white quartz veins crosscut the pluton and surrounding volcanic rocks and can be traced over 3 km along strike. The quartz veins are generally barren but contain infrequent zones of <3% pyrite. The volcanic rocks in contact with the Black Lake Intrusion extend stratigraphically to the neighbouring prospect Silicon Valley North along the eastern edge of the property.

Large mappable structures crosscut the Black Lake pluton and the contacting lithologies with relatively high amounts of displacement. Dominant structural orientations are NW trending and steeply dipping, with secondary N-S orientations. Secondary N-S structures are present as depressions in the intrusive suite at surface that can be traced for ~1 km with little to no observable displacement. Relative timing relationships remain unclear. The NW structures appear to be related to mineralisation, with silicification and sulphidization strongest in the surrounding lithologies.

The north part of the Lawyers Property was mapped by a series of E-W and N-S traverses. Most of the northern part of the Property is characterized by heavily forested and/or swampy areas with very poor outcrop exposure. Bedrock in the north is almost entirely porphyritic hornblende andesite with <1 cm tabular black hornblende phenocrysts and pink stained subhedral to euhedral feldspar phenocrysts in a very fine-grained brown matrix. Angular to subangular lapilli of hornblende andesite are locally present. Structures through this part of the property are largely identified through ground and airborne geophysics.

Figure 9-40: 2021 Geological Mapping: Black Lake Alteration Corridor

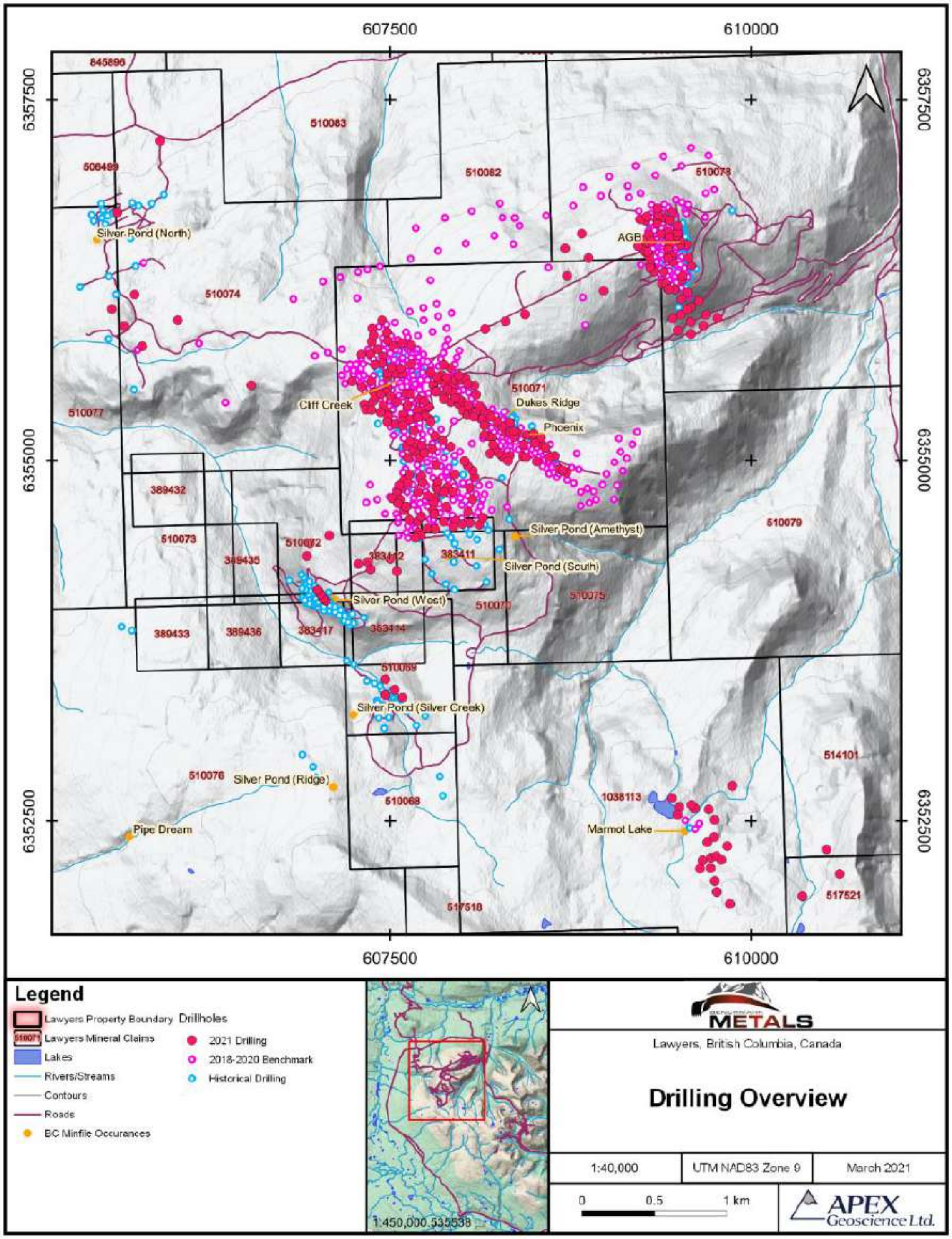


Source: APEX (2022)

10 DRILLING

Benchmark completed exploration diamond and reverse circulation (RC) drilling programs in 2018, 2019, 2020, 2021 and 2022 at the Lawyers Property. Collar locations for the 2018-2020 drill holes are shown in Figure 10-1. Drill holes completed in 2022 are shown in Figure 10-2 to 10-4. Drill hole collar location and information data for all the 2018 to 2022 drill holes are listed in Section 10.5. Intersection assay highlights are tabulated in the sub-sections below.

Figure 10-1: 2018 to 2020 Drill Collar Locations



Source: Laycock et al., (2021)

10.1 2018 Drill Program

The 2018 drill program consisted of eight diamond drill holes totalling 1,493.27 m and 30 RC holes totalling 2,622.78 m, which focused along the >3 km long Lawyer's mineralisation trend. AGB was not drill tested in 2018. The 2018 drill program resulted in the collection of 2,605 core and (or) RC chip samples.

The drilling successfully intercepted high-grade and bulk tonnage style mineralisation and significantly extended the known extents of the mineralisation along strike and at depth at the Cliff Creek, Phoenix and Dukes Ridge zones. The extent of the mineralisation remained open along strike and at depth in all three zones. Highlight intersections of the 2018 drilling include:

- 7.00 m grading 3.17 g/t Au and 40.8 g/t Ag in Cliff Creek Zone hole 18CCDD004;
- 3.05 m grading 52.02 g/t Au and 846.4 g/t Ag in Dukes Ridge Zone hole 18DRRC010; and
- 6.95 m grading 6.39 g/t Au and 469.8 g/t Ag in Phoenix Zone hole 18PXDD002.

10.1.1 Drill Hole Location and Downhole Deviation Surveys in 2018

For the 2018 drill program, the drill holes were spotted (located) and aligned using hand-held GPS and compass. There was no downhole surveying of the 2018 RC drill holes. However, the holes were generally shallow and thus no significant deviation was likely (the 2018 RC holes varied in depth from 22.9 m to 181.0 m, with most being <130 m). The diamond holes were surveyed downhole using the Reflex EZ shot. The collars for the 2018 drill holes were subsequently picked up in 2019 using the RTK dGPS (real-time differential GPS) survey instrument with cm-scale accuracy relative to an established base point on top of the AGB Zone hill.

10.1.2 Cliff Creek Zone Drilling in 2018

Drilling at Cliff Creek was designed to confirm mineralisation, delineate the mineralised structure, and expand the Mineral Resource area. Anomalous gold and silver mineralisation were encountered in all 18 (4 DDH and 14 RC) drill holes. Drilling results indicate that there is significant mineralisation present that extends an additional 350 m to the southeast outside the current Mineral Resource area, for a total strike length of 550 m. The zone remains open along strike to the northeast and southeast as well as at depth. Drilling highlights from the Cliff Creek Zone are summarized in Table 10-1.

Table 10-1: 2018 Drill Highlights from the Cliff Creek Zone

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Type
18CCDD001	27	32.4	5.4	0.72	68.0	DDH
Including	28	28.3	0.3	9.31	1,160.0	
18CCDD002	178	183	4.93	0.51	16.3	DDH
18CCDD003	101	102	1	5.36	334.0	DDH
18CCDD003	110	112	2	1.76	91.9	DDH
18CCDD003	186	209	23	0.47	19.3	DDH
Including	186	192	6	1.2	56.2	
18CCDD004	111	128	17	1.45	21.9	DDH
Including	112	119	7	3.17	40.8	
and	118	119	1	9.68	64.6	
18CCDD004	141	175	34	0.49	18.9	DDH
including	160	166	6	1.93	58.8	
18CCRC001	42.67	80.8	38.1	0.73	24.9	RC
Including	60.96	65.5	4.57	4.08	158.4	
18CCRC002	24.38	25.9	3.01	4.84	16.7	RC
18CCRC002	30.48	32	2.74	1.76	2	RC
18CCRC002	97.54	99.1	2.39	1.09	1.2	RC
18CCRC003	10.67	12.2	1.52	0.69	0.7	RC
18CCRC004	15.24	16.8	1.52	1.86	7.9	RC
18CCRC004	33.53	93	59.43	0.65	12.6	RC
Including	48.77	50.3	1.52	4.24	106	
18CCRC005	24.38	77.7	53.34	0.41	12.6	RC
Including	24.38	35.1	10.67	0.89	6.3	
and	64.01	65.5	1.52	2.55	121	
18CCRC006	7.62	9.14	1.52	0.68	51.4	RC
18CCRC006	41.15	77.7	36.57	0.56	6.9	RC
Including	50.29	59.4	9.14	1.11	4.5	
18CCRC007	0	3.05	3.05	1.11	11.9	RC
18CCRC007	39.62	42.7	3.05	0.66	12.3	RC
18CCRC007	68.58	77.7	9.14	0.67	2.86	RC
Including	74.68	77.7	3.04	1.2	2.5	
18CCRC007	100.58	102	1.524	3.14	10.3	RC
18CCRC008	13.72	15.2	1.52	5.36	120	RC
18CCRC008A	19.81	30.5	10.67	0.8	9.4	RC
18CCRC008A	41.15	50.3	9.14	1.86	71.5	RC
Including	44.2	47.2	3.04	2.45	116.9	

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Type
18CCRC09	6.1	35.1	28.95	1.79	103.31	RC
Including	9.14	12.2	3.05	5.62	292.31	
and	22.86	24.4	1.52	8.52	455	
18CCRC010	83.82	122	38.09	1.1	16.7	RC
Including	103.63	105	1.52	10.45	78.1	
and	109.73	111	1.52	4.17	88.3	
18CCRC011	94.49	96	1.52	0.88	3.7	RC
18CCRC011	105.16	107	1.52	0.78	3.3	RC
18CCRC011	144.78	178	33.52	0.59	8.1	RC
18CCRC012	13.72	15.2	1.52	6.06	76.5	RC
18CCRC012	33.53	38.1	4.57	0.76	11.7	RC
18CCRC013	0	1.52	1.52	1.88	1.9	RC
18CCRC013	35.05	39.6	4.57	0.52	30.3	RC

Source: Laycock et al., (2019)

10.1.3 Dukes Ridge Zone Drilling in 2018

Drilling at Dukes Ridge was intended to confirm mineralisation and expand the Mineral Resource area defined in the 2018 Technical Report. Anomalous gold and silver mineralisation were encountered in 11 (2 DDH and 9 RC) of 13 drill holes, extending the strike length of the Deposit 400 m to the southeast toward the Phoenix Zone for a total strike length of 600 m. The Deposit is also open at depth below 80 m. Results in 2018 indicated that the Dukes Ridge Zone has potential to extend to the southeast potentially connecting it with the Phoenix Zone. Drilling highlights from the Dukes Ridge Zone are summarized in Table 10-2.

Table 10-2: 2018 Drill Highlights from Dukes Ridge

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Type
18DRDD01	58	60	2	0.61	12.3	DDH
18DRDD01	80	154	74	0.57	21.9	DDH
including	92	95	3	2.43	117.8	
and	133	134	1	5.78	5.5	
18DRDD02	23.85	25	1.08	0.50	13.3	DDH
18DRDD02	82	83	1	0.66	10.8	DDH
18DRDD02	91	125	34	0.32	25.7	DDH
including	113	115	1.63	1.42	82.5	

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Type
18DRRC001	39.62	87	47.25	0.70	29.5	RC
including	48.77	66	16.76	1.10	46.0	
and	62.48	64	1.53	3.60	154.0	
18DRRC002	0	117	117.34	0.59	9.2	RC
including	47.72	47	1.52	5.55	7.4	
and	114.3	116	1.52	7.35	29.9	
18DRRC004	67.06	69	1.52	0.92	33.4	RC
18DRRC004	83.82	88	4.57	0.83	42.9	RC
18DRRC005	92.96	101	7.62	0.57	13.9	RC
18DRRC005	120.4	122	1.52	1.08	4.4	RC
18DRRC006	48.77	61	12.19	2.22	82.8	RC
including	59.43	61	1.53	7.86	188.0	
18DRRC007	12.19	49	36.58	0.37	12.2	RC
including	19.81	21	1.52	2.00	38.3	
and	59.44	61	1.52	2.66	49.3	
18DRRC008	12.19	20	7.62	0.54	18.2	RC
18DRRC008	35.05	47	12.19	0.41	9.2	RC
18DRRC010	0	34	33.52	5.76	128.7	RC
including	10.67	14	3.05	52.02	846.4	
18DRRC011	7.62	53	45.72	0.80	33.0	RC
including	19.81	37	16.77	1.69	70.4	

Source: Laycock et al., (2019)

10.1.4 Phoenix Zone Drilling in 2018

Drilling at Phoenix was designed to follow up on surface mineralisation encountered during the 2018 geochemical sampling program and to delineate the structure of the mineralisation. All seven holes drilled (2 DDH, 5 RC) encountered anomalous gold and silver mineralisation. Results indicate that intersected mineralisation has a strike length of at least 175 m and is open at depth below 50 m. Drilling highlights from the 2018 drilling at the Phoenix Zone are presented in Table 10-3.

Table 10-3: 2018 Drill Highlights from Phoenix Zone

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)	Type
18PXDD001	60	64.36	4.36	6.15	124.4	DDH
Including	63.22	64.36	1.14	21.80	340.0	
18PXDD002	27	29	2	0.52	77.9	DDH
18PXDD002	66	72.95	6.95	6.39	469.8	DDH
Including	70.19	72.95	2.76	15.09	1,030.9	
18PXRC001	9.14	13.72	4.58	1.36	173.3	RC
Including	12.19	13.71	1.52	2.70	273.0	
18PXRC002	41.15	45.72	4.57	0.71	103.6	RC
18PXRC003	44.2	48.77	4.57	0.43	23.4	RC
18PXRC003	71.63	80.77	9.14	1.39	32.8	RC
Including	74.68	76.2	1.52	6.74	106.0	
18PXRC004	18.29	21.34	3.05	0.67	9.1	RC
18PXRC004	45.72	53.34	7.62	0.75	46.4	RC
18PXRC004	76.2	79.24	3.05	0.79	13.6	RC

Source: Laycock et al., (2019)

10.2 2019 Drill Program

The 2019 drill program conducted by Benchmark consisted of 47 diamond drill holes totalling 10,769.86 m. The drill program focused on expanding mineralised zones within AGB, Cliff Creek, Dukes Ridge and Phoenix zones.

10.2.1 Drill Hole Location and Downhole Deviation Surveys in 2019

All 2019 drill holes were initially located using hand-held GPS. Pad construction and drill alignment were conducted according to siting pickets normally established by hand-held GPS (or datalogger with built-in GPS functionality) and compass. However, final drill alignment prior to the initiation of drilling was conducted using a Devico DeviSight twin-GPS receiver drill hole siting instrument, rented from SurveyTech Instruments & Services in Timmins, ON. Tests were conducted on the DeviSight instruments and supported the claims of the instrument's manufacturer in that azimuths were found to agree within ~0.5° relative to RTK dGPS surveying. All the 2019 drill holes have at least one successful (no magnetic interference) downhole survey.

Collar information, including the initial drill hole (collar) azimuth and dip, were entered into digital dataloggers in the field by the attending drill geologist. The dataloggers ran an application with data entry fields specifically designed for the Lawyers drill program. When the field data were checked against proposed location and orientation information, approval was given to commence drilling. Following the completion of each hole, a picket marked with the drill hole name and orientation was placed in the hole and final drill hole collar locations were determined by RTK dGPS (real-time differential GPS) surveying with cm-scale accuracy relative to an established base point on top of the AGB Zone hill.

A total of 7,043 core and (or) RC chip samples were collected during the 2019 drill program. The drilling successfully intercepted high-grade and bulk tonnage style mineralisation in many holes at the targeted zones. Highlight intersections of the 2019 drilling include:

- 12.97 m grading 4.39 g/t Au and 43.5 g/t Ag in Cliff Creek Zone drill hole 19CCDD010;
- 3.34 m grading 7.85 g/t Au and 696.2 g/t Ag in Dukes Ridge Zone drill hole 19DRDD004;
- 0.90 m grading 132.5 g/t Au and 8,560 g/t Ag in Phoenix Zone drill hole 19PXDD001; and
- 68.00 m grading 1.15 g/t Au and 30.5 g/t Ag in AGB Zone drill hole 19AGBDD002.

10.2.2 Cliff Creek Zone Drilling in 2019

Drilling in 2019 at Cliff Creek was designed to confirm mineralisation in historically drilled zones, around old workings, and to delineate and expand the Mineral Resource area through infill and step outs. It was also designed to locate and confirm the orientation of new mineralised structures and new mineralised zones. Significant anomalous gold and silver mineralisation was encountered in 24 out of the 26 drill holes completed. Drilling results indicate that there is significant mineralisation present that extends to the southeast an additional 100 m. The total strike of the delineated mineralised body at the time was over 1 km. Infill drilling successfully intercepted mineralisation along the mineralised bodies where expected. The mineralised bodies remained open along strike to the northwest and southeast as well as at depth. There was also an upper zone intersected in two holes, which was not previously modeled. The new zone, not previously drilled, was intersected in drill hole 19CCDD025 and returned grades of 3.51 g/t Au and 150.8 g/t Ag over 20 m, occurring to the east of the main mineralised body. Drilling highlights from the 2019 Cliff Creek Zone are summarized in Table 10-4.

Table 10-4: 2019 Drill Assay Highlights from Cliff Creek Zone

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
19CCDD001	3.35	5.27	1.92	2.67	90.2
19CCDD001	146	150.4	4.4	10.40	419.6
including	147	148	1	27.30	864.0
19CCDD002	89	96	7	2.01	46.7
19CCDD002	125	129.22	4.22	5.75	48.7
including	125	126	1	20.50	93.3
19CCDD002	143.37	165.3	21.93	1.27	44.4
including	143.37	145	1.63	3.20	133.2

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
including	161	165.3	4.3	2.07	113.3
19CCDD003	171	195	24	1.98	73.2
including	182.24	187.45	5.21	4.19	190.5
including	193	194.17	1.17	18.06	460.7
19CCDD004	55.78	56.82	1.04	2.15	78.7
19CCDD004	103.1	105	1.9	6.08	240.7
including	103.1	104	0.9	11.00	410.0
19CCDD005	115.7	119	3.3	3.14	283.6
including	115.7	116.3	0.6	13.50	1290.0
19CCDD005	133.97	141	7.03	1.30	118.5
including	133.97	134.26	0.29	5.70	425.0
including	140	141	1	5.78	502.0
19CCDD005	172	179	7	2.24	224.7
including	174.9	175.5	0.6	19.75	1950.0
19CCDD006	36	38.15	2.15	2.32	17.6
19CCDD006	90	91.93	1.93	2.26	111.6
19CCDD006	107.21	124.46	17.25	1.68	75.9
including	123	124.46	1.46	8.82	431.0
19CCDD007	121	125	4	2.05	53.2
19CCDD009	157	175	18	1.18	77.6
including	159	160	1	9.20	243.0
19CCDD009	220	229	9	1.02	8.3
19CCDD010	24	25	1	2.36	189.0
19CCDD010	228	231	3	2.02	37.1
19CCDD010	257	259	2	3.56	63.7
19CCDD010	268.98	281.95	12.97	4.39	43.5
including	270.9	271.3	0.4	41.80	817.0
19CCDD010	312	330	18	1.21	52.8
19CCDD011	204	208	4	2.49	6.4
19CCDD012	149	154.24	5.24	1.48	11.7
19CCDD014	257	263	6	1.03	18.3
19CCDD014	268	275.29	7.29	1.22	19.5
19CCDD015	109	111.1	2.1	7.03	22.9
19CCDD015	116	124.6	8.6	1.22	14.4
19CCDD015	177	182	5	2.30	23.1
including	181	182	1	7.67	52.7
19CCDD016	106	109	3	3.14	87.5

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
19CCDD017	109	111	2	1.71	64.3
19CCDD019	90.78	99	8.22	2.61	44.5
including	91.44	93	1.56	4.91	30.5
19CCDD020	42.05	43	0.95	3.65	2.3
19CCDD021	30	33	3	2.48	118.8
19CCDD021	54	57	3	5.74	238.4
19CCDD021	72	73	1	2.93	40.9
19CCDD021	89	93	4	5.35	148.2
including	91	92	1	17.25	473.0
19CCDD022	47	54	7	2.11	54.7
including	49	50	1	8.36	223.0
19CCDD022	122	124	2	6.02	60.1
19CCDD022	187.5	189	1.5	5.13	131.1
19CCDD023	30.8	35	4.2	2.44	62.8
19CCDD025	18	34	16	1.13	35.0
19CCDD025	129	149	20	3.51	150.8
including	142.4	147.23	4.83	9.90	439.3

Source: Laycock et al., (2020)

10.2.3 Dukes Ridge Zone Drilling in 2019

Drilling at Dukes Ridge was planned to test mineralisation below the high-grade zone and expand the Mineral Resource area. It was also intended to test the mineralised extension to the east southeast of the main Dukes Ridge Zone. Anomalous gold and silver mineralisation were encountered in all five drill holes. The drilling completed on Dukes Ridge identified mineralisation at depth and extended the depth of the mineralisation by up to 50 m. Mineralisation remained open to the northwest and southeast along strike. Results continue to indicate that the Dukes Ridge Zone has potential to extend and connect with the Phoenix Zone, and possibly the Cliff Creek Zone to the northwest. Drilling highlights from the 2019 Dukes Ridge Zone are summarized in Table 10-5.

Table 10-5: 2019 Drill Assay Highlights from Dukes Ridge Zone

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
19DRDD002	164	174	10	1.62	53.0
19DRDD002	190.94	192.1	1.16	6.66	25.2

Hole	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
19DRDD003	98.73	99.72	0.99	47.40	1,110.0
19DRDD003	143	145	2	1.74	37.2
19DRDD003	156	167	11	1.57	21.9
including	164.36	165.05	0.69	13.10	73.2
19DRDD004	83.54	92	8.46	3.63	318.1
including	86.88	90.22	3.34	7.85	696.2
19DRDD005	17	23	6	0.77	49.8

Source: Laycock et al., (2020)

10.2.4 Phoenix Zone Drilling in 2019

Drilling at Phoenix was designed to follow up on surface geochemical anomalies (rock grab and soils at Phoenix East) and expand and define the high-grade Phoenix Vein at depth and to the east. All six holes drilled at the Phoenix Zone encountered anomalous gold and silver mineralisation, though only two intersected the strong mineralisation associated with the Phoenix Vein. At the time the Phoenix drilling continued to represent the farthest step-out drilling along strike to the southeast of the Lawyers Trend. Results extended the mineralised zone by approximately 25 m to the southeast and to a further 25 m depth along a 100 m strike.

This extended the modelled mineralised body for approximately 200 m along strike and up to 75 m depth with a 70º dip. The mineralised zone is open to the southeast and at depth. Drilling highlights from the 2019 drilling at the Phoenix Zone are presented in Table 10-6.

Table 10-6: 2019 Drill Assay Highlights from Phoenix Zone

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	A (g/t)
19PXDD001	88	89	1	3.05	38.1
19PXDD001	131	131.9	0.9	132.50	8,560.0
19PXDD001	163.75	167	3.25	1.66	10.0
19PXDD002	83	84.63	1.63	0.78	109.3
19PXDD004	130.22	130.86	0.64	11.25	2.4
19PXDD006	55.16	55.49	0.33	3.02	96.0

Source: Laycock et al., (2020)

10.2.5 AGB Zone Drilling in 2019

Drilling at AGB was designed to test the mineralisation at the AGB Zone. This was the first drilling conducted by Benchmark on this Zone. Drilling also targeted continued mineralisation at upper levels of the historical mine that were not exploited previously and at depth below the historical drilling and mining. Additionally, two holes targeted the Kaip Trench, a surface anomaly confirmed during the 2018 and 2019 field programs. All ten drill holes completed at the AGB Zone encountered anomalous gold and silver mineralisation, including both high-grade and bulk tonnage style intercepts. The AGB drilling results indicate that mineralisation present is consistent with what was anticipated. The drilling extended the main mineralised bodies an additional 50 m vertically. The farthest south holes at AGB tested the previously undrilled Kaip Trench, where 19AGBDD009 collared on mineralisation and returned grades of 1.41 g/t Au and 27.49 g/t Ag over 22 m. Highlights from the 2019 drilling at the AGB Zone are presented in Table 10-7.

Table 10-7: 2019 Drill Assays Highlights from AGB Zone

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
19AGBDD001	210	226	16	2.96	161.7
Including	216	219	3	7.49	330.7
19AGBDD001	232.9	235	2.1	10.02	654.4
19AGBDD001	232.9	233.9	1	18.65	1250.0
19AGBDD002	51	119	68	1.15	30.5
19AGBDD004	164	214	50	1.38	50.8
Including	164	167	3	3.77	81.6
Including	204	208	4	3.74	27.0
19AGBDD004	252.65	256.15	3.5	3.49	743.4
including	253.7	254.7	1	11.30	2360.0
19AGBDD005	266	267	1	0.09	279.0
19AGBDD005	276.85	280	3.15	0.51	110.5
19AGBDD006	209	218	9	2.67	19.3
including	212.1	213.3	1.2	12.20	27.2
19AGBDD006	244.37	271.62	27.25	1.02	82.0
including	244.37	251	6.63	2.86	187.4
including	266	271.62	5.62	1.39	114.9
19AGBDD007	122	130	8	3.61	26.8
including	122	126	4	6.03	26.5
19AGBDD007	158	164.15	6.15	1.62	85.9
19AGBDD007	230.05	233	2.95	30.20	1,361.4
including	230.05	231	0.95	73.90	2,920.0

Hole ID	From (m)	To (m)	Length (m)	Au (g/t)	Ag (g/t)
19AGBDD008	139	149	10	1.34	35.2
19AGBDD008	173	175	2	1.16	112.9
19AGBDD008	249	251.97	2.97	1.97	205.4
19AGBDD009	3	25	22	1.41	27.5
including	15.65	18	2.35	4.35	39.6

Source: Laycock et al., (2020)

10.3 2020 Drill Programs

The 2020 diamond drill and RC program at the Lawyers Property was completed on the Cliff Creek, Dukes Ridge, Phoenix, and AGB zones, which collectively define the Lawyers Trend, and the Marmot Lake and Silver Pond Clay prospects to the south and north, respectively. The drill program consisted of 195 diamond drill holes totalling 58,309.78 m, 191 RC holes totalling 28,395.37 m and two holes with RC upper portions and diamond drilling at depth totalling 599.2 m. A total of 47,762 samples were collected for assay from the 195 diamond drill holes. From the RC holes, a total of 18,858 RC chip samples were collected for assay.

10.3.1 Drill Hole Location and Downhole Deviation Surveys in 2020

All 2020 drill holes were initially located using hand-held GPS. Pad construction and drill alignment was conducted according to siting pickets normally established by hand-held GPS (or datalogger with built-in GPS functionality) and compass. However, final drill alignment prior to the initiation of drilling was conducted using a Devico DeviSight twin-GPS receiver drill hole siting instrument, rented from SurveyTech Instruments & Services in Timmins, ON. Tests were conducted on the DeviSight instruments and supported the claims of the manufacturer, in that azimuths were found to agree within ~0.5° relative to RTK dGPS surveying.

Collar information, including the initial drill hole (collar) azimuth and dip, were entered into digital dataloggers in the field by the attending drill geologist. The dataloggers ran an application with data entry fields specifically designed for the Lawyers drill program. When the field data was checked against prosed location and orientation information, approval was given to commence drilling. Following the completion of each hole, a picket marked with the drill hole name and orientation was placed in the hole and final drill hole collar locations were determined by RTK dGPS (real-time differential GPS) surveying with cm-scale accuracy relative to an established base point on top of the AGB hill.

During the 2020 drill program, the core drillers were instructed to complete downhole deviation (orientation) measurements on every hole using a Reflex single-shot (magnetic) hole orientation instrument at ~15 m (50 foot) increments starting at 50 ft (~15 m), or a reasonable depth beyond the end of casing. There were five (5) holes late in the program which were also surveyed with a Champ Gyro (north seeking downhole gyro tool) to check the Reflex single shot results. For the

RC drill holes, down-hole deviation (orientation) surveys were completed at the conclusion of each hole (prior to the removal of drill rods) using a specialized survey instrument.

Minor technical issues were encountered during the 2020 drill program with the downhole survey instruments for the core and RC drill rigs. These issues resulted in 15 holes with no downhole surveys collected and an additional 22 holes with rejected downhole surveys, representing 9.5% of all 2020 drill holes. Average deviation values based on statistical analysis of the 2020 down holes survey data for core drilling based on prospect area, were assigned to core drill holes missing survey data. These values are recorded as "calculated" in the database.

10.3.2 Summary of 2020 Drilling Results

The 2020 program of in-fill sampling and drilling along the Lawyers Trend validated historical data and significantly expanded the known mineralised zones. High grade and bulk tonnage style mineralisation was intersected at almost every target zone. The results at both AGB and Cliff Creek were very encouraging, indicating a significant amount of mineralisation is present beyond the mined-out areas. The mineralised zones at AGB and Cliff Creek were significantly extended, and are open in multiple directions, warranting further follow-up drilling. The Cliff Creek East Zone was one focus of the 2020 drilling and was extended significantly at depth and along strike. The AGB West and South zones were extended along strike and at depth. Deep drilling of the Cliff Creek South and Cliff Creek North zones intersected significant Au-Ag and base metal mineralisation, which warrants further drilling to determine the extent and structural controls of mineralisation. Significant infill and definition drilling of Dukes Ridge and Phoenix zones was also completed. At Phoenix East, anomalous results were intersected in the drill holes that targeted the 2018 surface anomalies stepping outboard of the main Phoenix Zone. Drilling in the Connector Zone, between Dukes Ridge and Cliff Creek, intersected low grade mineralisation continuous between the two main deposits.

10.3.3 Interpretation of 2020 Drilling Results

At Cliff Creek, significant gold and silver was intersected in all Mineral Resource drilling holes (Table 10-8). The Cliff Creek Main Zone is confirmed to strike over 1.2 km and to be open at depth. The high-grade mineralised shoot was extended an additional 275 m at depth in the north. A mineralised shoot, extending 125 m deeper than previous mineralisation was identified and defined in Cliff Creek South. The mineralised shoots at depth change geochemically into a base-metal rich zone, which was intersected in drill holes 20CCDD070, 20CCDD71, 20CCDD72 and 20CCDD74. In the north, the Cliff Creek Deep Zone appears to be strongly controlled by the same structural confluence as Cliff Creek Main Zone, with the main basal fault and the Cliff Creek East/Connector Zone intersection controlling mineralisation. This geochemical similarity at depth suggests that a similar structural control could be present at Cliff Creek South, which is currently interpreted as a series of steeply dipping stacked mineralised lenses. The variation in geochemistry could reflect changes in the fluid chemistry either related to multiple fluid source or pulses or spatial zoning. The 2020 drilling helped define the Main Zone and East zones structural orientation and continuity of mineralisation between Cliff Creek and Dukes Ridge in the Cliff Creek East and Connector Zone between the two main deposits. The drilling also helped identify and define several continuous sub-parallel zones present within a wedge at Cliff Creek North and South interpreted to be splays of the main fault structure.

Table 10-8: 2020 Drill Assay Highlights from the Cliff Creek Zone

Hole ID	From (m)	To (m)	Interval (m)**	Au (g/t)	Ag (g/t)	AuEq (g/t)*
20CCRC003	0	57.91	57.91	1.90	92.0	3.1
Including	24.38	57.91	33.53	3.17	152.3	5.1
Including	35.05	47.24	12.19	6.33	329.0	10.4
20CCDD001	45	58.8	13.8	2.57	114.2	4.0
Including	55.3	56.95	1.65	11.07	593.3	18.5
20CCDD002	230	232	2	1.01	62.5	1.8
20CCDD002	274	275.22	1.22	9.87	289.0	13.5
20CCDD002	325	363	38	0.70	28.4	1.1
Including	349	353.08	4.08	2.01	50.4	2.6
20CCDD003	54.9	55.7	0.8	6.90	111.0	8.3
20CCDD003	67.74	72	4.26	0.97	20.7	1.2
20CCDD004	51.63	52.2	0.57	3.06	224.0	5.9
20CCDD004	77.38	94.64	17.26	1.19	42.2	1.7
Including	93.5	94.18	0.68	8.01	435.0	13.5
20CCDD005	134	178.12	44.12	0.53	15.8	0.7
Including	160.69	161.36	0.67	5.87	29.3	6.2
20CCDD005	176.45	177	0.55	4.13	526.0	10.7
Including	268.58	270	1.42	23.16	1,013.0	35.8
20CCDD011	20	51	31	2.98	72.8	3.9
20CCDD011	65	71	6	6.95	280.7	10.5
20CCDD011	89.28	154.37	65.09	0.87	27.7	1.2
Including	140.6	153.45	12.85	2.20	67.2	3.0
Including	151.45	152.45	1	7.31	265.0	10.6
20CCRC004	4.57	111.25	106.68	0.53	18.4	0.8
Including	4.57	13.72	9.15	0.91	16.9	1.1
20CCRC004	27.43	32	4.57	0.95	70.9	1.8
20CCRC004	67.06	96.01	28.95	1.09	35.5	1.5
20CCDD006	11	13.7	2.7	0.87	56.0	1.1
20CCDD006	130	154.5	24.5	0.67	22.8	1.0
20CCDD008	345.67	376.3	30.63	2.05	107.1	3.4
Including	348.5	351	2.5	6.26	398.5	11.2
Including	349.5	350	0.5	25.60	1730.0	47.2
And	353	355	2	4.95	202.5	7.5
And	374.4	376.3	1.9	10.32	299.9	14.1
20CCDD015	318	363.86	45.86	1.17	30.1	1.6
Including	361.64	363.86	2.22	11.90	304.8	15.7

Hole ID	From (m)	To (m)	Interval (m)**	Au (g/t)	Ag (g/t)	AuEq (g/t)*
20CCRC009	67.06	71.63	4.57	7.59	14.3	7.8
And	204.22	231.65	27.43	0.87	30.1	1.3
20CCRD002	250	261	11	1.85	7.7	1.9
Including	258	259	1	13.40	12.2	13.6
20CCRD002	292.19	314	27.81	0.75	17.7	1.0
20CCRC005	9.14	13.72	4.58	1.22	78.1	2.2
20CCDD070	435	450	15	7.02	307.9	10.9
Including	437.48	437.96	0.48	113.50	5,290.0	179.6
20CCDD096	339	400	61	1.44	82.8	2.5
20CCDD098	371.95	410	38.05	5.71	7.8	5.8
Including	371.95	373	1.05	185.00	104.0	186.3
20CCDD104	331.2	439	107.8	2.00	46.8	2.6
and	416.79	426.8	10.01	12.06	310.6	16.0
20CCDD089	429.18	491	61.82	1.00	75.2	1.9

Source: Laycock et al., (2021)

At Dukes Ridge in 2020, 61 holes were drilled, of which 40 intersected anomalous gold and silver mineralisation. Results show the continuity between Cliff Creek, Dukes Ridge, and Phoenix Zones with an approximately 900 m strike length. The 2020 drilling, orientated core measurements, and surface mapping, confirmed the inferred interpretation that there are two oblique NW and NNW trending structures controlling the mineralisation at Dukes Ridge. The drilling identified three of the intersections of these repeating structures along the Dukes Ridge-Phoenix trend; 1) Dukes Ridge main where the bulk of previous drilling was done; 2) Phoenix representing the main Phoenix Vein; and 3) Dukes Ridge-Cliff Creek Connector Zone. Each of these intersection zones has a thickening and increase of grade. There is significant potential for deeper drilling and better definition of the Dukes Ridge to Phoenix Zones Trend.

The Phoenix Zone vein was intersected in the 2018 and 2019 drilling below the historical underground workings. In 2020, the Phoenix drilling mainly tested the Phoenix East anomaly defined by 2018 and 2019 surface sampling. Eight of the 12 drill holes completed in 2020 at the Phoenix Zone encountered anomalous gold and silver mineralisation. The Phoenix mineralisation now extends for approximately 500 m along strike and up to 75 m depth, with a 70º dip and appears to be open to the southeast and at depth. Further drilling is required to properly define the Phoenix extension of the Dukes Ridge to Phoenix Trend.

A total of 102 drill holes were completed at AGB Zone in 2020 and 75 of these holes encountered anomalous gold and silver mineralisation (Table 10-9). Mineralisation was successfully intersected at depth below historical underground workings and along strike. Drilling in the main AGB Zone where the historical mine workings are located confirmed that mineralisation occurs in the hanging wall of a major fault structure and is exposed at surface near the old portal. An upper zone, called the AGB West Zone, with mineralisation distinct from the main hydrothermal breccia zone, was also identified in the 2020 drilling. The 2020 drill program extended the mineralisation at AGB Main and AGB South by an additional 75 m at depth and AGB West is extended 200 m along strike and at depth. The style of mineralisation and the host rocks of the mineralisation also appear to change in the southern portion of AGB, which is separated from the AGB Main Zone by a major fault structure. This occurs beyond the historical workings and at the Kaip Trench anomaly. Further drilling is recommended to the South, and at depth, especially in the new AGB West Zone.

Table 10-9: 2020 Drill Assay Highlights from AGB Zone

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)
20AGBRC007	51.82	53.34	1.52	0.67	93.9	1.9
20AGBRC012	227.08	230.12	3.04	1.10	175.1	3.3
20AGBRC008	160.02	167.64	7.62	1.55	44.8	2.1
20AGBRC005	38.1	65.53	27.43	0.85	52.7	1.5
20AGBRC005	48.77	62.48	13.71	1.58	75.9	2.5
including	54.86	56.39	1.53	9.04	257.0	12.3
20AGBRC005	231.65	236.22	4.57	0.63	55.9	1.3
20AGBDD004	55.56	97.5	41.94	1.49	106.8	2.8
including	55.56	57.7	2.14	5.53	496.4	11.7
including	90.64	98.5	7.86	6.02	3535.4	10.4
20AGBDD028	54.56	123.13	68.57	0.90	50.4	1.5
20ABGDD060	28.09	81	52.91	5.95	130.9	7.6
20AGBDD035	14	57	43	1.92	55.8	2.6
20AGBDD039	17	83	66	2.34	51.5	3.0
including	37	42	5	15.31	180.8	17.6
20AGBDD046	3	125	122	1.30	32.2	1.7
including	35	89	54	2.22	42.1	2.7

Source: Laycock et al., (2021)

A total of five holes for 1,434 m were drilled in the Marmot Lake Zone. Gold and silver were encountered near surface in four of the holes drilled (Table 10-10). Mineralised structures were tested by four holes over a strike extent of 50 m, with the fifth and most successful hole located 250 m along strike to the southeast. Drilling of Marmot Lake prospect verified the surface geochemistry anomalies from soil and grab samples. Marmot Lake has strong potential for follow up drilling and the eventual potential of Mineral Resource definition given some of the wide grade intercepts and continuation of surface anomalies along strike.

Table 10-10: 2020 Drill Assay Highlights from Marmot Lake Prospect

Hole ID	From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	AuEq (g/t)
20MLDD002	19.8	38	18.2	0.55	25.9	0.9
including	28	29	1	2.62	115.0	4.1
20MLDD003	97.95	101	13.05	0.57	16.1	0.8
20MLDD005	146	247	101	0.55	21.8	0.8
including	146	148	2	9.83	375.0	14.5
and	162	164	2	3.31	266.0	6.6
and	215	216	1	8.43	98.9	9.7

Source: Laycock et al., (2021)

At Silver Pond, nine drill holes were completed to test surface geochemistry anomalies from the 2019 and 2020 soils and grab samples, and to test geophysical anomalies. Three of the drill holes refined the lateral extents and depth of the lithocap. There were some moderate grade, but widely spaced intercepts. Further drilling is required to properly define and evaluate Silver Pond mineralisation potential.

The Silver Pond exploration drilling conditions were challenging, due to broken rock and extremely acidic conditions, which resulted in poor recovery. A total of seven 2019 holes and 56 2020 holes had intervals of <50% recovery. The limited material representing the rubble within the open space was sampled. Larger samples up to 7.3 m were collected across backfilled voids or extremely low recovery zones. These were generally underground workings and were recorded as such.

10.4 2021 Drill Program

10.4.1 Drill Hole Location and Downhole Deviation

In 2021, the same methods of initial pad location and drill alignment were used as in 2021. However, the TN14-Gyro Compass (rather than the Devico DeviSight) was used for final drill alignment prior to the initiation of drilling. The TN14-Gyro was rented from Imdex (Reflex) in Vancouver, BC. The manufacture states that the instrument is accurate to within 0.5°. The azimuth of the drill rig was recorded on the Reflex instruments.

The same methods were used in 2021, as in 2020 (details in Section 10.3.1), for recording collar information and surveying final drill hole locations.

During the 2021 drill program, the core drillers were instructed to complete downhole deviation (orientation) measurements on every hole using a Champ Gyro (north seeking downhole gyro tool) or Reflex single-shot (magnetic) hole orientation instrument at approximately 30 m (100’100’) increments starting at 10 m (approximately 30’30’). The first survey is taken immediately following casing for holes surveyed with the Champ Gyro or a reasonable depth beyond the end of casing for holes surveyed with the Reflex single-shot tool. For the RC drill holes, down-hole deviation (orientation) surveys were completed at the conclusion of each hole (prior to the removal of drill rods) using a specialized gyro survey instrument. RC surveys are taken as a continuous reading from top to bottom and then back up to top with static readings taken at 30 m intervals. These surveys are relative surveys with the start being the drill alignment value from the TN-14 Gyrocompass.

10.4.2 2021 Drill Results

A total of 68,836 drill samples representing 81,086.61 m were collected from the 346 total holes and analysed, with an additional the 393 duplicates and 8,556 QA/QC inserts.

The 2021 diamond drill and RC program at the Lawyers Property was completed on 10 prospects: Cliff Creek, Dukes Ridge, Phoenix, and AGB, which collectively define the Lawyers Trend, and Marmot Lake, Silver Pond Clay, Silver Pond North, Silver Pond West, Silver Creek, and M Grid. Significant gold-silver mineralisation was encountered in 306 holes out of the 346 holes drilled in 2021; 101 RC holes and 245 diamond holes. Result highlights for each target prospect are summarized below.

10.4.2.1 Cliff Creek & Connector Zone

Drilling at the Cliff Creek deposit was designed to expand and better define mineralisation throughout the zone. The 2021 Cliff Creek drill program consisted of 109 diamond drill holes (totalling 36,624.6 m), from which 31, 663 samples were collected; 47 RC holes (totalling 5,666.23 m), from which 3,711 samples were collected. Significant anomalous gold and silver mineralisation was encountered in 150 out of the 156 drill holes completed. This drilling tested and confirmed the 2020 geological and mineralisation model, providing great confidence in the latest fault and resource models. The total strike of the delineated mineralised body is now 1.5 km. Infill drilling successfully intercepted mineralisation were expected, along the mineralised bodies. The main mineralised body remain open at depth and some of the smaller bodies remain open to the northwest or the southeast. The Cliff Creek East and Connector zones now extend along strike for a total strike length of 700 m connecting Dukes Ridge to Cliff Creek Main, and extend to a vertical depth of approximately 200 m.

The drilling in 2021 greatly expanded on the known mineralisation along the Connector Zone trend. Drill hole 21CCRC014 returned 0.55 ppm Au and 55.61 ppm Ag from 126.492 to 179.832 m (53.34 m interval). Drilling through the Main and South zone help to define mineralisation for resource classification. Some high-grade south zone intersection also expanded and upgraded known mineralisation on the known mineralised shoot at Cliff Creek South. Drill hole 21CCDD061 returned 1.73 ppm Au and 117.87 ppm Ag over 177.2 m including 14.24 ppm Au and 1102.99 ppm Ag from 333.35-350.6 m (17.25 m interval). Finally drilling at Cliff Creek Mid Zone designed to fill in between north and south identified some higher-grade intersections then previously seen within the Mid Zone. Drill hole 21CCRC020 returned grades of 3.07 ppm Au and 11.72 ppm Ag over 68.58 m near surface. These new intersections upgraded resource classification and identified greater resource potential in the Mid and Connector Zones. Drilling highlights over drill lengths from the 2021 Cliff Creek deposit are summarized in Table 10-11.

Table 10-11: 2021 Drill Highlights from Cliff Creek

Drill Hole	From (m)	To (m)	**Interval (m)	Gold (g/t)	Silver (g/t)	*Au-Eq (g/t)
21CCDD004	243.45	275	31.55	0.89	11.21	1.03
including	260	263	3	3.24	36.66	3.70
21CCDD010	88	118	30	1.28	60.01	2.04
including	103.34	110	6.66	3.09	206.88	5.68
including	107	109	2	7.38	592.50	14.78
21CCDD011	232	239	7	6.97	11.40	7.11
including	235	238	3	15.85	16.35	16.05
including	235	236	1	37.30	29.80	37.67
21CCDD012	179	226.13	47.13	0.52	27.86	0.87
including	212.81	226.13	13.32	1.43	81.38	2.45
including	218	219	1	9.92	617.10	17.63
21CCDD017	339	401	62	0.50	14.06	0.67
including	341	342.06	1.06	6.06	205.00	8.62
and	390.23	394	3.77	2.81	83.07	3.85
21CCDD036	428.5	471.5	43	0.71	13.09	0.88
21CCDD039	419.42	531.51	112.09	0.68	5.07	0.74
including	442	448	6	4.91	5.39	4.97
including	442	443	1	13.10	12.70	13.26
21CCDD051	143	257.2	114.2	0.52	13.65	0.69
including	143	202	59	0.46	14.53	0.64
including	143	144	1	5.24	152.00	7.14
and	230	257.2	27.2	1.06	22.99	1.35
including	245.15	246.2	1.05	11.55	133.00	13.21
21CCDD061	176	353.2	177.2	1.73	117.87	3.21
including	333.35	350.6	17.25	14.24	1,102.99	28.03
including	337.8	346	8.2	23.83	2,044.15	49.38
including	340	341	1	38.30	3,740.00	85.05
21CCDD068	85.78	88	2.22	9.92	1,392.48	27.33
21CCDD068	86.22	87.34	1.12	19.45	2,720.00	53.45
21CCDD075	119.55	148.52	28.97	1.54	19.95	1.79
including	121.3	128	6.7	5.06	50.64	5.69
including	125	128	3	7.75	76.27	8.70
21CCRC014	126.492	179.832	53.34	0.55	55.61	1.24
including	166.116	176.784	10.668	1.85	239.87	4.85
including	167.64	169.164	1.524	8.03	1,220.00	23.28
21CCRC020	19.812	88.392	68.58	3.07	11.72	3.22

Drill Hole	From (m)	To (m)	**Interval (m)	Gold (g/t)	Silver (g/t)	*Au-Eq (g/t)
including	19.812	41.148	21.336	9.21	30.17	9.59
including	27.432	30.48	3.048	56.65	79.75	57.65
21CCRC025	120.396	152.4	32.004	0.70	30.43	1.08
including	121.92	134.112	12.192	1.21	68.01	2.06

Notes:

* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.

** Intervals are core-length. True width is estimated between 80% to 90% of core length.

Source: APEX (2022)

10.4.2.2 AGB

Drilling at AGB was designed to expand on mineralisation to the south and at depth as well as better define mineralisation in the core of AGB around historic drilling and workings. Drilling targeted mineralisation that is part of the upper levels of the historical mine, which were not exploited previously, at depth below the historical drilling and mining, and to the south where no drilling had previously been done. The 2021 AGB drill program consisted of 58 diamond drill holes totalling 13,297.63 m from which 11,111 samples were collected totalling and 12,618.98 m, and 24 RC drill holes totalling 3,540.25 m from which 2,303 samples were collected totalling 3,509.77 m. At the AGB prospect, 63 of 82 drill holes completed encountered significant anomalous gold and silver mineralisation. The AGB drilling encountered mineralisation were expected and expanded the resource significantly to the south. The drilling extended the Main and West Zones an additional 100 m down dip along much of the strike length of the AGB deposit. The South Zone was extended to 300 m of vertical depth tripling the previous drilled depth. The known strike of mineralisation was extended 100 m to the south surfacing along the side of the AGB hills southern slope. Drilling around the historic workings confirmed working locations and identified areas where high grade material was not mined out from historic mining operations. Drilling highlights from the 2021 drilling at the AGB prospect are presented in Table 10-12.

Table 10-12: 2021 Drill Highlights from AGB

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21AGBDD007	133	191	58	0.26	23.21	0.55
including	183	189	6	1.12	30.30	1.49
21AGBDD007	299	307	8	1.35	165.55	3.42
including	302	303	1	7.75	801.00	17.76
21AGBDD011	266.62	299	32.38	0.85	38.68	1.34
including	269	270.08	1.08	4.05	120.00	5.55
21AGBDD015	193	225.85	32.85	1.50	3.07	1.53
including	208.67	210.7	2.03	15.87	7.58	15.96

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21AGBDD022	128	139.15	11.15	2.15	53.90	2.83
including	134	134.78	0.78	18.20	387.00	23.04
21AGBDD022	230	264	34	0.90	14.90	1.08
including	238	239	1	8.75	18.25	8.98
21AGBDD022	307	335	28	0.76	30.38	1.14
including	324	330.46	6.46	2.81	80.85	3.82
21AGBDD032	210	234	24	1.58	40.76	2.09
including	216	217	1	7.76	24.30	8.06
21AGBDD033	149	246.46	97.46	0.12	15.81	0.32
including	159	170	11	0.38	25.52	0.70
21AGBDD036	89.16	115.16	26	0.43	60.23	1.18
Including	113	114.5	1.5	2.02	214.00	4.70
21AGBDD039	112	153	41	1.88	123.12	3.41
Including	137.9	143	5.1	10.61	651.31	18.75
Including	139.29	139.77	0.48	14.65	1,010.00	27.28
21AGBDD040	3.4	105	101.6	4.68	89.89	5.80
Including	24.15	37.15	13	23.72	212.84	26.38
Including	24.15	29.93	5.78	41.59	320.90	45.60
Including	27	28	1	81.40	668.00	89.75
21AGBDD042	81	136.11	55.11	0.42	44.52	0.98
Including	129.46	130.25	0.79	9.73	478.00	15.71
21AGBDD043	87.75	136	48.25	1.12	30.56	1.50
Including	107.56	114.71	7.15	2.06	78.36	3.04
Including	108.7	109.85	1.15	8.31	111.00	9.70
21AGBDD043	128	128.87	0.87	28.70	172.00	30.85
21AGBDD044	5.88	90	84.12	0.50	32.49	0.90
Including	67	70	3	3.33	51.06	3.97
21AGBDD045	2.45	98	95.55	3.14	59.85	3.89
Including	77	84	7	36.20	275.83	39.65
Including	80	83.08	3.08	60.14	236.39	63.10
21AGBDD048	3	36	33	0.45	59.22	1.20
Including	19	20	1	8.79	792.00	18.69
21AGBDD049	4.65	55	50.35	0.60	65.95	1.43
Including	4.65	10.35	5.7	3.88	303.31	7.67
Including	6.71	8.66	1.95	8.05	658.48	16.28
21AGBDD054	1.5	39	37.5	2.15	46.76	2.74
Including	1.5	4	2.5	22.62	120.26	24.13

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
Including	2	3	1	41.60	143.00	43.39
21AGBDD055	11.32	47	35.68	1.22	37.32	1.68
Including	25	27	2	5.95	125.20	7.52
21AGBRC011	0	111.252	111.252	0.63	23.10	0.92
Including	24.384	85.344	60.96	0.82	26.09	1.15

Notes:
* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.
** Intervals are core-length. True width is estimated between 80 to 90% of core length.
Source: APEX (2022)

10.4.2.3 Dukes Ridge

Drilling at the Dukes Ridge deposit was primarily designed to expand on recently discovered significant mineralised zones at depth and along strike, expanding the resource in all direction and increase mineralised connectivity between Dukes Ridge, Phoenix, and Cliff Creek. The 2021 Dukes Ridge drilling included 24 diamond drill holes totalling 5,773.5 m with 4,466.2 samples collected totalling 5,552.01 m, and 19 RC drill holes totalling 2,314.6 m with 1,519 samples collected totalling 2,314.96 m. Anomalous gold and silver mineralisation was encountered in 40 of 43 drill holes. The drilling completed on Dukes Ridge identified significant mineralisation at depth and along strike. Drilling at depth returned 1.86 ppm Au and 39.96 ppm Ag from 241 to 290.1 m (49.1 m interval) in drill hole 21DRDD005. This extended mineralisation ~150 m to a vertical depth of 250 m. Significant mineralisation was also identified to the north of the main Dukes Ridge Zone between Dukes Ridge and Connector Zone. Shallow drilling in hole 21DRDD001 returned 1.45 ppm Au and 13.65 ppm Ag from 24 to 55.5 m (31.5 m interval). Increased diamond drilling also significantly increased the understanding of the geology of the Dukes Ridge trend. Near vertical high-grade narrow vein sets striking WNW intersect NW trending hydrothermal breccias and cataclasite defining high grade mineralised shoots plunging to the SSE. Drilling highlights from the 2021 Dukes Ridge deposit are summarized in Table 10-13.

Table 10-13: 2021 Drill Highlights from Dukes Ridge

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21DRDD001	24	55.5	31.5	1.45	13.65	1.62
including	31	33	2	16.63	90.15	17.75
21DRDD002	214	274.31	60.31	0.60	31.70	1.00
including	230.8	232	1.2	14.00	1,213.00	29.16
21DRDD003	252	316.48	64.48	0.70	29.02	1.06
including	274.59	276.46	1.87	7.61	426.19	12.93
and	315	316.48	1.48	4.64	202.32	7.17

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21DRDD005	241	290.1	49.1	1.86	39.96	2.36
including	262	263	1	13.50	49.80	14.12
including	285.25	288.43	3.18	13.61	276.81	17.07
including	285.25	285.73	0.48	40.00	1,095.00	53.69
21DRDD010	268.2	303.23	35.03	1.14	20.64	1.39
including	292.4	297	4.6	6.17	89.72	7.29
including	292.4	294	1.6	8.67	159.50	10.66
21DRDD014	112	134	22	0.96	51.91	1.61
including	122.08	122.55	0.47	11.80	1,050.00	24.93
21DRDD019	66	109	43	0.44	23.97	0.74
including	90	91	1	4.06	147.00	5.90
21DRRC002	1.524	13.716	12.192	3.41	58.22	4.13
including	6.096	7.62	1.524	22.00	320.00	26.00
21DRRC005	0	10.668	10.668	3.45	181.81	5.72
including	4.572	9.144	4.572	7.23	385.00	12.04
21DRRC006	10.668	65.532	54.864	0.51	21.80	0.78
21DRRC007	32.004	123.444	91.44	0.56	19.53	0.80
including	57.912	71.628	13.716	1.43	67.76	2.28
including	70.104	71.628	1.524	4.51	61.80	5.28
21DRRC013	1.524	88.392	86.868	0.39	12.23	0.55
including	9.144	19.812	10.668	1.13	37.32	1.59
21DRRC014	3.048	71.628	68.58	0.34	8.64	0.45
21DRRC018	1.524	21.336	19.812	0.81	61.18	1.57
including	3.048	4.572	1.524	3.39	201.00	5.90

Notes:
* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.
** Intervals are core-length. True width is estimated between 80% to 90% of core length.
Source: APEX (2022)

10.4.2.4 Phoenix

The drilling at the Phoenix deposit was designed to follow up on surface geochemical anomalies (rock grab and soils at Phoenix East) and fence the main mineralised zone to determine the potential extent of Phoenix mineralisation to the east. The 2021 drill program consisted of 5 RC drill holes totalling 481.58 m with 316 samples collected totalling 481.58 m. Of the 5 holes completed at the Phoenix prospect 3 of them encountered anomalous gold and silver mineralisation. Phoenix drilling expanded on some narrow, mineralised occurrences trending into Dukes Ridge. Drilling highlights from the 2021 drilling at the Phoenix prospect are presented in Table 10-14.

Table 10-14: 2021 Drill Highlights from Phoenix

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21PXRC004	9.144	15.24	6.096	0.95	59.71	1.70
21PXRC005	124.968	129.54	4.572	3.60	88.40	4.70
including	126.492	128.016	1.524	9.99	208.00	12.59

Notes:

* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.

** Intervals are core-length. True width is estimated between 80% to 90% of core length.

Source: APEX (2022)

10.4.2.5 Marmot Lake & Marmot Lake East

The 2021 drilling at Marmot Lake was focused on the mineralisation identified in the center of the prospect from the 2020 drilling and on the mineralisation in the northwest of the prospect. The purpose was to expand on previously encountered mineralisation and to drill mineralised structures identified in the 2019 to 2021 field programs following up on ground geophysics, surface geochemical anomalies, and mapping. Drilling consisted of 27 diamond drill holes, totalling 8,074.28 m with a total of 7,502 samples collected totalling 7,965.09 m. Anomalous gold or silver mineralisation was encountered in 26 of the 27 drilled holes on the Marmot Lake prospect. The Marmot Lake mineralisation intersected represents a significant new find on the Property. Further drilling is required to determine the extent and true orientation of the mineralisation. Drilling highlights from 2021 drilling at the Marmot Lake prospect are presented in Table 10-15.

Table 10-15: 2021 Drill Highlights from Marmot Lake

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21MLDD002	168	175.5	7.5	2.01	168.25	4.11
including	171.5	172.5	1	7.29	557.00	14.25
and	174.5	175.5	1	5.50	483.00	11.54
21MLDD004	65	96	31	0.88	15.22	1.07
21MLDD004	257	334	77	1.11	35.93	1.56
including	266	269	3	16.29	599.67	23.79
21MLDD006	157	168	11	2.94	4.36	2.99
21MLDD011	115	154	39	0.71	17.37	0.93
including	120.12	122	1.88	5.16	92.58	6.31
and	131	132	1	5.99	81.40	7.01
21MLDD012	91	131.1	40.1	0.51	26.01	0.84
including	102.91	103.93	1.02	3.56	132.00	5.21

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
and	110	113.83	3.83	0.94	68.55	1.79
and	129.26	131.1	1.84	5.07	89.98	6.20
21MLDD017	8.13	48	39.87	0.31	35.49	0.75
including	25	26	1	2.18	333.00	6.34
21MLDD018	81	127.2	46.2	0.63	2.87	0.66
including	94	127.2	33.2	0.79	3.14	0.83
including	115	125	10	1.90	2.34	1.93
including	115	117	2	4.46	3.82	4.51

Notes:

* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.

** Intervals are core-length. True width is estimated between 80% to 90% of core length.

Source: APEX (2022)

10.4.2.6 Silver Pond North & Silver Pond Clay

Drilling of the Silver Pond North and Silver Pond Clay prospects was conducted on the Silver Pond and Silver Pond North zones and was designed to follow-up of surface geochemistry (soil and grab samples). Drilling targeted IP anomalies as well as mapped structures from the 2020 program. Drilling was limited to Diamond drilling. A total of 3,914.14 m was drilled from which 3,536 samples were collected for assay. Of the 9 diamond drill holes on the Silver Pond North and Silver Pond Clay prospects, 5 of them hit anomalous gold and silver mineralisation. Analysis of the clay minerals identified higher temperature indicators including dickite, alunite, and pyrophyllite supporting closer proximity to fluid sources. Broader argillic assemblages with occasional gypsum to the north of the prospect within drill hole 21SPNDD004 along with silicification and increasing pyrite and base metal mineralisation support porphyry proximity. Drill hole 21SPNDD004 returned 0.25 ppm Au from 11.07 to 110.00 m (98.93 m interval) along with elevated Cu results, 300-800 ppm. Silver Pond Clay mineralisation is concentrated to structural zones and veins running NW to SE. Silver Pond North mineralisation was found over broad altered zones. Drilling highlights from 2021 drilling at the Silver Pond North and Silver Pond Clay prospect are presented in Table 10-16.

Table 10-16: 2021 Drill Highlights from Silver Pond Clay and Silver Pond North

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21SPCDD004	301	334.2	33.2	0.59	0.48	0.59
Including	250	251.09	1.09	2.33	0.38	2.33
21SPNDD003	41	75.89	34.89	0.27	0.81	0.28
21SPNDD004	11.07	110	98.93	0.25	0.77	0.26

Notes:
* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.
** Intervals are core-length. True width is estimated between 80% to 90% of core length.
Source: APEX (2022)

10.4.2.7 Silver Pond West & Silver Creek

Drilling of the Silver Pond West and Silver Creek prospects was designed to confirm and evaluate historic drill results and test the extents of mineralisation past historic drilling. A total of 3,347 m was drilled from which 3,033 samples were collected for assay. Of the 18 diamond drill holes on the Silver Pond West and Silver Creek prospects, 16 of them hit anomalous gold and silver mineralisation with 10 of those returning an intercept greater than 10 g/t AuEq. Mineralisation was confirmed to be present and spotty as was indicated by historic drill results. Drilling highlights from 2021 drilling at the Silver Pond West and Silver Creek prospect are presented in Table 10-17.

Table 10-17: 2021 Drill Highlights from Silver Pond West and Silver Creek

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
21SCDD006	48.6	89	40.4	0.47	3.98	0.52
including	51.26	54.8	3.54	1.96	9.46	2.08
21SPWDD005	15	47	32	0.29	6.10	0.37
including	31.25	32	0.75	2.7	96.5	3.91
21SPWDD006	28	33.96	5.96	12.40	9.14	12.52
including	30.84	31.58	0.74	57.4	54.9	58.09
21SPWDD006	63	72	9	2.35	2.69	2.38
including	67	68	1	10.4	3.03	10.44
21SPWDD010	12.49	29	16.51	0.50	17.53	0.72
including	12.49	13.26	0.77	2.45	203	4.99

Notes:
* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.
** Intervals are core-length. True width is estimated between 80% to 90% of core length.
Source: APEX (2022)

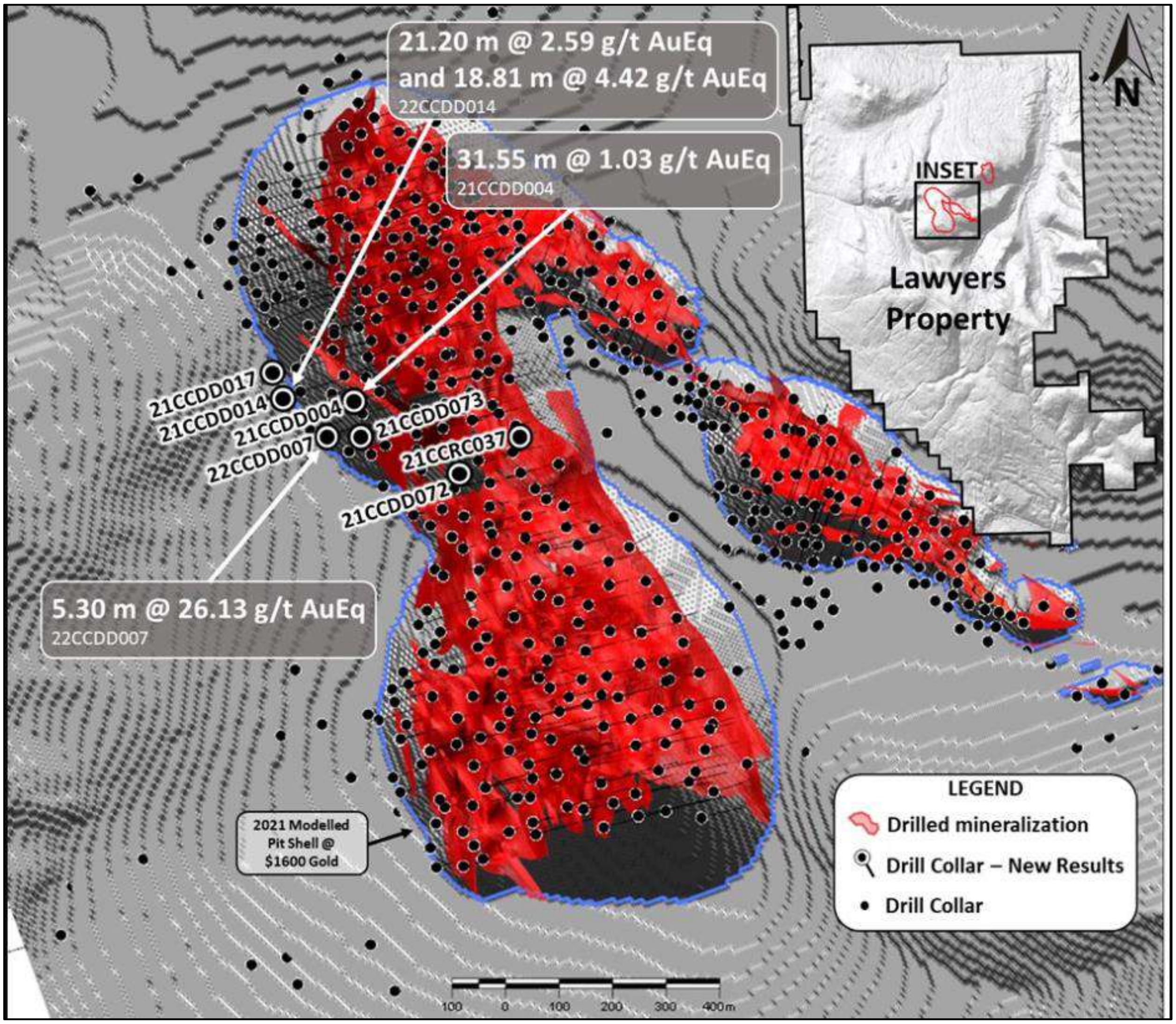
10.4.2.8 M-Grid

Drilling at M-Grid, located to the southwest of Cliff Creek, was planned to evaluate a geophysical anomaly and test some historic drilling. A total of 6 RC holes were drilled, for a total of 905.28 m. Anomalous Au-Ag mineralisation was intersected in several of these holes. The best intersection was 0.51 g/t AuEq over 13.71 m in 21MGRC003.

10.5 2022 Drill Program

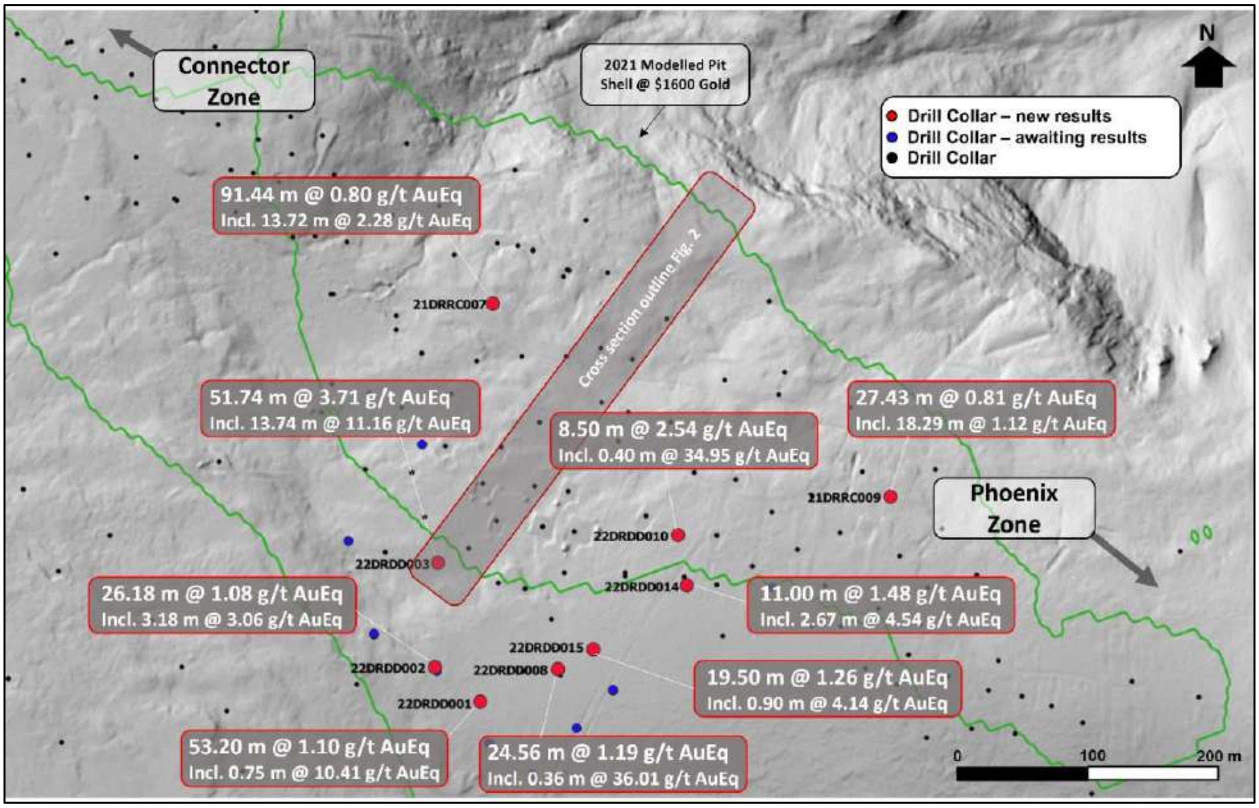
The 2022 winter diamond drill program at the Lawyers Property was completed on the Cliff Creek, Dukes Ridge, Marmot Lake, and Phoenix. The drill program consisted of 65 diamond drill holes totalling 17,258.3 m. A total of 12,848 samples representing 16,940.8 m of drilling were collected for assay from the 65 diamond drill holes. There were 1,535 QAQC samples inserted in the sample stream including 35 duplicates. Some of the drill holes and results are shown in Figure 10-2 to Figure 10-4.

Figure 10-2: Cliff Creek Deposit Area Plan Map



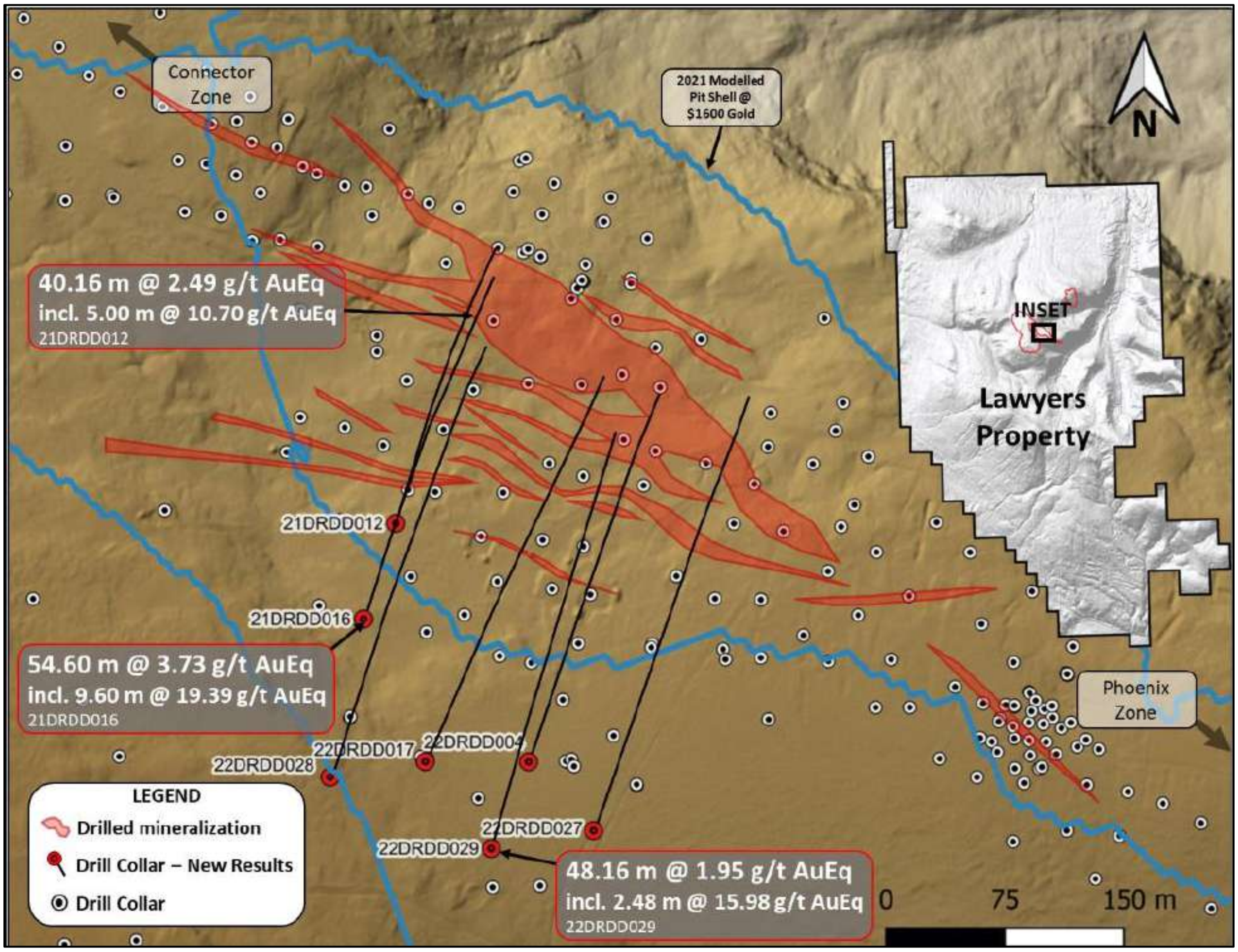
Source: Benchmark (2022)

Figure 10-3: 2022 Dukes Ridge Drill Hole Results



Source: Benchmark (2022)

Figure 10-4: 2022 Drilling at Dukes Ridge-Phoenix



Source: Benchmark (2022)

The 2022 winter drill program was designed primarily to follow up on high grade trends at depth at Dukes Ridge, Cliff Creek, and Marmot Lake. Along with this resource drilling geotechnical drilling was started on the proposed waste rock facility one and at the proposed facilities locations. This drilling was also used as additional condemnation drilling in these areas. Significant gold-silver mineralisation was encountered in 44 holes out of the 50 resource expansion holes. A single sample from the 15 geotechnical holes returned an anomalous result.

Drilling at Cliff Creek intersected strong mineralisation were expected at depth extending and filling in mineralisation along the main mineralised structure. The drilling was targeting a NW oriented structure known as west zone that forms a high-grade mineralised shoot where it intersects the main zone. Drilling at Dukes Ridge increased the depth of drilling by nearly 100 m along a 500 m strike length. This greatly increased the size of the mineralised zones at Dukes Ridge with nearly all holes intersecting strong mineralisation where expected.

Table 10-18: 2022 Drill Highlights from Winter Program Resource Drilling

Drill Hole	From (m)	To (m)	**Interval (m)	Au (ppm)	Ag (ppm)	*AuEq (ppm)
22CCDD014	195.8	217	21.2	1.98	48.77	2.59
and	380	398.81	18.81	3.09	106.5	4.42
including	384	387.05	3.05	14.8	565.79	21.87
22DRDD029	372	420.16	48.16	1.41	43.2	1.95
Including	397.8	400.28	2.48	10.3	454.16	15.98
22MLDD002	65	112	47	1.03	44.32	1.58
Including	73	76	3	12.1	430.08	17.48

Notes:
* Gold equivalent (AuEq) calculated using 80:1 silver to gold ratio.
** Intervals are core-length. True width is estimated between 80% to 90% of core length.
Source: APEX (2022)

10.6 Infill Sampling

In addition to the new drilling completed by Benchmark during the 2018 to 2020 field seasons, a program of "infill sampling" was completed on the archived drill core remaining primarily from the 2015 drill program, which was previously sampled by PPM (Phoenix Precious Metals Corp.). The infill sampling program was initiated by Benchmark, due to the fact that the original sampling of most of the Project's historical drill holes was selective, being focused on obvious mineralised, veined and brecciated zones. However, the more complete sampling of the 2018 drill holes identified a number of anomalous to mineralised gold and silver samples and zones in sections of drill holes that visually appeared to be only weakly altered or veined.

A total of 1,822 infill samples were collected from forty 2005, 2006 and 2015 drill holes, from the Cliff Creek, Dukes Ridge and AGB zones. In addition, 292 infill samples were collected from previously unsampled section within eight 2018 and 2019 drill holes. The infill samples were collected, handled, shipped, secured, prepared and analysed according to the same procedures as the regular Lawyers drill program samples, including the application of QC sampling procedures as described in Section 11 of this Technical Report.

Table 10-19: 2018-2022 Drill Collar Locations and Information, Lawyers Property

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
18CCDD001	607,499	6,355,744	1,800	76	-48	212	DD	NQ2	Cliff Creek Resource
18CCDD002	607,470	6,355,715	1,802	84	-49	183	DD	NQ2	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
18CCDD003	607,511	6,355,487	1,834	76	-49	240	DD	NQ2	Cliff Creek Resource
18CCDD004	607,591	6,355,405	1,852	75	-50	222	DD	NQ2	Cliff Creek Resource
18CCRC001	607,698	6,355,382	1,849	75	-50	101	RC		Cliff Creek Resource
18CCRC002	607,651	6,355,368	1,851	75	-50	101	RC		Cliff Creek Resource
18CCRC003	607,641	6,355,418	1,849	75	-50	62	RC		Cliff Creek Resource
18CCRC004	607,608	6,355,465	1,847	75	-50	101	RC		Cliff Creek Resource
18CCRC005	607,651	6,355,506	1,839	75	-50	91	RC		Cliff Creek Resource
18CCRC006	607,712	6,355,541	1,838	260	-50	81	RC		Cliff Creek Resource
18CCRC007	607,559	6,355,762	1,802	75	-50	105	RC		Cliff Creek Resource
18CCRC008	607,618	6,355,772	1,803	80	-65	23	RC		Cliff Creek Resource
18CCRC008A	607,618	6,355,772	1,804	80	-65	70	RC		Cliff Creek Resource
18CCRC009	607,639	6,355,760	1,805	75	-50	50	RC		Cliff Creek Resource
18CCRC010	607,703	6,355,259	1,858	75	-50	125	RC		Cliff Creek Resource
18CCRC011	607,963	6,354,780	1,903	75	-50	181	RC		Cliff Creek Resource
18CCRC012	607,650	6,355,421	1,848	75	-50	52	RC		Cliff Creek Resource
18CCRC013	607,605	6,355,805	1,797	75	-50	81	RC		Cliff Creek Resource
18DRDD001	608,261	6,355,192	1,846	19	-50	203	DD	NQ2	Dukes Ridge-Phoenix Resource
18DRDD002	608,404	6,355,224	1,838	196	-50	139	DD	NQ2	Dukes Ridge-Phoenix Resource
18DRRC001	608,484	6,355,078	1,863	16	-50	101	RC		Dukes Ridge-Phoenix Resource
18DRRC002	608,290	6,355,336	1,820	200	-65	130	RC		Dukes Ridge-Phoenix Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
18DRRC003	608,376	6,355,153	1,851	200	-50	81	RC		Dukes Ridge-Phoenix Resource
18DRRC004	608,200	6,355,216	1,844	20	-50	91	RC		Dukes Ridge-Phoenix Resource
18DRRC005	608,121	6,355,286	1,845	20	-50	151	RC		Dukes Ridge-Phoenix Resource
18DRRC006	608,162	6,355,282	1,841	20	-50	70	RC		Dukes Ridge-Phoenix Resource
18DRRC007	608,208	6,355,356	1,827	200	-50	61	RC		Dukes Ridge-Phoenix Resource
18DRRC008	608,233	6,355,310	1,828	20	-50	101	RC		Dukes Ridge-Phoenix Resource
18DRRC009	608,308	6,355,146	1,852	20	-50	70	RC		Dukes Ridge-Phoenix Resource
18DRRC010	608,292	6,355,279	1,835	200	-50	41	RC		Dukes Ridge-Phoenix Resource
18DRRC011	608,326	6,355,256	1,836	200	-50	61	RC		Dukes Ridge-Phoenix Resource
18PXDD001	608,618	6,354,953	1,868	19	-49	115	DD	NQ2	Dukes Ridge-Phoenix Resource
18PXDD002	608,618	6,354,953	1,868	15	-55	179	DD	NQ2	Dukes Ridge-Phoenix Resource
18PXRC001	608,655	6,354,966	1,869	20	-50	81	RC		Dukes Ridge-Phoenix Resource
18PXRC002	608,647	6,354,943	1,868	20	-50	81	RC		Dukes Ridge-Phoenix Resource
18PXRC003	608,587	6,354,970	1,868	20	-50	81	RC		Dukes Ridge-Phoenix Resource
18PXRC004	608,596	6,354,993	1,868	20	-50	81	RC		Dukes Ridge-Phoenix Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
18PXRC005	608,564	6,355,005	1,868	20	-50	116	RC		Dukes Ridge-Phoenix Resource
19AGBDD001	609,345	6,356,378	1,825	70	-50	268	DD	HQ	AGB Resource
19AGBDD002	609,473	6,356,275	1,793	70	-50	216	DD	NQ2	AGB Resource
19AGBDD003	609,682	6,356,686	1,770	250	-45	398	DD	HQ	AGB Resource
19AGBDD004	609,334	6,356,414	1,830	70	-53	316	DD	HQ	AGB Resource
19AGBDD005	609,334	6,356,414	1,830	69	-63	347	DD	HQ	AGB Resource
19AGBDD006	609,345	6,356,378	1,825	70	-60	317	DD	HQ	AGB Resource
19AGBDD007	609,352	6,356,442	1,833	70	-50	277	DD	NQ2	AGB Resource
19AGBDD008	609,352	6,356,442	1,833	70	-61	326	DD	NQ2	AGB Resource
19AGBDD009	609,567	6,356,140	1,719	70	-50	139	DD	NQ2	AGB Resource
19AGBDD010	609,567	6,356,140	1,719	70	-70	146	DD	NQ2	AGB Resource
19CCDD001	607,546	6,355,563	1,828	74	-50	248	DD	NQ2	Cliff Creek Resource
19CCDD002	607,584	6,355,668	1,818	74	-50	215	DD	NQ2	Cliff Creek Resource
19CCDD003	607,523	6,355,526	1,830	76	-50	249	DD	NQ2	Cliff Creek Resource
19CCDD004	607,645	6,355,422	1,849	74	-50	184	DD	NQ2	Cliff Creek Resource
19CCDD005	607,441	6,355,536	1,817	75	-50	322	DD	NQ2	Cliff Creek Resource
19CCDD006	607,619	6,355,693	1,817	75	-50	173	DD	NQ2	Cliff Creek Resource
19CCDD007	607,546	6,355,681	1,811	75	-50	209	DD	HQ	Cliff Creek Resource
19CCDD008	608,185	6,354,829	1,883	76	-50	151	DD	NQ2	Cliff Creek Exploration South
19CCDD009	607,905	6,354,766	1,906	75	-50	290	DD	NQ2	Cliff Creek Resource
19CCDD010	607,836	6,354,701	1,910	76	-50	355	DD	NQ2	Cliff Creek Resource
19CCDD011	607,935	6,354,726	1,906	75	-50	288	DD	NQ2	Cliff Creek Resource
19CCDD012	607,986	6,354,740	1,904	76	-50	246	DD	NQ2	Cliff Creek Resource
19CCDD013	607,996	6,354,690	1,906	75	-50	264	DD	NQ2	Cliff Creek Resource
19CCDD014	607,900	6,354,664	1,910	75	-50	334	DD	NQ2	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
19CCDD015	607,941	6,354,819	1,903	75	-50	224	DD	NQ2	Cliff Creek Resource
19CCDD016	607,701	6,355,222	1,863	75	-50	239	DD	NQ2	Cliff Creek Resource
19CCDD017	607,723	6,355,180	1,869	75	-50	261	DD	NQ2	Cliff Creek Resource
19CCDD018	607,780	6,355,199	1,868	74	-50	201	DD	NQ2	Cliff Creek Resource
19CCDD019	607,672	6,355,317	1,853	75	-50	192	DD	NQ2	Cliff Creek Resource
19CCDD020	607,566	6,355,537	1,832	75	-50	255	DD	NQ2	Cliff Creek Resource
19CCDD021	607,613	6,355,549	1,834	75	-50	178	DD	NQ2	Cliff Creek Resource
19CCDD022	607,661	6,355,562	1,835	75	-50	206	DD	NQ2	Cliff Creek Resource
19CCDD023	607,645	6,355,619	1,828	75	-50	133	DD	NQ2	Cliff Creek Resource
19CCDD024	607,820	6,356,086	1,773	75	-50	181	DD	NQ2	Cliff Creek Exploration North
19CCDD025	607,640	6,355,665	1,821	75	-50	171	DD	HQ	Cliff Creek Resource
19CCDD026	607,729	6,356,058	1,766	75	-50	180	DD	NQ2	Cliff Creek Exploration North
19DRDD001	608,469	6,355,037	1,866	20	-50	185	DD	NQ2	Dukes Ridge-Phoenix Resource
19DRDD002	608,280	6,355,127	1,854	20	-50	249	DD	NQ2	Dukes Ridge-Phoenix Resource
19DRDD003	608,242	6,355,167	1,849	20	-50	233	DD	NQ2	Dukes Ridge-Phoenix Resource
19DRDD004	608,330	6,355,138	1,853	20	-50	221	DD	NQ2	Dukes Ridge-Phoenix Resource
19DRDD005	608,276	6,355,281	1,834	20	-50	212	DD	NQ2	Dukes Ridge-Phoenix Resource
19PXDD001	608,601	6,354,907	1,865	18	-50	188	DD	NQ2	Dukes Ridge-Phoenix Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
19PXDD002	608,635	6,354,914	1,866	20	-50	124	DD	NQ2	Dukes Ridge-Phoenix Resource
19PXDD003	608,578	6,354,948	1,868	21	-50	157	DD	NQ2	Dukes Ridge-Phoenix Resource
19PXDD004	608,807	6,354,938	1,869	20	-50	154	DD	NQ2	Phoenix
19PXDD005	608,770	6,354,842	1,859	20	-50	160	DD	NQ2	Phoenix
19PXDD006	608,820	6,354,782	1,847	20	-50	186	DD	NQ2	Phoenix
20AGBDD001	609,474	6,356,523	1,836	68	-51	84	DD	HQ	AGB Resource
20AGBDD002	609,469	6,356,557	1,841	70	-50	161	DD	HQ	AGB Resource
20AGBDD003	609,404	6,356,556	1,841	70	-50	204	DD	HQ	AGB Resource
20AGBDD004	609,456	6,356,576	1,851	70	-50	102	DD	HQ	AGB Resource
20AGBDD005	609,456	6,356,576	1,851	70	-50	221	DD	NQ2	AGB Resource
20AGBDD006	609,488	6,356,547	1,842	250	-70	127	DD	HQ	AGB Resource
20AGBDD007	609,551	6,356,478	1,797	251	-50	119	DD	HQ	AGB Resource
20AGBDD008	609,544	6,356,297	1,790	70	-50	120	DD	NQ2	AGB Resource
20AGBDD009	609,488	6,356,244	1,782	70	-50	189	DD	NQ2	AGB Resource
20AGBDD010	609,434	6,356,315	1,800	70	-50	219	DD	NQ2	AGB Resource
20AGBDD011	609,373	6,356,330	1,806	70	-50	263	DD	NQ2	AGB Resource
20AGBDD012	609,320	6,356,339	1,806	70	-50	312	DD	NQ2	AGB Resource
20AGBDD013	609,236	6,356,358	1,813	64	-50	386	DD	NQ2	AGB Resource
20AGBDD014	609,307	6,356,492	1,831	70	-50	320	DD	HQ	AGB Resource
20AGBDD015	609,383	6,356,468	1,832	70	-50	251	DD	HQ	AGB Resource
20AGBDD016	609,418	6,356,373	1,819	72	-50	228	DD	HQ	AGB Resource
20AGBDD017	609,357	6,356,509	1,833	70	-50	253	DD	HQ	AGB Resource
20AGBDD018	609,347	6,356,543	1,834	71	-50	253	DD	HQ	AGB Resource
20AGBDD019	609,451	6,356,419	1,824	70	-60	147	DD	HQ	AGB Resource
20AGBDD020	609,466	6,356,709	1,835	71	-50	152	DD	HQ	AGB Resource
20AGBDD021	609,494	6,356,626	1,843	249	-80	234	DD	HQ	AGB Resource
20AGBDD022	609,390	6,356,588	1,845	70	-50	173	DD	HQ	AGB Resource
20AGBDD023	609,449	6,356,528	1,838	71	-65	150	DD	HQ	AGB Resource
20AGBDD024	609,449	6,356,528	1,838	70	-50	192	DD	HQ	AGB Resource
20AGBDD025	609,443	6,356,605	1,856	70	-50	125	DD	HQ	AGB Resource
20AGBDD026	609,483	6,356,233	1,781	90	-50	200	DD	NQ2	AGB Resource
20AGBDD027	609,318	6,356,467	1,831	72	-50	328	DD	NQ2	AGB Resource
20AGBDD028	609,476	6,356,458	1,825	65	-50	162	DD	HQ	AGB Resource
20AGBDD029	609,393	6,356,503	1,834	64	-50	219	DD	HQ	AGB Resource
20AGBDD030	609,485	6,356,479	1,826	70	-50	164	DD	HQ	AGB Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20AGBDD031	609,384	6,356,446	1,830	70	-50	198	DD	HQ	AGB Resource
20AGBDD032	609,505	6,356,582	1,842	71	-50	146	DD	HQ	AGB Resource
20AGBDD033	609,445	6,356,470	1,830	70	-50	109	DD	HQ	AGB Resource
20AGBDD034	609,324	6,356,622	1,835	70	-50	275	DD	NQ2	AGB Resource
20AGBDD035	609,517	6,356,195	1,760	71	-50	177	DD	HQ	AGB Resource
20AGBDD036	609,306	6,356,709	1,831	72	-50	314	DD	NQ2	AGB Resource
20AGBDD037	609,515	6,356,197	1,767	71	-70	215	DD	NQ2	AGB Resource
20AGBDD038	609,308	6,356,686	1,832	71	-50	333	DD	NQ2	AGB Resource
20AGBDD039	609,516	6,356,196	1,760	116	-50	179	DD	NQ2	AGB Resource
20AGBDD040	609,340	6,356,570	1,835	67	-50	251	DD	HQ	AGB Resource
20AGBDD041	609,431	6,356,632	1,857	67	-50	245	DD	HQ	AGB Resource
20AGBDD042	609,378	6,356,612	1,847	68	-50	221	DD	HQ	AGB Resource
20AGBDD043	609,397	6,356,399	1,825	70	-50	331	DD	HQ	AGB Resource
20AGBDD044	609,540	6,356,334	1,795	70	-50	119	DD	NQ2	AGB Resource
20AGBDD045	609,560	6,356,273	1,784	69	-50	131	DD	NQ2	AGB Resource
20AGBDD046	609,518	6,356,255	1,783	70	-50	160	DD	NQ2	AGB Resource
20AGBDD047	609,410	6,356,223	1,779	63	-50	260	DD	NQ2	AGB Resource
20AGBDD048	609,382	6,356,249	1,782	71	-50	302	DD	NQ2	AGB Resource
20AGBDD049	609,421	6,356,277	1,791	70	-50	251	DD	NQ2	AGB Resource
20AGBDD050	609,371	6,356,293	1,793	70	-50	260	DD	NQ2	AGB Resource
20AGBDD051	609,515	6,356,411	1,802	67	-50	122	DD	NQ2	AGB Resource
20AGBDD052	609,496	6,356,382	1,807	70	-50	152	DD	HQ	AGB Resource
20AGBDD053	609,377	6,356,425	1,828	70	-50	248	DD	HQ	AGB Resource
20AGBDD054	609,288	6,356,589	1,829	70	-50	299	DD	NQ2	AGB Resource
20AGBDD055	609,304	6,356,540	1,830	68	-50	296	DD	NQ2	AGB Resource
20AGBDD056	609,431	6,356,633	1,857	70	-60	114	DD	HQ	AGB Resource
20AGBDD057	609,437	6,356,431	1,827	70	-50	200	DD	HQ	AGB Resource
20AGBDD058	609,488	6,356,355	1,804	69	-50	182	DD	NQ2	AGB Resource
20AGBDD059	609,464	6,356,499	1,832	70	-50	107	DD	HQ	AGB Resource
20AGBDD060	609,485	6,356,479	1,826	64	-65	81	DD	HQ	AGB Resource
20AGBRC001	609,492	6,356,303	1,795	71	-50	23	RC		AGB Resource
20AGBRC002	609,493	6,356,304	1,795	70	-51	191	RC		AGB Resource
20AGBRC003	609,431	6,356,247	1,786	70	-47	241	RC		AGB Resource
20AGBRC004	609,509	6,356,358	1,802	69	-47	140	RC		AGB Resource
20AGBRC005	609,329	6,356,594	1,835	70	-48	256	RC		AGB Resource
20AGBRC006	609,386	6,356,709	1,850	69	-50	24	RC		AGB Resource
20AGBRC007	609,386	6,356,709	1,850	70	-50	221	RC		AGB Resource
20AGBRC008	609,385	6,356,647	1,851	71	-45	221	RC		AGB Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20AGBRC009	609,423	6,356,757	1,829	251	-54	140	RC		AGB Resource
20AGBRC010	609,398	6,356,775	1,829	70	-48	160	RC		AGB Resource
20AGBRC011	609,469	6,356,707	1,835	71	-48	35	RC		AGB Resource
20AGBRC012	609,305	6,356,651	1,832	70	-51	291	RC		AGB Resource
20AGBRC013	608,395	6,356,627	1,729	69	-43	191	RC		AGB Exploration
20AGBRC014	608,580	6,356,697	1,722	70	-51	152	RC		AGB Exploration
20AGBRC015	608,766	6,356,766	1,730	70	-50	191	RC		AGB Exploration
20AGBRC016	608,959	6,356,834	1,748	71	-49	191	RC		AGB Exploration
20AGBRC017	609,146	6,356,903	1,748	70	-50	191	RC		AGB Exploration
20AGBRC018	609,518	6,357,042	1,723	70	-50	191	RC		AGB Exploration
20AGBRC019	609,336	6,356,976	1,739	70	-50	191	RC		AGB Exploration
20AGBRC020	609,745	6,356,877	1,743	70	-50	120	RC		AGB Exploration
20AGBRC021	608,834	6,356,129	1,832	40	-51	250	RC		AGB Exploration
20AGBRC022	609,686	6,356,852	1,750	70	-52	120	RC		AGB Exploration
20AGBRC023	609,706	6,357,114	1,708	70	-51	191	RC		AGB Exploration
20AGBRC024	608,595	6,356,337	1,855	40	-47	171	RC		AGB Exploration
20AGBRC025	609,584	6,357,167	1,691	70	-50	151	RC		AGB Exploration
20AGBRC026	608,850	6,355,938	1,811	90	-52	171	RC		AGB Exploration
20AGBRC027	609,392	6,357,108	1,700	70	-50	151	RC		AGB Exploration
20AGBRC028	609,200	6,357,042	1,705	70	-50	120	RC		AGB Exploration
20AGBRC029	608,352	6,356,499	1,768	70	-50	191	RC		AGB Exploration
20AGBRC030	609,017	6,356,968	1,724	70	-51	201	RC		AGB Exploration
20AGBRC031	608,834	6,356,894	1,716	70	-50	151	RC		AGB Exploration
20AGBRC032	609,564	6,356,774	1,787	250	-40	201	RC		AGB Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20AGBRC033	609,520	6,356,788	1,793	250	-48	151	RC		AGB Resource
20AGBRC034	609,479	6,356,808	1,796	250	-43	120	RC		AGB Resource
20AGBRC035	609,543	6,356,731	1,801	250	-43	201	RC		AGB Resource
20AGBRC036	609,552	6,356,711	1,801	250	-45	201	RC		AGB Resource
20AGBRC037	609,155	6,356,824	1,778	71	-48	201	RC		AGB Exploration
20AGBRC038	609,234	6,356,852	1,788	70	-48	201	RC		AGB Exploration
20AGBRC039	609,222	6,356,730	1,811	70	-49	201	RC		AGB Resource
20AGBRC040	609,308	6,356,773	1,829	70	-46	131	RC		AGB Resource
20AGBRC041	608,362	6,356,681	1,719	70	-51	201	RC		AGB Exploration
20AGBRC042	608,277	6,356,683	1,724	70	-50	201	RC		AGB Exploration
20CCDD001	607,726	6,355,690	1,815	75	-50	131	DD	NQ2	Cliff Creek Resource
20CCDD002	607,337	6,355,566	1,795	75	-50	426	DD	NQ2	Cliff Creek Resource
20CCDD003	607,683	6,355,709	1,809	75	-50	131	DD	NQ2	Cliff Creek Resource
20CCDD004	607,687	6,355,678	1,814	77	-50	142	DD	HQ	Cliff Creek Resource
20CCDD005	607,426	6,355,494	1,816	74	-50	351	DD	NQ2	Cliff Creek Resource
20CCDD006	607,525	6,355,697	1,804	75	-50	221	DD	NQ2	Cliff Creek Resource
20CCDD007	607,492	6,355,377	1,845	75	-50	350	DD	NQ2	Cliff Creek Resource
20CCDD008	607,295	6,355,612	1,789	75	-50	419	DD	NQ2	Cliff Creek Resource
20CCDD009	607,640	6,355,328	1,849	75	-50	248	DD	NQ2	Cliff Creek Resource
20CCDD010	607,594	6,355,204	1,854	75	-50	329	DD	NQ2	Cliff Creek Resource
20CCDD011	607,640	6,355,665	1,817	75	-60	221	DD	HQ	Cliff Creek Resource
20CCDD012	607,325	6,355,528	1,795	74	-50	419	DD	NQ2	Cliff Creek Resource
20CCDD013	607,617	6,355,631	1,821	75	-50	218	DD	HQ	Cliff Creek Resource
20CCDD014	607,696	6,355,656	1,818	74	-50	146	DD	HQ	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCDD015	607,295	6,355,637	1,788	74	-50	429	DD	NQ2	Cliff Creek Resource
20CCDD016	607,721	6,355,609	1,826	76	-50	122	DD	NQ2	Cliff Creek Resource
20CCDD017	607,362	6,355,719	1,790	75	-50	351	DD	NQ2	Cliff Creek Resource
20CCDD018	607,458	6,355,809	1,785	75	-50	223	DD	NQ2	Cliff Creek Resource
20CCDD019	607,536	6,355,768	1,797	75	-50	201	DD	NQ2	Cliff Creek Resource
20CCDD020	607,553	6,355,835	1,786	75	-50	132	DD	NQ2	Cliff Creek Resource
20CCDD021	607,701	6,354,873	1,888	77	-50	402	DD	NQ2	Cliff Creek Resource
20CCDD022	607,612	6,355,360	1,849	75	-50	239	DD	NQ2	Cliff Creek Resource
20CCDD023	607,721	6,355,388	1,845	75	-50	131	DD	NQ2	Cliff Creek Resource
20CCDD024	607,747	6,354,825	1,894	76	-50	363	DD	NQ2	Cliff Creek Resource
20CCDD025	607,745	6,354,781	1,894	76	-50	390	DD	NQ2	Cliff Creek Resource
20CCDD026	607,717	6,355,454	1,841	75	-50	182	DD	NQ2	Cliff Creek Resource
20CCDD027	607,517	6,355,350	1,848	75	-50	302	DD	NQ2	Cliff Creek Resource
20CCDD028	607,742	6,354,725	1,896	75	-50	417	DD	NQ2	Cliff Creek Resource
20CCDD029	607,526	6,355,288	1,849	75	-50	329	DD	NQ2	Cliff Creek Resource
20CCDD030	607,759	6,354,681	1,899	75	-50	428	DD	NQ2	Cliff Creek Resource
20CCDD031	607,495	6,355,414	1,840	76	-50	314	DD	NQ2	Cliff Creek Resource
20CCDD032	608,048	6,354,845	1,893	75	-50	143	DD	NQ2	Cliff Creek Resource
20CCDD033	607,579	6,355,508	1,834	76	-50	242	DD	NQ2	Cliff Creek Resource
20CCDD034	607,906	6,354,952	1,895	75	-50	203	DD	NQ2	Cliff Creek Resource
20CCDD035	607,691	6,354,918	1,885	75	-50	350	DD	NQ2	Cliff Creek Resource
20CCDD036	607,558	6,355,450	1,845	75	-50	220	DD	NQ2	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCDD037	607,432	6,355,467	1,820	75	-50	323	DD	NQ2	Cliff Creek Resource
20CCDD038	607,636	6,355,007	1,877	75	-50	368	DD	NQ2	Cliff Creek Resource
20CCDD039	607,585	6,355,043	1,868	75	-50	410	DD	NQ2	Cliff Creek Resource
20CCDD040	607,430	6,355,428	1,826	76	-50	314	DD	NQ2	Cliff Creek Resource
20CCDD041	607,501	6,355,233	1,849	75	-50	369	DD	NQ2	Cliff Creek Resource
20CCDD042	607,726	6,355,085	1,878	75	-50	281	DD	NQ2	Cliff Creek Resource
20CCDD043	607,656	6,355,170	1,863	76	-50	293	DD	NQ2	Cliff Creek Resource
20CCDD044	607,593	6,355,153	1,859	76	-50	353	DD	NQ2	Cliff Creek Resource
20CCDD045	607,651	6,355,250	1,854	74	-50	249	DD	NQ2	Cliff Creek Resource
20CCDD046	607,432	6,355,465	1,820	74	-70	402	DD	NQ2	Cliff Creek Resource
20CCDD047	607,319	6,355,480	1,795	75	-50	453	DD	NQ2	Cliff Creek Resource
20CCDD048	607,288	6,355,534	1,788	75	-60	540	DD	NQ2	Cliff Creek Resource
20CCDD049	607,795	6,354,880	1,898	76	-50	320	DD	NQ2	Cliff Creek Resource
20CCDD050	607,768	6,354,930	1,894	75	-50	320	DD	NQ2	Cliff Creek Resource
20CCDD051	607,284	6,355,583	1,787	74	-50	498	DD	NQ2	Cliff Creek Resource
20CCDD052	607,755	6,354,987	1,889	75	-50	302	DD	NQ2	Cliff Creek Resource
20CCDD053	607,687	6,354,968	1,884	75	-50	329	DD	NQ2	Cliff Creek Resource
20CCDD054	607,606	6,354,942	1,873	75	-50	320	DD	NQ2	Cliff Creek Resource
20CCDD055	607,616	6,354,781	1,878	75	-50	458	DD	NQ2	Cliff Creek Resource
20CCDD056	607,661	6,354,692	1,886	74	-50	521	DD	NQ2	Cliff Creek Resource
20CCDD057	607,347	6,355,770	1,782	75	-50	302	DD	NQ2	Cliff Creek Resource
20CCDD058	607,456	6,355,758	1,791	76	-50	250	DD	NQ2	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCDD059	607,384	6,355,701	1,794	75	-50	319	DD	NQ2	Cliff Creek Resource
20CCDD060	607,384	6,355,586	1,800	75	-50	455	DD	NQ2	Cliff Creek Resource
20CCDD061	607,242	6,355,623	1,783	77	-50	482	DD	NQ2	Cliff Creek Resource
20CCDD062	607,244	6,355,595	1,782	74	-50	479	DD	NQ2	Cliff Creek Resource
20CCDD063	607,693	6,354,652	1,891	76	-50	476	DD	NQ2	Cliff Creek Resource
20CCDD064	607,165	6,355,588	1,766	75	-50	602	DD	NQ2	Cliff Creek Resource
20CCDD065	607,662	6,354,741	1,886	76	-50	470	DD	NQ2	Cliff Creek Resource
20CCDD066	607,263	6,355,557	1,784	75	-50	449	DD	NQ2	Cliff Creek Resource
20CCDD067	607,557	6,354,702	1,873	75	-50	551	DD	NQ2	Cliff Creek Resource
20CCDD068	607,302	6,355,509	1,790	75	-50	452	DD	NQ2	Cliff Creek Resource
20CCDD069	607,542	6,354,630	1,871	74	-50	593	DD	NQ2	Cliff Creek Resource
20CCDD070	607,245	6,355,623	1,784	76	-60	524	DD	NQ2	Cliff Creek Resource
20CCDD071	607,553	6,354,567	1,867	75	-50	632	DD	NQ2	Cliff Creek Resource
20CCDD072	607,186	6,355,532	1,759	75	-60	665	DD	NQ2	Cliff Creek Resource
20CCDD073	607,623	6,354,462	1,863	75	-50	278	DD	NQ2	M-Grid
20CCDD074	607,162	6,355,591	1,765	75	-60	638	DD	NQ2	Cliff Creek Resource
20CCDD075	607,557	6,354,479	1,857	75	-50	293	DD	NQ2	M-Grid
20CCDD076	607,622	6,354,544	1,876	75	-50	575	DD	NQ2	Cliff Creek Resource
20CCDD077	607,701	6,355,507	1,836	35	-50	273	DD	NQ2	Cliff Creek Resource
20CCDD078	607,198	6,355,635	1,779	74	-50	542	DD	HQ	Cliff Creek Resource
20CCDD079	607,651	6,355,779	1,799	221	-60	140	DD	HQ	Cliff Creek Resource
20CCDD080	607,543	6,355,637	1,813	75	-60	302	DD	HQ	Cliff Creek Resource
20CCDD081	607,220	6,355,665	1,781	75	-65	620	DD	NQ2	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCDD082	607,660	6,355,514	1,836	35	-50	300	DD	NQ2	Cliff Creek Resource
20CCDD083	607,758	6,355,559	1,834	35	-50	35	DD	NQ2	Cliff Creek Resource
20CCDD084	607,825	6,355,058	1,884	76	-50	245	DD	NQ2	Cliff Creek Resource
20CCDD085	607,758	6,355,559	1,834	35	-50	200	DD	NQ2	Cliff Creek Resource
20CCDD086	607,615	6,355,511	1,836	35	-50	320	DD	NQ2	Cliff Creek Resource
20CCDD087	607,220	6,355,666	1,781	76	-50	506	DD	NQ2	Cliff Creek Resource
20CCDD088	607,772	6,355,043	1,884	75	-50	270	DD	NQ2	Cliff Creek Resource
20CCDD089	607,540	6,354,795	1,869	75	-50	500	DD	NQ2	Cliff Creek Resource
20CCDD090	607,809	6,354,998	1,891	77	-50	280	DD	NQ2	Cliff Creek Resource
20CCDD091	607,263	6,355,667	1,785	74	-50	449	DD	NQ2	Cliff Creek Resource
20CCDD092	607,870	6,355,017	1,889	75	-50	230	DD	NQ2	Cliff Creek Resource
20CCDD093	607,621	6,354,879	1,875	75	-50	431	DD	NQ2	Cliff Creek Resource
20CCDD094	607,298	6,355,707	1,784	75	-50	392	DD	NQ2	Cliff Creek Resource
20CCDD095	607,853	6,354,885	1,900	74	-50	253	DD	NQ2	Cliff Creek Resource
20CCDD096	607,655	6,354,832	1,883	76	-50	425	DD	NQ2	Cliff Creek Resource
20CCDD097	607,774	6,354,593	1,894	75	-50	20	DD	NQ2	Cliff Creek Resource
20CCDD098	607,798	6,354,593	1,896	75	-50	442	DD	NQ2	Cliff Creek Resource
20CCDD099	607,312	6,355,668	1,788	75	-50	368	DD	NQ2	Cliff Creek Resource
20CCDD100	607,590	6,354,915	1,870	74	-50	422	DD	NQ2	Cliff Creek Resource
20CCDD101	607,362	6,355,393	1,813	74	-50	401	DD	NQ2	Cliff Creek Resource
20CCDD102	607,847	6,354,636	1,905	73	-50	392	DD	NQ2	Cliff Creek Resource
20CCDD103	607,584	6,355,711	1,809	74	-50	140	DD	HQ	Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCDD104	607,705	6,354,704	1,891	77	-55	494	DD	NQ2	Cliff Creek Resource
20CCDD105	607,584	6,355,711	1,809	71	-62	140	DD	HQ	Cliff Creek Resource
20CCDD106	607,600	6,355,590	1,826	329	-68	404	DD	HQ	Cliff Creek Resource
20CCDD107	607,931	6,354,620	1,903	75	-50	314	DD	NQ2	Cliff Creek Resource
20CCDD108	607,523	6,355,173	1,851	73	-50	443	DD	NQ2	Cliff Creek Resource
20CCDD109	607,428	6,355,346	1,836	75	-50	371	DD	NQ2	Cliff Creek Resource
20CCRC001	607,656	6,355,591	1,828	75	-49	148	RC		Cliff Creek Resource
20CCRC002	607,780	6,355,636	1,828	75	-48	151	RC		Cliff Creek Resource
20CCRC003	607,650	6,355,734	1,808	75	-50	149	RC		Cliff Creek Resource
20CCRC004	607,645	6,355,712	1,811	75	-48	140	RC		Cliff Creek Resource
20CCRC005	607,728	6,355,736	1,808	75	-49	90	RC		Cliff Creek Resource
20CCRC007	607,813	6,355,479	1,840	75	-44	151	RC		Cliff Creek Resource
20CCRC008	607,459	6,355,658	1,804	75	-49	177	RC		Cliff Creek Resource
20CCRC009	607,472	6,355,636	1,807	75	-49	232	RC		Cliff Creek Resource
20CCRC010	607,763	6,355,465	1,840	75	-50	34	RC		Cliff Creek Resource
20CCRC011	608,003	6,354,843	1,896	75	-49	126	RC		Cliff Creek Resource
20CCRC012	608,037	6,354,756	1,898	75	-47	171	RC		Cliff Creek Resource
20CCRC013	608,051	6,354,694	1,901	76	-50	180	RC		Cliff Creek Resource
20CCRC014	607,995	6,354,600	1,901	75	-50	221	RC		Cliff Creek Resource
20CCRC015	607,902	6,354,866	1,899	75	-49	256	RC		Cliff Creek Resource
20CCRC016	607,888	6,354,919	1,898	75	-47	221	RC		Cliff Creek Resource
20CCRC017	607,851	6,354,960	1,896	75	-50	221	RC		Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCRC018	608,095	6,354,622	1,902	75	-47	110	RC		Cliff Creek Resource
20CCRC019	607,612	6,354,499	1,867	75	-49	201	RC		M-Grid
20CCRC020	607,673	6,354,529	1,879	75	-49	131	RC		Cliff Creek Resource
20CCRC021	607,803	6,354,546	1,890	75	-48	110	RC		Cliff Creek Resource
20CCRC022	607,898	6,354,571	1,900	75	-50	111	RC		Cliff Creek Resource
20CCRC023	607,722	6,355,136	1,871	75	-48	148	RC		Cliff Creek Resource
20CCRC024	608,203	6,354,655	1,887	75	-50	140	RC		Cliff Creek Resource
20CCRC025	608,310	6,354,679	1,846	75	-49	111	RC		Cliff Creek Exploration South
20CCRC026	607,891	6,355,917	1,792	75	-48	181	RC		Cliff Creek Exploration North
20CCRC027	607,792	6,355,891	1,787	75	-49	181	RC		Cliff Creek Exploration North
20CCRC028	607,691	6,355,864	1,786	75	-49	181	RC		Cliff Creek Resource
20CCRC029	607,634	6,356,032	1,751	76	-47	181	RC		Cliff Creek Exploration North
20CCRC030	607,731	6,355,972	1,772	75	-50	20	RC		Cliff Creek Exploration North
20CCRC031	607,731	6,355,972	1,772	75	-50	181	RC		Cliff Creek Exploration North
20CCRC032	607,831	6,355,999	1,779	75	-51	181	RC		Cliff Creek Exploration North
20CCRC033	607,924	6,356,022	1,788	74	-49	181	RC		Cliff Creek Exploration North
20CCRC034	607,609	6,355,888	1,775	75	-50	26	RC		Cliff Creek Resource
20CCRC035	607,609	6,355,888	1,775	76	-45	151	RC		Cliff Creek Resource
20CCRC036	607,507	6,355,862	1,780	75	-48	151	RC		Cliff Creek Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCRC037	607,449	6,355,846	1,778	75	-50	72	RC		Cliff Creek Resource
20CCRC038	607,449	6,355,846	1,778	75	-49	52	RC		Cliff Creek Resource
20CCRC039	607,421	6,355,926	1,760	76	-49	139	RC		Cliff Creek Resource
20CCRC040	607,473	6,355,941	1,760	74	-51	140	RC		Cliff Creek Resource
20CCRC041	607,531	6,355,956	1,758	75	-54	140	RC		Cliff Creek Exploration North
20CCRC042	607,621	6,355,854	1,781	75	-51	81	RC		Cliff Creek Resource
20CCRC043	607,163	6,355,771	1,769	75	-50	151	RC		Cliff Creek Exploration North
20CCRC044	607,066	6,355,747	1,766	75	-50	151	RC		Cliff Creek Exploration North
20CCRC045	606,976	6,355,725	1,764	76	-50	111	RC		Cliff Creek Exploration North
20CCRC046	607,270	6,356,124	1,725	76	-49	151	RC		Cliff Creek Exploration North
20CCRC047	607,152	6,356,270	1,710	75	-50	20	RC		Cliff Creek Exploration North
20CCRC048	607,152	6,356,270	1,710	75	-50	72	RC		Cliff Creek Exploration North
20CCRC049	607,276	6,356,306	1,682	75	-50	101	RC		Cliff Creek Exploration North
20CCRC050	607,341	6,356,323	1,673	75	-51	151	RC		Cliff Creek Exploration North
20CCRC051	607,429	6,356,345	1,657	75	-54	191	RC		Cliff Creek Exploration North
20CCRC052	607,777	6,356,248	1,743	75	-52	151	RC		Cliff Creek Exploration North
20CCRC053	607,641	6,356,398	1,699	76	-48	187	RC		Cliff Creek Exploration North

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCRC054	607,830	6,356,453	1,724	75	-50	191	RC		Cliff Creek Exploration North
20CCRC055	608,023	6,356,503	1,743	76	-50	191	RC		Cliff Creek Exploration North
20CCRC056	607,701	6,355,491	1,837	75	-50	128	RC		Cliff Creek Resource
20CCRC057	607,672	6,355,528	1,834	75	-52	159	RC		Cliff Creek Resource
20CCRC058	607,688	6,355,773	1,802	75	-49	81	RC		Cliff Creek Resource
20CCRC059	608,220	6,356,558	1,749	75	-49	149	RC		Cliff Creek Exploration North
20CCRC060	607,942	6,355,273	1,851	60	-46	151	RC		Cliff Creek Resource
20CCRC061	607,851	6,355,215	1,858	60	-51	151	RC		Cliff Creek Resource
20CCRC063	607,983	6,355,060	1,874	60	-49	110	RC		Cliff Creek Resource
20CCRC064	607,496	6,354,748	1,865	75	-49	131	RC		M-Grid
20CCRC065	607,409	6,354,729	1,851	75	-49	131	RC		M-Grid
20CCRC066	607,333	6,354,708	1,837	75	-51	131	RC		M-Grid
20CCRC067	607,359	6,354,831	1,840	75	-49	151	RC		M-Grid
20CCRC068	607,556	6,354,603	1,872	75	-50	131	RC		Cliff Creek Resource
20CCRC069	607,464	6,354,630	1,860	75	-50	131	RC		M-Grid
20CCRC070	607,639	6,354,575	1,884	75	-48	131	RC		Cliff Creek Resource
20CCRC071	607,698	6,355,716	1,810	35	-50	90	RC		Cliff Creek Resource
20CCRC072	607,878	6,356,682	1,695	75	-49	191	RC		Cliff Creek Exploration North
20CCRC073	607,676	6,356,611	1,678	75	-52	191	RC		Cliff Creek Exploration North
20CCRC074	608,064	6,356,728	1,702	75	-53	191	RC		Cliff Creek Exploration North
20CCRC075	608,260	6,356,782	1,690	76	-49	191	RC		Cliff Creek Exploration North

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20CCRC076	607,775	6,355,661	1,825	35	-49	101	RC		Cliff Creek Resource
20CCRC077	607,681	6,355,654	1,817	36	-49	140	RC		Cliff Creek Resource
20CCRC078	607,621	6,355,652	1,818	36	-48	175	RC		Cliff Creek Resource
20CCRC079	607,709	6,355,558	1,832	35	-51	221	RC		Cliff Creek Resource
20CCRC080	607,756	6,355,685	1,818	35	-49	81	RC		Cliff Creek Resource
20CCRC081	608,095	6,354,767	1,894	74	-48	120	RC		Cliff Creek Resource
20CCRC082	608,139	6,354,730	1,893	75	-48	101	RC		Cliff Creek Resource
20CCRC083	608,125	6,354,682	1,898	76	-49	120	RC		Cliff Creek Resource
20CCRC084	608,114	6,354,826	1,889	75	-47	81	RC		Cliff Creek Resource
20CCRC085	607,945	6,355,033	1,881	75	-54	125	RC		Cliff Creek Resource
20CCRC086	607,865	6,355,097	1,877	76	-47	151	RC		Cliff Creek Resource
20CCRC087	607,791	6,355,118	1,875	75	-49	210	RC		Cliff Creek Resource
20CCRC088	608,152	6,354,765	1,890	75	-49	70	RC		Cliff Creek Resource
20CCRC089	608,107	6,354,641	1,901	75	-51	140	RC		Cliff Creek Resource
20CCRD001	607,317	6,355,590	1,791	75	-52	210	RD		Cliff Creek Resource
20CCRD002	607,375	6,355,517	1,803	75	-50	389	RD		Cliff Creek Resource
20DRDD004	608,150	6,355,243	1,840	21	-50	181	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD005	608,304	6,355,097	1,853	20	-50	257	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD006	608,276	6,355,071	1,854	21	-50	305	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD007	608,265	6,355,100	1,852	20	-50	281	DD	NQ2	Dukes Ridge-Phoenix Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20DRDD008	608,330	6,355,093	1,854	20	-50	302	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD009	608,335	6,355,063	1,857	20	-50	332	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD010	608,310	6,355,067	1,856	20	-50	302	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD011	608,143	6,355,153	1,846	60	-50	324	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRDD012	608,144	6,355,363	1,837	21	-50	72	DD	NQ2	Dukes Ridge-Phoenix Resource
20DRRC015	608,065	6,355,370	1,845	20	-48	101	RC		Dukes Ridge-Phoenix Resource
20DRRC016	608,096	6,355,359	1,844	20	-48	81	RC		Dukes Ridge-Phoenix Resource
20DRRC017	608,971	6,354,832	1,856	21	-50	120	RC		Phoenix
20DRRC018	608,998	6,354,906	1,871	20	-43	120	RC		Phoenix
20DRRC019	609,053	6,354,987	1,863	21	-45	151	RC		Dukes Ridge Exploration
20DRRC020	609,095	6,355,059	1,851	19	-47	151	RC		Dukes Ridge Exploration
20DRRC021	609,084	6,355,152	1,840	20	-51	101	RC		Dukes Ridge Exploration
20DRRC022	609,210	6,355,198	1,834	20	-55	101	RC		Dukes Ridge Exploration
20DRRC023	609,177	6,355,111	1,839	20	-50	120	RC		Dukes Ridge Exploration
20DRRC024	609,139	6,355,014	1,848	21	-50	120	RC		Dukes Ridge Exploration
20DRRC025	609,111	6,354,929	1,854	20	-52	120	RC		Dukes Ridge Exploration
20DRRC026	609,071	6,354,828	1,844	20	-49	120	RC		Phoenix
20DRRC027	608,536	6,354,992	1,864	20	-49	191	RC		Dukes Ridge-Phoenix Resource
20DRRC028	608,581	6,355,044	1,863	20	-50	140	RC		Dukes Ridge-Phoenix Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20DRRC029	608,535	6,355,062	1,862	20	-49	151	RC		Dukes Ridge-Phoenix Resource
20DRRC030	608,102	6,355,302	1,844	20	-49	151	RC		Dukes Ridge-Phoenix Resource
20DRRC031	608,111	6,355,327	1,844	20	-49	120	RC		Dukes Ridge-Phoenix Resource
20DRRC032	608,368	6,355,132	1,852	20	-48	160	RC		Dukes Ridge-Phoenix Resource
20DRRC033	608,456	6,355,103	1,858	20	-48	181	RC		Dukes Ridge-Phoenix Resource
20DRRC034	608,608	6,355,110	1,852	20	-50	101	RC		Dukes Ridge-Phoenix Resource
20DRRC035	608,524	6,355,022	1,864	20	-48	201	RC		Dukes Ridge-Phoenix Resource
20DRRC036	608,503	6,355,050	1,862	20	-48	171	RC		Dukes Ridge-Phoenix Resource
20DRRC037	608,515	6,355,090	1,860	20	-50	120	RC		Dukes Ridge-Phoenix Resource
20DRRC038	608,442	6,355,060	1,861	20	-49	171	RC		Dukes Ridge-Phoenix Resource
20DRRC039	608,389	6,355,075	1,859	20	-51	201	RC		Dukes Ridge-Phoenix Resource
20DRRC040	608,407	6,355,146	1,849	20	-48	151	RC		Dukes Ridge-Phoenix Resource
20DRRC041	608,237	6,355,128	1,850	21	-49	271	RC		Dukes Ridge-Phoenix Resource
20DRRC042	608,219	6,355,198	1,844	20	-47	221	RC		Dukes Ridge-Phoenix Resource
20DRRC043	608,200	6,355,226	1,840	20	-48	201	RC		Dukes Ridge-Phoenix Resource

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20DRRC044	608,093	6,355,394	1,841	20	-50	181	RC		Dukes Ridge-Phoenix Resource
20DRRC048	608,033	6,355,315	1,845	60	-45	183	RC		Dukes Ridge-Phoenix Resource
20MLDD001	609,544	6,352,505	1,729	50	-50	293	DD	NQ2	Marmot Lake
20MLDD002	609,600	6,352,583	1,732	227	-50	316	DD	NQ2	Marmot Lake
20MLDD003	609,642	6,352,482	1,730	230	-50	218	DD	NQ2	Marmot Lake
20MLDD004	609,613	6,352,445	1,733	47	-50	204	DD	NQ2	Marmot Lake
20MLDD005	609,645	6,352,170	1,744	48	-50	404	DD	NQ2	Marmot Lake
20PXRC001	608,757	6,354,950	1,866	20	-51	151	RC		Dukes Ridge-Phoenix Resource
20PXRC002	608,726	6,354,865	1,859	20	-48	151	RC		Dukes Ridge-Phoenix Resource
20PXRC003	608,793	6,355,048	1,858	20	-50	151	RC		Phoenix
20PXRC004	608,866	6,354,806	1,849	20	-47	151	RC		Phoenix
20PXRC005	608,909	6,354,785	1,843	20	-49	151	RC		Phoenix
20PXRC006	608,819	6,354,685	1,822	20	-49	160	RC		Phoenix
20PXRC007	608,880	6,354,706	1,824	21	-49	160	RC		Phoenix
20PXRC008	608,926	6,354,729	1,827	21	-51	160	RC		Phoenix
20PXRC009	608,653	6,354,884	1,860	20	-49	171	RC		Dukes Ridge-Phoenix Resource
20PXRC010	609,050	6,354,730	1,819	20	-49	151	RC		Phoenix
20PXRC011	608,668	6,354,911	1,863	20	-52	151	RC		Dukes Ridge-Phoenix Resource
20PXRC012	608,555	6,354,960	1,864	20	-48	140	RC		Dukes Ridge-Phoenix Resource
20SPCDD001	606,356	6,355,402	1,683	267	-50	326	DD	NQ2	Silver Pond Clay
20SPCDD002	606,356	6,355,402	1,683	226	-50	662	DD	NQ2	Silver Pond Clay
20SPCDD003	606,356	6,355,402	1,683	225	-63	762	DD	NQ2	Silver Pond Clay
20SPCDD004	606,828	6,356,118	1,750	249	-50	209	DD	NQ2	Silver Pond Clay
20SPCDD005	605,789	6,356,370	1,599	250	-65	474	DD	NQ2	Silver Pond North

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
20SPCDD006	606,173	6,355,811	1,678	250	-50	452	DD	NQ2	Silver Pond Clay
20SPCDD007	607,032	6,356,240	1,734	45	-70	455	DD	NQ2	Silver Pond Clay
20SPCDD008	606,026	6,355,969	1,656	270	-50	301	DD	NQ2	Silver Pond Clay
20SPCDD009	605,747	6,355,767	1,607	250	-50	274	DD	NQ2	Silver Pond North
21CCDD001	607585	6355316.88	1851	75	-50	252	DD	NQ2	Cliff Creek
21CCDD002	607543	6355405.12	1848	75	-51	275	DD	NQ2	Cliff Creek
21CCDD003	607586	6355271.5	1852	75	-50	272	DD	NQ2	Cliff Creek
21CCDD004	607476	6355335.73	1846	74	-50	332	DD	NQ2	Cliff Creek
21CCDD005	607837	6355557.06	1837	18	-65	203	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD006	607528	6355250.08	1851	75	-50	332	DD	NQ2	Cliff Creek
21CCDD007	607836	6355557.14	1837	18	-55	190	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD008	607412	6355771.63	1788	75	-50	248	DD	NQ2	Cliff Creek
21CCDD009	607484	6355309.39	1847	74	-50	332	DD	NQ2	Cliff Creek
21CCDD010	607446	6355722.77	1796	75	-50	251	DD	NQ2	Cliff Creek
21CCDD011	607587	6355239.98	1853	74	-51	329	DD	NQ2	Cliff Creek
21CCDD012	607442	6355673.33	1802	74	-50	236	DD	HQ	Cliff Creek
21CCDD013	607673	6355057.32	1877	74	-50	335	DD	NQ2	Cliff Creek
21CCDD014	607481	6355576.6	1812	74	-55	401	DD	HQ	Cliff Creek
21CCDD015	607652	6355079.05	1874	74	-50	347	DD	NQ2	Cliff Creek
21CCDD016	607612	6355099.9	1866	74	-50	378	DD	NQ2	Cliff Creek
21CCDD017	607320	6355388.87	1803	73	-50	422	DD	NQ2	Cliff Creek
21CCDD018	607384	6355473.81	1809	74	-50	344	DD	NQ2	Cliff Creek
21CCDD019	607674	6355117.42	1871	75	-50	296	DD	NQ2	Cliff Creek
21CCDD020	607330	6355353.29	1808	73	-50	422	DD	NQ2	Cliff Creek
21CCDD021	607720	6355101.18	1876	75	-50	263	DD	NQ2	Cliff Creek
21CCDD022	607634	6355131.08	1866	74	-50	347	DD	NQ2	Cliff Creek
21CCDD023	607380	6355410.27	1816	74	-51	362	DD	NQ2	Cliff Creek
21CCDD024	607620	6355018.04	1875	74	-50	392	DD	NQ2	Cliff Creek
21CCDD025	607,480	6,355,501	1,825	75	-50	281	DD	NQ2	Cliff Creek
21CCDD026	607,703	6,355,017	1,882	74	-50	320	DD	NQ2	Cliff Creek
21CCDD027	607,477	6,355,471	1,829	75	-51	281	DD	NQ2	Cliff Creek
21CCDD028	607,598	6,354,863	1,873	73	-50	458	DD	NQ2	Cliff Creek
21CCDD029	607,235	6,355,548	1,777	72	-50	527	DD	NQ2	Cliff Creek

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21CCDD030	607,621	6,354,843	1,876	73	-51	449	DD	NQ2	Cliff Creek
21CCDD031	607,302	6,355,509	1,791	72	-50	575	DD	NQ2	Cliff Creek
21CCDD032	607,571	6,354,804	1,871	73	-51	497	DD	NQ2	Cliff Creek
21CCDD033	607,451	6,355,380	1,838	74	-53	338	DD	NQ2	Cliff Creek
21CCDD034	607,561	6,354,827	1,870	70	-53	501	DD	NQ2	Cliff Creek
21CCDD035	607,369	6,355,350	1,820	74	-50	392	DD	NQ2	Cliff Creek
21CCDD036	607,545	6,354,771	1,869	72	-50	521	DD	NQ2	Cliff Creek
21CCDD037	607,501	6,355,446	1,838	75	-51	269	DD	NQ2	Cliff Creek
21CCDD038	607,537	6,355,601	1,816	74	-55	197	DD	HQ	Cliff Creek
21CCDD039	607,515	6,354,737	1,868	72	-50	551	DD	NQ2	Cliff Creek
21CCDD040	607,581	6,355,602	1,823	74	-55	317	DD	HQ	Cliff Creek
21CCDD041	607,895	6,354,813	1,901	295	-58	482	DD	HQ	Cliff Creek
21CCDD042	607,931	6,354,784	1,902	180	-58	431	DD	HQ	Cliff Creek
21CCDD043	607,815	6,354,816	1,900	75	-50	461	DD	HQ	Cliff Creek
21CCDD044	607,567	6,354,729	1,874	72	-50	536	DD	NQ2	Cliff Creek
21CCDD045	607,570	6,355,638	1,816	225	-58	336	DD	PQ	Cliff Creek
21CCDD046	607,555	6,354,700	1,873	74	-58	590	DD	NQ2	Cliff Creek
21CCDD047	607,481	6,355,605	1,810	74	-55	365	DD	HQ	Cliff Creek
21CCDD048	607,508	6,355,642	1,809	75	-50	281	DD	HQ	Cliff Creek
21CCDD049	607,596	6,354,654	1,880	73	-54	551	DD	NQ2	Cliff Creek
21CCDD050	607,392	6,355,663	1,798	74	-50	350	DD	HQ	Cliff Creek
21CCDD051	607,829	6,354,850	1,900	75	-50	290	DD	NQ2	Cliff Creek
21CCDD052	607,797	6,355,518	1,837	18	-58	242	DD	HQ	Cliff Creek
21CCDD053	607,835	6,354,797	1,901	75	-50	302	DD	NQ2	Cliff Creek
21CCDD054	607,870	6,354,780	1,902	75	-52	302	DD	NQ2	Cliff Creek
21CCDD055	608,052	6,354,810	1,895	75	-60	181	DD	PQ	Cliff Creek
21CCDD056	607,882	6,355,528	1,838	18	-55	182	DD	HQ	Cliff Creek-Duke Ridge
21CCDD057	607,808	6,354,742	1,902	75	-50	377	DD	NQ2	Cliff Creek
21CCDD058	607,933	6,355,516	1,838	18	-50	170	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD059	607,950	6,355,557	1,834	18	-50	101	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD060	607,918	6,355,404	1,846	18	-52	302	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD061	607,800	6,354,712	1,904	74	-52	404	DD	NQ2	Cliff Creek
21CCDD062	607,644	6,355,666	1,817	75	-50	172	DD	PQ	Cliff Creek
21CCDD063	607,870	6,355,446	1,843	18	-55	254	DD	NQ2	Cliff Creek-Duke Ridge

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21CCDD064	607,759	6,354,753	1,897	74	-52	401	DD	NQ2	Cliff Creek
21CCDD065	607,973	6,355,391	1,845	16	-54	251	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD066	607,397	6,355,442	1,817	73	-70	410	DD	NQ2	Cliff Creek
21CCDD067	607,795	6,354,654	1,903	75	-50	50	DD	NQ2	Cliff Creek
21CCDD068	608,004	6,355,346	1,846	18	-50	251	DD	NQ2	Cliff Creek-Duke Ridge
21CCDD069	607,795	6,354,654	1,903	75	-53	419	DD	NQ2	Cliff Creek
21CCDD070	607,368	6,355,548	1,801	76	-54	452	DD	NQ2	Cliff Creek
21CCDD071	608,038	6,354,643	1,902	75	-50	212	DD	NQ2	Cliff Creek
21CCDD072	607,664	6,355,206	1,859	75	-50	254	DD	NQ2	Cliff Creek
21CCDD073	607,479	6,355,268	1,847	74	-50	362	DD	NQ2	Cliff Creek
21CCDD074	607,954	6,354,583	1,901	74	-50	317	DD	NQ2	Cliff Creek
21CCDD075	607,789	6,355,078	1,881	75	-50	239	DD	NQ2	Cliff Creek
21CCDD076	607,431	6,355,333	1,837	74	-60	398	DD	NQ2	Cliff Creek
21CCDD077	607,816	6,354,971	1,894	75	-50	254	DD	NQ2	Cliff Creek
21CCDD078	607,936	6,354,537	1,898	75	-50	356	DD	NQ2	Cliff Creek
21CCDD079	607,635	6,355,282	1,852	75	-50	233	DD	NQ2	Cliff Creek
21CCDD080	607,630	6,354,902	1,878	74	-50	401	DD	NQ2	Cliff Creek
21CCDD081	607,888	6,354,680	1,907	75	-53	371	DD	NQ2	Cliff Creek
21CCDD082	607,618	6,355,382	1,849	75	-50	221	DD	NQ2	Cliff Creek
21CCDD083	607,868	6,354,576	1,899	73	-50	410	DD	NQ2	Cliff Creek
21CCDD084	607,735	6,355,050	1,882	75	-50	278	DD	NQ2	Cliff Creek
21CCDD085	607,610	6,355,461	1,844	75	-50	317	DD	NQ2	Cliff Creek
21CCDD086	607,716	6,354,892	1,890	74	-50	353	DD	NQ2	Cliff Creek
21CCDD087	607,690	6,355,297	1,850	75	-50	197	DD	NQ2	Cliff Creek
21CCDD088	607,299	6,355,734	1,784	75	-48	332	DD	NQ2	Cliff Creek
21CCDD089	607,802	6,354,628	1,901	75	-50	431	DD	NQ2	Cliff Creek
21CCDD090	607,362	6,355,739	1,789	75	-50	294	DD	NQ2	Cliff Creek
21CCDD091	607,723	6,354,846	1,891	75	-50	350	DD	NQ2	Cliff Creek
21CCDD092	607,693	6,354,503	1,878	75	-50	230	DD	NQ2	Cliff Creek
21CCDD093	607,371	6,355,824	1,776	75	-50	230	DD	NQ2	Cliff Creek
21CCDD094	607,710	6,354,478	1,876	75	-50	230	DD	NQ2	Cliff Creek
21CCDD095	607,692	6,354,781	1,888	74	-50	398	DD	NQ2	Cliff Creek
21CCDD096	607,759	6,354,529	1,886	73	-50	500	DD	NQ2	Cliff Creek
21CCDD097	607,374	6,355,914	1,761	75	-50	200	DD	NQ2	Cliff Creek
21CCDD098	608,000	6,354,558	1,900	75	-50	332	DD	NQ2	Cliff Creek
21CCDD099	607,432	6,355,458	1,822	72	-60	332	DD	NQ2	Cliff Creek

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21CCDD100	607,611	6,354,680	1,882	72	-50	176	DD	NQ2	Cliff Creek
21CCDD101	608,051	6,354,568	1,901	75	-50	260	DD	NQ2	Cliff Creek
21CCDD102	607,610	6,354,680	1,882	71	-50	539	DD	NQ2	Cliff Creek
21CCDD103	607,809	6,354,524	1,888	72	-50	470	DD	NQ2	Cliff Creek
21CCDD104	607,690	6,354,577	1,888	74	-50	530	DD	NQ2	Cliff Creek
21CCDD105	607,629	6,354,589	1,885	73	-50	566	DD	NQ2	Cliff Creek
21CCDD106	607,715	6,354,611	1,892	75	-50	164	DD	NQ2	Cliff Creek
21CCDD107	607,673	6,354,464	1,871	75	-50	260	DD	NQ2	Cliff Creek
21CCDD108	607,715	6,354,611	1,892	74	-49	506	DD	NQ2	Cliff Creek
21CCDD109	608,118	6,354,555	1,900	74	-50	191	DD	NQ2	Cliff Creek
21CCRC001	607,915	6,355,642	1,831	18	-50	70	RC		Cliff Creek-Duke Ridge
21CCRC002	607,869	6,355,662	1,827	18	-65	70	RC		Cliff Creek-Duke Ridge
21CCRC003	607,989	6,355,558	1,832	19	-50	91	RC		Cliff Creek-Duke Ridge
21CCRC004	608,021	6,355,570	1,830	18	-50	70	RC		Cliff Creek-Duke Ridge
21CCRC005	608,082	6,355,520	1,827	18	-50	70	RC		Cliff Creek-Duke Ridge
21CCRC006	607,759	6,355,374	1,847	75	-50	91	RC		Cliff Creek
21CCRC007	607,771	6,355,287	1,852	75	-50	91	RC		Cliff Creek
21CCRC008	608,084	6,354,882	1,887	75	-50	70	RC		Cliff Creek
21CCRC009	608,072	6,354,928	1,883	75	-50	61	RC		Cliff Creek
21CCRC010	608,037	6,354,961	1,882	75	-50	70	RC		Cliff Creek
21CCRC011	608,014	6,354,996	1,879	75	-50	81	RC		Cliff Creek
21CCRC012	607,999	6,355,408	1,845	18	-50	187	RC		Cliff Creek-Duke Ridge
21CCRC013	607,977	6,355,426	1,845	18	-53	180	RC		Cliff Creek-Duke Ridge
21CCRC014	607,936	6,355,467	1,841	18	-50	180	RC		Cliff Creek-Duke Ridge
21CCRC015	607,896	6,355,493	1,840	18	-55	191	RC		Cliff Creek-Duke Ridge
21CCRC016	607,975	6,355,587	1,832	18	-50	70	RC		Cliff Creek-Duke Ridge
21CCRC017	607,856	6,355,593	1,833	18	-50	136	RC		Cliff Creek-Duke Ridge
21CCRC018	607,818	6,355,580	1,833	18	-58	137	RC		Cliff Creek-Duke Ridge
21CCRC019	607,778	6,355,611	1,831	30	-50	155	RC		Cliff Creek

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21CCRC020	607,728	6,355,325	1,849	75	-50	110	RC		Cliff Creek
21CCRC021	607,740	6,355,309	1,849	75	-50	101	RC		Cliff Creek
21CCRC022	608,141	6,354,604	1,899	75	-50	131	RC		Cliff Creek
21CCRC023	608,071	6,354,731	1,899	75	-53	171	RC		Cliff Creek
21CCRC024	607,947	6,354,904	1,897	75	-50	181	RC		Cliff Creek
21CCRC025	607,951	6,355,432	1,843	18	-53	191	RC		Cliff Creek-Duke Ridge
21CCRC026	607,702	6,355,421	1,843	75	-51	101	RC		Cliff Creek
21CCRC027	607,813	6,355,482	1,840	18	-50	84	RC		Cliff Creek
21CCRC028	607,816	6,355,476	1,840	18	-50	151	RC		Cliff Creek
21CCRC029	607,870	6,355,424	1,844	18	-50	151	RC		Cliff Creek-Duke Ridge
21CCRC030	607,892	6,355,572	1,834	18	-50	140	RC		Cliff Creek-Duke Ridge
21CCRC031	608,037	6,355,531	1,832	18	-50	91	RC		Cliff Creek-Duke Ridge
21CCRC032	607,516	6,355,797	1,790	75	-50	151	RC		Cliff Creek
21CCRC033	607,385	6,355,867	1,770	75	-50	201	RC		Cliff Creek
21CCRC034	607,687	6,355,348	1,847	75	-50	151	RC		Cliff Creek
21CCRC035	607,690	6,355,297	1,850	75	-50	88	RC		Cliff Creek
21CCRC036	607,735	6,355,410	1,844	75	-50	120	RC		Cliff Creek
21CCRC037	607,779	6,355,267	1,855	75	-50	101	RC		Cliff Creek
21CCRC038	607,808	6,355,169	1,868	75	-50	131	RC		Cliff Creek
21CCRC039	607,861	6,355,137	1,871	75	-51	120	RC		Cliff Creek
21CCRC040	607,918	6,355,095	1,875	75	-51	101	RC		Cliff Creek
21CCRC041	607,638	6,355,462	1,842	76	-52	171	RC		Cliff Creek
21CCRC042	607,643	6,355,799	1,793	75	-50	6	RC		Cliff Creek
21CCRC043	607,643	6,355,799	1,793	75	-50	120	RC		Cliff Creek
21CCRC044	607,578	6,355,815	1,791	75	-50	120	RC		Cliff Creek
21CCRC045	607,482	6,355,831	1,783	75	-50	139	RC		Cliff Creek
21CCRC046	607,477	6,355,889	1,771	75	-50	160	RC		Cliff Creek
21CCRC047	607,443	6,355,971	1,752	75	-50	111	RC		Cliff Creek Exploration North
21DRDD001	608,153	6,355,333	1,836	18	-51	137	DD	NQ2	Duke Ridge-Phoenix
21DRDD002	608,327	6,355,032	1,859	17	-50	357	DD	NQ2	Duke Ridge-Phoenix
21DRDD003	608,277	6,355,024	1,859	17	-55	361	DD	NQ2	Duke Ridge-Phoenix

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21DRDD004	608,297	6,355,020	1,859	17	-50	351	DD	NQ2	Duke Ridge-Phoenix
21DRDD005	608,317	6,354,997	1,861	17	-50	350	DD	NQ2	Duke Ridge-Phoenix
21DRDD006	608,330	6,355,260	1,832	200	-50	99	DD	PQ	Duke Ridge-Phoenix
21DRDD007	608,255	6,355,050	1,856	17	-55	356	DD	NQ2	Duke Ridge-Phoenix
21DRDD008	608,034	6,355,313	1,845	18	-50	251	DD	NQ2	Duke Ridge-Phoenix
21DRDD009	608,075	6,355,337	1,846	18	-50	176	DD	NQ2	Duke Ridge-Phoenix
21DRDD010	608,221	6,355,074	1,854	17	-55	350	DD	NQ2	Duke Ridge-Phoenix
21DRDD011	608,204	6,355,157	1,845	18	-52	260	DD	NQ2	Duke Ridge-Phoenix
21DRDD012	608,212	6,355,108	1,852	17	-55	320	DD	NQ2	Duke Ridge-Phoenix
21DRDD013	608,180	6,355,168	1,845	18	-51	269	DD	NQ2	Duke Ridge-Phoenix
21DRDD014	608,418	6,355,029	1,863	18	-52	221	DD	NQ2	Duke Ridge-Phoenix
21DRDD015	608,139	6,355,287	1,841	23	-51	152	DD	NQ2	Duke Ridge-Phoenix
21DRDD016	608,191	6,355,048	1,857	18	-50	362	DD	NQ2	Cliff Creek-Duke Ridge
21DRDD017	608,442	6,355,023	1,863	17	-50	233	DD	NQ2	Duke Ridge-Phoenix
21DRDD018	608,152	6,355,175	1,844	18	-50	263	DD	NQ2	Duke Ridge-Phoenix
21DRDD019	608,295	6,355,196	1,842	18	-50	161	DD	NQ2	Duke Ridge-Phoenix
21DRDD020	608,152	6,355,242	1,841	40	-50	209	DD	NQ2	Duke Ridge-Phoenix
21DRDD021	608,092	6,355,334	1,845	18	-50	161	DD	NQ2	Duke Ridge-Phoenix
21DRDD022	608,079	6,355,304	1,845	18	-50	200	DD	NQ2	Duke Ridge-Phoenix
21DRDD023	608,180	6,355,321	1,829	18	-50	80	DD	NQ2	Duke Ridge-Phoenix
21DRDD024	608,094	6,355,456	1,837	18	-50	95	DD	NQ2	Cliff Creek-Duke Ridge
21DRRC001	608,489	6,355,166	1,847	18	-50	70	RC		Duke Ridge-Phoenix

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21DRRC002	608,553	6,355,108	1,857	18	-50	91	RC		Duke Ridge-Phoenix
21DRRC003	608,544	6,355,157	1,846	18	-70	50	RC		Duke Ridge-Phoenix
21DRRC004	608,448	6,355,177	1,844	18	-50	81	RC		Duke Ridge-Phoenix
21DRRC005	608,120	6,355,377	1,840	18	-50	50	RC		Duke Ridge-Phoenix
21DRRC006	608,329	6,355,195	1,842	18	-50	151	RC		Duke Ridge-Phoenix
21DRRC007	608,273	6,355,236	1,840	18	-50	160	RC		Duke Ridge-Phoenix
21DRRC008	608,378	6,355,194	1,840	18	-50	81	RC		Duke Ridge-Phoenix
21DRRC009	608,574	6,355,090	1,858	18	-45	111	RC		Duke Ridge-Phoenix
21DRRC010	608,356	6,355,161	1,847	18	-50	181	RC		Duke Ridge-Phoenix
21DRRC011	608,355	6,355,202	1,840	18	-50	151	RC		Duke Ridge-Phoenix
21DRRC012	608,330	6,355,261	1,832	18	-50	101	RC		Duke Ridge-Phoenix
21DRRC013	608,243	6,355,272	1,834	18	-50	151	RC		Duke Ridge-Phoenix
21DRRC014	608,197	6,355,302	1,830	18	-51	101	RC		Duke Ridge-Phoenix
21DRRC015	608,038	6,355,380	1,846	18	-50	201	RC		Duke Ridge-Phoenix
21DRRC016	608,425	6,355,108	1,857	18	-50	201	RC		Duke Ridge-Phoenix
21DRRC017	608,494	6,355,184	1,844	18	-50	61	RC		Duke Ridge-Phoenix
21DRRC018	608,501	6,355,119	1,855	18	-50	111	RC		Duke Ridge-Phoenix
21DRRC019	608,514	6,354,992	1,865	18	-50	210	RC		Duke Ridge-Phoenix
21PXRC001	608,639	6,355,030	1,863	18	-50	69	RC		Duke Ridge-Phoenix
21PXRC002	608,673	6,354,939	1,866	18	-50	70	RC		Duke Ridge-Phoenix
21PXRC003	608,719	6,354,919	1,866	18	-50	101	RC		Duke Ridge-Phoenix
21PXRC004	608,695	6,354,931	1,866	18	-50	91	RC		Duke Ridge-Phoenix

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21PXRC005	608,601	6,355,020	1,864	18	-50	151	RC		Duke Ridge-Phoenix
22CCDD001	607,913	6,355,439	1,843	18	-50	254	DD	NQ2	Cliff Creek-Duke Ridge
22CCDD002	607,875	6,355,381	1,848	18	-50	260	DD	NQ2	Cliff Creek
22CCDD003	608,003	6,355,311	1,846	18	-50	350	DD	NQ2	Duke Ridge-Phoenix
22CCDD004	607,823	6,355,452	1,842	18	-55	281	DD	NQ2	Cliff Creek
22CCDD005	607,922	6,355,347	1,848	18	-50	335	DD	NQ2	Cliff Creek-Duke Ridge
22CCDD006	607,966	6,355,315	1,849	18	-50	308	DD	NQ2	Cliff Creek-Duke Ridge
22CCDD011	607,129	6,355,575	1,755	75	-65	680	DD	NQ2	Cliff Creek
22CCDD014	607,336	6,355,334	1,811	75	-50	410	DD	NQ2	Cliff Creek
22CCDD015	607,460	6,355,239	1,848	75	-50	389	DD	NQ2	Cliff Creek
22CCDD016	607,580	6,355,120	1,861	80	-55	410	DD	NQ2	Cliff Creek
22CCDD017	607,580	6,355,120	1,861	70	-55	410	DD	NQ2	Cliff Creek
22DRDD001	608,264	6,354,935	1,864	18	-50	431	DD	NQ2	Cliff Creek Exploration South
22DRDD002	608,229	6,354,961	1,865	18	-50	431	DD	NQ2	Cliff Creek Exploration South
22DRDD003	608,231	6,355,039	1,856	18	-56	380	DD	NQ2	Cliff Creek Exploration South
22DRDD004	608,296	6,354,958	1,862	18	-50	377	DD	NQ2	Cliff Creek Exploration South
22DRDD005	608,177	6,355,110	1,851	18	-52	320	DD	NQ2	Duke Ridge-Phoenix
22DRDD006	608,321	6,354,957	1,862	17	-50	11	DD	NQ2	Cliff Creek Exploration South
22DRDD007	608,319	6,354,958	1,862	17	-50	26	DD	NQ2	Cliff Creek Exploration South
22DRDD008	608,323	6,354,959	1,862	17	-50	371	DD	NQ2	Cliff Creek Exploration South
22DRDD009	608,485	6,355,021	1,864	18	-50	191	DD	NQ2	Duke Ridge-Phoenix
22DRDD010	608,413	6,355,060	1,861	18	-50	230	DD	NQ2	Duke Ridge-Phoenix

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
22DRDD011	608,373	6,355,032	1,861	18	-53	290	DD	NQ2	Duke Ridge-Phoenix
22DRDD012	608,324	6,354,955	1,862	17	-56	401	DD	NQ2	Cliff Creek Exploration South
22DRDD013	608,373	6,355,030	1,861	34	-58	293	DD	NQ2	Duke Ridge-Phoenix
22DRDD014	608,420	6,355,022	1,863	25	-63	275	DD	NQ2	Duke Ridge-Phoenix
22DRDD015	608,349	6,354,974	1,862	17	-48	350	DD	NQ2	Cliff Creek Exploration South
22DRDD016	608,232	6,354,960	1,865	24	-55	32	DD	NQ2	Cliff Creek Exploration South
22DRDD017	608,230	6,354,958	1,865	23	-55	452	DD	NQ2	Cliff Creek Exploration South
22DRDD018	608,163	6,355,056	1,855	18	-50	386	DD	NQ2	Cliff Creek-Duke Ridge
22DRDD019	608,220	6,355,129	1,849	16	-51	281	DD	NQ2	Duke Ridge-Phoenix
22DRDD020	608,364	6,354,943	1,862	18	-50	29	DD	NQ2	Phoenix
22DRDD021	608,364	6,354,943	1,862	18	-50	452	DD	NQ2	Phoenix
22DRDD022	608,303	6,354,880	1,863	18	-50	452	DD	NQ2	Cliff Creek Exploration South
22DRDD023	608,183	6,354,985	1,866	15	-50	31	DD	NQ2	Cliff Creek Exploration South
22DRDD024	608,183	6,354,986	1,866	16	-51	407	DD	NQ2	Cliff Creek Exploration South
22DRDD025	608,270	6,354,903	1,864	18	-50	455	DD	NQ2	Cliff Creek Exploration South
22DRDD026	608,228	6,354,961	1,865	16	-53	425	DD	NQ2	Cliff Creek Exploration South
22DRDD027	608,336	6,354,914	1,862	18	-50	452	DD	NQ2	Cliff Creek Exploration South
22DRDD028	608,170	6,354,948	1,872	18	-50	445	DD	NQ2	Cliff Creek Exploration South
21AGBDD001	609,670	6,355,933	1,571	70	-50	171	DD	NQ2	AGB

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21AGBDD002	609,584	6,355,876	1,575	70	-50	161	DD	NQ2	AGB Exploration
21AGBDD003	609,767	6,355,987	1,572	70	-50	161	DD	NQ2	AGB Exploration
21AGBDD004	609,689	6,356,010	1,590	70	-50	165	DD	NQ2	AGB Exploration
21AGBDD005	609,583	6,355,960	1,598	70	-50	162	DD	NQ2	AGB
21AGBDD006	609,491	6,355,901	1,607	71	-51	183	DD	NQ2	AGB Exploration
21AGBDD007	609,260	6,356,506	1,829	69	-50	350	DD	NQ2	AGB
21AGBDD008	609,260	6,356,531	1,828	69	-55	350	DD	NQ2	AGB
21AGBDD009	609,291	6,356,565	1,830	70	-56	341	DD	NQ2	AGB
21AGBDD010	609,307	6,356,519	1,831	69	-50	350	DD	NQ2	AGB
21AGBDD011	609,307	6,356,336	1,806	69	-50	314	DD	NQ2	AGB
21AGBDD012	609,325	6,356,310	1,797	69	-50	323	DD	NQ2	AGB
21AGBDD013	609,470	6,356,184	1,763	70	-60	251	DD	NQ2	AGB
21AGBDD014	609,470	6,356,184	1,763	70	-70	281	DD	NQ2	AGB
21AGBDD015	609,470	6,356,184	1,763	71	-80	365	DD	NQ2	AGB
21AGBDD016	609,470	6,356,184	1,763	116	-50	262	DD	NQ2	AGB
21AGBDD017	609,470	6,356,184	1,763	115	-65	302	DD	NQ2	AGB
21AGBDD018	609,424	6,356,187	1,767	70	-55	287	DD	NQ2	AGB
21AGBDD019	609,424	6,356,187	1,767	70	-65	239	DD	NQ2	AGB
21AGBDD020	609,385	6,356,222	1,778	70	-55	275	DD	NQ2	AGB
21AGBDD021	609,298	6,356,357	1,815	69	-65	368	DD	NQ2	AGB
21AGBDD022	609,292	6,356,413	1,828	69	-65	374	DD	NQ2	AGB
21AGBDD023	609,349	6,356,664	1,843	72	-50	281	DD	NQ2	AGB
21AGBDD024	609,349	6,356,640	1,842	70	-50	269	DD	NQ2	AGB
21AGBDD025	609,255	6,356,454	1,830	69	-55	392	DD	NQ2	AGB
21AGBDD026	609,490	6,356,545	1,842	70	-50	170	DD	NQ2	AGB
21AGBDD027	609,410	6,356,224	1,780	70	-75	290	DD	NQ2	AGB
21AGBDD028	609,395	6,356,308	1,799	70	-68	284	DD	NQ2	AGB
21AGBDD029	609,587	6,356,348	1,777	70	-50	101	DD	HQ	AGB
21AGBDD030	609,564	6,356,405	1,792	70	-50	95	DD	HQ	AGB
21AGBDD031	609,553	6,356,497	1,798	50	-50	98	DD	NQ2	AGB
21AGBDD032	609,299	6,356,335	1,805	74	-60	350	DD	NQ2	AGB
21AGBDD033	609,284	6,356,446	1,830	69	-60	350	DD	NQ2	AGB
21AGBDD034	609,218	6,356,485	1,829	69	-50	380	DD	NQ2	AGB
21AGBDD035	609,375	6,356,568	1,841	70	-50	240	DD	HQ	AGB
21AGBDD036	609,426	6,356,584	1,850	70	-50	133	DD	NQ2	AGB

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21AGBDD037	609,433	6,356,547	1,842	65	-62	213	DD	HQ	AGB
21AGBDD038	609,433	6,356,547	1,842	70	-50	119	DD	HQ	AGB
21AGBDD039	609,430	6,356,496	1,833	70	-50	200	DD	HQ	AGB
21AGBDD040	609,523	6,356,251	1,783	186	-58	215	DD	HQ	AGB
21AGBDD041	609,424	6,356,401	1,825	270	-60	251	DD	HQ	AGB
21AGBDD042	609,424	6,356,461	1,831	70	-50	146	DD	HQ	AGB
21AGBDD043	609,453	6,356,421	1,824	70	-50	176	DD	HQ	AGB
21AGBDD044	609,511	6,356,493	1,825	70	-50	149	DD	HQ	AGB
21AGBDD045	609,505	6,356,529	1,833	70	-50	155	DD	HQ	AGB
21AGBDD046	609,489	6,356,559	1,844	250	-50	17	DD	HQ	AGB
21AGBDD047	609,487	6,356,558	1,844	250	-50	53	DD	HQ	AGB
21AGBDD048	609,489	6,356,578	1,848	250	-50	71	DD	HQ	AGB
21AGBDD049	609,491	6,356,626	1,843	70	-50	113	DD	HQ	AGB
21AGBDD050	609,458	6,356,378	1,817	70	-52	200	DD	NQ2	AGB
21AGBDD051	609,428	6,356,187	1,767	92	-50	290	DD	NQ2	AGB
21AGBDD052	609,428	6,356,186	1,767	95	-62	347	DD	NQ2	AGB
21AGBDD053	609,425	6,356,401	1,825	90	-59	297	DD	PQ	AGB
21AGBDD054	609,560	6,356,161	1,731	50	-55	149	DD	NQ2	AGB
21AGBDD055	609,559	6,356,162	1,732	143	-60	139	DD	NQ2	AGB
21AGBDD056	609,517	6,356,119	1,717	70	-65	197	DD	NQ2	AGB
21AGBDD057	609,517	6,356,118	1,716	90	-50	205	DD	NQ2	AGB
21AGBRC001	609,397	6,356,681	1,855	70	-50	180	RC		AGB
21AGBRC002	609,452	6,356,722	1,835	70	-50	160	RC		AGB
21AGBRC003	609,269	6,356,663	1,825	70	-50	120	RC		AGB
21AGBRC004	609,357	6,356,698	1,846	70	-50	120	RC		AGB
21AGBRC005	609,350	6,356,747	1,839	70	-50	81	RC		AGB
21AGBRC006	608,873	6,356,403	1,823	70	-50	151	RC		AGB Exploration
21AGBRC007	608,826	6,356,571	1,796	71	-50	151	RC		AGB Exploration
21AGBRC008	608,724	6,356,278	1,850	70	-50	201	RC		AGB Exploration
21AGBRC009	608,978	6,356,175	1,813	70	-50	151	RC		AGB Exploration
21AGBRC010	608,710	6,356,468	1,817	40	-50	197	RC		AGB Exploration
21AGBRC011	609,526	6,356,278	1,789	70	-55	140	RC		AGB
21AGBRC012	609,639	6,356,104	1,668	70	-50	120	RC		AGB
21AGBRC013	609,513	6,356,011	1,651	70	-60	175	RC		AGB

Hole ID	Easting	Northing	Elevation (m)	Azimuth (°)	Dip (°)	Depth (m)	Type	Size	Zone
21AGBRC014	609,456	6,355,985	1,647	70	-50	120	RC		AGB Exploration
21AGBRC015	608,156	6,355,911	1,812	70	-60	151	RC		AGB Exploration
21AGBRC016	608,298	6,355,964	1,821	70	-60	151	RC		AGB Exploration
21AGBRC017	608,435	6,356,013	1,830	70	-60	151	RC		AGB Exploration
21AGBRC018	609,231	6,356,672	1,819	66	-89	145	RC		AGB
21AGBRC019	609,278	6,356,691	1,826	70	-50	91	RC		AGB
21AGBRC020	609,434	6,356,666	1,855	70	-50	181	RC		AGB
21AGBRC021	609,584	6,356,064	1,660	40	-60	120	RC		AGB
21AGBRC022	609,584	6,356,064	1,660	40	-45	101	RC		AGB
21AGBRC023	609,556	6,356,045	1,657	30	-70	191	RC		AGB
21AGBRC024	609,556	6,356,045	1,657	30	-50	191	RC		AGB

Source: APEX (2022)

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

11.1 Historical Sample Collection, Preparation and Security

Little is known about the sample preparation, analyses and security procedures used during historical drill programs carried out at the Lawyers Property prior to 2015. Previous efforts to verify historical Property drill hole data are discussed in Section 12.1 of this Technical Report.

Sample preparation, analyses and security procedures undertaken during the historical drilling carried out at Lawyers by PPM in 2015 is reported in Lane et al., (2018) and the following is a summary of this discussion.

> *"All 2015 drill core was transported from the drill site by one of the drillers or by a representative of PPM and securely stacked outside of the core logging facility until being brought inside for logging. Onsite core sample security was not a concern because of the remote location of the project.*
>
> ***Drill Core Handling Procedures***
>
> *Drill core handling procedures from drill to laboratory consisted of the following:*
>
> - *HQ core was transferred from the core tube to four-foot-long wooden core boxes by a member of the drill crew;*
> - *The drillers labelled the core boxes with drill hole number and box number, and placed a wooden block marked with the depth in feet at the end of each run of core;*
> - *At the end of each drill shift, filled core boxes were transported to the core logging facility;*
> - *At the core logging facility, core boxes were laid out in order to ensure all boxes were present and to ensure markers were correctly located and labelled;*
> - *A PPM technician or geologist then converted block measurements from feet to metres and core recovery measurements were determined and recorded for each run;*
> - *Core was geologically logged using hard copy forms designed for the Project; data was later entered into an electronic database;*
> - *The geologist determined the core to be sampled by marking it with bright coloured wax crayons to indicate the start and end of each sample interval. Each sample interval was tagged with a unique identification number, and the data was recorded on a Sample Record form. Each sample interval was also marked with a centre-line;*

- The geologist marked samples for density measurements approximately every 10 m; measurements were taken on-site and recorded; and

- Core was photographed sequentially from collar to 'End of Hole' in wet conditions prior to being moved to an adjacent core cutting shack for halving using a water-cooled diamond saw.

Drill core sampling procedures were as follows:

- Core boxes to be sampled were laid out in numerical order and lids removed;

- Sections of competent core were halved using a diamond saw, with half of the core for each sample placed in its own pre-numbered bag with matching pre-numbered sample tag; the other half of the core was returned to the core box;

- Sections of badly fractured core and gouge were carefully halved using a square-nosed cement trowel, and bagged as per the procedure listed above;

- All bagged samples were closed tightly with zip ties and packed together with QA/QC samples (that were inserted into the core sample stream at a prescribed frequency) into large rice bags at a rate of 3-7 per rice bag; each rice bag was labelled with the project name, drill hole ID and sample number range and then sealed with a zip tie;

- Once sampling was complete, core boxes were carefully stacked on wooden pallets, covered with plywood lids, shrink wrapped and secured with steel banding.

Sample Shipping:

- Each shipment consisted of: a) multiple packed rice bags representing one or more drill hole's worth of core samples, b) a Sample Record form, and c) a laboratory requisition form;

- Core sample shipments were made from site to a private secure location in Prince George by staff, and subsequently delivered directly to Bureau Veritas Minerals Laboratories (BV) in Vancouver, British Columbia, by a bonded commercial carrier; and

- BV's receiver logged receipt of the rice bags into the company's tracking system.

Analytical Methods

PPM selected Bureau Veritas Minerals Laboratories (BV) in Vancouver, British Columbia to conduct its analysis of core from the 2015 drill program. BV maintains ISO 9001:2015 accreditation for quality management system certification.

There is no relationship between PPM and the BV or between Crystal and BV.

The Quality Assurance/Quality Control (QA/QC) program described in the following sections was designed to allow for verification of the analytical results from historical exploration conducted on the Cliff Creek North and Dukes Ridge Zones for which there were tabulated analytical data for gold and silver in the WEL reports, but no laboratory analytical certificates.

Sample Preparation

- *Each sample received by BV lab staff was dried and individually crushed and pulverized following preparation procedure PRP70-250 whereby samples are jaw crushed until 80% of the sample material passes through a 10-mesh screen.*

- *From this material a 250 g riffle split sample is collected and then pulverized in a mild steel ring-and-puck mill until 85% passes through a 200-mesh screen.*

- *A 0.25 g split of each milled sample is collected for multi-element analysis and a 30 g split of each milled sample is collected for gold assay.*

Sample Analytical Procedures

- *The following laboratory procedures were used to analyse 2015 drill core samples and associated QA/QC samples. There were no third-party lab analyses performed on the 2015 samples. Laboratory certificates of analysis for all of the analyses completed in 2015 are in the possession of PPM and its geological consultants and are provided in an Appendix in Lane (2016).*

Multi-element and Silver Analyses

- *A 0.25 g split of each milled sample was evaluated for 45 elements, including silver, by a four-acid digestion in which the sample split is heated in HNO3-HClO4-HF to fuming and then taken to dryness. The residue is dissolved in HCl and analysed using ICP-ES/MS analysis (method MA200). Samples returning more than 200 ppm Ag were re-analysed using a 1g/100 mL aqua regia digestion by AAS (method AR401).*

Gold Analysis

- *A 30 g split of each milled sample was evaluated for gold by lead collection fire assay fusion with an AAS finish (method FA430). Samples returning >10 ppm Au were re-analysed utilizing lead collection fire assay with a gravimetric finish on a 30 g sample (method FA530).*

Quality Assurance / Quality Control Procedures

A systematic QA/QC program was instituted by PPM that included the insertion of blanks, standards and duplicate core samples into the regular core sample stream. A total of 757 core interval samples (excluding duplicates) were collected and a total of 114 quality control samples (41 blanks, 42 standards and 31 core *duplicates) were inserted into the sample stream at a rate of at least one blank, one standard and one duplicate for every 24 core interval samples.*

Blank Analysis

A total of 40 blanks were submitted to BV as part of the project's total sample shipment. The blank material used was a commercially available pulp (CDN-BL-10) purchased from CDN Resource Laboratories Ltd. (CDN). For gold, 24 of the blanks assayed at or below the detection limit (0.005 g/t Au) and for plotting purposes have been assigned a value of 0.0025 ppm Au, 12 assayed from 0.006 to 0.008 g/t Au and four assayed 0.010 to 0.012 g/t Au. The 4 highest values may indicate that the lab was enduring some level of procedural inadequacy, but because the values are still considered to be very low, it is more likely that there was some minor variability in the blank material itself. For silver, 32 of 40 blanks returned a value of 0.2 to 0.3 ppm Ag, 4 blanks returned values of 0.1 ppm Ag or less, and 4 blanks returned values of 0.4 to 0.5 ppm Ag). The results form a tight cluster just above detection in the 0.2 to 0.3 ppm Ag range. Overall, the results indicate acceptable sample preparation at BV.

Standards Analysis

A total of 42 gold or multi-element certified reference standards (CR"), also purchased from CDN, were submitted to BV as part of the project's total sample shipment. There were eight different CRS used during the program; they cover a range of gold values from 0.799 to 35.25 ppm Au. Two of the CRS provide reference values for silver; however, CRS pulps were not analysed for over-limit silver values, and therefore only one of the silver CRS was of use.

The gold values for the CRS … typically plot within (or very close to within) the "between lab" 2 standard deviations … indicating that adequate care and proper procedures were implemented during sample preparation and analysis.

The silver values for standard CDN-GS-5H show a slight positive bias; most results plot above the certified reference value and four results plot higher than the "between lab" 2 standard deviations. …

Drill Core Sample Duplicates Comparison

Drill core duplicates are used to monitor sample submissions for switched samples, data variability due to laboratory error, homogeneity of sample preparation and/or natural inhomogeneity of sampled mineralisation. A total of 31 core sample duplicate pairs were made by quarter-splitting the second half of the core. Duplicate samples were analysed at the same time as the original sample. ... For gold, two-thirds (21 of 31) of the duplicate pairs have a difference of >25% between the original and the duplicate assay. These samples have a range of gold values from just above detection limit to about 6 g/t Au. The results indicate that there is significant variance in gold at all grades. This is most likely due to the irregular distribution of gold in epithermal systems, and the difficulty in taking duplicate samples in vein and breccia mineralisation that inherently has an erratic distribution of values. For silver, however, this appears not to be the case, especially when the highest-grade result is removed (resulting in a very strong *correlation of the remaining duplicate pairs). This suggests that silver values are more evenly distributed, at least at lower concentrations, and that there may be more than one mineral species controlling the distribution of silver.*

Adequacy of Sample Preparation, Security and Analytical Procedures

The authors conclude that security, sample collection, sample preparation and analytical procedures employed during the 2015 drill program meet or exceed current best management practices. Continued use of a comprehensive QA/QC program is recommended to ensure that all analytical data can be confirmed to be reliable. There were eight certified reference standards used in 2015; in future programs the number of certified reference standards should be reduced to 3 or 4 and cover a range of gold and silver values that coincide with the range of grades typically observed at the Lawyers Project.

Overall, adequate care and proper procedures were used to obtain reliable gold and silver results in the 2015 diamond drilling program at the Lawyers Project."

The author of this section of this Technical Report agrees with the conclusions made regarding the adequacy of the Lawyers Property 2015 drill hole data. The author concludes that the sample preparation, analytical and security procedures used by PPM during the 2015 drill program were adequate and the 2015 drill data is of good quality and satisfactory for use in the Mineral Resource Estimate reported in this Technical Report.

11.2 Benchmark Sample Collection, Preparation and Security

The following section describes the surface sampling procedures employed at the Lawyers Property by Benchmark's geological consultants, APEX Geoscience Ltd. (APEX), since 2018. All sampling is performed by geologists or sampling technicians trained by APEX.

11.2.1 Drill Samples

11.2.1.1 RC Chip Samples

All RC chip sampling during the 2018 to 2021 field seasons was conducted by geologists and technicians trained by APEX. Sample information (principally sample IDs and "from/to" data) is recorded by the samplers in digital dataloggers running applications specifically designed for RC sample collection, including barcode scanning to allow linking of Sample ID numbers with drill hole and sample interval (from and to) data. RC drill holes were sampled at 5 ft (1.52 m) intervals from collar to TD (Total Depth or End of Hole).

Sample collection for an individual RC drill run is achieved by the placement of a five-gallon pail beneath the RC rig cyclone beside the drill. At the completion of a run, the full bucket is removed, and a second empty bucket is placed beneath the cyclone for the next drill run. The contents of the full sample bucket are run through a portable riffle splitter that collects a ¼ split. The ¼ split sample is collected in a poly-bag marked on both sides with the appropriate sample ID in permanent marker. The sample ID bar code is scanned into the digital datalogger, and some basic sample information is recorded, including the sample interval. The Tyvek sample tag is placed inside the split sample bag, and then sealed with a plastic zip tie and set aside a safe distance from the drill rig.

The remaining sample material passes through the splitter and is collected in a large poly bag, also marked with the respective sample ID, and "R" for Retention. A hand-full of material from the retention bag is placed into a 4-inch x 6-inch paper Kraft (soil sample) bag, which is then placed in a plastic tray. The large retention sample bags are sealed and also set aside a safe distance from the drill in a second pile beside the ¼ split samples selected for laboratory analysis. At the end of every shift, the RC samplers transport the Kraft bag sample trays to the core shack, where RC geologists utilize the samples to conduct RC chip logging.

Periodically, sample techs are assigned to retrieve all of the retention sample bags from completed RC drill holes by truck and trailer. The retention bags are transported to the core shack, where they are placed in large "mega-bags" and set aside in the Project's RC and core storage area, adjacent to the core shack area (at the former Cheni Mine process plant site). The sample techs also collect all of the completed RC analytical samples, which are then catalogued, placed into poly-woven rice sacks along with company-inserted QC samples, and the sealed rice sacks are then loaded into "mega-bags" in preparation for shipment to the laboratory. The first bag in each shipment is left open until delivery, which is when a laboratory submittal form is inserted. The sample submittal form details the sequence of the respective shipment samples and the preparation and analyses to be performed. Each "mega-bag" used to store the smaller rice bags, is sealed by a single steel cable security seal, the details of which are recorded prior to shipment.

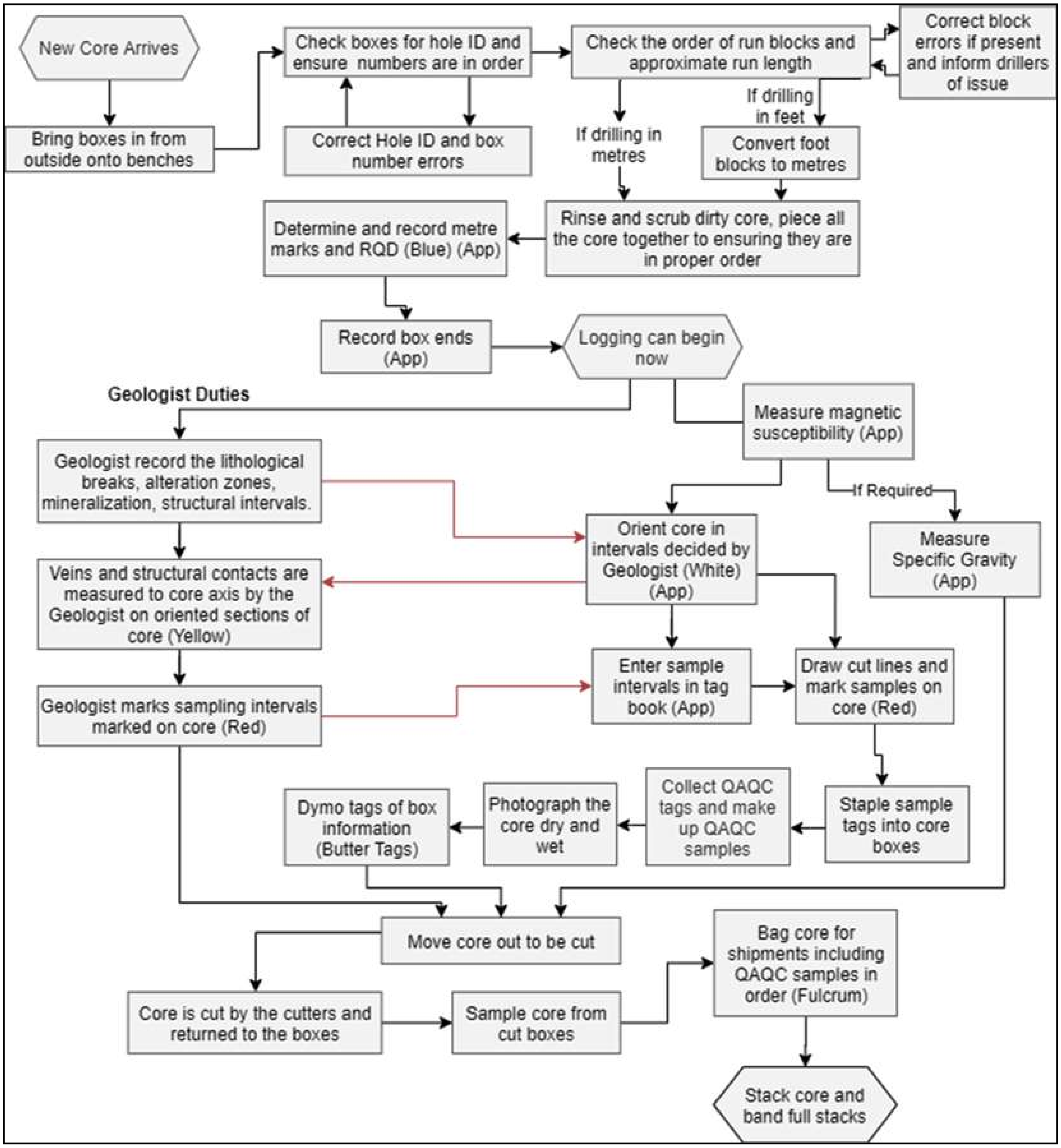
11.2.1.2 Diamond Drill Samples

<u>Core Processing</u>

The drill contractor delivers the drill core to the core shack. When newly delivered core is laid out, hole IDs, box numbers and block depths are immediately checked, and any issues encountered are reported to the drill contractor. When issues are resolved to the satisfaction of the drill geologist, the box start, and end depths are written on the core boxes and recorded. The core is then washed and, where possible, all broken core pieces re-aligned and pieced back together. Basic geotechnical data, including recovery (as a percentage of each run distance), Rock Quality Designation (RQD) and magnetic susceptibility, is subsequently measured and recorded. Scintillometer data was collected on select holes in 2019 only. The 2019, 2020 and 2021 core drilling at the Property involves oriented core. Following the collection of the basic Geotech data, the 'end of run' core orientation marks made by the drillers are checked and, where possible, orientation lines are drawn on the core up-hole and down-hole from the mark and structural measurements are made and recorded using the alpha-beta method by the logging geologist and Geotech assistants. Bulk density measurements are also made at regular intervals using the wet and dry weight (Archimedes) method.

The core is then (geologically) logged for lithology, alteration, mineralisation, veining and other lithological and structural data, which is recorded in a computer-based logging program. The core was marked for sampling, photographed wet and dry, and palletized for transport to the adjacent core cutting facility. All core logging procedures conform to industry standard practices and are appropriate for the intended use of the data.

Figure 11-1: 2020 Core Shack Workflow



Source: Laycock et al., (2021)

Core Sample Methodology

Core is logged by APEX personnel and stored on site after sampling at a new storage area established adjacent to the core logging and cutting facilities at the former Cheni Mine processing plant site, which is located approximately half-way up the Cliff Creek drainage, between the camp and historical Cliff Creek portal.

Core is examined and marked for sampling by the logging geologist in intervals adhering to geological boundaries (including lithology, alteration, veining, etc.), with guidance that sample intervals should be no smaller than 30 cm and no longer than 2 m. Core sample intervals in 2020 range from 14 cm to 4 m, with the average sample interval calculated at 1.2 m. A sample tag with the sample meterage is placed at the start of each sample and attached to the core box with staples. The sample ID and interval are recorded in the logging template and in the sample tag booklet. When marked with sample tags and cut lines, and photographed (dry and wet), the core is palletized and transported to the core-cutting facility.

The core being sampled is cut in half with a diamond saw. One-half of the core from each sample interval is placed into a plastic sample bag, along with the corresponding Tyvek sample tag. The other half of the core is returned to the core box for on-site archival. Each plastic sample bag is also labelled with the sample ID (with a permanent marker). A sample tag is placed in the polybag and the bag sealed with a zip tie. Sealed samples are placed in rice bags. Groups of from 15 to 35 rice bags are placed into “mega-bags” and designated as a shipment. A sample submittal form is made up for each shipment, including the sample sequence comprising the shipment and the desired analyses to be performed by the laboratory. The sample submittal form is inserted into the first rice bag of each shipment and the mega-bag is subsequently closed and secured with a pre-numbered steel cable seal and the seal number recorded.

11.2.1.3 Drill Sample Shipping and Handling

Sample shipments comprising groups of sealed rice bags are flown as backhauls from camp to Smithers, BC., by the Project’s fixed wing aviation charter company, Tsayta Aviation Ltd., (based in Smithers, BC). In 2021-2022, samples were also shipped in mega bags directly out of camp to Prince George, where they were taken to Bandstra Trucking to be shipped to ALS prep labs. The samples transported by plane are collected from Tsayta at the Smithers Airport by the Project’s expediting company, Rugged Edge Holdings Ltd., of Smithers, and are taken to Bandstra Trucking (Smithers) for shipment to ALS. Some samples, particularly at the end of the program in 2019, are trucked by expeditors or Property staff, to Prince George, BC., where they are dropped off at Bandstra Trucking (Prince George) for shipment to ALS in Kamloops, BC. Throughout the 2018-2022 field seasons, there were no significant issues with sample security and (or) chain of custody between camp and the ALS laboratory sample preparation facility in Kamloops, BC and other ALS prep labs used due to major back logs at the laboratory, in 2021-2022 (Yellowknife, Whitehorse and Mexico).

Mega-bags comprising drill sample shipments (RC and core drilling samples) were transported by APEX personnel to the Kemess Mine warehouse, located approximately 60 km south from the Lawyers Project, for a large part of the 2020 field season. Bandstra Trucking delivers supplies to Kemess weekly, on a Friday, and the Project’s security-sealed mega-bags are trucked from Kemess to Prince George on the delivery truck’s return trip. Bandstra then continue trucking the samples to the ALS sample preparation facility in Kamloops, BC. On receipt at the ALS facility, security seal numbers and sample condition are reported to camp by the receiving staff at ALS. The drill sample mega-bags were trucked, primarily by one of the Project’s expeditors, directly from camp to Bandstra Trucking in Prince George, during the winter period when the Kemess Mine was closed. Bandstra Trucking completed sample shipment to the ALS preparation facility in Kamloops.

In the late fall of 2020, ALS began to experience a significant backlog due to excessive numbers of samples being delivered to their Kamloops sample preparation facility. As a result, some Lawyers Property drilling samples were re-routed to other ALS sample preparation facilities, including their facility in Yellowknife, NWT. Regardless, a secure chain of custody was maintained and there were no issues reported by ALS regarding the drilling sample security seals.

11.3 Benchmark Sample Analyses

11.3.1 Drill Samples

On initial receipt at the 'preparation' facility, samples are logged into the ALS computer-based tracking system, and then weighed and dried. Preparation of the 2020 drilling samples involved ALS prep-code PREP-31A, whereby the entire sample is crushed to 70% passing -2 mm, homogenized and a 250 g split then pulverized to >85% passing 75 µm. An aliquot of the resulting pulp from each sample is then shipped for analysis to ALS' main (analytical) laboratory in North Vancouver, BC. Due to excessive sample volumes, ALS sent a small number (2,538 or ~3.5%) of the 2020 drill samples for analysis to their laboratory in Lima, Peru. An examination of the Company-inserted QC samples within the Lima-analysed sample set, shows no significant differences relative to those within the Vancouver-analysed sample set.

The analytical package for all Benchmark Lawyers drilling samples was the same as that for the soil samples described above. Each drilling sample was analysed for gold by a standard fire assay (Au-ICP-21), which involved the fusion of a 30 g sample aliquot and a wet chemical (ICP) finish. "Overlimit" Au-ICP21 results (>10 ppm Au) were followed up with Au-GRA21 analysis. This involved a 30 g fire assay fusion and gravimetric finish. Additionally, each sample was submitted for multi-element geochemical analysis by the ME-MS61 technique, which is an ICP-MS analysis following a near-total, four-acid, digestion of a 0.25 g sample aliquot. Initial silver and base metal (Cu, Pb and Zn) "overlimit" ICP-MS results (>100 ppm Ag and >1% for base metals) were analysed by a follow-up, "ore grade" ICP technique (OG62), which also involved ICP analysis following a four-acid digestion on a 0.4 g sample aliquot. Any samples with silver values by OG62 >1,500 ppm were re-analysed by 30 g fire assay with a gravimetric finish (Ag-GRA21).

ALS Minerals has developed and implemented strategically designed processes and a global quality management system at each of its locations that meets all requirements of International Standards ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures and ALS is fully independent of APEX and Benchmark.

11.4 Benchmark Quality Assurance/Quality Control Review

A comprehensive quality assurance and quality control (QA/QC) program was employed during the 2018 to 2022 Lawyers Property drill programs, including a significant analytical QC program to help evaluate accuracy, precision and contamination of analyses conducted by ALS. The

QA/QC programs included the routine insertion of Certified Reference Material (CRM or standards), coarse blank samples and certified blank (pulp) samples, and the collection of field duplicate (RC chip and quartered core) samples. A summary of the QC sampling completed during the 2018 to 2022 Lawyers drill programs is provided in Table 11-1.

Table 11-1: Summary of 2018 to 2022 Lawyers Property Drill Program QC Sampling

QC Sampling	2018	2019	2020	2021	2022[1]
Total Drilling Samples	2,605	7,043	66,620	68,836	**12,848**
Total QC Samples (Total QC sample ratio)	590 1:4.4	1,294 1:5.4	9,143 1:7.3	8,556 1:8.0	**1,535** **1:8.4**
Duplicates	192	464	629	394	**35**
Coarse Blanks	0	204	543	418	**59**
Blanks (pulps)	201	220	2,365	2,143	497
Standards	197	406	5,606	5,601	**944**
Total CRMs (CRM insertion ratio)	398 1:6.5	626 1:11.3	7,971 1:8.4	7,744 1:9.0	**1,441** **1:8.9**

[1]2022 Winter Program
Source: APEX (2022)

During the 2018 and 2019 drilling programs, the QC sample protocol involved alternating the insertion of blanks and standards at every sample number ending in a multiple of 10. Coarse blanks were not used during 2018 but were alternated with blank pulps during the 2019 program. The ratio of QC samples (blanks + standards) to drill samples is 1:7 in 2018 and 1:9 in 2019. Two different CRMs were used in 2018 and four in 2019. RC chip and ¼ core duplicate samples were collected at a rate of one in twenty samples (sample numbers ending with 05, 25, 45, 65 and 85). There were 192 duplicates collected in 2018 and 464 in 2019, representing collection rates of 1:14 in 2018 and 1:15 in 2019.

QC sampling protocol was modified slightly in 2020 to optimize the use of coarse blanks and duplicate samples relative to zones of visible mineralisation. Modified 2020 protocol involved the reclassification of blank pulps to a very low-grade CRM and, as such, they were inserted into the sample sequence every tenth sample (in rotation with the regular higher-grade CRMs). The logging geologists were also instructed to insert coarse blank and select duplicate samples within or immediately following visibly mineralised intervals (at a rate of no more than 1:50). Coarse blank and duplicate samples were inserted/collected at a rate of 1:50 for the 2020 RC chip samples, on samples ending in “45” and “95” and “25” and “75”, respectively. The ratio of QC samples to drill samples was 1:8 in 2020, with 13 different CRMs utilized. In addition, 629 duplicate samples were also collected as part of the 2020 drilling QC program.

The 2020 QC protocols were continued in the 2021 and 2022 drill programs. For the 2021 RC chip samples, coarse blank and duplicate samples were inserted/collected at a rate of 1:50 on samples ending in “45” and “95” and “25” and “75”, respectively. Excluding duplicate samples, the distribution of company-inserted QC samples was roughly 26% blank pulps, 5% coarse blanks and 69% standards (6 CRM's total) with an overall ratio of QC samples to actual samples of 1:8. In addition, 394 duplicate samples (~5% of total QC samples) were also collected as part of the 2021 drilling QC program.

11.4.1 2018 Drill Program QAQC Sampling

11.4.1.1 Performance of Certified Reference Materials

CRMs were inserted into the analytical stream approximately every 13 samples and represented 7.6% of the samples sent for analysis (198 out of 2,605 samples). Criteria for assessing CRM performance are as follows: 1) data falling within ±2 standard deviations from the accepted mean value pass; and 2) data falling outside ±3 standard deviations from the accepted mean value, or two consecutive data points falling between ±2 and ±3 standard deviations on the same side of the mean, fail.

The majority of gold and silver results fall within acceptable limits, except for four gold samples and one silver sample for the CDN-GS-1V standard and one silver sample for the CDN-GS-5T standard. A summary of CRM results, including failure rates for each standard, is presented in Table 11-2. The CRM results do not indicate any material issues with accuracy for either element.

Table 11-2: Summary of CRM Samples Used at Lawyers in 2018

CRM	Au							Ag						
	Certified Mean Value (ppm)	2X Standard Deviation	% RSD	n	No. Failures	% Failures	Average of Results (ppm)	Certified Mean Value (ppm)	2X Standard Deviation	% RSD	n	No. Failures	% Failures	Average of Results (ppm)
CDN-GS-1V	1.02	0.098	4.8	102	4	3.9	1.01	71.7	5	3.5	102	1	1.0	72.1
CDN-GS-5T	4.76	0.21	2.2	96	1	1.0	4.81	126	10	4.0	96	0	0.0	127.8
			TOTAL	**198**						**TOTAL**	**198**			

Source: P&E (2021)

11.4.1.2 Performance of Blanks

The BL-10 pulp blank, purchased from CDN Resource Laboratories (CDN) in Langley, BC, was routinely inserted into the sample stream during 2018 drilling at the Project. All blank data for Au were assessed against a warning limit of 50 ppb for gold and 0.5 ppm for silver. There were 201 data points to examine. All gold data plot below the set warning limit, with a maximum value of 22 ppb Au, and an average of 1.2 ppb Au. All data for silver plot below the set warning limit of 0.5 ppm, with a maximum value of 0.37 ppm Ag, and an average result of 0.087 ppm Ag. The author of this Technical Report section does not consider contamination to be an issue in the 2018 BL-10 data.

11.4.1.3 Performance of Duplicates

Field duplicate data for gold and silver were examined for the 2018 drilling program. A total of 192 duplicate pairs were graphed and found to have acceptable precision with no significant bias indicated. The Correlation Coefficient and R^2 values (Coefficient of Determination) for the Au duplicates are 0.7371 and 0.5434, respectively. The Correlation Coefficient and R^2 values for the Ag duplicate analyses are 0.9951 and 0.9902, respectively.

11.4.2 2019 Drill Program QAQC Sampling

11.4.2.1 Performance of Certified Reference Materials

CRMs were inserted into the analytical stream approximately every 17 samples and represent 5.8% of the samples sent for analysis (408 out of 7,043 samples). Criteria for assessing CRM performance is described in Section 11.4.1.1.

The majority of gold and silver results fall within acceptable limits, except for two gold failures and one silver failure for the CDN-GS-1V CRM; four gold failures and 11 silver failures for the CDN-GS-1Z CRM; one gold failure for the CDN-GS-5T CRM; and four gold failures for the CDN-GS-6E CRM. A summary of CRM results, including failure rates for each standard, is presented in Table 11-3. The CRM results do not indicate any material issues with accuracy for either element.

Table 11-3: Summary of CRM Samples Used at Lawyers in 2019

CRM	Au							Ag						
	Certified Mean Value (ppm)	2X Standard Deviation	% RSD	n	No. Failures	% Failures	Average of Results (ppm)	Certified Mean Value (ppm)	2X Standard Deviation	% RSD	n	No. Failures	% Failures	Average of Results (ppm)
CDN-GS-1V	1.02	0.098	4.8	92	2	2.2	1.02	71.7	5	3.5	93	1	1.1	72.1
CDN-GS-1Z	1.155	0.095	4.1	132	4	3.0	1.15	89.5	4.4	2.5	138	11	8.0	91.6
CDN-GS-5T	4.76	0.21	2.2	86	1	1.2	4.81	126	10	4.0	86	0	0.0	127.4
CDN-GS-6E	6.06	0.30	2.5	98	4	4.1	6.11							
			TOTAL	**408**						**TOTAL**	**317**			

Source: P&E (2021)

11.4.2.2 Performance of Blanks

BL-10 Pulp Blanks

The BL-10 pulp blank was again routinely inserted into the sample stream during 2019 drilling at the Project. All blank data for Au were assessed against a warning limit of 50 ppb for gold and 0.5 ppm for silver. There were 220 data points to examine. All gold data plot below the set warning limit, with a maximum value of 23 ppb Au, and an average of 1.6 ppb Au. All data for silver plot below the set warning limit of 0.5 ppm, with a maximum value of 0.45 ppm Ag, and an average result of 0.059 ppm Ag. The author of this Technical Report section does not consider contamination to be an issue in the 2019 BL-10 data.

Coarse Blanks

Coarse Blank (CB) material is sufficiently coarse to undergo identical crushing and pulverization procedures as the drill samples. Unlike pre-packaged pulp blank material, CBs allow for contamination to be monitored throughout the earliest stages of sample preparation at the laboratory, including crushing and pulverization, and can check for possible inter-sample contamination due to poor between-sample cleaning procedures of equipment and/or general lack of cleanliness.

The CB material used during the 2019 - 2022 Lawyers drill programs was prepared by APEX in advance and consisted of Athabasca quartzite cobbles that were collected from a gravel pit west of Edmonton. The quartzite cobbles were submitted to TSL Laboratories in Saskatoon, SK (an accredited analytical laboratory that is fully independent of APEX and Benchmark Metals), where they were coarsely crushed to produce -1” (<2.54 cm) material. The coarse-crushed quartzite material was homogenized, and then ten (10) ~250 g samples were collected from the material at random and were then finely crushed and pulverized. A standard 30 g fire assay with an AA finish was then conducted on each of the 10 samples and all results returned values below detectable limits (<5 ppb Au). The coarse reject test samples were not analysed for silver.

During the 2019 drill program, CBs were inserted into the analytical stream approximately every 35 samples, representing 2.9% of the total number of samples. There were 204 data points to examine. An upper warning threshold of 25 ppb Au was chosen, based on the bulk analyses carried out at TSL, indicating an expected value of < 5 ppb Au. All gold results fall below the set warning threshold. The average CB gold fire assay and silver ICP-MS results are calculated at 1.1 ppb Au and 0.12 ppm Ag, respectively. Examination of the 2019 CB Au and Ag results, relative to their respective preceding sample results, does not yield evidence of any significant sample-to-sample contamination issues during sample preparation stages. The author of this Technical Report section does not consider contamination to be an issue in the 2019 CB data.

11.4.2.3 Performance of Duplicates

Field duplicate data for gold and silver were examined for the 2019 drilling program. A total of 464 duplicate pairs were graphed and found to have acceptable precision with no significant bias indicated. The Correlation Coefficient and R^2 values for the Au duplicates are 0.9360 and 0.8761, respectively. The Correlation Coefficient and R^2 values for the Ag duplicate analyses are 0.8892 and 0.7906, respectively.

11.4.3 2020 Drill Program QAQC Sampling

11.4.3.1 Performance of Certified Reference Materials

CRMs were inserted into the analytical stream approximately every 12 samples and represent 8.4 % of the samples sent for analysis (5,606 out of 66,620 samples). Criteria for assessing CRM performance is described in Section 11.4.1.1.

QC protocol for drill samples at the Lawyers Property commenced in the beginning of July 2020 and included the use of the first seven CDN CRMs listed in Table 11-4Table 11-4. The first analytical results were received from ALS approximately one month later and, by the end of August, sufficient data had been received indicating potential inhomogeneity issues with several of the CDN-GS CRMs. No issues were found with the field duplicate or blank data for this time period. The early analytical data received for several of the CDN-GS CRMs, including the CDN-GS-1Z CRM, were also indicating less variance and acceptable accuracy. Figure 11-3 charts an example of the initial data collected for the CDN-GS-1Z CRM, which had four isolated failures only within the first ~200 samples assayed (2%) and concluded with 14 failures in a total of 807 assay results (1.7%).

Table 11-4: Summary of CRM Samples Used at Lawyers in 2020

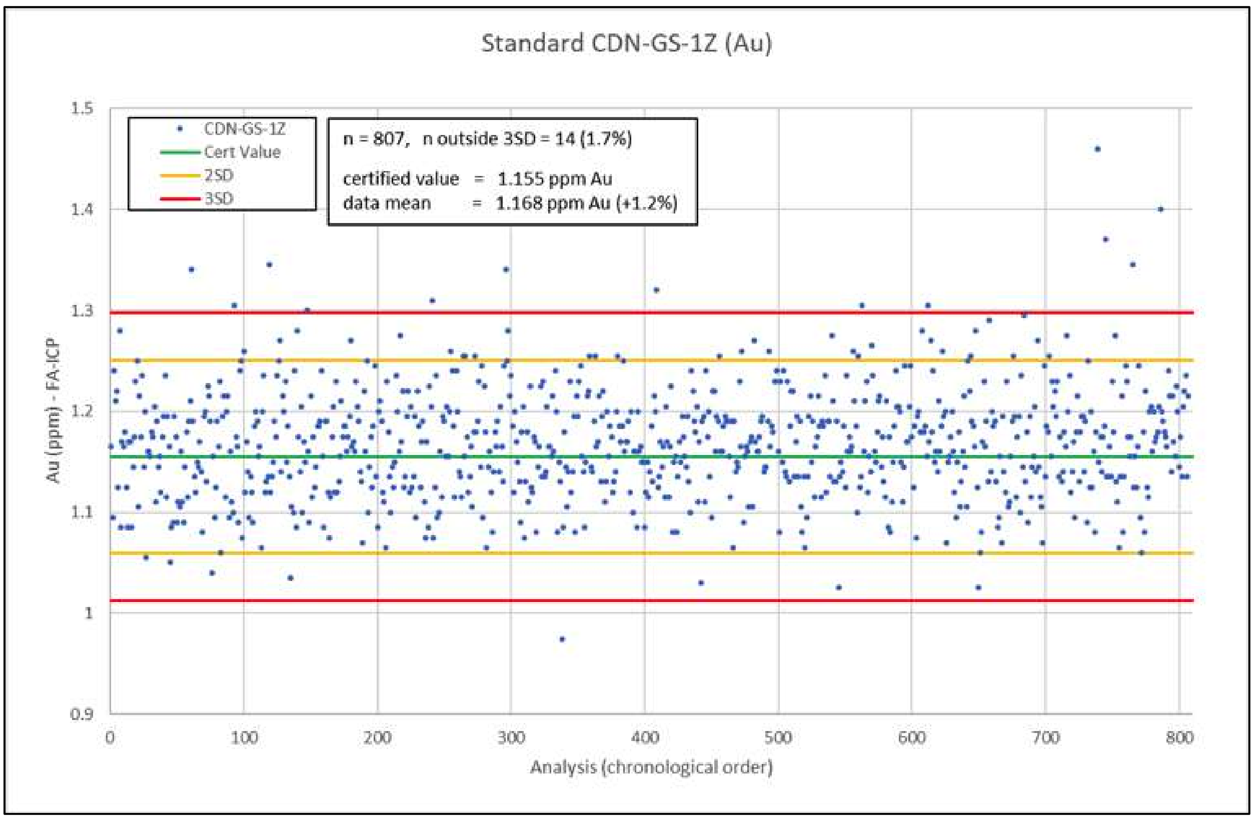
CRM	Au							Ag						
	Certified Mean Value (ppm)	2X Standard Deviation	% RSD	n	No. Failures	% Failures	Average of Results (ppm)	Certified Mean Value (ppm)	2X Standard Deviation	% RSD	n	No. Failures	% Failures	Average of Results (ppm)
CDN-GS-P6C	0.767	0.078	5.1	840	117	13.9	0.812	66	5.5	4.2	840	103	12.3	67.3
CDN-GS-1X	1.299	0.132	5.1	215	19	8.8	1.299							
CDN-GS-1Z	1.155	0.095	4.1	807	14	1.7	1.168	89.5	4.4	2.5	807	81	10.0	92.1
CDN-GS-1P5T	1.75	0.17	4.9	1338	138	10.3	1.80	92	5.1	2.8	1338	26	1.9	94.1
CDN-GS-3U	3.29	0.26	4.0	1270	104	8.2	3.38							
CDN-CM-29	0.72	0.068	4.7	150	6	4.0	0.72							
CDN-CM-19	2.11	0.22	5.2	197	0	0.0	2.15							
OREAS 232	0.902	0.046	2.5	218	0	0.0	0.903							
OREAS 237	2.21	0.108	2.4	226	1	0.4	2.22							
OREAS 601B	0.775	0.042	2.7	220	1	0.5	0.793	50.1	3.48	3.5	220	0	0.0	50.2
OREAS 603B	5.21	0.418	4.0	73	0	0.0	5.31	301	20	3.3	73	0	0.0	301.7
CDN-GS-5T	4.76	0.21	2.2	6	1	16.7	4.97	126	10	4.0	6	0	0.0	131
CDN-GS-6F	6.87	0.28	2.0	46	2	4.3	6.77							
			TOTAL	**5,606**						**TOTAL**	**3,284**			

Source: P&E (2021)

Figure 11-2 illustrates a plot of the entire Au fire assay dataset received for the CDN-GS-P6C CRM and demonstrates an example of the variance issues detected with some of the CDN-GS CRMs. Significant variance within the data is evident, with multiple high and low "failures" plotting outside three times the standard deviation from the certified mean.

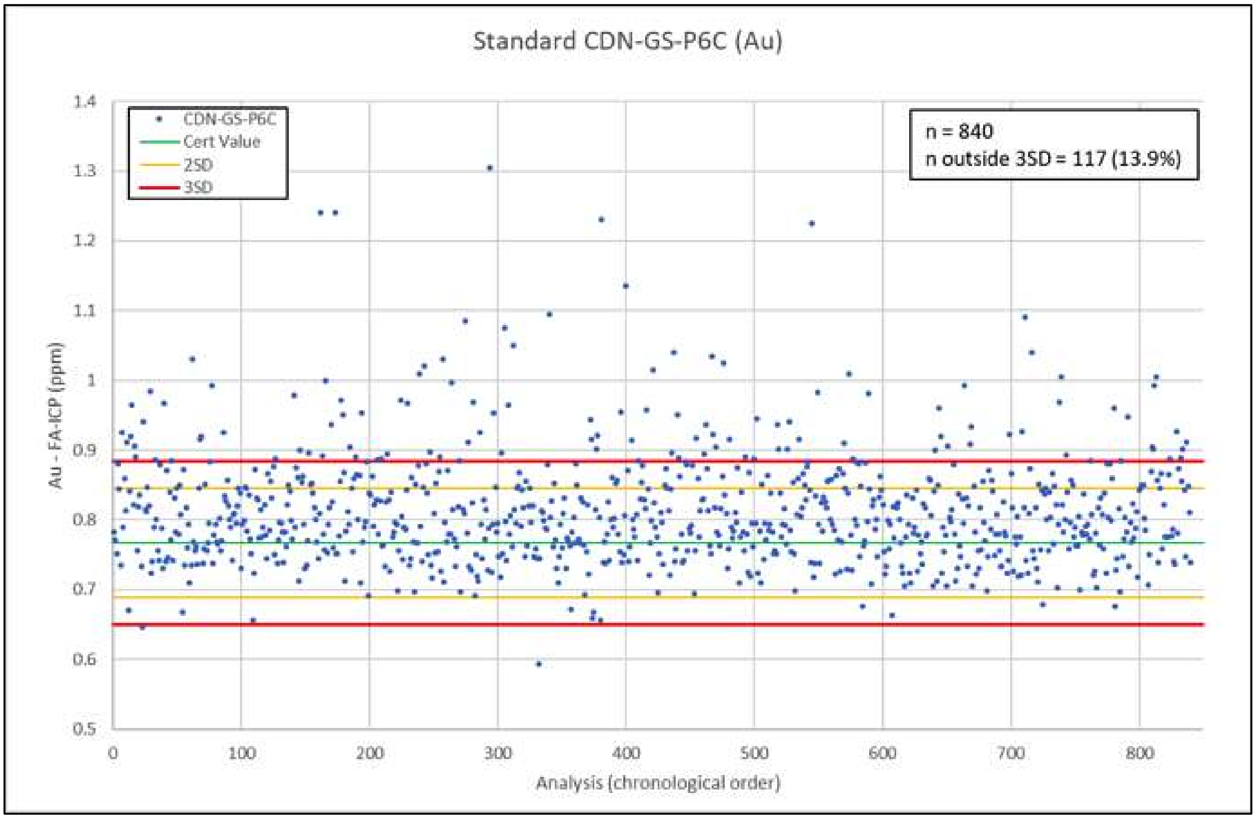
Benchmark carried out discussions with both ALS and CDN, with no resolution reached as to the cause of the large number of failures. A limited Round Robin check on the CDN CRMs pointed to issues with the standards themselves and a decision was made to re-assay (or "check assay") related samples at ALS. Further to the re-assaying program, an umpire assaying program was undertaken on the pulp aliquots at Bureau Veritas to further verify the ALS analyses. Both the re-assaying and umpire assaying programs are discussed in Section 11.4.4 of this Technical Report.

Figure 11-2: Au Data For "Acceptable" Standard CDN-GS-1Z



Source: Laycock et al., (2021)

Figure 11-3: Au Data For "Problematic" Standard CDN-GS-P6C



Source: Laycock et al., (2021)

As a result of the initial variance issues identified in some CRMs at the start of the 2020 Lawyers drill program, the range of CRMs used for the remainder of the program was modified. A number of the CDN-GS CRMs were discontinued part-way through the drilling program for various reasons:

- CDN-GS-P6C CRM: Au and Ag data exhibited a high degree of variance with a high number of failures returned;
- CDN-GS-5T and CDN-GS-6F CRMs: supplies for these CRMs were not replenished as their grades were not considered ideal; and
- CDN-GS-1X CRM: CDN's supply ceased, and this CRM was replaced with the CDN-GS-1Z CRM.

The CDN-GS-3U, CDN-GS-1Z and CDN-GS-1P5T CRMs were continued, due to their acceptable early analytical results, and the Ag certification for the latter two CRMs. Four new CRMs were also added to the program; two new CDN CRMs (CDN-CM-19 and CDN-CM-29) and two OREAS CRMs (OREAS 232 and OREAS 237). Two additional OREAS CRMs (OREAS 601b and OREAS 603b) were included later in the program, due to their higher-grade silver contents.

Gold and silver analyses returned by the lab for the six additional CRMs (CM-19 and -29 and OREAS 232, 237, 601b and 603b) generally display limited variance and plot within acceptable limits.

11.4.3.2 Performance of Blanks

BL-10 Pulp Blanks

The BL-10 blank was again routinely inserted into the sample stream during 2020 drilling at Lawyers. All blank data for Au were assessed against a warning limit of 50 ppb for gold and 0.5 ppm for silver. There were 2,365 data points to examine, representing an insertion rate of approximately 1 in 30. All gold data plot below the set warning limit, with a maximum value of 42 ppb Au, and an average of 1.2 ppb Au. The majority of the silver data plot below the set warning limit, with only 12 samples returning results >0.5 ppm. An average of 0.102 ppm Ag is calculated from all 2,365 blank samples and a maximum blank result of 6.58 ppm Ag is noted.

The author of this Technical Report section does not consider the 12 silver samples that returned values of >0.5 ppm Ag to be of material concern to the current Mineral Resource Estimate and does not consider contamination to be an issue in the 2020 BL-10 data.

Coarse Blanks

During the 2020 drill program, CBs were inserted into the analytical stream approximately every 125 samples, representing 0.8% of the total number of samples. There were 543 data points to examine. All blank data were assessed against a warning limit of 25 ppb for gold and 0.5 ppm for silver. All but five gold and ten silver results fall below the set warning thresholds, and the average CB gold fire assay and silver ICP-MS results are calculated at 1.7 ppb Au and 84 ppb Ag, respectively. Examination of the 2020 CB Au and Ag results, relative to their respective preceding sample results, does not yield evidence of any significant sample-to-sample contamination issues during sample preparation stages. The author of this Technical Report section does not consider contamination to be an issue in the 2020 CB data.

11.4.3.3 Performance of Duplicates

Field duplicate data for gold (Fire Assay) and silver (ICP-MS) were examined for the 2020 drilling program. RC duplicates were collected as an additional split from the retention material and duplicate core samples comprise two quarter-core splits of the parent sample, with the remaining half-core portion archived in a core box on site. A total of 629 duplicate pairs (~1% of the data) were graphed and found to have acceptable precision with no significant bias indicated. The Correlation Coefficient and R2 values for the Au duplicates are 0.9271 and 0.8596, respectively.

11.4.4 2020 Benchmark Check Assaying

11.4.4.1 2020 Check Assays – ALS Laboratories

A “check assay” program was conducted on duplicate pulp aliquots from 281 samples that were selected from a geographically well-distributed set of mineralised intervals at Cliff Creek, Dukes Ridge and AGB from the 2020 Lawyers drill program, as a further check on samples already analysed by ALS.

Insufficient pulp material was encountered for eight of the 281 check assay samples and a second pulp was generated from the coarse reject material of these samples. A total of 28 QC samples, comprising standards and blank pulps, were submitted to ALS for insertion into the sequence of check analyses. All QC sample results fell within acceptable limits.

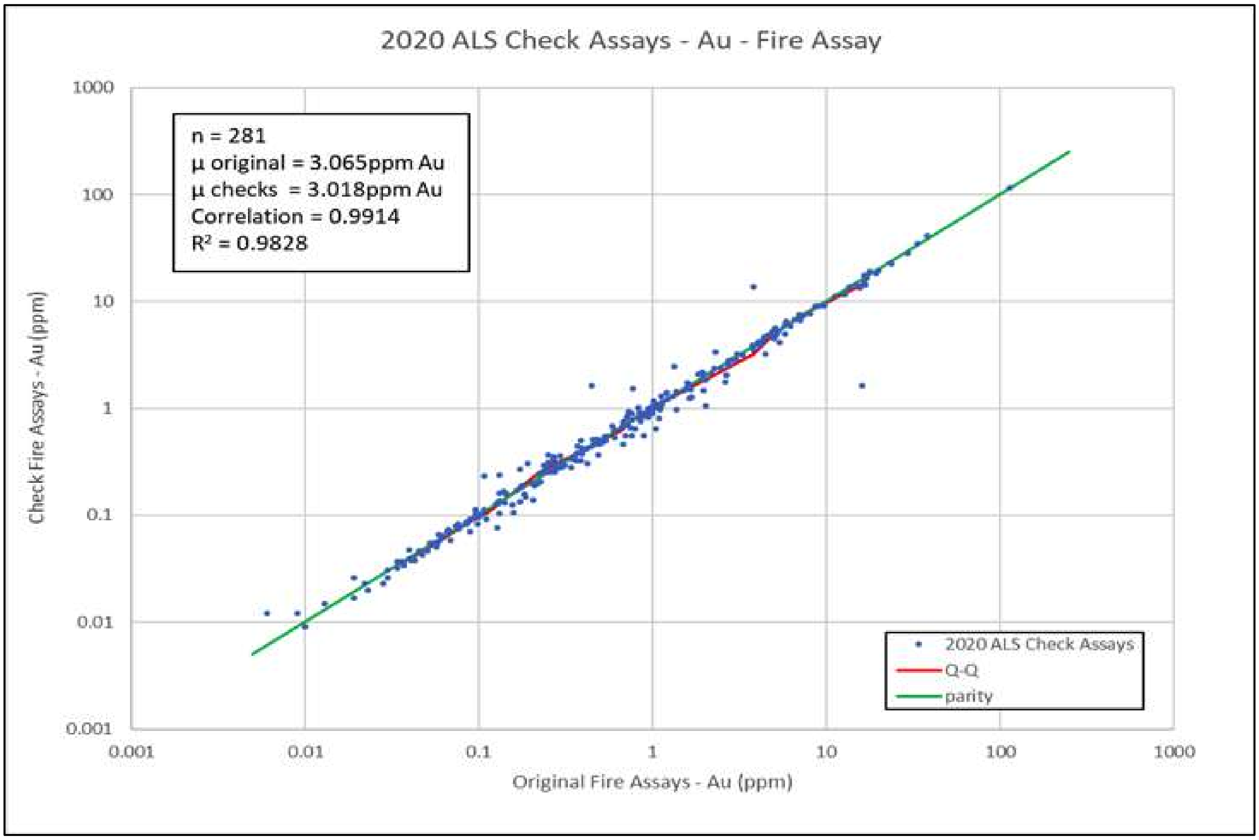
All 281 check samples were analysed by the Project’s primary assay technique (Au-ICP21), which is a standard 30 g fire assay with an ICP-AES finish. There are 21 samples that returned results greater than the upper limit of this technique (>10 ppm Au), and thus required follow-up assaying with a gravimetric finish (Au-GRA21). The data presented in Figure 11-4 is a compilation of gold results from both assay techniques.

The check samples were also analysed for silver by the Project’s primary “geochemical” technique (ME-MS61). This technique comprises ICP-AES and ICP-MS analyses, following a 4-acid (near total) digestion of a 0.25 g sample aliquot. A number of samples (74 in total) returned results greater than the upper limit for this technique (>100 ppm Ag), which required follow-up ICP analysis by the OG-62 technique. A further five samples required further follow-up assaying by the Ag-GRA21 technique. Silver data presented in Figure 11-5 is a compilation of the results from these three techniques.

The 2020 gold and silver “check assay” data show excellent correlation and very low variance between the original and the “check” analyses, with correlation coefficients of 0.9914 and 0.9990 for Au and Ag respectively. The check analyses provide further confidence in the accuracy and precision of the 2020 data and reaffirm the homogeneity issues encountered with particular CRMs in the early stages of the program (refer to discussion in Section 11.4.3.1).

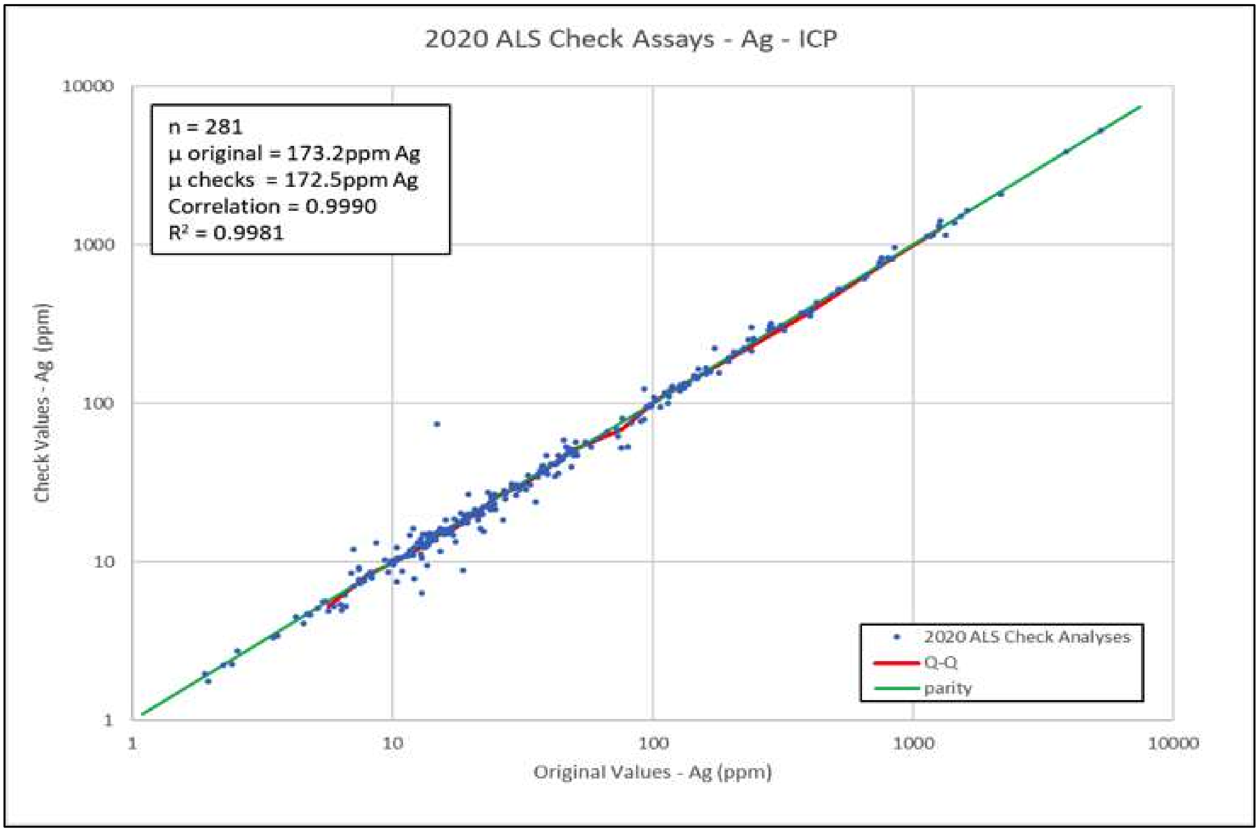
The check assay data further demonstrate that the sample preparation and analytical procedures employed by ALS are adequate to create reasonably well-homogenized pulps that yield consistent (repeatable) analytical results. The author of this Technical Report section concludes that the data is suitable for use in the current Mineral Resource Estimate.

Figure 11-4: Au Fire Assay Data for the 2020 ALS Check Assay Samples



Source: Laycock et al., (2021)

Figure 11-5: Ag ICP-MS Data for the 2020 ALS Check Assay Samples



Source: Laycock et al., (2021)

11.4.4.2 2020 Umpire Assays – Bureau Veritas

Benchmark carried out a comprehensive umpire-sampling program to confirm the integrity of the analytical results from the 2020 drilling at the Lawyers Property. Select pulverized pulp samples were submitted for check analyses at a secondary laboratory (umpire lab), to check original analyses performed at the primary laboratory (ALS). The check analyses were conducted at Bureau Veritas (BV), Vancouver, with a total of 436 samples, spanning the entire 2020 drill program, shipped from ALS to BV for analysis. Samples were selected from mineralised intervals within the Cliff Creek, Dukes Ridge and AGB zones, to ensure adequate geographical distribution across the three main deposit areas.

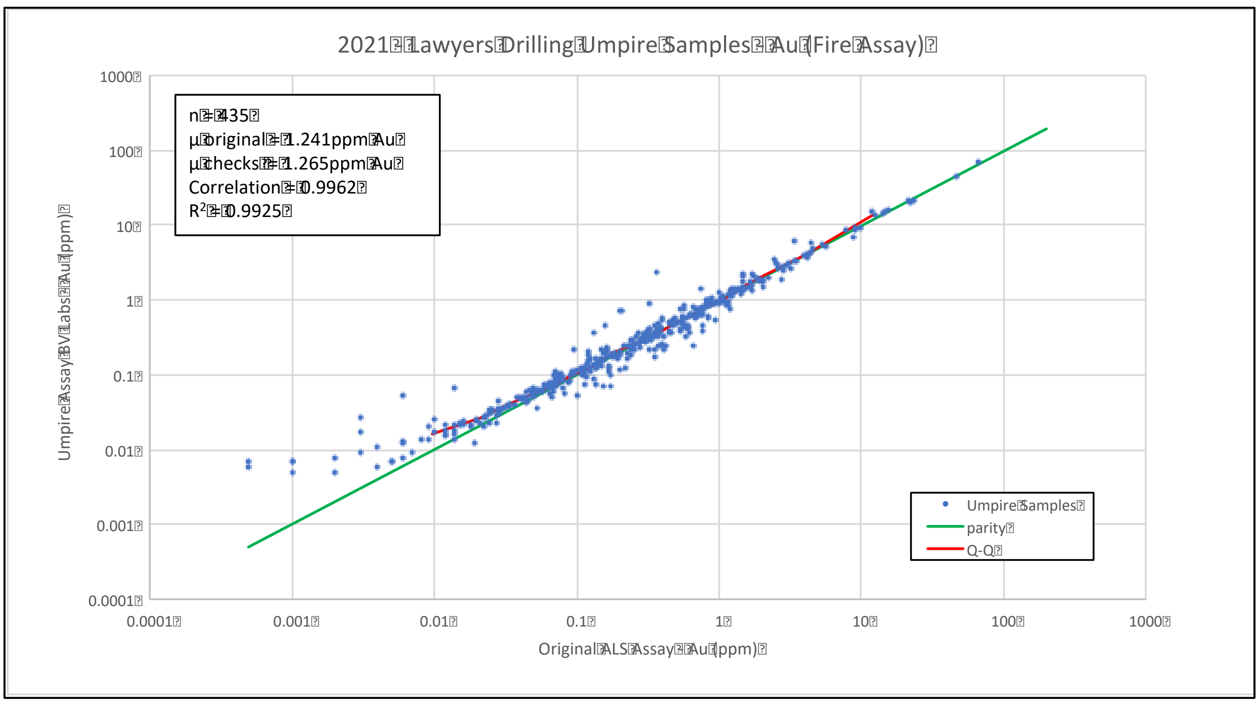
A total of 47 QC samples, comprising standards and blank pulps, were submitted to BV for insertion into the sequence of check analyses. All QC sample results fell within acceptable limits.

The samples were analysed at BV using equivalent techniques to those used by ALS, including a 30 g fire assay with ICP finish (BV lab code FA330) and trace-level ICP-AES/MS analysis following a 4-acid (near total) digestion (BV lab code MA250). Similar overlimits apply to the techniques used by both ALS and BV.

BV is a leading provider of laboratory testing, inspection, and certification, operating in 1,430 offices and laboratories in 140 countries. BV is ISO 9001 compliant and, for selected methods, ISO 17025 compliant and has an extensive QA/QC program to ensure that clients receive consistently high-quality data. BV is fully independent of both APEX and Benchmark.

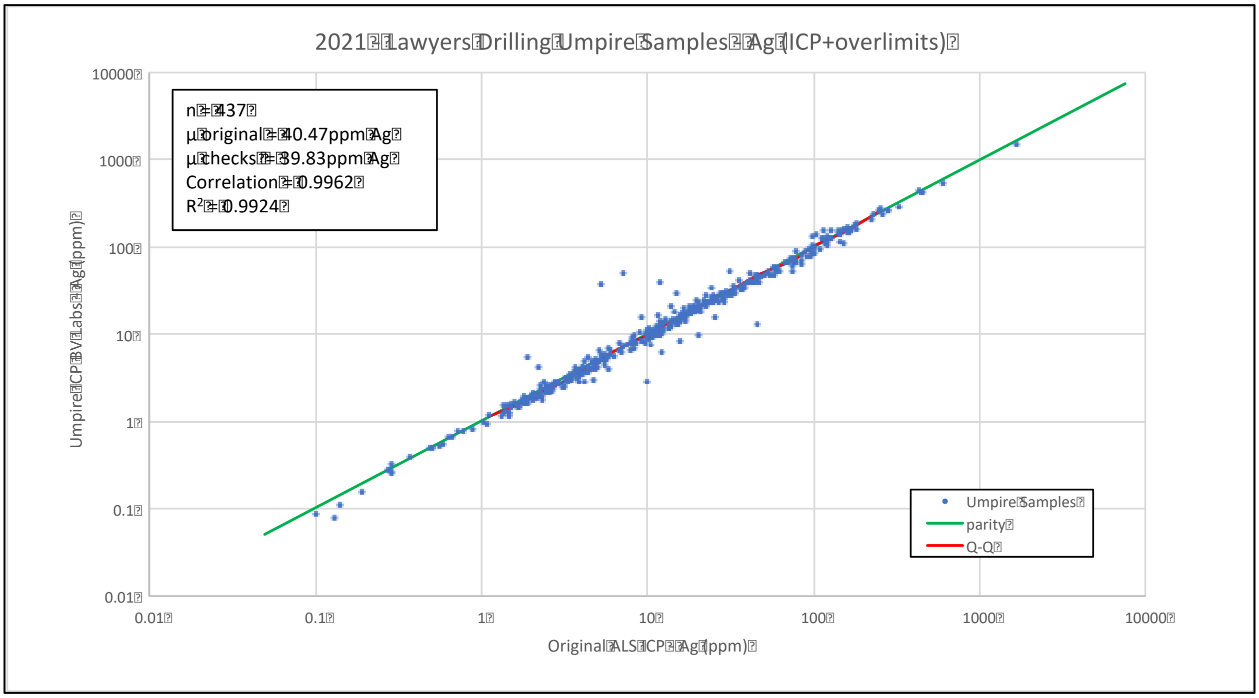
The 2020 BV umpire assay data, for gold and silver, are shown in Figure 11-6 and Figure 11-7 and demonstrate excellent correlation and acceptable variance. The correlation coefficients for Au and Ag are calculated at 0.9962 for both elements. The 2020 umpire assay data provides additional support of an overall high level of accuracy and precision in the original 2020 fire assay (gold) and ICP (silver) analyses undertaken at ALS and the author of this Technical Report section concludes that the data is suitable for use in the current Mineral Resource Estimate.

Figure 11-6: Au Fire Assay Data for the 2020 Bureau Veritas Umpire Assays



Source: APEX (2021)

Figure 11-7: Ag ICP-MS Data for the 2020 Bureau Veritas Umpire Analyses



Source: APEX (2021)

11.4.5 2021 Drill Program QAQC Sampling

11.4.5.1 Performance of Certified Reference Materials

APEX used six different CRMs during the 2021 drilling program, at an insertion rate of approximately 1 in 12 samples (5,601 CRMs and 68,836 drill samples). Details of the CRMs are provided in Table 11-5. All CDN CRMs were purchased from CDN Labs in Vancouver and all OREAS standards from OREAS North America Inc., out of Sudbury.

Table 11-5: 2021 Lawyers Drill Program CRMs

Standard	Au-Certified Values		% RSD	2021 Analyses		Ag - Certified Values		%RSD	2021 Analyses	
	Certified Values Au (ppm)	Range (2x Inter-lab SD)		n	Mean Au (ppm)	Certified Value Ag (ppm)	Range (2x Inter-lab SD)		n	Mean Ag (ppm)
CND-GS-1Z	1.155	(±) 0.095	4.1%	1,821	1.18	89.5	(±) 4.4	2.5%	1821	92.23
OREAS 231	0.542	(±) 0.03	2.8%	700	0.54	0.177	(±) 0.048	13.6%	700	0.18
OREAS 232	0.902	(±) 0.046	2.5%	220	0.91					
OREAS 237	2.21	(±) 0.108	2.4%	1,674	2.23					
OREAS 601b	0.775	(±) 0.042	2.7%	904	0.77	50.1	(±) 3.48	3.5%	904	50.81
OREAS 603b	5.21	(±) 0.418	4.0%	282	5.34	301	(±) 20.0	3.3%	282	305.94
			Total	**5,601**				**Total**	**3,707**	

Source: APEX (2022)

Gold and silver analytical data for all six CRM's were charted and criteria for assessing CRM performance is described in Section 11.4.1.1. All data largely fell within acceptable limits and show very limited variance.

CDN-GS-1Z demonstrates a slight positive bias for Au (1.8%) and Ag (3.1%), returning 185 (10.2%) results ±2SD and 40 (2.2%) ±3SD for Au and 473 (25.97%) ±2SD and 146 (8%) ±3SD for Ag. Each of the OREAS Ag CRMs also demonstrated weak positive biases. All QC data were monitored in a timely fashion by APEX personnel and critical outliers were flagged and surrounding drill samples sent for re-analysis.

The author of this Technical Report section considers that the CRM data demonstrate acceptable accuracy in the 2021 Project data.

11.4.5.2 Performance of Blanks

Blank Pulps (BL-10)

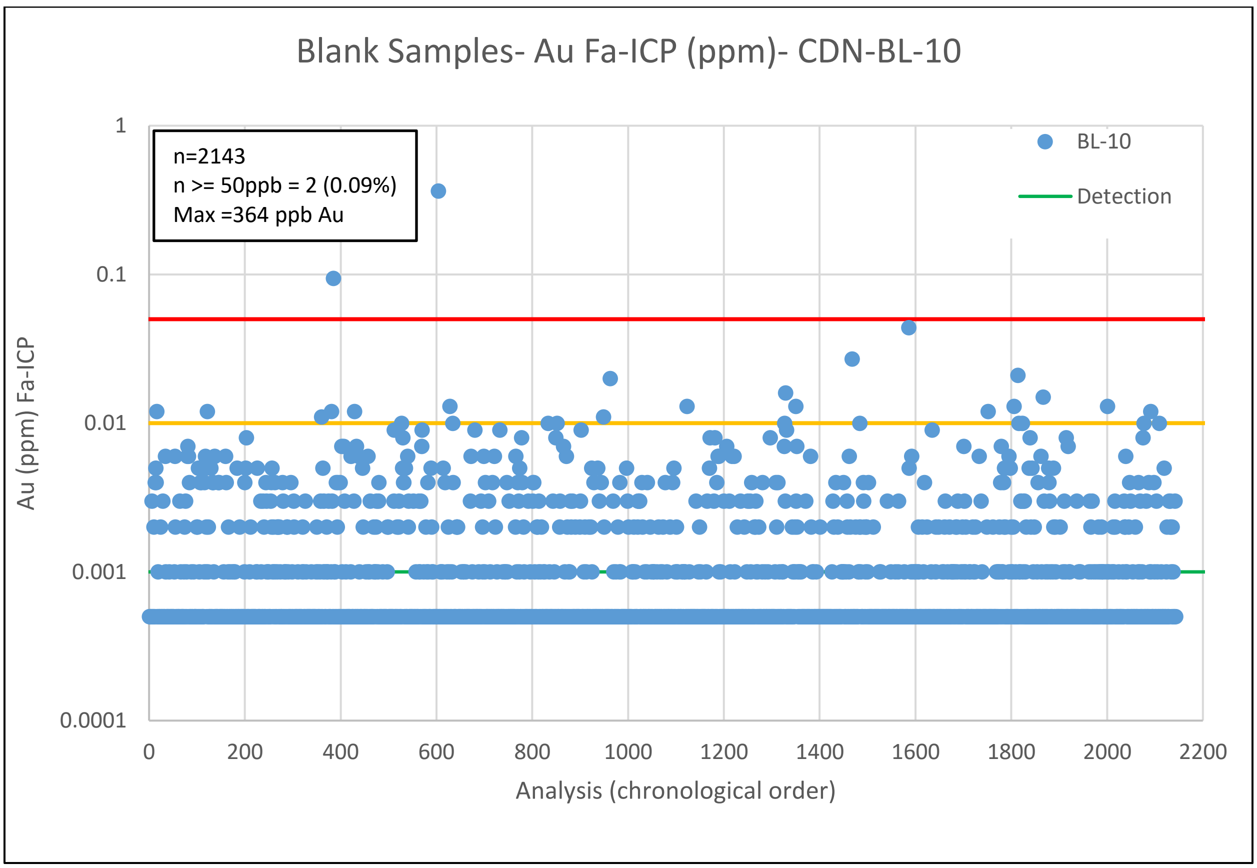
The BL-10 blank, purchased from CDN Labs in Vancouver, was again routinely inserted into the sample stream during 2021 drilling at the Project. All blank data for Au were assessed against a warning limit of 50 ppb for gold and 0.5 ppm for silver (see Figure 11-8 and Figure 11-9). There were 2,143 data points to examine, representing an insertion rate of approximately 1 in 30. All but two gold results plot below the set warning limit, with a maximum value of 364 ppb Au, and an average of 1.5 ppb Au. The majority of the silver data plot below the set warning limit, with only 22 samples returning results >0.5 ppm. An average of 31.4 ppb Ag is calculated from all 2,143 blank samples and a maximum blank result of 620 ppb Ag is noted. The two gold failures will be re-analysed, along with the surrounding drill samples, as part of APEX's check assay procedure.

The author of this Technical Report section does not consider the two failed gold samples to be of material concern to the current Mineral Resource Estimate and does not consider contamination to be an issue in the 2021 BL-10 data.

Coarse Blanks

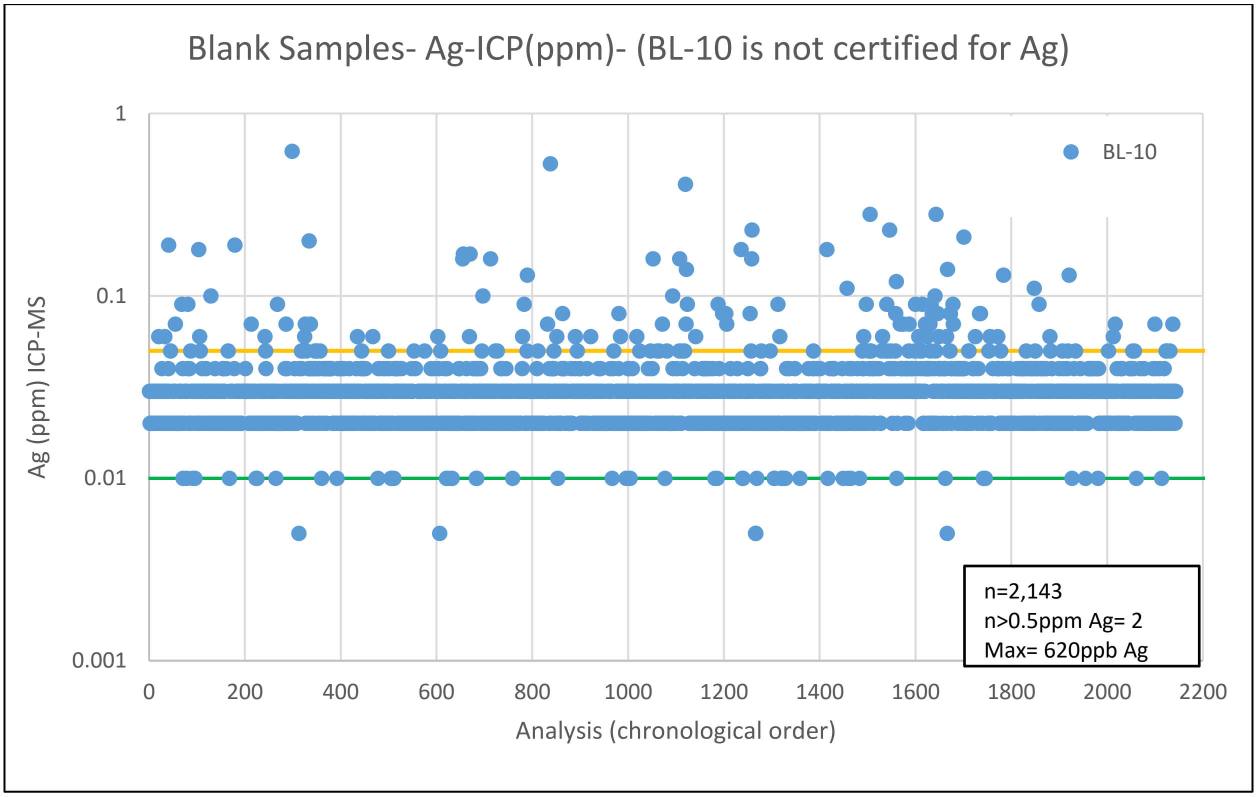
A total of 418 coarse blank (CB) samples were analysed throughout the 2021 Lawyers drill program, inserted into the sample stream at a frequency of approximately 1 in 167 drill samples. CB samples were inserted within expected mineralised zones and following anticipated high-grade samples. All blank data were assessed against a warning limit of 25 ppb for gold and 0.5 ppm for silver (see Figure 11-10 and Figure 11-11). All but three gold (highest value of 51 ppb Au) and 20 (highest value of 3.43 ppm Ag) silver results fall below the set warning thresholds, and the average CB gold fire assay and silver ICP-MS results are calculated at 1.89 ppb Au and 122 ppb Ag, respectively. Examination of the 2021 CB Au and Ag results, relative to their respective preceding sample results, does not yield evidence of any significant sample-to-sample contamination issues during sample preparation stages. The author of this Technical Report section does not observe evidence of material contamination in the 2021 CB data.

Figure 11-8: 2021 Lawyers Drill Program Blank Pulp (BL-10) Au Results (FA – ICP)



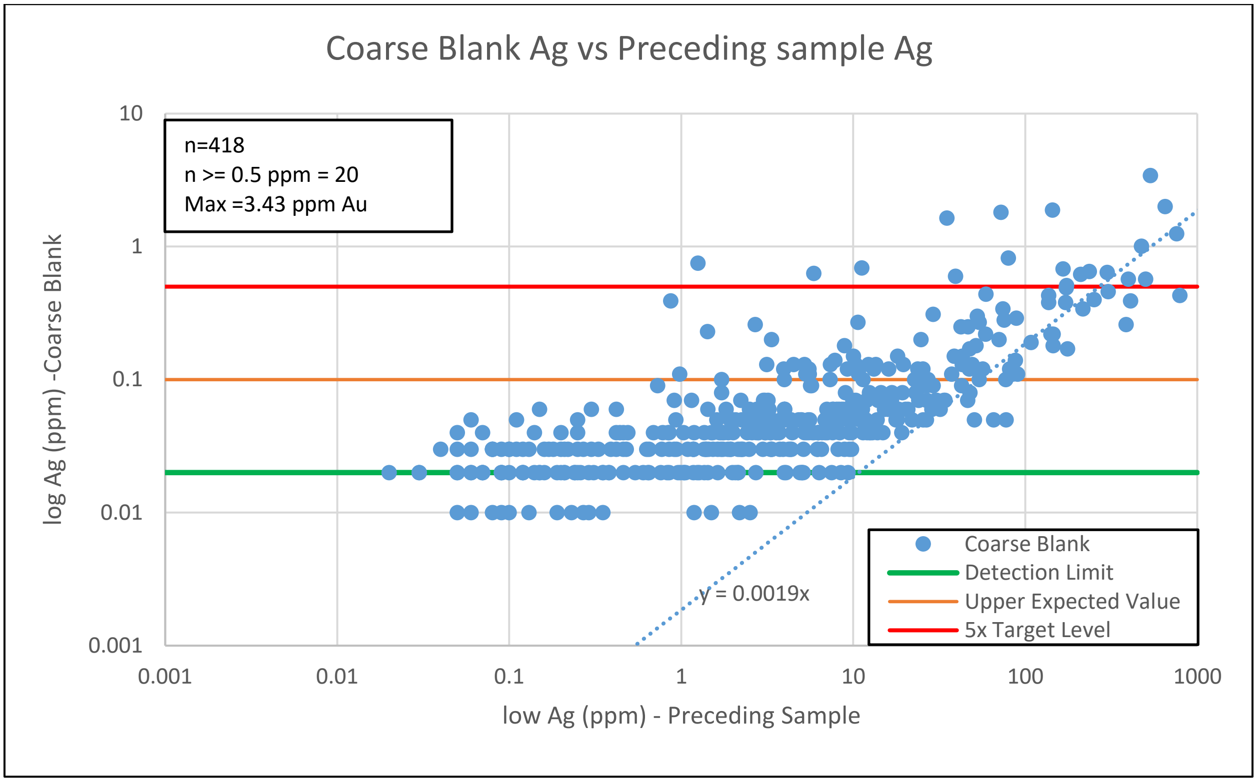
Source: APEX (2022)

Figure 11-9: 2021 Lawyers Drill Program Blank Pulp (BL-10) Ag Results (ICP-MS)



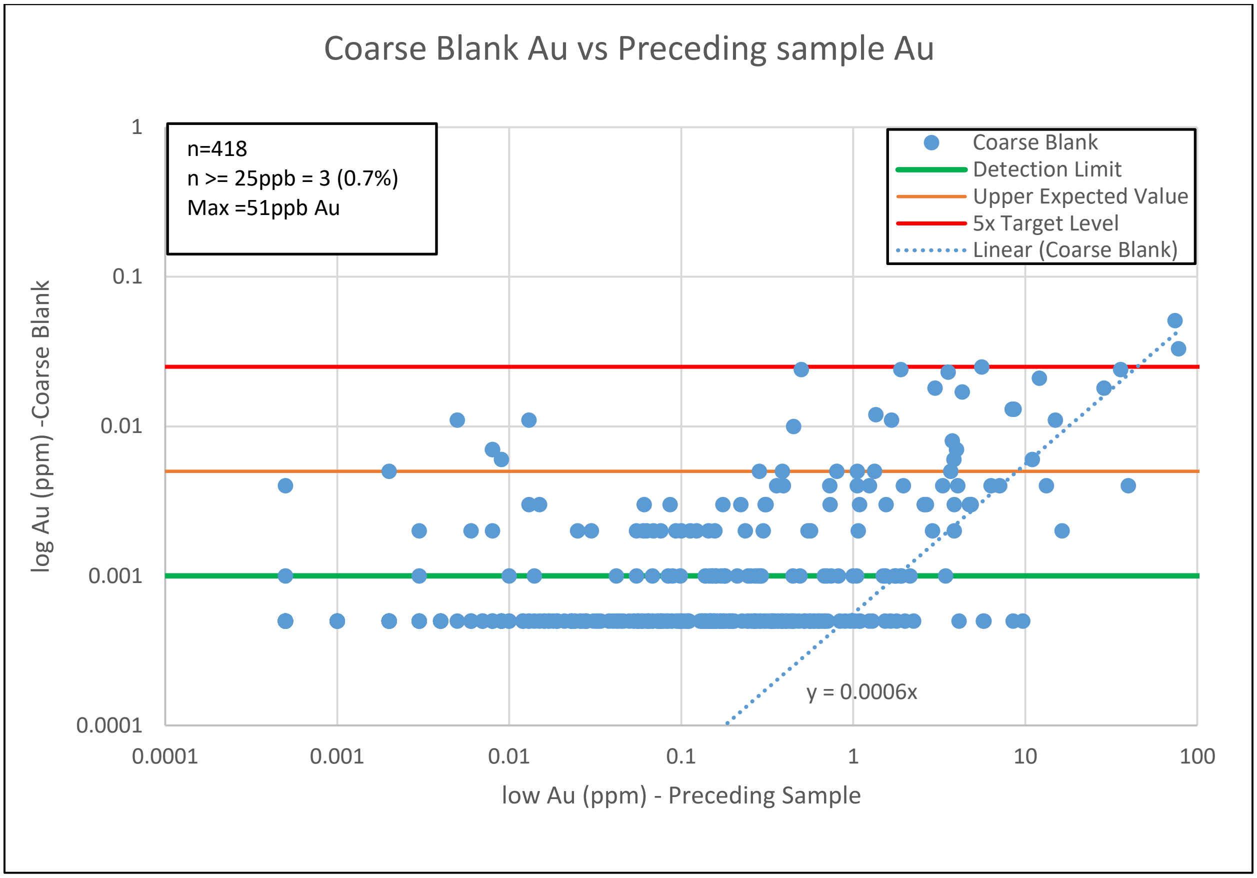
Source: APEX (2022)

Figure 11-10: 2021 Lawyers Drill Program Coarse Blank Ag results (ICP-MS)



Source: APEX (2022)

Figure 11-11: 2021 Lawyers Drill Program Coarse Blank Au Results (FA-ICP)

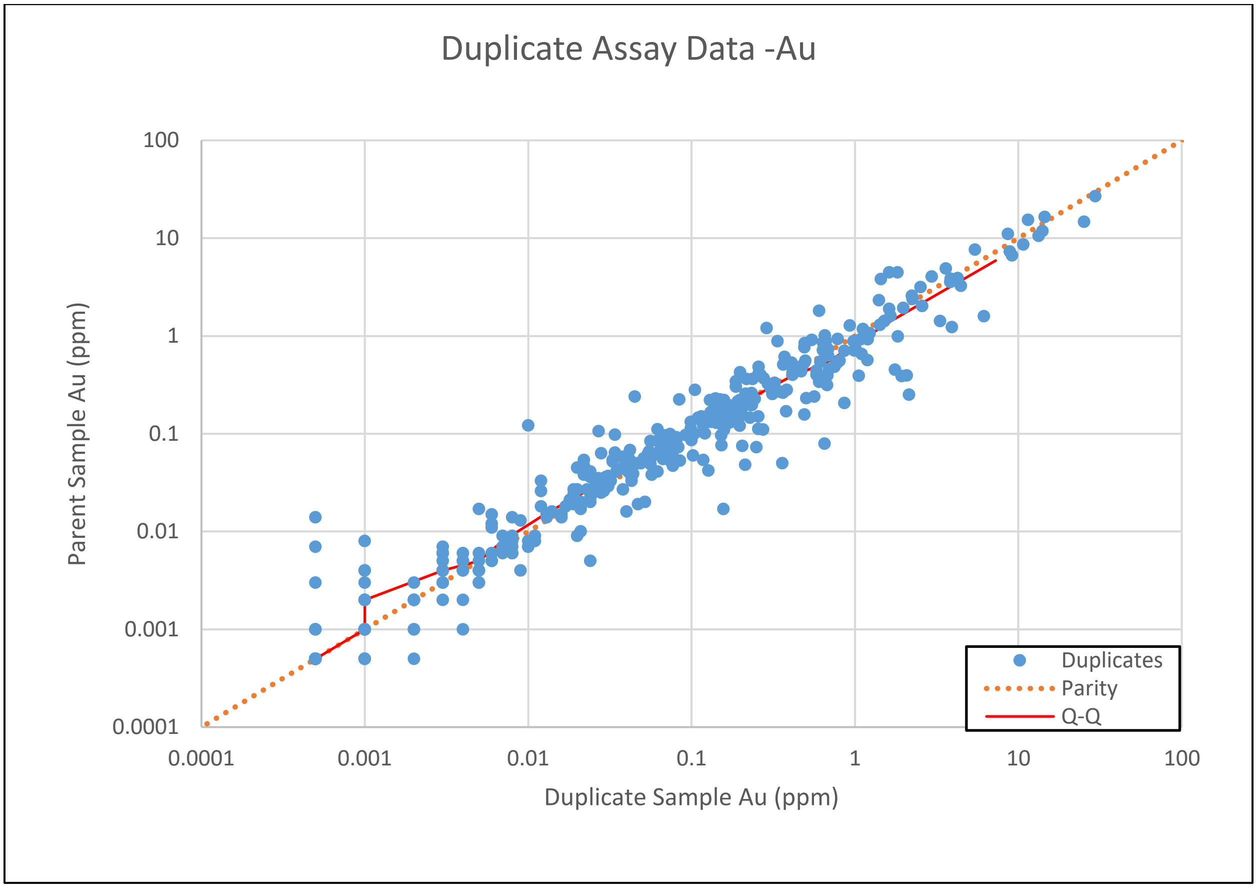


Source: APEX (2022)

11.4.5.3 Performance of Duplicates

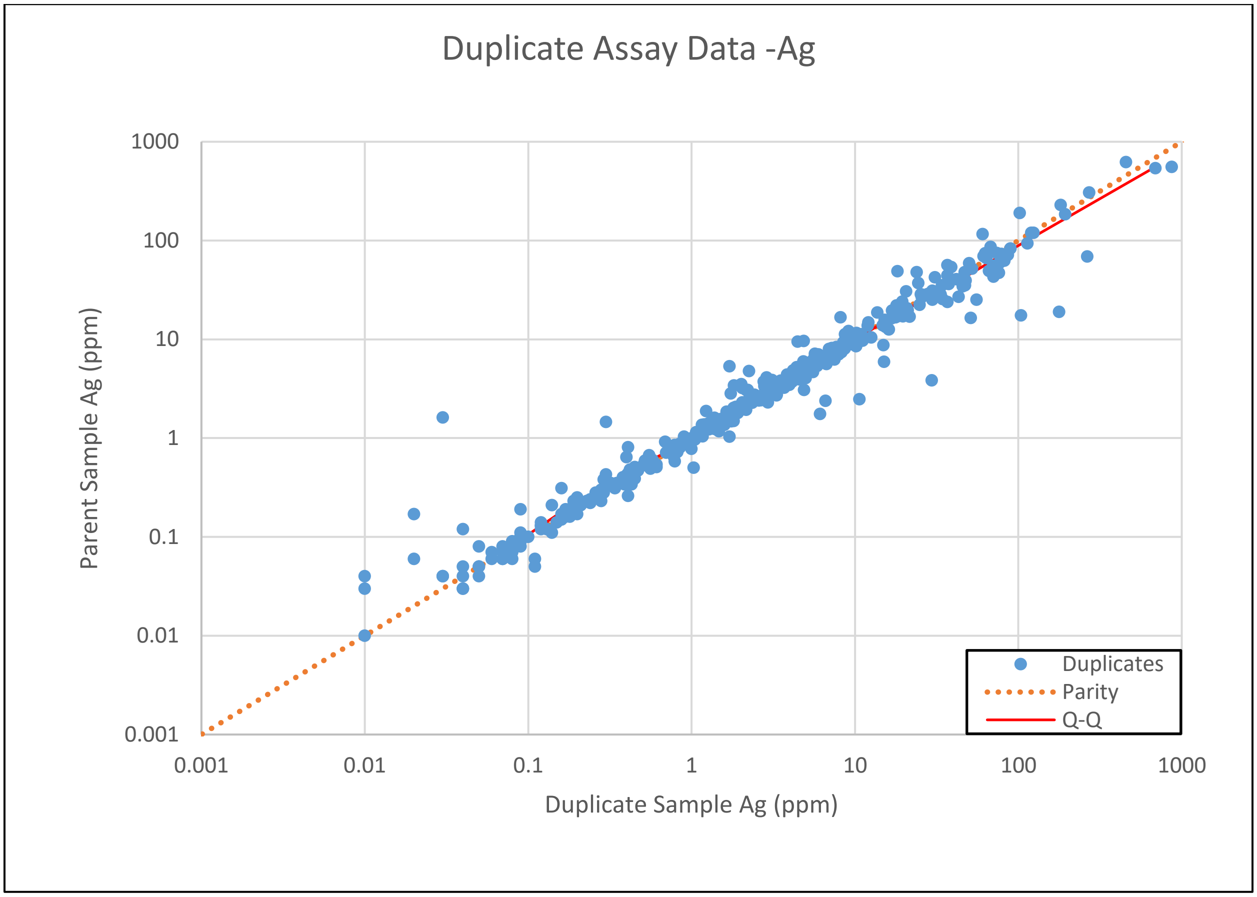
Field duplicate data for gold and silver were examined for the 2021 drilling program. A total of 394 duplicate pairs (198 ¼ core drill core and 196 RC samples, collected as an additional split from the retention material) were graphed (see Figure 11-12 and Figure 11-13) and found to have acceptable precision with no significant bias indicated. The Correlation Coefficient and R^2 values for the Au duplicates are 0.9539 and 0.9099, respectively. The Correlation Coefficient and R^2 values for the Ag duplicate analyses are 0.9660 and 0.9331, respectively.

Figure 11-12: 2021 Lawyers Drill Program Duplicate Samples (Au – Fire Assay)



Source: APEX (2022)

Figure 11-13: 2021 Lawyers Drill Program Duplicate Samples (Ag – ICP)



Source: APEX (2022)

11.4.6 2022 Winter Drill Program QAQC Sampling

11.4.6.1 Performance of Certified Reference Materials

APEX used four different CRMs during the 2022 drilling program, at an insertion rate of approximately 1 in 9 samples (1,441 CRMs and 12,848 drill samples). Details of the CRMs are provided in Table 11-6. All CDN CRMs were purchased from CDN Labs in Vancouver and all OREAS standards from OREAS North America Inc., out of Sudbury.

Table 11-6: 2022 Lawyers Winter Drill Program CRMs

Standard	Au-Certified Values		% RSD	2022 Analyses		Ag - Certified Values		%RSD	2022 Analyses	
	Certified Values Au (ppm)	Range (2x Inter-lab SD)		n	Mean Au (ppm)	Certified Value Ag (ppm)	Range (2x Inter-lab SD)		n	Mean Ag (ppm)
CDN-GS-1Z	1.155	0.10	0.041	340	1.18	89.5	4.4	0.02	340	91.92
OREAS 237	2.21	0.11	0.024	284	2.23					
OREAS 231	0.542	0.03	0.028	289	0.54	0.177	0.048	0.14	289	0.18
OREAS 603b	5.21	0.418	0.04	31	5.17	301	20	0.03	31	304.84
			Total	**944**				**Total**	**660**	

Source: APEX (2022)

Gold and silver analytical data for all six CRM's were charted and criteria for assessing CRM performance is described in Section 11.4.1.1. All data largely fell within acceptable limits and show very limited variance.

CDN-GS-1Z again demonstrates a slight positive bias for Ag (2.7%), returning 82 (20.1%) results ±2SD and 27 (7.9%) ±3SD for Ag. Each of the OREAS Ag CRMs again demonstrated weak positive biases, with the OREAS 231 standard exhibiting a relatively high failure count for Ag. The increased failure rate is likely due to the proximity of this CRM's certified silver grade to the lower detection limit of the relevant test method. All QC data were monitored in a timely fashion by APEX personnel and critical outliers were flagged and surrounding drill samples sent for re-analysis.

The author of this Technical Report section considers that the CRM data demonstrate acceptable accuracy in the 2022 Project data.

11.4.6.2 Performance of Blanks

Blank Pulps (BL-10)

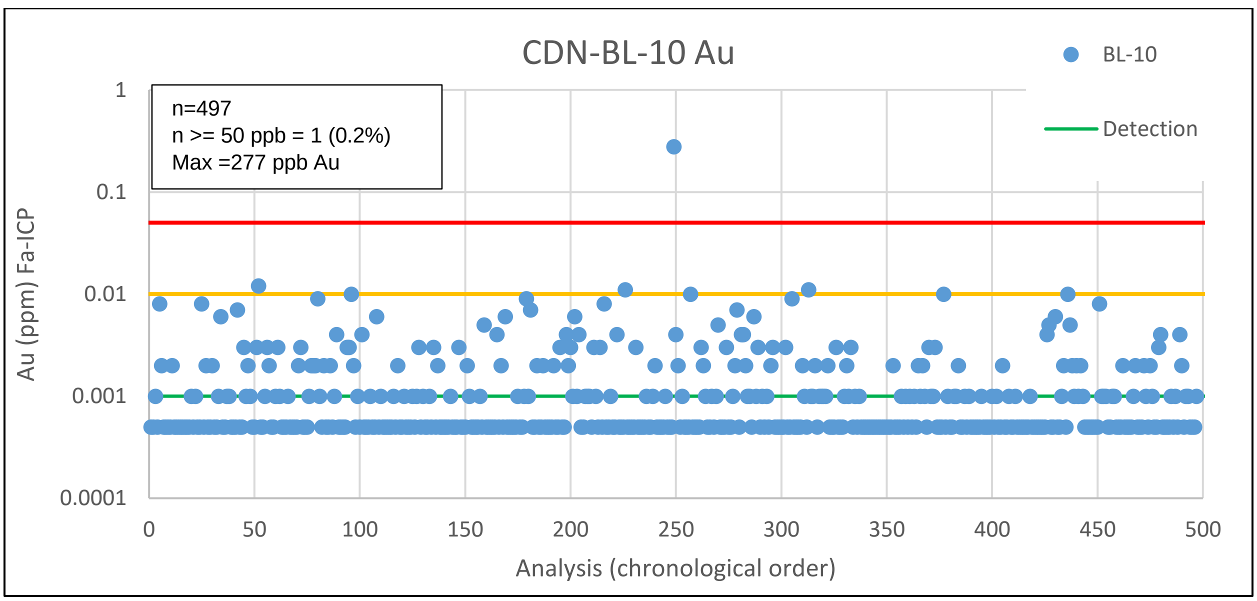
The BL-10 blank, purchased from CDN Labs in Vancouver, was again routinely inserted into the sample stream during 2022 drilling at the Project. All blank data for Au were assessed against a warning limit of 50 ppb for gold and 0.5 ppm for silver (see Figure 11-14 and Figure 11-15). There were 497 data points to examine, representing an insertion rate of approximately 1 in 26. All but one gold result plot below the set warning limit, with a maximum value of 277 ppb Au, and an average of 1.9 ppb Au. All silver data plot below the set warning limit. An average of 28.4 ppb Ag is calculated from all 497 blank samples and a maximum blank result of 180 ppb Ag is noted. The single gold failure was re-analysed, along with the surrounding drill samples, as part of APEX's check assay procedure.

The author of this Technical Report section does not consider the one failed gold blank sample to be of material concern to the current Mineral Resource Estimate and does not consider contamination to be an issue in the 2022 BL-10 data.

Coarse Blanks

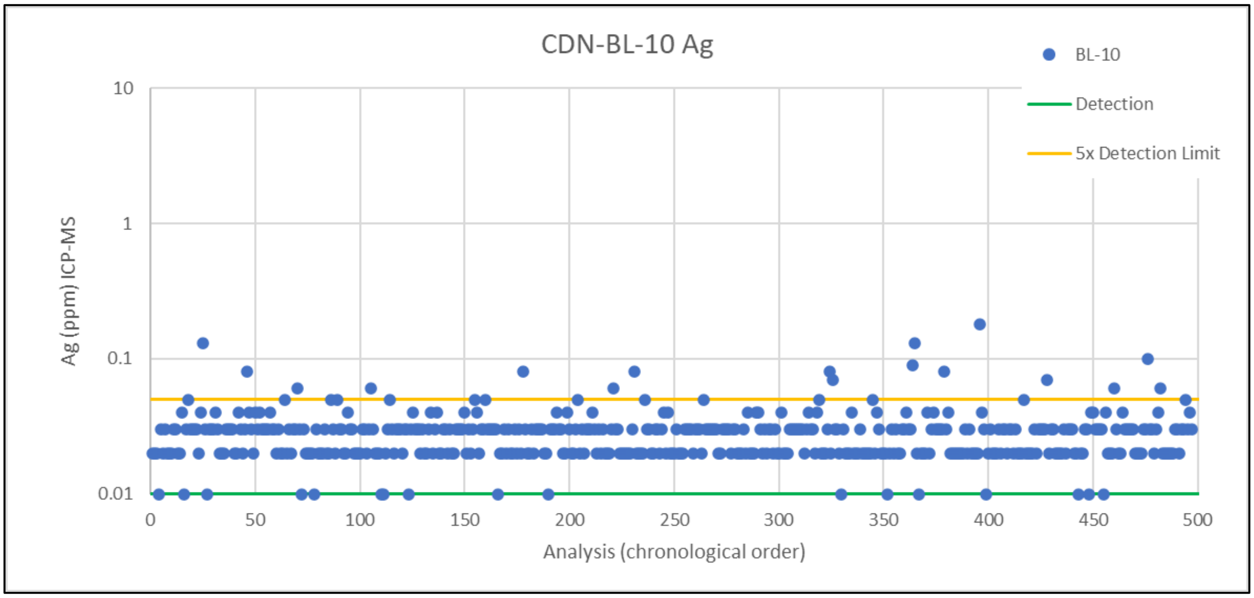
A total of 59 coarse blank (CB) samples were analysed throughout the 2022 Lawyers drill program, inserted into the sample stream at a frequency of approximately 1 in 217 drill samples. CB samples were inserted within expected mineralised zones and following anticipated high-grade samples. All blank data were assessed against a warning limit of 25 ppb for gold and 0.5 ppm for silver (see Figure 11-16 and Figure 11-17). All but three gold (highest value of 58 ppb Au) and 11 (highest value of 1.42 ppm Ag) silver results fall below the set warning thresholds, and the average CB gold fire assay and silver ICP-MS results are calculated at 5.66 ppb Au and 361 ppb Ag, respectively. Examination of the 2022 CB Au and Ag results, relative to their respective preceding sample results, does not yield evidence of any significant sample-to-sample contamination issues during sample preparation stages. The author of this Technical Report section does not observe evidence of material contamination in the 2022 CB data.

Figure 11-14: 2021 Lawyers Drill Program Blank Pulp (BL-10) Au Results (FA – ICP)



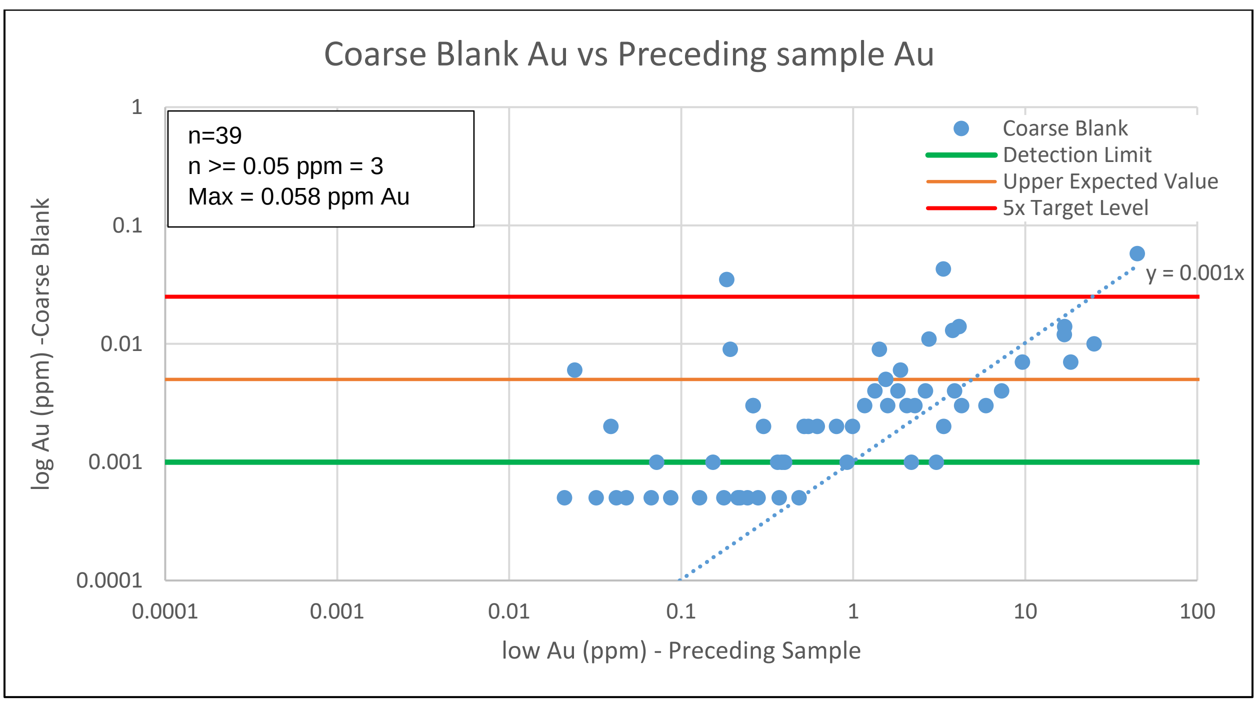
Source: APEX (2022)

Figure 11-15: 2021 Lawyers Drill Program Blank Pulp (BL-10) Ag Results (ICP-MS)



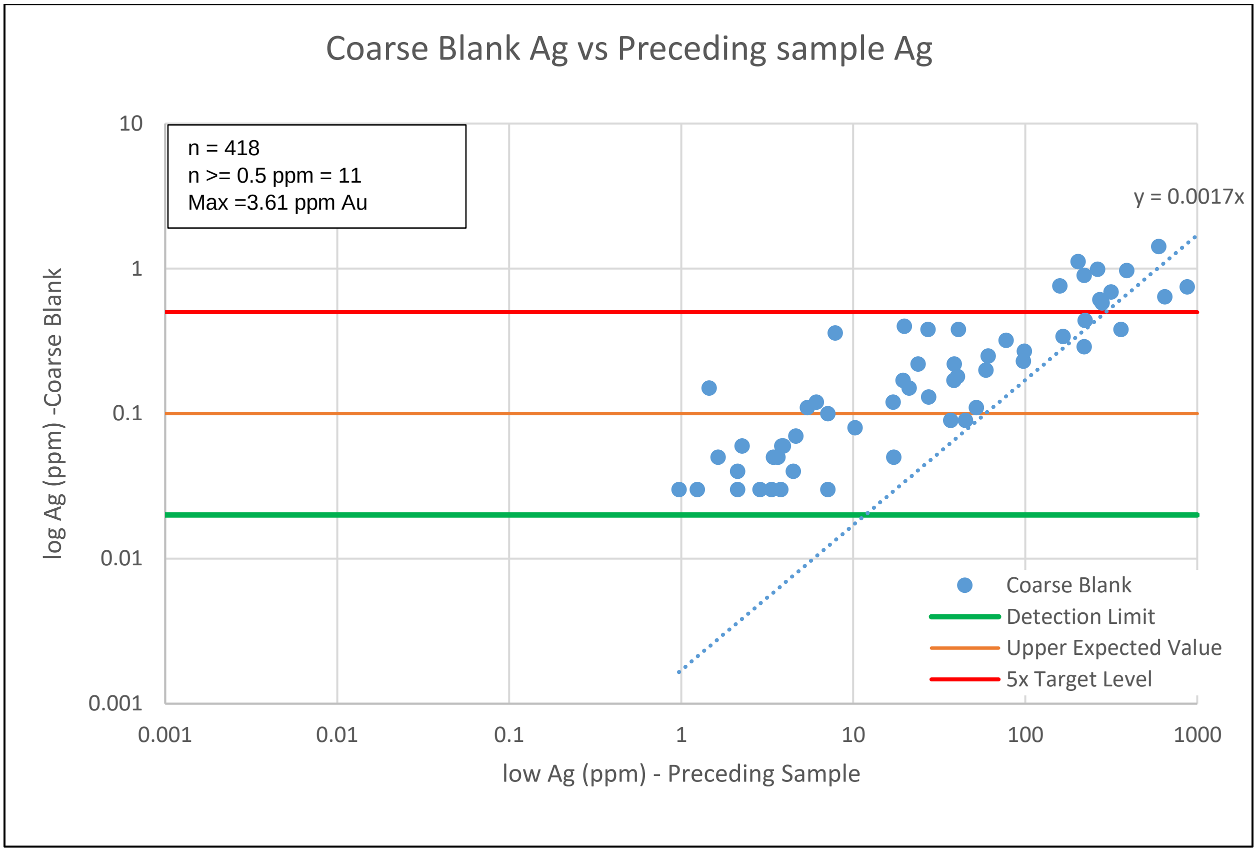
Source: APEX (2022)

Figure 11-16: 2021 Lawyers Drill Program Coarse Blank Au Results (FA-ICP)



Source: APEX (2022)

Figure 11-17: 2021 Lawyers Drill Program Coarse Blank Ag Results (ICP-MS)

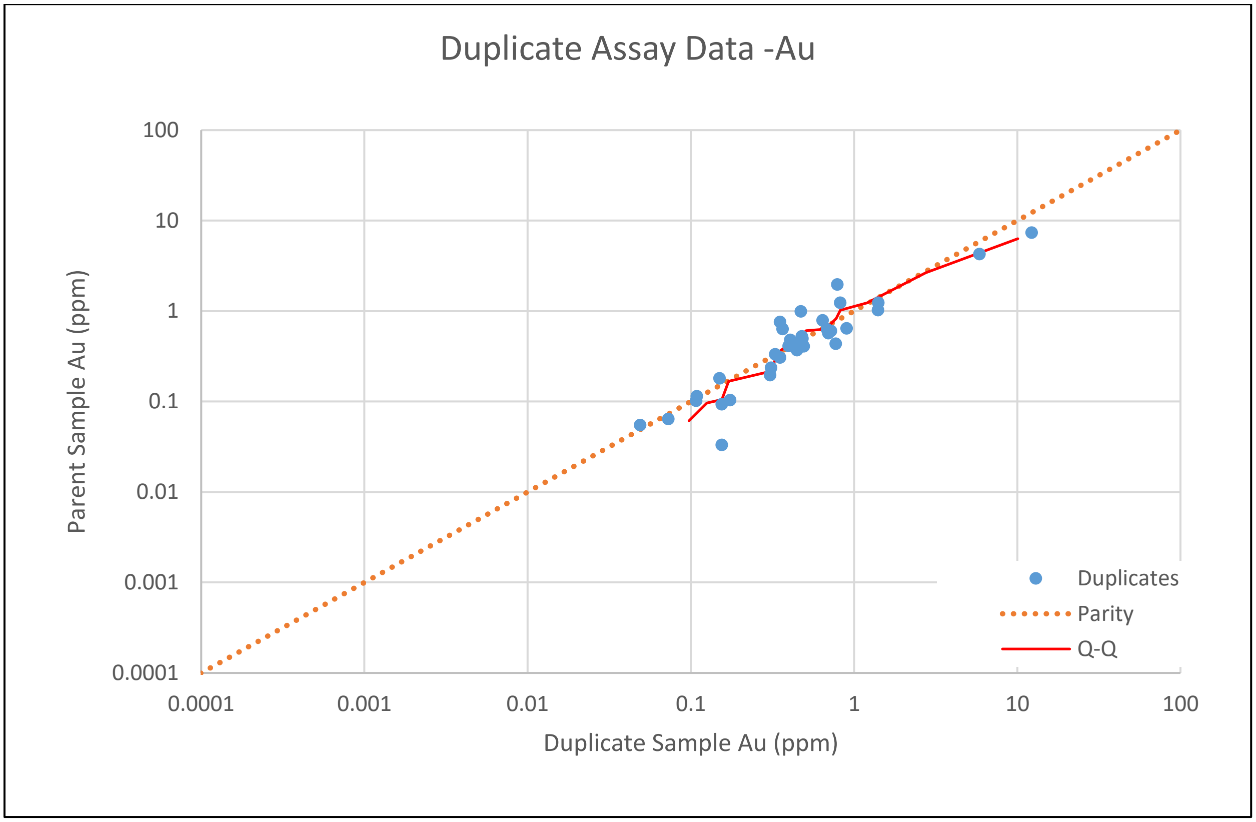


Source: APEX (2022)

11.4.6.3 Performance of Duplicates

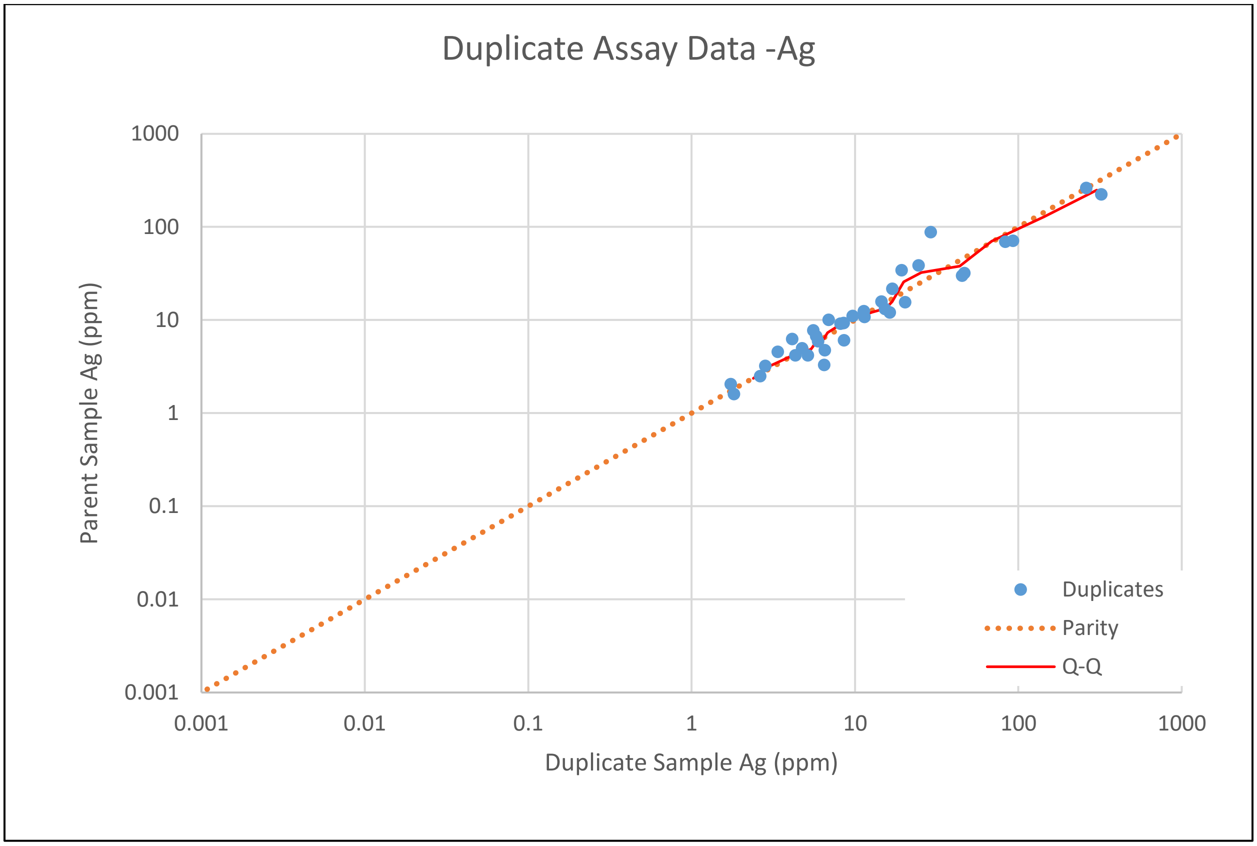
Quarter-core field duplicate data for gold and silver were examined for the 2022 drilling program. A total of 35 duplicate pairs were graphed (see Figure 11-18 and Figure 11-19) and found to have acceptable precision with no significant bias indicated. The Correlation Coefficient and R2 values for the Au duplicates are 0.9746 and 0.9499, respectively. The Correlation Coefficient and R2 values for the Ag duplicate analyses are 0.9604 and 0.9224, respectively.

Figure 11-18: 2021 Lawyers Drill Program Duplicate Samples (Au – Fire Assay)



Source: APEX (2022)

Figure 11-19: 2021 Lawyers Drill Program Duplicate Samples (Ag – ICP)



Source: APEX (2022)

11.5 Conclusion

Benchmark have implemented and monitored a thorough QA/QC program for the drilling undertaken at the Lawyers Property over the 2018 to 2022 period and have also undertaken check/umpire assaying to further confirm the integrity of the Property data. Variance issues were encountered with several of the CRMs used during the early stages of the 2020 drill program and, after discussions with ALS and CDN and a subsequent limited Round Robin check on the problematic CRMs, it was concluded that there were inhomogeneity issues with the CRMs themselves and their use was discontinued. No further significant QA/QC issues have been encountered since that time, and examination of all QA/QC results for all recent 2018-2022 sampling, presents no indication of material issues with accuracy, contamination, or precision in the data. Check assaying carried out by ALS and umpire assaying carried out by BV also confirm the quality of the original data.

It is the opinion of the author of this Technical Report section that sample preparation, security and analytical procedures for the Lawyers Property were adequate and that the data are of good quality and satisfactory for use in the Mineral Resource Estimate reported in Section 14 of this Technical Report.

12 DATA VERIFICATION

12.1 APEX Data Verification

The following summarizes the data verification efforts completed by APEX prior to the initiation of the Mineral Resource Estimate discussed in Section 14 of this Technical Report.

12.1.1 "Pre-2018" Historical Database Verification

An initial compilation of all the historical drilling on the Lawyers property was completed in 2018. Drill hole data was used from Digital Data files provided by Phoenix Precious Metals and Guardsmen Resource Inc. as well as digitized from original available assessment reports.

In 2019, locations and results of some of the historical data was brought into question. On closer inspection the digital data which that was provided Phoenix Precious Metals and Guardsmen Resource Inc. contained errors. This included incorrect conversions from oz/ton to g/t, and transcription discrepancies in hole IDs, leading to confusion about hole locations.

In 2019, APEX completed a detailed review of all the historical data, for Cliff Creek, Dukes Ridge, Phoenix and AGB zones, which involved reviewing and referencing all the original data sources. This includes all original logs, reports, assay certificates where available and all drill hole maps. Drill holes which were not validated (i.e., holes that we did not have confidence in the results or location) were removed from the compilation.

In 2020, the compilation was imported into a cloud-based database (DB). All the original metadata, including source of the data, detection limits and assay methods (when available) are accurately recorded in the DB and linked to the data tables.

APEX used the best possible data source when compiling and/or validating the assay database. If more than one source was available, the source ranked with the highest confidence in the list below was used:

1. Original lab certificates where the sample interval was indicated;
2. Original lab certificates that were cross-referenced with a sample indices table;
3. Detailed table of each sample interval and the assay results;
4. Cross-sections with assay intervals and assays labeled; and
5. Highlights table in a report.

APEX also uses the best possible location information available. If more than one location source was available, the source ranked with the highest confidence in the list below was used, and whenever possible, multiple sources were cross-referenced. If any discrepancy or exceptions to this ranking were made, notes were recorded in the collar file:

1. RTK or DGPS coordinates;
2. Handheld GPS coordinates;
3. Georeferenced maps; and
4. Conversion from historical grid using known points from georeferenced maps.

Whenever available, downhole surveys were compiled from handwritten drill logs or tables provided in the historical reports.

Phoenix Drilling was compiled and digitized from cross-sections. No other references for these drill holes were located. There are data for 40 drill holes completed in 1992, compiled from Cheni Gold Mines Phoenix Sections, 1992. APEX was unable to validate numbers via original lab data, and no analytical metadata are available. Benchmark drilling completed at Phoenix, intersected the high-grade Phoenix vein where expected, based on the historical drilling and cross-sections, and was consistent with the historical data in the database.

12.2 2015 Twin Drill Hole Comparisons

12.2.1 Cliff Creek North Twin Drill Holes

The following summarizes the data verification work described by Lane et al, (2018) evaluating drilling conducted at the Property in 2015 and historical drilling completed in the late 1980's and 1990's.

> *"Three historic holes on the Cliff Creek North Zone for which complete data exists were twinned in 2015. A comparison of weighted averages for mineralised intervals of similar length was made for each original hole-twin hole pair. (*Table 12-1*)*

Table 12-1: Comparison of Weighted Averages Between Original Drill Holes and 2015 Twin Drill Holes

Drill Hole ID		From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Comment
Original Twin	84CC-14	9	15	6	7.19	298.3	footwall hole
	CC15-06	10.37	16.75	6.38	12.56	400	footwall hole
Original Twin	83CC-04	20	22	2	11.66	1	footwall hole
	and	56	70	14	14.62	779	footwall hole
	CC15-07	20	22	2	<1.00	5.4	footwall hole
	and	54.86	59.44	4.58	void - no core		footwall hole

Drill Hole ID		From (m)	To (m)	Interval (m)	Au (g/t)	Ag (g/t)	Comment
	and	59.44	60.2	0.76	15.70	622	footwall hole
Original Twin	84CC-38	90	105	15	4.63	215.4	hanging wall hole
	CC15-08	89	105	16	2.06	69.6	hanging wall hole

Source: APEX (2022)

Twin Hole CC15-06 was drilled from the same collar location and with the same azimuth and dip as original Hole 84CC-14. Both holes intersected a well-mineralised interval of about the same length and at approximately the same shallow depth, although gold grades in the twin hole are 42% higher than those reported for the original hole. This difference is likely due to the erratic distribution of gold and silver mineralisation that is typical of epithermal systems and not due to sampling or analytical errors. Twin Hole CC15-06 is an adequate representation of original Hole 84CC-14. ... Note that sample lengths of an even 1.0 m or 2.0 m were used in the original hole while variable sample lengths were used in the twin hole as a result of poor to moderate core recovery.

Twin Hole CC15-07 was drilled from the same collar location and with the same azimuth and dip as original Hole 83CC-04. The original hole intersected one shallow, well-mineralised interval and one deeper well-mineralised interval. The twin hole did not repeat the upper mineralised interval (although it did intersect stockwork veining and weakly anomalous gold grades) and encountered a void where part of the deeper interval has been removed by mining development. The twin hole 'traversed' the void and cored 0.76 m of mineralisation in its footwall before being shut down because of binding rods; the grades in the short footwall section of core compare favourably with that of the original hole and indicate that the footwall portion of the lower mineralised interval is likely still intact. Despite the removed (mined) mineralised section, twin hole CC15-07 provides a good correlation of grades and core lengths for the lower mineralised interval.

Twin Hole CC15-08 was drilled from the same collar location and with the same dip as original Hole 84CC-38, but on a slightly different azimuth. The original hole intersected a 15.0 m interval of fairly consistent, moderate grade mineralisation, whereas the twin hole cut a 16.0 m interval at similar depths, but at a gold grade which is less than half that of the original hole. The significantly lower average grade in the twin hole may be as a result of its deviation relative to the original hole. Both holes also intersected one or more deeper, narrow zones of low to moderate gold grades. Although there is a difference in grades between the main mineralised intervals encountered in the two holes, their intercept lengths, and the presence of footwall veins are consistent from hole to hole. A comparison of gold grade with depth for the two holes differs primarily in the middle of the mineralised interval;"

12.3 Other Drilling to Verify Historical Results

12.3.1 2015 Dukes Ridge Verification Drilling

> *"There were no twin holes drilled at the Dukes Ridge Zone, but a total of five holes were drilled to intercept and confirm previously identified intersections in the central portion of the Dukes Ridge Zone. ... Two holes in particular served to validate past results from the core area of the Dukes Ridge Zone.*
>
> *Hole DR15-05 was collared between Holes 84DS13 and 83D505 to verify the mineralised intervals in the historic holes. DR15-05 encountered a 50.75 m interval from surface to 52.00 m averaging 1.41 g/t Au and 42.3 g/t Ag that included an 8.56 m intersection grading 3.85 g/t Au and 106.5 g/t Ag from 33.50-42.06 m. The latter intersection correlates well with the position and tenor of a similar intersection in 83DS05 (12.0 m grading 4.37 g/t Au and 218.5 g/t Ag from 13.00-25.00 m).*
>
> *Hole DR15-03 was collared near Hole 83DS07 to verify the high-grade intersections encountered in the historic hole, and to test the depth potential in the central part of the Dukes Ridge Zone. DR15-03 intersected a 22.29 m low-grade interval from 1.21-23.50 m grading 0.72 g/t Au and 24.8 g/t Ag, including a 2.00 m interval from 19.00-21.00 m grading 3.09 g/t Au and 34.4 g/t Ag. The longer interval in Hole DR15-03 correlates well with a 19.0 m near-surface intersection encountered in Hole 83DS07. However, the new hole did not replicate the high-grade gold-silver values (23.73, 206.91 and 66.69 g/t Au, and 672.0, 2040.0 and 894.8 g/t Ag) in three 1.00 m samples taken between 15.00 - 20.00 m in the old hole."*

12.3.2 Benchmark Verification Drilling

After the 2018-2019 Benchmark drill programs, a review was completed comparing Benchmark holes drilled within 10 m of historical drilling. Most of this drilling was designed to test the underground workings to confirm what has been mined and what remains, however, direct twinning of historical holes was not undertaken by Benchmark. Instead, additional infill and confirmation holes around historical drilling were completed in 2020-2022 at Cliff Creek, Dukes Ridge, Phoenix and AGB.

Comparisons are limited by the selective historical sampling undertaken, in contrast to the more extensive sampling undertaken by Benchmark. Several historical holes drilled in 1983 were also observed to return slightly higher grades in Ag, however, in terms of width and grade of the mineralisation, Benchmark drilling generally demonstrates good correlation with nearby historical drill holes.

12.4 Benchmark Underground Stope Verification

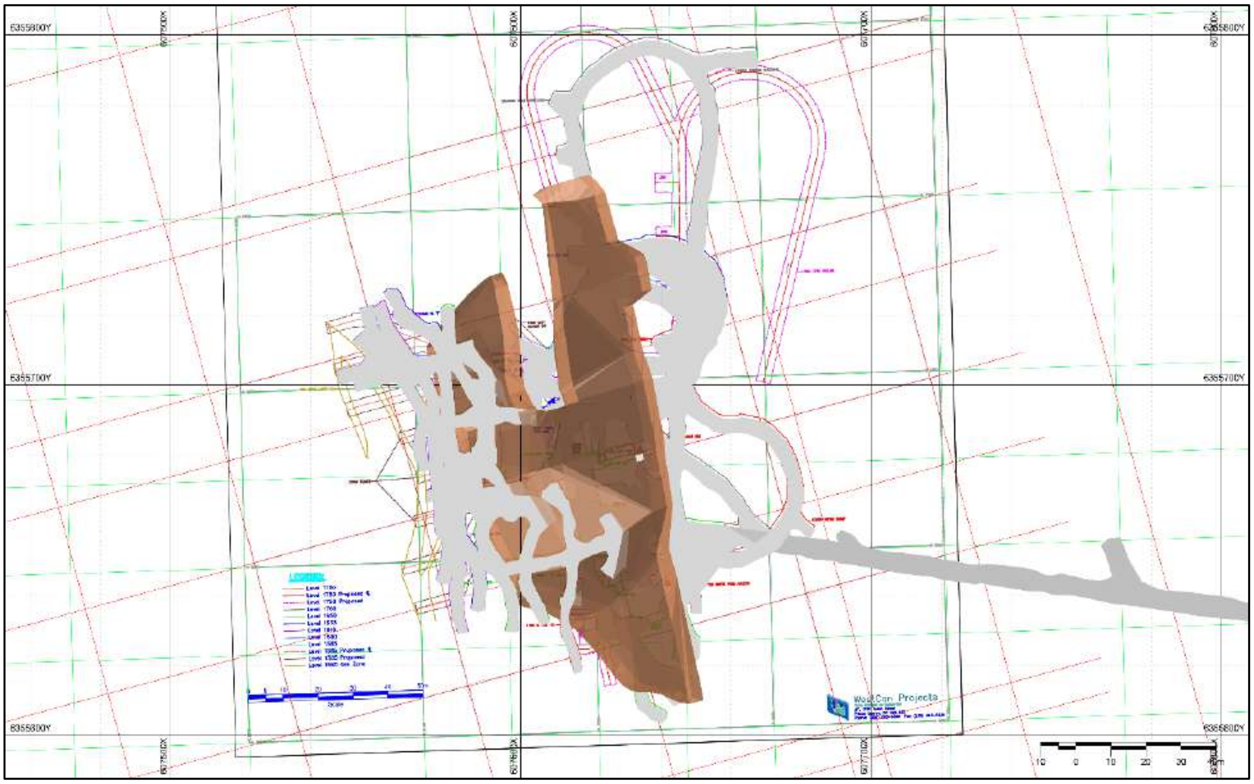
12.4.1 Cliff Creek

APEX was provided a model of the Cliff Creek underground workings from Phoenix Precious Metals (PPM), which were digitized by Gary Giroux a recently retired resource modeller. There were two versions of these workings, one of which had been shifted and appeared to line up with the drilling, however, no explanation of where or how these workings were derived was ever provided or resolved in discussions with PPM. In June 2020, APEX re-examined available hard copy reports to locate information and maps about the underground development of Cliff Creek. There are around 20 level plan maps of the underground workings that closely match the design of the Giroux 3-D model that were likely used to create the workings. The maps use two common mine grid systems, a N – E and a NW – NE grid (Figure 12-1). APEX carefully digitized the grids using the paper maps by Cheni Gold Mines Inc., and the grids were then used to digitize the level plans and hang a NW long section of the underground workings. The resulting location of the rectified level plans prompted a shift in the location of the underground workings approximately 25 m towards the SW from the location of the Giroux underground model (Figure 12-1). The new location of the underground workings aligns better with mineralisation, the vent raise location on surface (rising at an angle to the NE indicated on level plan maps), and the portal entrance. APEX used modern DGPS coordinates collected in 2018 for the location at surface of the vent raise and the portal.

The stope at Cliff Creek was modelled in 2020, using a 5 g/t Au cut-off and a 1.5 m minimum horizontal width. The location and width of voids that intersect the main zone were used as a guide. An outline of the stopes was found on a long section that uses the NW – NE grid and dated March 21, 1991, this outline was used to define the extents of the stope.

Significant drilling into and through the historical underground stope at both Cliff Creek and AGB was completed from 2020-2021. The APEX stope models were updated using drill intersections with voids and snapping the boundaries of the stope to the drill trace intersections. Drilling intentionally drilled through the stopes in order to determine the width and be able to model both boundaries.

Figure 12-1: Updated Location of the Cliff Creek Underground Workings and 2020 Model of the Cliff Creek Stope. Digital N-E Grid in Green And NW-NE Grid in Red

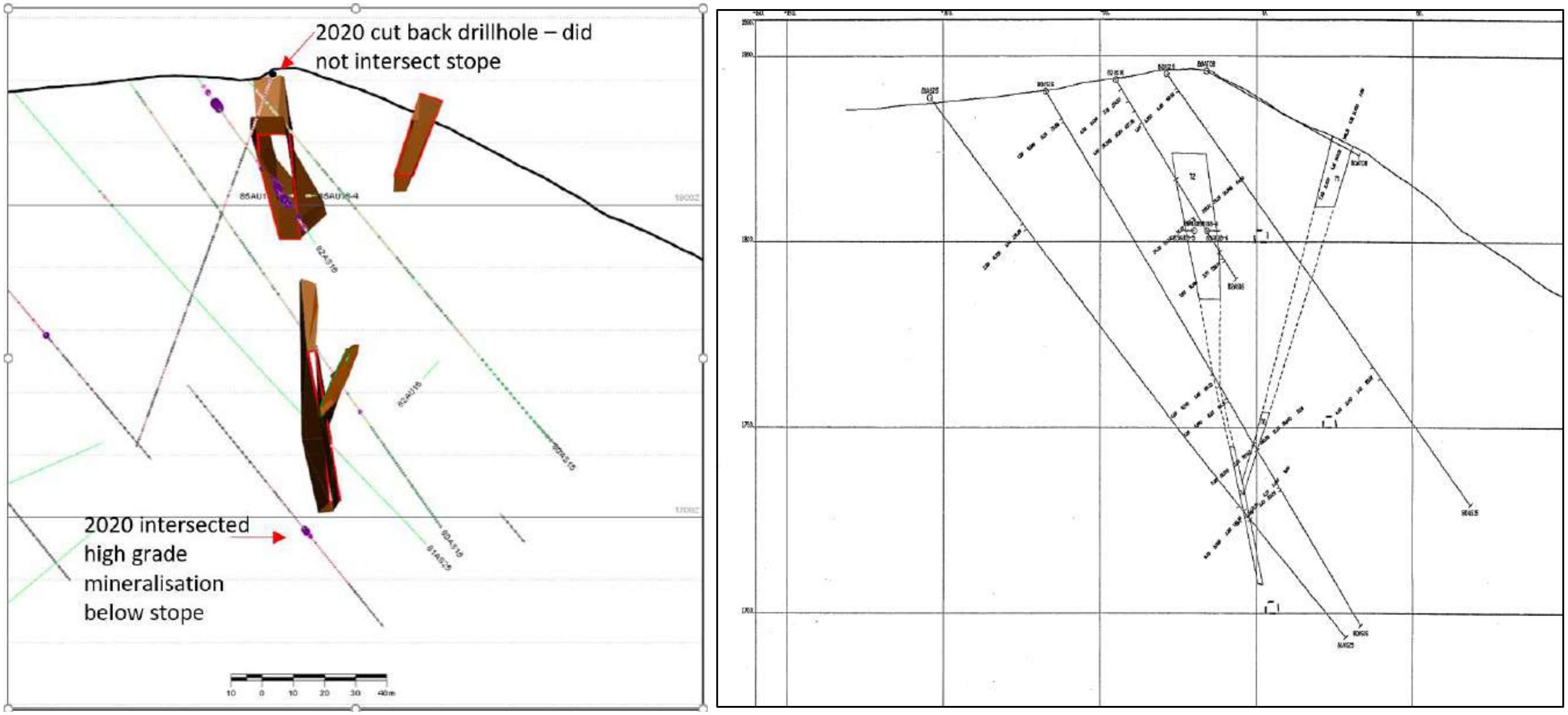


Source: APEX (2020)

12.4.2 AGB

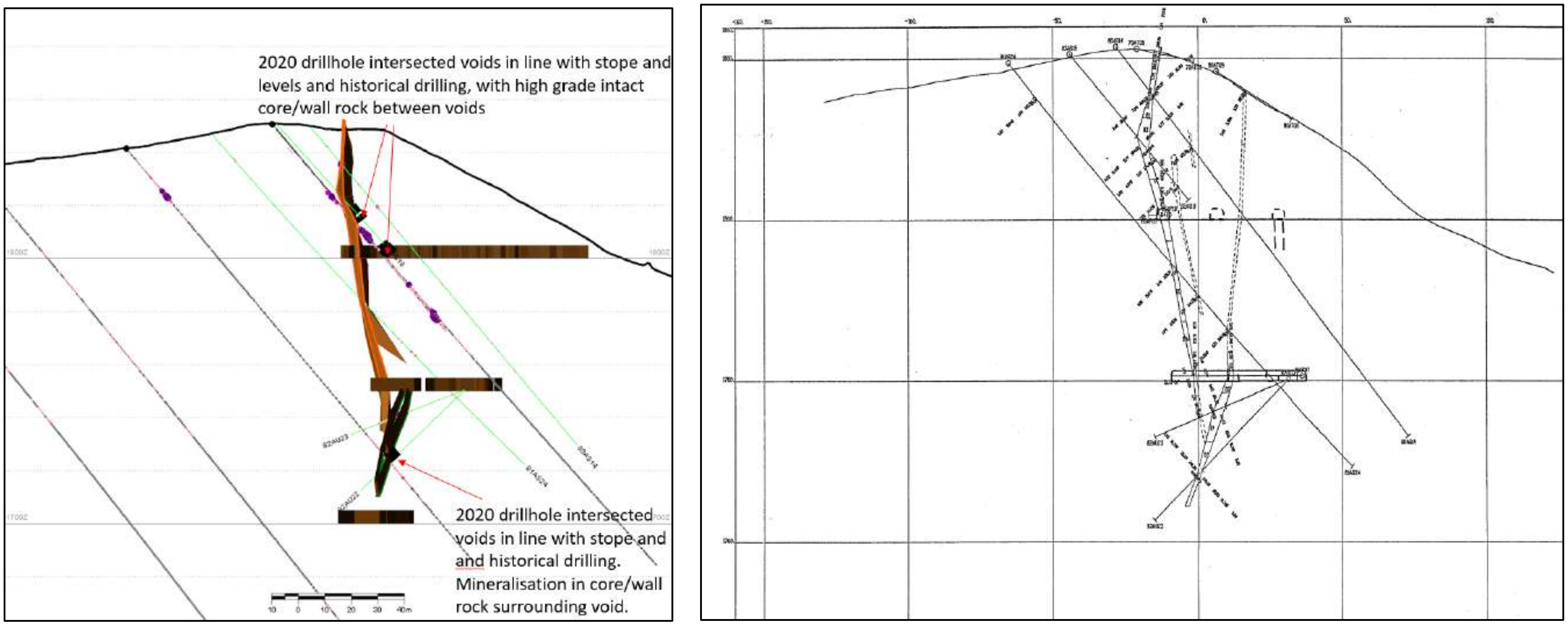
The AGB stopes were modelled using the digitized historical drilling at AGB, in conjunction with the 1986 Technical Economic Study V2 Drawings by Serem Inc; Section 5 - AGB Zone Plans and Sections. All wireframes were snapped to intervals in the historical drilling based on the mine plans in the report. In addition, several holes in 2020-2021 intersected mine workings, both voids and backfill. All intervals of modern drilling that intersected voids and backfill were recorded and incorporated into the stope and underground model. Wireframes were snapped to all modern hole traces at void and backfill intersections. Overall, there is very good agreement between the historical mine plan stopes and other historical data, and where stopes and underground levels were intersected in modern drilling (Figure 12-2 and Figure 12-3). Historical drill traces shown in green and modern drill traces (2019-2021) shown in black and AuEq for shown as purple circles along drill trace.

Figure 12-2: AGB Cross-Section Looking NW - Historic Stope Model Compared to Drilling



Source: APEX (2021)

Figure 12-3: AGB Cross-Sections: 2021 Stope Model & Modern Drilling (left) and Historical Drilling & 1986 Mine Plan (right)



Source: APEX (2021)

12.4.3 Phoenix

The Phoenix high-grade material was historically mined from surface and subsequently backfilled; no documentation of the location or physical size of the mined material exists. The phoenix stope model was generated by APEX using both historical and modern drilling and essentially envelopes the high-grade Phoenix vein from surface.

12.5 P&E Data Verification

12.5.1 Drill Hole Data Verification

The author randomly selected 21 out of a total of 273 of the 1974 to 2006 historical drill holes included in the current resource estimate database (representing 15.5% of the historical data over this time period) for checking against the original Assessment Report data. The greater majority of the data verified was from the earlier drilling from 1974 to 1990. "From-To" intervals and survey and assay data were all checked, and no material errors were observed in the data.

The author has also reviewed the results of the 2015 verification drilling undertaken at the Cliff Creek North and Dukes Ridge Zones, and Benchmark's own verification drilling (as described in Section 12.2 and 12.3) and is satisfied that the collective verification drilling undertaken at the Project confirms the tenor of historic drill data, for which complete assay and location information is known.

As described in Section 14 of this Technical Report, P&E also validated the Mineral Resource database by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing intervals and coordinate fields. A few minor errors were identified and corrected in the database.

12.5.2 2018 - 2022 Assay Verification

The author of this Technical Report section conducted verification of the Lawyers Property drill hole assay database for gold and silver, by comparison of the database entries with assay certificates, downloaded directly by the author from ALS Webtrieve. Assay certificates were downloaded in comma-separated values (csv) format. Assay data ranging from 2018 through 2021 were verified in April of 2021 and data from 2021 to 2022 were checked in September of 2022.

In April 2021, approximately 29% (14,628 out of 50,604 samples) of the entire Cliff Creek Zone database were verified for gold and silver and approximately 80% (14,628 out of 18,235 samples) of the constrained database for gold and silver were verified. Approximately 29% (7,629 out of 26,702 samples) of the entire Dukes Ridge-Phoenix-AGB zones database were also verified for gold and silver at that time, and approximately 68% (7,629 out of 11,253 samples) of the constrained database for gold and silver were verified. Very few minor discrepancies were encountered in the data, which are not considered by the author to be material to the current Mineral Resource Estimate.

Assay verification undertaken in September 2022, was undertaken on a single updated assay database for all 2021 to 2022 samples across all deposit areas. Approximately 22% of assays (17,067 out of 78,682 assays) for both gold and silver were checked against the laboratory data and no discrepancies were encountered.

12.6 P&E Site Visit and Independent Sampling

The Lawyers Property was visited by Mr. Brian Ray, P.Geo., of P&E, from September 16 to 19, 2020, and July 6 to 7, 2022 for the purpose of completing a site visit that included visiting drilling sites, outcrops, GPS location verifications, discussions, and due diligence sampling. Mr. Ray collected 32 samples from ten diamond drill holes during the 2020 site visit and 40 samples from 39 diamond drill holes during the 2022 site visit. Samples were selected from holes drilled at the Cliff Creek, AGB and Dukes Ridge zones, over the 2018 to 2021 period. A range of high-, medium- and low-grade samples were selected from the stored drill core. Samples were collected by taking a quarter cut of the core with the other quarter core remaining in the core box. Individual samples were placed in plastic bags with a uniquely numbered tag, after which all samples were collectively placed in a larger bag for deliverer to the lab. Samples from the 2020 site visit were delivered by Mr. Ray to the ALS Global laboratory in Vancouver for analysis. Samples from the 2022 site visit were couriered to the P&E office in Brampton by Mr. Ray and then delivered to the Actlabs laboratory in Ancaster, Ontario by P&E personnel for analysis.

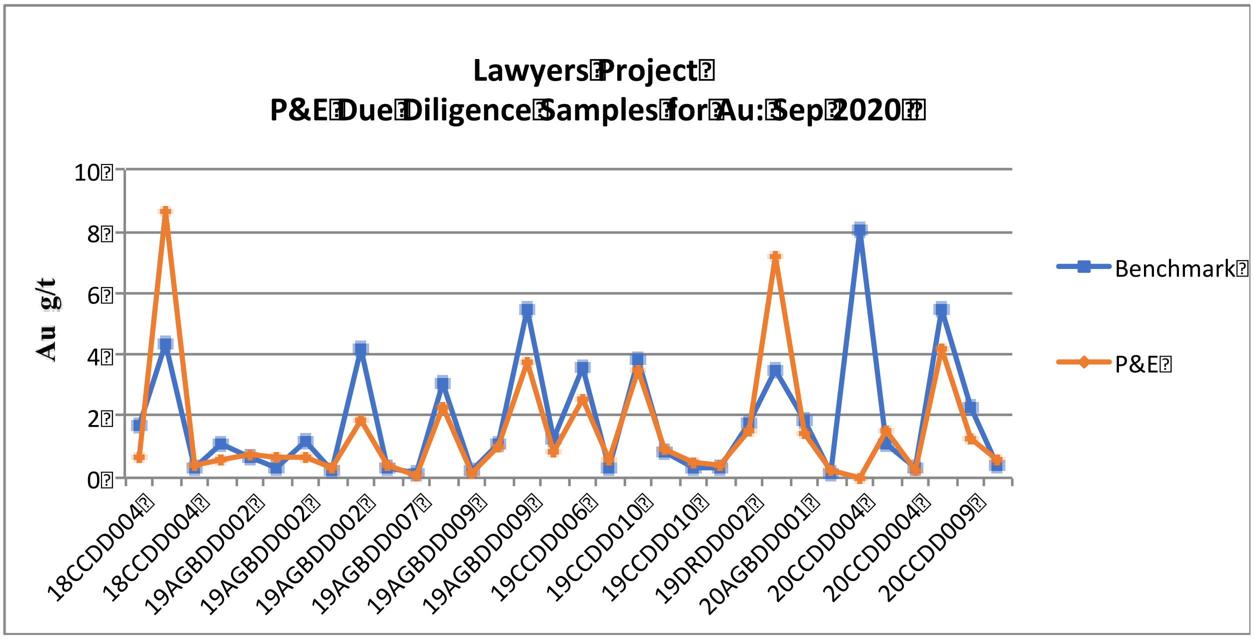
Samples at ALS were analysed for gold by fire assay with atomic absorption finish, with results >10 g/t Au further analysed by fire assay with gravimetric finish. Samples were analysed for silver by means of 4-acid digestion with atomic absorption finish. Bulk densities were determined by water displacement method on all 32 samples. ALS developed and implemented at each of its locations a Quality Management System (QMS) designed to ensure the production of consistently reliable data. The system covers all laboratory activities and takes into consideration the requirements of ISO standards. ALS maintains ISO registrations and accreditations. ISO registration and accreditation provides independent verification that a QMS is in operation which meets all requirements of ISO/IEC 17025:2017 and ISO 9001:2015. All ALS geochemical hub laboratories are accredited to ISO/IEC 17025:2017 for specific analytical procedures.

Samples at Actlabs were analysed for gold by fire assay with Instrumental Neutron Activation Analysis (INAA) finish, with results >20,000 ppb Au further analysed by fire assay with gravimetric finish. Samples were analysed for silver by means of aqua regia digestion with ICP-OES finish (code 1E-Ag), with results >100 ppm Ag further analysed by aqua regia digestion with ICP finish (code 8-AR Ag). Bulk densities were determined by water displacement method on all 32 samples. The Actlabs' Quality System is accredited to international quality standards through ISO/IEC 17025:2017 and ISO 9001:2015. The accreditation program includes ongoing audits, which verify the QA system and all applicable registered test methods. Actlabs is also accredited by Health Canada.

P&E inserted QC samples into the sample stream of verification samples, including CRMs and certified blank material, sourced from CDN, to monitor accuracy and contamination. No material issues were observed in the QC data for either element.

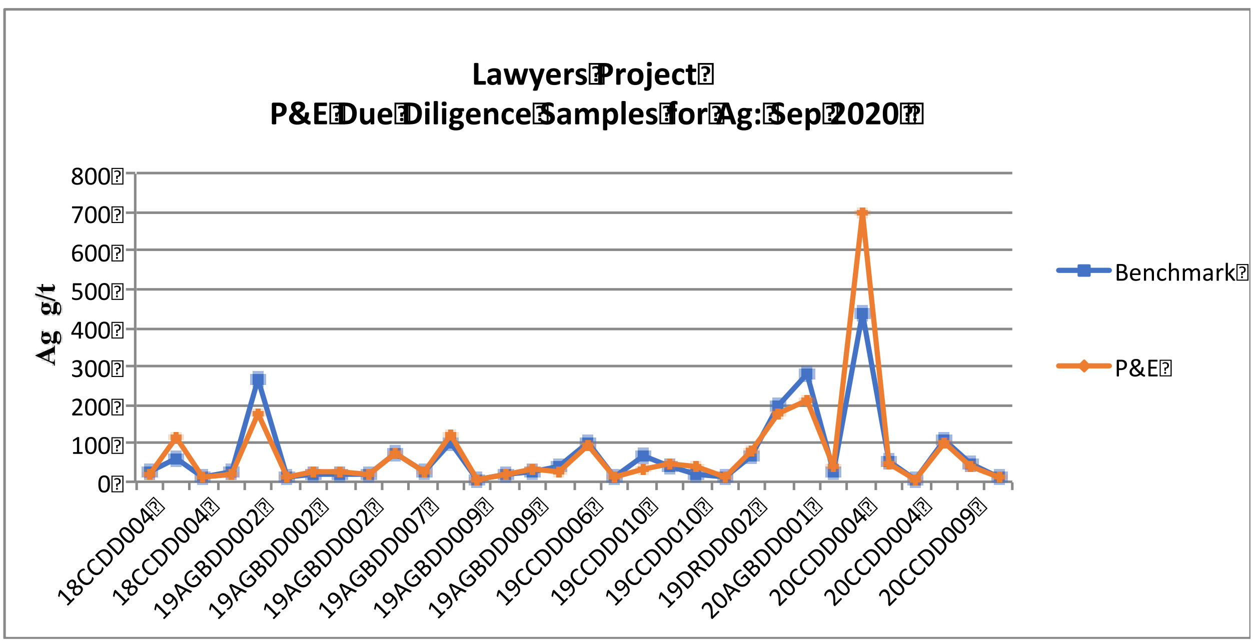
Results of the Lawyers Property site visit verification samples for both gold and silver are presented in Figure 12-4 to Figure 12-7. Note that two Ag results in Figure 11-8 are recorded as 1,000 g/t Ag, however, these results likely grade higher as this is the upper detection limit of the 8-AR test method.

Figure 12-4: Results of September 2020 Au Verification Sampling by P&E



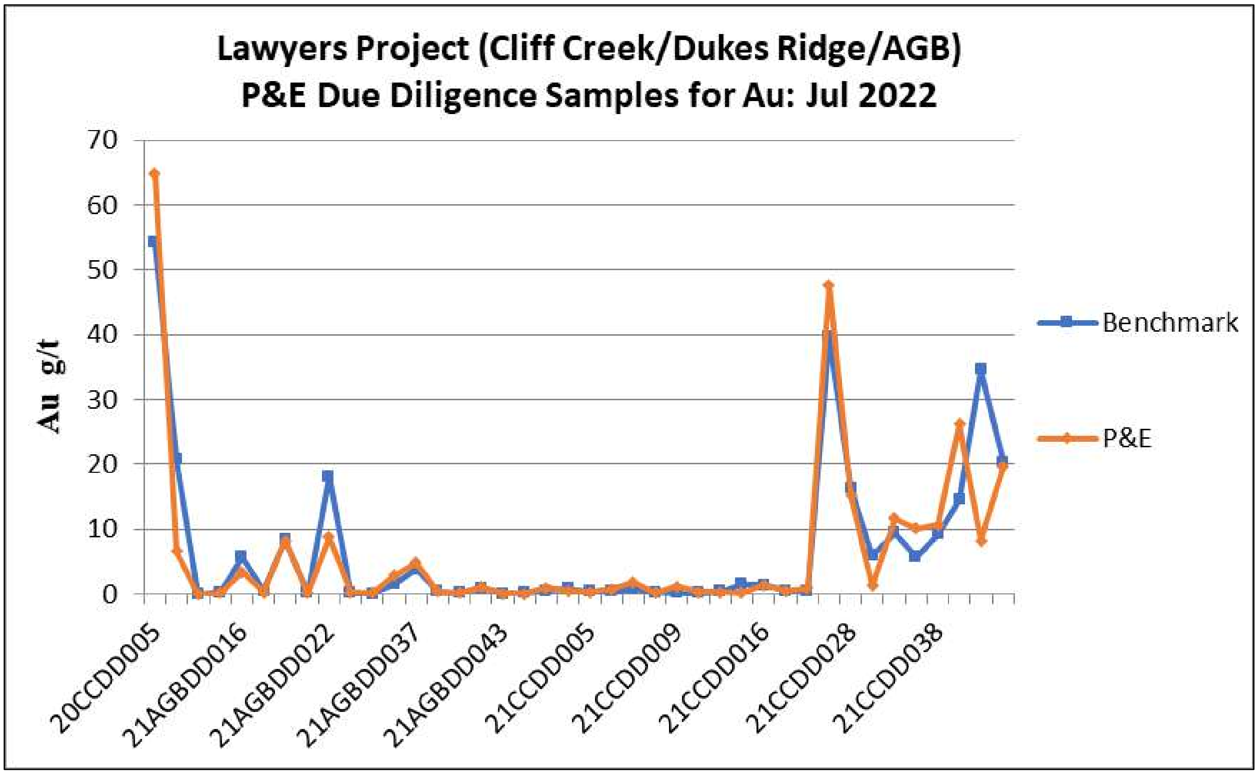
Source: P&E (2021)

Figure 12-5: Results of September 2020 Au Verification Sampling by P&E



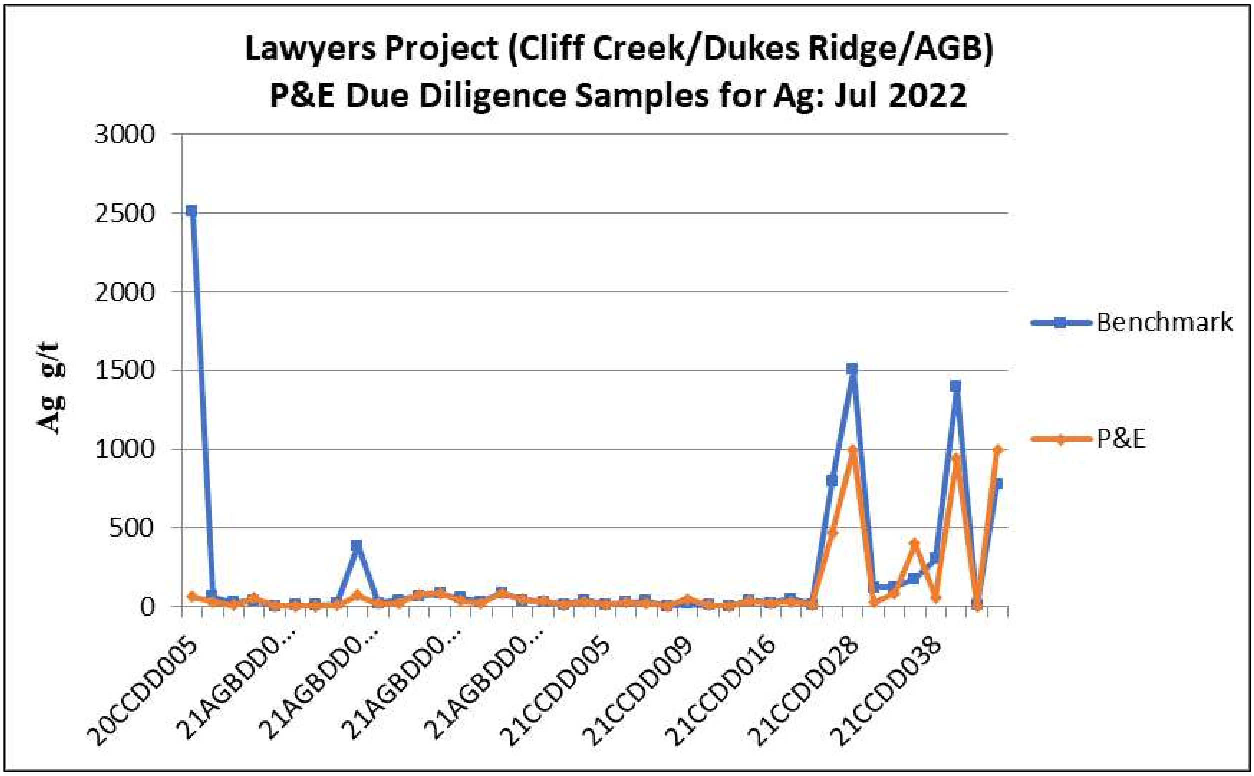
Source: P&E (2021)

Figure 12-6: Results of September 2022 Au Verification Sampling by P&E



Source: P&E (2022)

Figure 12-7: Results of September 2020 Au Verification Sampling by P&E



Source: P&E (2022)

The presence of a nugget effect in the data is evident. However, the authors of this Technical Report section consider that there is acceptable correlation between the Au and Ag assay values in Benchmark's database and the independent verification samples collected by P&E and analysed at ALS and Actlabs. It is the opinion of this Technical Report section author that the data are of good quality and appropriate for use in the current Mineral Resource Estimate.

12.7 Adequacy of Data

Detailed verification of the Lawyer's drill hole data, used for the current Mineral Resource Estimate, has been undertaken, including verification of historical drilling data (prior to 2015) from hard-copy reports, drill hole logs, cross-sections and maps. This work provides confidence in the historically reported mineralisation of the Cliff Creek North, Dukes Ridge, Phoenix and AGB zones. The detailed review and digitization of historical reports, and the information obtained from recent drilling (planned to drill through voids and backfill) gives a higher degree of confidence in the location and models of the underground workings and stope models at Cliff Creek and AGB. The small stope model for the Phoenix zone has the lowest confidence but is still assumed to be generally representative of the previously mined material, based on historical cross-sections, reports, and recent drilling.

There is good agreement between historical assays and recent drilling, which is demonstrated by the 2015 twin hole drilling, and extensive infill and confirmation drilling completed by Benchmark. Detailed QA/QC, check assaying and umpire assaying have been performed on the recent drilling with no material issues found, and P&E site visit samples reveal acceptable correlation between the original and verification samples. The authors of this Technical Report section are satisfied that sufficient verification of both the historic (pre-2015 for which complete assay and location information exists) and recent (2015-2022) drill hole data has been undertaken and that the supplied data are of good quality and suitable for use in the current Mineral Resource Estimate for the Cliff Creek, Dukes Ridge, Phoenix and AGB Zones.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

Laboratory metallurgical testing, including mineral process testing was initiated in 2020 to evaluate the Lawyers Project for an open-pit bulk tonnage processing operation. Previous testwork had historically been directed at higher grade, underground mining scenarios. This historic information has limited applicability to the process approach currently being evaluated for the property and as such, is not relied upon for this current study.

13.1 Historic Information

13.1.1 Historic Studies

The historic technical reports primarily focused on reserve estimates, although some authors provided abbreviated statements relating to the metallurgical response. These statements are of limited benefit, as sample source and specific laboratory procedures were not provided at the time. In addition, historic metallurgical testing was performed on samples that had gold and silver grades that could be an order of magnitude or higher than for the current processing concept.

In summary of the historical laboratory studies, all had been performed on samples representing mineralised material from high grade intervals. Gold recoveries were shown to be consistently over 90%, while silver recoveries trended significantly lower. The findings of the testwork, including those in subsequent historical technical reporting indicates that the mineralisation is suitable to conventional precious metal processing, including both froth flotation and cyanide leaching.

13.1.2 Past Operations

The Lawyers property was reported to have been put into production in 1989 at a design rate of 550 t/d, as an underground operation, with a projected life of ten years. (Wright, 1986). Mineralisation was hosted in a quartz vein stockwork and breccia zones. No mill data was available from the operating period with operations closed in 1992 due to considerations of mineable grades and economics.

The lack of detailed operating data being sourced from the historic operation and the fact it was a higher-grade underground mine provide limited benefit to the understanding of metallurgical response for the current anticipated processing scenario at Lawyers.

13.2 2020/2021 PEA Laboratory Test Programs

Two separate laboratory test programs were initiated for the PEA beginning in 2020 and continuing into the second quarter 2021. These were performed in the context of operating the Lawyers project as a bulk tonnage, open pit mineral processing scenario. This approach is markedly different from the higher grade, lower tonnage underground mining methods undertaken with previous evaluations, as well as compared to the past operations that took place on the property.

In April 2020, a laboratory test program was initiated at Bureau Veritas Minerals Metallurgical Division (BV), located in Richmond, BC. This program investigated the process response of metallurgical composites generated from the Cliff Creek, AGB and Dukes Ridge resource zones. Most of the testwork focused on Cliff Creek samples. The testwork included gravity, flotation, and cyanide leach optimization procedures, along with providing additional data on tailing, and an initial Bond ball mill work index for each of the three zones.

Later in 2020 and continuing into 2021 a test program was commenced that focused on comminution of whole rock obtained from split drill core. This work was performed by ALS Metallurgical Laboratory (ALS), located in Kamloops, BC. Basic leach response and solid settling characterization were also undertaken. This program was performed on material from three drill core intervals from the Cliff Creek resource zone. The comminution work did not include crushing or SAG mill test procedures as the sample provided was limited by the upper particle size available from the split NQ/HQ core.

13.2.1 Sample Origin, Compositing, and Head Analyses

The BV metallurgical test program was performed on assay reject samples. These samples originated from the 2019 Lawyers exploration program. A further three samples of split drill core in early December 2020, were utilized to perform additional test procedures.

Compositing of the assay reject samples was undertaken by BV to generate material for bench scale process evaluation. This consisted of five composites for the Cliff Creek zone, two composites for Amethyst Gold Breccia (AGB) zone and one composite for the Dukes Ridge (DR) zone. Each composite was generated from contiguous drill hole intervals. Labelling for the metallurgical identification had a prefix for the resource zone; Cliff North (CN), Cliff South (CS), AGB (AB), and Dukes Ridge (DR). This was followed sequentially by the drill hole number, and drill hole depth interval in meters from which the composite material was selected. Each composite was thoroughly blended and split into 2 kg test charges for bench scale studies. A list of the composites generated by BV for the laboratory testing is provided in Table 13-1 below.

Table 13-1: BV Lab - 2020 Sample Compositing List

Metallurgical	Drill Hole #	Length	Sample ID		Zone Location / Description
Comp. ID	Depth (m)	m	from	to	
AB1 210-236	DH1 210-236	26	Y746058	Y746088	Amethyst Gold Breccia (AGB) West Zone
AB4 160-214	DH4 160-214	54	A0803323	A0803382	AGB West Zone
CN3 176-195	DH3 176-195	19	Y745147	Y745168	Cliff Creek (CC) North Main Zone Deep
CN5 113-179	DH5 113-179	66	Y745494	Y745575	CC North Low-Grade West Zone
CN6 72-125	DH6 72-125	52.5	Y745777	Y745838	CC Northeast Connector Zone

Metallurgical	Drill Hole #	Length	Sample ID		Zone Location / Description
Comp. ID	Depth (m)	m	from	to	
CS10 228-330	DH10 228-330	102	Y746584	Y747555	CC South Wide Low Grade Main Zone
CN25 127-150	DH25 127-150	22.6	A0799215	A0799227	CC Northeast Connector Zone High Grade
DR3 98-172	DH3 98-172	74	A0798918	A0798992	Dukes Ridge (DR) Low Grade Main Zone

Source: F. Wright Consulting Inc. (2021)

ALS was supplied with three separate lengths of contiguous diamond drill core from the 2020 exploration program. The sample consisting of either half split HQ or NQ diamond drill core which was initially used for work index testing and rock abrasion procedures, followed by additional process studies. The composite sample identifications with the abbreviations provided previously, along with the Cliff Central (CC), was also used to identify the metallurgical sample as shown in Table 13-2.

Table 13-2: ALS Sample List

Met. Sample	Geo. Sample	Drill Hole #*	Split Core		Zone -
ID	ID	Depth (m)	Dia. (Type)	Length (m)	Location
CS32 (30-36)	119833	DH32 (30-36)	NQ	6	Cliff Creek - South Zone
CC44 (126-134)	119834	DH44 (126-134)	NQ	8	Cliff Creek - Mid Zone
CC6 (124-130)	119835	DH6 (124-130)	HQ	6	Cliff Creek - Main Zone

Notes:
*2020 Drill Program
Source: F. Wright Consulting Inc. (2021)

Initial process optimization testing was performed at BV on a master composite from the primary 2019 exploration target of Cliff Creek. This master composite was labelled Comp. MCC and was blended using varying portions of the individual Cliff Creek composites as provided in Table 13-3.

Table 13-3: BV Labs – Comp. MCC, Master Composite Makeup

Metallurgical	Location	Weight	
Comp. ID	Zone	used (kg)	% dist.
CN6 72-125	Cliff Creek North	30.0	20.8
CN5 113-179	Cliff Creek North	46.0	31.9

Metallurgical Comp. ID	Location Zone	Weight	
		used (kg)	% dist.
CS10 228-330	Cliff Creek South	56.0	38.9
CN25 127-150	Cliff Creek North	6.0	4.2
CN3 176-195	Cliff Creek North	6.0	4.2
	Totals	144	100.0

Source: F. Wright Consulting Inc. (2021)

The head assay for Comp. MCC gave 1.50 g/t Au, 39 g/t Ag and 1.18% total S. Chemical analyses of the individual composites were performed in more detail including, precious metal analyses, ICP, and sulphur speciation as summarized in Table 13-4.

Table 13-4: BV Lab Composite Head Analyses

Analyte	Unit	Composite Sample ID							
		CN6 72-125	CN5 113-179	CS10 228-330	DR3 98-172	AB4 160-214	CN25 127-150	CN3 176-195	AB1 210-236
Au (dup. FA)	g/t	0.845	0.602	0.986	0.743	0.965	3.19	2.21	2.35
Ag	PPM	41	62	18	33	44	129	81	165
S (tot)	%	0.90	2.02	0.74	0.54	<0.02	0.39	1.30	0.03
S/S-	%	0.70	1.71	0.58	0.35	<0.05	0.25	1.06	<0.05
S/SO4	%	0.21	0.31	0.16	0.19	<0.05	0.14	0.24	0.02
S (elem)	%	-	-	-	<0.01	<0.01	-	-	-
C (tot)	%	0.65	0.60	0.49	1.00	0.58	0.93	0.88	0.62
C/ORG	%	0.06	0.06	0.04	0.12	0.04	0.08	0.06	0.07
ICP (Multi-Acid)									
Mo	PPM	11.6	15.4	2.8	<0.5	<0.5	2.2	3.9	<0.5
Cu	PPM	50	92.8	42.3	39.9	55.9	58.8	72	119
Pb	PPM	58.6	137.3	24.5	26.8	96.3	57	94.7	392.7
Zn	PPM	148	236	99	91	161	159	132	401
Ag	PPM	37.8	51.5	17.8	36.3	42.6	130.6	128.7	168.7
Ni	PPM	7	4.1	4.2	5.3	5.6	4	3.1	3.9
Mn	PPM	2230	1439	998	1103	1012	1554	1908	527
Fe	%	3.05	3.53	3.31	3.58	3.46	2.83	2.86	2.53
As	PPM	31	20	38	28	16	14	40	20

Analyte	Unit	Composite Sample ID							
		CN6 72-125	CN5 113-179	CS10 228-330	DR3 98-172	AB4 160-214	CN25 127-150	CN3 176-195	AB1 210-236
Cd	PPM	1	1.3	<0.5	<0.5	1.9	1	1.3	1.9
Sb	PPM	2	1.8	2.8	2.8	5.5	2.3	3.4	10.9
Ca	%	1.75	0.82	1.08	1.76	1.57	2.3	1.05	0.69
Mg	%	1.34	1.07	1.33	1.22	1.02	1.08	0.91	0.52
Ba	PPM	1299	1360	1389	1287	1517	1135	1409	1177
Al	%	6.58	7.09	6.83	7.27	7.05	5.91	6.33	5.23
Na	%	0.26	1.39	0.82	1.23	0.88	0.29	0.57	0.34
Se	PPM	<5	<5	<5	5	<5	6	<5	<5

Source: BV Minerals (2020)

The XRF analyses of the same BV composites is provided in Table 13-5.

Table 13-5: BV Lab XRF Analyses on Composite Heads

Analyte (%)	Composite Sample ID							
	CN6 72-125	CN5 113-179	CS10 228-330	DR3 98-172	AB4 160-214	CN25 127-150	CN3 176-195	AB1 210-236
SiO2	63.77	61.16	65.21	58.82	63.41	65.61	65.69	72.75
Al2O3	12.51	14.68	13.01	14.25	13.29	10.95	11.74	9.68
Fe2O3	4.46	5.23	4.86	5.28	5.16	4.15	4.06	3.66
CaO	2.48	1.29	1.51	2.51	2.24	3.23	1.44	0.96
MgO	2.37	1.91	2.35	2.18	1.82	1.91	1.58	0.9
Na2O	0.34	1.85	1.04	1.64	1.14	0.38	0.73	0.45
K2O	7.84	6.82	7.14	7.03	7.85	6.79	6.89	6.19
MnO	0.29	0.19	0.13	0.14	0.13	0.2	0.24	0.07
TiO2	0.43	0.48	0.46	0.54	0.52	0.4	0.37	0.35
P2O5	0.16	0.17	0.17	0.19	0.17	0.15	0.13	0.13
Cr2O3	0.01	<0.01	0.02	0.01	0.01	0.01	0.02	0.02
Ba	0.12	0.17	0.13	0.12	0.15	0.11	0.14	0.11
LOI	4.39	4.92	3.91	5.77	3.84	4.81	4.87	3.39
SUM	99.19	98.91	99.96	98.51	99.74	98.72	97.91	98.68

Source: BV Minerals (2020)

The three Cliff Creek composites delivered to ALS had head assays to include precious metal and multi-element head assays. The precious metal and total sulphur assays are provided in Table 13-6.

Table 13-6: ALS Head Analyses (incl. ICPma)

Met. Sample	Geo. Sample	Duplicate FA average		Fe	Cu	Zn	%S	%S	%S--
ID	ID	Au, g/t	Ag, g/t	%	ppm	ppm	ICP	Leco	by diff. SO4
CS32 (30-36)	119833	0.72	22.5	2.85	24.6	84	0.04	0.05	0.05
CC44 (126-134)	119834	0.49	3.0	2.61	18.2	74	0.87	0.79	0.79
CC6 (124-130)	119835	0.095	7.5	2.61	18.4	58	1.58	1.59	1.57

Source: BV Minerals (2020)

The results show that while these samples were intended primarily for comminution testing the precious metal content are generally below average expected mill head grades. Total sulphur content while variable between the composites the analyses agreed well between ALS Leco and ICP methods, with virtually all occurring as sulphide sulphur. Other elements of potential concern were more consistent within the samples showing 5-16 ppm Pb, 16-22 ppm As, while both Sb and Se were less than 0.5 ppm in all three samples.

13.2.2 Mineralogy and Petrography

Core logging information, which provides a description of mineralisation, lithology and alterations, was provided by APEX GeoScience Ltd., for the samples that were submitted. This information, along with precious metal grade and sample location, was taken into consideration when compositing the samples.

As part of the initial study, petrographic analyses were subcontracted by BV to Hummingbird Geological Services, of Langley BC, on two metallurgical samples from the Cliff Creek Zone. These consisted of one composite CN5 113-179 from Cliff Creek north, and a drill interval DH10 321-322 (Sample # Y74546) originating from Cliff Creek south.

Among the finding were that both samples appear to be altered felsic volcanic, with DH10 321-322 having significantly more quartz veining. In addition, each of the samples had undergone significant hydrothermal alteration. Alteration phases within CN5 113-179 were mostly comprised of sericite and chlorite, while DH10 321-322 were more complex and greater variety of alteration, suggesting two alteration events at this location. Pyrite was observed in both samples as subhedral to euhedral grains. For CN5 113-179 pyrite grains showed little or no alteration, where CN10 321-322 indicated two alteration phases, with infilling fractures and the other disseminated throughout the pyrite fragments. The mineralisation showed minor chalcopyrite and galena present, although samples were visually lacking sulphosalts. No free gold, silver or electrum was observed, with most particles likely being of a size, and/or too widely dispersed to readily identify optically.

BV reporting included a QEMSCAN mineralogical assessment on three of the composite samples, one from each of the resource targets, to identify and quantify minerals present. The three composites selected consisted of CN6 72-125, described as from the Cliff Creek east connector zone, DR3 98-172 from the Dukes Ridge main zone, and AB4 160-214 from the AGB west zone. The non-sulphide mineral compositions are presented in Table 13-7.

Table 13-7: QUEMSCAN Composition of Non-Sulphide Minerals

Mineral wt.%	Sample ID		
	AB4 16-214	CN6 72-125	DR3 98-172
Iron Oxides*	2.71	0.51	1.25
K-Feldspars	61.2	59.1	57
Quartz	19.5	24.7	16.9
Plagioclase Feldspar	5.69	1.04	9.31
Chlorite	2.98	4.05	3.34
Biotite/Phlogopite	1.99	2.73	2.68
Muscovite	0.94	1.11	0.98
Calcite	1.07	1.55	0.85
Amphibole/Pyroxene	0.55	0.48	0.92
Muskoxite (Mg7Fe4Ox)?	0.14	0.26	1.34
Epidote	0.4	0.13	0.54
Ankerite/Dolomite	1.41	0.69	1.75
Kaolinite	0.26	0.21	0.47
Others**	1.1	1.06	1.48
Non-Sulphide Total	100	97.6	98.8

Notes:

Iron Oxides includes Limonite, Goethite, Siderite, Jarosite, Ilmenite and Iron metals.

Others include trace amounts of Apatite, Rutile/Anatase, Ca-sulphate, Zircon and Cassiterite.

Source: BV Minerals (2020)

Primary minerals are K-feldspars and quartz, with a low volume of clay minerals is indicated for these samples. The sulphide content is relatively low. Pyrite is the principal sulphide present, with the remaining noted as sphalerite, galena, and chalcopyrite that were each at levels 0.02% or less.

ALS performed XRD analyses to determine the relative portion of crystalline material on sample CS32 (30-36). The major minerals on a mass weighted basis consisted of 61% Quartz, 34% K-feldspar, 2% Kaolinite, 2% siderite type carbonate and 1% pyrite plus hematite.

13.2.3 Comminution Study

The comminution study was limited in scope by the particle size available from the 2020 exploration campaign. Consequently, there was no crushing work index or SAG mill evaluation testing conducted. Bond ball mill work index (BBMWi), Bond rod mill work index (BRMWi), and abrasion testing were performed by ALS. BV labs also performed a single BBMWi on individual composites from each of the Cliff Creek, AGB, and Dukes Ridge zones. The BV scoping data shows that the composited materials are relatively hard with a Bond Ball Mill Work Index range of 16.0 to 17.2 kWh/t.

The more comprehensive comminution testing was performed by ALS on specific depth intervals from within the Cliff Zone as provided in Table 13-8.

Table 13-8: ALS Comminution Data

Met.	BBMWi	BRMWi	Abrasion	Abrasion (kg/kWh)			Abbreviated Lithological
Sample ID	kWh/tonne		Index (Ai)	Crusher	Balls*	BM Liner*	Description
CS32 (30-36)	14.9	13.8	0.153	0.015	0.083	0.014	(V-Hbl) intermed volcanic with weak prop alteration
CC44 (126-134)	20.4	18.5	0.435	0.027	0.119	0.009	(HBX) multiphase hydrothermal breccia/strong pot alter.
CC6 (124-130)	18.8	19.0	0.415	0.026	0.117	0.009	(V-Hbl) intermed volcanic mod to strong PV alteration

Notes:
*Wet grinding
Source: ALS (2021)

The limited ALS data suggests that the rock is softer and generally less abrasive in the shallower interval tested, as compared to the two deeper intervals. Overall, the rock would be considered to have a moderately hard to hard work index.

13.2.4 Gravity Treatment

Gravity procedures were incorporated prior to most of the leaching, and some of the flotation tests. The gravity pre-treatment used a Knelson centrifugal concentrator with the resulting concentrate cleaned by hand panning with the pan concentrate assayed to extinction. The weight limitations for the panned concentrate (typically 20-30 g) inhibits further cleaning in bench scale work. Higher grade gravity concentrates would typically be required in plant operations, decreasing recovery as compared to bench scale testing data. The pan tailing and Knelson tailing are then combined as gravity tailing for downstream treatment.

A metallic analysis was conducted on each of the BV composites as a potential indicator of gravity response. The results suggested that a low to modest gravity response could be expected in the bench scale testing based on the percent gold reporting to the coarse fraction. The data as provided in Table 13-9, suggests that the higher-grade composites might only provide moderate gold reporting to the coarse particle fraction, with most of the composites providing little or no significant coarse gold.

Table 13-9: Metallics Head Analyses

Sample ID	Screen	Wt.	Au	Ag	Distribution, %		
	Tyler Mesh	(g)	(g/t)	(g/t)	Au	Ag	Wt.
CN6 72-125	+150	24.6	3.70	57	11.2	3.3	2.5
	-150	976	0.74	42	88.8	96.7	97.5
Calculated Head	Total	1000	0.81	42	100.0	100.0	100.0
Measured Head			0.84	41			
CN5 113-179	+150	28.6	0.83	126	3.8	6.6	2.8
	-150	987	0.62	52	96.2	93.4	97.2
Calculated Head	Total	1016	0.62	54	100.0	100.0	100.0
Measured Head			0.60	62			
CS10 228-330	+150	24.9	1.61	25	5.2	3.2	2.5
	-150	955	0.76	20	94.8	96.8	97.5
Calculated Head	Total	980	0.78	20	100.0	100.0	100.0
Measured Head			0.99	18			
DR3 98-172	+150	29.4	2.79	54	9.3	4.4	3.0
	-150	960	0.829	36	90.7	95.6	97.0
Calculated Head	Total	990	0.887	37	100.0	100.0	100.0
Measured Head			0.743	33			
AB4 160-214	+150	27.0	3.25	49	7.8	3.1	2.7
	-150	977	1.07	43	92.2	96.9	97.3
Calculated Head	Total	1004	1.13	43	100.0	100.0	100.0

Sample ID	Screen	Wt.	Au	Ag	Distribution, %		
	Tyler Mesh	(g)	(g/t)	(g/t)	Au	Ag	Wt.
Measured Head			0.965	44			
CN25 127-150	+150	22.1	4.13	104	2.9	1.8	2.2
	-150	987	3.08	129	97.1	98.2	97.8
Calculated Head	Total	1009	3.11	128	100.0	100.0	100.0
Measured Head			3.19	129			
CN3 176-195	+150	29.5	22.6	101	29.8	3.3	2.9
	-150	980	1.60	89	70.2	96.7	97.1
Calculated Head	Total	1010	2.21	89	100.0	100.0	100.0
Measured Head			2.21	81			
AB1 210-236	+150	27.0	2.63	152	2.7	2.4	2.7
	-150	987	2.63	171	97.3	97.6	97.3
Calculated Head	Total	1014	2.63	170	100.0	100.0	100.0
Measured Head			2.35	165			

Source: BV Minerals (2020)

The relatively low coarse gold content as exhibited by the metallics analyses translated into 2% to 30% gold, and less than 7% silver on the plus fraction of the 100 µm sieve. Final gravity recovery would be dependent on the amount of gravity cleaning subsequently performed. The cleaning requirement and corresponding additional precious metal losses during cleaning would depend on if tabling or intense cyanidation (IC) is used for upgrade treatment prior to doré production. IC should result in higher recovery and would likely be used in conjunction with a downstream leach circuit. If downstream processing is flotation, then the use of IC would be dependent in part on permitting.

Generally, if centrifugal gravity concentration was incorporated prior to flotation the overall recovery does not appear to be improved, nor was final tailing grades decreased as compared to if no gravity pre-treatment was included. For leaching, comparison testing with and without gravity pre-treatment was not performed as often for the BV study, since any removal of coarse precious metal content would reduce the leach retention time. For the ALS testwork with lower grade feed for bottle roll testing, no prior gravity treatment was performed. The resulting recovery or leach retention time did not appear to be adversely affected.

Given that some high-grade horizons are known to be present in the Mineral Resource, it is assumed that gravity pre-treatment would be included into the flowsheet prior to either downstream leaching or flotation. Prior to flotation, if tabling is used to clean the centrifugal concentrate for doré production, then gravity treatment is expected to contribute to approximately 5% to 10% of the overall gold production, with less than 2% silver. If cyanidation is pursued, then intense leaching of the centrifugal concentrate is available requiring no further physical cleaning, and therefore a higher gravity portion of precious metal recovery can be expected. In addition, a continuous gravity circuit might be considered in order to pull higher mass of silver for a more intense leach treatment. For a leaching circuit, the potential for gravity recovery should be in a range of 10% to 25% of the total gold production, and 2% to 5% for silver. This would be dependent on gravity circuit design, feed mineralogy, and head grade, with periods of high-grade feed offering increased gravity recovery potential.

13.2.5 Flotation

Froth flotation was evaluated on the samples composited by BV. The initial optimization work focused on the Cliff Creek Zone master composite (Comp. MCC), as well as a composite from Dukes Ridge and from AGB. Initial rougher flotation response focused on particle size of the feed, as well as some variation in the float reagents. The initial rougher flotation data is summarized in the following two tables for the three resource zones.

Table 13-10: Rougher Float on Comp. MCC Verse Float Feed Particle Size

Test	Feed P_{80}	Gold Grade, g/t Au				Gold Recovery, %		Total Recovery	
No.	Size (µm)	Calc. Fd.	Grav.**	Ro. Con.	Tail	Grav.**	Float	Mass, %	Au, %
GF9	199	0.84	255	6.17	0.11	12.2	75.6	10.3	88
GF10	136	0.76	316	4.88	0.09	19.5	70.0	10.9	90
GF11	93	0.84	406	4.87	0.07	21.3	70.9	12.3	92
GF12	69	0.90	701	5.49	0.06	30.6	63.2	10.4	94
GF19 (mod)*	70	0.98	602	6.18	0.07	24.4	69.5	11.0	94
Test	**Feed**	**Silver Grade, g/t Ag**				**Silver Recovery, %**		**Total Recovery**	
No.	**Size (µm)**	**Calc. Fd.**	**Grav.****	**Ro. Con.**	**Tail**	**Grav.****	**Float**	**Mass, %**	**Ag, %**
GF9	199	40	1451	322	7.0	1.5	82.8	10.3	84
GF10	136	44	3481	341	6.0	3.7	84.1	10.9	88
GF11	93	42	4438	288	5.0	4.7	84.7	12.3	89
GF12	69	40	6268	325	4.0	6.2	84.8	10.4	91
GF19 (mod)*	70	41	5605	319	4.0	5.4	85.9	11.0	91

Notes:

* GF19 use modified flotation procedures that incorporated higher collector dose and use of sulphidization.

**Gravity Knelson concentrate is only partially cleaned due to concentrate mass limitations in hand panning.

Source: F. Wright Consulting Inc. (2021)

Table 13-11: Rougher Float on Dukes Ridge and AGB Zone Composites

Comp.	Test	Feed P_{80}	Gold Grade, g/t Au				Au Recovery, %		Total Recovery (%)		
ID	No.	Size (µm)	Calc. Fd.	Grav.*	Ro. Con.	Tail	Grav.*	Float	Mass	Ag	Au
DR3 (98-172)	GF2	146	0.91	512	5.7	0.25	31.6	43.2	7.0	71.9	75
DR3 (98-172)	GF4	72	0.90	562	4.0	0.19	35.1	46.2	10.4	78.9	81
AB (160-214)	GF8	73	1.09	352	8.2	0.25	21.2	59.1	12.1	35.3	80
AB (160-214)	GF15	50	0.97	624	3.1	0.18	29.0	56.2	17.6	43.4	85

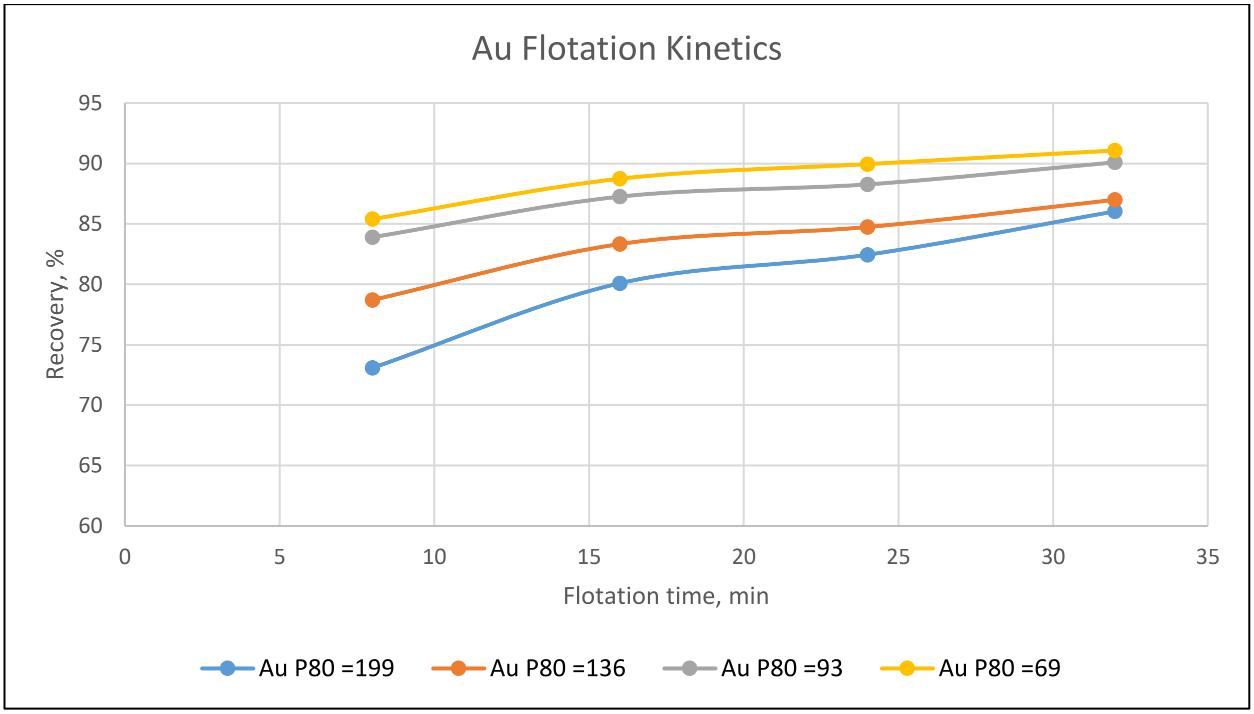
Notes:

*Gravity Knelson concentrate is only partially cleaned due to concentrate mass limitations in hand panning.

Source: F. Wright Consulting Inc. (2021)

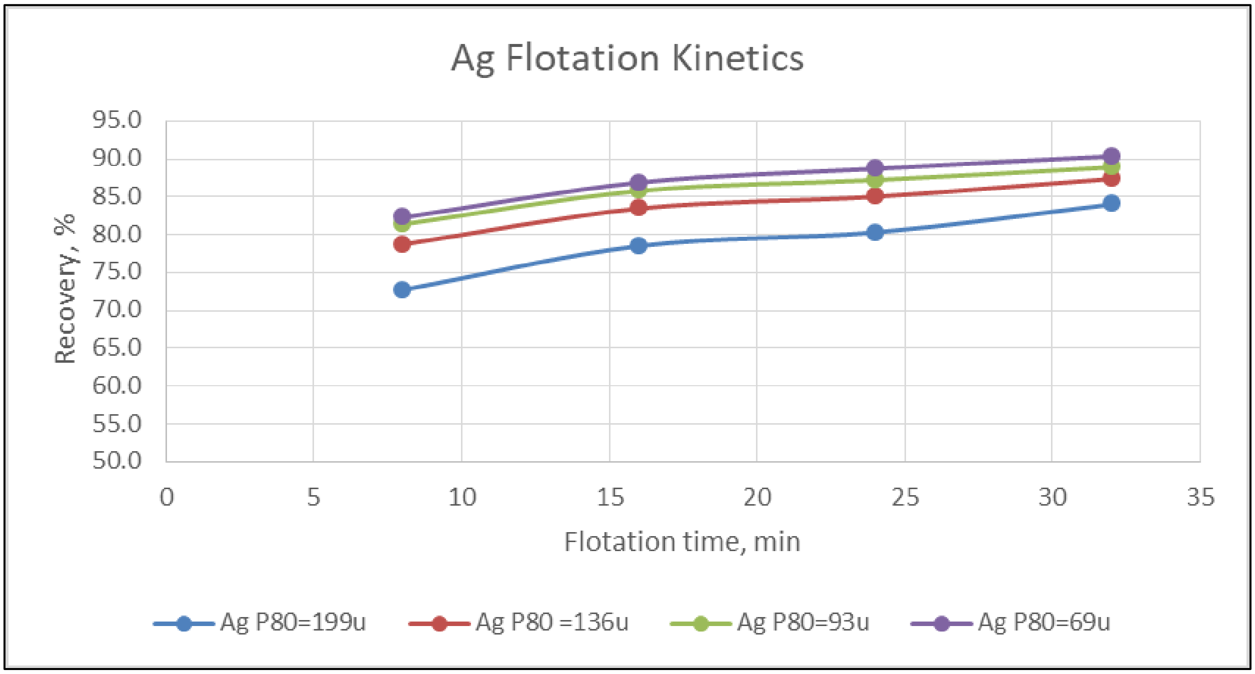
Aggressive conditions including extended retention time, finer grinding, and the use of more powerful, less selective reagents such as DF250 and PAX showed the most benefit. Addition of more selective precious metal collectors, or the use NaSH either decreased the float recoveries or kinetics. Alternately, finer primary grinding both improved metal recovery and increased flotation kinetics. The precious metal recovery verse grind is plotted for Comp. MCC, AB (160-214), and DR (98-172) respectively in the following figures. The plotted data also shows that a significant portion of the precious metals have slow recovery kinetics during rougher flotation for all three zones.

Figure 13-1: Comp. MCC Gold Rec vs Rougher Float Retention Time



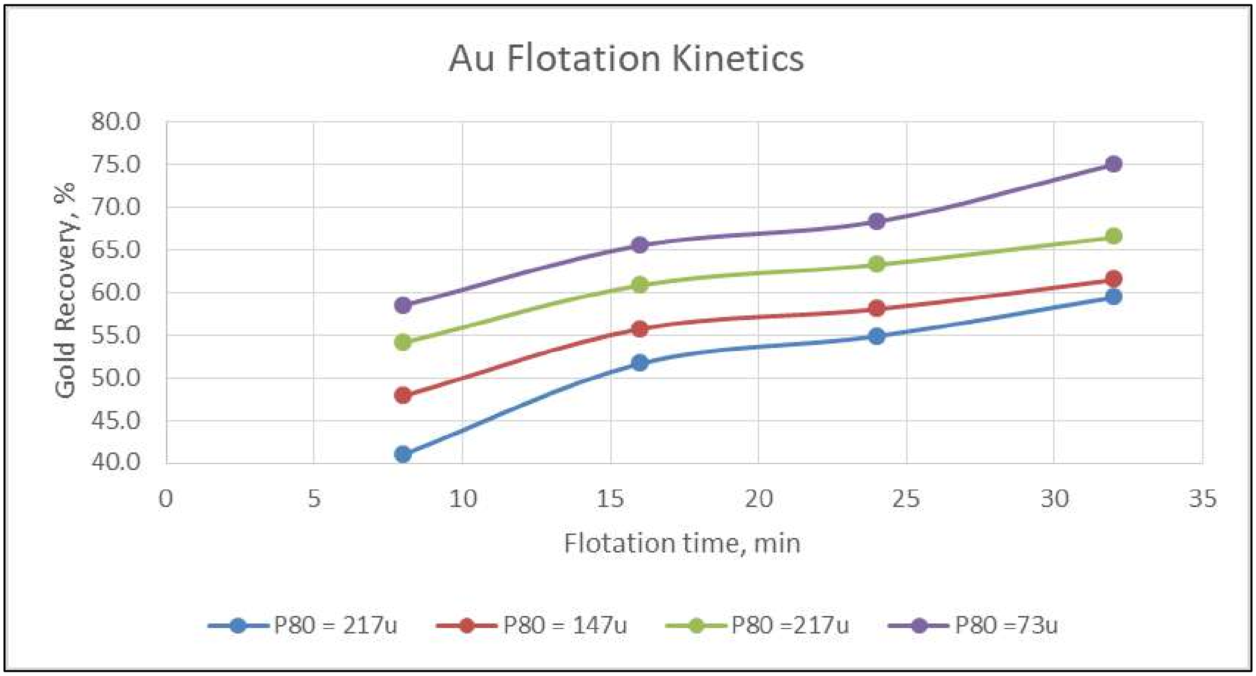
Source: BV Minerals (2020 / 2021)

Figure 13-2: Comp. MCC Silver Rec. vs Rougher Float Retention Time



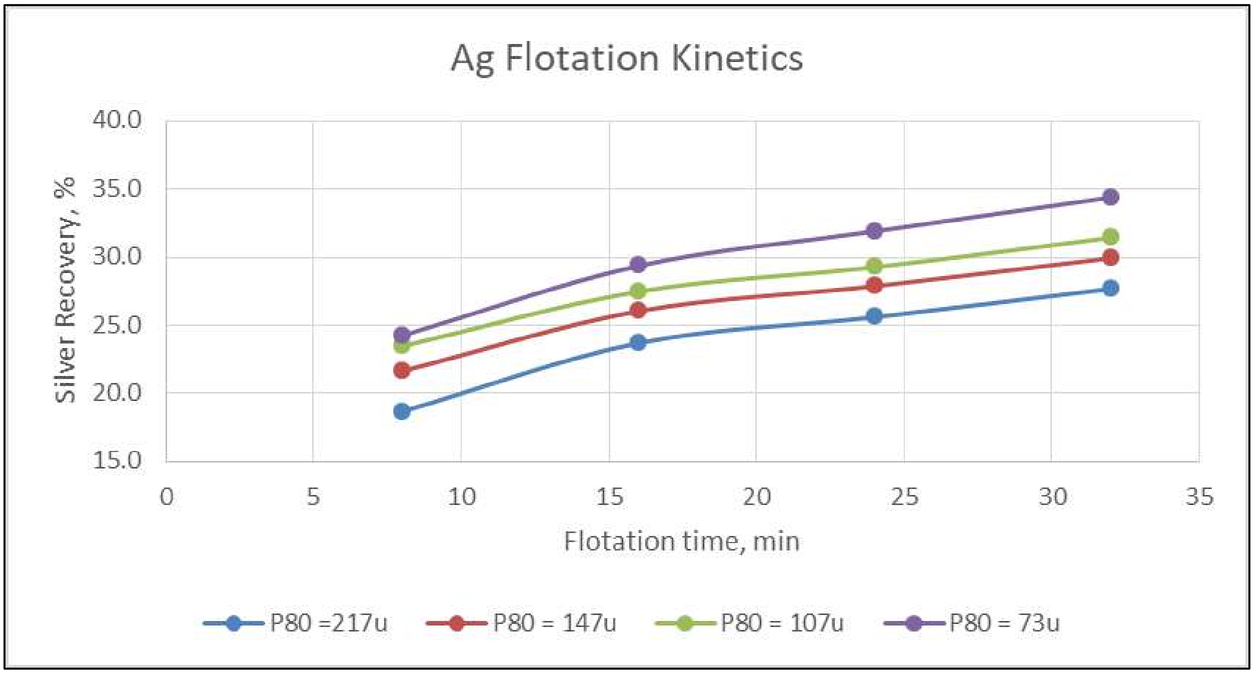
Source: BV Minerals (2020 / 2021)

Figure 13-3: AB4 (160-214) Gold Rec vs Rougher Float Retention Time



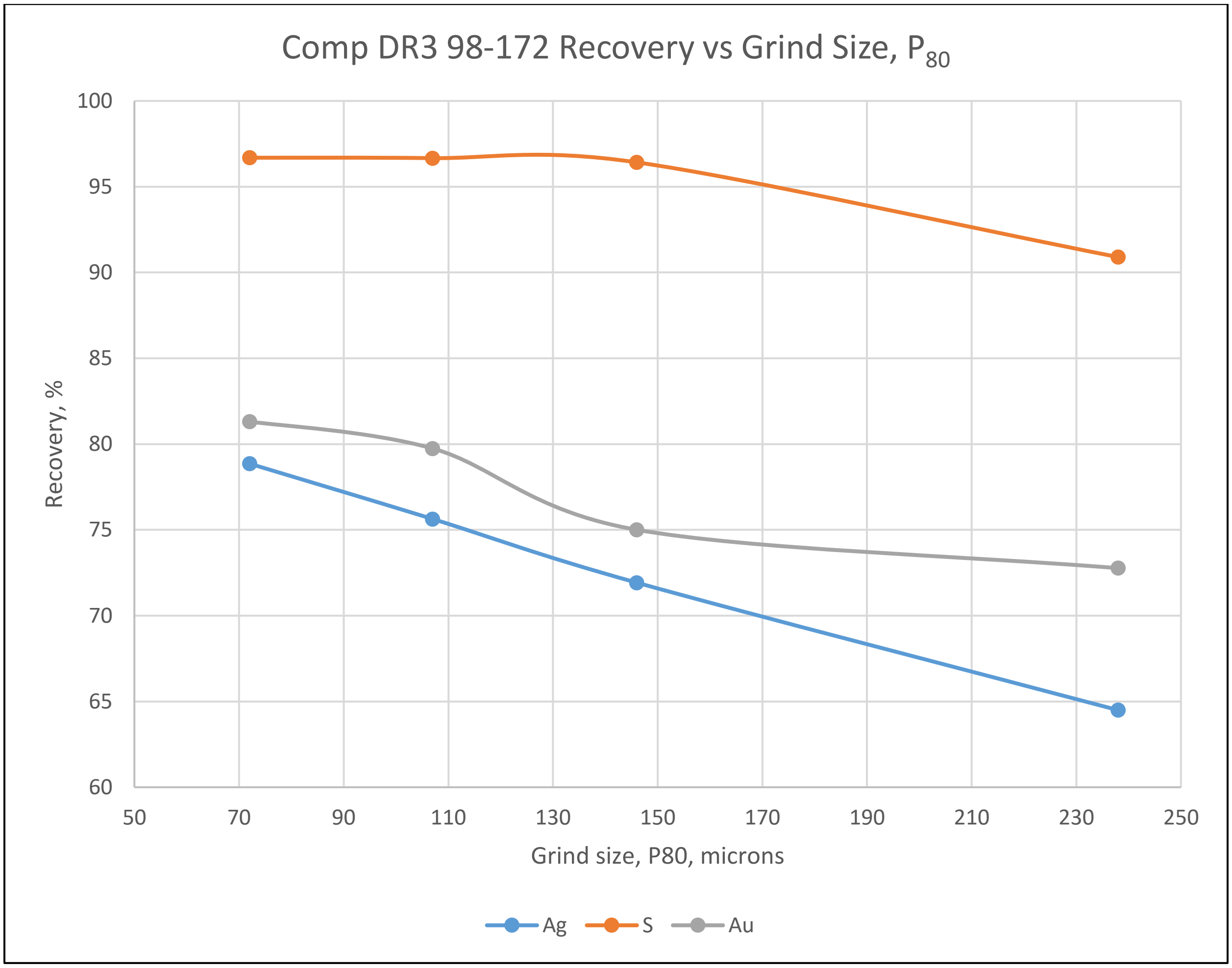
Source: BV Minerals (2020 / 2021)

Figure 13-4: AB4 (160-214) Silver Rec vs Rougher Float Retention Time



Source: BV Minerals (2020 / 2021)

Figure 13-5: Dukes Ridge - Metal Float Final Recovery vs Grind



Source: BV Minerals (2020 / 2021)

There appears to be a minor benefit in going to a lower P_{80} of ~74 µm for Cliff Creek Zone material. For Dukes Ridge and AGB composites the benefit is more significant. Given the relatively low bulk flotation tailing grades (<0.08 g/t Au) already achieved for the Cliff Creek Zone at 74 µm, further investigation to continue to lower tailing loses with additional grinding is challenging to support on an economic basis. Since ball mill efficiency begins to decrease at particle sizes below ~50-70 µm, tertiary milling might need to be considered if pursuing ultrafine primary grinding. Adding to this cost is that the Lawyers mill feed materials have been shown to be relatively hard and abrasive. Further minor improvements to precious metal yield with fine grinding would require additional power, and potentially tertiary grinding procedures with equipment such as a tower mill. For Dukes Ridge and AGB this may be more easily justified for further study. Continued investigation into grind is recommended if flotation presented as a processing option moving forward and this would be dependent on source (Mineral Resource Zone) and the expected grade range.

There is minor additional recovery evident even following 32 minutes for bench scale cell retention time for the Cliff Creek Zone master composite, and this is even more evident in the AGB Zone. Finer grinding can assist with reducing the necessary retention time to some degree. When evaluating the detailed data, the correlation between head grade and precious metal recovery is weak. There is a loose correlation to increasing precious metal recovery with higher sulphur content and recovery. Although this relationship is temporary, and Recovery continues after maximum sulphur recovery is achieved. This is exhibited in Figure 13-5, that shows the bulk sulphur recovery for Dukes Ridge plateaued at approximately 150 µm while gold and silver recovery continued to improve almost linearly with finer grinding to beyond 70 µm. Sulphur float kinetics are also faster than that of precious metals.

In referring to the head assays previously provided there is variable, but considerable, oxidation of the sulphides exhibited in the various composites, which also is a factor to precious metal flotation recovery. For Cliff Creek Zone composites, which had the higher total sulphur grades and lower sulphide oxidation this resulted in greater than 95% sulphur recovery even at the coarsest grinds. Correspondingly, Comp. MCC and other individual Cliff Creek Zone composites had higher precious metal recovery than the other two zones tested. For AGB Zone, the sulphur grade was extremely low at ~0.01% total sulphur, and almost fully oxidized. Correspondingly the AGB Zone material required a finer grind and longer float retention time, while exhibiting lower precious metal recoveries.

Based on the rougher float data, the open cycle cleaning procedures were operated with similar reagent schemes and included some further optimization work. Gravity pre-treatment, extending the bulk float time, and use of regrinding did not appear to significantly benefit the Cliff Creek Zone master composite (Comp. MCC), so these procedures were not applied to the corresponding Cliff Creek sub-composites. The master composite also showed limited benefit from adding a third cleaning stage, so this was not incorporated into the sub-composites, but may be justified depending on head grade.

The composite samples with the lower sulphur content such as those from the AGB Zone, appeared to benefit to a greater extent from enhanced procedures than those composites with higher sulphur content that can occur in other areas of the resource. Consequently, the use of gravity pre-treatment, longer float retention time, additional cleaning, a finer primary grind, and the use of ultrafine regrinding were evaluated. The Dukes Ridge Zone composite incorporated gravity treatment and regrinding, although optimization work on this sample was more limited. While flotation optimization is preliminary, the most applicable procedures with corresponding bulk float results of the individual composites are provided in Table 13-12. A comparison of the second and third cleaner concentrates is provided in Table 13-13.

Table 13-12: Open Cycle Cleaner Flotation (Bulk Float Response)

Test #	Sample ID	Feed	Calc. Hd.	Au Grade (g/t)		Ag Grade (g/t)		Bulk Recovery %	
		P_{80} u	%S(T)	Calc. Hd.	Tail	Calc. Hd.	Tail	Au	Ag
GF20*	Comp. MCC	~75	1.19	0.91	0.07	42.2	4.9	93*	90*
F29	CN6 72-125	72	0.99	0.77	0.07	40.9	5.0	92	90
F30	CN5 113-179	67	2.17	0.58	0.01	51.8	1.7	98	97
F31	CS10 228-330	72	0.79	1.03	0.04	17.6	2.3	96	89
F35	CN25 127-150	43	0.41	2.98	0.27	130	14.7	93	91
F33	CN3 176-195	83	1.39	2.31	0.10	90.1	8.8	97	92
GF25**	AB4 160-214	48	<0.02	0.97	0.17	42.0	31	85*	39*
GF26**	AB1 210-236	59	0.04	2.41	0.42	168	51	86*	75*
GF23***	DR3 98-172	73	0.52	1.07	0.19	37.5	8.0	85*	81*

Notes:
Default conditions are no gravity pretreatment with 32 min rougher flotation time and regrind or scavenging.
*Includes gravity pretreatment.
**AB includes grav. pretreat, extended bulk flt to 40 min (incl 10 min scav.), & used ultrafine regrind of rougher conc.
***DR includes gravity pretreatment & used ultrafine regrind (P_{80}~20u) of rougher concentrate prior to cleaning.
Source: F. Wright Consulting Inc. (2021)

Table 13-13: Open Cycle Cleaner Flotation Data 2nd vs 3rd Cleaner Conc

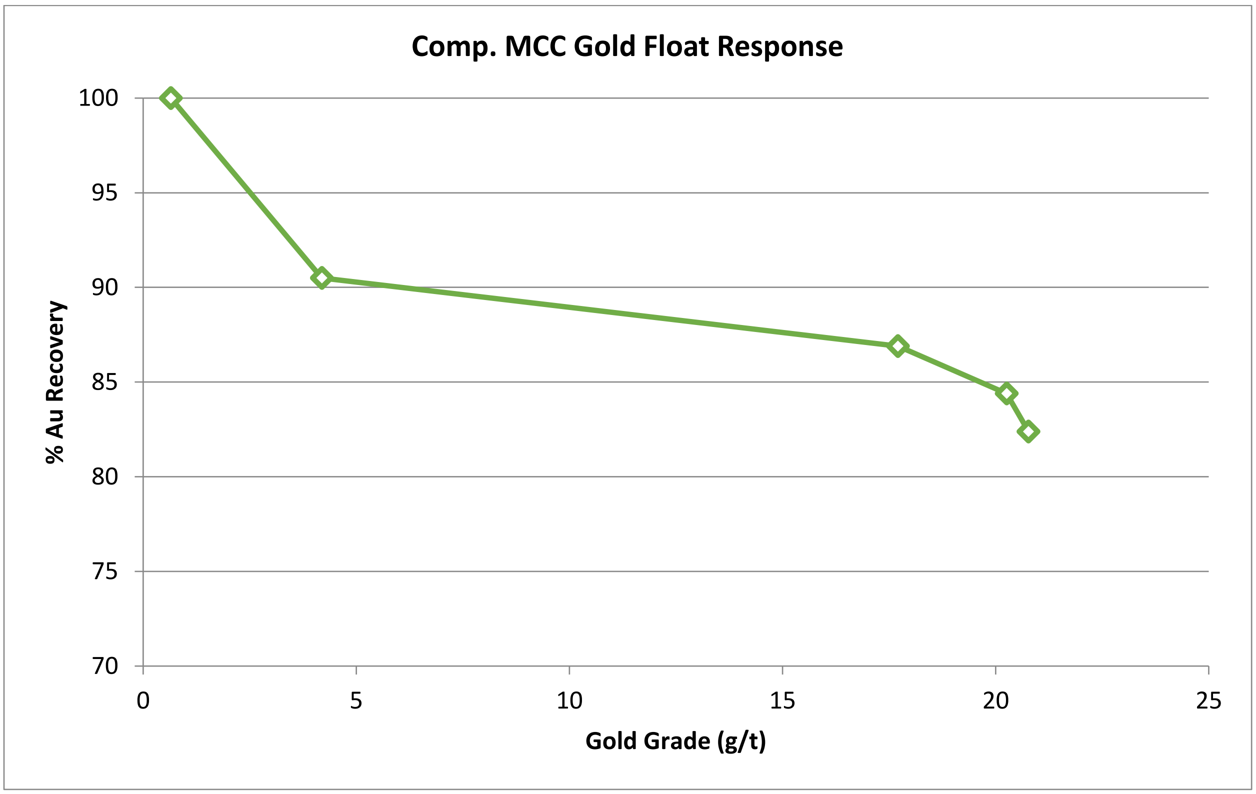
Test #	Sample ID	Regrind	2nd Cl Conc.				3rd Cl Conc.			
		P_{80} u	Mass%	Au, g/t	Ag, g/t	%S	Mass%	Au, g/t	Ag, g/t	%S
GF20*	Comp. MCC	n/a	2.7	20.3	1203	47.4	2.6	20.8	1236	49.3
F29	CN6 72-125	n/a	2.4	25.3	1311	36.6	n/a	n/a	n/a	n/a
F30	CN5 113-179	n/a	4.9	11.5	992	42.6	n/a	n/a	n/a	n/a
F31	CS10 228-330	n/a	2.2	41.1	677	34.1	n/a	n/a	n/a	n/a
F35	CN25 127-150	n/a	1.4	189.5	6209	26.4	n/a	n/a	n/a	n/a
F33	CN3 176-195	n/a	4.2	46.9	1839	31.4	n/a	n/a	n/a	n/a
GF25*	AB4 160-214	12	0.23	238.8	3485	4.37	0.08	622.7	8884	11.5
GF26*	AB1 210-236	14	0.25	640.8	~41420	9.7	0.16	941	n/a	14.1
GF23*	DR3 98-172	20	1.2	38.3	1951	40.7	1.04	40.3	2047.0	43.3

Notes:
*Includes gravity pretreatment.
n/a= not applicable (procedure not performed).
Source: F. Wright Consulting Inc. (2021)

Two stages of cleaning are likely appropriate with the Comp. MCC, although individual intervals at Cliff Creek can benefit from a third stage of cleaning. Both AGB and Dukes Ridge interval composites appear to benefit more from a third cleaning stage in improving precious metal concentrate grade.

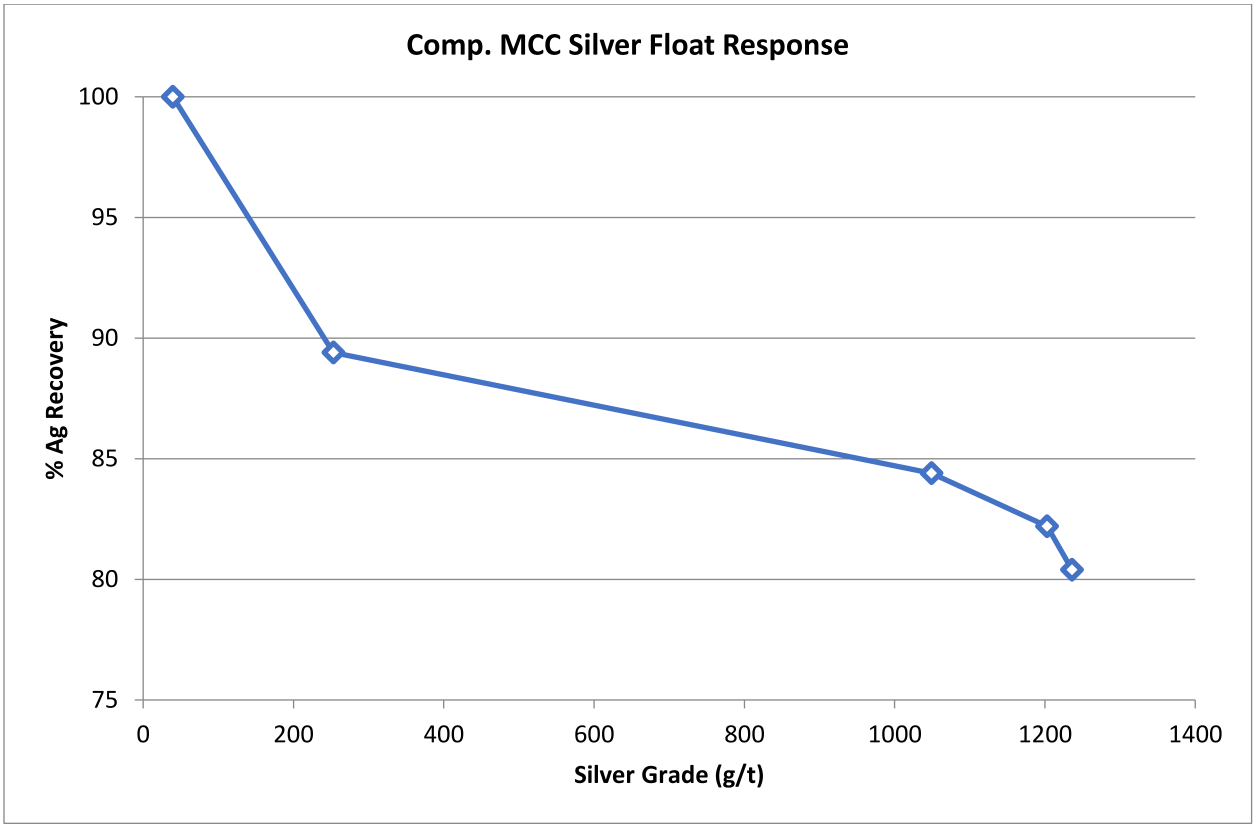
The upgrading of the precious metal content into the final float concentrate is significant owing to the low sulphide content of the feed. Open cycle mass upgrade ratio of greater than 100 to 1 was experienced for AGB, although considerably lower for the higher sulphide composites. The grade verses recovery curve has been provided for Comp. MCC (test G20), which had a calculated feed grade of 0.65 g/t Au and 39.5 g/t Ag on the float feed (gravity tailing). The response is plotted in Figure 13-6 and Figure 13-7 respectively for gold and silver.

Figure 13-6: Comp. MCC - Gravity Tailing Gold Recovery vs Grade



Source: BV Minerals (2020 / 2021)

Figure 13-7: Comp. MCC - Gravity Tailing Silver Recovery vs Grade

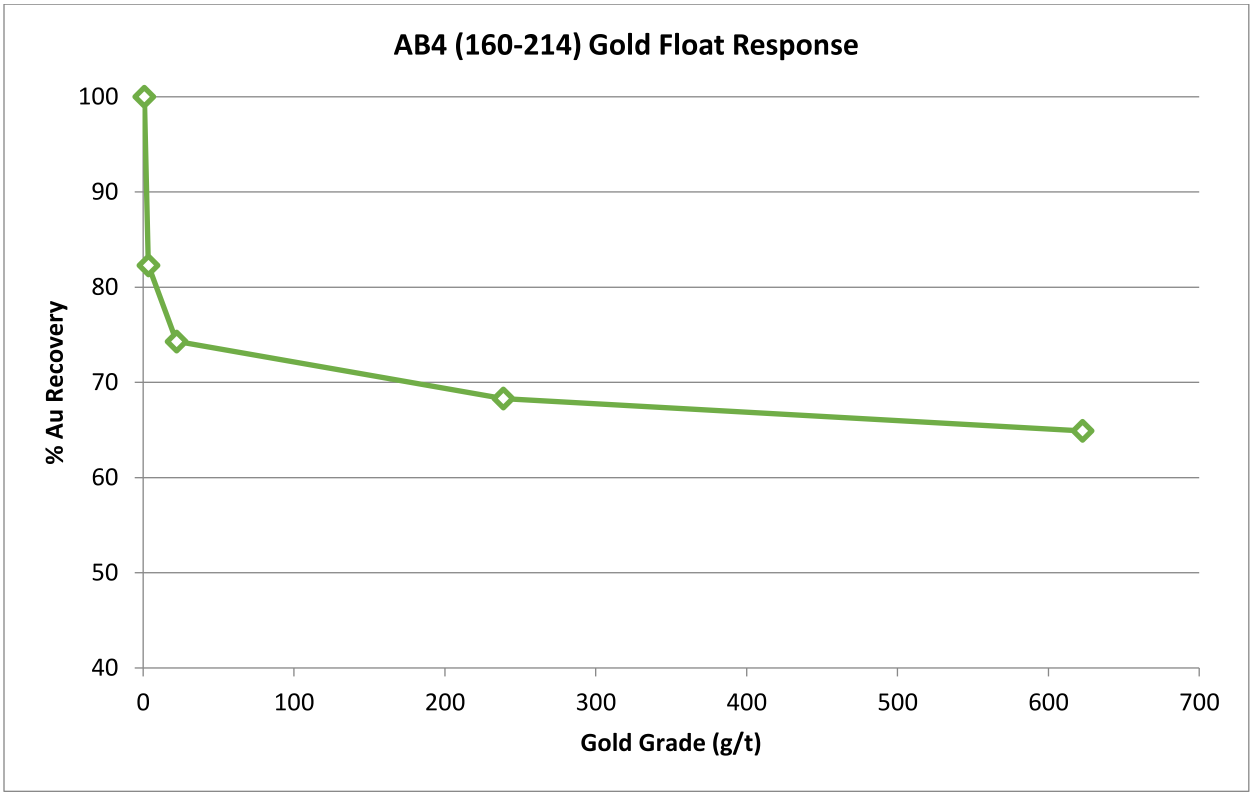


Source: BV Minerals (2020 / 2021)

For the Cliff Creek master composite (Comp. MCC) the data shows that precious metal recovery holds up well with minimal flotation cleaning, and recovery drops off quickly in upgrading past second stage. For gold, this may be critical to the process as it will be difficult to upgrade a similar gravity tailing (0.65 g/t) past 20 g/t in a final concentrate. Higher grade feeds will produce higher grade concentrate, but sulphur content also plays a role. Examination of the response from the single composite obtained from Dukes Ridge (test GF23) with a similar float feed grade has twice the gold grade to the final concentrate. This is in large part due to a significantly lower sulphur content (or higher Au:S ratio) in the feed material.

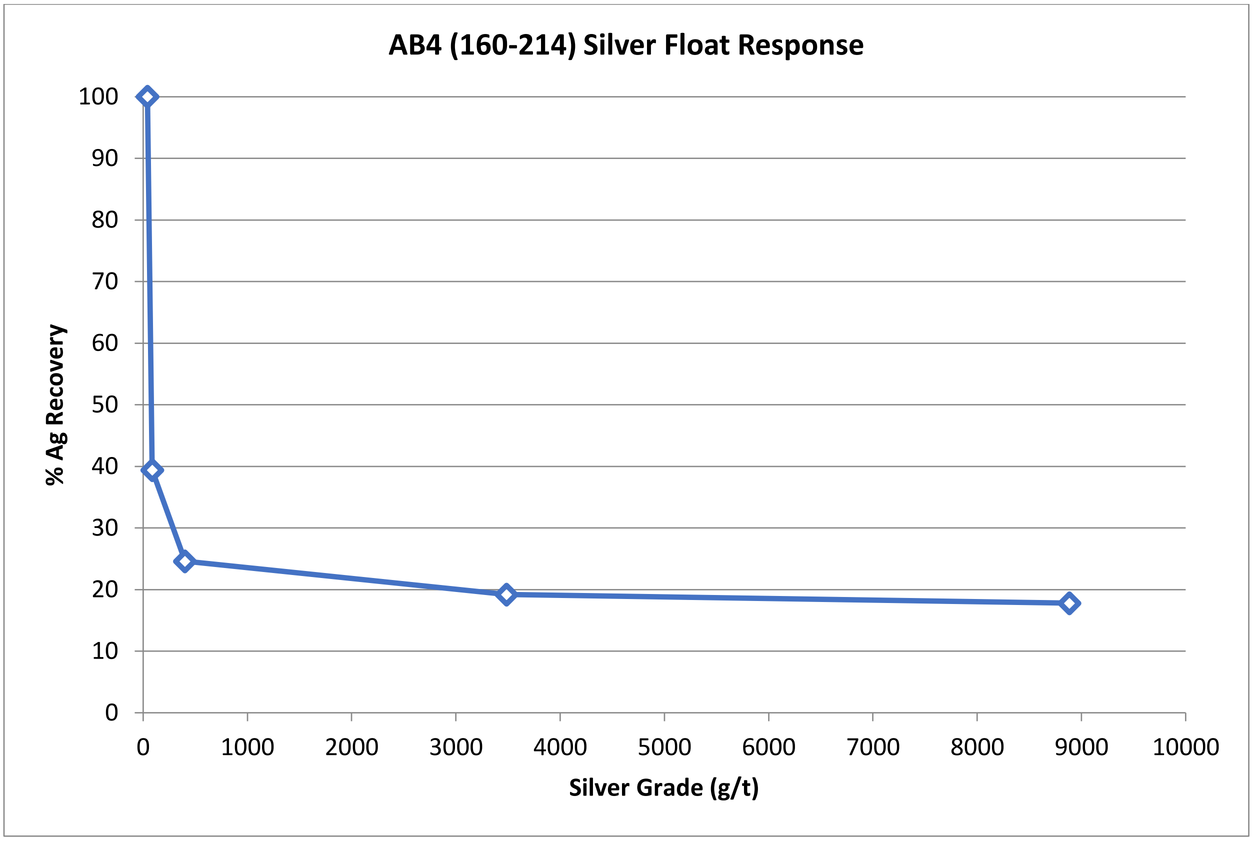
The upgrade ratio is most impressive in AGB which has higher gold grades with the lower sulphur content. However, sulphides are also a more effective carrier in precious metals flotation. AGB has shown more significant precious metal losses than either Cliff Creek or Dukes Ridge, during the rougher float. Once floated into the bulk concentrate, the cleaning losses appear to be minimal. This is shown in the following two figures.

Figure 13-8: AB (160-214) - Gravity Tailing Gold Recovery vs Grade



Source: BV Minerals (2020 / 2021)

Figure 13-9: AB (160-214) - Gravity Tailing Silver Recovery vs Grade

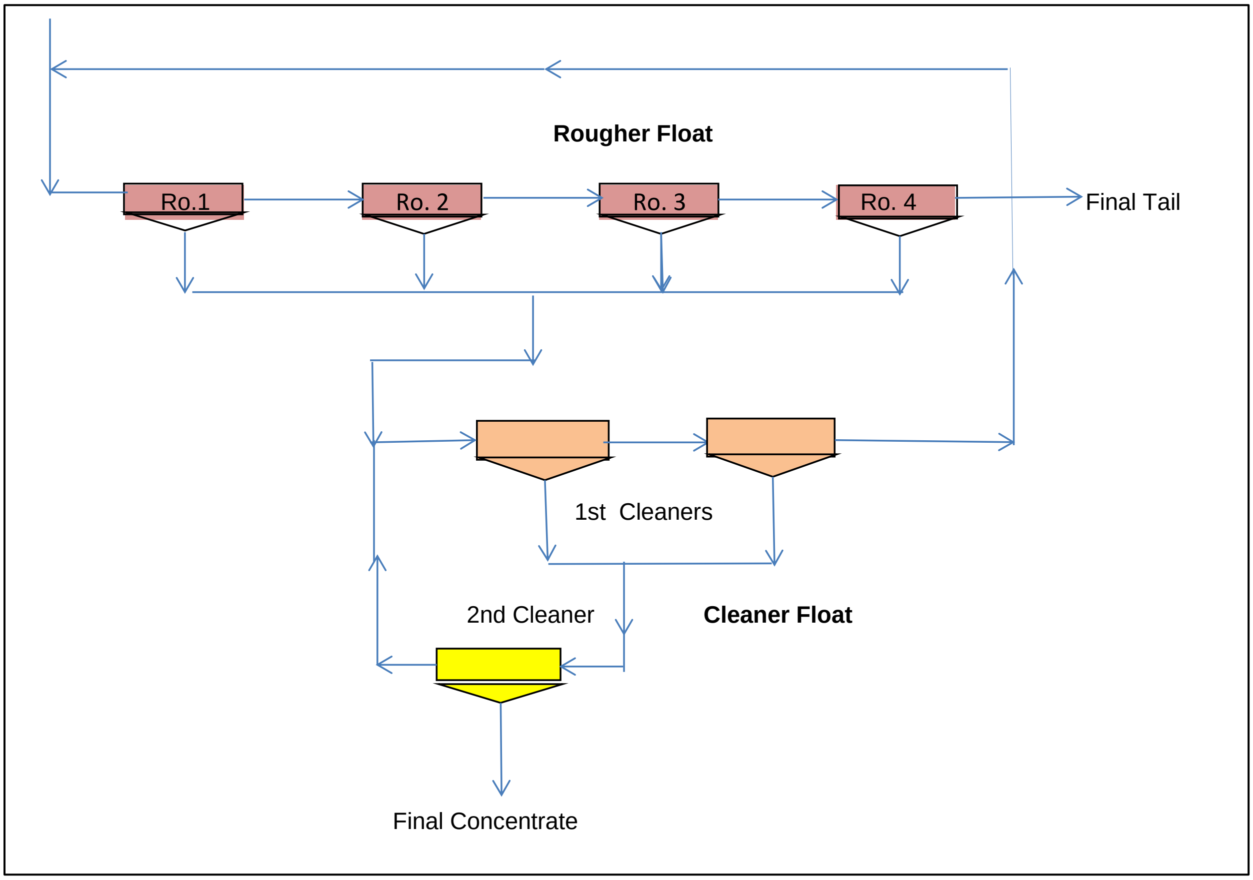


Source: BV Minerals (2020 / 2021)

Upgrading of the AGB Zone material shows a significantly higher concentrate grade, but with lower flotation recovery as compared to the other two zones, particularly for silver. A locked cycle test would be required to determine the flotation response of AGB more accurately in a continuous cleaning circuit.

Confirmation of recovery and final grade to the cleaned concentrate was evaluated with a locked cycle test on the Cliff Creek Zone master composite. The locked cycle test consisted of six cycles with each cycle using a 4 kg batch of feed ground to a targeted P_{80} of 74 µm. Based on the open cycle data, no gravity pre-treatment was incorporated, although it would likely be included in a commercial circuit as higher-grade zones can be expected for some operating periods. The open cycle procedures also suggested recycling of scavenger concentrates could result in losses due to the already extended retention time required. The low sulphide content and resulting mass recovery supported a decision not to recycle a scavenger concentrate, but rather extend the rougher and first cleaner retention times. This procedure did not appear to significantly impede final concentrate grade. While a finer primary grind may slightly improve rougher recovery, the use of regrinding in the open cycle work did not appear to significantly improve the cleaning response, as most precious metal losses were in the bulk float. A schematic of the locked cycle circuit used is provided in Figure 13-10.

Figure 13-10: Locked Cycle Flotation Schematic



Source: F. Wright Consulting Inc. (2021

The results of the locked cycle test are provided in Table 13-14.

Table 13-14: Locked Cycle Flotation Data with Bulk Recovery. Comp. MCC

Stream	Mass	Gold		Silver		Sulphur	
Cycle 6	%Distr.	g/t	%Distr.	g/t	%Distr.	% S(T)	%Distr.
Calculated Head	100.0	0.79	100.0	43.8	100.0	1.21	100.0
Final Tailing	96.2	0.06	7.7	3.6	8.0	0.03	2.1
Final (2nd Cl.) Conc.	3.8	19.1	92.3	1054	92.0	31.0	97.9

Source: F. Wright Consulting Inc. (2021)

The locked cycle results agreed well with the open cycle test data for Comp. MCC, achieving a 2nd cleaner concentrate grade of 19.1 g/t Au and 1054 g/t Au, representing recoveries of 92.3% for gold, and 92.0% silver. The sulphur recovery was 97.8%, with a grade of 31% ST into the final concentrate. The sulphur concentrate grade, suggests a third cleaner stage might be considered, despite an already low mass pull of less than 4%.

Potential detrimental elements present in the final concentrate assayed 679 ppm As, 17 ppm Sb, 25 ppm Cd, 22 ppm Se, 0.148 ppm Hg, 0.04% F and <0.08% Cl. The analyses suggest these elements would not normally be in a penalty range, although that would need to be confirmed with smelter terms. Platinum and palladium were below the detection limit, and base metal elements of Pb, Zn and Cu were each present in the final concentrate at less than 0.2%.

13.2.6 Leaching

The response of the various whole rock composites, and that of the flotation concentrate produced from the Cliff Creek Zone master composite was subjected to cyanide leaching by bottle roll testing. Gravity pre-treatment was usually incorporated prior to leaching for the BV laboratory program, which utilized one stage Knelson™ centrifugal concentration. Some of the bottle rolls focused on timed kinetic response at various feed particle size distributions, while others used carbon in leach (CIL) procedures. However, owing to the high silver to gold ratio of the feed, CIL would likely not be considered for a commercial leach operation. In comparing the data, there was also no indication of a preg robbing effect, or a need to justify the use of activated carbon.

The test results indicated that near complete gold dissolution occurred within 24 to 48 hours, with silver leaching lagging depending on the sample and conditions used

Cyanide concentration at the start of bottle roll testing was conducted at between 1.0 g/L to 2.5 g/L NaCN unless intense cyanidation (IC) procedures were evaluated. Free cyanide concentration was monitored for the duration of the bottle roll test and at its conclusion to determine consumption. The program conditions often initially used the higher cyanide dosage to determine the maximum leach profile and extraction, especially relating to more challenged silver recovery at the AGB Zone. These dosages were lowered in the latter stages of testwork, resulting in consumption of 1 to 2 kg/t NaCN. Protective alkalinity was usually maintained at pH 10.0 to 11.0 with hydrated lime, with some tests evaluating higher pH, occasionally with the use of sodium hydroxide. Lime consumption ranged from 0.1 to 1.5 kg/t Ca(OH)2 depending on the sample and test conditions used. Typically, lime consumption averaged toward the lower end of this range, under moderate conditions of pH ~10.5. Dissolved oxygen was monitored and was typically in a range of 7.5 to 8.5 mg/L, making leaching response unlikely to benefit from pre-oxidation. One set of tests by ALS at a targeted P_{80} of 90 µm included supplemental oxygen sparging and a slightly higher initial NaCN concentration of 2.5 g/L, which did not appear to significantly improve precious metal recovery. Air sparged leach tanks would not be expected to achieve above standard saturation for dissolved oxygen, so the standard test conditions for bottle roll testing did not use supplemental air or O_2 sparging.

Owing to the relatively low head grade and hardness of the material, the optimization testing was usually performed in a range of P_{80} of 90 to 150 µm. Finer grinding to below P_{80} ~125 µm generally showed only a modest benefit to decreasing final tailing losses, again depending on the composite sample. Adjustments to the leach feed particle size will depend on the grade and mineralogy (zone) of a particular sample. More detailed economic evaluation will be required to determine the optimum grind based on these considerations.

A summary of some of the BV Cliff Creek Zone data using CIL with a moderate grind, with a leach retention time of between 32 to 48 hours is summarized in Table 13-15.

Table 13-15: Cyanide Leach (CIL) with Gravity Pre-treatment on Cliff Creek Composites

Composite	Test	Grind	Time	Calc Hd		Tail (g/t)		Grav. Rec. (%)		Total Rec. (%)	
ID	#	P_{80} u	hr	Au	Ag	Au	Ag	Au	Ag	Au	Ag
Comp. MCC	GCIL1	73	48	0.88	43	0.05	5	34.2	6.8	94.4	88
Comp. MCC	GCIL2	132	32	0.80	40	0.06	5	13.6	4.1	92.9	85
CN6 72-125	GCIL7	96	32	0.73	38	0.07	6	10.9	2.3	90.5	84
CN5 113-179	GCIL8	89	32	0.60	52	0.04	4	28.2	12.5	93.4	92
CS10 228-330	GCIL 9	97	32	0.89	14	0.05	4	40.6	4.3	94.7	77
CN25 127-150	GCIL10	124	32	2.06	88	0.12	15	22.5	3.4	94.2	83
CN25 127-150	GCIL12	63	48	3.04	132	0.06	9	21.7	3.8	97.8	93
CN3 176-195	CCIL11	112	32	2.13	87	0.11	15	26.5	2.5	94.7	83

Source: F. Wright Consulting Inc. (2021)

Three lower grade Cliff Creek Zone samples were evaluated by ALS without the use of gravity pre-treatment with the results provided in Table 13-16. This includes evaluation of two samples of larger particle size that was fine crushed and then leached for 7 days.

Table 13-16: ALS CN Bottle roll with No Gravity Pre-treatment on Cliff Creek Composites

Composite	Test	Grind	Time	CN Cons.	Calc Hd		Tail (g/t)		Diss. Rec. (%)	
ID	# 6147-	K80u	hr	kg/t	Au	Ag	Au	Ag	Au	Ag
CC6 (124-130)	03CN*	87	48	1.2	0.11	6.9	0.01	1.9	91.2	73
CC44 (126-134)	02CN*	93	48	1.1	0.46	3.8	0.01	1.9	97.8	50
CC44 (126-134)	07CN**	136	48	0.52	0.47	2.9	0.01	1.2	97.9	59
CC44 (126-134)	05CN	1874	168	1.2	0.51	2.9	0.09	1.5	82.5	48
CS32 (30-36)	01CN*	90	48	n/a	1.17	22.8	0.01	2.2	99.1	90
CS32 (30-36)	06CN**	134	48	0.68	1.05	20.8	0.04	2.5	96.7	88
CS32 (30-36)	04CN	1158	168	0.84	1.03	27.0	0.17	13	84.0	51

Notes:

*Tests 1,2,3 used more aggressive leach conditions including supplemental oxygen sparging, finer grind, and higher initial NaCN (2.5 g/L).

**Tests 6,7 used less aggressive leach conditions no oxygen addition, coarser grind, and initial NaCN 1.5 g/L

Source: F. Wright Consulting Inc. (2021)

The ALS results confirm a gold leach recovery in the mid to upper ninety percent range can be expected for average and even lower grade Cliff Creek composites. Sample CC6 (124-130), which is below anticipated cut-off grades still had a gold recovery of over 90%. Silver recovery was more variable between the samples, likely owing to the larger variation in head grade and with the mineralogy. More aggressive leach conditions including use of sparged oxygen, and a finer grind did not improve recovery for CC44 (126-134), although a minor improvement was noted for CS32 (30-36). Going to a fine crush size of ~10 mesh began to show significant decreases, particularly in gold recovery, which may impact potential for heap or dump leaching of below mill head cut-off grades, although significantly more testing would be required to determine response.

The ALS data which did not use gravity pre-treatment and achieved very low tailing grades, suggests gold recovery holds up well at low grades. It also indicates the final gold recovery does not significantly benefit from gravity pre-treatment, at least for lower grade materials.

One final set of tests on Comp. MCC was conducted by BV at close to the expected optimized conditions, of pH 10.5, P_{80}~108 µm, 48-hour leach retention, after gravity treatment. The variation was for noting the effect of cyanide concentration on leach kinetics, and reagent consumptions. A confirmatory test (GC21) on the use of lead nitrate was also included. Results are presented in Table 13-17.

Table 13-17: Comp. MCC – Precious Metal Recovery vs Cyanide Concentration

Test No	NaCN	Calc. Head		Recovery						Residue Grade		Consumption	
				Gravity	Leach	Overall	Gravity	Leach	Overall			NaCN	Ca(OH)2
	g/L	Au (g/t)	Ag (g/t)	Au (%)	Au (%)	Au (%)	Ag (%)	Ag (%)	Ag (%)	Au (g/t)	Ag (g/t)	kg/t	kg/t
GC18	2.0	0.96	45.4	17.8	75.3	93.0	5.0	77.4	82.4	0.07	8.0	1.69	0.10
GC19	1.5	0.97	46.1	15.6	77.1	92.7	5.0	72.2	77.2	0.07	10.5	1.40	0.12
GC20	1.0	1.04	43.3	18.4	74.0	92.4	4.6	67.6	72.3	0.08	12.0	1.12	0.08
GC21	1.5	0.95	45.2	14.2	78.7	92.9	4.6	77.7	82.3	0.07	8.0	1.36	0.08

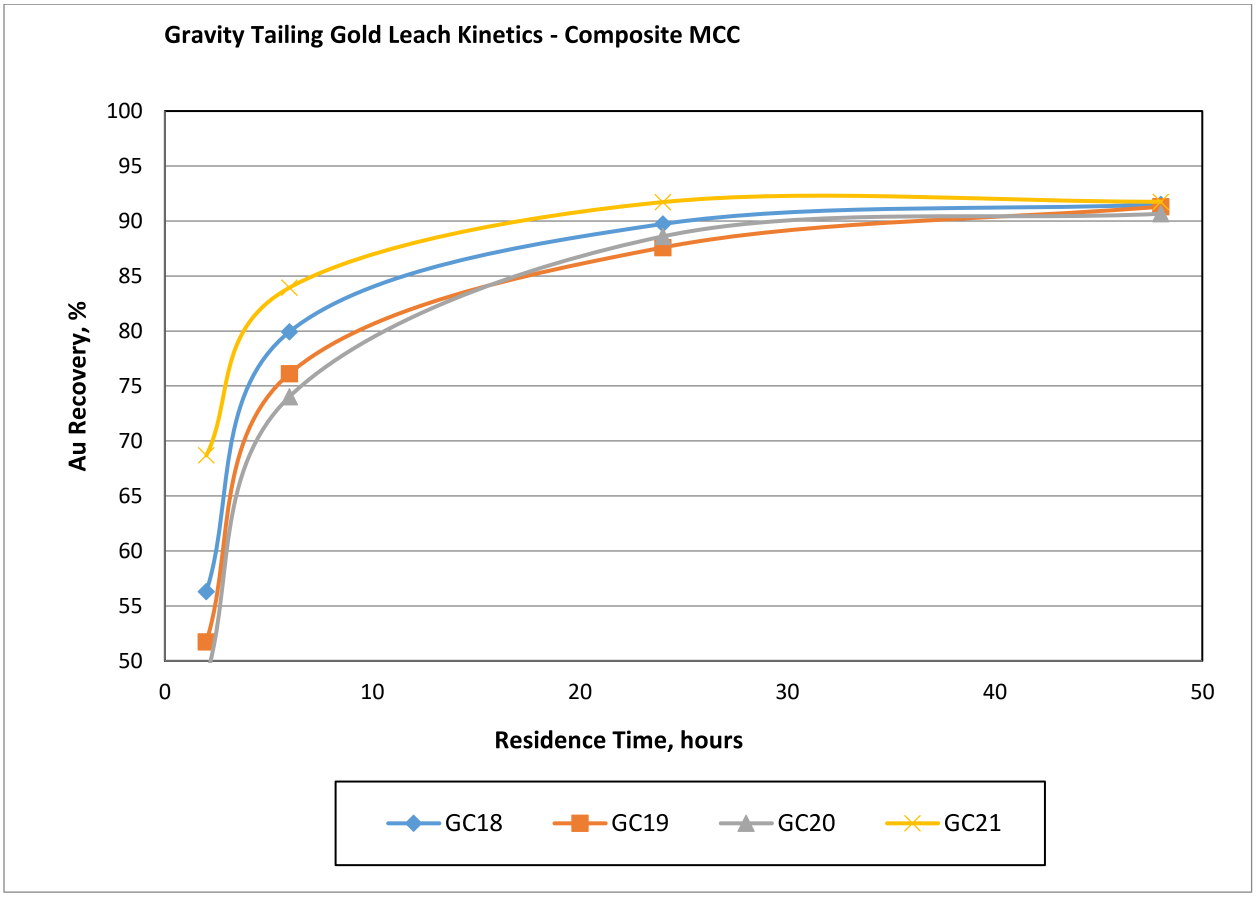
Notes:

*G21 similar to GC19 except use 500 g/t Pb (NO3)2 (lead nitrate)

Source: F. Wright Consulting Inc. (2021)

Under the conditions tested on the Cliff Creek Zone master composites, the use of increased cyanide concentration appears to decrease silver losses by ~4 g/t Ag in leached tailing, and potentially gold losses by 0.01 g/t Au. Further confirmatory work would be required. Along with some earlier data, there appears to be no benefit in the use of lead nitrate on final recovery, although leach kinetics somewhat improve. Looking at the leach kinetic curves most of the precious metals were recovered in 36 hours, as shown in the following figures. Test numbers provided in the key can be coordinated on Table 13-17.

Figure 13-11: Gold Leach Time Vary CN Conc



Source: BV Minerals (2020 / 2021

For the Cliff Creek Zone, as represented by the master composite, the higher cyanide concentration did not improve gold recovery at 48 hours, although there appears be improved gold leach kinetics within the first 30 hours by doubling the cyanide concentration from 1 g/L (in test GC20) to 2 g/L (in Test GC18), although this also increases consumption of NaCN. The lead nitrate (Tests GC21) also improved gold dissolution kinetics for the first half of the leach, although any benefit appeared negated by the end of the test.

The benefits of higher cyanide concentration were more pronounced with silver, with ~10% improvement in recovery by increasing cyanide concentration from 1 g/L to 2g/L NaCN, as shown in Figure 13-12.

Figure 13-12: Silver Leach Time Vary CN Conc

Source: BV Minerals (2020 / 2021

Grind verses leach recovery were also incorporated into the single Dukes Ridge Zone composite. The results are presented in Table 13-18.

Table 13-18: Dukes Ridge Composite (DR3 98-172) – Leach Response vs Grind

Test	Grind	Time	Calc. Hd. (g/t)		Tail (g/t)		Grav. Rec. (%)		Total Rec. (%)	
#	P_{80} u	hr/type	Au	Ag	Au	Ag	Au	Ag	Au	Ag
GC2	145	96 CN	0.79	36.6	0.05	4	13.4	4.6	94.3	89
GC3	104	96 CN	0.84	39.5	0.04	4	15.6	6.0	95.1	90
GC4	70	96 CN	0.84	36.6	0.03	3	23.8	7.1	96.1	92
GCIL3	139	32 CIL	1.11	34.7	0.06	5	38.1	6.0	94.3	86

Source: F. Wright Consulting Inc. (2021)

The results show a similar recovery to that of the Cliff Creek Zone master composite with slightly lower losses in the leached tailing for both gold and silver. This provides for a gold recovery in the mid ninety percent range, and silver recovery of about 90% dissolution being achieved at a somewhat coarser grind than for the Cliff Creek Zone. The use of CIL verses whole "ore" leach was similar, indicating that preg robbing is also not evident for this composite. However, this data only represents a single composite sample for the entire zone and further variability testing is required as the project moves forward.

For the two AGB composites most optimization work was performed on AB4 (160-214), with two tests performed on AB1 (210-236). An investigation into grind, leach time and reagent conditions were undertaken. The results are provided in Table 13-19.

Table 13-19: Cyanide Leach on 2 AGB Composites

Sample	Test	Grind	Time	Calc Hd		Tail (g/t)		Grav. Rec. (%)		Total Rec. (%)	
	#	P_{80} u	hr/ type	Au	Ag	Au	Ag	Au	Ag	Au	Ag
AB4 160-214	GC6	150	96 CN	1.20	44.7	0.04	21	15.8	0.9	97.0	53.0
	GC7	108	96 CN	1.04	45.3	0.04	20	15.1	0.9	96.6	55.9
	GC8	71	96 CN	1.35	44.1	0.03	18	20.5	0.9	98.0	59.2
	GC14	52	96 CN	1.12	45.8	0.03	18	18.2	1.5	97.5	60.7
	GC15	52	96 CN + Pb(NO3)2	1.17	45.9	0.04	19	20.7	1.2	96.7	58.6
	GC16	72	24 IC	1.08	44.6	0.04	19	20.2	1.4	96.8	57.5
	C17	34	48CN highpH+NaCN	1.14	43.3	0.02	16	n/a	n/a	98.6	63.0
	GCIL4	141	32 CIL	0.89	44.3	0.05	21	6.1	0.9	94.0	52.6
AB1 210-236	GCIL5	200	32 CIL	2.19	165	0.17	50	8.5	2.6	92.3	67.9
	GCIL6	96	48 CIL	2.48	165	0.09	32	13.8	2.6	96.2	80.6

Source: F. Wright Consulting Inc. (2021)

The data indicates that the two AGB Zone samples have a variable response. For AB4 (160-214) the gold recovery is fairly forgiving to various leach conditions including the feed grind. Tailing grades are consistently between 0.03 and 0.05 g/t Au. From the kinetic data, most of the dissolution is within 24 to 48 hours resulting in excellent gold recoveries of 96% to 98%. More aggressive conditions did not appear to significantly improve recovery. For AB1 (210-236) the material is higher grade and appears harder as the initial grind was coarser than targeted. At P_{80} 96 µm the gold recovery was 96%, after 48 hours of leaching.

For the AGB Zone the silver recovery is lower and more variable than either Cliff Creek or Dukes Ridge Zones. For AB1 (210-236) the silver recovery was the higher of the two AGB Zone samples tested. Much of this might be attributed to the higher head grade, as leach tailing losses remained elevated.

For a lower-grade bulk mining of the AGB Zone, the kinetic leach curves show the majority of the silver dissolution is within 36 hours, although it continues to increase on a diminished basis. The primary grind appears to have a limited effect within a typical ball mill product particle size range. For composite AB4 (160-214), if using 32-hour leach test GCIL4 80% passing particle size of 141 µm as a base line, the silver recovery is 53%, with 21 g/t Ag tailing. Several scoping procedures at BV were undertaken to attempt to improve silver recovery on this sample, although these showed limited improvement. The use of lead nitrate, finer grinding, or an extended leach time resulted in minimally lowering the tailing grade to ~18-20 g/t Ag in leach tailing. Test (GC16), using a combination of intense cyanidation (IC) with 20 g/L NaCN and an oxidative leach aid (GoldiLOX^{TM}) at a finer grind (P_{80} ~74 µm) for 24 hours, resulted in a tailings grade of 19 g/t Ag. Test (GC17) used a combination of higher cyanide concentration (5 g/L), ultrafine grinding (P_{80} ~34 µm), use of lead nitrate, with high lime (pH>12) for 48 hours, providing for silver tailing grade of 16 g/t Ag. The most aggressive of these procedures can at best be expected to give a potential 5% to 20% improvement to silver recovery, and less than 2% to gold recovery. Design details such as Mineral Resource life, blended grade (between zones) in the mill feed would be required to determine if any of these procedures, including more aggressive treatment of a flotation concentrate is worthy of further investigation as related to improving the potential economic benefit of the project.

As with Table 13-18 shown above for Comp. MCC, a follow-up study was conducted by BV, which investigated the role of initial cyanide concentration for AGB Zone gravity treated material. This study was performed on a 50:50 blend ratio of two original AGB Zone composited materials received for the test program. Test conditions were pH 10.5, targeted P_{80}~106 µm, with 48 hours leach retention. This new master composite was labelled as Comp. MAB and resulted in a head grade~2 g/t Au & 105 g/t Ag. This study was to better determine reagent consumption, precious metal recovery, and future effluent detoxification parameters under the preliminary proposed leach conditions for the AGB Zone. An auxiliary test looked at the effect of high pH using sodium hydroxide. Results are presented in Table 13-20.

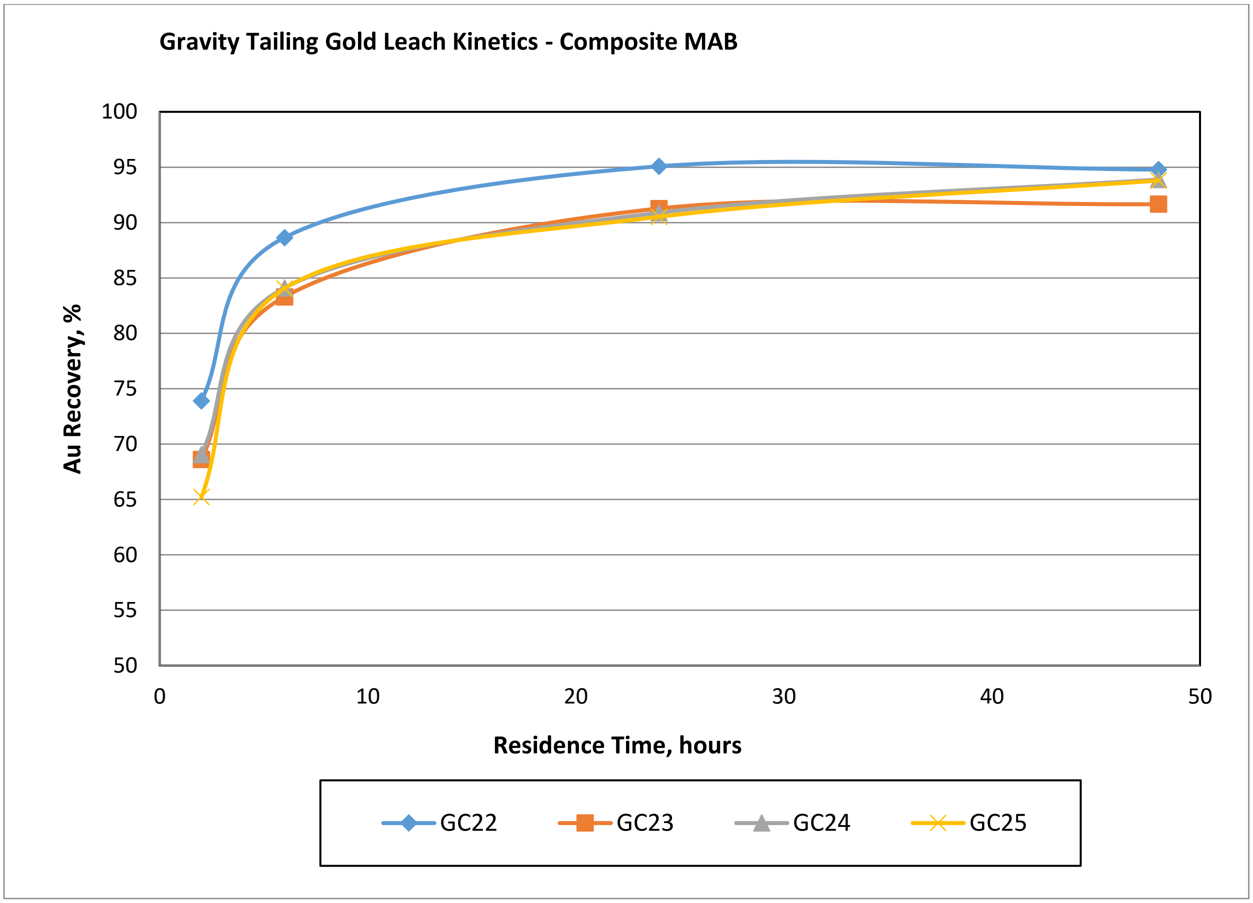
Table 13-20: Comp. MAB (AGB Zone) – Leach Response to Cyanide Concentration

Test No	NaCN	Calc. Head		Recovery						Residue Grade		Consumption	
				Gravity	Leach	Overall	Gravity	Leach	Overall			NaCN	Ca(OH)2
	g/L	Au (g/t)	Ag (g/t)	Au (%)	Au (%)	Au (%)	Ag (%)	Ag (%)	Ag (%)	Au (g/t)	Ag (g/t)	kg/t	kg/t
GC22	2.0	1.87	107	10.4	84.9	95.3	3.4	61.6	65.1	0.09	37.5	1.81	0.10
GC23	1.5	2.00	108	11.1	81.5	92.6	3.2	57.6	60.8	0.15	42.5	1.50	0.10
GC24	1.0	1.93	110	13.5	81.2	94.7	3.3	50.0	53.3	0.10	51.5	1.11	0.09
GC25 at pH >12.5 with NaOH	1.5	1.90	116	9.9	84.5	94.4	3.0	65.8	68.8	0.11	36.0	0.40	3.03 (NaOH)

Source: F. Wright Consulting Inc. (2021)

As with the testing on separate AGB Zone samples, the gold recovery was shown to be excellent, while the silver is more challenged. The use of higher pH with NaOH appear to benefit silver extraction and reduce cyanide consumption. With the test numbers correlated to the cyanide concentration from Table 13-20, the dissolution rates are provided in Figure 13-13 and Figure 13-14 for gold and silver, respectively.

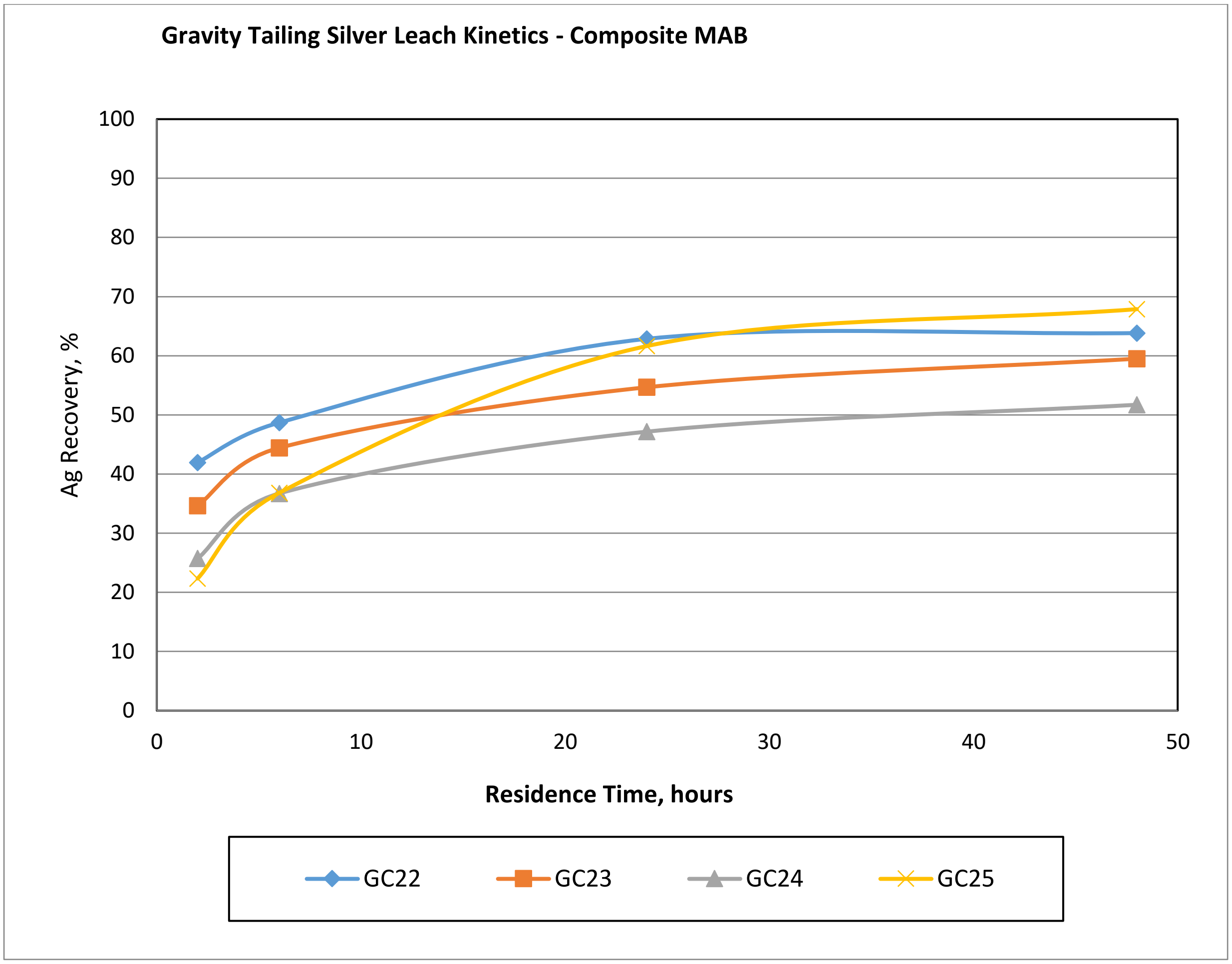
Figure 13-13: Gold Leach Time Vary CN Conc



Source: BV Minerals (2020 / 2021

The gold leach curves for the AGB Zone suggest that the higher cyanide dose of 2 g/L (Test GC22) improved leach kinetics, as compared to lower doses, although by 48 hours retention time the final recovery was similar. The use of caustic at a higher pH showed no appreciable difference to gold dissolution.

Figure 13-14: Silver Leach Time Vary CN Conc

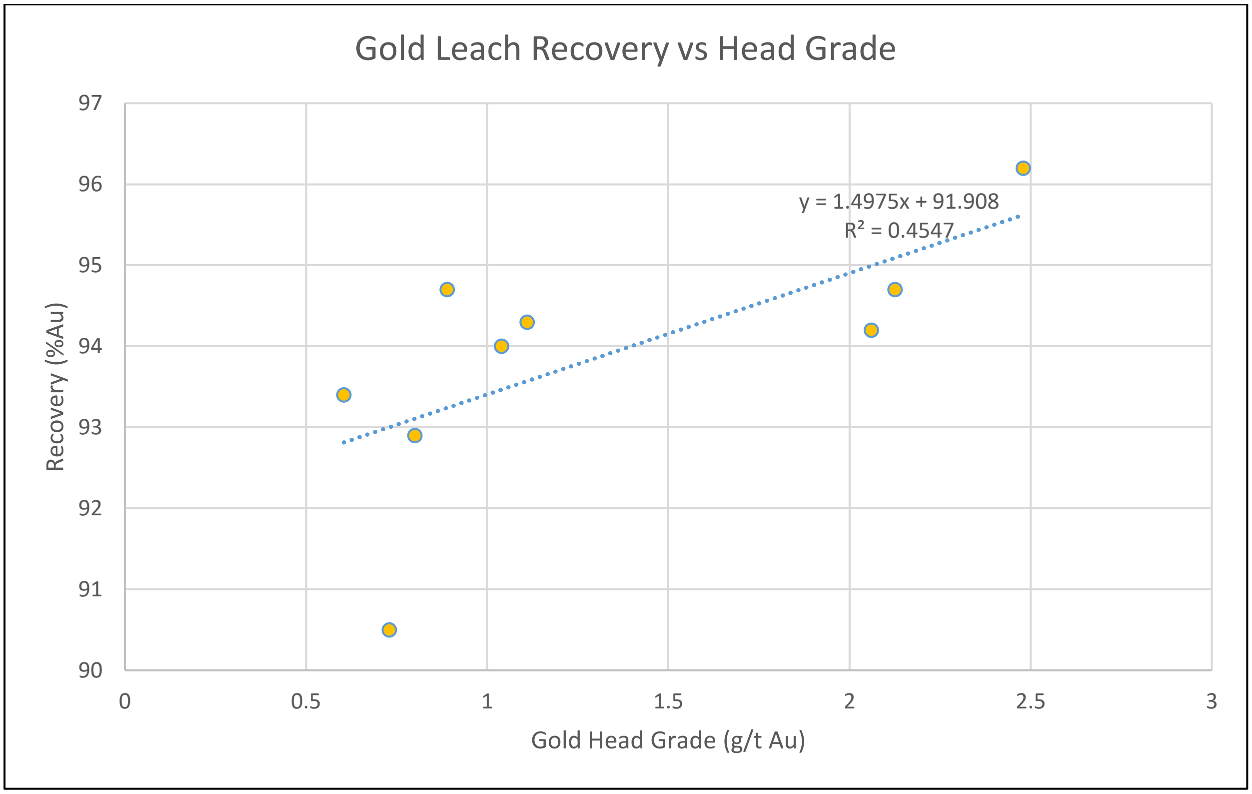


Source: BV Minerals (2020 / 2021

For silver, the AGB Zone response showed leaching rates and final recovery could be improved with higher cyanide concentration during the leach. Results indicated that for the Comp. MAB sample approximately 12% improvement in silver recovery was obtained by doubling NaCN from 1 g/L (test GC24) to 2 g/L (test GC22). Depending on silver head grade to the mill, a higher initial cyanide concentration during the leach may therefore be warranted. Test GC25, using caustic soda with an elevated pH, showed lower silver tailing losses, which may warrant further investigation.

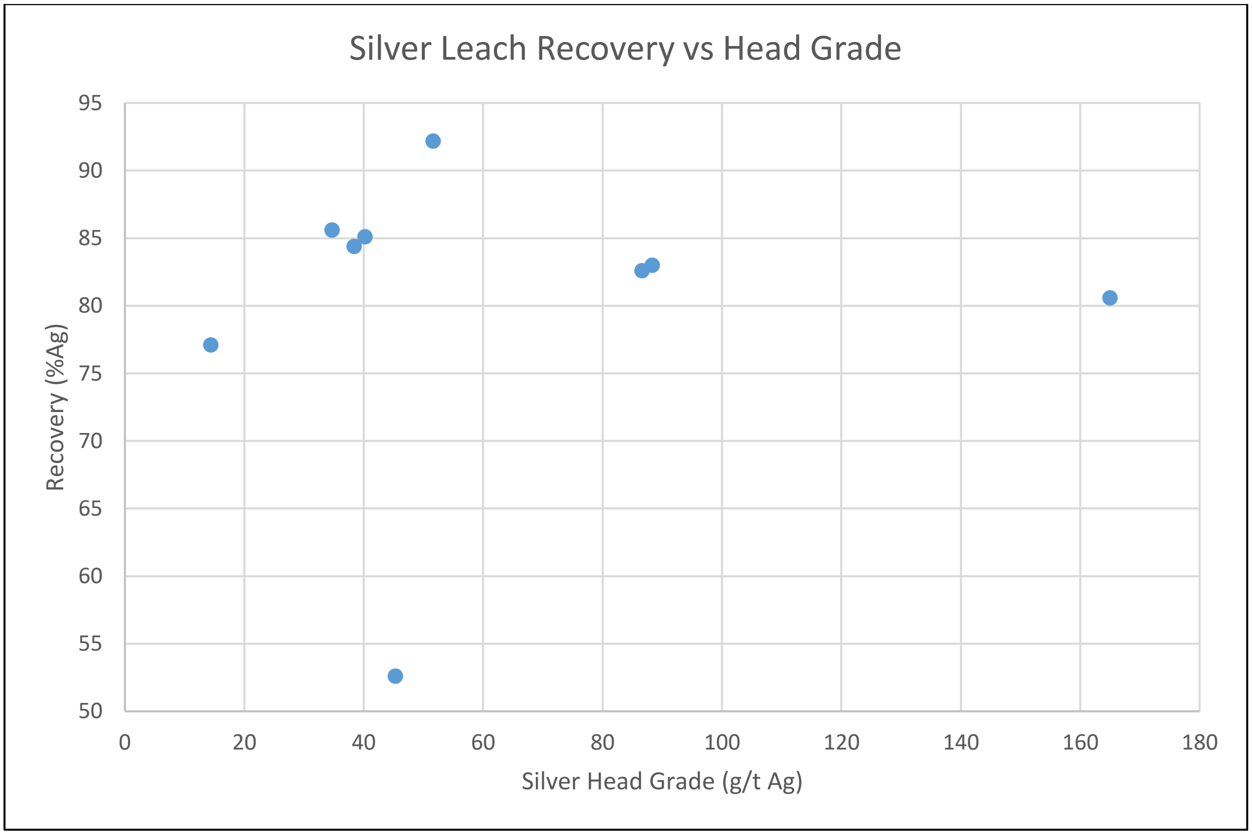
Gold leach recoveries are good to excellent on a wide range of head grades, whereas silver recovery is more variable. Trends for establishing precious metal leach recovery on a preliminary level are difficult to establish, due to the limited number of variability tests performed based on available samples, and mineralogical differences between Mineral Resource zones. Using the testwork from most of the composite samples available (which are primarily from Cliff Creek) and assuming moderate leaching conditions for reagents, grind, and retention time the gold and silver recovery obtained were plotted against respective head grades. These are presented in Figure 13-15 and Figure 13-16.

Figure 13-15: Gold Leach Recovery vs Head Grade



Source: F. Wright Consulting Inc. (2021)

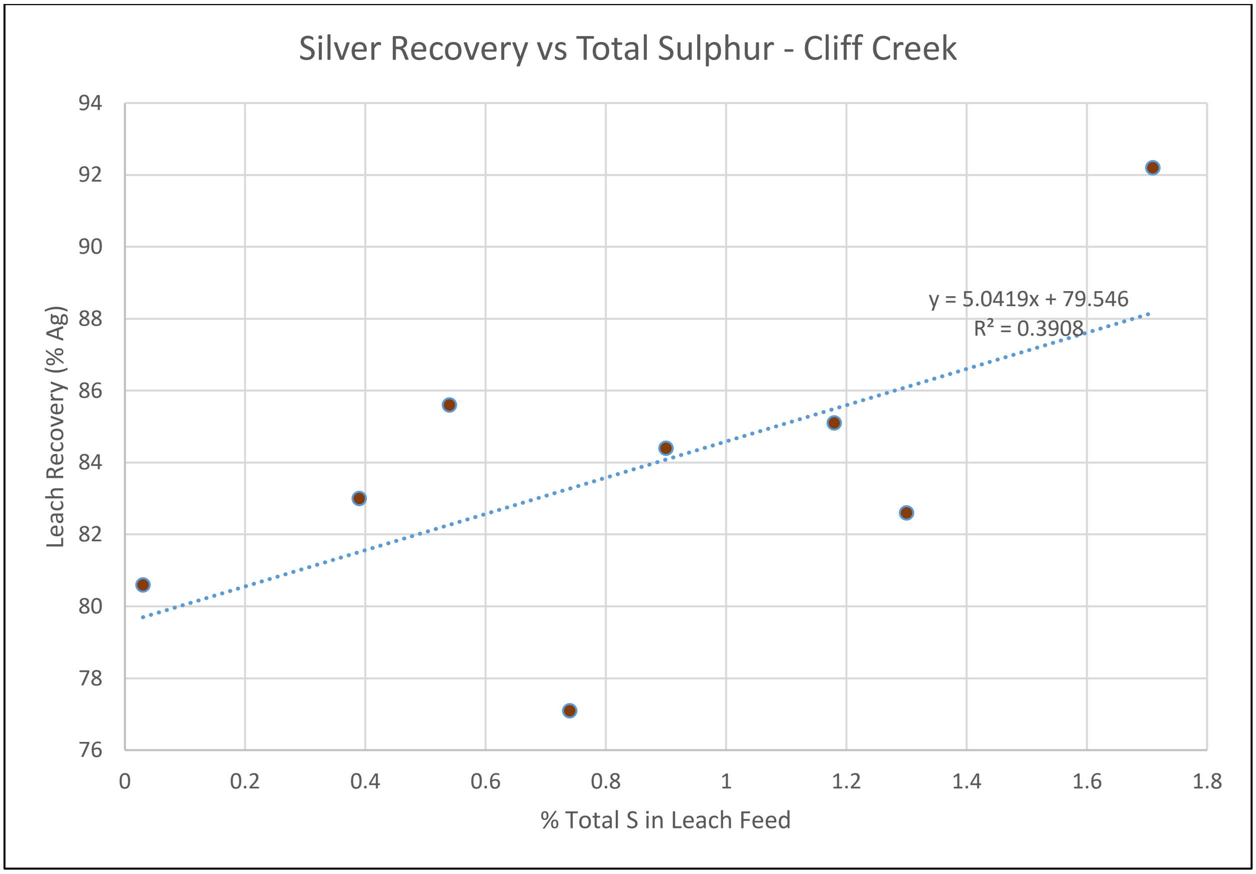
Figure 13-16: Silver Leach Recovery vs Head Grade



Source: F. Wright Consulting Inc. (2021)

While there is a weak correlation between gold recovery verses the gold content in the feed sample, the same is not indicated for silver. Additional mineralogical evaluation along with leach testing on zone specific samples should provide enhanced correlations of silver recovery to head characteristics. A better, although still poor, correlation for silver recovery is traced to total sulphur in the feed, although this is not valid for the AGB Zone, since sulphur content is consistently exceptionally low. The sulphur content verses silver recovery for the BV Cliff Creek and Dukes Ridge Zone composites are plotted in Figure 13-17.

Figure 13-17: Silver Leach Recovery vs Total Sulphur Content in Feed



Source: F. Wright Consulting Inc. (2021)

This figure indicates silver recovery improves with increased total sulphur content in the feed. A cursory review of sulphide oxidation did not show a meaningful trend with the recovery of metal values. More data at optimized leach conditions for specific resource zones, metal grades, and mineralogy is required for establishing precious metal recovery trends.

13.2.7 Solid / Liquid, Rheology, ABA

ALS performed some basic physical testing on the whole rock pulp from the Cliff Creek Zone material including settling, vacuum leaf filtration and viscosity and resulted in a filtration rate of 10.2 ml/sec on a filter area of 74.6 cm^2. The resulting filter cake after 49 minutes had a thickness of 1.8 cm and a moisture content of 23%. Cylinder settling tests (unraked) at pH 10.5 followed beaker scoping studies. The best performing settling aid evaluated was indicated to be an anionic flocculant, Superfloc™ A130, which was added at 10 g/t. This produced rapidly settling solids, although with cloudy supernatant. The solid liquid interface inflection point occurred at about 5 minutes, with a final solids content of 57 wt.%, after 30 minutes.

BV performed an initial static settling test and acid base accounting (ABA) on the final cycle tailing from the locked cycle flotation test performed on Comp. MCC. After flocculant beaker evaluation a combination of synthetic settling aids was used for preliminary settling evaluation. Reagent dosage was not optimized, but showed good floc characteristics, although the supernatant retained some turbidity. The initial settling rate was 14.2 m/h and resulted in a calculated thickener area of 0.07 m^2 / t/d solids based on the modified Coe and Clevenger method for thickener area analyses.

This was followed up during supplemental evaluation by BV for settling of the whole rock from Comp. MCC. Addition of settling aids was similar to what had been used for the flotation tailing. After 24 hours the results provide for an ultimate underflow density of 59 wt.% solids at a calculated thickener area (Coe and Clevenger) of 0.04 m^2 / t/d.

The thickened whole rock solids were then slurried and subjected to a vacuum leaf filtration using two different filter clothes. The slurry was adjusted to a feed density of 48 wt. % solids at pH 8.5 to simulate detox slurry discharge. A summary of these results is presented in Table 13-21.

Table 13-21: Comp. MCC Vacuum (Leaf) Filter Test Response (P_{80} ~106 µm)

Test	Filter Cloth	Solids Capacity	Filter Capacity	% Cake
ID	Type	kg/m²/h	L/m²/h	Moisture
VF1	PROPR-854F	218	183	21.6
VF2	NY330	148	148	25.7

Source: F. Wright Consulting Inc. (2021)

Both filtrates were shown to be turbid and further evaluation is required to improve filtrate quality. The results show that the NY330 cloth provided a higher filter rate, but with a higher resulting cake moisture content.

Acid base accounting (ABA) tests were performed by BV using the modified Sobek procedure, with a single test performed on each of the float tailing and whole rock. Material for both tests were generated from Comp. MCC, with ABA on float tailing reported in the BV August 2020 reporting, and with second ABA on whole rock filter cake in the April 2021 BV report. ABA on the float tailing showed low potential acid generation (PAG) due to virtually all sulphides reporting to the flotation concentrate. No fizz rating was reported, and the net neutralization potential (NNP) was calculated at 39.2 kg $CaCO_3$ /t of sample equivalent. For the whole rock filter cake with pH adjusted to 8.5 to simulate detox leach tailing the NNP = 14.8 kg $CaCO_3$ /t.

13.3 Assumptions and Recovery Estimate

The PEA laboratory testing programs undertaken in 2020 and 2021 were the first known investigations into a lower grade, bulk tonnage processing scenario for the Lawyers Project. The testwork showed that flotation and /or cyanide leaching can be considered for this project. A decision on whether to pursue flotation or leaching was made in an internal Benchmark Metals trade-off study based on the Mineral Resource model and metallurgical data available to early May 2021. The trade-off suggested whole rock leaching to be the preferred option, based on both technical and economic considerations. A primary consideration in selecting the leaching approach was the uncertainty of producing a flotation concentrate of consistently high enough gold grade to meet acceptable smelter term requirements. Precious metal recovery with flotation was also more variable, particularly with low sulphide feeds.

Gravity pre-treatment is expected to typically contribute a minor portion of total gold and silver recoveries, although should be included in circuit design. High grade intervals of mill feed will provide a more elevated recovery to the gravity circuit, and overall reduce required leach retention time. Based on the PEA metallurgical testing, the preferred process approach is whole rock cyanide tank leaching and Merrill Crowe, with gravity pre-treatment. Therefore, future metallurgical testwork is being directed based on this flowsheet. Further metallurgical testing towards feasibility was initiated in late 2021 and is expected to be concluded by mid-year 2023.

Two principal resource areas were evaluated, consisting of the AGB Zone, and the Cliff Creek Zone, which included a sample from Dukes Ridge. The preliminary testing indicates relatively consistent gold leach dissolution recoveries of over 90%, with significant variability in silver recovery between and within these zones. Projected variation in mill head grades or sulphide content do not appear to be strongly correlated to precious metal recovery.

Based on leach optimization test data the assumed standard base line process conditions are for using a grind of P_{80} of 106 µm, with gravity pre-treatment using centrifugal concentration and IC of the resulting concentrate. Gravity tailing would be subjected to 32 hours of aerated tank leaching retention, (along with further retention time in CCD), while maintaining 1.5 g/L NaCN at pH 10.5 in the leach circuit.

The following precious metal recoveries, as compared to the head grade range of composite samples tested for each of the two principal resource zones are;

- The Cliff Creek Zone (with Dukes Ridge) had gold dissolution recovery ranging from 91% to 97% on head grades of 0.46 g/t to 3.04% g/t Au. The corresponding silver recovery ranged from 50% to 92% on head grades of 3.8 g/t to 39.5 g/t Ag. Average LOM recovery, including downstream process losses is estimated to be 92.5% for gold and 83.0% for silver at the Cliff Creek Zone; and

- The AGB Zone had gold dissolution recovery ranging from 92% to 97% on head grades of 1.29 g/t to 2.19 g/t Au. The corresponding silver recovery ranged from 53% to 68% on head grades of 44 g/t to 165 g/t Ag. Average LOM recovery, including downstream process losses is estimated to be 92.1% for gold and 60.6% for silver at AGB.

The preliminary metallurgical evaluation focused on optimization testing, followed by variability testing on the Cliff Creek Zone (including Dukes Ridge), and consisted of testing nine composite samples, and the smaller AGB resources based on two composite samples.

14 MINERAL RESOURCE ESTIMATE

14.1 Introduction

The Mineral Resource Estimate (MRE) herein is based upon the historical drilling and drilling conducted by Benchmark between 2018 and 2021 and supersedes all the prior Mineral Resource Estimates for the Lawyers Project. Previous historical Mineral Resource Estimates are discussed in the Section 6 of this Technical Report and are all considered historical in nature and should not be relied upon.

This Technical Report section details an updated NI 43-101 MRE completed for the Lawyers Project by Mr. Warren Black, M.Sc., P.Geo. of APEX Geoscience Ltd. (APEX) of Edmonton, Alberta, Canada under the direct supervision of Mr. Eugene Puritch, P.Eng., FEC, CET of P&E Mining Consultants Inc. (P&E) of Brampton, Ontario. Mr. Eugene Puritch is an independent Qualified Person as defined in NI 43-101 and takes responsibility for the MRE and Section 14 herein. Brian Ray, P.Geo. of P&E visited the property on July 5 to 8, 2022, and reviewed core from the 2020 to 2021 drill program completed by Benchmark, as discussed in Section 12.7.

The workflow implemented for the calculation of the 2022 Lawyers Project MRE was completed using Micromine™ commercial resource modelling and mine planning software (v.22.0) and Resource Modelling Solutions Platform™ (RMSP; v.1.8.10). Supplementary data analysis was completed using the Anaconda Python distribution and a custom Python package developed by Mr. Black and Mr. Mr. Tyler Acorn, M.Sc., both of APEX.

The drill hole database was validated by APEX geologists under the supervision of Mr. Puritch, as summarized in Section 12. In the opinion of Mr. Puritch, the current Lawyers Project drill hole database is deemed to be reliable and suitable for use in ongoing Mineral Resource estimation.

Mineral Resource modelling was conducted in the UTM coordinate system relative to the North American Datum (NAD) 1983, and UTM zone 9N (EPSG:26909) The Mineral Resource block model utilized a selective mining unit (SMU) block size of 5 m (X) by 5 m (Y) by 5 m (Z) to honour the mineralisation wireframes. The percentage of the volume of each block below the top of bedrock surface and within each mineralisation domain was calculated using the 3-D geological models and a 3-D topographic surface model. The gold and silver grades were estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells. Details regarding the methodology used to calculate the MRE are documented in this Technical Report section.

Definitions used in this section are consistent with those adopted by CIM's "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019, and "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10, 2014 and prescribed by the Canadian Securities Administrators' NI 43-101 and Form 43-101F1, Standards of Disclosure for Mineral Projects. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

14.2 Drill Hole Data Description

All drilling and assay data were provided by Benchmark in the form of Excel data files. The drill hole database for this Mineral Resource Estimate consisted of surface and underground drill holes (see Table 14-1). The updated MRE detailed in this Technical Report utilizes an additional 387 (totalling 90,246 m) surface holes drilled in 2019 to 2022 that were not considered in the previous MRE.

Drilling on the Lawyers Project completed by Benchmark illustrates that sampling in historical drilling (pre-2018) selectively sampled zones of intense hydrothermal brecciation (core zone) based on visual logging, sampling only zones that were targeted for underground mining. Benchmark's drilling and infill sampling programs identified significant mineralization outside the core zones, identifying potential Mineral Resources for open pit mining scenarios (mostly in potential bulk zone mineralization). Therefore, historical drilling introduces many unsampled intervals within the grade estimation domains, particularly in bulk zones. Grade estimation domains considered "core zones" include the word "core" in their name. All other grade estimation domains are considered bulk zones. Infill drilling during 2021 by Benchmark has greatly reduced the dependence on historical drill holes and the number of intervals requiring nominal background values to be inserted.

APEX evaluated each historical drill hole and determined the percentage of samples collected within their intersections with the bulk and core zone grade estimation domains. If a historical drill hole did not sample 70% or more of its intersection within the core zone, the drill hole is not considered during core zone grade estimation. If a historical drill hole did not sample 70% or more of its intersection within the bulk zone, the drill hole is not considered during bulk zone grade estimation. All other grade estimation domains are considered bulk zones. If a historical drill hole sampled 70% or more of its core or bulk zone intersection, unsampled historical intervals are assigned a nominal background gold and silver value for Mineral Resource grade estimation.

In total, 41,840.5 m of drilling intersects the grade estimation domains, of which 479.83 m (1.1% of the total) is historical unsampled intervals that are assigned a nominal background value. Any unsampled intervals in the drill hole completed during and after 2018 that are not due to insufficient recovery are assigned nominal waste values.

Table 14-1: Lawyers Property Drill Hole Summary

Zone Name	Drill Hole Type	Year Drilled	Number of Drill Holes	Total Metres
Cliff Creek	New Surface	2019-2022	197	50,977
	Previous Surface	1975-2020	322	76,054
	Total	1975-2022	519	127,031
Dukes Ridge - Phoenix	New Surface	2020-2022	86	18,471
	Previous Surface	1983-2020	154	18,349
	Previous Underground	1992	12	470
	Total	1983-2022	252	37,290

Zone Name	Drill Hole Type	Year Drilled	Number of Drill Holes	Total Metres
AGB	New Surface	2020-2021	104	20,797
	Previous Surface	1974-2020	171	29,584
	Previous Underground	1982-1985	57	3,476
	Total	1974-2021	332	53,857
Overall Total	New Surface	2019-2022	387	90,246
	Previous Surface	1974-2020	647	123,986
	Previous Underground	1982-1992	69	3,946
	Total	1974-2022	1,103	218,178

Source: APEX (2022)

14.2.1 Data Verification

The Authors of this Technical Report section (the Authors) validated the Mineral Resource database in GEMS™ by checking for inconsistencies in analytical units, duplicate entries, interval, length or distance values less than or equal to zero, blank or zero-value assay results, out-of-sequence intervals, intervals or distances greater than the reported drill hole length, inappropriate collar locations, survey and missing interval and coordinate fields. A few errors were identified and corrected in the database. The Authors consider the supplied database suitable for Mineral Resource estimation.

14.3 Grade Estimation Domain Interpretation

Grade estimation domain modelling was an iterative process utilizing many geological inputs. Several modelling geologists intricately familiar with the Deposit provided input and review through various stages of grade estimation domain modelling. The critical inputs used to define the boundaries and orientation of the grade estimation domains are:

- Drill hole logging of breccia zones, veining, alteration, lithology, and mineralisation domains;
- Structural models that are built using logged faults, orientation measurements and surface measurements; and
- Gold and silver assays.

Mineralisation at the Lawyers Project is primarily associated with fault breccias, hydrothermal breccias, quartz veining, potassic alteration, and silicification. Additionally, mineralisation can be associated with epidote alteration, minor veining and hematite veinlets or fractures in specific zones. Drill hole logging completed at the Lawyers Project since 2018 has captured a feature called mineralisation domains. Each mineralisation domain is defined by a combination of mappable geological characteristics associated with mineralisation. The resulting mineralisation domain logging can be plotted in 3-D and allows visualization of mineralised orientation and spatial extent.

Faults trending NW and WNW control mineralisation at the Lawyers Project, which reflects the original volcanic basin geometry. The faults are typically syn-mineralised. Often the intersection lineation of two fault plans will define the orientation of a plunging high-grade shoot. APEX built 3-D fault models using 2018-2022 oriented core drilling data.

Modelling geologists assign mineralised intervals to a specific grade estimation domain code to create the grade estimation domains using the logging features described above, fault models, gold and silver assays, and drill core photos. The primary goal is to ensure a single grade estimation domain connects similar style mineralisation and honours structural and geological controls on their orientation and spatial continuity. Intervals that are not mineralised are categorized as waste.

Grade estimation domain wireframes are created using implicit modelling using the grade estimation domain coding. The initial models are peer-reviewed by multiple geologists, and the grade estimation domain coding is adjusted as needed. The grade estimation domain interval editing, modelling, and the peer-review process is iterated until the final grade estimation domains are created.

The mineralisation and void wireframes were interpreted and constructed by APEX and the Authors reviewed the wireframes. The Authors consider the wireframes suitable for Mineral Resource grade estimation.

Areas with historical mining excavations were wireframed by APEX and block volumes were depleted from the Mineral Resource Estimate. Topographic and overburden surfaces were created by APEX. All mineralisation wireframes were clipped above the top of bedrock surface.

Grade estimation domains across the Lawyers Project can be grouped based on their geological characteristics, style of mineralisation, and location. Table 14-2 to Table 14-4 illustrates the grouping utilized for both grade capping and grade estimation. Grade capping levels are determined by evaluating grouped domains ("capping group") that illustrate similar mineralisation styles to ensure sufficient composites to detect outliers. Robust experimental variograms can only be derived for grade estimation domains that contain sufficient data. Therefore, grade estimation domains are grouped ("estimation group") with the most representative variogram.

Table 14-2: Cliff Creek Grade Estimation Domain Descriptions and Grouping

Mineral Resource Area	Grade Estimation Groups	Capping Groups	Grade Estimation Domains	Description
Cliff Creek	CCM1-core	CCM Main	CCM1-core	Main Cliff Creek zones defined by strong alteration veining and hydrothermal breccia associated with the major NW structural trend.
	CCM		CCM1, CCM2	
	CCN/S	CCMid Minor	CC3, CC4, CC2, CC1	Narrow mineralised bodies, typically occurring as stacked lenses and associated with weaker

Mineral Resource Area	Grade Estimation Groups	Capping Groups	Grade Estimation Domains	Description
				veining and alteration between the CC main zone and south zone.
		CCN Main	CCN3, CCN1, CCW1, CCM2.1, CCM2.3, CCM2.2	Well defined mineralisation typically associated with veining and alteration that follows major structural trends in the main part of the Cliff Creek deposit.
		CCN Minor	CCN10.1, CCN13.2, CCN14, CCN2	Narrow mineralised bodies, typically occurring as stacked lenses and associated with weaker veining and alteration.
		CCN Minor Steep	CCN10, CCN13.1, CCN5, CCN6, CCN4, CCW2, CCN9, CCN17, CCN18, CCN19	Narrow mineralised bodies, which have a steeper orientation than the main trend.
		CCN Minor Steep NW	CCN12, CCN12.1, CCN11	Narrow mineralised bodies, which have a steeper NW orientation.
		CCN North	CCN7, CCN7.1, CCN13, CCN16, CCN8	Mineralisation bodies to the north of the Cliff Creek main zone.
		CCS Main	CCS9, CCS10, CCS11, CCM1-FW, CCS8	Main Cliff Creek South zones defined by strong alteration veining and hydrothermal breccia associated with the major NW structural trend.
		CCS Minor	CCS6, CCS14, CCS23, CCS24, CCS15, CCS4-12, CCS16, CCS25, CCS26, CCS22, CCS1, CCS5, CCS2, CCS3, CCS13, CCS17, CCM3, CCS19.1, CCS7	Narrow mineralised bodies, typically occurring as stacked lenses following the same orientation as the main south zone.
		M-Grid	CCS20, CCS18, CCS21, CCS19, CC-US	Smaller mineraled zones on the west side of the pit in the CCS zone.
	CCE	CON Main	CCE1, CCE5, CCE4	Major connector zone mineralisation typically defined by strong alteration and hydrothermal brecciation, which follow WNW structures - eventually intersecting with Cliff Creek main zone.
		CON Minor-NW	CCE4.1, CCE7, CCE8	Narrow connector mineralisation which follows NW structures.
		CON Minor-WNW	CCE3, CON1	Narrow connector zone mineralisation which follows WNW structures.

Source: APEX (2022)

Table 14-3: Dukes Ridge and Phoenix Grade Estimation Domain Descriptions and Grouping

Mineral Resource Area	Grade Estimation Groups	Capping Groups	Grade Estimation Domains	Description
Dukes Ridge	DRPX	DR Base	DR1	Basal fault and cataclasite body with sporadic HBX zones.
		DR North	DR4	Single zone comprising HBX zone, cataclasite and basal fault.
		DR North-VN	DREW53	Minor veins with potassic altered halos, rare banded/PX style veins.
		DR South-Breccia	DR3, DR2	Breccia zones generally absent cataclasite unit sometime only present as more concentrated vein/stockwork zone.
		DR South-VN	DR21, DR31, DREW62, DR32, Other3, Other2, DR33	Minor veins with potassic altered halos, rare banded/PX style veins.
		DR Upper-Breccia	DREW31, DREW2, DREW3, DREW4	Major HBX zones above cataclasite oblique to DR1 trend into smaller PX style vein zones away from main DR1 structure.
		DR VN	DREW82, DREW8, DREW81, DREW7, DREW5, DREW6, DREW71, DREW32, DREW63, DREW41, DREW43, DREW51, DREW52, DREW42, DREW64, DREW21, DREW61	Minor veins with potassic altered halos, rare banded/PX style veins.
		DR VN-FW	DR12, DR11, DR13	Minor small vein.
Phoenix		PX	PX2, PX4, PX5, PX41	Minor veins with potassic altered halos, rare banded/PX style veins.
		PX Main	PX1, PX1-core	Large open space filling veins with crusti-form textures strongly mineralised.
		PX South	PXS3, PXS2, PXS1	Minor small vein.

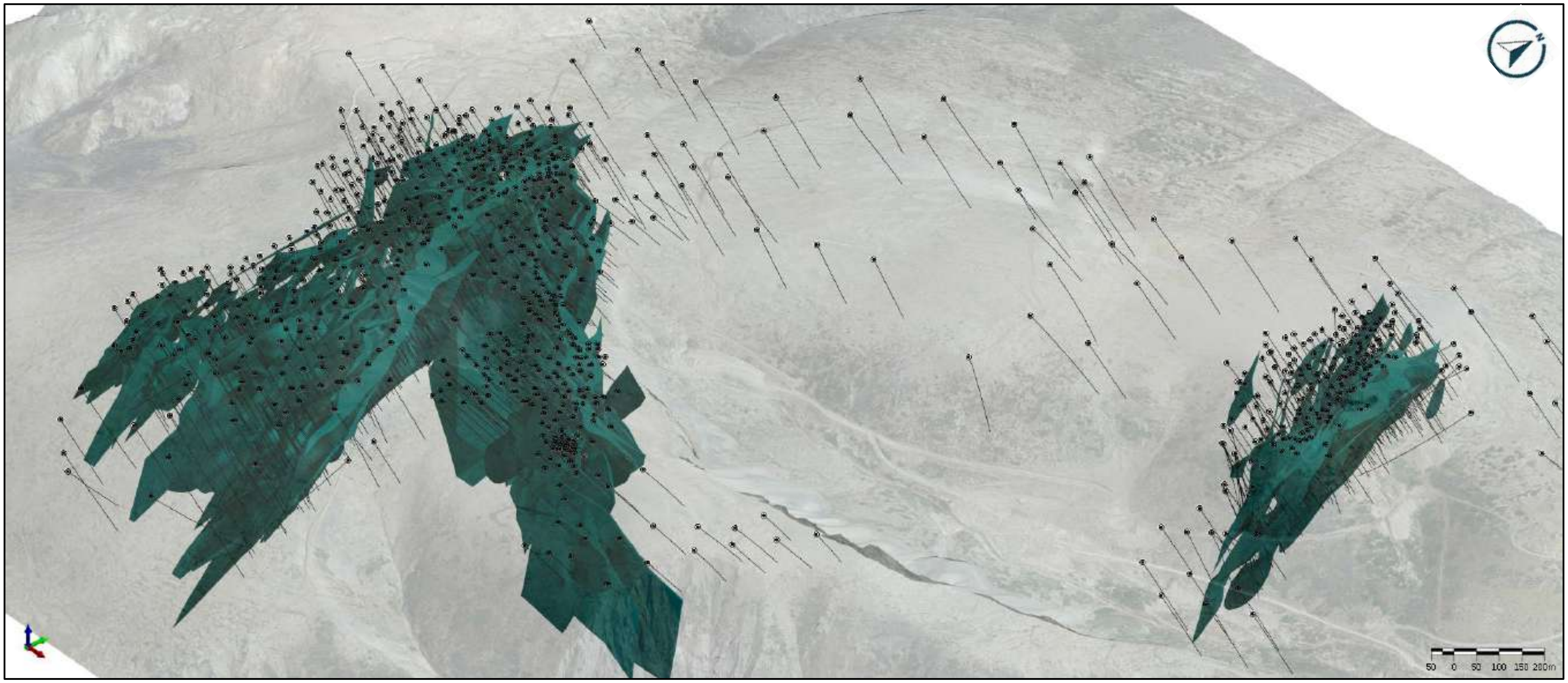
Source: APEX (2022)

Table 14-4: AGB Grade Estimation Domain Descriptions and Grouping

Mineral Resource Area	Grade Estimation Groups	Capping Groups	Grade Estimation Domains	Description
AGB	AGB Main	AGB Main	AGB7D, AGBM1, AGB Core	Commonly hydrothermal breccia zone - strong veining and alteration (potassic and silica) common. Sooty sulphides and visible min common.
		AGB Main/North Minor	AGBM2, AGBN1, AGBN2, AGBN3	Skinny low-grade mineralisation.
	AGB South	AGB South	AGBS1, AGBS2, AGBS3	Main south min zones , weak-mod veining and alteration, veins are typically later stage Vn3 (amethyst open space filling).
		AGB South Minor	AGBS4, AGBS5	Skinny low-grade domain to the South.
	AGB West	AGB West	AGBW1	Weaker veining and alteration, mineralisation maybe controlled by narrow hem veinlets? - appear to be higher in strata than main zone - associated with interbedded ash layers.
		AGB West Minor	AGBW2, AGBW3, AGBW4, AGBW5	Skinny low-grade domain to the West.

Source: APEX (2022)

Figure 14-1: Orthogonal view of the 2022 Lawyers Mineral Resource Grade Estimation Domains



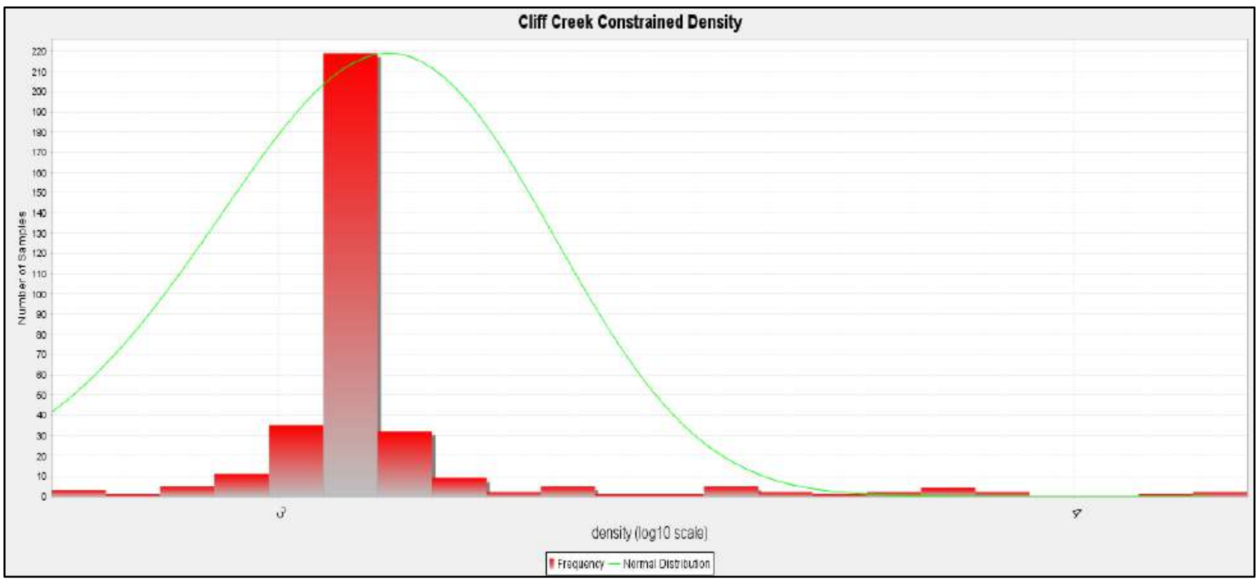
Source: APEX (2022)

14.4 Exploratory Data Analysis

14.4.1 Bulk Density

A total of 704 bulk density measurements were provided, all of which were from 2019 and 2020 drill holes at the Cliff Creek Zone. A total of 343 bulk density data were located within the mineralisation domains of Cliff Creek Zone. The wireframe constrained bulk density ranged from 2.20 t/m^3 to 4.30 t/m^3 and averaged 2.67 t/m^3 with capping at 3.85 t/m^3 (see Figure 14-2). A uniform bulk density value of 2.67 t/m^3 was applied for all mineralisation zones in the Mineral Resource models. The average of unconstrained (waste) bulk density was 2.65 t/m^3 with range from 2.10 t/m^3 to 4.00 t/m^3.

Figure 14-2: Constrained Bulk Density for Cliff Creek from 2019-2020 Drill Holes



Source: P&E (2022)

14.4.2 Raw Analytical Data

Wireframe constrained assays were back coded in the assay database with rock codes that were derived from intersections of the mineralisation solids and drill holes. The basic statistics of mineralisation wireframe constrained assays are presented in Table 14-5 to Table 14-8.

Table 14-5: Raw Gold (g/t Assay Statistics for CCDRPX Mineral Resource Area

Description	CCM1	CCM1-core	CCS	CCN	CCE	DRPX
Count	11,929	1,839	8,211	4,465	2,644	7,025
Mean	0.673	2.050	0.549	0.644	0.715	0.795
Standard Deviation	3.246	5.263	1.687	4.895	2.456	5.024
Coefficient of Variation	4.821	2.567	3.076	7.605	3.434	6.318
Min.	0.001	0.001	0.001	0.001	0.001	0.001
10 Percentile	0.044	0.103	0.024	0.029	0.035	0.055
50 Percentile (Median)	0.246	0.910	0.179	0.236	0.244	0.292
90 Percentile	1.116	4.251	1.030	1.040	1.395	1.030
Max.	185.000	113.500	41.800	293.400	89.500	219.138

Source: APEX (2022)

Table 14-6: Raw Silver (g/t) Assay Statistics for CCDRPX Mineral Resource Area

Description	CCM1	CCM1-core	CCS	CCN	CCE	DRPX
Count	11,929	1,839	8,211	4,465	2,644	7025
Mean	18.47	87.52	15.69	17.34	26.18	31.97
Standard Deviation	106.71	249.70	65.63	129.12	94.04	163.05
Coefficient of Variation	5.78	2.85	4.18	7.45	3.59	5.10
Min.	0.05	0.01	0.01	0.04	0.01	0.01
10 Percentile	1.53	4.32	1.03	1.08	1.48	2.59
50 Percentile (Median)	4.80	30.17	3.77	4.33	7.40	11.30
90 Percentile	22.97	180.21	25.90	23.00	48.11	44.02
Max.	3,900.00	5,290.00	2,590.28	7,622.00	2,720.00	8,560.00

Source: APEX (2022)

Table 14-7: Raw Gold (g/t) Assay Statistics for AGB Mineral Resource Area

Description	AGB Main	AGB South	AGB West
Count	4,454	2,226	1,781
Mean	1.643	0.991	0.518
Standard Deviation	14.764	3.488	1.716
Coefficient of Variation	8.986	3.519	3.314

Description	AGB Main	AGB South	AGB West
Min.	0.001	0.002	0.001
10 Percentile	0.027	0.037	0.016
50 Percentile (Median)	0.171	0.197	0.113
90 Percentile	2.400	2.008	0.980
Max.	682.275	81.400	36.400

Source: APEX (2022)

Table 14-8: Raw Silver (g/t) Assay Statistics for AGB Mineral Resource Area

Description	AGB Main	AGB South	AGB West
Count	4,454	2,226	1,781
Mean	69.64	25.25	38.42
Standard Deviation	193.11	45.64	251.40
Coefficient of Variation	2.77	1.81	6.54
Min.	0.03	0.26	0.03
10 Percentile	8.57	3.81	7.51
50 Percentile (Median)	27.00	13.25	16.80
90 Percentile	126.30	50.35	51.50
Max.	5,417.06	680.00	8,170.00

Source: APEX (2022)

14.4.3 Compositing Methodology

Down hole assay sample length shows that the vast majority of lengths range from 0.5 to 1.5 m, with the dominant sample length being 1 m. A composite length of 2 m was selected since it provides high sufficient resolution for underground mine planning.

The length-weighted compositing process starts from the drill hole collar and ends at the bottom of the hole. However, the final composite intervals along the drill hole cannot cross contacts between estimation domains. Therefore, composites extending down hole are truncated when one of these contacts are intersected. A new composite begins at these contacts and continues to extend down hole until the maximum composite interval length is reached, or another truncating contact is intersected. If the last composite interval was <1.0 m, the composite was not considered to avoid introducing short sample bias in the grade interpolation process.

14.4.4 Grade Capping

To ensure metal grades are not overestimated by including outlier values during estimation, composites are capped to a specified maximum value. Probability plots illustrating each composite's values are used to identify outlier values that appear greater than expected relative to each estimation domain's gold and silver distribution. Composites identified as potential outliers on the log-probability plots are evaluated in three dimensions (3-D) to determine if they are part of a high-grade trend or not. If identified, outliers are deemed part of a high-grade trend that still requires a grade capping level, the grade capping level used on them may not be as aggressive as the grade capping level used to control isolated high-grade outliers.

Grade capping was completed by assessing groups of domains that illustrate similar nature of mineralisation within each Mineral Resource area. Table 14-9 and Table 14-10 indicates the grade capping levels determined using the log-probability plots. Visual inspection of the potential outliers revealed they have no spatial continuity with each other. Therefore, the grade capping levels detailed in Table 14-9 and Table 14-10 are applied to all composites used to calculate the MRE.

Table 14-9: Gold Grade Capping Levels Applied to Composites Before Estimation

Mineral Resource Area	Grade Capping Group	Au Capping Level (g/t)	No. of Composites	No. of Capped Composites
Cliff Creek	CCM Main	60	7313	2
	CCMid Minor	2	58	1
	CCN Main	9.1	1162	6
	CCN Minor	2	155	5
	CCN Minor Steep	3.2	384	6
	CCN Minor Steep NW	2.45	92	1
	CCN North	2.2	299	6
	CCS Main	7.2	1594	3
	CCS Minor	6	1032	3
	CON Main	11	1250	4
	CON Minor NW	4.5	159	2
	CON Minor WNW	0.6	84	6
Dukes Ridge - Phoenix	DR Base	18	980	2
	DR North	4.5	239	3
	DR North VN	1	8	2
	DR South Breccia	3.2	486	3
	DR South VN	1.2	90	3
	DR Upper Breccia	13	987	3
	DR VN	3.2	238	3

Mineral Resource Area	Grade Capping Group	Au Capping Level (g/t)	No. of Composites	No. of Capped Composites
	DR VN FW	1.2	48	1
	M Grid	3	227	3
	PX	1.8	60	2
	PX Main	30	57	2
	PX South	0.7	58	3
AGB	Main	44	2134	8
	Main Minor	1.5	216	3
	South	11	999	10
	South Minor	2.6	269	4
	West	9.9	995	1
	West Minor	0.55	87	3

Source: APEX (2022)

Table 14-10: Silver Grade Capping Levels Applied to Composites Before Estimation

Mineral Resource Area	Grade Capping Group	Ag Capping Level (g/t)	No. Composites	No. Capped Composites
Cliff Creek	CCM Main	2010	7313	2
	CC Mid Minor	-	58	0
	CCN Main	470	1162	2
	CCN Minor	13	155	13
	CCN Minor Steep	90	384	6
	CCN Minor Steep NW	45	92	2
	CCN North	110	299	3
	CCS Main	220	1594	5
	CCS Minor	290	1032	3
	CON Main	500	1250	2
	CON Minor NW	200	159	2
	CON Minor WNW	70	84	1
Dukes Ridge - Phoenix	DR Base	400	980	4
	DR North	151	239	2
	DR North VN	20	8	1
	DR South Breccia	190	486	4
	DR South VN	80	90	2
	DR Upper Breccia	620	987	2
	DR VN	370	238	1

Mineral Resource Area	Grade Capping Group	Ag Capping Level (g/t)	No. Composites	No. Capped Composites
	DR VN FW	10	48	1
	M Grid	20	227	11
	PX	25	60	8
	PX Main	400	57	3
	PX South	65	58	3
AGB	Main	1360	2134	4
	Main Minor	84	216	1
	South	156	999	10
	South Minor	25	269	15
	West	320	995	3
	West Minor	101	87	1

Source: APEX (2022)

14.4.5 Declustering

It is typical to collect data in a manner that preferentially samples high-value areas over low-value areas. This preferential sampling is an acceptable practice; however, it produces closely spaced data that are likely statistically redundant, which results in under-represented sparse data compared to the over-represented closer-spaced data. Therefore, it is desirable to have spatially representative (i.e., declustered) statistics for global Mineral Resource assessment and to check estimated grade models. Declustering techniques calculate a weight for each datum that results in sparse data having a higher weight than closely spaced data. The calculated declustering weights allow spatially repetitive summary statistics to be calculated, such as a declustered mean.

Cell declustering is performed globally on all composites within the grade estimation domains, which calculates a declustering weight for each composite. Cell declustering works by discretizing a 3-D volume into cells that are the same size. The sum of the weights of all the composites within the cell must equal 1. Therefore, the weight assigned to each composite is proportional to the number of composites within each cell. For example, if there are four composites within a cell, they are all assigned a declustering weight of 0.25.

As a rule of thumb, the cell size used to calculate declustering weights will ideally contain one composite per cell in the sparsely sampled areas. Visual evaluation of the sparsely sampled areas in a 3-D visualization software gives a rough idea of this size. Additionally, a high-resolution block model populated with the distance to each block's nearest composite can help guide the declustering of the cell size. The 90-percentile of the distance block model, with a cell size much lower than the final declustering cell size, approximates the optimal cell size. Finally, plotting a series of declustered means for a range of declustering cell sizes will help determine the optimal cell size. The optimal cell size will likely be when the declustered mean in the plot is locally low or high at a cell size that is very close to the two potential cell sizes that were determined from the visual review and calculated 90-percentile distance. Preferential sampling in high-grade zones results in a declustered mean that is likely within a local minimum. In contrast, preferential sampling in low-grade zones results in a declustered mean that is expected within a local maximum.

Calculated declustering weights for the grade estimation domain were constructed. Visual evaluation of the sparsely sampled areas in Micromine™ suggests similar cell sizes as the 90-percentiles from the distance block model for each grade estimation domain. Plots comprised of a series of declustered means for a range of declustering cell sizes were utilized to inform the final cell sizes. Table 14-11 details the cell size used, which was very close to the size indicated by the visual evaluation and distance block model.

Table 14-11: Cell Sizes Used to Calculate Declustering Weights

Mineral Resource Area	Cell Declustering Size (metre)
Cliff Creek, Dukes Ridge, Phoenix	35
AGB	51

Source: APEX (2022)

14.4.6 Final Composite Statistics

Summary statistics for the declustered and capped composites contained within the interpreted grade estimation domains, are presented in Table 14-12 to Table 14-15. The gold and silver assays within the grade estimation domain generally exhibit a single coherent statistical population.

Table 14-12: Composite Gold (g/t) Statistics for CCDRPX Mineral Resource Area

Description	CCM1	CCM1-core	CCS	CCN	CCE	DRPX
Count	5,500	755	3,969	2,092	1,493	3,251
Mean	0.660	2.115	0.492	0.539	0.564	0.597
Standard Deviation	2.302	4.125	0.878	0.844	1.101	1.838
Coefficient of Variation	3.485	1.950	1.785	1.566	1.954	3.081
Min.	0.001	0.020	0.001	0.001	0.001	0.001
10 Percentile	0.057	0.176	0.049	0.055	0.067	0.095
50 Percentile (Median)	0.256	0.893	0.231	0.259	0.249	0.253
90 Percentile	1.177	5.016	1.160	1.278	1.267	1.030
Max.	60.000	44.485	19.100	9.100	11.000	30.000

Note:
Statistics consider declustering weights and capping.
Source: APEX (2022)

Table 14-13: Composite Silver (g/t) Statistics for CCDRPX Mineral Resource Area

Description	CCM1	CCM1-core	CCS	CCN	CCE	DRPX
Count	5,758	826	4,058	2,108	1,502	3,404
Mean	16.56	93.21	13.97	12.46	21.52	24.43
Standard Deviation	78.25	187.08	33.85	30.23	46.05	50.56
Coefficient of Variation	4.73	2.01	2.42	2.43	2.14	2.07
Min.	0.06	0.34	0.05	0.06	0.07	0.01
10 Percentile	1.53	5.71	1.17	1.06	2.15	2.90
50 Percentile (Median)	4.58	35.23	4.05	4.03	8.24	9.68
90 Percentile	25.45	218.51	29.19	26.16	47.60	51.35
Max.	2,010.00	2010.00	1241.45	470.00	500.00	620.00

Note:
Statistics consider declustering weights and capping.
Source: APEX (2022)

Table 14-14: Composite Gold (g/t) Statistics for AGB Mineral Resource Area

Description	AGB Main	AGB South	AGB West
Count	2,350	1,268	1,082
Mean	0.897	0.602	0.348
Standard Deviation	3.067	1.259	0.843
Coefficient of Variation	3.418	2.092	2.420
Min.	0.001	0.004	0.001
10 Percentile	0.055	0.080	0.040
50 Percentile (Median)	0.189	0.190	0.120
90 Percentile	1.768	1.440	0.639
Max.	44.000	11.000	9.900

Note:
Statistics consider declustering weights and capping.
Source: APEX (2022)

Table 14-15: Composite Silver (g/t) Statistics for AGB Mineral Resource Area

Description	AGB Main	AGB South	AGB West
Count	2,350	1,268	1,082
Mean	52.70	16.94	21.86
Standard Deviation	110.23	20.00	27.33
Coefficient of Variation	2.09	1.18	1.25
Min.	0.24	0.55	0.44
10 Percentile	12.10	5.61	8.53
50 Percentile (Median)	24.25	11.03	14.95
90 Percentile	104.71	36.00	42.06
Max.	1,360.00	156.00	320.00

Note:
Statistics consider declustering weights and capping.
Source: APEX (2022)

14.5 Variography and Grade Continuity

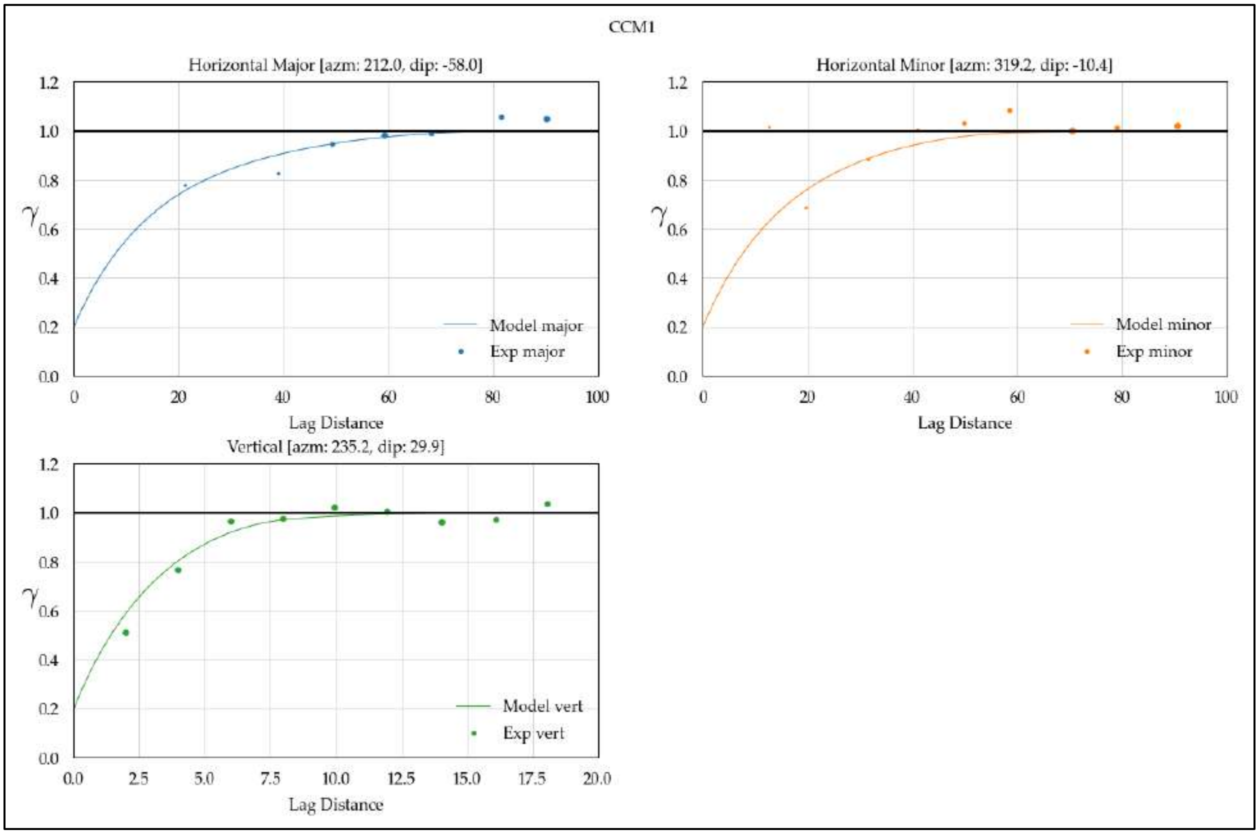
Experimental semi-variograms for each domain are calculated along the major, minor, and vertical principal directions of continuity that are defined by three Euler angles. Euler angles describe the orientation of anisotropy as a series of rotations (using a left-hand rule) that are as follows:

1. Angle 1: A rotation about the Z-axis (azimuth) with positive angles being clockwise rotation and negative representing counter-clockwise rotation;
2. Angle 2: A rotation about the X-axis (dip) with positive angles being counter-clockwise rotation and negative representing clockwise rotation; and
3. Angle 3: A rotation about the Y-axis (tilt) with positive angles being clockwise rotation and negative representing counter-clockwise rotation.

APEX personnel calculated standardized experimental correlograms using composites for each Mineral Resource area. Within each area, the orientation of the primary geological controls on mineralisation informed the principal directions of continuity upon which the variograms were calculated. Experimental variograms were calculated for multiple domains within each Mineral Resource area to assess the parameters sensitivity. Modelled variogram ranges for both structures were reasonably consistent throughout the Lawyers Project, where the differences between major and minor direction ranges were minor. The most variation is observed in the vertical direction. The most stable and robust variogram from each area was selected and used for all domains within the Mineral Resource area. Figure 14-3 illustrates a gold variogram modeled using composites from CCM1, the largest grade estimation domain at Cliff Creek. Table 14-16 and Table 14-17. Detail the variogram parameters used for kriging within each grade estimation domain group.

During grade estimation, the standardized variogram model is scaled to the variance of the composites within each individual grade estimation domain. The scaled nugget effect and covariance contributions for each variogram structure are used as input parameters for ordinary kriging. The ranges used for each of the mineralised zones are not changed from the standardized variogram model. Locally varying anisotropy is used during grade estimation to define the orientation of the variogram on a per-block basis, which is explained in more detail in Section 14.7.

Figure 14-3: CCM1 Gold Variogram



Source: APEX (2022)

Table 14-16: Gold Variogram Parameters

Grade Estimation Group	Ang1	Ang2	Ang3	Sill	C0	Structure 1					Structure 2				
						Type	C1	Ranges (m)			Type	C2	Ranges (m)		
								Major	Minor	Vertical			Major	Minor	Vertical
CCM	212	-58	20	1	0.2	Exp	0.6	40	40	8	Sph	0.2	80	60	8
CCM1 Core	253	-62	8	1	0.3	Exp	0.5	30	30	8	Sph	0.2	70	40	8
CCN/S	212	-58	20	1	0.2	Exp	0.6	40	40	8	Sph	0.2	80	60	8
CCE	245	-55	-27	1	0.2	Exp	0.6	40	40	5	Sph	0.2	90	60	10
DRPX	140	-18	60	1	0.2	Exp	0.6	20	20	6	Sph	0.2	60	40	6
AGB Main	165	-10	86	1	0	Exp	0.9	30	15	10	Sph	0.1	95	45	10
AGB South	260	-60	0	1	0.3	Exp	0.5	50	25	5	Sph	0.2	95	40	20
AGB West	200	-60	35	1	0	Exp	0.85	40	25	7	Sph	0.15	90	50	7

Source: APEX (2022)

Table 14-17: Silver Variogram Parameters

Grade Estimation Group	Ang1	Ang2	Ang3	Sill	C0	Structure 1					Structure 2				
						Type	C1	Ranges (m)			Type	C2	Ranges (m)		
								Major	Minor	Vertical			Major	Minor	Vertical
CCM1	212	-58	20	1	0.2	Exp	0.6	40	40	8	Sph	0.2	80	60	8
CCM1 Core	253	-62	8	1	0.3	Exp	0.5	30	30	8	Sph	0.2	70	40	8
CCN/S	212	-58	20	1	0.2	Exp	0.6	40	40	8	Sph	0.2	80	60	8
CCE	245	-55	-27	1	0.2	Exp	0.6	40	40	5	Sph	0.2	90	60	10
DRPX	140	-18	60	1	0.2	Exp	0.6	20	20	6	Sph	0.2	60	40	6
AGB Main	165	-10	86	1	0	Exp	0.9	30	15	10	Sph	0.1	95	45	10
AGB South	260	-60	0	1	0.3	Exp	0.5	50	25	5	Sph	0.2	95	40	20
AGB West	200	-60	35	1	0	Exp	0.85	40	25	7	Sph	0.15	90	50	7

Source: APEX (2022)

14.6 Block Model Grid Definition

A volume percent (block factor) style block model was used to calculate the Lawyers Project MRE. Each grade estimation domain used for the Mineral Resource estimation described in Section 14.3 was populated with a block model. All block models used the same block size of 5 m x 5 m x 5 m. Table 14-18 details the grid definition used.

Table 14-18: Lawyers Block Model Definition

Direction	Origin*	No. of Blocks	Block Size (m)
X	607,210	780	5
Y	6,353,335	680	5
Z	2,000	220	5
Rotation	Counter-clockwise 20º		

Notes:

* Origin for a block model in GEMS^{TM} represents the coordinates of the outer edge of the block with minimum X and Y, and maximum Z.

Source: P&E (2022)

14.7 Grade Estimation Methodology

Ordinary kriging (OK) was used to estimate gold and silver grades for the Lawyers Project block model. Only blocks that intersect the mineralisation domain were estimated for gold and silver grades.

Estimation of blocks is completed with locally varying anisotropy (LVA), which uses different rotation angles to define the principal directions of the variogram model and search ellipsoid on a per-block basis. Blocks within the grade estimation domain are assigned rotation angles using a trend surface wireframe. This method allows structural complexities to be reproduced in the estimated block model. Variogram and search ranges are defined by the variogram model described in Section 14.5.

The boundaries between the domains DREW2, DREW3, DREW31, DR1 are treated as soft boundaries, meaning data from any of these domains can be used to inform their grade estimates. All other boundaries between grade estimation domains are treaded as hard boundaries, meaning data from one domain cannot be used to inform the grade estimate of another.

The correct volume-variance relationship was enforced by restricting the maximum number of conditioning data (composites) within ellipsoid sectors, the maximum number of composites per drill hole and the maximum number of conditioning data per search ellipsoid sector used. These restrictions are implemented to ensure the grade estimation models are not over smoothed and to limit the effect of high-grade samples, which would lead to inaccurate estimation of global tonnage and grade. The parameters used to enforce the right volume-variance relationship cause local conditional bias, however, ensure the global estimate of grade and tonnages is more accurately estimated.

To ensure that all blocks within the grade estimation domains are estimated and the correct volume variance relationship is achieved, a three-pass method was used for each domain. Each pass uses the same variogram model, as modelled and detailed in Section 14.5, however, different search ellipsoid configurations are used, as illustrated in Table 14-19 and Table 14-20.

Different search ellipsoid configurations are used to control the smoothing inherit in kriging and manage influence of high-grade samples to achieve the correct volume variance relationship. The three passes are normally not required since the blocks estimated during those passes are distant from composites, however, due to structural complexities and the limitation of search ellipses not being able to look along the trend of the folds, they were utilized in this case.

Table 14-19: Lawyers Block Model Gold Interpolation Parameters

Grade Estimation Groups	Pass	Max Variogram and Search Ranges (m)			No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per Hole
		Major	Minor	Vertical				
CCM1	1	20	20	6	1	1	20	1
	2	60	40	6	1	1	20	1
	3	80	60	6	1	1	20	2
	4	120	80	6	1	1	20	-
CCM1 Core	1	40	40	8	1	1	20	1
	2	90	60	8	1	1	20	1
	3	135	90	8	1	1	20	2
	4	180	120	8	1	1	20	-
CCN/CCS	1	40	40	10	1	1	20	1
	2	90	60	10	1	1	20	1
	3	135	90	10	1	1	20	2
	4	180	120	10	1	1	20	-
CCE	1	40	40	8	1	1	20	1
	2	80	60	8	1	1	20	1
	3	120	90	8	1	1	20	2
	4	160	120	8	1	1	20	-
DRPX	1	30	30	8	1	1	20	1
	2	70	40	8	1	1	20	1
	3	105	60	8	1	1	20	2

Grade Estimation Groups	Pass	Max Variogram and Search Ranges (m)			No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per Hole
		Major	Minor	Vertical				
	4	140	80	8	1	1	20	-
AGB Main	1	30	30	10	4	2	16	2
	2	90	45	10	4	1	24	2
	3	180	90	20	4	1	32	3
AGB South	1	30	30	7	4	2	16	2
	2	90	50	7	4	1	24	2
	3	180	100	20	4	1	32	3
AGB West	1	40	40	10	2	2	8	2
	2	95	40	20	4	1	32	4
	3	190	80	40	4	1	32	4

Source: APEX (2022)

Table 14-20: Lawyers Block Model Silver Interpolation Parameters

Grade Estimation Groups	Pass	Max Variogram and Search Ranges (m)			No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per Hole
		Major	Minor	Vertical				
CCM1	1	20	20	6	1	1	20	1
	2	60	40	6	1	1	20	1
	3	80	60	6	1	1	20	2
	4	120	80	6	1	1	20	-
CCM1 Core	1	40	40	8	1	1	20	1
	2	90	60	8	1	1	20	1
	3	135	90	8	1	1	20	2
	4	180	120	8	1	1	20	-
CCN/CCS	1	40	40	10	1	1	20	1
	2	90	60	10	1	1	20	1
	3	135	90	10	1	1	20	2
	4	180	120	10	1	1	20	-
CCE	1	40	40	8	1	1	20	1
	2	80	60	8	1	1	20	1
	3	120	90	8	1	1	20	2
	4	160	120	8	1	1	20	-

Grade Estimation Groups	Pass	Max Variogram and Search Ranges (m)			No. of Ellipse Sectors	Min No. of Comps	Max No. of Comps	Max No. of Comps per Hole
		Major	Minor	Vertical				
DRPX	1	30	30	8	1	1	20	1
	2	70	40	8	1	1	20	1
	3	105	60	8	1	1	20	2
	4	140	80	8	1	1	20	-
AGB Main	1	30	30	10	4	2	16	2
	2	90	45	10	4	1	24	2
	3	180	90	20	4	1	32	3
AGB South	1	30	30	7	4	2	16	2
	2	90	50	7	4	1	24	2
	3	180	100	20	4	1	32	3
AGB West	1	40	40	10	2	2	8	2
	2	95	40	20	4	1	32	4
	3	190	80	40	4	1	32	4

Source: APEX (2022)

14.8 Model Validation

14.8.1 Statistical Validation

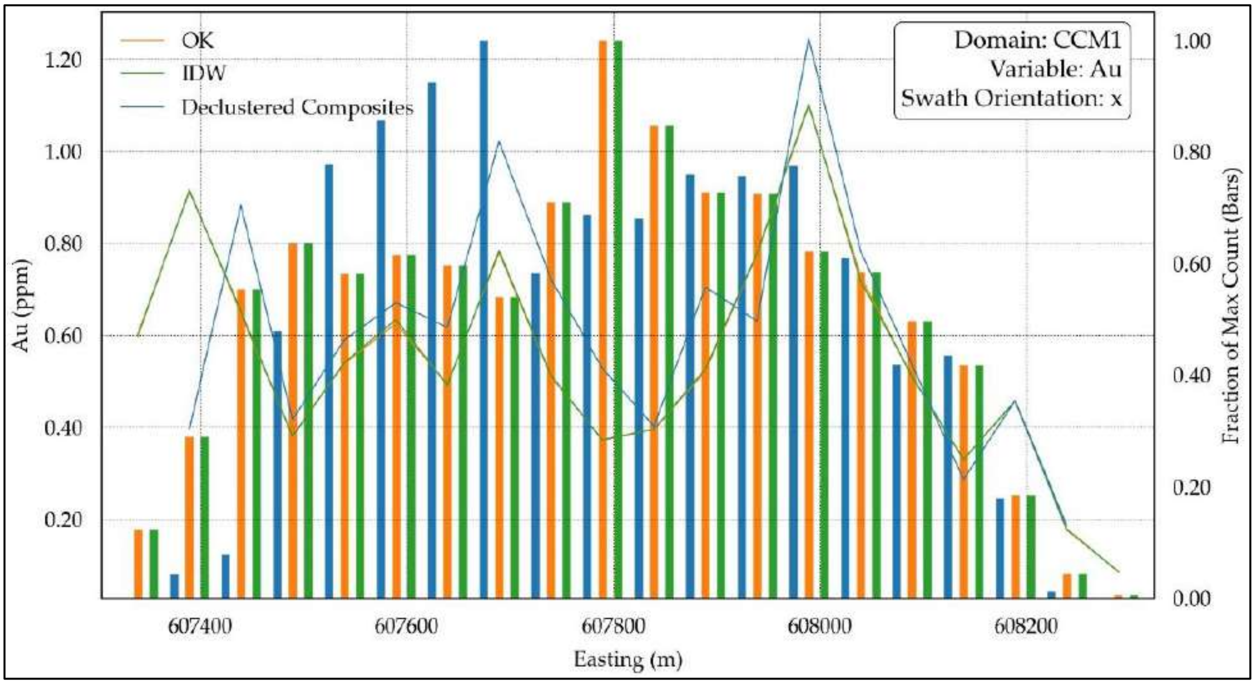
APEX personnel performed three varying statistical validation methods to ensure the estimated block model honours the input drill hole data. Swath plots are used to check that the block model honours directional trends, Volume-variance analysis is used to check that the proper quantity of minerals above varying cut-off grades is being estimated, and boundary analysis is performed to check that the observed grade trends along the mineralised and unmineralised boundaries are being reproduced in the block models.

14.8.2 Direction Trend Analysis Validation

Swath plots verify that the estimated block model honours directional trends and identifies potential areas of over- or under-estimation of grade. The swath plots are generated by calculating the average metal grades of composites, and the OK estimated blocks. Examples of the swath plots used to validate the Mineral Resource Estimate are illustrated in Figure 14-4 to Figure 14-6.

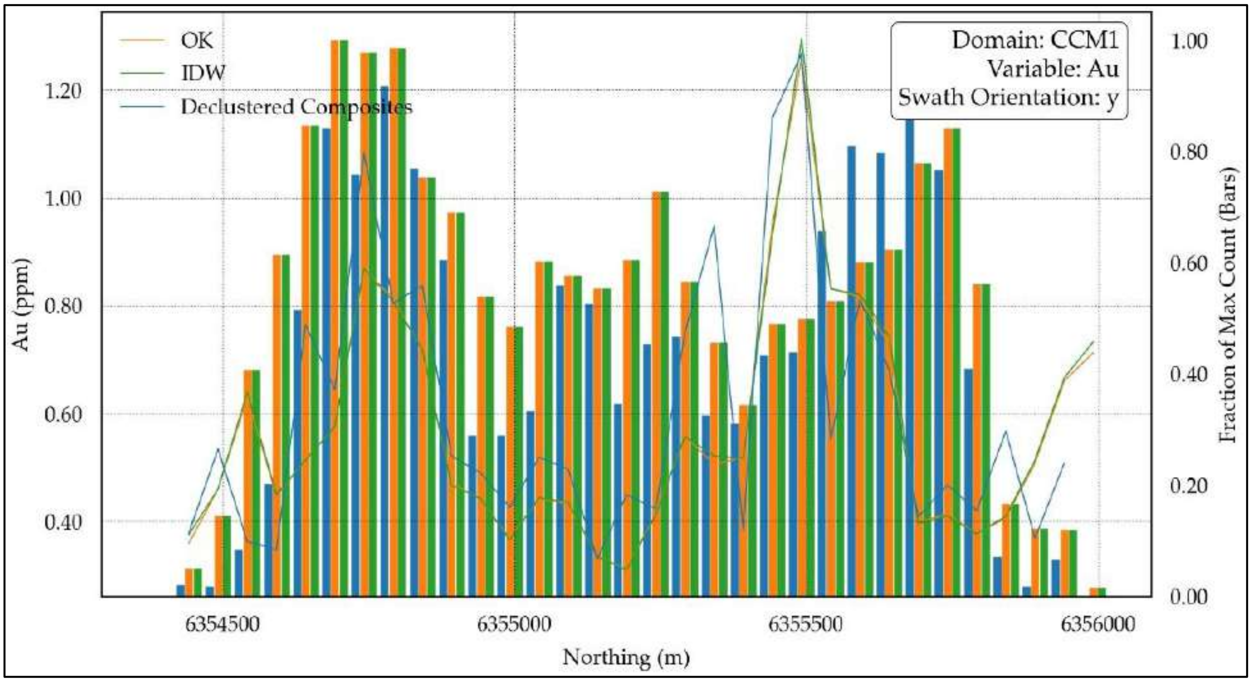
Overall, the block model compares well with the composites. There is some observed local over- and under-estimation. Due to the limited number of conditioning data available for the grade estimation in those areas, this result is expected.

Figure 14-4: CCM1 Easting Swath Plot



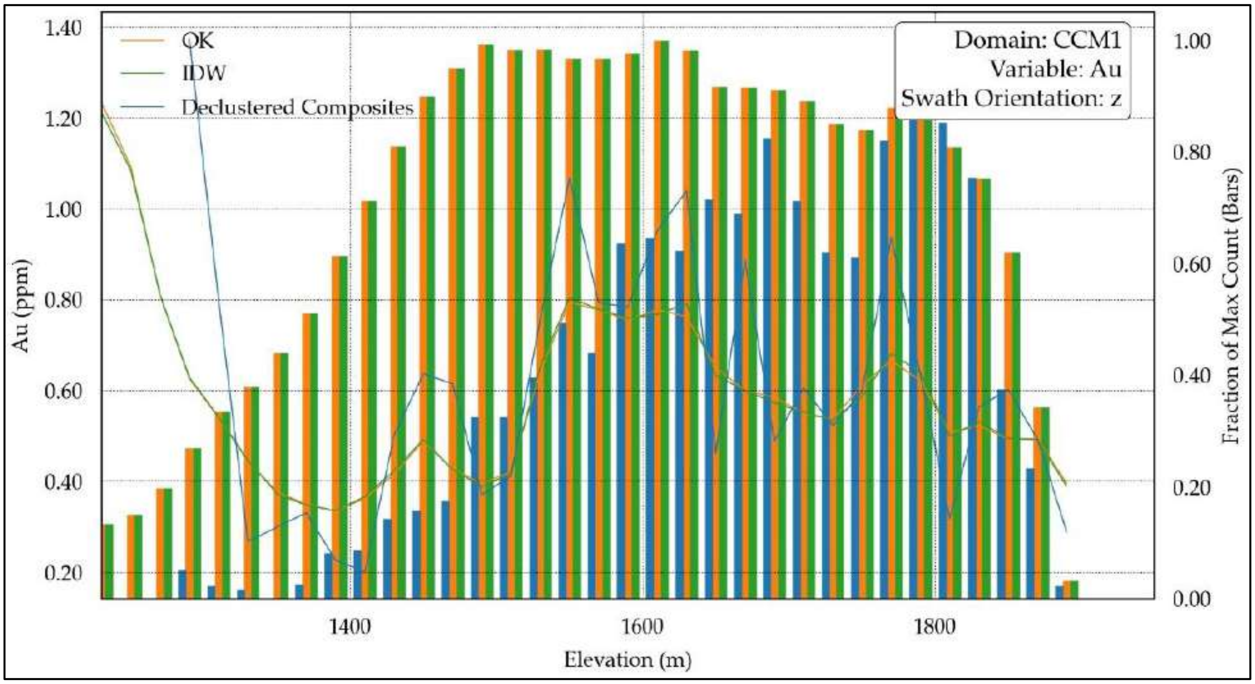
Source: APEX (2022)

Figure 14-5: CCM1 Northing Swath Plot



Source: APEX (2022)

Figure 14-6: CCM1 Elevation Swath Plot



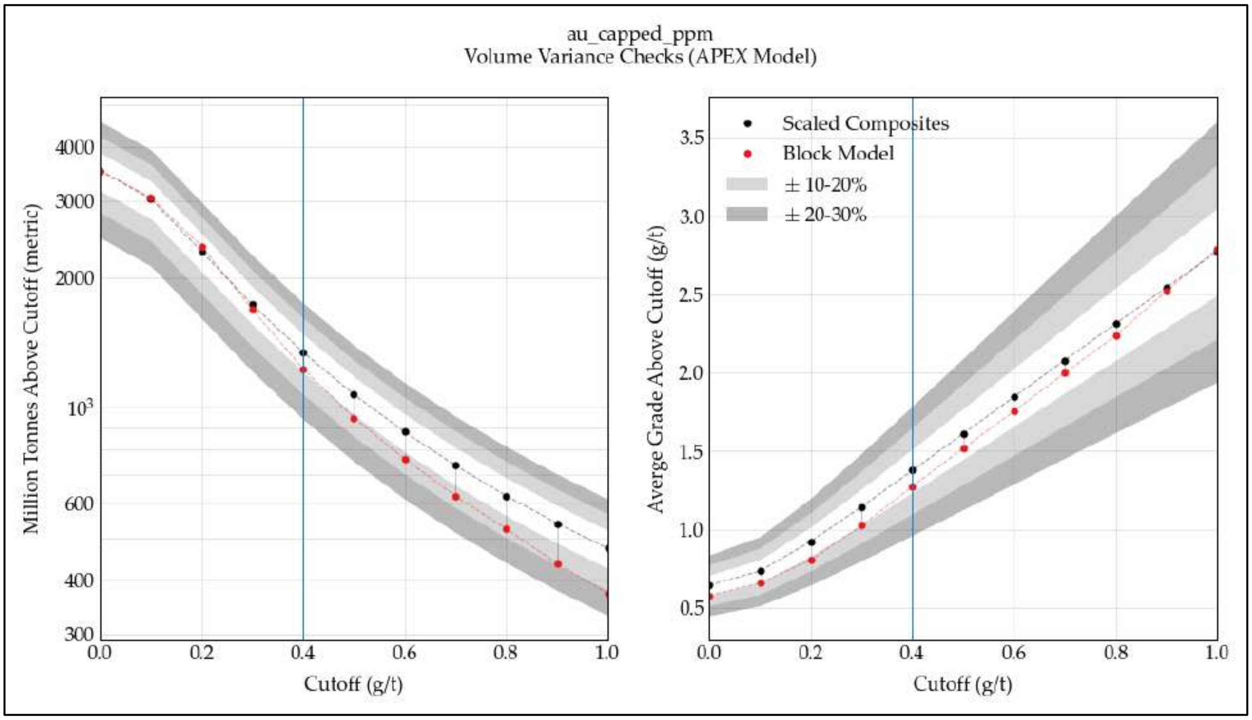
Source: APEX (2022)

14.8.3 Volume-Variance Analysis Validation

Smoothing is an intrinsic property of kriging, and as described in Section 14.7 volume-variance corrections are used to help reduce its effects. To verify that the correct level of smoothing is achieved, theoretical histograms that indicate each estimated metal's anticipated variance and distribution at the selected block model size are calculated. The scaled composite histograms are used to calculate expected tonnages and expected grades above a series of cut-off grades. Comparing the curves of the expected versus estimated values helps ensure the correct volume of Mineral Resource above varying cut-offs is being estimated.

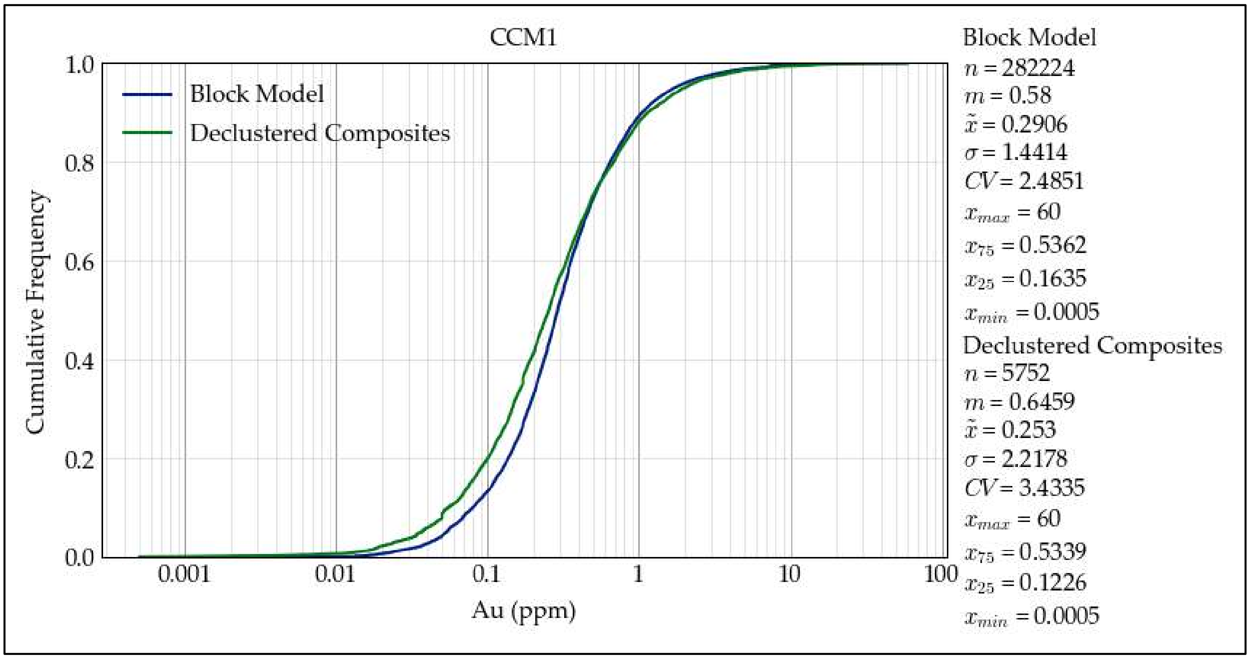
Most grade estimation domains illustrate the desired amount of smoothing. However, some domains illustrate more smoothing then desired. Further modifications of the search strategy to help control the smoothing may introduce excessive bias to the gold and silver grade estimates.

Figure 14-7: Volume-Variance Analysis for CCM1 Grade Estimation Domain



Source: APEX (2022)

Figure 14-8: Histograms of the Declustered Composites and Block Model for CCM1 Grade Estimation



Source: APEX (2022)

14.8.4 Visual Validation

APEX personnel visually reviewed the estimated block model grades in cross-sectional views comparing the estimated block model grades to the input composited drill hole assays and the modelled mineralisation trends. The block model compares very well to the input compositing data. Local high- and low-grade zones within the Mineral Resource areas are reproduced as desired, and the locally varying anisotropy adequately maintains variable mineralisation orientations. Figure 14-9 illustrates the grade estimation blocks used for the MRE.

14.9 Mineral Resource Classification

The Lawyers Project MRE discussed in this Technical Report has been classified in accordance with guidelines established by the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29, 2019 and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 14, 2014.

A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of modifying factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of modifying factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

An Inferred Mineral Resource is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An inferred mineral resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

14.9.1 Classification Methodology

The Lawyers Project MRE is classified as Inferred and Indicated according to the CIM definition standards. The classification of the Indicated and Inferred Mineral Resources is based on geological confidence, data quality and grade continuity of the data. The most relevant factors used in the classification process were the following:

- Density of conditioning data;
- Level of confidence in drilling results and collar locations;
- Level of confidence in the geological interpretation;
- Continuity of mineralisation;
- Level of confidence in the assigned densities; and
- Metallurgical information available for potential recoveries.

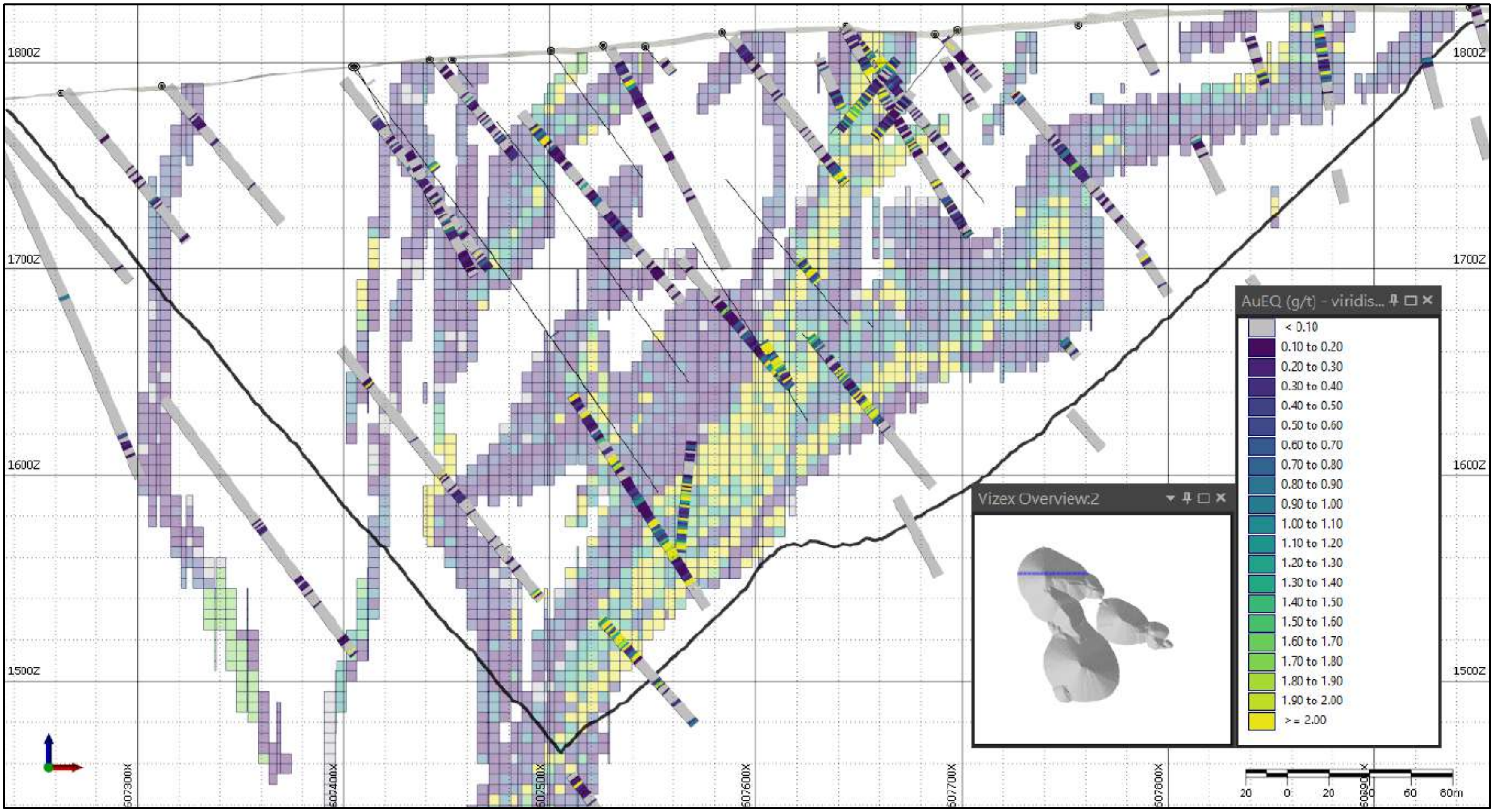
Mineral Resource classification was determined using a multiple-pass strategy that consists of a sequence of runs that flag each block with the run number a block first meets a set of search restrictions. With each subsequent pass, the search restrictions decrease, representing a decrease in confidence and classification from the previous run. For each run, a search ellipsoid is centred on each block and orientated in the same way described in Section 14.7. Table 14-21 details the range of the search ellipsoids and the number of composites that must be found within the ellipse for a block to be flagged with that run number. The runs are executed in sequence from run 1 to run 2. Classification is then determined by relating the run number that each block is flagged as to indicated (run 1) or inferred (run 2). This process is completed separately from grade estimation. Figure 14-10 illustrates the classification mode used for the MRE.

Table 14-21: Search Restrictions Applied During each Run of the Multiple-Pass Classification Strategy

Mineral Resource Area	Grade Estimation Domain Style	Classification	Minimum			Ranges (m)		
			No of Drill Holes	Composites		Major	Minor	Vertical
				Total	No per Drill Hole			
AGB	Thick	Measured	3	12	4	45	30	12
		Indicated	3	12	4	90	70	12
		Inferred	1	1	1	90	70	12
	Thin	Measured	3	9	3	45	30	12
		Indicated	3	6	2	90	70	12
		Inferred	1	1	1	90	70	12
Cliff Creek Dukes Ridge Phoenix	Thick	Measured	3	12	4	45	30	25
		Indicated	3	12	4	90	70	25
		Inferred	1	1	1	90	70	25
	Thin	Measured	3	9	3	45	30	25
		Indicated	3	6	2	90	70	25
		Inferred	1	1	1	90	70	25

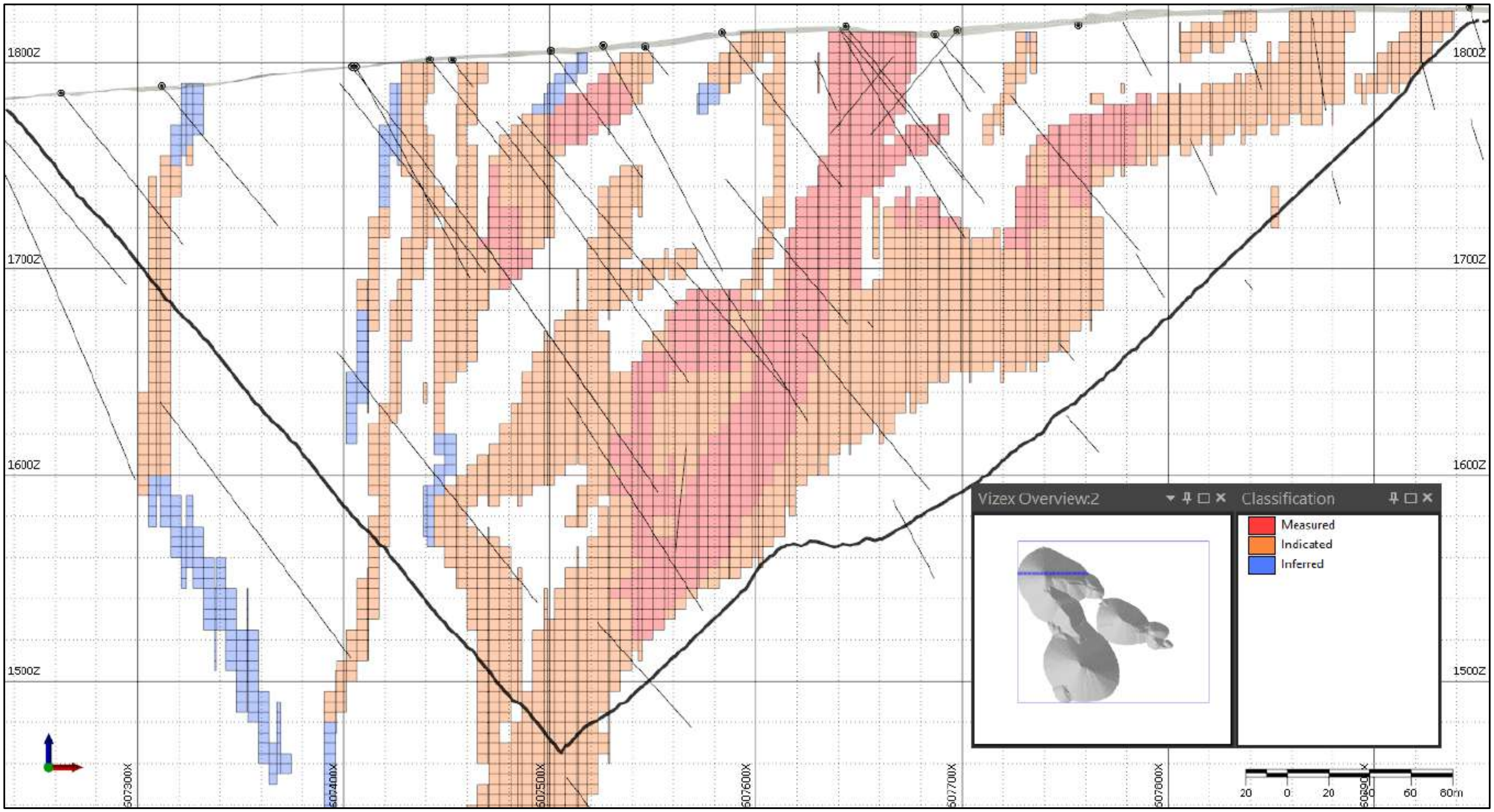
Source: APEX (2022)

Figure 14-9: Cross-Section Looking North along 6,355,675 N of the AuEQ Block Model and US$1,750/oz Au Pit Shell (bold black line) at Cliff Creek



Source: APEX (2022)

Figure 14-10: Cross-Section Looking North along 6,355,675 N of the Classification Block Model and US$1,750/oz Au Pit Shell (bold black line) at Cliff Creek



Source: APEX (2022)

14.10 Evaluation of Reasonable Prospects for Eventual Economic Extraction

14.10.1 AuEq Cut-Off Value Calculation

The Lawyers Mineral Resource Estimate was derived from applying AuEq cut-off values to the block models and reporting the resulting tonnes and grades for potentially mineable areas.

The following parameters were used to calculate the AuEq cut-off values that determine open pit and underground mining potentially economic portions of the constrained mineralisation:

- Au price: US$1,750/oz (rounded May 2022 Consensus Economics long term forecast);
- Ag price: US$20/oz; (rounded May 2022 Consensus Economics long term forecast);
- AuEq g/t = Au g/t + (Ag g/t/80)
- Currency exchange rate: C$/US$ = 0.78;
- Au process recovery: 90%;
- Ag process recovery: 83%;
- Open pit marginal mining cost: C$3.15/t;
- Underground mining cost: C$100/t;
- Processing cost: C$14.50/t; and
- G&A: C$5/t.

The AuEq cut-off value of the pit-constrained Mineral Resource is 0.4 g/t AuEq.

The AuEq cut-off value of the out-of-pit Mineral Resource is 1.5 g/t AuEq.

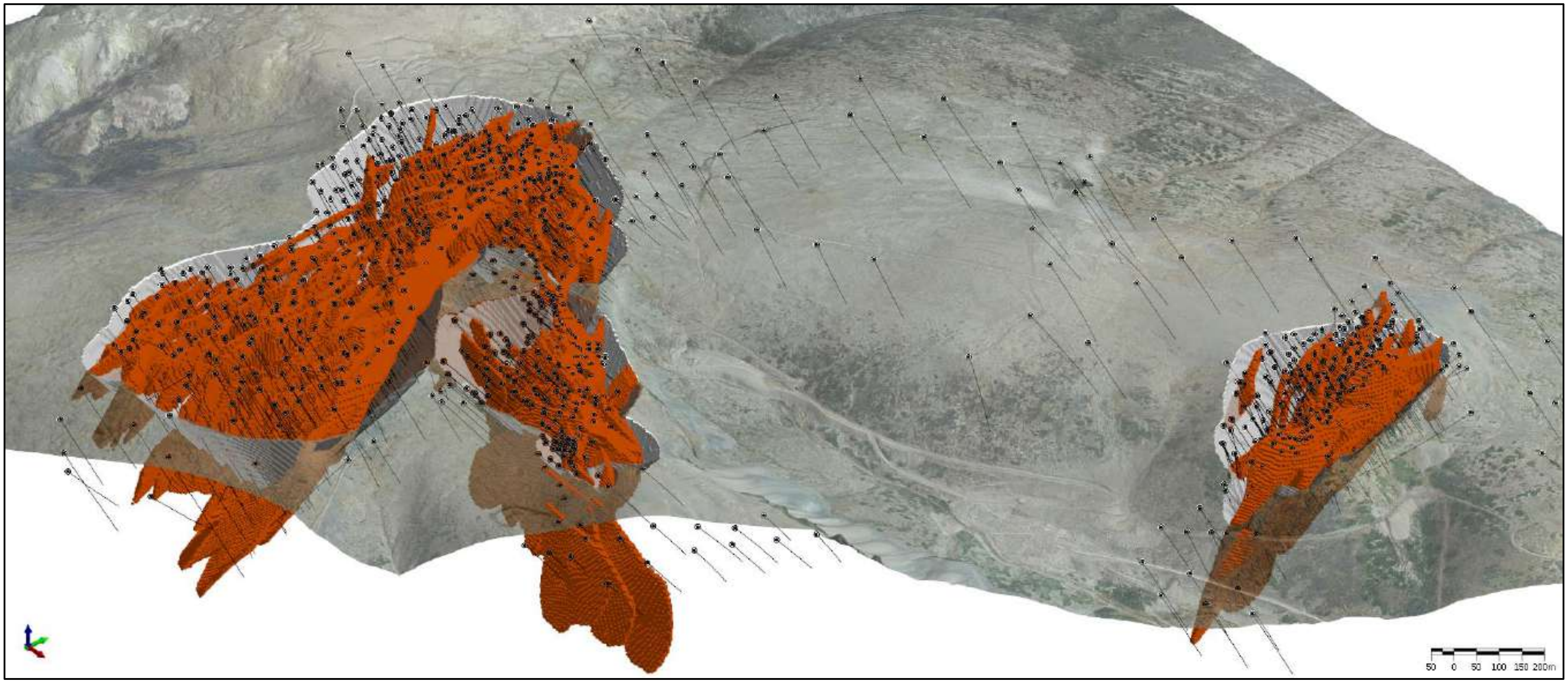
14.10.2 Open Pit Parameters

To demonstrate that the Lawyers property has the potential for future economic extraction, the Mineral Resource block model was subjected to several pit optimization scenarios to determine the prospect for eventual economic extraction. Pit optimization was performed with NPV Scheduler™.

The criteria used for the US$1,750/oz pit shell optimization are shown in Section 14.10.1 with the inclusion of 50º pit slopes are considered reasonable for a structurally controlled gold-silver deposit. Figure 14-11 illustrates the Lawyers Mineral Resource Estimate block model and the open pit shells used to constrain the MRE.

The Authors consider the parameters presented in Section 14.10.1 appropriate to evaluate the reasonable prospect for potential future economic extraction at the Lawyers Project for the purpose of providing an MRE. The Mineral Resource presented herein is not a Mineral Reserves and does not have demonstrated economic viability. There is no guarantee that any part of the Mineral Resource identified herein will be converted to a Mineral Reserve in future.

Figure 14-11: 3-D view of the 2022 Lawyers Mineral Resource Estimate Block Model and US$1,750/oz Au Pit Shells



Source: APEX (2022)

14.10.3 Out-of-Pit Mineral Resource Parameters

The CIM guidelines for Mineral Resources and Mineral Reserves require that a Mineral Resource be that part of a mineral deposit with reasonable prospects for eventual economic extraction. For the Lawyers Project out-of-pit Mineral Resource, the longhole open stope style mining method was selected.

The calculated cut-off of 1.5 g/t AuEq was selected in reporting the out-of-pit Mineral Resource in the 2022 Mineral Resource Estimate. To isolate small areas of the Mineral Resource that would not reasonably be minable in an open stope mining method, the out-of-pit Mineral Resource below the optimized pit shells were constrained by wireframe solids that encapsulate contiguous 5 m x 5 m x 5 m out-of-pit blocks that are above the 1.0 g/t AuEq cut-off.

14.11 Mineral Resource Estimate

The Lawyers Project MRE is reported in accordance with the CSA NI 43-101 rules for disclosure and has been estimated using the CIM “Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines” dated November 29, 2019 and CIM “Definition Standards for Mineral Resources and Mineral Reserves” dated May 10, 2014. The effective date of the Mineral Resource is May 11, 2022.

Mineral Resource modelling was conducted in the UTM coordinate space relative to the North American Datum (NAD) 1983, and UTM zone 9N (EPSG:26909) The mineral resource block model utilized a selective mining units (SMU) block size of 5 m (X) by 5 m (Y) by 5 m (Z) to honour the mineralisation wireframes. The percentage of the volume of each block below the top of bedrock surface and within each mineralisation domain was calculated using the 3-D geological models and a 3-D surface model. The gold and silver grades were estimated for each block using ordinary kriging with locally varying anisotropy (LVA) to ensure grade continuity in various directions is reproduced in the block model. The MRE is reported as undiluted within a series of optimized pit shells. Details regarding the methodology used to calculate the MRE are documented in this Technical Report section.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, market or other relevant issues. The quantity and grade of reported Inferred Resource is uncertain in nature and there has not been sufficient work to define the Inferred Mineral Resource as an Indicated or Measured Mineral Resource.

The calculated open pit cut-off of 0. 4 g/t AuEq was selected in reporting the pit constrained Mineral Resource in the 2022 Mineral Resource Estimate using the 5 m x 5 m x 5 m SMU block size model (Table 14-22).

The calculated cut-off of 1.5 g/t AuEq was selected in reporting the out-of-pit Mineral Resources in the 2022 Mineral Resource Estimate (Table 14-22). The out of pit Mineral Resource below the pit constrained Mineral Resource are reported within wireframe solids that encapsulate contiguous 5 m x 5 m x 5 m out-of-pit blocks that are above the 1.5 g/t AuEq cut-off.

Table 14-22: Lawyers Mineral Resource Estimate (1-8)

Mineral Resource Area	Classification	Tonnes (k)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (Moz)	AuEq (koz)
Pit-Constrained Mineral Resource Estimate @ 0.4 g/t AuEq* Cut-off								
Cliff Creek	Measured	13,671	1.19	20.5	1.45	522	9.0	635
	Indicated	40,762	1.16	16.3	1.33	1,477	21.4	1,744
	Inferred	2,114	0.93	11.8	1.08	63	0.8	73
AGB	Measured	6,633	1.24	51.1	1.88	264	10.9	401
	Indicated	4,740	0.78	33.9	1.21	119	5.2	184
	Inferred	151	0.58	27	0.92	3	0.1	4
Total	Measured	20,304	1.21	30.5	1.88	787	19.9	1,036
	Indicated	45,502	1.09	18.2	1.32	1,596	26.6	1,928
	Inferred	2,265	0.91	12.8	1.07	66	1.0	78
Out-of-Pit Mineral Resource Estimate @ 1.5 g/t AuEq* Cut-off								
Cliff Creek	Indicated	1,158	3.17	50.1	3.80	118	1.9	141
	Inferred	2,302	3.52	59.4	4.26	260	4.4	315
AGB	Indicated	411	1.55	89.3	2.66	20	1.2	35
	Inferred	306	1.83	33.5	2.25	18	0.3	22
Total	Indicated	1,569	2.74	60.6	3.50	138	3.1	177
	Inferred	2,608	3.32	56.3	4.02	278	4.7	337
Total Mineral Resource Estimate @ 0.4 g/t Au-Eq* Cut-off Pit-Constrained & 1.5 g/t AuEq* Cut-off Out-of-Pit								
All	Measured	20,304	1.21	30.5	1.88	787	19.9	1,036
	Indicated	47,071	1.15	19.6	1.39	1,734	29.6	2,105
	M & I	67,376	1.16	22.9	1.45	2,521	49.6	3,141
	Inferred	4,873	2.20	36.1	2.65	345	5.7	415

Notes:

1. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.
2. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, title, taxation, socio-political, marketing, or other relevant issues.
3. The Inferred Mineral Resource in this estimate has a lower level of confidence than that applied to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of the Inferred Mineral Resource could potentially be upgraded to an Indicated Mineral Resource with continued exploration.
4. The Mineral Resources were estimated in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM), CIM Standards on Mineral Resources and Reserves, Definitions (2014) and Best Practices Guidelines (2019) prepared by the CIM Standing Committee on Reserve Definitions and adopted by the CIM Council.
5. Historical mined areas were removed from the block modelled Mineral Resources.
6. Metal prices used were US$1,750/oz Au and US$20/oz Ag and 0.78 US$ICDN$ FX with process recoveries of 90% Au and 83% Ag. A C$14.50/t process cost and C$5/t G&A cost were used. The Au:Ag ratio was 80:1 for the purposes of calculating AuEq.
7. The constraining pit optimization parameters were C$3.15/t mineralised and waste material mining cost and 50° pit slopes with a 0.4 g/t AuEq cut-off.
8. The Out-of-Pit Mineral Resource grade blocks were quantified above the 1.5 g/t AuEq cut-off, below the constraining pit shell and within the constraining mineralised wireframes. Out-of-Pit Mineral Resources selected exhibited continuity and reasonable potential for extraction by the long hole underground mining method. Differences may occur in totals dues to rounding.

Source: APEX (2022)

14.11.1 Mineral Resource Sensitivity

Mineral Resources can be sensitive to the selection of the reporting cut-off grade. For sensitivity analyses, other cut-off grades are presented for review. Mineral Resources at various cut-off grades are presented for the Pit Constrained and Out-of-Pit Mineral Resources in Table 14-23

Table 14-23: Sensitivities of Combined In-Pit-Constrained and Out-of-Pit Mineral Resource Estimate

Cut-off AuEq (g/t)	Tonnes (k)	Au (g/t)	Ag (g/t)	AuEq (g/t)	Au (koz)	Ag (Moz)	AuEq (koz)
Measured & Indicated							
0.20/1.5	99,483	0.94	18.14	1.08	3,004	58,012	3,444
0.30/1.5	81,834	1.09	21.11	1.25	2,871	55,549	3,294
0.35/1.5	74,107	1.08	21.34	1.35	2,584	50,842	3,219
0.4/1.5	**67,376**	**1.26**	**24.39**	**1.45**	**2,738**	**52,867**	**3,141**
0.5/1.5	56,205	1.44	27.78	1.65	2,596	50,191	2,980
0.6/1.5	47,762	1.61	31.09	1.84	2,465	47,734	2,831
Inferred							
0.2/1.5	6,396	1.90	30.99	2.09	392	6,372	430
0.3/1.5	5,615	2.14	34.82	2.35	386	6,287	424
0.35/1.5	5,193	2.29	37.30	2.51	382	6,228	419
0.4/1.5	**4,873**	**2.39**	**39.41**	**2.63**	**378**	**6,187**	**415**
0.5/1.5	4,368	2.64	43.40	2.91	371	6,095	408
0.6/1.5	4,046	2.81	46.33	3.09	366	6,026	402

Source: APEX (2022)

14.12 Risk and Uncertainty in the Mineral Resource Estimate

Compared to historical drilling and mining at Cliff Creek, Dukes Ridge, and AGB, historical work at Phoenix is not as well documented, making it challenging to validate. Despite this, the modern drilling at Phoenix does agree with historical drilling. While a source of risk, the Mineral Resources contributed to the Lawyers Project by Phoenix is not as substantial as the other areas.

Modelling structurally controlled gold deposits has inherent risk. This style of gold deposit is very complex regarding geological and mineralisation continuity. Broader zones with a high density of veins, breccia zones, or structural features favorable to mineralisation provide much less uncertainty as they are easier to map and predict. Connecting drill hole intercepts of thin mineralised discrete vein or vein zones into continuous interpretations is a more significant source of uncertainty. Pit-constrained Mineral Resources have less risk since mining does not need to be as selective with out-of-pit Mineral Resources. De-risking the geological continuity for this Deposit style requires rigorous interpretation and high-quality orientated structural data from drilling. The current mineralised grade estimation domain interpretations are well-founded and supported by modern drilling, often in several differing orientations based upon significant structural modelling using orientated drill core. There are some areas with wider spaced drilling that, with additional drilling, may cause changes in the mineralised grade estimation domain interpretations. Moreover, additional drilling is completed, updating the mineralisation on an ongoing basis and working to remove internal dilution as much as possible will confidence increases in the mineralised grade domain interpretation.

The construction of the grade estimation domains primarily considered AuEq using a ratio of 114 to 1 to increase the weight of gold mineralisation. However, the correlation between gold and silver mineralisation is not always high, which causes areas within the grade estimation domains that contain more internal dilution than desired. Very restrictive search strategies are needed to ensure areas with increased internal dilution are not over- or under-estimated due to smoothing. Future Mineral Resource assessments should explore the option of creating separate grade estimation domains for gold and silver in zones where the two metals do not illustrate strong collocated and spatial correlation. If possible, this will minimize the smoothing effects of grade estimation, allow more data to be used when estimating grades, and provide a more robust Mineral Resource Estimate.

Grade estimation domain construction for gold-silver in the 2021 MRE utilized a mix of modern drilling and historical pre 2000 drill holes which were on the order one-third historical drill holes (more than 250) and two-thirds modern drill holes. The current MRE herein has utilized more than 800 modern drill holes and less than 50 historical drill holes providing a much more modern and robust assay database along with properly located drill holes for both collars and down-hole surveys from which to estimate grade. Additional drilling should be directed at replacing most of the historical drill holes being used in the grade estimate where possible, all though in areas where there are significant historical mine workings, this may be somewhat difficult.

The Authors are not aware of any other significant material risks to the MRE other than the risks that are inherent to mineral exploration and development in general. The Authors of this report are not aware of any specific environmental, permitting, legal, title, taxation, socio-economic, marketing, political or other relevant factors that might materially affect the results of this Mineral Resource Estimate and there appears to be no obvious impediments to developing the MRE at the Lawyers Project.

15 MINERAL RESERVE ESTIMATE

Mineral reserves can only be estimated as a result of an economic evaluation as part of a preliminary feasibility study or a feasibility study of a mineral project. Accordingly, at the present level of development, there are no mineral reserves for the Project.

16 MINING METHODS

16.1 Introduction

The Project contains two near-surface low-grade gold deposits, AGB and Cliff Creek, situated on the top of a ridge separated by approximately 2 km. Conventional open pit mining is appropriate for these deposits due to its relative low cost and high productivity, and the proximity to surface of the mineralised material. Over the life of mine the deposits are able to produce approximately 47 Mt of resources at a grade of 1.46 g/t AuEq and an overall strip ratio of 6:1. Mining activities will average 70 kt/d with a peak of 110 kt/d over a 12-year life of mine, in order to meet a Mill processing rate of 10,600 t/d (3.9 Mt/a).

16.2 Deposit Characteristics

The Project contains two near-surface low-grade gold deposits, AGB and Cliff Creek which contain several parallel and steeply dipping gold bearing structures. The block model for Cliff Creek also includes the area referred to elsewhere in this Report as the Dukes Ridge zone and any references to Cliff Creek in this section, are inclusive of the Dukes Ridge zone. The Mineral Resources have been modelled such that the mineralisation ranges from metres to tens of metres thick, have a strike lengths of approximately 0.75 km to 1.5 km and extend up to 600 m in depth.

Figure 16-1: Top View of the Block Models

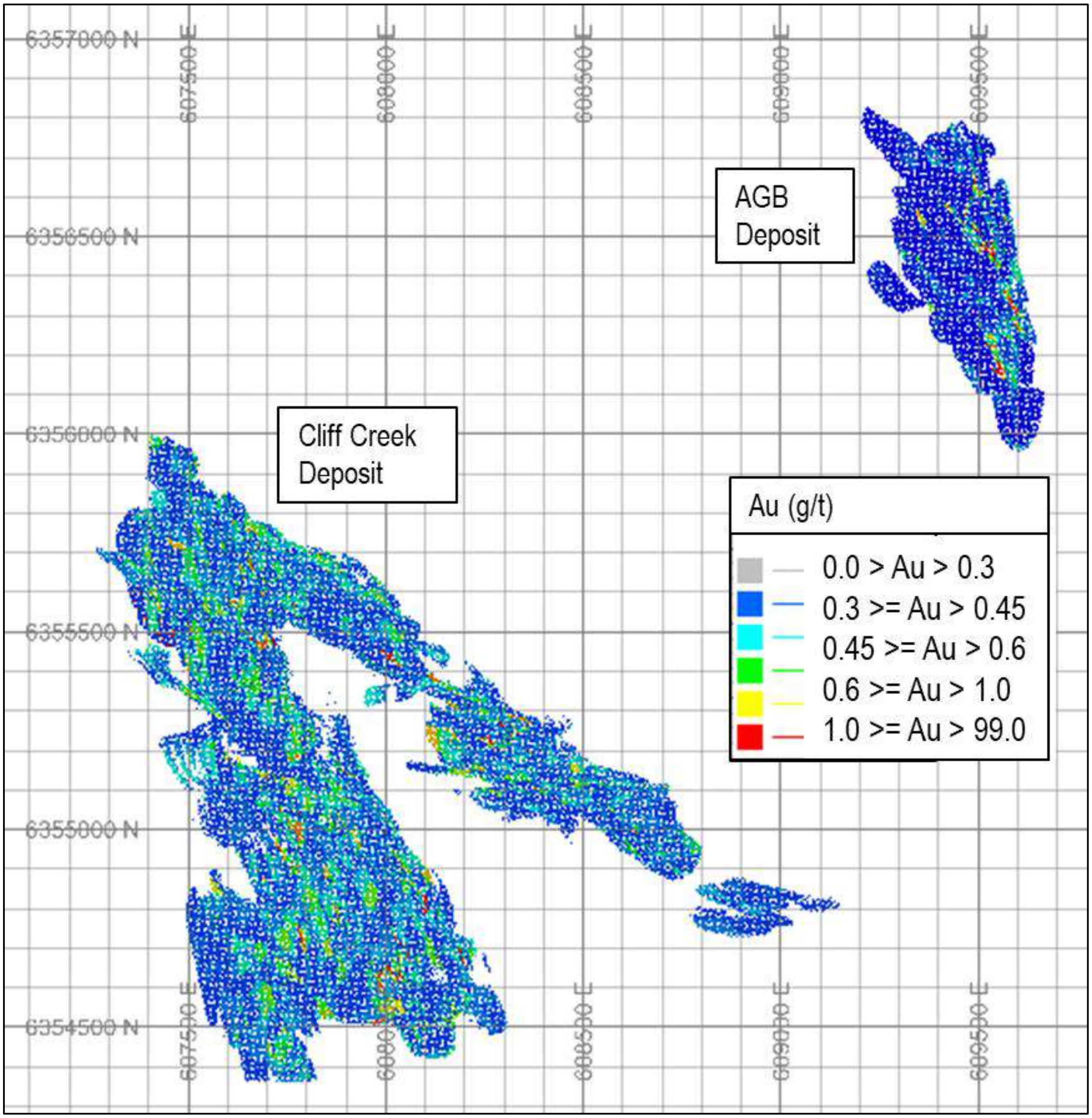
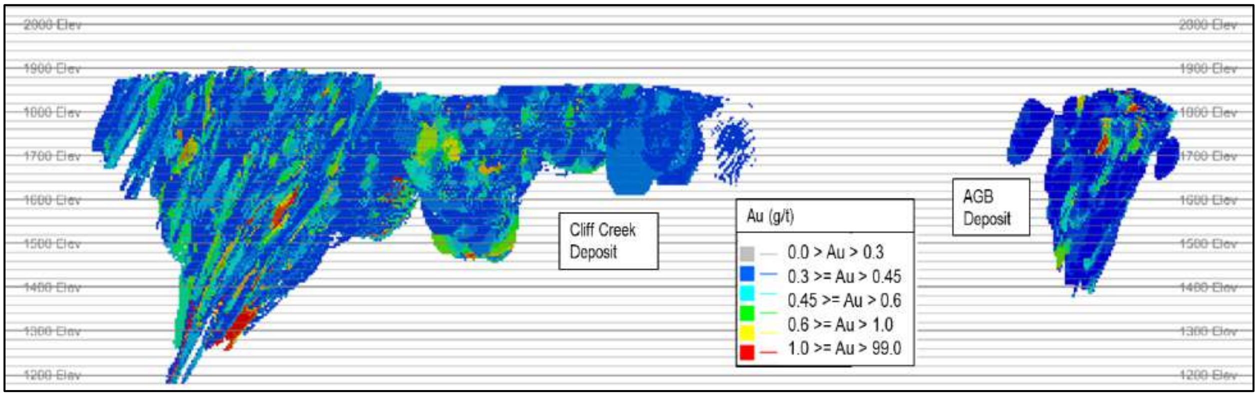


Figure 16-2: Side View of the Block Models (looking North-West)



16.3 Geotechnical Analysis and Recommendations

16.3.1 Geotechnical Characterization

Geotechnical field investigations were carried out in 2020 and 2021 to characterize rock mass conditions in support of open pit slope designs. Four resource drill holes (one drill hole at AGB and three at Cliff Creek) were geotechnically logged in November 2020 to support the PEA pit design.

A feasibility-level geotechnical field program was subsequently completed in 2021 in preparation for a future feasibility study on the project. This program included seven additional geotechnical drill holes (three at AGB and four at Cliff Creek), routine point load testing as well as Optical (OTV) and Acoustical (ATV) televiewing. A laboratory testing program was also carried out on core samples selected from the 2021 geotechnical drill holes consisting of uniaxial compressive strength (UCS), Brazilian Indirect Tensile Strength and measurements of unit weight and elastic properties.

Geotechnical data collection efforts to date have concentrated primarily on the Cliff Creek and AGB deposits due to their high overall contribution to the Resource. Several smaller deposits, such as Dukes Ridge, occur as satellite deposits between Cliff Creek and AGB. A review of core photos for the smaller, satellite deposits indicate similar geotechnical conditions to Cliff Creek and AGB but will need to be confirmed as the project advances.

Geotechnical logging was conducted according to the Bieniawski (1989) rock mass rating (RMR) system. Logging parameters collected include total core recovery (TCR), rock quality designation (RQD), estimates of intact rock strength, weathering, fracture frequency/spacing and discontinuity conditions. Additionally, discontinuity orientation data was collected from oriented core and routine point load tests were completed as part of the geotechnical logging program for each of the eleven drill holes. JDS has reviewed the geotechnical logging data and spot-checked data against respective core photographs to confirm data quality and internal consistency. JDS considers the data to be accurate and reliable for a PEA-level of study.

Logging data from both the 2020 and 2021 field investigations were compiled and analysed at a PEA level to provide the basis for the PEA geotechnical pit design. Point load test data, laboratory test results and televiewer data from the 2021 feasibility program have been reviewed at a high level for quality control and completeness. Further detailed analysis of the data will be conducted when the feasibility study is initiated.

16.3.2 Rock Mass Quality

The lithologies expected to comprise pit walls are dominated by thick sequences of volcanic tuffs and flows. Less than one percent of geotechnically logged core runs consisted of non-volcanic lithologies, such as mafic dikes and hydrothermal breccia.

The geotechnical drilling data indicate that overall rock mass quality between the various volcanic units is consistent and is expected to be generally of ‘Good’ quality according to the RMR (Bieniawski, 1989) rock mass classification system. The anticipated range of RMR as well as the average UCS values are summarized for each deposit in Table 16-1.

Table 16-1: Summary of Rock Mass Characteristics by Deposit

Deposit	Number of Core Runs	Field Est. Avg. UCS (MPa)	Laboratory Avg. UCS (MPa)	RMR_{89}		
				20%	Avg.	80%
AGB	434	101	95	65	72	79
Cliff Creek	1101	103	105	65	71	78

16.3.3 Geologic Structure

Due to the overall good rock mass quality and high intact rock strength, maximum achievable pit slope angles are anticipated to be controlled by geologic structure as opposed to rock mass strength. Discontinuity orientation data obtained from the oriented core and televiewing programs is consistent with the overall structural understanding of the project. Two dominant joint sets were identified consisting of a sub-horizontal set that parallels the volcanic strata and a sub-vertical northwest-southeast trending set parallel to regional normal faulting. Additional, secondary joint sets are likely and will need to be further assessed as the project advances.

16.3.4 Pit Geotechnical Design Recommendations

Based on the anticipated rock mass quality and dominant discontinuity trends, an inter-ramp slope angle of 52° is recommended for PEA mine planning. In order to estimate overall slope angles to be used for developing pit shells, inter-ramp slope angles should be reduced in sectors where ramp systems are planned.

16.4 Hydrogeology Analysis and Recommendations

A geomechanical and hydrogeological site investigation program was completed at the Project to supplement the hydrogeological data that supports the open pit slope geometry recommendations. Seven geomechanical drill holes and one resource drill hole were advanced as part of the site investigation. Drilling and logging of core was overseen by APEX. The site investigation activities conducted by KP included:

- Packer testing in six geomechanical drill holes as the drill holes were advanced. Twenty-eight packer tests were conducted; and
- Installation of multi-point Vibrating Wire Piezometer's (VWPs) in drill holes 21CCDD045 and 21CCDD055 in the Cliff Creek deposit area and 21AGBDD053 in the AGB deposit area to facilitate long-term monitoring of groundwater levels.

Results of packer testing in the Cliff Creek deposit area suggest the permeability of the rock is low to elevated (10^{-8} to 10^{-6} m/s) in the upper 100 m to 150 m from surface. The higher permeability test results at shallow depths are likely attributed to geologic structures. All other testing resulted in moderate to very low permeabilities ($5x10^{-7}$ m/s or less), which decreased to 10^{-8} m/s or less below 200 m. Water levels in the northern Cliff Creek deposit area appear to be influenced by the nearby underground works with piezometric elevations reported at VWPs installed in drill hole 21CCDD045 approximately the same elevation as the Cliff Creek portal (1750 to 1752 masl). Water levels reported in shut-in tests conducted in the southern Cliff Creek deposit area generally decreased with depth and ranged from 21 mbgs in near surface test zones to 202 mbgs (1730 masl) in drill hole 21CCDD041. The deeper water level in 21CCDD041 indicates a geologic structure or structures at depth are permeable conduits, likely the structure logged at 350 m downhole.

Results of packer testing in the AGB deposit suggest the permeability of the rock is moderate (on the order of 10^{-7} m/s) and the permeability of geologic structures is elevated and on the order of 10^{-6} m/s. The AGB deposit area is being drained by the historic underground works or geologic structures or both. Water was often present in the upper packer test intervals and the shallowest VWP sensor and then packer tests encountered mostly deeper water levels with depth. The water levels reported at deeper VWP sensors in 21AGBDD053 and measured in open drill holes at the completion of drilling (21AGBDD040 and 21AGBDD041) report water levels that are between 1618 to 1666 masl, which are equivalent to 155 to 165 mbgs. Groundwater in the southern portion of the AGB deposit is expected to be flowing toward Cliff Creek, which has an elevation of 1560 masl immediately south of the deposit.

16.5 Mining Methods

For this PEA, conventional, open pit mining was selected as the preferred mining method due to its relative low cost and high productivity, as well as the proximity to surface of the mineralised material. The open pit was selected from a series of optimized pit shells for each deposit. Each of the selected shells were then divided into pushbacks to help optimize the production schedule. The details of these steps are described in detail below.

16.5.1 Optimization

The open pit optimization process generates a series of nested pit shell surfaces for the purpose of approximating potentially mineable Resources at each of the deposits. The Lerchs-Grossmann algorithm in the NPVS software package was used for the optimization and associated analysis. The resulting nested pit shells were generated by varying the profit factor applied to the base case values.

16.5.1.1 Basis of Estimate

Resource Model

The mineable resource for the property is based on the Mineral Resource estimate completed by P&E Mining Consultants Inc. (Qualified Person, Eugene Puritch, P.Eng.) with an effective date of 11 June 2022 for the AGB and Cliff Creek deposits. The models include parameters that describe Resource classification, domain, block factor (percent of block that is considered as a resource), gold grade and silver grade. In-situ densities applied were 2.67 t/m^3 for resources and 2.65 t/m^3 for waste. The blocks models were imported by JDS and validated against the Resource tables provided prior to any mine design and open pit optimization.

Metal Prices

The metal prices used to in the pit optimization analyses was set at US$1,725/oz for gold and US$22/oz for silver which represent the approximate 3-year trailing average at the time of the pit optimization.

Royalties and Selling Costs

Net selling costs including payables, treatment, refining, transportation and insurance were assumed to be US$5/oz.

Mining Method and Operating Costs

A conventional truck/shovel open pit mining method was selected for the deposits. Mining costs used in the pit optimization were based on a preliminary first-principles cost build-up and confirmed to be a reasonable estimate when compared to other similar projects.

Processing and G&A Operating Costs

Processing and General & Administrative (G&A) operating costs were developed for the treatment of mineralised material. The battery limits for the determination of the Mill process operating costs commence from the crushing facilities and continue through to gold and silver production. The operating costs were based on production rates of 3.9 Mt/a (10,600 t/d).

Mine Dilution and Losses

A 10% dilution was applied to each deposit which was estimated by running an edge routine to estimate the average contact area between resources and waste materials. A 5% loss of resources was applied to account for potential operational issues such as blast movement, mining selectivity, mis-directed loads and carry-back.

Mill Recovery

Metallurgical recovery models were created to predict the average recovery of gold and silver for each deposit. Gold recovery is expected to be 92% to 93% while silver recovery ranges from 61% to 83%.

Overall Pit Slope Angles

Overall pit slope angles for each deposit were estimated by adjusting the recommended Inter-ramp angles as described in Section 16.3, to include an allowance for access ramps. To determine the potential location of pit access ramps, a preliminary pit shell was selected and subsequently designed, to add in a 10% grade ramp to access the lowest bench. The ramp width was assumed to be 25.5 m (sized for a 144 t truck). The overall slopes were then calculated based on the preliminary pit design. For the final pit optimizations, AGB was estimated to have an overall slope of 44º while Cliff Creek is expected to be approximately 47º.

16.5.1.2 Input Parameters

The pit shell generation was not constrained by any existing infrastructure as the only existing features are exploration access roads. All of the major infrastructure facilities planned for the project (waste rock storage facilities, tailings storage facility, offices, maintenance shops, fuel storage, processing facilities, permanent camp, and water storage ponds) will be external to the ultimate pit designs and their area of influence.

Table 16-2 below summarizes the optimization input parameters for each deposit.

Table 16-2: Preliminary Open Pit Optimization Input Parameters

Parameter	Unit	AGB Deposit	Cliff Creek Deposit
Gold price	US$/oz Au	1,725	1,725
Silver Price	US$/oz Ag	22	22
Exchange Rate	US$/oz Au	0.77	0.77
Payable met–l - Au	%	99.7	99.7
Payable met–l - Ag	%	99.0	99.0
TC/RC/Transport	US$/oz	5	5
Royalty	%	0	0
OP Mining Cost	C$/t mined	3.5	3.5
Mill Process Cost	C$/t processed	20.2	19.4
Sustaining CAPEX	C$/t processed	2.0	2.0
G&A	C$/t processed	5.6	5.6
External Mining Dilution	%	10	10
Mining Recovery	%	95	95
Gold Recovery	%	92.1	92.5

Parameter	Unit	AGB Deposit	Cliff Creek Deposit
Silver Recovery	%	60.6	83.0
Gold Equiv Cut-off Grade	g/t Au	0.46	0.45
Inter-ramp Pit Slope Angles	degrees	52	52
Overall Slope Angle	degrees	44	47
Discount Rate	%	5	5
Process Production Rate	t/d	10,600	10,600
Process Production Rate	Mt/a	3.9	3.9

Note:

These parameters differ slightly from those used in the economic model due to subsequent, more detailed estimation work but the differences are not considered material.

*TC/RC/Transport have been applied to both Au and Ag.

16.5.1.3 Optimization Results

Each of the two deposits was evaluated separately by varying the profit factor to produce a series of nested pit shells and their respective Net Present Value (NPV). The results were analysed, and specific shells were chosen as the basis for ultimate limits and phase selection.

The results of the pit optimization evaluation for the AGB deposit are summarized in Table 16-3, Figure 16-1 and Figure 16-2. The optimization software produces both a best case and worse case mining scenario to provide a bracket for the range of potential economic outcomes. Note that the NPV in this optimization summary does not take into account capital expenditures and is used only as a guide in shell selection and determination of the mining shapes. The ultimate pit shells were selected not only on the basis of maximizing NPV, but also minimizing the addition of increasingly lower grade and higher strip ratio mineralised material (i.e., higher incremental strip ratios) that generate only a minimal improvement on the overall NPV. Pit Shell #23 (profit factor 0.46) was selected for the AGB deposit as a basis for mine production scheduling.

Table 16-3: Overall Results of the AGB Deposit Open Pit Optimization

LG Shell (#)	Profit Factor %	Mill Feed (Mt)	Au (g/t)	Au (Moz)	Ag (g/t)	Ag (Moz)	Waste (Mt)	SR (w:o)	Total (Mt)	TCF (CAD$M)	NPV Best (CAD$M)	NPV Worst (CAD$M)
Pit 2	4%	1.89	1.51	0.1	54.3	3.3	1.8	0.9	3.7	166.0	164.2	164.2
Pit 4	8%	2.66	1.44	0.1	51.5	4.4	2.8	1.0	5.4	217.5	214.2	214.1
Pit 6	12%	3.29	1.35	0.1	48.7	5.2	3.7	1.1	7.0	246.0	241.6	241.3
Pit 8	16%	3.82	1.30	0.2	46.9	5.8	4.9	1.3	8.7	268.0	262.6	262.1
Pit 10	20%	5.14	1.32	0.2	46.4	7.7	10.2	2.0	15.3	353.6	343.1	341.8
Pit 12	24%	5.37	1.32	0.2	46.1	7.9	11.2	2.1	16.6	366.0	354.7	353.1

LG Shell (#)	Profit Factor %	Mill Feed (Mt)	Au (g/t)	Au (Moz)	Ag (g/t)	Ag (Moz)	Waste (Mt)	SR (w:o)	Total (Mt)	TCF (CAD$M)	NPV Best (CAD$M)	NPV Worst (CAD$M)
Pit 14	28%	5.70	1.32	0.2	46.3	8.5	13.0	2.3	18.7	383.6	371.0	369.0
Pit 16	32%	6.15	1.31	0.3	46.8	9.3	15.9	2.6	22.1	406.9	392.6	389.9
Pit 18	36%	6.70	1.32	0.3	47.6	10.3	20.6	3.1	27.3	437.8	420.9	417.2
Pit 20	40%	6.88	1.32	0.3	47.8	10.6	22.1	3.2	29.0	445.9	428.3	424.3
Pit 22	44%	7.05	1.32	0.3	47.8	10.8	23.4	3.3	30.5	452.2	434.0	429.7
Pit 23	**46%**	**7.20**	**1.31**	**0.3**	**47.9**	**11.1**	**24.7**	**3.4**	**31.9**	**457.5**	**438.8**	**434.3**
Pit 24	48%	7.22	1.31	0.3	47.9	11.1	24.9	3.4	32.1	458.1	439.4	434.8
Pit 26	52%	7.32	1.30	0.3	47.6	11.2	25.4	3.5	32.7	459.7	440.9	436.1
Pit 28	56%	7.37	1.30	0.3	47.6	11.3	25.9	3.5	33.2	461.0	442.0	437.2
Pit 30	60%	7.40	1.30	0.3	47.6	11.3	26.0	3.5	33.4	461.4	442.4	437.5
Pit 32	64%	7.56	1.30	0.3	47.9	11.6	28.0	3.7	35.5	465.2	445.9	440.6
Pit 34	68%	7.65	1.29	0.3	47.7	11.7	28.9	3.8	36.6	466.9	447.4	441.8
Pit 36	72%	7.69	1.29	0.3	47.6	11.8	29.2	3.8	36.9	467.3	447.7	442.1
Pit 38	76%	7.77	1.29	0.3	47.7	11.9	30.1	3.9	37.8	468.2	448.6	442.7
Pit 40	80%	7.88	1.28	0.3	47.6	12.0	31.3	4.0	39.2	469.4	449.7	443.5
Pit 42	84%	7.98	1.28	0.3	47.6	12.2	32.2	4.0	40.2	470.1	450.3	443.9
Pit 44	88%	7.99	1.28	0.3	47.6	12.2	32.4	4.0	40.3	470.2	450.4	443.9
Pit 46	92%	8.02	1.27	0.3	47.6	12.3	32.7	4.1	40.7	470.3	450.5	443.9
Pit 48	96%	8.05	1.27	0.3	47.4	12.3	33.0	4.1	41.0	470.4	450.5	443.9
Pit 49	100%	8.06	1.27	0.3	47.4	12.3	33.0	4.1	41.1	470.4	450.5	443.9
Pit 51	104%	8.07	1.27	0.3	47.4	12.3	33.2	4.1	41.2	470.3	450.5	443.8
Pit 53	108%	8.08	1.27	0.3	47.4	12.3	33.3	4.1	41.4	470.3	450.5	443.8
Pit 55	112%	8.12	1.27	0.3	47.3	12.3	33.7	4.2	41.8	470.2	450.4	443.6
Pit 57	116%	8.12	1.27	0.3	47.3	12.3	33.7	4.2	41.9	470.2	450.4	443.6
Pit 59	120%	8.19	1.27	0.3	47.2	12.4	34.8	4.3	43.0	469.6	449.9	442.9

Figure 16-3: AGB Deposit Open Pit Optimization - Overall Summary

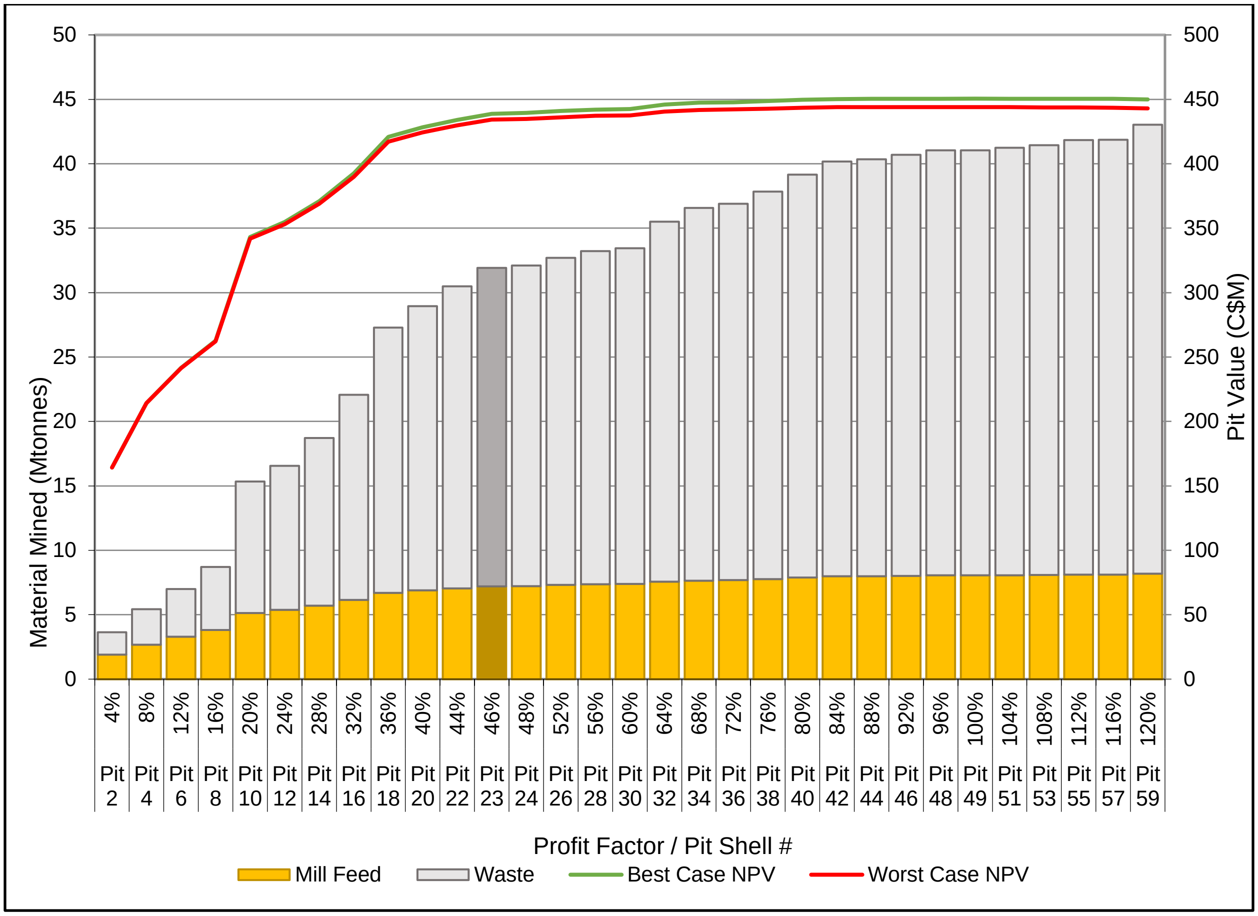
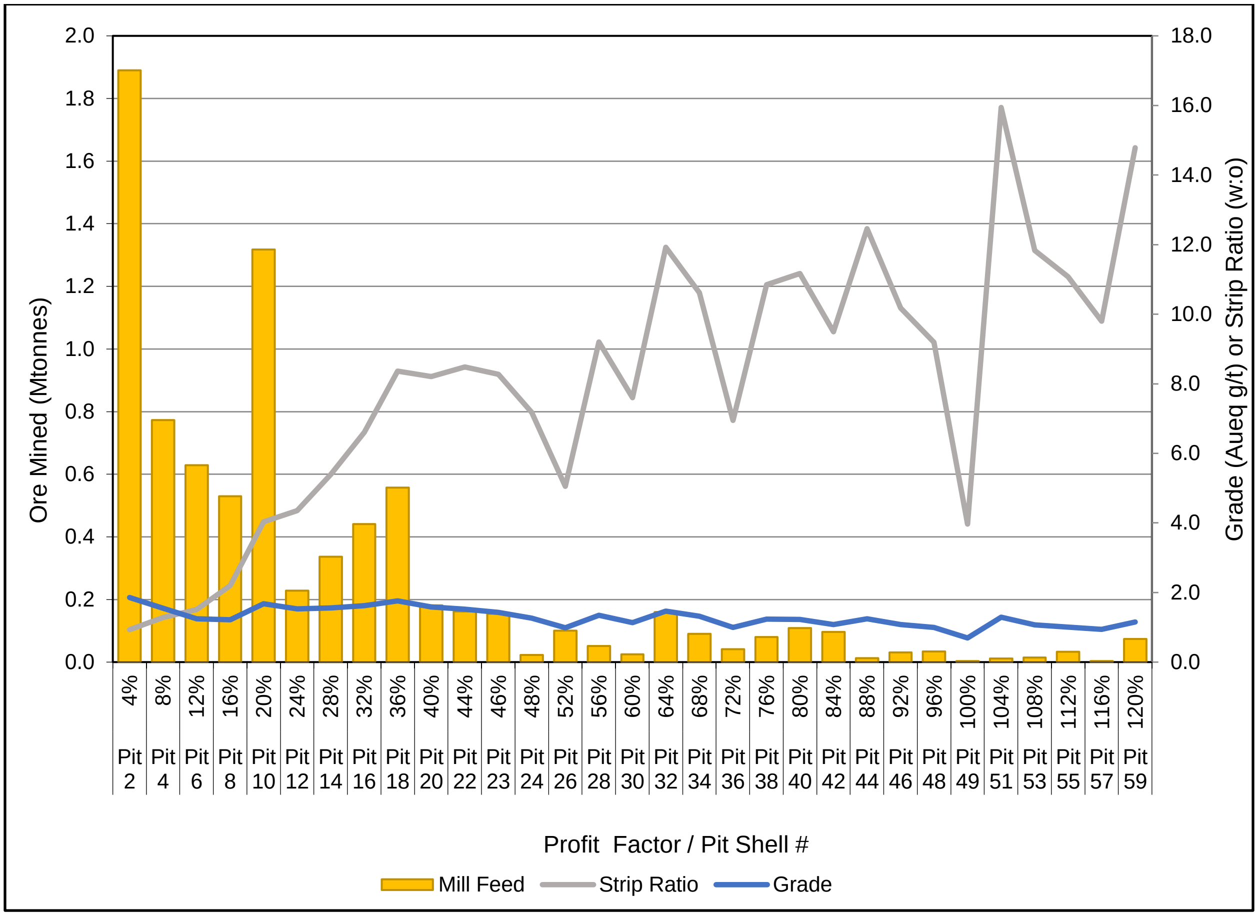


Figure 16-4: AGB Deposit Open Pit Optimization - Incremental Results



Note:
AuEq for AGB open pit optimization is Au + Ag/155

The same procedure was conducted on the Cliff Creek deposit. The results for varying profit factor values are summarized in Table 16-4, Figure 16-5 and Figure 16-6. Pit Shell #32 (profit factor of 0.64) was selected for the Cliff Creek deposit as a basis for mine production scheduling.

Table 16-4: Overall Results of the Cliff Creek Deposit Open Pit Optimization

LG Shell (#)	Profit Factor %	Mill Feed (Mt)	Au (g/t)	Au (Moz)	Ag (g/t)	Ag (Moz)	Waste (Mt)	SR (w:o)	Total (Mt)	TCF (CAD$M)	NPV Best (CAD$M)	NPV Worst (CAD$M)
Pit 2	4%	2.99	1.39	0.1	21.1	2.0	4.8	1.6	7.8	204.8	200.1	200.0
Pit 4	8%	4.07	1.39	0.2	20.0	2.6	7.5	1.8	11.5	274.4	266.6	265.6
Pit 6	12%	5.12	1.34	0.2	19.2	3.2	10.4	2.0	15.5	322.2	311.8	309.8
Pit 8	16%	5.86	1.33	0.3	18.5	3.5	13.3	2.3	19.1	358.0	345.1	342.2
Pit 10	20%	6.71	1.29	0.3	17.9	3.9	16.3	2.4	23.0	386.5	371.5	367.4
Pit 12	24%	11.22	1.25	0.5	19.3	7.0	40.0	3.6	51.3	579.0	541.1	534.4
Pit 14	28%	13.18	1.23	0.5	19.1	8.1	50.4	3.8	63.5	648.0	600.3	589.8
Pit 16	32%	14.31	1.22	0.6	18.8	8.6	57.2	4.0	71.6	684.7	631.1	617.7
Pit 18	36%	15.08	1.21	0.6	18.5	9.0	61.3	4.1	76.4	703.0	646.3	630.1
Pit 20	40%	26.36	1.14	1.0	17.7	15.0	134.3	5.1	160.7	1,006.7	866.2	804.3
Pit 22	44%	27.04	1.14	1.0	17.6	15.3	138.2	5.1	165.2	1,018.9	875.0	809.1
Pit 24	48%	32.73	1.12	1.2	18.2	19.1	181.6	5.6	214.4	1,154.7	964.9	866.1
Pit 26	52%	34.46	1.13	1.2	18.2	20.1	198.5	5.8	233.0	1,202.8	996.3	883.8
Pit 28	56%	37.49	1.15	1.4	18.0	21.7	234.6	6.3	272.1	1,288.9	1,049.9	910.5
Pit 30	60%	37.77	1.14	1.4	18.0	21.9	236.8	6.3	274.6	1,292.8	1,052.4	910.7
Pit 32	**64%**	**39.09**	**1.15**	**1.4**	**17.9**	**22.5**	**251.1**	**6.4**	**290.2**	**1,316.5**	**1,066.9**	**912.1**
Pit 34	68%	39.86	1.15	1.5	17.8	22.9	261.7	6.6	301.6	1,331.9	1,076.2	912.7
Pit 36	72%	40.20	1.15	1.5	17.8	23.0	266.1	6.6	306.3	1,337.2	1,079.4	912.7
Pit 38	76%	41.43	1.15	1.5	17.8	23.7	281.5	6.8	322.9	1,351.4	1,087.9	908.0
Pit 40	80%	41.47	1.15	1.5	17.8	23.7	281.7	6.8	323.2	1,351.6	1,088.0	907.7
Pit 42	84%	42.53	1.15	1.6	17.7	24.2	296.9	7.0	339.4	1,361.5	1,093.7	899.4
Pit 44	88%	42.59	1.15	1.6	17.7	24.2	297.3	7.0	339.9	1,361.7	1,093.8	898.8

LG Shell (#)	Profit Factor %	Mill Feed (Mt)	Au (g/t)	Au (Moz)	Ag (g/t)	Ag (Moz)	Waste (Mt)	SR (w:o)	Total (Mt)	TCF (CAD$M)	NPV Best (CAD$M)	NPV Worst (CAD$M)
Pit 46	92%	42.84	1.15	1.6	17.7	24.3	300.6	7.0	343.4	1,362.6	1,094.4	897.0
Pit 48	96%	44.51	1.15	1.6	17.3	24.8	319.8	7.2	364.3	1,366.4	1,096.3	877.3
Pit 50	100%	44.54	1.15	1.6	17.3	24.8	320.1	7.2	364.6	1,366.4	1,096.4	876.9
Pit 52	104%	44.84	1.14	1.6	17.3	24.9	323.4	7.2	368.2	1,366.2	1,096.3	872.8
Pit 54	108%	47.27	1.14	1.7	17.4	26.5	363.4	7.7	410.7	1,361.8	1,092.7	827.2
Pit 56	112%	48.06	1.14	1.8	17.4	26.9	378.8	7.9	426.9	1,357.6	1,090.3	814.3
Pit 58	116%	48.24	1.14	1.8	17.4	26.9	381.1	7.9	429.3	1,356.7	1,089.8	811.4
Pit 59	120%	48.35	1.14	1.8	17.4	27.0	382.8	7.9	431.1	1,356.0	1,089.4	809.5

Figure 16-5: Cliff Creek Deposit Open Pit Optimization - Overall Summary

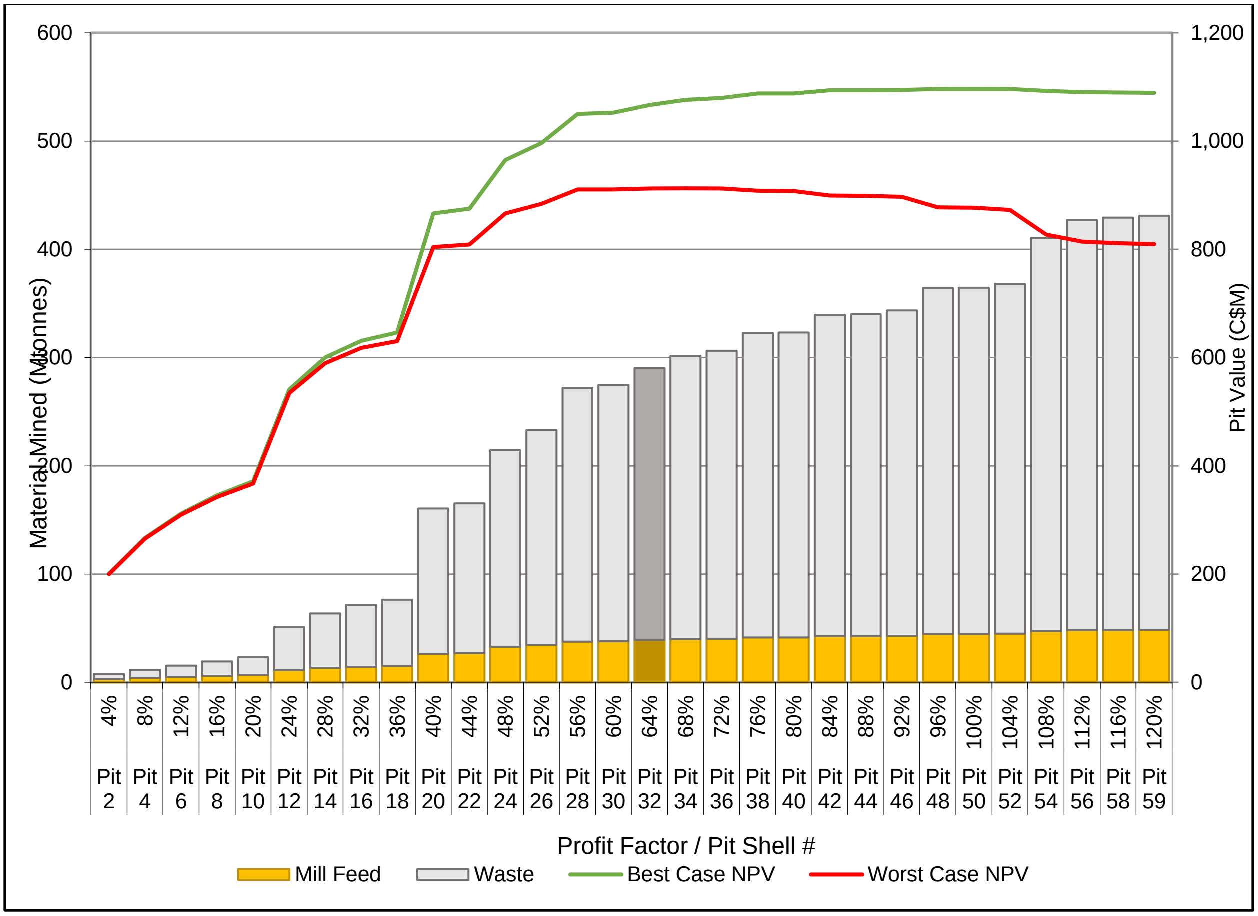
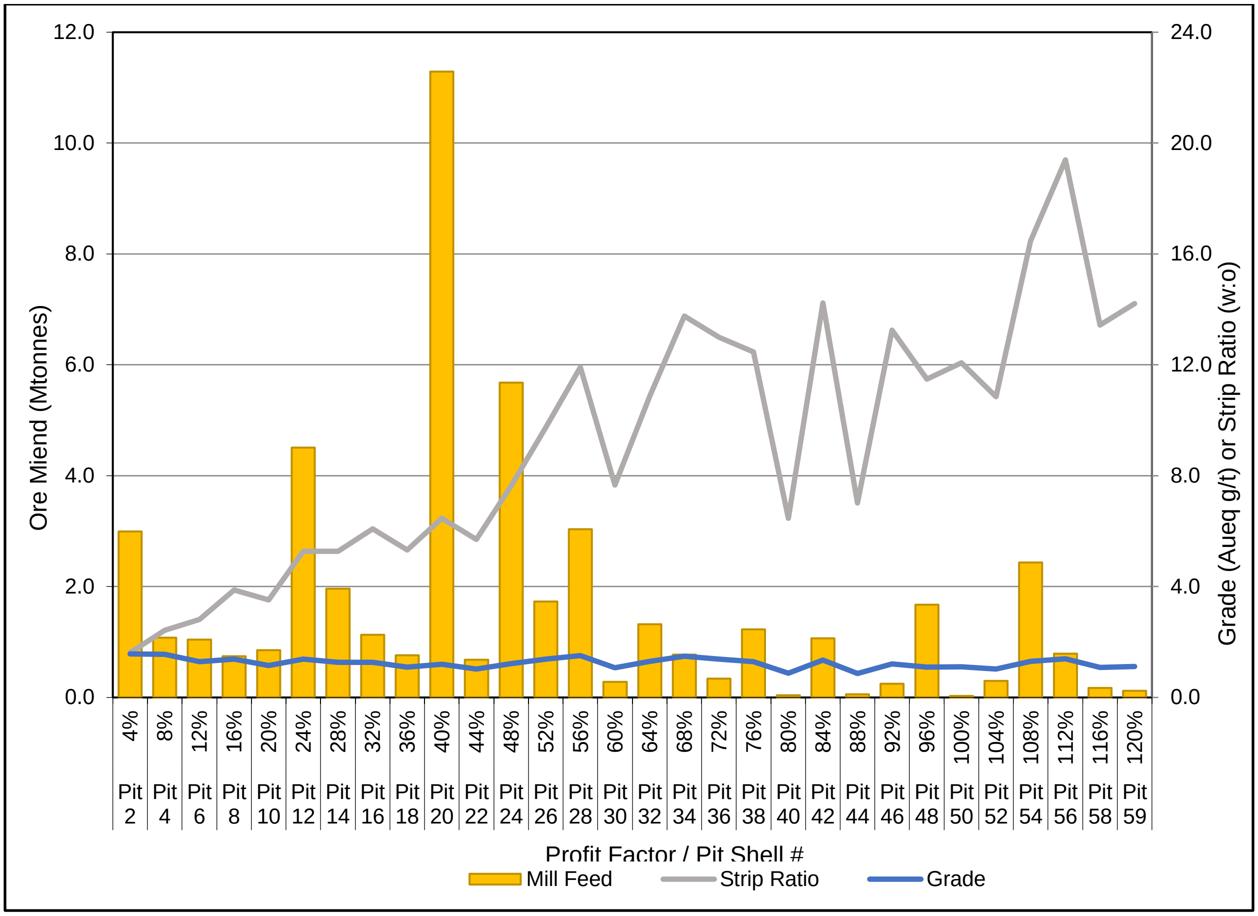


Figure 16-6: Cliff Creek Deposit Pit Open Optimization - Incremental Results



Note:
AuEq for Cliff' Creek open pit optimization is Au + Ag/114

16.5.2 Open Pit Phases

For the AGB pit, a single pushback was used due to the relatively small size and short mine life. The Cliff Creek pit was divided into three separate pushbacks based on the incremental pit shell development sequence as well as the general nature that these areas are relatively physically independent of each other. Figure 16-7 further summarizes the pushback designs, illustrating resource and waste tonnages and net unit value. The unit value of the pushbacks takes into account the net metal price, recovery and operating cost for mining all the material and processing the mill feed. The mining sequence was set to preferentially mine the pushbacks is descending order of net unit value. Figure 16-8 shows the location of each of the four pushbacks.

Figure 16-7: Open Pit Pushback Summary

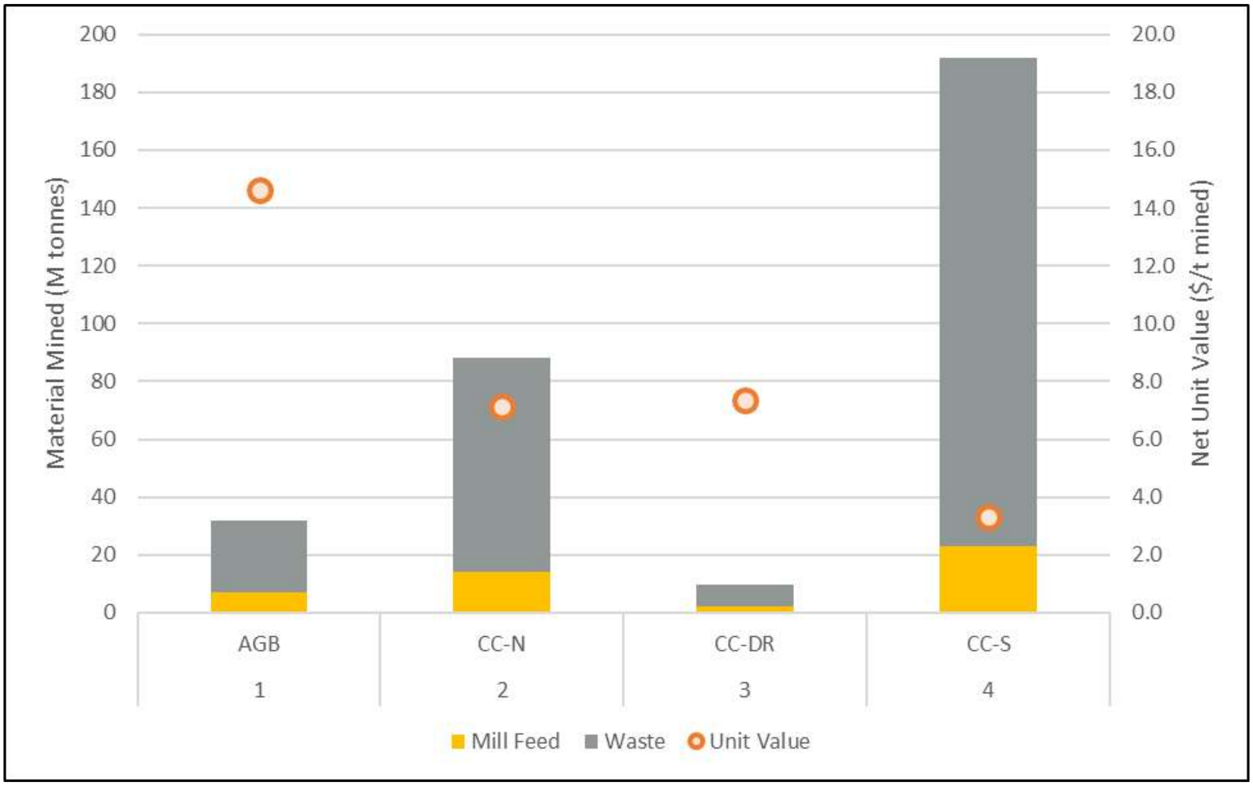
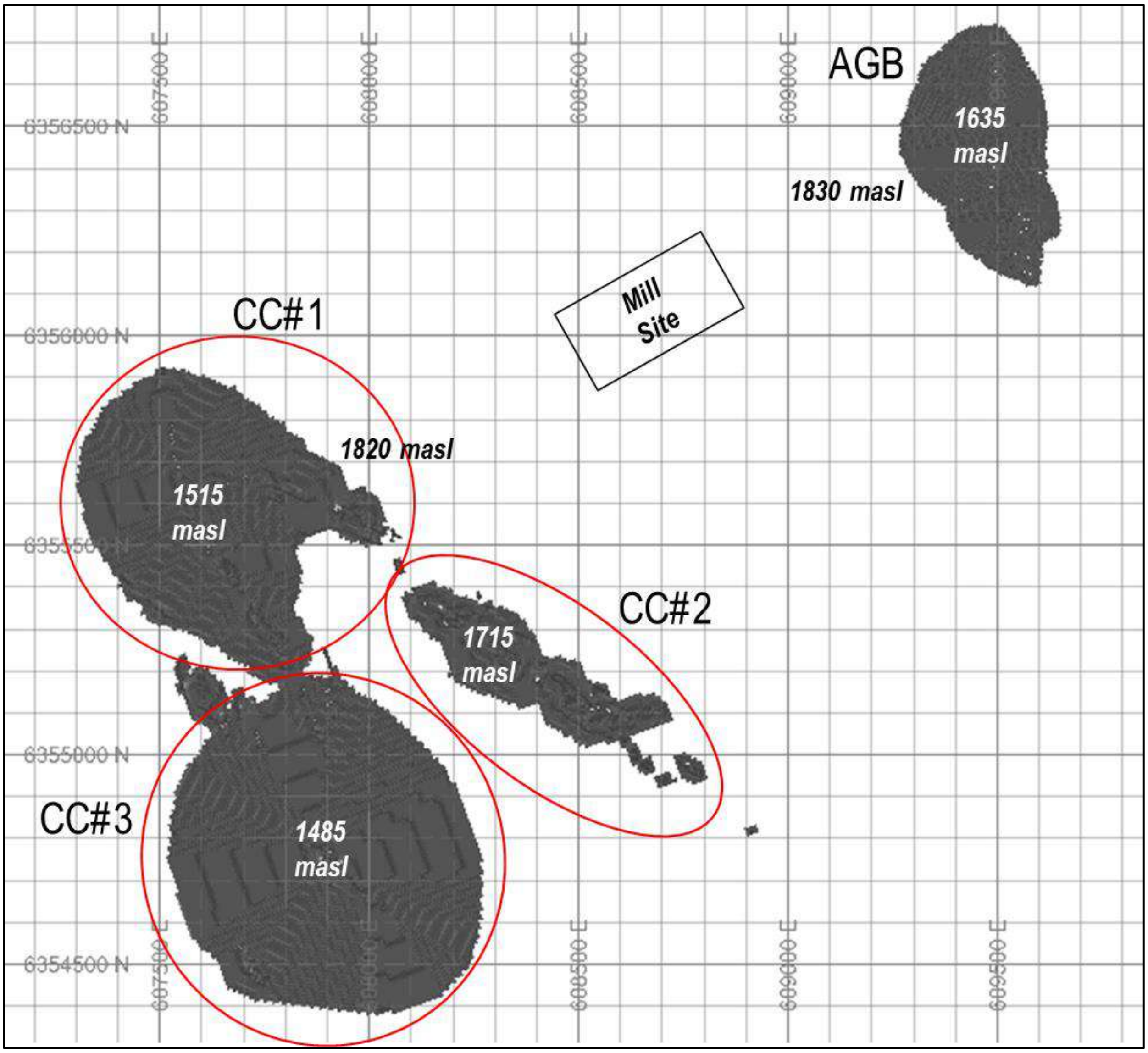


Figure 16-8: Plan View of Mining Pushbacks



16.6 Mine Operations

The open pit mining activities for the Project are expected to be undertaken by an owner-operated truck/shovel fleet with conventional drill, blast, load and haul operations. Bulk excavation will be performed using hydraulic excavators with back-up units of either hydraulic excavators or a front-end loader. Given the overall scale of operations and equipment requirements, a diesel-powered fleet has been selected.

The open pits will provide mill feed to a crusher at a rate of 10,600 t/d (3.9 Mt/a). It is expected that some mill feed material will be stockpiled close to the crusher and rehandled as required. Waste material will be hauled either to the Tailings Management Facility (TMF) as part of the containment structure, to the Waste Rock Storage Facility (WRSF), or back into the various mined-out pits as backfill to minimize the project footprint.

The open pits are expected to be mined in 10 m benches for both waste and mill feed but could be mined in smaller benches if greater selectivity is required.

16.6.1 Drilling and Blasting

Based on the selected bench height of 10 m and the production schedule requirements, a production drill with a 203 mm hole diameter was selected for both waste and mill feed. To ensure the recommended bench face angles (BFA) and inter-ramp angles (IRA) are met, the final wall perimeter will be pre-split using a smaller diameter drill and buffered by wall control blasting techniques. The Drilling and Blasting pattern parameters are shown in Table 16-5.

Table 16-5: Drill and Blast Parameters

	Unit	Mill Feed	Waste	Wall Control
Hole Diameter	mm	203	203	114
Material UCs	MPa	80	80	80
Pen. Rate	m / hr	37.2	37.2	37.2
Drilling Time per Hole	min / hl	17.7	17.7	16.1
Non-Drilling Time per Hole	min / hl	3.5	3.5	5.8
Total Time per Hole	min / hl	21.2	21.2	21.9
Drilling Productivity	**m / NOH**	**31.1**	**31.1**	**27.4**
Bench Height	m	10.0	10.0	10.0
Sub Drill	m	1.0	1.0	0.0
Hole Length	m	11.0	11.0	10.0
Burden	m	5.25	5.25	n/a
Spacing	m	6.0	6.0	1.5
Powder Factor	**kg / m^3**	**0.70**	**0.70**	n/a
	kg / m^2	n/a	n/a	**0.70**

16.6.2 Loading

Diesel hydraulic excavators were selected as the primary loading equipment, supported by a front-end loader (FEL). The main criterion for loading equipment selection is the ability to effectively load trucks with payloads of 144 t, while allowing for somewhat selective mining. As such, front shovels with a 22 m³ bucket primarily undertake the mining of mill feed and waste material, while a 17 m³ FEL complements the main shovel fleet. Operating hours for the loading fleet were estimated based on the amount of material to be moved within a specified period and the associated productivities as shown in Table 16-6.

Table 16-6: Loading Parameters

	Unit	Excavator	FEL
Dry Density	t/m³	2.67	2.67
Material Swell Factor	%	30	30
Production Delays	min/op hr	6	10
Bucket Size	m³	22	17
Bucket Fill Factor	%	98	95
Truck Payload	t	144	144
Total Buckets for Load (Average)	#	3	4
Spot Time	sec	30	30
Swing Time	sec	40	60
Total Time to Load	min	2.0	4.0

16.6.3 Hauling

The optimal truck fleet for the project to meet the expected production rates has a payload of approximately 144 t. Haulage profiles were estimated for several benches of each mining pushback for each material type and destination in order to estimate haulage cycle times which were then used to determine trucking operating hours and required units.

Table 16-7 summarizes the haul cycle parameters used in calculating truck productivities. Truck operating hours were calculated for each period of the mine plan. It reflects travel time and other fixed times of the load / haul / dump cycle.

Table 16-7: Haulage Cycle Parameters

Description	Unit	Value
Rated payload	tonnes	144
Loaded Speed (up/flat/down)	km/h	11/40/25
Empty Speed (up/flat/down)	km/h	25/50/30
Accel/Decel time	min/cycle	2.3
Switchback/Intersection	min/occurrence	0.3

Description	Unit	Value
Dump time at crusher / stockpile	min/load	1.5
Dump time at waste dump	min/load	1.0
Stopped time (non-hauling)	min/NOH	6

16.6.4 Support and Auxiliary Equipment

The support and auxiliary equipment selection were made considering the size and type of the primary loading and hauling fleet, the geometries of the various open pits, and the number of roads that would be in operation at any given time.

The operations support equipment fleet is comprised of track dozers, a wheel dozer, graders and water trucks. This equipment is used directly in support of loading and hauling activities.

The following equipment were also included in the list of ancillary equipment:

- Fuel trucks for the supply of diesel fuel to all the hydraulic diesel excavators, dozers, and drills;
- Lube truck for the supply of lubricants, hydraulic fluids, cooling water to all open pit equipment;
- Mobile mechanical trucks for preventative and corrective maintenance conducted in the field;
- Low-boy transporter trailer (100 t weight capacity) for transportation of dozers, drills, small backhoe and major equipment components;
- Skid steer to support blasting operations;
- Small excavator and pumps for dewatering activities;
- Light vehicles for supervisors/technical personnel; and
- Mobile lights for lighting of pits, waste dumps and construction areas.

16.7 Mine Equipment

Equipment hours were estimated using first-principles calculations to support the mine production schedule. The overall effective utilizations used to estimate equipment requirements were 58% for the drilling equipment, 71% for the loading equipment, 68% for the hauling equipment, and 56% for support and auxiliary equipment.

An annual summary of the open pit fleet requirements is shown below in Table 16-8.

Table 16-8: Annual Mining Fleet Equipment Requirements

# Units Required	Year -1	Year 1	Year 2	Year 3	Year 4	Year 5+
203 mm Drill	1	2	2	3	3	3
114 mm Drill	1	1	1	1	1	2
22 m^3 Excavator	1	1	1	2	2	2
17 m^3 Front-End Loader	1	1	1	1	1	1
144 t Truck	6	8	8	10	11	13
600 hp Track Dozer	2	2	2	2	2	3
4.6 m Wheel Dozer	0	1	1	1	1	1
4.9 m Grader	1	2	2	2	2	2
Water Truck	1	2	2	2	2	2

16.7.1 Equipment Replacements/Re-builds

Mining equipment replacements were estimated based on expected equipment life and included withing the capital cost estimate. An allowance for equipment re-builds is included as a unit hourly maintenance cost within the operating cost estimate.

16.8 Mine Personnel

The Mine is expected to operate on a 24-hour/day, 7-days/week and 365-days/year schedule. Operations and maintenance personnel work two 12-hour shifts per day.

Except for the blasting crew, all hourly labour and supervisory personnel rotate between day and night shifts. Management and technical staff work the day shift only, apart from grade control technicians, who share the same shift rotation as the production crews.

Equipment operator labour requirements are based on the number of equipment units, operating requirements and shift rotations. Maintenance labour requirements are based on the number of equipment units to be maintained, estimates of mechanical availability, and estimates on the ratio of maintenance labour requirements to the number of units for each open pit fleet type.

The estimated annual Mine personnel requirements is summarized in Table 16-9.

Table 16-9: Estimated Annual Mining Manpower Requirements

	Y-1	Y1	Y2	Y3	Y4	Y5+
Mine General	8	8	8	8	8	8
Mine Operations	28	60	64	80	88	108
Mine Maintenance	36	72	76	92	96	120

	Y-1	Y1	Y2	Y3	Y4	Y5+
Technical Services	12	18	18	18	18	18
Total (all crews)	84	158	166	198	210	254

16.9 Mine Production Schedule

The mining sequence aims to maximize economic returns and achieve the target mill feed rate of 3.9 Mt/a (10,600 t/d) by targeting the pushbacks in descending order of net unit value. The final production schedule advances 1 or 2 pushbacks at any one time and given the required production rate and pit geometries, vertical advance rates were restricted to ten benches per year but are typically less. Mining begins at the AGB deposit with mining at Cliff Creek starting approximately two years later.

Adjustments were made to the external dilution and mine recovery assumptions prior to the final mine production schedule by re-evaluating only the material within the selected pit shells. The Resources within the selected pits are more continuous than the overall Resources and so the dilution was adjusted to 8% and mining recovery to 96%.

Over the life of mine (LOM) the project is expected to produce 47 Mt of Mill Feed at an average grade of 1.46 g/t AuEq with a total contained metal of 1,770 koz of gold and 34,064 koz of silver based on a cut-off grade of 0.46 g/t AuEq for AGB and 0.44 g/t AuEq for Cliff Creek. Stripping ratios average 3.4:1 at AGB and 6.4:1 at Cliff Creek. The peak combined mine production is approximately 108 kt/d. Table 16-10 summarizes the annual material movement for each pit over the LOM.

Table 16-10: Annual Mine and Mill Production Schedule

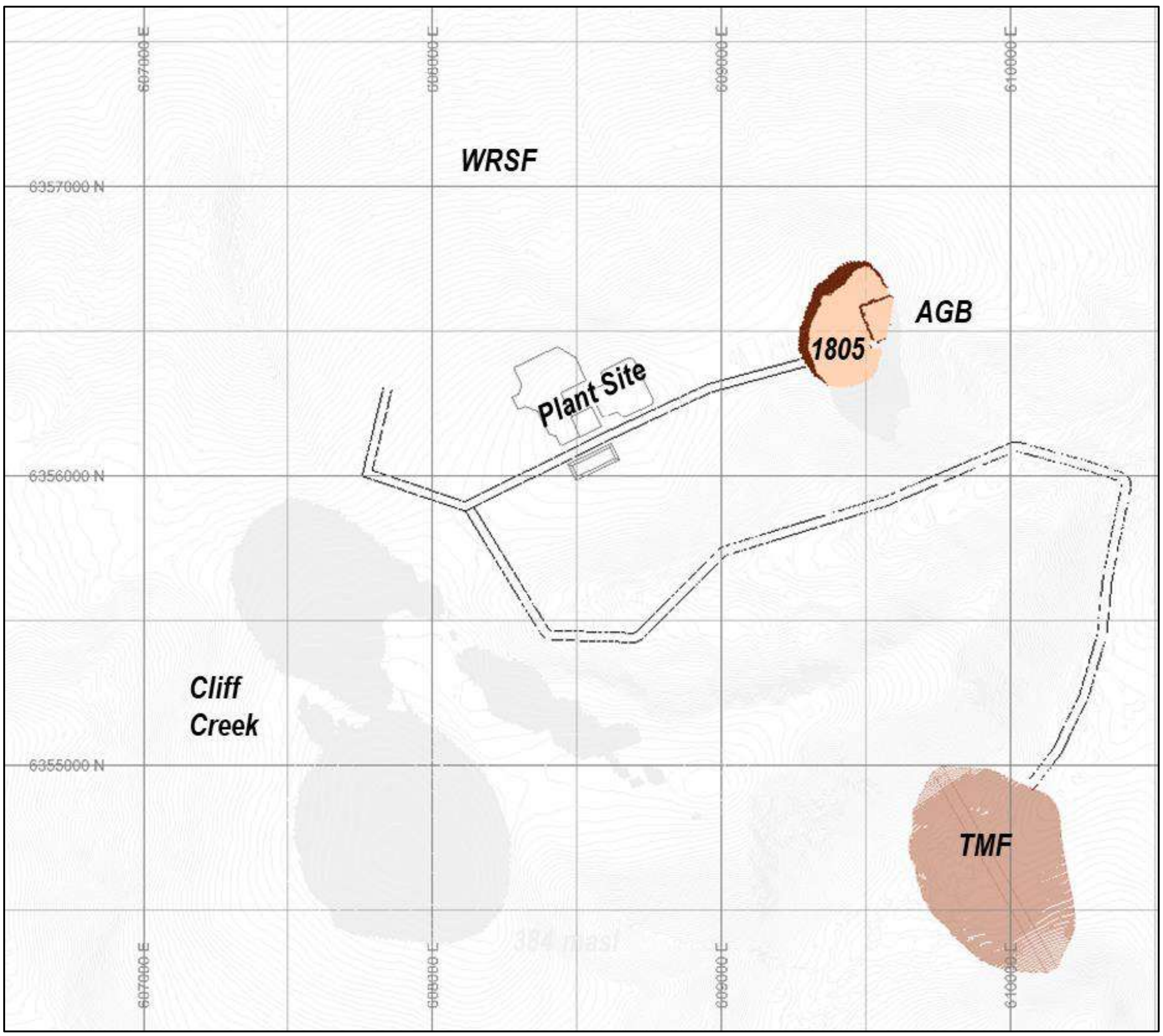
YEAR		Unit	Total / Avg	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
MINE SCHEDULE																
Subtotal AGB	Mill Feed	Mt	7.2	0.8	3.1	3.4	-	-	-	-	-	-	-	-	-	-
	Au	g/t	1.32	1.23	1.24	1.42	-	-	-	-	-	-	-	-	-	-
		koz	308	31	123	154	-	-	-	-	-	-	-	-	-	-
	Ag	g/t	48.4	82.6	44.1	44.6	-	-	-	-	-	-	-	-	-	-
		koz	11,271	2,055	4,387	4,830	-	-	-	-	-	-	-	-	-	-
	AuEq	g/t	1.63	1.77	1.52	1.71	-	-	-	-	-	-	-	-	-	-
		koz	380	44	152	185	-	-	-	-	-	-	-	-	-	-
	Waste	Mt	24.7	6.8	12.6	5.3	-	-	-	-	-	-	-	-	-	-
	SR	w:o	3.4	8.7	4.1	1.6	-	-	-	-	-	-	-	-	-	-
	Total	Mt	31.9	7.5	15.7	8.7	-	-	-	-	-	-	-	-	-	-
Subtotal CC	Mill Feed	Mt	39.4	-	-	0.5	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.1
	Au	g/t	1.15	-	-	0.94	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64
		koz	1,462	-	-	15	138	157	133	132	137	122	107	144	161	216
	Ag	g/t	18.0	-	-	16.6	14.7	19.8	19.4	16.3	12.7	11.0	8.7	17.2	26.2	33.1
		koz	22,793	-	-	267	1,826	2,459	2,418	2,026	1,575	1,373	1,082	2,144	3,259	4,364
	AuEq	g/t	1.31	-	-	1.08	1.24	1.44	1.24	1.21	1.21	1.08	0.94	1.31	1.52	1.93
		koz	1,662	-	-	17	154	179	154	150	151	134	116	163	189	255
	Waste	Mt	250.8	-	-	6.4	25.5	25.2	25.6	33.9	35.5	35.8	29.8	14.4	12.8	5.8
	SR	w:o	6.4	-	-	12.7	6.6	6.5	6.6	8.8	9.2	9.3	7.7	3.7	3.3	1.4
	Total	Mt	290.2	-	-	6.9	29.3	29.1	29.5	37.8	39.4	39.7	33.6	18.3	16.7	9.9
Total	Mill Feed	Mt	46.7	0.8	3.1	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.1

YEAR		Unit	Total / Avg	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12
	Au	g/t	1.18	1.23	1.24	1.36	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64
		koz	1,770	31	123	169	138	157	133	132	137	122	107	144	161	216
	Ag	g/t	22.7	82.6	44.1	40.9	14.7	19.8	19.4	16.3	12.7	11.0	8.7	17.2	26.2	33.1
		koz	34,064	2,055	4,387	5,097	1,826	2,459	2,418	2,026	1,575	1,373	1,082	2,144	3,259	4,364
	Waste	Mt	275.5	6.8	12.6	11.7	25.5	25.2	25.6	33.9	35.5	35.8	29.8	14.4	12.8	5.8
	SR	w:o	5.9	8.7	4.1	3.0	6.6	6.5	6.6	8.8	9.2	9.3	7.7	3.7	3.3	1.4
	Total	Mt	322.1	7.5	15.7	15.6	29.3	29.1	29.5	37.8	39.4	39.7	33.6	18.3	16.7	9.9
	Rate	Mt	68	21	43	43	80	80	81	103	108	109	92	50	46	27
MILL SCHEDULE																
Total	Mill Feed	Mt	46.7		3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	3.9	4.1
	Au	g/t	1.18		1.24	1.36	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64
		koz	1,770		154	169	138	157	133	132	137	122	107	144	161	216
	Ag	g/t	22.7		51.8	40.9	14.7	19.8	19.4	16.3	12.7	11.0	8.7	17.2	26.2	33.1
		koz	34,064		6,441	5,097	1,826	2,459	2,418	2,026	1,575	1,373	1,082	2,144	3,259	4,364

16.9.1 Mine Development

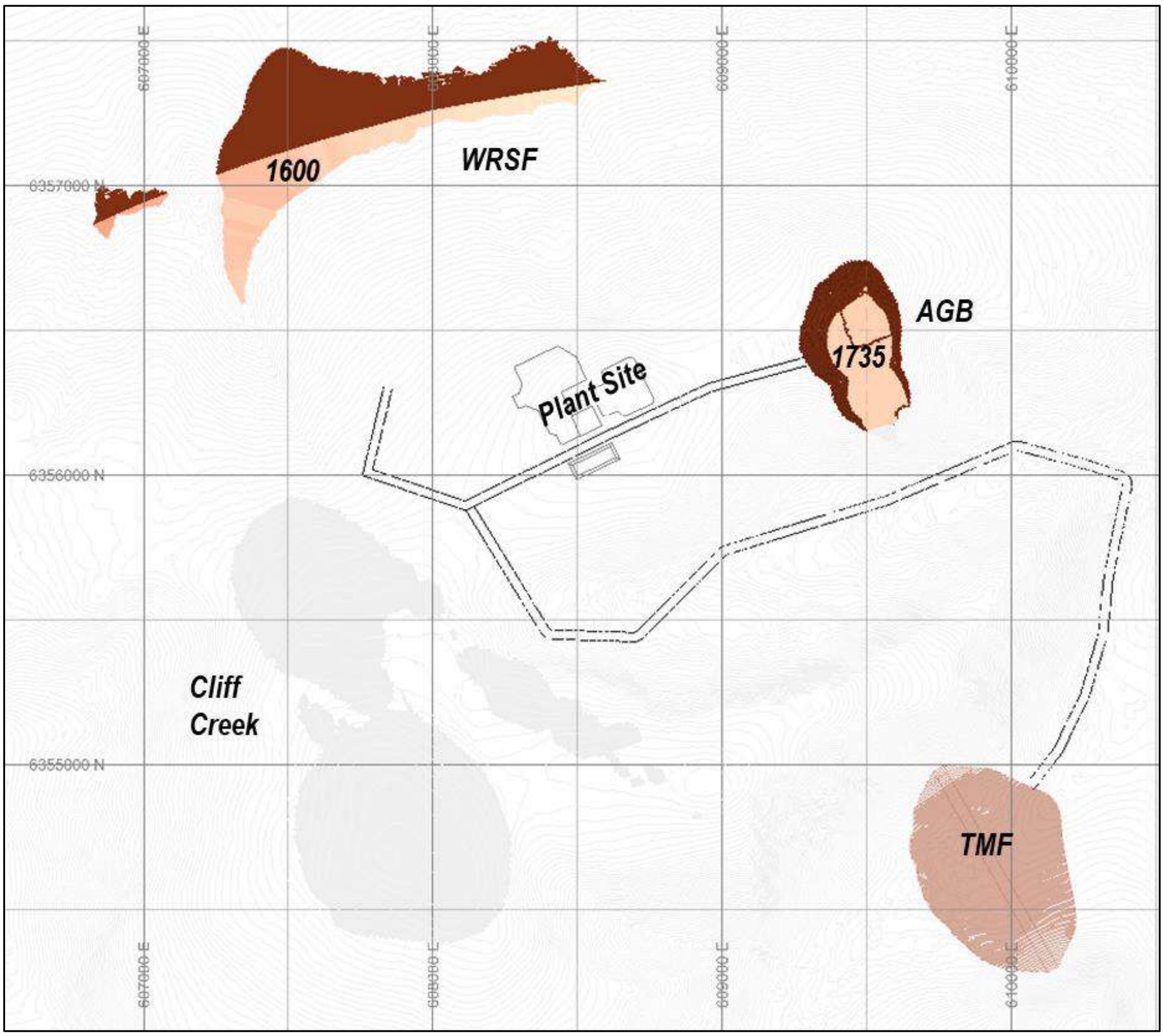
Year -1: Pre-stripping commences at the AGB deposit. Mine production ramps-up and stockpiles approximately 2.5 months of resources close to the crusher prior to Mill start-up. A total of 7.5 Mt of material is mined at a rate of 21 kt/d and is primarily sent to the TMF to build storage containment. The status map of the mine at the end of this period is shown in Figure 16-9.

Figure 16-9: Pit and WRSF Status at End of Year -1



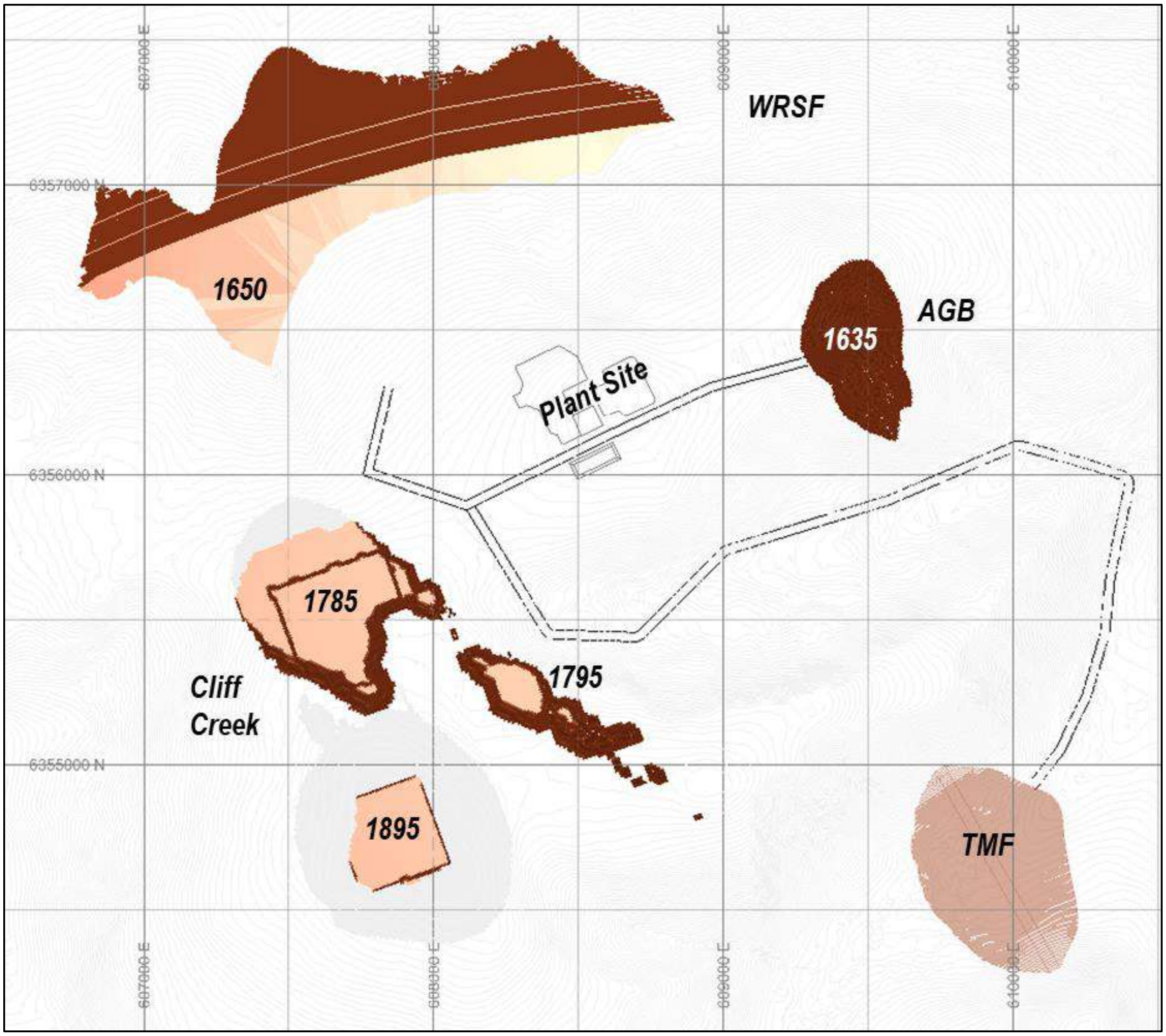
Year 1 Mining ramps-up to full production at the AGB deposit reaching an average mining rate of 43 kt/d and delivering 3.9 Mt of mill feed. A status map of the mine at the end of this period is shown in Figure 16-10.

Figure 16-10: Pit and WRSF Status at End of Year 1



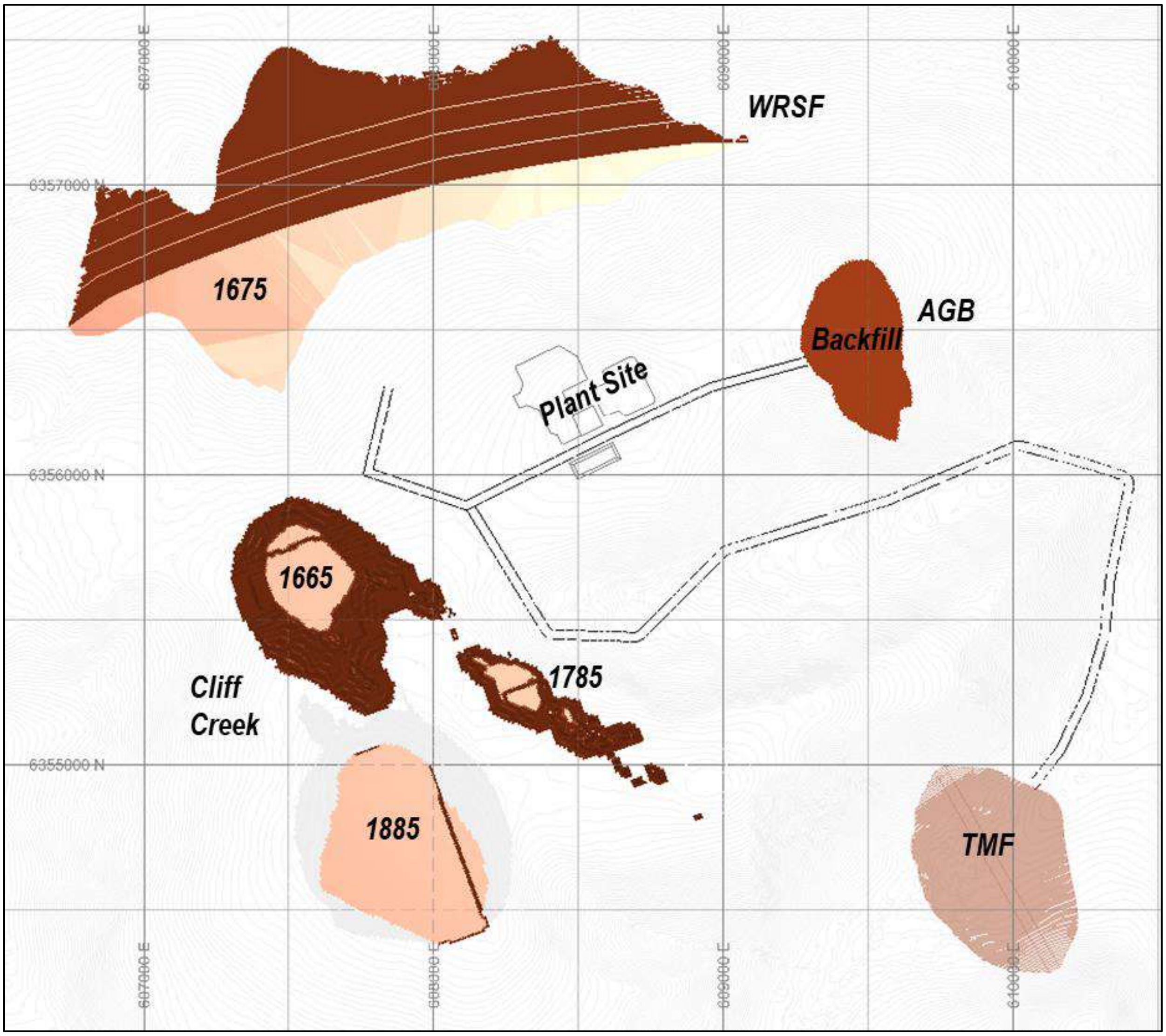
Years 2 to 3: Production shifts from AGB over to Cliff Creek during this time period. Pre-stripping at the Cliff Creek deposit begins in Year 2 and is at full production in Year 3. AGB is completely mined out by the end of Year 2. The mine production rate ramps-up to 80 kt/d. A status map of the mine at the end of this period is shown in Figure 16-11.

Figure 16-11: Pit and WRSF Status at End of Year 3



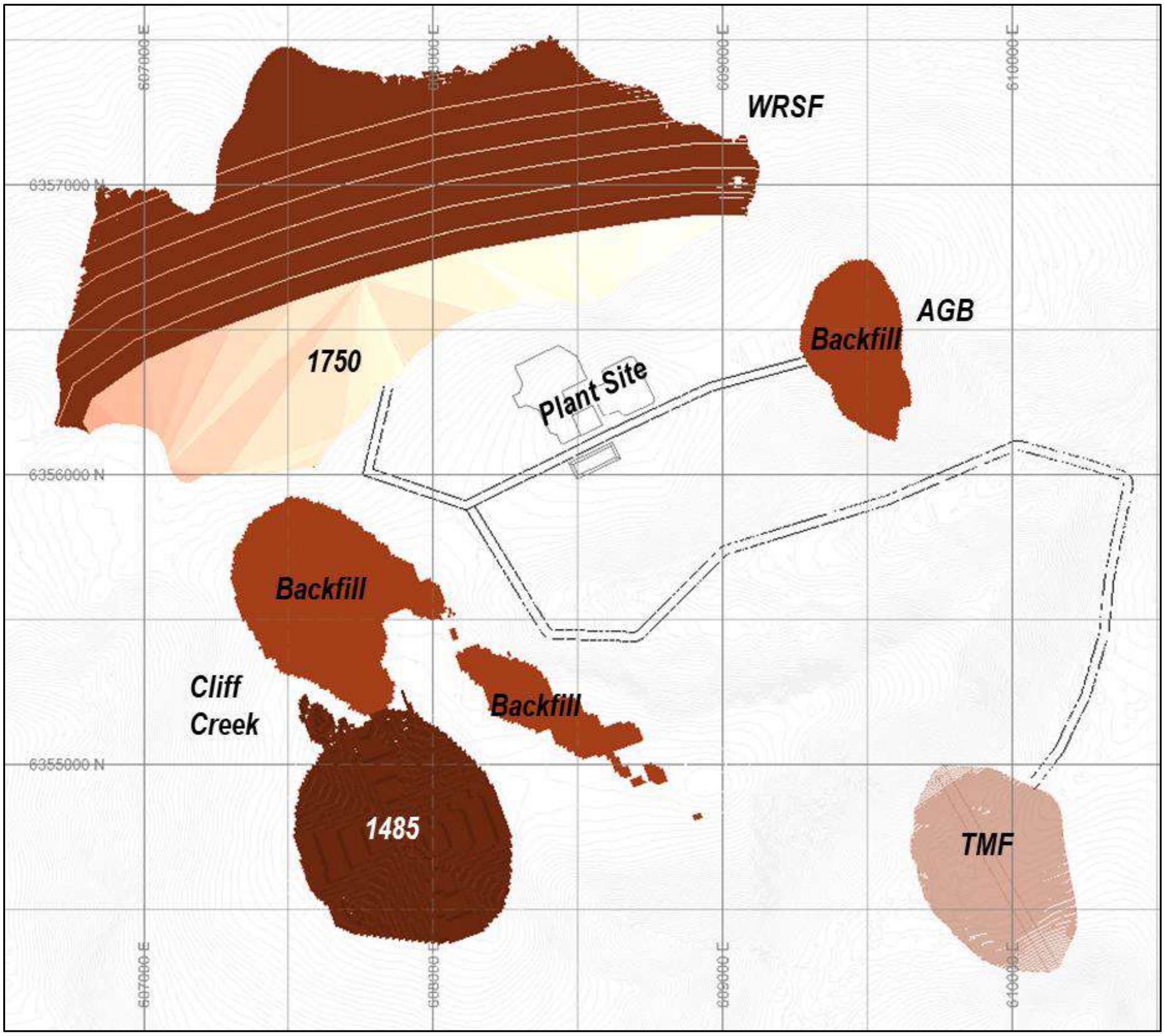
Years 4 to 5: Mining continues at the various Cliff Creek pushbacks. The AGB pit is backfilled with waste material. The production rate remains at 80 kt/d. A status map of the mine at the end of this period is shown in Figure 16-12.

Figure 16-12: Pit and WRSF Status at End of Year 5



Years 6 to 12: Mining continues at Cliff Creek until completion at the end of Year 12. Some of the waste material is backfilled into parts of the mined-out pushbacks at Cliff Creek. A peak production rate of 108 kt/d is reached in Years 7 and 8. A status map of the mine at the end of this period is shown in Figure 16-13.

Figure 16-13: Pit and WRSF Status at End of Year 12 (LOM)



17 PROCESS DESCRIPTION / RECOVERY METHODS

17.1 Introduction

The processing plant for the Lawyers deposit is a 10,600 t/d cyanide leach plant with Merrill Crowe recovery of precious metals from solution. The plant consists of unit operations that are typical for a precious metals deposit with a high silver/gold ratio (using Merrill Crowe precipitation technology rather than carbon adsorption to recover gold from solution).

17.2 Plant Design Criteria

The process design criteria used in the preparation of this report can be found in Table 17-1.

Table 17-1: Process Design Criteria

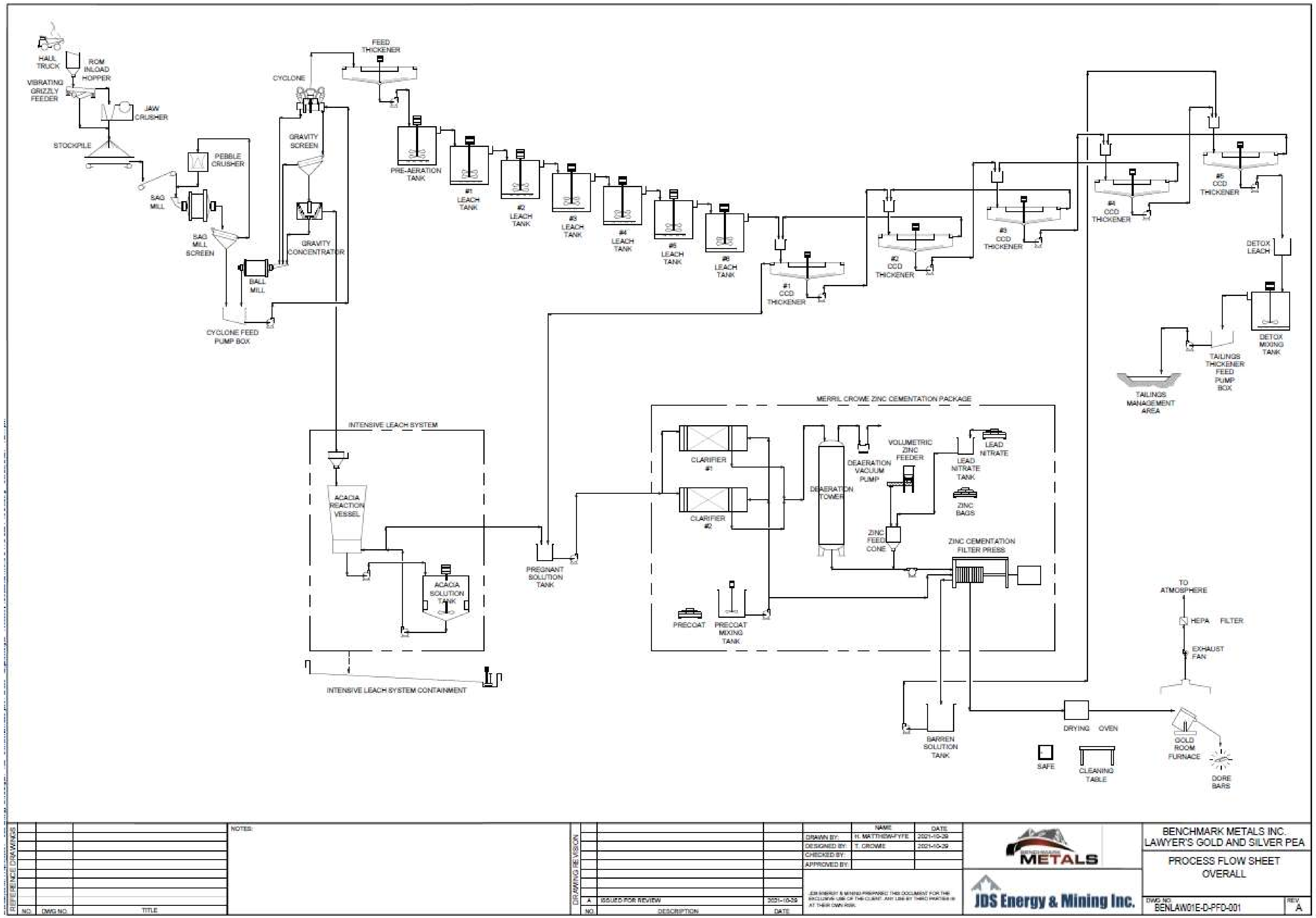
Criteria	Description	Units	Design		Source
			Cliff	AGB	
Plant Throughput		kt/d	10,600		D
		Mt/a	10,600		C
Crusher Availability		%	70.00		D
Crusher Throughput		t/h	625.00		C
Mill Availability		%	92.00		D
Mill Throughput		t/h	475.54		C
Physical Characteristics		SG	2.70		T
	BWI	kWh/t	18.00		T
	Ai	g/t	0.33		T
Crusher Feed Size	F_{100}	mm	800		D
SAG Mill Feed Size	F_{80}	mm	150		D
Primary Grind Size	P_{80}	µm	105.00		T
Head Grade (Ave/Max)		g/t Au	1.15/1.64	1.32/1.42	D
		g/t Ag	17.98/33.1	48.42/51.78	D
Gravity Recovery	Gold	%	25.00	7.30	T
Gravity Recovery	Silver	%	5.00	1.75	T
Leaching Recovery	Gold	%	67.5	84.8	T
Leaching Recovery	Silver	%	78.0	58.8	T
Total Recovery	Gold	%	92.5	92.1	T

Criteria	Description	Units	Design		Source
			Cliff	AGB	
Total Recovery	Silver	%	83.0	60.6	T
Thickening Flux		$t/m^2/h$	1.00		J
Leach Feed Thickener Underflow Density		% w/w	50.0		D
Leach Circuit Retention Time		hrs	32.0		T
# of CCD Circuit Thickeners		#	5		D
Cyanide Detox Tank Retention Time		min	120		D

17.3 Plant Design

The PEA plant is a 10,600 t/d processing plant consisting of crushing, grinding, leach, CCD and a Merrill Crowe circuit to recover precious metals from solution. The flowsheet can be seen in Figure 17-1.

Figure 17-1: Process Plant Flowsheet



17.4 Process Plant Description

17.4.1 Crushing

Mineralised material will be moved from the open pit to the primary Metso C160 jaw crusher. The crusher feed will be fed into a hopper with a vibrating grizzly feeder to control feed to the crusher.

The crusher will discharge onto a 1050 mm wide x 20 m long sacrificial conveyor which will then transfer to a 1050 mm wide x 80 m long fine stockpile feed conveyor.

The crusher will receive feed with a particle size F_{100} of 800 mm (all particles in the feed will be smaller than 800 mm). The crushing circuit product will be a size P_{80} of 150 mm.

The crushing circuit is expected to operate with an availability of 70%.

17.4.2 Grinding

The grinding circuit receives feed from the Mill Feed Stockpile which consists of crushed rock at a particle size P_{80} of 150 mm. Mineralised material will be reclaimed by 2 apron feeders which will feed onto a 1050 mm x 80 m long conveyor to transport material to the SAG mill.

The SAG mill is a 28' dia. x 12.5' EGL (8.53 m dia. x 3.81 m EGL) SAG mill in closed circuit with a Metso HP500 Pebble crusher. The product from the SAG mill circuit will be transferred at a particle size T_{80} of 2 mm.

The mill feed will be further ground in a 21' dia. x 36.8' EGL (6.4 m dia. x 11.22 m EGL) ball mill. The ball mill will operate in closed circuit with a set of Multotec HC900 cyclones. The ball mill circuit will operate with a circulating load of 300%, feeding the cyclones by a pair (1 operating and 1 standby) of 16 x 14 Krebs slurry pumps.

Within the circulating load of the ball mill, there will be an FL Smidth Knelson QS40 centrifugal concentrator. The concentrate produced by the centrifugal concentrator will be leached in a Concep Acacia CS3000 intensive leaching unit with a dedicated electrowinning cell. The gravity circuit is expected to achieve 25% of gold recovery from Cliff Creek and 7.5% gold recovery on AGB. Silver recovery is expected to be minimal which is typical in a precious metal gravity circuit.

The electrowinning product from the gravity circuit will be melted in the gold room to produce doré bars. In order to effectively reconcile production, the gravity circuit production will be poured separately from the Merrill Crowe production.

The product from the grinding circuit will be a particle size P_{80} of 105 µm in a slurry that is approximately 35% solids. The grinding circuit water will be primarily recycled in the pre-leach thickener which will contain cyanide.

17.4.3 Leaching

The grinding circuit product will be combined with the barren solution from the Merrill Crowe circuit and will be fed to a 25 m diameter pre-leach thickener where flocculent will be added and the slurry thickened to achieve 50% solids in the leach feed.

The thickener underflow will be fed to a pre-aeration tank with a residence time of approximately 5 hours. The pre-aeration tank is a 16.5 m dia. x 21 m tall agitated tank. Air will be added to the tank to oxidize cyanide consuming minerals (typically sulphide minerals) prior to primary cyanide addition.

The leach feed will have pH adjustment to a pH of 10 using slaked lime as a pH modifier. Cyanide will be added to a concentration of 2,000 ppm through the leaching circuit.

The leach circuit consist of six 16.5 m dia. x 21 m tall, agitated leach tanks providing a total leach residence time of 32 hours (not including the 5 hours of pre-aeration).

17.4.4 Counter Current Decantation

The leaching circuit will discharge into a 5 thickener Counter Current Decantation (CCD) circuit which will recover a clarified pregnant leach solution to the Merrill Crowe circuit and a barren slurry to the tailings.

The CCD circuit consists of five 25 m dia. thickeners, each with thickener underflow and thickener overflow pumps. The thickener underflow pumps are 12x10 Krebs slurry pumps. The thickener overflow pumps are also 12x10 Krebs slurry pumps. Each of the thickeners includes an agitated thickener feed tank where the feed is combined from the slurry product from the previous stage and the solution from the following stage.

In a CCD circuit, the solution flows in the opposite direction as the solids, using the thickeners to separate the 2 streams. Tailings water is added to the slurry in the final CCD thickener (CCD thickener #5). The thickener overflow, which a mostly clear solution is sent to the feed mix tank for CCD thickener 4. The CCD thickener #5 underflow is pumped to the cyanide detox circuit described in Section 17.4.5.

The solution from the final CCD thickener is mixed with the slurry feed to the 4th CCD thickener in the agitated mix tank. The diluted slurry (approximately 40% solids) is then allowed to flow by gravity into the thickener (CCD #4). The feed to each of the CCD thickeners follows a similar pattern where the solution is transferred to the preceding CCD thickener and the slurry is transferred to the following CCD thickener.

17.4.5 Merrill Crowe

The Merrill Crowe circuit uses zinc dust to extract precious metals from the pregnant leach solution via electrochemical precipitation. Merrill Crowe is typically used when silver grades are greater than 5 times the gold grade in the feed.

The Merrill Crowe process involves producing a clear solution, de-aerating the solution to prevent the zinc cyanide reaction and then adding zinc dust. The zinc is less noble than gold which causes an electrochemical reaction where the gold switches places with the zinc. The solution is then filtered to recover the zinc dust/gold precipitate to the refinery. The zinc is then dissolved in a weak acid and the precious metals can then be dried and fed to the doré melting furnace. Lead nitrate will be added to aid the precipitation process.

The circuit selected is a packaged unit from FLSmidth, which consists of a pre circuit filter to ensure the feed to the circuit is a clear solution, a Merrill Crowe tower which de-aerates the solution and then adds zinc dust to precipitate the precious metals, a filter to recover the precious metals precipitate. The Merrill Crowe package is a 5723 GPM Merrill Crowe plant.

17.4.6 Detox

The chosen detox process will be to use sulphur dioxide and oxygen to reduce the cyanide to between 1 ppm and 5 ppm.

The detox circuit consists of a single 13 m dia. x 16 m tall, agitated tank with pH control, oxygen addition spargers and SO_2 addition spargers. The SO_2 will be made up from a sulphur burner which allows for elemental sulphur to be shipped to site.

The sulphur burner will produce sulphur on demand, which reduces the risk of a large, pressurized vessel on site as well as decreases shipping costs.

17.4.7 Reagents

The reagents and consumables consumptions have been calculated from expected consumptions from the metallurgical testwork. The estimated consumption can be found in Table 17-2 (reagents) and Table 17-3 (steel consumptions).

Table 17-2: Reagent Consumption

Reagent	Delivery	Consumption (g/t)		Consumption (t/a)	
		Cliff	AGB	Cliff	AGB
Lime	Bulk	836.24	836.24	3205	3205
Cyanide	40 tonne Isotainer	1900.00	2255.00	7282	8642
Zinc	Bag	50.00	50.00	192	192
Lead Nitrate	Tote	10.00	10.00	38	38
SO_2	Bulk	480.00	480.00	1840	1840
Copper Sulphate	Bag	79.63	79.63	305	305
Flocculant 1 - SNF AN910 VHM	25 kg Bag	240.00	240.00	920	920

Reagent	Delivery	Consumption (g/t)		Consumption (t/a)	
		Cliff	AGB	Cliff	AGB
Flocculant 2 - Hyperfloc CD650	25 kg Bag	30.00	30.00	115	115
Antiscalent	Tote	10.00	10.00	38	38

Table 17-3: Steel Consumption

Reagent	Delivery	Consumption (g/t)		Consumption (t/a)	
		Cliff	AGB	Cliff	AGB
Balls - SAG Mill	Bulk	600	600	2300	2300
Balls - Ball Mill	Bulk	1000	1000	3833	3833

The expected power consumption for the processing plant is 15.1 MW instantaneously or 121,800 MWh/year.

17.4.8 Tailings

A Tailings Distribution System conveys tailings from the Mill to the TMF embankment crest, depositing into the TMF via a series of discharge spigots during normal operating conditions. The Tailings Distribution System consists of a high-density polyethylene (HDPE) pipeline, equipped with four energy dissipation structures to reduce the potential energy due to the elevation drop from the Mill to the TMF embankment crest. The system is gravity draining and will not require a pump to convey the tailings to the TMF throughout the life of the project.

Tailings will be deposited into the TMF from a series of discharge spigots on the HDPE pipeline. Tailings must be discharged from one or more spigots to reduce the risk of static pressure build up in the pipeline. The system is supplied with insulated/heat traced air release valves for safe operation.

The operating philosophy of the Tailings Distribution System was developed to the meet the Mill's operational duty point as follows:

- Discharge tailings year-round at the Mill's production rate; and
- The mill's nominal production rate is 10,600 t/d at a solids percentage of 68 % by weight, correlating to a tailings slurry flowrate of 400 m^3/h.

17.4.9 Water Management

Water for use in mill processing will be sourced from a combination of reclaim from the TMF (via a floating pump barge), reclaim within the mill circuit from the thickeners, and a freshwater component (sourced from dewatering of the open pits or the historic underground workings).

17.4.9.1 Reclaim Water System

The reclaim water system from the TMF consists of two vertical turbine pumps (one operating, one standby) positioned on two floating barges, two floating HDPE pipelines that merge into one overland HDPE pipeline, and four centrifugal booster pumps (two operating, two standby). The system is designed with a series of drain points and air release valves for safe operation.

The reclaim system is designed to meet 95% of the total process water requirement, year-round, assuming a 5% freshwater demand. The system uses a single vertical turbine pump mounted on a flotation barge, with 100% installed standby pump capacity. The barge pumps require VFDs to manage the variable head demand due to the fluctuating pond levels during the life of mine. Two booster station pumps, with 100% installed standby capacity, will operate concurrently in series, providing the necessary additional total dynamic head (TDH) to deliver the process water to the Mill.

17.4.10 Process Plant Personnel

The process plant will be operated continuously through the year by 4 operating crews working 12-hour shifts on a two week in/two week out rotation. The total staff requirement is 78 personnel between hourly and management which includes the mill operations, mill maintenance, and mill support teams. The breakdown of employees can be found in Table 17-4.

Table 17-4: Process Plant Personnel

Position	Staff/Hourly	Quantity
Operations		
Mill Manager	Staff	1
Admin Assistant	Staff	1
Process Superintendent	Staff	2
Shift Foremen	Staff	4
Control Room Operator	Hourly	4
Crusher Operator	Hourly	4
Grinding Operator	Hourly	4
Solutions Operator	Hourly	4
Mill Labourer	Hourly	8
Total Operations		32

Position	Staff/Hourly	Quantity
Site/Mill Maintenance		
Maintenance Superintendent	Staff	2
Maintenance Foreman	Staff	2
Maintenance Planner	Staff	2
Electrician	Hourly	4
Millwrights	Hourly	8
Instrumentation	Hourly	2
Maintenance Apprentice	Hourly	8
Total Maintenance		28
Technical Services		
Chief Metallurgist	Staff	1
Senior Metallurgist	Staff	2
Chief Assayer	Staff	1
Senior Assayer	Staff	2
Assay Technician (Fire Assay)	Hourly	4
Assay Technician	Hourly	8
Total Technical Services		18
Process Plant Total		**78**

18 PROJECT INFRASTRUCTURE AND SERVICES

18.1 General Site Arrangement

The Project infrastructure is designed to support a 10,600 t/d operation, operating on a 24 hour per day, seven day per week basis. The Project has been developed for the most economical operation at this production rate, taking into account the constraints around the onsite topography. The overall layout showing the proposed location of the processing plant, tailings storage facilities, waste rock storage facility, and on-site infrastructure is provided in Figure 18-1 and Figure 18-2.

Figure 18-1: Overall Site Plan

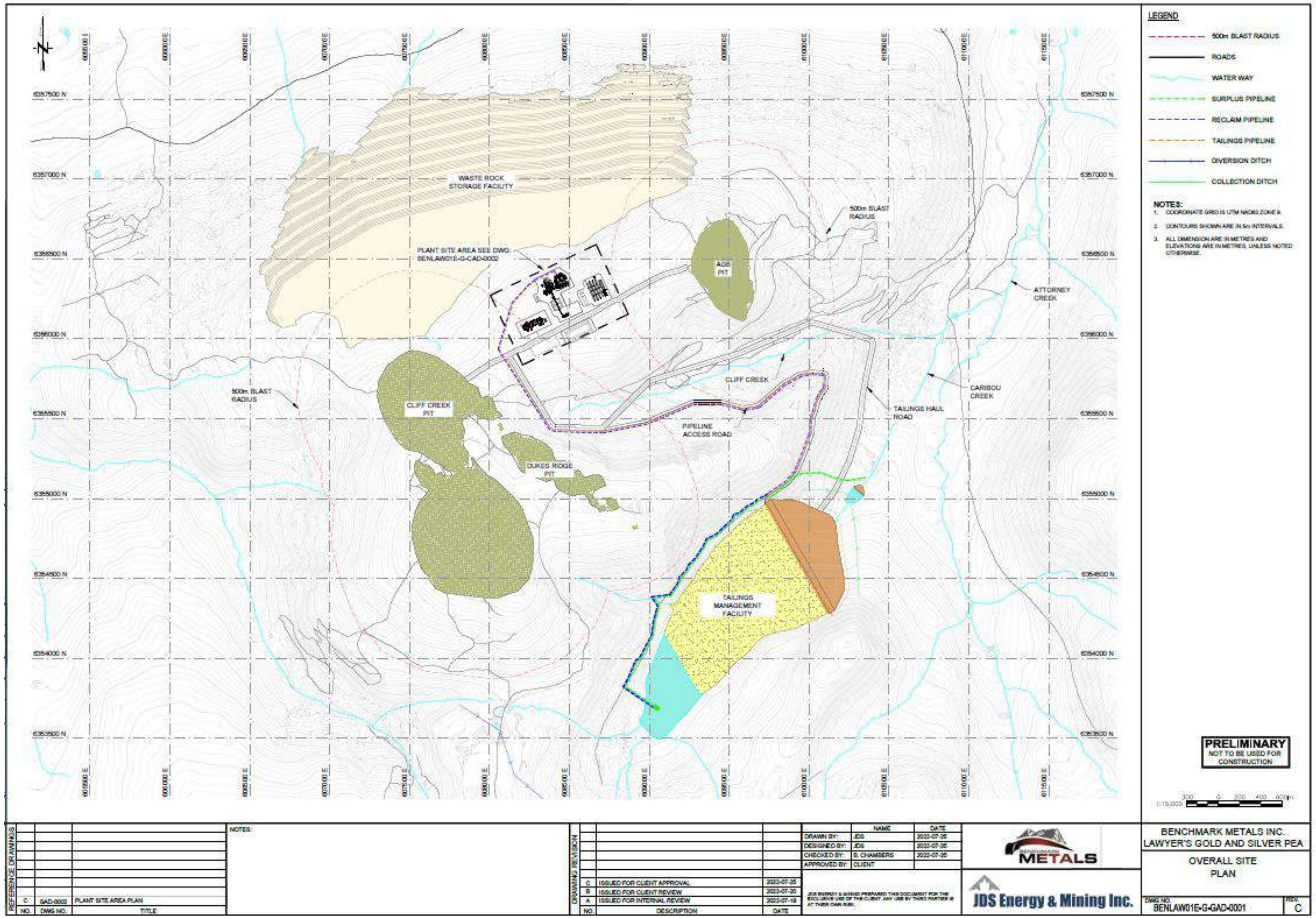
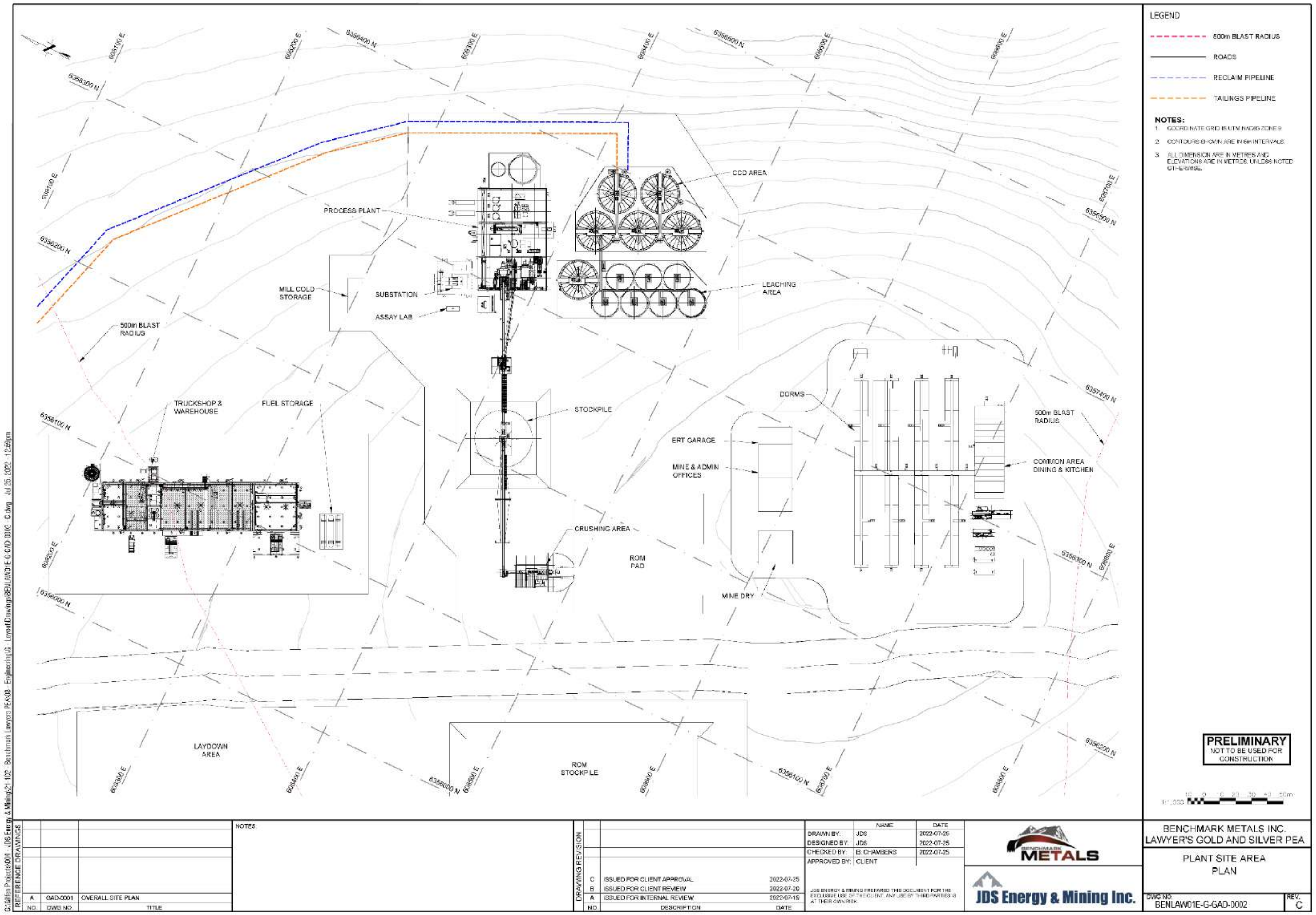


Figure 18-2: Plant Site Area Plan



18.2 Site Access

18.2.1 Access Road

There is an existing gravel road which connects the site to the Kemess mine. Improvements to the existing access road, to allow for year-round access, are funded and are underway in 2022, with the balance of the construction to be completed in 2023. No additional improvements are planned outside of these upgrades.

18.2.2 On-Site Roads

Haul roads are planned to be upgrades of existing roads where possible, however new roads will also be required for transporting mineralised material and waste rock to their designated destinations. The roads will connect the open pits, plant site, tailings storage facility and waste rock storage facility for the transport of mined and processed material. Mine haul roads are planned to be constructed to accommodate 144 t surface haul trucks. Additionally, haul roads will be required during construction to access the tailings and waste rock storage facility. Preproduction waste from the open pit mine will provide the fill required to construct the tailings dam in Y-1.

Site roads will also be required to transport personnel and equipment/consumables between the various project areas, including the camp, process plant, water management facilities, and explosive storage facility. Existing site roads will be utilized where possible and improvements to the existing roads will be performed to meet standard design gradients and widths.

18.2.3 Airstrip

The Sturdee airstrip is operational, providing access to regional airports with no additional upgrades required at this time. Several other exploration companies in the area are currently using this airstrip.

18.3 Power Supply and Distribution

Power supply to Site will be provided by a 230 kV transmission line connecting site to Kemess, which is connected to BC Hydro's Kennedy Siding Substation near Mackenzie BC. A new 66 km long transmission line will be constructed with 2 pole H Frame structures on a 220 m span, requiring 300 structures, connecting Site to the existing feed at Kemess. Additional infrastructure for a tap off bay at Kemess is required.

An on-site substation will be constructed to step down from 230 kV to 13.8 kV for site distribution. Site distribution will be performed through medium voltage pole lines, and substations for stepping down power for low voltage supply. Small back-up diesel generators will provide critical power for the key equipment in the mill, as well as critical components within the ancillary facilities.

18.4 Ancillary Facilities

18.4.1 Accommodation Complex

The construction/permanent camp and administration office complex will include the following:

- Dormitory units;
- Kitchen and food storage;
- Dining room;
- Arrivals/departure building including reception and first aid;
- Recreation facilities and gymnasium;
- Utility rooms (mechanical, electrical, domestic potable/hot water, fire protection);
- Laundry;
- IT/server room;
- Potable water treatment plant;
- Incinerator; and
- Wastewater treatment plant.

The complex will be pre-fabricated modular-type construction.

There will be several dormitories, each organized with bedroom blocks for a total of 250 fully furnished rooms. Each dormitory will include wash and laundry facilities. The complex will service both the construction and operation phases of the project. Additional temporary accommodation facilities will be required to manage peak loading during the construction phase of the Project.

The kitchen layout and equipment design will satisfy the requirements for continuous operation. A dedicated food storage area will serve the kitchen. The main dining room will serve as the emergency assembly point for the camp.

18.4.2 Administration Offices

The administration and mine engineering offices and mudroom will be combined into one single module. The administration offices will be a modular pre-fabricated structure shipped to site for final assembly and will be connected to the water and sewage systems.

18.4.3 Mine Dry

The mine dry will be a modular pre-fabricated structure shipped to site for final assembly and will be connected to water and sewage systems.

18.4.4 Mine Maintenance Facility

A mine maintenance facility will be built to service the mining and site service mobile equipment. It will be designed and built to accommodate the planned mining fleet including 144 t haul trucks. The truck shop will be a pre-engineered structure with concrete foundations and floor slab. The truck shop will be located on its own prepared earthworks pad, separate from the plant site, and in closer proximity to the open pit haul route between the pits, crusher, stockpile, and waste rock management facilities. It will have space allocated for equipment scheduled for repair, a ready line, wash facilities, and room for the equipment to maneuver.

18.4.5 Assay Laboratory

This facility will serve the plant's assay, environmental, metallurgical requirements, and grade control needs. The laboratory will consist of pre-fabricated modules and ancillary equipment, such as drying ovens, dust and fume control, and heating equipment.

18.4.6 Bulk Fuel Storage & Distribution

There will be three 75,000 L diesel double wall storage tanks and a dispensing station for the mine mobile equipment fleet located near the mine maintenance facility. The facility will be complete with the requisite spill storage capacity and will meet the fuel storage requirements.

18.4.7 Additional Facilities

Additional planned ancillary facilities include, but are not limited to:

- Emergency Response Team (ERT) garage;
- Mine warehouse;
- Mill warehouse;
- Fire water distribution and fire detection systems;
- IT and communications infrastructure;
- Propane & gasoline storage and distribution; and
- Explosives storage facility.

18.5 Water

18.5.1 Water Management

Site water will be managed by pumps and gravity-fed channels. The water management plan assumes that non-contact water will be diverted around mine facilities to downstream waterways wherever possible. Diversion channels will be constructed to direct run-off from the upslope catchments of the tailings management facility (TMF), waste rock storage facility (WRSF) and other stockpiles on site (i.e., run-of-mine (ROM) material stockpile, topsoil stockpiles, etc.), away from these facilities.

Run-off from the TMF will be directed to the seepage collection pond downslope of the TMF embankment. The seepage collection pond will contain run-off from the local catchment, seepage from the TMF, and precipitation directly on the pond itself. Collected flows will be recycled to the TMF.

Supernatant water, consisting of bleed water from tailings deposition, direct precipitation, and undiverted catchment run-off will be managed in the TMF. Water will be reclaimed from the TMF and pumped to the mill at the Process Plant for use in processing.

Excess water that accumulates in the TMF will be removed using the Surplus Water System and discharged to Caribou Creek, downstream of the TMF. It is not anticipated that water treatment is required at this time.

Groundwater inflows and run-off from the walls of the Open Pits will be pumped to the mill for use in processing, to supplement the reclaimed water from the TMF.

Run-off from the WRSF will be collected in ditches along the toe of the WRSF and directed to one of two settling ponds, where precipitates and suspended solids will settle out before water is allowed to be discharged to the downstream receiving environment. It is assumed that WRSF run-off will be acceptable for direct discharge to the environment, after sedimentation in the settling ponds has occurred.

18.5.2 Water Treatment

At this point, contact water from the site is not anticipated to require treatment prior to discharge. Further studies are required to define the geochemical characteristics of contact water from the various contact water sources on the Project site to validate this assumption.

These studies will be completed during the permitting phase of the Project.

18.6 Waste Rock Management

18.6.1 Design Basis

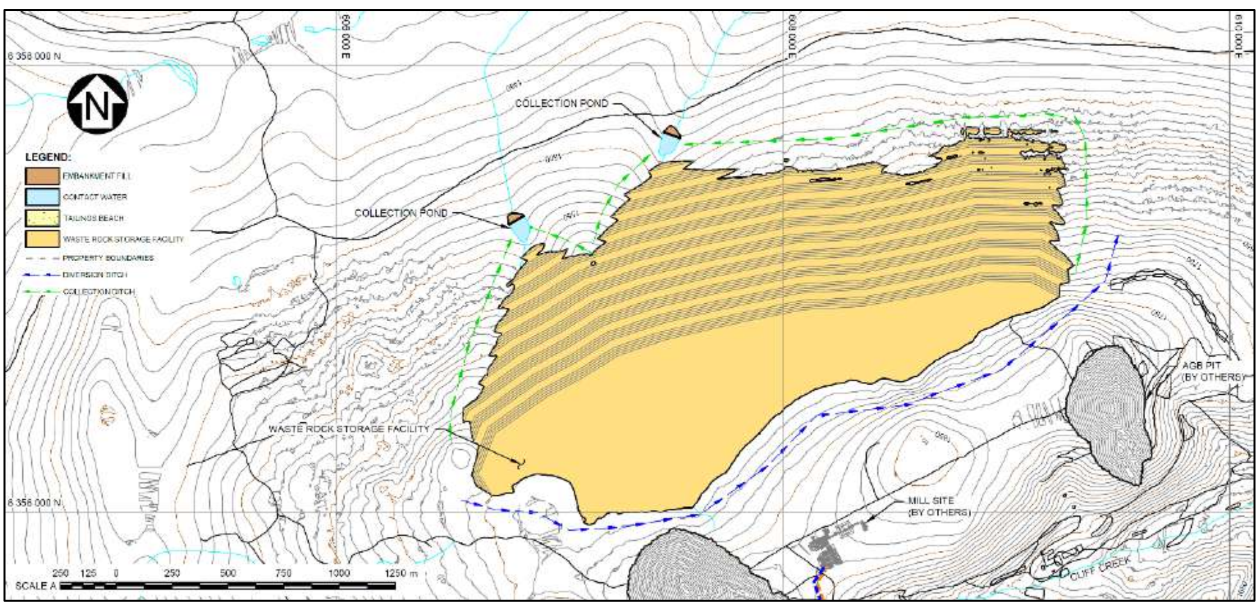
A total of 276 Mt of run-of-mine (ROM) waste rock will be generated through development of the open pits. Approximately 251 Mt will be generated from the development of the Cliff Creek Open Pit, with the remaining 25 Mt generated from the development of the AGB Open Pit.

All waste rock will be stored in a single surface waste rock storage facility (WRSF) located on a north-facing slope, to the northwest of the Cliff Creek Open Pit with some waste rock backfilled into the exhausted open pits during the later years of the mine life.

18.6.2 Location

The WRSF location was determined in the Mine Waste Disposal Alternatives Assessment (KP, 2021), which identified it as the preferred location for management of mine waste rock out of six potential WRSF locations. A general arrangement for the WRSF is shown on Figure 18-3.

Figure 18-3: WRSF General Arrangement



Source: KP (2022a)

18.6.3 WRSF Design

The WRSF design includes 25 m high benches with a 25 m bench width, and 2H:1V bench face angles for an overall slope of 2.85H:1V. The overall height of the WRSF (from crest to the lowest point along the toe of the WRSF) is approximately 260 m.

18.7 Tailings Management Facility

18.7.1 Design Basis

The principal design objectives for tailings disposal are to provide safe and secure storage while protecting groundwater and surface waterbodies during operations and in the long term (i.e., post closure), and to achieve effective reclamation at mine closure. The design of the TMF has taken into account the following requirements:

- Permanent, secure and total confinement of all solid waste materials within an engineered disposal facility;
- Control, collection and removal of free draining liquids from the surface of the TMF during operations;
- Minimize the amount of fresh water that comes into contact with mine facilities and active construction areas by diverting upslope run-off to the maximum practical extent, and
- The inclusion of monitoring features for all aspects of the facility to ensure performance goals are achieved and design criteria and assumptions are met.

The PEA design uses the June 2022 production schedule and mine plan, with an operating mine life of 12 years, processing 46 Mt of mineralised material that produce tailings, and generating approximately 276 Mt of waste rock. All mill tailings will be stored in a single surface TMF.

The TMF will be operated as a thickened slurry tailings facility, with the tailings thickened at the mill to a slurry solids content of 68% solids (by weight). Mineralised material will be milled at a nominal production rate of 10,600 t/d.

The TMF will be constructed with an 80-mil high density polyethylene (HDPE) geomembrane liner on the upstream face of the embankment. The TMF embankment will be constructed using ROM waste rock, with some crushing and screening of material required to prepare filter materials and liner bedding materials.

Water will be reclaimed from the TMF to the mill for use in processing. Surplus water will be discharged to Caribou Creek, downstream of the TMF, to maintain a water balance in the TMF and limit the accumulation of excess water.

A seepage collection pond located downstream of the TMF will collect seepage from the TMF as well as contact water and run-off from the TMF embankment.

The balance of waste rock not used in embankment construction will be managed in a surface WRSF, located to the west of the Open Pits.

Two run-off collection ponds will be constructed at the toe of the WRSF to collect surface run-off, and to act as settling ponds to settle out precipitates and suspended solids prior to discharge to the environment.

Non-contact water diversion ditches will be constructed to collect run-off from the upstream catchments and divert it around the TMF and WRSF.

The location for the WRSF was assessed in the Mine Waste Disposal Alternatives Assessment (KP, 2021), which identified the selected location as the preferred option out of seven potential TMF options.

18.7.2 Dam Classification

The characteristics of the receiving environment are not well defined at this stage of the Project, and the incremental impacts of a TMF embankment failure cannot be accurately defined at this time. The TMF dam classification has therefore been determined as a VERY HIGH classification as a conservative measure (as per BC Ministry of Energy, Mines and Low Carbon Innovation (EMLI, 2016 & 2021) and Canadian Dam Association (CDA, 2013 & 2019) guidance.

The following design flood and design earthquake were adopted for the TMF for operations:

- Intensity-Duration-Frequency (IDF) – 2/3 between 1/1000 return period and probable maximum flood (PMF); and
- Earthquake Design Ground Motion (EDGM) – 1/2 between 1/2475 and 1/10,000 return period or the maximum credible earthquake (MCE), whichever is greater.

The hazard classification will be confirmed and updated in future studies as baseline studies for the receiving environment are completed, and incremental impacts of a TMF embankment failure are characterized (supported by a dam breach and inundation study).

18.7.3 Storage Requirements

The TMF has been designed to store 46 Mt of tailings in a valley impoundment-style facility. The site has potential capacity for future expansion, if required.

The design is based on storing thickened tailings, with construction of the TMF occurring in staged development throughout the life of mine. The TMF embankment will be constructed and expanded using the downstream method of construction. This approach offers the following advantages:

- The ability to refine design, construction, and operating methodologies as experience is gained with local conditions and constraints;

- The ability to adjust plans at a future date to remain current with evolving best practices (both engineering and environmental);

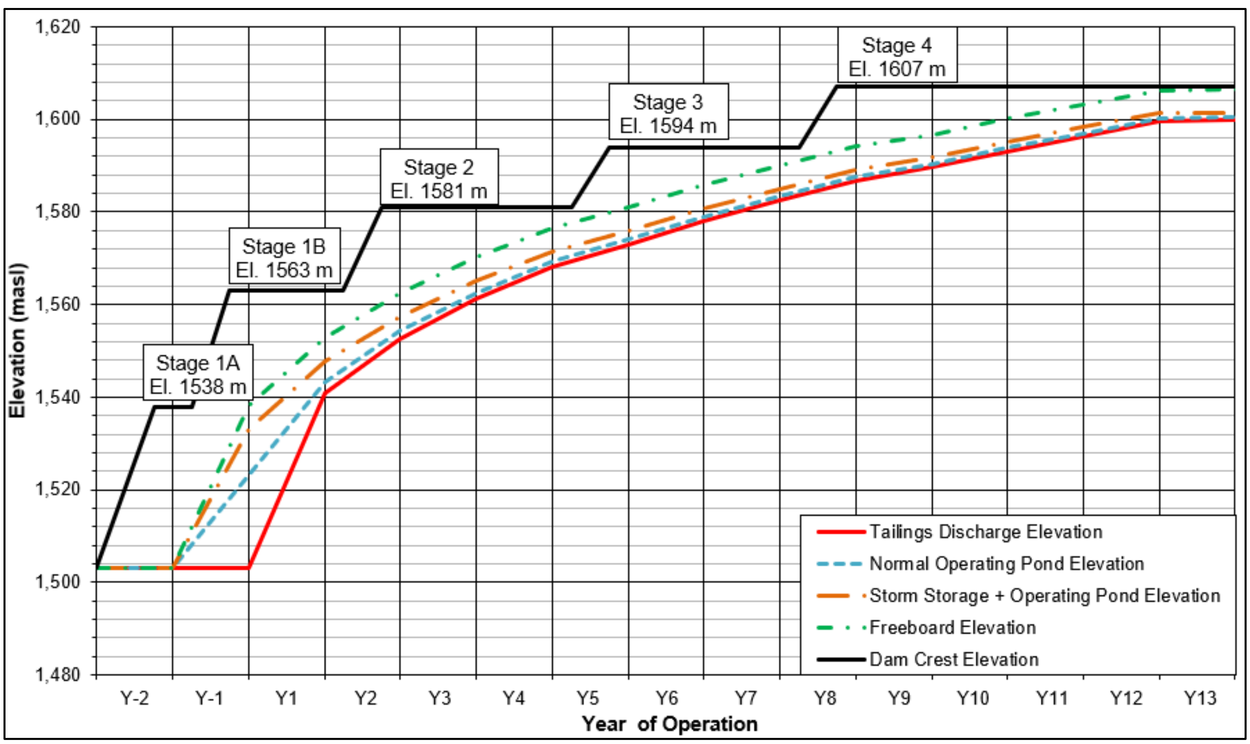
- Minimize initial embankment construction requirements; and

- To allow the observational approach to be utilized in the ongoing design, construction, and operation of the facility. This can deliver substantial cost savings at a higher level of safety and also enhances knowledge and understanding of site-specific conditions.

The Starter (Stage 1A) TMF embankment will be constructed to impound water for mill startup. The TMF has been designed with appropriate capacity for reclaim water storage (3 months of total process water requirements, approximately 500,000 m^3), storm storage (allowance of 1 Mm^3 for storm inflows), and an allowance of 5 m freeboard to allow for wave run-up, seismic settlement, and construction of a TMF spillway for each stage of embankment construction.

The filling schedule and embankment raise schedule for the TMF is shown on Figure 18-4. The average annual rate-of-rise of tailings in the TMF, after Year 1 of operations, is approximately 5 m/year. The actual filling rate will vary depending on a variety of operating factors.

Figure 18-4: TMF Filling Schedule



Source: KP (2022a)

18.7.4 TMF Design

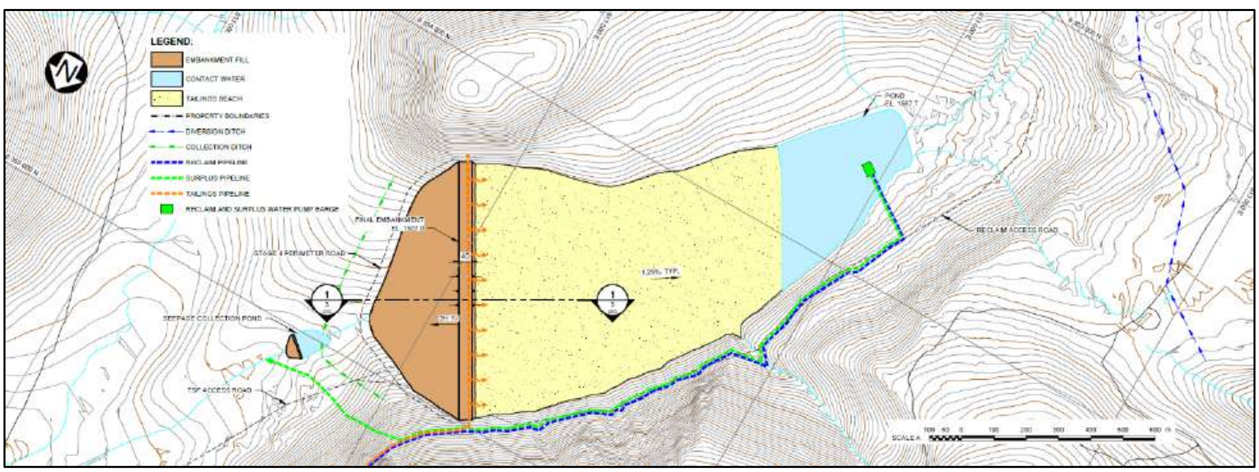
The TMF is created by constructing one cross-valley embankment to a maximum height (crest to downstream toe) of approximately 130 m. The embankment will be constructed using Non-Potentially Acid Generating (NPAG) waste rock from open pit mining activities.

The embankment is a rockfill embankment and will be constructed with 2H: 1V side slopes. The minimum embankment width is 40 m. A layer of liner bedding material, 0.5 m thick will be placed on the upstream face of the embankment to facilitate installation of a HDPE geomembrane liner. A transition zone layer, 5 m thick, will underlie the liner bedding layer to limit the migration of fines through the embankment. The bedding layer and transition zone materials will be generated by crushing and screening ROM waste rock to specification.

Tailings will be deposited from the crest of the embankment via a number of discharge spigots.

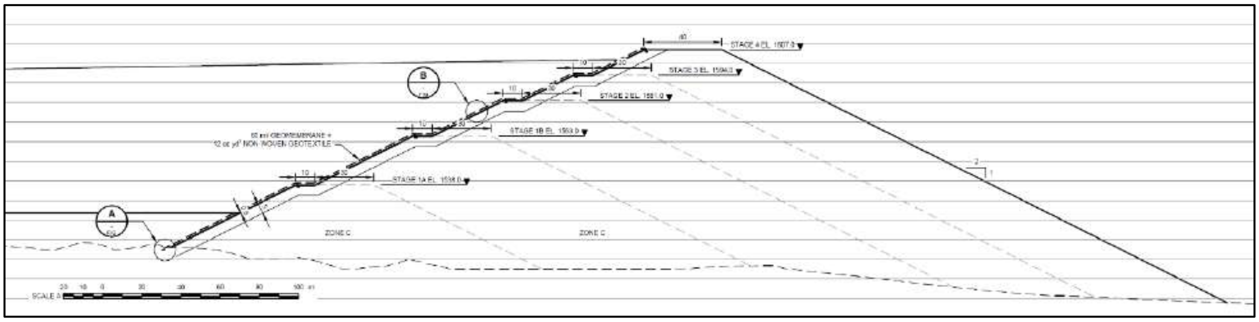
A general arrangement of the TMF is shown on Figure 18-5 and a cross-section of the TMF embankment is shown on Figure 18-6.

Figure 18-5: TMF General Arrangement



Source: KP (2022a)

Figure 18-6: TMF Embankment Cross-Section



Source: KP (2022a)

18.7.5 Water Balance

The TMF is expected to operate with surplus water at all times. A site wide mean monthly water balance model was developed to evaluate the surplus for the final arrangement (Year 13) of operations, when there is the greatest surplus (most disturbed area). It also provides the upper limit for designing a surplus water removal system.

The water balance indicates an average annual surplus of 2.5 Mm^3 from the TMF. The water balance model indicates no surplus from October to April. Based on the mean monthly temperature data, precipitation is expected to fall as snow in those months with snowmelt happening in May and June.

The water balance indicates the mill will require 0.1 Mm^3 of fresh water and 1.6 Mm^3 of reclaim from the TMF annually. No makeup water will be required from external sources as there is enough inventory in the TMF, and from Open Pit dewatering, to meet the reclaim requirements for all months.

This surplus from the water balance model assumes no groundwater inflow from the Open Pits. A sensitivity analysis was conducted for the groundwater inflows with assumed low and high values of 15 m^3/h and 50 m^3/h, respectively (developed based on hydraulic conductivity testing and instrumentation readings installed during the 2021 site investigation program (KP, 2022b)). The site is already in a surplus condition without groundwater inflow and any increase in inflows will be directly added to the site surplus. The annual surplus value ranges from 2.7 Mm^3 to 3.0 Mm^3 when using the assumed low and high total groundwater inflow values, respectively.

18.7.6 Closure and Reclamation

Closure and reclamation will involve an active closure period and a post-closure period, in which all mine components will be prepared for permanent closure. Closure will be completed in a manner that will satisfy physical, chemical, and biological stability, while following the applicable regulatory framework.

Closure and reclamation of the TMF will be carried out progressively during the operations phase, and at the end of economically viable mining. Closure and reclamation activities will be conducted in accordance with international closure standards. Specific measures will be taken to reduce the risk of:

- Dust being emitted from the TMF due to moisture loss on the surfaces of the facilities;
- Run-off affecting surface or groundwater quality; and
- Reduction in physical or chemical stability of the TMF.

The closure concept for the TMF considers a partially saturated concept whereby the closure spillway will maintain the pond elevation in the TMF at a level that provides a buffer of approximately 200 m between the edge of the closure pond and the TMF embankment. A rock cover will be placed on the tailings to reduce the risk of tailings mobilizing and being discharged from the TMF in the event of large storm events.

19 MARKET STUDIES AND CONTRACTS

19.1 Market Studies

No market study was completed on the potential sale of doré from the Lawyers Project. Gold and silver refining terms used in the analysis were based on recent indicative terms from other Canadian Projects and were vetted by speaking with industry experts in the commodity trading space. The indicative terms were reviewed and found to be reasonable by QP Carly Church, P.Eng.

This study recommends that, as the Project advances towards development, a detailed marketing report and logistics study should be undertaken to ensure the accuracy of the terms. Table 19-1 outlines the terms used in the economic analysis.

Table 19-1: Net Smelter Return Assumptions

Parameter	Unit	Value
Gold (Au) Payable	%	99.9
Silver (Ag) Payable	%	99.0
Gold (Au) Refining Charge	US$/pay oz Au	5.00
Silver (Ag) Refining Charge	US$/pay oz Ag	0.25
Transportation	US$/pay oz (Ag+Au)	0*

Note:
*Transportation included in the refining charges.

19.2 Contracts

At this time, no contractual arrangements for shipping or refining exist; nor are there any contractual arrangements made for the doré at this time.

19.3 Royalties

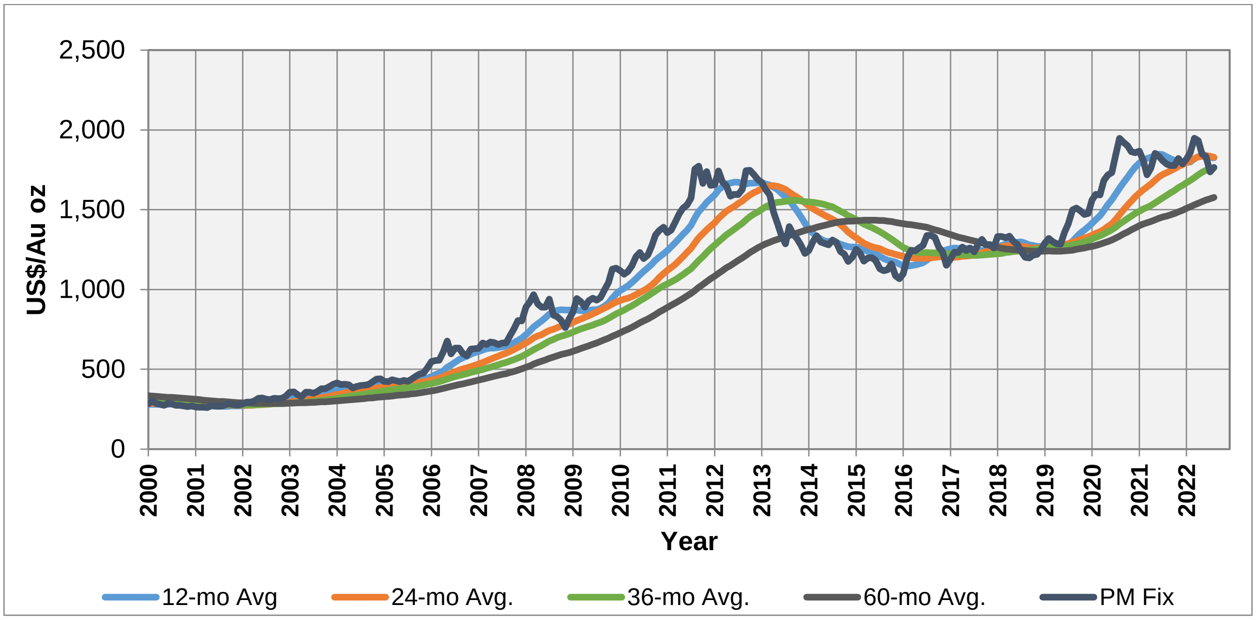
The mined material at the Lawyers Project is subject to a 0.5% NSR royalty. This royalty amounts to $17M of the life of mine and has been included in the economic analysis.

19.4 Metal Prices

The precious metal markets are highly liquid and benefit from terminal markets around the world (London, New York, Tokyo, and Hong Kong). Historical gold prices, silver prices and exchange rates (US$:C$) are shown in Figure 19-1, Figure 19-2 and Figure 19-3 respectively.

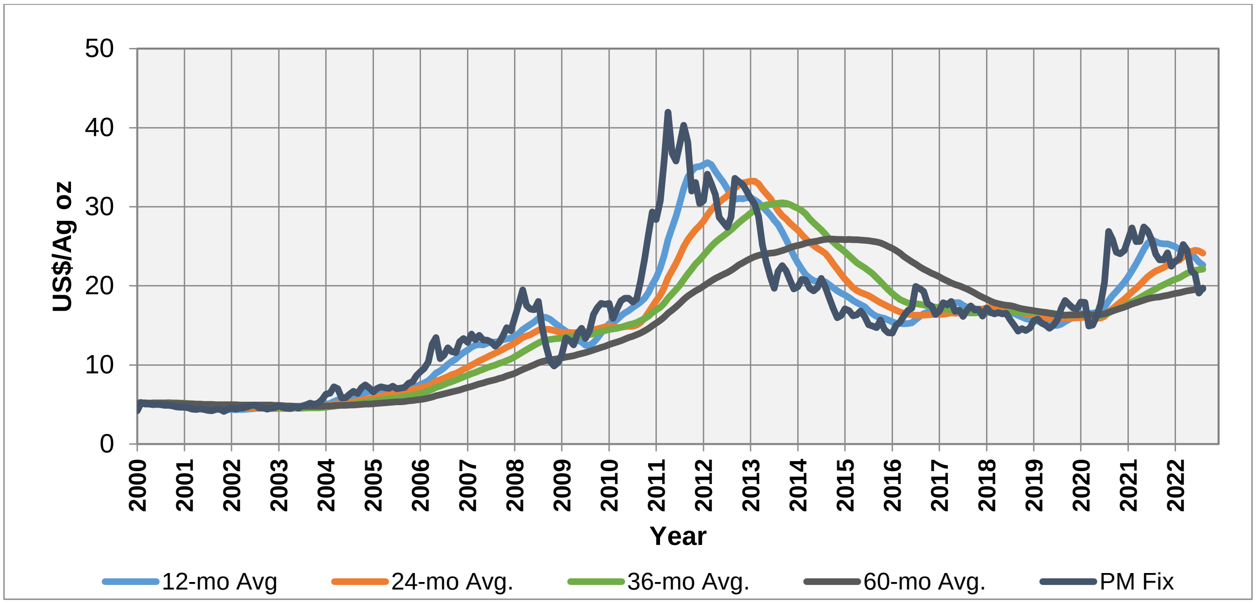
The metal prices used in the economic analysis are loosely based on the three-year trailing averages.

Figure 19-1: Historical Gold Price



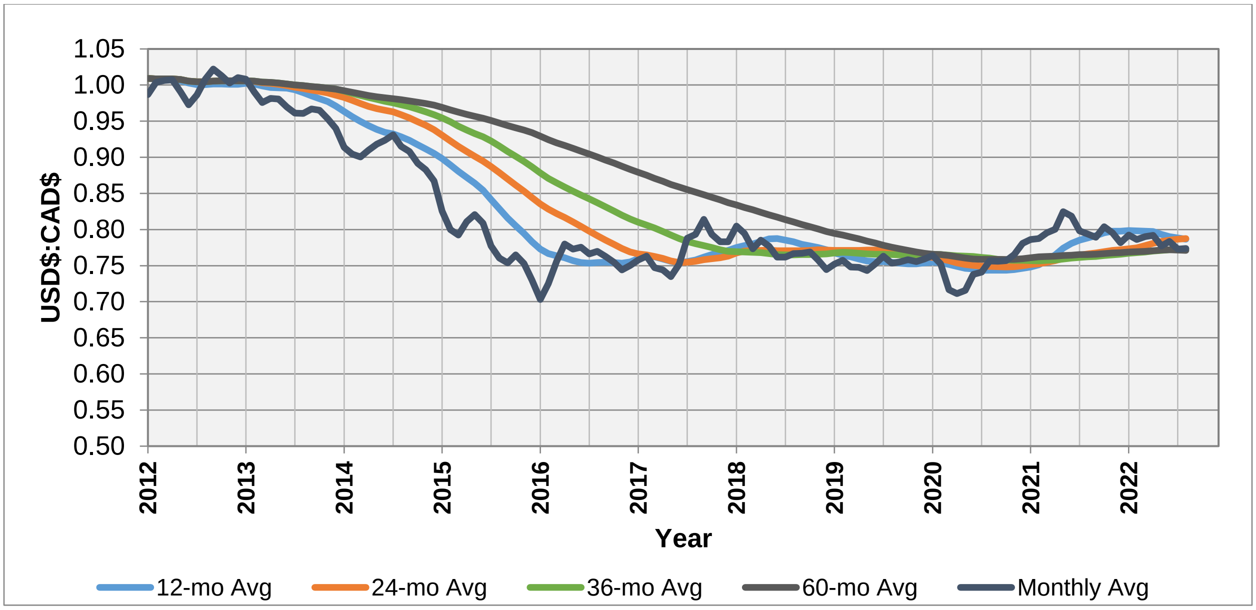
Source: Kitco (2022)

Figure 19-2: Historical Silver Price



Source: Kitco (2022)

Figure 19-3: Historical US$:C$ F/X Rate



Source: Bank of Canada (2022)

20 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL OR COMMUNITY IMPACTS

This section outlines the environmental permitting requirements that apply to the Lawyers Project as well as various environmental management planning aspects, such as closure. It also describes the baseline environmental studies necessary to address the permitting requirements, as well as the information obtained through previous and existing work programs. Finally, it discusses the current and future social and community engagement plans and programs involving the Project.

20.1 Environmental Studies

Historically, a series of environmental studies were performed prior to the construction of Cheni Mine, including a Stage 1 Environmental Assessment Report compiled by Norecol in 1986 (Norecol 1986). Water quality sampling in the project area was conducted by the Ministry of Environment and Climate Change Strategy (ENV) from 1985 to 1990 when the Cheni Mine was operating (ENV 2021). Several heritage and archaeological assessments were also conducted in 1987. Groundwater monitoring and seepage monitoring has been conducted in the area of the historic tailings facility, under purview of the management of that impoundment by the BC Ministry of Energy, Mines and Low Carbon Innovation (EMLI).

More recently, comprehensive environmental studies have been conducted to inform the ongoing exploration activities and establish an environmental baseline to support future environmental assessment processes. These include:

- Collection of site-specific climate and atmospheric conditions by an on-site climate station;
- Hydrological and fisheries habitat assessments of all crossings along the ring road, and aquatic resource assessments at streams and rivers throughout the site;
- Water quality and hydrological monitoring at nearby creeks and rivers;
- Hydrogeological installations to monitor groundwater levels and quality;
- Rare plant surveys;
- Terrain and soils classification;
- Archaeological overview assessment (AOA) and preliminary field reconnaissance (PFR);
- Daily and ongoing wildlife monitoring whenever camp is open;
- Remote camera monitoring along the ring road and throughout the Project site to identify wildlife, raptor, bird and bat use; and
- Caribou habitat modelling.

Information collected by these studies will be included in an Environmental Assessment application prior to project construction.

20.1.1 Climate

The Lawyers Property is in a cool continental climate, with cool summers and cold winters. The temperatures and weather can be quite erratic from June to September and sporadic rain and snow showers can occur at any time. The average annual temperature (from 1944 – 2019) is -1.6°C (Golder 2020). Temperatures range from -32°C in January to 26°C in June. Annual total precipitation is around 654 mm, with the highest precipitation falling in July (~100 mm), and the least precipitation falling in April (~20 mm) (Golder 2020). Snow can occur at any time of year, with possible snow fall in the summer months and snow depths reaching up to 3 m in winter.

20.1.2 Physiography

Elevation ranges from 1350 m above sea level (masl) within the valley, to 2,000 masl at the peaks. Ridges and mountain tops above the tree line have no vegetation, and valleys are thinly forested. The tree line is at 1,630 m elevation. Below the tree line, there is only sparse cover of birch and willow shrubs, with white spruce and sub-alpine fir. Grass, lichen, and dwarf shrubs are found above the tree line. Creeks and gullies are distributed throughout the Property providing good exposure of bedrock. These creeks are an excellent source of water for exploration drilling and may be sufficient for mining activities.

20.1.3 Vegetation

The project is located in the Northern Omineca Mountains Ecosection within the Boreal Mountains and Plateaus Ecoregion and the Northern Boreal Mountains Ecoprovince. Within each ecosection, there is a biogeoclimatic ecosystem classification (BEC) system that provides a method for classifying ecosystems from the landscape to the site level. The existing BEC system recognizes the following three biogeoclimatic subzones/variants within the project area.

- Boreal Altai Fescue Alpine – Undifferentiated (BAFAun);
- Spruce – Willow – Birch – Moist Cool Scrub (SWBmks); and
- Spruce – Willow – Birch – Moist Cool (SWBmk).

A large extent of the Project area occurs in high-elevation subalpine and alpine biogeoclimatic zones. Most of the Project activities are located within the BAFAun and SWBmks subzones. The SWBmk subzone occurs in lower elevation valleys of the Project area. The Ring Road is located at elevations ranging from 1200 masl to 1500 masl within the SWB biogeoclimatic zone, typical for subalpine elevations of Northern BC (BC MOF 1998). There are no Old Growth Management Areas (OGMAs) in the proximity to or overlapping the project.

20.1.4 Hydrology and Water Quality

The Project is located in the Finlay River Watershed. Attorney Creek runs south-north through the eastern valley of the property and Lawyers Creek runs south-north through the western valley. Both Attorney Creek and Lawyers Creek flow into the Toodoggone River, a west-east running river bounding the property to the north.

Historical monitoring was conducted at the Lawyers Gold Mine between 1990 and 2000, including at sites upstream and downstream on Attorney Creek, and a downstream site on the Toodoggone River (Piteau Associates 2000). Water quality monitoring at Notary Creek, Cliff Creek, Caribou Creek, Attorney Creek, East Creek, Lawyers Creek, in the Toodoggone River and at the Cliff Creek Portal has been initiated during the current (2019 – present) exploration program. Ongoing hydrological monitoring includes stations in Notary Creek, Caribou Creek, Cliff Creek, Attorney Creek and in the Toodoggone River (Chu Cho Environmental, 2022). The data from this monitoring will contribute to the establishment of an environmental baseline to support the environmental assessment for the Project.

20.1.5 Hydrogeology and Groundwater Quality

Water analyses have also been performed on the groundwater discharge from the historic Cliff Creek portal, in order to quantify the flow rates and chemistry of the groundwater discharge from the historic mine workings, which discharge to the headwaters of Caribou Creek following initial settling in a sediment settling pond. The results indicate that the groundwater discharge is circum-neutral, low in conductivity, low in suspended solids, and is generally comparable to typical groundwater values. Metal concentrations in the portal discharge were generally below the short-term acute BC water quality guidelines for the protection of aquatic life (BCWQGs). Where there were exceedances of the BCWQGs, the contaminant was isolated to the total fraction, and the dissolved (i.e., biologically available) fraction was below the BCWQG. Water flow from the Cliff Creek Portal is variable, although incidental monitoring indicates it continues to flow at very low temperatures (e.g., -20°C), but at a very reduced rate in the late winter (January – April). Monitoring of the water quality of the Cliff Creek Portal continues during the current exploration program.

Several groundwater sampling sites, in the area of the historic TMF, were sampled from 1990 through 1998. The monitoring wells were damaged during the re-contouring of the embankment in 1996, and no monitoring has occurred since a single sampling program in October 2000 (Piteau Associates 2000). Preliminary site-specific hydrogeological monitoring was conducted in 2021 during geotechnical investigations, and detailed groundwater characterization has been initiated as part of the studies required to support the Environmental Assessment application. EMLI are the responsible authority for the TMF and associated infrastructure.

20.1.6 Wildlife

Overall, the proposed mineral exploration works are located in high elevation alpine and sub-alpine areas. Large wildlife species recorded within the project area include caribou (Rangifer tarandus), Stone’s sheep, (Ovis dali stonei), mountain goat (Oreamnos americanus), grizzly bear (Ursus arctos), wolverine (Gulo gulo), and grey wolf (Canis lupus) (Sasuchan Environmental 2021a). The Project occurs on the edge of several caribou subpopulation boundaries, including

Spatsizi, Thutade, Chase, and Frog. This area was previously designated as a “Zone of Trace Occurrences” (ZTO) but is now considered regularly occupied caribou range (Sasuchan Environmental 2021b). Caribou are mostly found within the Spatsizi Wilderness Park (Sittler et al., 2015), however, based on the current understanding of caribou subpopulation range distribution, the Spatsizi and Thutade subpopulations are most likely to overlap with the Lawyers Property (Sasuchan Environmental 2021b).

20.1.7 Fisheries and Aquatic Resources

Fish and fish habitat studies have been initiated at the project, and have included electrofishing surveys in Attorney, Cliff, Caribou, Notary and Lawyers Creeks; muscle tissue sampling in the Toodoggone River; sediment, benthic invertebrates and water quality sampling and barrier and spawning habitat identification surveys for all nearby watersheds.

Generally, Attorney Creek drainage is dominated by Bull Trout (Salvelinus confluentus), Lawyers Creek drainage is dominated by Rainbow Trout (Oncorhynchus mykiss), and the Toodoggone River drainage supports a diverse fish community (e.g., bull trout, rainbow trout, mountain whitefish, arctic grayling, slimy sculpin and burbot). Fish community differences in these watersheds is reflected in observed differences in channel morphology.

Round Whitefish (Prosopium cylandraceum) were also documented in Toodoggone Lake, constituting a range expansion into the Upper Peace River Watershed, where this species was previously undocumented. There are several watersheds with significant barriers to fish movement (e.g., waterfalls, steep cascades), that have created drainages that are potentially non-fish-bearing (e.g., Cliff Creek), or are fish-bearing, but support an isolated resident fish population (e.g., rainbow trout in Lawyers Creek).

Bull trout are part of the Western Arctic population which is designated as a species of special concern by the Committee on the Status of Endangered Wildlife in Canada (ECCC 2020). Bull trout have been documented in the lower reaches of Attorney Creek (downstream of East Creek), in the unnamed Tributary to Attorney Creek, Caribou Creek, McClair Creek, Sauders Creek and Pau Creek.

20.1.8 Migratory Birds

Migratory birds encompass a variety of avian species that breed in a diverse range of habitats from sea level to alpine environments during summer months before migrating south to overwinter in parts of the United States, Central America, and South America.

The Project area occurs within Bird Conservation Region (BCR) 4: Northern Interior Forest, which encompasses interior Alaska and Yukon, parts of western Northwest Territories and northern British Columbia (Environment Canada 2013). Two hundred and eleven species regularly breed, overwinter, or migrate through the Canadian portion of BCR 4 (Environment Canada 2013). Of this total, 77 species have been identified as priority species. The greatest threats to priority species in BCR 4 are related to climate change, especially for alpine species. Encroachment, disturbance, and water-level changes are affecting birds in wetlands and riparian areas (Environment Canada 2013).

There are 17 yellow listed Bird species that breed in subalpine/alpine habitats and may occur within the Project area (Sasuchan Environmental 2021b). Substantial bird breeding activity has been observed at the project in alpine habitats.

20.2 Environmental Management

The Lawyers property is the site of the historic Cheni Mine, an underground gold mine that operated from 1989 to 1992. The property hosts a flooded underground mine, former tailings storage facility and deactivated access road. An exploration camp has been built at the site by Benchmark to service the current and future ongoing exploration programs. Environmental management required to support the Lawyers Project will include waste rock and tailings storage, hazardous and non-hazardous waste disposal, and corresponding water management.

20.2.1 Historic Waste Disposal Activities

The historic Cliff Creek underground workings were developed on multiple levels to extract mineralised material from the Cliff Creek deposit (Crystal Exploration Inc. 2018). Following the cessation of mining in 1992, the underground workings were left to fill with groundwater, and an inspection in 2010 by Guardsmen indicated that behind the rock and debris used to back-fill the portal, the decline was flooded (Crystal Exploration Inc. 2018). In 2011, PPM attempted to fully dewater the underground workings, but did not complete the program. The Cliff Creek portal was re-sealed upon termination of the 2011 field program, however, groundwater discharge from the portal continues, and is captured in a settling pond prior to discharging to the headwaters of Cliff Creek.

Mineralised material extracted from the Cliff Creek underground workings, and from the adjacent Al Property, was milled at the Cheni mine from 1989 through 1992, generating approximately 620,000 t of gold and silver tailings. Tailings were stored at a TMF located on the west bank of Attorney Creek. The TMF is approximately 700 m long and 330 m wide and covers an area of approximately 13 ha (Golder 2020). The TMF was reclaimed in 1996 by placement of a till cover over the tailings, and regrading of the crest and downstream face of the dam. In 2019, repair and upgrade of the spillway was conducted (Golder 2020). In 2002, following the release of a portion of the security bond back to Cheni Gold Mines Inc., the responsibility for the TMF, was transitioned to EMLI. EMLI are the responsible authority for the TMF and associated infrastructure.

20.2.2 Waste Management – Waste Rock and Tailings Disposal

The project will create waste rock from mine development and tailings as a by-product of mineral processing. The geochemical characteristics of the tailings produced in the milling of mineralised material are preliminarily characterized as NPAG and/or non-metal leaching (ML). However, geochemical testwork is ongoing, and the results will inform detailed design of the waste management approach.

Conceptually, the TMF will provide storage for approximately 46 Mt of conventional thickened slurried tailings and the WRSF will provide storage for approximately 276 Mt of run of mine waste rock. The WRSF will be a separate, standalone facility on the land surface. Run-off collection ditches and appropriate treatment of run-off will be required to adequately manage run-off and seepage from both the TMF and WRSF.

The tailings will be transported via pipeline to the TMF and discharged into the TMF either subaqueously or sub-aerially. Sub-aerial deposition is often from the tailings embankments where beach development acts as an additional seepage control measure. The supernatant water, along with any additional water reporting to the TMF from direct precipitation and run-off, will be recycled to the mill for use in processing.

20.2.3 Non-Hazardous Waste

Non-hazardous waste management will involve the segregation of industrial and domestic waste into separate waste streams. Waste collection and disposal facilities will include one or more incinerators for domestic/putrescible waste, separate waste collection areas for recyclable and industrial waste streams for off-site disposal, and sewage effluent and sludge disposal for onsite disposal. Waste collection areas will be managed according to requirements and best management practices for the safety of workers and environment, including standard operating procedures for spill management, fire safety and wildlife attractant.

20.2.4 Hazardous Waste

Hazardous waste materials such as spoiled reagents, waste petroleum products and used batteries will be generated throughout the life of the Project, from construction to decommissioning. Storage facilities will facilitate the segregation and inventory of the various hazardous waste streams generated during the project. A separate secure storage area will be established with controls and best management practices to maintain the safety of workers and the environment. Hazardous materials will be labelled and stored in appropriate containers for shipment to approved off-site disposal facilities. Waste streams will be tracked in accordance with federal and provincial regulations, such as the federal *Transportation of Dangerous Goods Act*, 1992 (SC 1992, c 34).

20.2.5 Water Management

Water management objectives for the Project include: manage site water in a manner that provides sufficient water to support mineralised material processing, minimizing the potential for storm flows to cause damage to mine infrastructure and minimizing the risk of adverse effects to downstream water quality. The strategies applied to achieve these objectives are to keep non-contact water clean by diverting it around Project areas wherever possible, use the water within the project area to the maximum practical extent and manage sediment mobilization and erosion through Best Management Practices (BMP) before and during construction activities.

Diversion ditches will be constructed upslope of the WRSF and the TMF to divert clean run-off from the upper catchments around the facilities to the downstream catchments of Unknown Creek and Caribou Creek, respectively.

Groundwater and precipitation collected in the Cliff Creek/Dukes Ridge and AGB pits will be dewatered throughout mine life, with dewatering flows from the pit sumps pumped to the mill for use in processing. Water will also be reclaimed from the TMF from the supernatant pond to the mill. Water reclaimed from the TMF consists of supernatant from the settled tailings and run-off from precipitation. Excess water stored in the TMF will be pumped to upper Caribou Creek, downstream of the seepage collection pond.

Seepage from the WRSF and TMF will be collected in downslope seepage collection ditches, and subsequently diverted to seepage collection ponds. A pump station at the TMF will either return the water from the seepage collection ponds back to the TMF, or, if water quality is acceptable, will discharge to Caribou Creek. Similarly, seepage collected in the WRSF seepage ponds will either be pumped back to the mill or will be discharged to upper Unknown Creek.

Upon mine closure, the tailings and reclaim delivery systems, all pipelines, structures and equipment not required beyond mine closure will be dismantled and removed. During post-closure, an overflow spillway and channel will discharge excess water accumulating within the TMF to the north-east, ultimately terminating at an erosion protected plunge pool in upper Caribou Creek.

A freshwater system may also be required to offset any operational water deficit, and to provide freshwater to supply potable and fire water at the processing plant, administrative offices and accommodation camp. Fresh water destined for potable sources will also be filtered and chlorinated and will be stored and distributed separately from the process freshwater supply system.

Ongoing water quality monitoring will be required to assess the effectiveness of the Water Management System including the installation of groundwater wells at suitable locations downstream of site infrastructure. Flow monitoring devices will also be installed in diversion ditches and creeks to confirm design flows. The groundwater monitoring wells, and all other geotechnical instrumentation will be retained for use as long-term monitoring devices. Post-closure requirements will also include scheduled inspections of remaining infrastructure (including the TMF) and will include an ongoing evaluation of water quality, flow rates and instrumentation records to confirm the design assumptions for closure.

20.3 Permits and Authorizations

20.3.1 Land Use Plans

The Project, including the Ring Road and the Access Road from Kemess, lies fully within the Mackenzie Land and Resource Management Plan (LRMP) (Government of British Columbia 2000). LRMPs provide strategic level direction for managing Crown land resources and identify ways to achieve community, economic, environmental, and social objectives. Specifically, the Project lies within the Toodoggone Lake/River - Special Subzone (#7B) of the Thutade – Mining and Wildlife Special Resource Management Zone (RMZ #7). The intent of RMZ #7 is to manage for the conservation of identified non-extractive values (e.g., wildlife and wildlife habitat). This zone has a special emphasis on mineral development and related access. Opportunities are maintained for timber, mineral, and oil and gas development.

20.3.2 Existing Authorizations

Exploration activities are conducted under Mineral Exploration Permit MX-13-100. The permit was issued in 2003 to Guardsmen Resources Inc. and subsequently transferred to PPM Phoenix Precious Metals Corp. in 2011. The latter conducted exploration programs under this authorization until transfer to Benchmark in 2018. Benchmark submitted a permit amendment request, which was granted on July 17th, 2019 to support a large-scale exploration program at the Lawyers Property. Following positive exploration results, an additional amendment request was submitted on November 9th, 2020 to further expand the scope of the authorized activities under MX-13-100. The current permit was updated June 30th, 2022 and allows for activities through to May 27th, 2027, including: reactivation of the 39 km of the former access road leading northeast from the Lawyers Camp along Attorney Creek and wrapping around to the west along the south side of the Toodoggone River valley as well as the portion that extends south along the Lawyers Creek valley and then south-southeast toward the Sturdee Airstrip; surface drilling; camp and associated buildings; exploration access trail construction; and fuel storage.

Financial security in the amount of $1,387,876 is currently held by EMLI under MX-13-100 for reclamation. The bond provides for the reclamation of all works, including drill pads and trails, test pits, deactivation of the Ring Road and other pre-existing mine roads (including removal of all culverts and bridges), re-establishment of natural drainage, and removal of all buildings, machinery, equipment, and debris, as well as appropriate ground preparation, re-application of salvaged soils, and revegetation.

Additional reclamation security is required to be paid in installments as follows:

4. payment of an additional $392,960 prior to increase in camp disturbance with additional 84 structures;

5. payment of an additional $181,016 prior to July 1, 2023; and

6. additional reclamation security of $90,508 prior to July 1, 2024.

For a total reclamation liability of $2,052,360 to be held under exploration permit MX-13-100.

Benchmark also holds water licenses, and camp water system, food service facilities and general health approvals for industrial camp use. Benchmark has also acquired all necessary authorizations from EMLI, Fisheries and Oceans Canada (DFO), and BC Ministry of Forests (FOR) required for Ring Road reactivation.

The existing TMF is regulated under *Mines Act* Reclamation Permit M-174, which was initially issued to Cheni Gold Mines Inc. in 1986. In 2002, following the release of a portion of the security bond back to Cheni Gold Mines Inc., the permit, and corresponding responsibility for the TMF, was transitioned to EMLI. The total bond held by EMLI under M-174 is currently $4,587 (EMLI 2021a). EMLI are the responsible authority for the existing TMF and associated infrastructure.

20.3.3 Environmental Approvals

The construction of the Lawyers Project will require additional permits, following the receipt of an Environmental Assessment Certificate (EAC) under the *British Columbia Environmental*

Assessment Act required for mining projects with a mineralised material extraction rate ≥75,000 t/a (OIC 607/2019). The project will also require a federal decision statement before the issuance of any permits to construct or operate under the *Impact Assessment Act* as it will exceed the criteria for a designated project under the Physical Activities Regulations (SOR/2019-285), for a new metal mine with an mill production capacity of 5,000 t/day or more, as well as a new metal mill, with a feed input capacity of 5,000 t/day or more.

The proposed Project will undergo a concurrent environmental assessment / impact assessment, by way of either a substituted or coordinated process between the federal and provincial regulators (i.e., BC Environmental Assessment Office (EAO) and the Impact Assessment Agency (IA Agency)). The determination of substituted versus coordinated processes will come once both regulators have been notified of the Project with the submission of an Initial Project Description.

20.3.4 Provincial Permits and Authorizations

The project is located on Crown land. The three primary provincial authorizations required to build, operate and reclaim the project are:

1. An EA certificate, issued under the *Environmental Assessment Act* by the EAO;
2. Permits issued under the *Mines Act* by the EMLI; and
3. Waste discharge permits issued under the *Environmental Management Act* by the Ministry of Environment and Climate Change Strategy.

A mineral lease will also be required to convert mineral claims (allowing for exploration and development of mineral resources with production limits) to a mining lease (to engage in mine production and/or mine reclamation subsequent to production) (EMLI 2017a). To apply for a mining lease, a mineral claims holder applies to have the mineral claims replaced with a mining lease under Section 42 of the *Mineral Tenure Act* (EMLI 2017a).

There are also several minor permits and authorizations required to construct and operate a mine in British Columbia. A list of potentially applicable provincial approvals and permits and the corresponding responsible agency, provincial statute and project activity is provided in Table 20-1.

Table 20-1: Provincial Permits and Approvals Potentially Applicable to the Project

Permit/Approval	Provincial Statute	Responsible Agency	Project Activity
Environmental Assessment Certificate	*Environmental Assessment Act*	EAO	Conducting activities listed in the Physical Activities Regulations
Mines Act permit	*Mines Act*	EMLI	Approval of the mine plan and the reclamation and closure plan (RCP)

Permit/Approval	Provincial Statute	Responsible Agency	Project Activity
Waste Discharge Permit and Waste Storage Approval	*Environmental Management Act*	ENV	Permitting system to enable authorized discharge of effluent to water, storage/treatment of wastes, disposal of solid waste to land, and discharge of emissions to the atmosphere.
Heritage Conservation Act s. 14 Heritage Inspection Permit or Heritage Investigation Permit; s. 12 [Site] Alteration Permit	*Heritage Conservation Act*	Ministry of Forests (FOR): Archaeology Branch	Heritage inspection, investigation, or site alteration of lands potentially affected by the project.
Heritage Conservation Act Concurrence letters	*Heritage Conservation Act*	FOR: Archaeology Branch	Assessment under the *Heritage Conservation Act* must be completed prior to the commencement of ground disturbing activities.
Wildlife Act Permit	*Wildlife Act*	ENV: Environmental Stewardship Division	Wildlife salvages and surveys of wildlife and their habitat. Bird nest removal or relocation.
Construction Permit for a Potable Water Well	*Drinking Water Protection Act*	BC Ministry of Health, Northern Health Authority	Groundwater well for domestic water use.
Water System Construction Permit	*Drinking Water Protection Act*	BC Ministry of Health, Northern Health Authority	Construction of a potable water system.
Drinking Water System Operations Permit	*Drinking Water Protection Act*	BC Ministry of Health, Northern Health Authority	Operation of a potable water system.
Short Term Use of Water Permit	*Water Sustainability Act*	ENV: Water Stewardship Branch	Short-term use of water from freshwater streams and lakes for construction purposes.
Water Sustainability Act Approval	*Water Sustainability Act* and BC Dam Safety Regulation	Ministry of Land, Water and Resource Stewardship (LWRS)	For changes in and about a stream including diversions, storage and use of water, including management of nuisance water from mining operations.
Water License	*Water Sustainability Act*	LWRS	For construction and operation of Project activities requiring diversion of surface waters or groundwater sources for potable or process water.

Permit/Approval	Provincial Statute	Responsible Agency	Project Activity
Licenses to Cut	*Forest Act*, Part 3, Section 8.2 License to Cut Regulation Provincial Forest Use Regulation	FOR: Forest Tenures Branch	License to Cut Permit to harvest in a specific area over a relatively short time period.
Industrial Access Permit	*Transportation Act*	Ministry of Transportation and Infrastructure	Required for any new roads that join onto public roads controlled by the Ministry of Transportation.
Special Use Permit	Section 3 of the *Mining Right of Way Act* and the *Forest Practices Code of British Columbia Act*	FOR	Gain nonexclusive authority to use Crown Land within Provincial Forest, if in accordance with Provincial Forest Use Regulation (annual rent and taxes apply) for the construction or maintenance of a road, bridge, or drainage structure, weather station, weight scales, or quarries used for road construction or maintenance.
Permit for regulated activities	*Public Health Act*	Ministry of Health	Regulated activities may, if prescribed standards are not met, endanger health or cause injury or illness, or are not regulated under an enactment (or if regulated do not sufficiently prevent, mitigate or respond to the risk to health or risk of injury or illness). Such activities could be providing potable water, processing waste water, or managing septic systems.
Hazardous Waste Generator Registration	*Environmental Management Act* Hazardous Waste Regulation	ENV	A registration process for the owner of a waste (e.g., property owner) identified as being hazardous to detail the steps taken to store hazardous waste at the generation location.
Sewage Registration	*Environmental Management Act* Municipal Sewage Regulation	ENV	Registration identifying specific information regarding the sewage discharge activities.
Food Service Permits	*Health Act*	Provincial Health Services Authority	To operate a kitchen in a mining camp.

Source: One-Eighty (2022)

20.3.5 Federal Permits and Authorizations

As detailed above, the project will require a federal review under the *Impact Assessment Act*, as well as several federal authorizations, permits and licenses. A list of potentially applicable federal authorizations and permits and the corresponding responsible agency, federal statute and project activity is provided in Table 20-2.

Table 20-2: Federal Permits and Approvals Potentially Applicable to the Project

Permit/Approval	Federal Statute	Responsible Agency	Project Activity
Impact Assessment Decision Statement	*Impact Assessment Act*	Impact Assessment Agency of Canada	The construction, operation, decommissioning and abandonment of a new metal mine with a mill production capacity of 5,000 t/day or more, and a new metal mill, with a feed input capacity of 5,000 t/day or more.
Authorization under Paragraphs 34.4(2)(b) and 35(2)(b)	*Fisheries Act*	Fisheries and Oceans Canada (DFO)	Conducting work or activities that result in the death of fish or that result in the harmful alteration, disruption or destruction of fish habitat.
Migratory Birds Convention Act Authorization	*Migratory Birds Convention Act* and Migratory Bird Sanctuary Regulations	Environment and Climate Change Canada (ECCC)	Deposit of substances harmful to migratory birds or vegetation clearing during the migratory bird nesting season as outlined by ECCC for the Project area, Zone A2, early April to mid-August (ECCC 2018).
Species at Risk Act Permit	*Species at Risk Act*	ECCC, DFO, Parks Canada	Authorizes activities that will affect a listed wildlife species, any part of its critical habitat, or the residences of its individuals.
Explosive Licenses and Permits	*Explosives Act*, and Regulations	Natural Resources Canada	Explosive License required for factories and magazines. Explosive Permit required for vehicles used for the transportation of explosives.
Transportation of Dangerous Goods Permits	*Transportation of Dangerous Goods Act*	Transport Canada	Related to the classification, documentation, marking, means of containment, required training, emergency response, accidental release, protective measures and permits required for the transportation of dangerous goods by road, rail or air.

Source: One-Eighty (2022)

20.4 Considerations of Social and Community Impacts

The project is on Crown land administered by the Province of British Columbia, within the traditional lands of the Tsay Keh Dene Nation, Kwadacha Nation and Takla Nation and within Tahltan Territory. Industrial and recreational activities in the project area include adventure tourism, hunting, trapping and several adjacent mineral exploration properties.

20.4.1 Engagement and Consultation

Benchmark has committed, through several agreements with Indigenous groups, to create understanding, cooperation, communication and strong relationships, based on mutual respect and trust. Benchmark has committed to avoid or mitigate harm to the environment and the interrelationship of the First Nations with the environment, as well as involving Indigenous groups in the planning and implementation of environmental management and monitoring programs at the Project.

20.4.1.1 Indigenous Nations

Engagement with local Indigenous groups will continue throughout the Project design, construction, operations, closure, and post-closure. Benchmark has established several agreements with Indigenous groups, including a trilateral Exploration Cooperation and Benefit Agreement with the Takla Nation, Tsay Keh Dene Nation and Kwadacha Nation and an Exploration Agreement with the Tahltan Central Government (TCG). Through the trilateral agreement, Benchmark has established and funds an Implementation Committee, with sub-committees, including an Environmental Management Committee and Business Opportunities Committee that meet regularly to share project updates, detail economic opportunities, and consult with Indigenous groups. Through the Exploration Agreement, Benchmark provides information regarding its ongoing and potential economic activities, in order to keep the TCG and its members informed throughout the evolution of the Property and provides economic benefits through community funding.

Provisions for ongoing consultation with Indigenous groups and the public are a component of the provincial and federal legislation for both the EA/IA processes and permitting activities. Ongoing and future engagement and consultation measures by Benchmark are driven by best practices as well as Benchmark's collaborative agreements with the First Nations. These measures will at a minimum comply with federal and provincial regulations.

20.4.1.2 Government

Benchmark will engage and collaborate with federal, provincial, and regional government agencies and representatives as required with respect to topics such as land and resource management, protected areas, official community plans, environmental and social baseline studies, and effects assessments. The EA process includes establishment of a project specific technical advisory committee at the early stages of the process and will include representatives from many government groups that will facilitate engagement with these regulators throughout the EA process.

20.4.1.3 Public and Stakeholders

Benchmark will consult with the public and relevant stakeholder groups, including tenure holders, businesses, economic development organizations, businesses, and contractors (e.g., suppliers and service providers), and special interest groups (e.g., environmental, labour, social, health, and recreation groups), as required by federal and provincial environmental assessment and permitting processes.

20.5 Closure Plan

Closure of mine operations in British Columbia is governed by the following provincial acts and regulations:

- *British Columbia Mines Act* and Health, Safety and Reclamation Code for Mines in British Columbia (EMLI 2021b);
- *Environmental Management Act*;
- *Water Sustainability Act*; and
- Regional Regulations – the project is located within the Peace River North electoral area and is subject to the Mackenzie Land and Resource Management Plan.

The primary objective of the closure and reclamation initiatives will be to eventually return the site to a landform with pre-mining usage and capability. The mine closure strategy for the mine will be to have a stable, revegetated site with the best mitigation to address potential ML/ARD and water quality risks. A Closure and Reclamation Plan will be developed during the permitting process to achieve end land use objectives. Closure planning will include feedback and input from Indigenous groups to determine post-mining land use objectives and supporting strategies, including addressing regulatory requirements. Achieving the desired outcomes will be an iterative process during the design and permitting process and incorporate social, environmental, engineering, technical, and Indigenous criteria.

Closure activities will be completed progressively, where possible, throughout mine operations as guided by the reclamation plan. Closure activities may include:

- Decommissioning of all surface workings, with the exception of those required for long term monitoring, such as environmental monitoring installations, and the TMF embankment;
- Dismantling and removal of the tailings and reclaim delivery systems, process plant and all pipelines, structures and equipment not required beyond mine closure;
- Removal of the seepage collection systems at such time that suitable water quality for direct release is achieved;
- Construction of an overflow spillway and channel to allow surface water discharge downstream of the TMF;

- Removal and regrading of all access roads, ponds, ditches and borrow areas not required beyond mine closure;
- Long-term stabilization of all exposed erodible materials;
- Development of pit lakes in the Cliff Creek, Dukes Ridge and AGB pits to mitigate any potential ML/ARD risk from pit walls;
- Potential for water treatment of pit and waste rock storage seepage and run-off to meet discharge requirements if shown to be required;
- Backfilling, resloping, scarifying, and revegetation of decommissioned areas to perpetuate a long-term revegetated state; and
- Implementing and maintaining a long-term monitoring plan.

To accommodate water surplus at closure in the TMF, a spillway will be constructed at closure to safely route and discharge excess water accumulation within the TMF and to provide safe passage of stormwater volumes from the TMF.

The seepage collection ponds/sumps and recycle pumps will be retained until monitoring results indicate that seepage collected from the TMF at the seepage collection pond is of suitable quality for discharge to the downstream environment. The groundwater monitoring wells and all other geotechnical instrumentation will be retained for use as long-term monitoring devices.

Post-closure requirements will also include scheduled inspections of remaining infrastructure (including the TMF) and will include an ongoing evaluation of water quality, flow rates and instrumentation records to confirm the design assumptions for closure.

The conceptual mine closure occurs over four phases: operational closure, post-mining closure, active closure, and post-closure. Conceptual closure activities of each stage are outlined in Table 20-3. These activities will be refined throughout the EA and permit application development phases of project development.

Table 20-3: Conceptual Mine Closure Phases and Activities for the Project

Closure Phase	Activities
Operational Closure / Progressive Closure	As and when each pit and stages of the WRSF are decommissioned they will be closed.
Active Closure	Mine closure and reclamation activities including the following: • Managing hazardous waste; • Dismantling and disposing of all structures and equipment, including utilities; • Decommission pit pumping systems; • Landfilling all inert waste, including equipment drained of all oils and hazardous materials;

Closure Phase	Activities
	• Transporting all hazardous waste from the site; • Disposing of all liners and pipelines; • Collecting and treating all contaminated soils; • Re-contouring the site areas to provide positive drainage; and • Scarifying, placement of re-vegetation layer and seeding of disturbed surfaces.
Post-Closure	Monitoring of remaining infrastructure, including seepage collected in the WRSF collection ponds, and TMF seepage collection pond. Once monitoring results indicate that seepage collected from the WRSF and TMF is of suitable quality for discharge to the downstream environment, the ponds will be decommissioned and reclaimed. Groundwater monitoring wells and all other geotechnical instrumentation will be retained for use as long-term monitoring devices.

Source: One-Eighty (2022)

The conceptually proposed means of mine closure and reclamation for each mine component are described in Table 20-4; however, alternatives are being considered and plans are yet to be finalized.

Table 20-4: Conceptual Reclamation and Closure Approaches for Each Mine Component

Mine Component	Conceptual Reclamation and Closure Means
Process Facility and Infrastructure	All infrastructure to be removed or cut to surface. Materials will be appropriately disposed of, and disturbed areas will be covered with topsoil and revegetated.
Dorms and Administration	All infrastructure to be removed or cut to surface. Materials will be appropriately disposed of, and disturbed areas will be covered with topsoil and revegetated.
Site Access Road	Decommissioned following completion of mining and active closure activities. Access required for site monitoring and maintenance of the TMF embankment will be via helicopter.
Powerline	Decommissioned following completion of mining and active closure activities, when power is no longer required.
Water Management Infrastructure	Reclaim and surplus water pump barge will be decommissioned from the TMF. Reclaim pipeline and tailings pipelines decommissioned.
AGB, Dukes Ridge and Cliff Creek Pits	Dewatering systems will be decommissioned, and the pits allowed to fill with groundwater, precipitation, and run-off from the upstream catchments. Water from the TMF and WRSF seepage ponds may be pumped to the pits early in the closure phase, depending on water quality and closure objectives. Once the pits fill, they will discharge to the Cliff Creek watershed.
Waste Rock Storage Facility	Development of a stable cover system. Monitoring of water quality in the collection ponds during operations. If water quality is suitable, collections ponds will be decommissioned and reclaimed, and seepage will discharge.

Mine Component	Conceptual Reclamation and Closure Means
Tailings Storage Facility	Development of a stable cover system. TMF closure spillway constructed for surface water discharge.

Source: One-Eighty (2022)

Based on the above conceptual closure plan, the closure cost has been estimated to be $45,000,000.

21 CAPITAL COST ESTIMATE

21.1 Capital Cost Summary

The capital cost estimate was prepared using a combination of benchmarks and first principles where applicable, with applied project experience. The estimate is derived from engineers, contractors, and suppliers who have provided similar services to existing operations and have demonstrated success in executing the plans set forth in the study. Given that assumptions have been made due to the level of engineering design available (as typical for this stage of study) the accuracy of the estimate and/or ultimate construction costs arising from the engineering work cannot be guaranteed. The estimate is deemed to be at the level of an AACE Class 5 Estimate, with a target accuracy of ± 30%, reflective of the current level of engineering and design.

Costs are expressed in CAD$ and do not include allowances for escalation or exchange rate fluctuations unless stated otherwise. A foreign exchange rate of CAD$1.00:US$0.77 is used where applicable.

The estimate is based on the assumption that contractors would mobilize only once to carry out their work and are not already mobilized on site performing other work.

Pre-Production capital costs amount to $484M. Total Life of Mine capital costs are estimated to be $626M. Sustaining and Closure capital costs total $142M, of which closure costs are estimated to be $45M. These costs are summarized in Table 21-1.

The mining capital costs include preproduction operating costs, a 20% down payment for production and support equipment, and the full purchase price for any other equipment; monthly lease payments are accounted for in the operating costs.

Individual contingency rates were applied to each of the capital cost categories, to reflect the level of engineering effort undertaken and the estimate/engineering accuracy. The contingency factors take into account that most mobile and equipment cost estimates were based on quotations and therefore, attract a lower contingency factor. This resulted in a blended contingency rate of 17.6%, or $72.5M in contingency. No contingency was applied to sustaining or closure capital costs.

Table 21-1: Capital Cost Summary

Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Open Pit Mining	52.5	31.5	84.0
On-site Development	5.5	-	5.5
Mineral Processing	140.1	-	140.1
Tailings and Waste Management	48.2	49.7	98.0

Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
On-site Infrastructure	29.0	10.5	39.6
Off-site Infrastructure	46.2	-	46.2
Project Indirects	51.4	2.9	54.3
Engineering & Project Management	24.5	2.3	26.8
Owner's Costs	14.1	-	14.1
Closure	-	45.0	45.0
Subtotal	**411.5**	**142.0**	**553.5**
Contingency	72.5	-	72.5
Total Capital Costs	**484.1**	**142.0**	**626.1**

21.2 Basis of Estimate

The capital estimate includes all costs to develop the site and sustain the operation. The Project is an open pit mine, with Process and TMF, supported by on-site and off-site infrastructure. Sunk costs and owner’s reserve accounts are not considered in the PEA estimates or economic cash flows.

The cost estimate consists of Direct, Indirect, Owner’s, and Contingency costs:

- Direct costs: Costs of all permanent equipment and bulk materials and the installation costs for all permanent facilities including contractor’s supervision and management costs, and contractor’s administration and profits;

- Indirect costs: Costs of construction support labour, support equipment, field procurement, field indirects, camp & catering, temporary construction facilities and services, freight and logistics, commissioning and start-up, first fills, spares, and EPCM support;

- Owner’s costs: Costs associated with pre-production operating costs, owner’s facilities and services during construction, and owner’s team project management; and

- Contingency: A construction contingency to cover necessary work within the defined scope of the Project which cannot be identified or itemized at this stage of the Project development but is expected to be incurred.

The following key assumptions were made during development of the capital estimate:

The capital estimate is based on the development schedule, execution strategy, and key dates described within the Mine Plan included in Section 16 of this report;

- Open Pit development will be performed by Owner; and

- All construction (civil, structural, architectural, mechanical, piping, electrical, and instrumentation) will be performed by Contractors.

The following key parameters apply to the capital estimate:

- Estimate Class: The capital cost estimate is considered a Class 5 cost estimate with a target accuracy of ± 30%;
- Estimate Base Date: The base date of the capital estimate is Q3 2022. No escalation has been applied to the capital estimate for costs occurring in the future;
- Units of Measure: The International System of Units (SI) is used throughout the capital estimate; and
- Currency: Costs are expressed in CAD$ and do not include allowances for exchange rate fluctuations unless stated otherwise. A foreign exchange rate of CAD$1.00:US$0.77 is used where applicable.

21.3 Capital Cost Exclusions

The following items have been excluded from the capital cost estimate:

- Working capital (included in the financial model);
- Financing costs;
- Currency fluctuations;
- Lost time due to severe weather conditions beyond those expected in the region;
- Lost time due to force majeure;
- Additional costs for accelerated or decelerated deliveries of equipment, materials or services resultant from a change in Project schedule;
- Warehouse inventories, other than those supplied in initial fills, capital spares, or commissioning spares;
- Any Project sunk costs (studies, exploration programs, existing access roads, etc.);
- Local sales tax;
- Closure bonding; and
- Escalation cost.

21.4 Mine Capital Cost Estimate

JDS developed the mine capital cost estimate. Material movement quantities were determined from the mine schedule and unit rates were developed from first principals. Mining equipment quantities were determined from the mine schedule, material handling requirements, and estimated equipment utilization. Budgetary quotes and in-house cost databases were utilized to determine equipment costs.

Production and support mining equipment is leased up to Year 5, with only the lease down payment (20%) being capitalized; ancillary mining equipment is purchased outside of leasing agreements. Therefore, the bulk of equipment capital costs are accounted for in operating costs. Equipment replacement starting in Year 5 is purchased outside of leasing agreements and is capitalized as sustaining costs.

The mining capital costs are provided in Table 21-2.

Table 21-2: Mining Cost Estimate

Mining Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Pre-Stripping	39.6	-	39.6
Production Equipment	-	9.1	9.1
Support Equipment	-	10.3	10.3
Ancillary Equipment	5.1	0.5	5.7
Fixed Equipment	-	-	-
Spare Parts		0.3	0.3
First Fills (in equip costs)		-	-
Lease Down Payments	7.8	11.3	19.1
Total	**52.5**	**31.5**	**84.0**

21.5 Processing Cost Estimate

Halyard Inc. performed the mechanical, electrical, civils and other associated designs and cost estimates for the 10,600 t/d process facility which utilizes leach and Merrill Crowe to produce doré bars.

Halyard performed the cost estimate based on the process flow diagram, design criteria documentation, equipment lists, and site layout drawing. Budgetary quotes for major mechanical and electrical equipment and the pre-engineering building were received from vendors, and installation hours were estimated from Halyard's database. Fabrication and installation costs for structural, platework, electrical, instrumentation, and minor mechanical scope were estimated by establishing factors based on Halyard's database rates. Material Take-Offs were generated for the earthworks and civils scopes, and Halyard database unit rates were applied in the estimate.

The Processing capital costs are provided in Table 21-3.

Table 21-3: Processing Cost Estimate

Processing Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Crushing & Handling	9.1	-	9.1
Grinding and Pebble Crushing	38.3	-	38.3
Thickening	3.4	-	3.4
Leaching	41.6	-	41.6
Merrill-Crowe Package	14.7	-	14.7
Detox and Tailings	7.9	-	7.9
Reagents	1.1	-	1.1
Process Plant Building & Utilities	18.3	-	18.3
Auxiliary Equipment	5.7	-	5.7
Total	**140.1**	**-**	**140.1**

21.6 Tailings and Waste Management Capital Cost Estimate

The PEA level TMF and WRSF design were used to prepare cost estimates for initial capital and sustaining capital/operating expenses for tailings and waste management. Quantities were developed by KP using layouts generated in AutoCAD Civil 3-D. Database unit rates were provided by KP and were reviewed by JDS. Some adjustments have been made to align with the scope of other ongoing site development activities.

The tailings and waste management cost estimate are summarized as follows and shown on Table 21-4.

Table 21-4: Tailings and Waste Management Cost Estimate

Tailings and Waste Management Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Tailings Management	**40.9**	**46.0**	**86.9**
TMF Foundation Preparation	0.8	1.0	1.8
TMF Embankment Construction	26.2	42.7	68.9
Tailings Distribution System	0.9	0.9	1.8

Tailings and Waste Management Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
TMF Reclaim Water System	5.7	0.2	5.9
Surplus Water System	0.8	0.2	0.9
Water Management	6.6	1.1	7.7
Waste Management	**7.3**	**3.7**	**11.0**
WRSF Foundation Preparation	1.6	3.7	5.3
WRSF Water Management	5.7	-	5.7
Total	**48.2**	**49.7**	**98.0**

21.7 Infrastructure Capital Cost Estimate

Infrastructure costs include site development, on-site infrastructure inclusive of power distribution, accommodation complex, mine maintenance facility and site support fleet, as well as off-site infrastructure which primarily consists of a 230 kV transmission line. The construction of the mine maintenance facility has been pushed into Y1. Table 21-5 presents a summary of the basis of estimate for the various infrastructure items included in the capital cost estimate.

Table 21-5: Infrastructure Costs Basis of Estimate

Description	Basis of Estimate
Bulk Earthworks, Including On-Site Roads	Estimate volumes from preliminary site layout model Database unit rates for bulk excavation and fill, civil construction works, and road construction works.
Surface Water Management	Allowances for additional water management ponds, surface drainage, and bridge upgrades.
Power Supply & Distribution	Database costs from similar projects.
Waste Management	Database costs from similar projects.
Ancillary Buildings	Database costs from recent projects for the accommodation complex, mine dry, administration offices, maintenance and warehouse building, and ERT garage.
Support Mobile Fleet	Quantities developed based on similar projects. Database unit costs from recent projects.
Bulk Fuel Storage & Distribution	Database costs from similar projects.
IT & Communications	Database costs from similar projects.
Power Transmission Line	Cost estimate was prepared by Allnorth. Quantities developed from preliminary designs. Database unit rates from Voltage Power Ltd.
Airstrip	Allowance for shared maintenance costs during the pre-production period

The site development and infrastructure cost estimate are summarized as follows and shown on Table 21-6.

Table 21-6: Site Development and Infrastructure Cost Estimate

Infrastructure CAPEX	Pre-Production (M$)	Sustaining / Closure (M$)	Total
On-Site Development	5.5	-	5.5
Bulk Earthworks (Pads)	2.0	-	2.0
On-Site Roads	2.4	-	2.4
Surface Water Management	1.0	-	1.0
On-Site Infrastructure	29.0	10.5	39.6
Power Supply & Distribution	6.7	-	6.7
Water Supply & Distribution	-	-	-
Waste Management	1.7	-	1.7
Ancillary Buildings	14.7	10.5	25.3
Support Mobile Fleet	4.2	-	4.2
Bulk Fuel Storage & Distribution	0.7	-	0.7
IT & Communications	1.0	-	1.0
Off-Site Infrastructure	46.2	-	46.2
Main Access Road Upgrades	-	-	-
Power Transmission Line	46.0	-	46.0
Airstrip	0.3	-	0.3
Total	**80.7**	**10.5**	**91.2**

21.8 Indirect Cost Estimate

Indirect costs are classified as costs not directly accountable to a specific cost object. At this stage of study, indirect costs have been factored based on the direct costs in the capital estimate, based on factors from similar projects. Table 21-7 presents a summary of factors used within the capital estimate. Indirect costs attributed to Open Pit mine development over the life of mine, such as freight, first fills, etc. are held within the OPEX costs.

Table 21-7: Indirect Costs Basis of Estimate

Description	Factor	Description
Indirects		
Construction Support Equipment	0.5%	Includes crane hire, etc. Site service support equipment is accounted for as Owner's costs, and discipline specific support equipment is included in direct costs.
Construction Support Labour	3.0%	Includes QA/QC, survey, scaffolding, etc.
Construction Materials Procurement	1.5%	Field procurement
Contractor Field Indirects	3.0%	Contractor mobilization/demobilization
Camp & Catering	-	$72/day, project estimated at 81,000 man-days.
Temporary Utilities	5.5%	Temporary power, construction fuel and propane.
Freight & Logistics	3.5%	Freight for MEL items have been included in directs. Expediting services included.
Temporary Construction Facilities	2.3%	Offices and 150 temporary beds to support construction
Start-up & Commissioning	1.2%	Commissioning, vendor reps, capital spares and first fills. MEL and mining equipment capital spares and first fills have been included in directs.
EPCM		
Engineering & Major Procurement	3.0%	Database costs from similar projects.
Construction & Project Management	8.0%	Database costs from similar projects.

The indirect cost estimate is summarized as follows and shown on Table 21-8. Indirect sustaining and closure capital costs are entirely associated with tailings and waste management facilities.

Table 21-8: Indirect Costs Estimate

Indirect & EPCM Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Indirects	**51.4**	**2.9**	**54.3**
Construction Support Contracts	11.1	2.9	14.1
Contractor Field Indirects	6.7		6.7
Camp & Catering	5.8	-	5.8
Temporary Utilities/Supplies	12.3	-	12.3
Freight & Logistics	7.8	-	7.8
Temporary Construction Facilities	5.0	-	5.0
Startup & Commissioning	2.7	-	2.7
EPCM	**24.5**	**2.3**	**26.8**
Engineering & Procurement	6.7	1.3	8.0

Indirect & EPCM Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Construction & Project Management	17.8	1.0	18.8
Total	**75.9**	**5.2**	**81.1**

21.9 Owners Cost Estimate

Owner's costs are included within the operating costs during production, but during the construction period these items are included in the initial capital costs and are capitalized. The cost elements described below are described in more detail within Section 22.

- Pre-Production Mining: Costs for the Owner's mining labour and equipment operation are estimated from the mining cost model and are held within the CAPEX costs for pre-stripping;
- Pre-Production Surface Support: Costs for the Owner's site services crew labour and mobile equipment operation in H2 Y-1;
- Pre-Production Processing: Costs for three months of Owner's process plant labour and consumables;
- Pre-production General & Administration: Costs of the Owner's labour (admin, accounting, HR, community relations, safety, environmental, IT, procurement, warehouse, security, etc.) and expenses (admin, legal, insurance, recruitment, community relations, safety, environmental, IT, transport etc.) incurred prior to commercial production; and
- Owner's Project team: Costs of the Owner's Project team labour specific to the Project development period.

Table 21-9 presents the owner's costs within the capital estimate.

Table 21-9: Owner's Cost Estimate

Owner's Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Mining	-	-	-
Surface Support	0.8	-	0.8
Processing	1.9	-	1.9
G&A and Owner's Project Team	11.4	-	11.4
Total	**14.1**	**-**	**14.1**

21.10 Closure Cost Estimate

Closure Costs have been estimated at $45.0M through an exercise where the project was compared against BC projects with similar mining infrastructure and annual throughput.

Table 21-10 presents the closure costs within the capital estimate.

Table 21-10: Closure Cost Estimate

Closure Capital Costs	Pre-Production (M$)	Sustaining / Closure (M$)	Total (M$)
Closure	-	45.0	45.0

21.11 Contingency

Contingency is a provision of funds for unforeseen or inestimable costs within the defined Project scope relating to the level of engineering effort undertaken and estimate/engineering accuracy. Contingency is meant to cover events or incidents that occur during the course of the Project, which cannot be quantified during the estimate preparation and do not include any allowance for Project risk. No provision is made, or contingency allowed, for design changes or changes to the scope of work.

Individual contingency rates were applied to each of the capital cost categories, to reflect the level of detail in engineering design and associated pricing and quotes. This resulted in a blended contingency rate of 17.6%, or $72.5M in contingency. No contingency was applied to sustaining or closure capital costs.

Contingency for pre-production capital costs on the Project were applied as outlined in Table 21-11.

Table 21-11: Contingency Cost Estimate

Capital Cost Category	Contingency (%)	Pre-Production (M$)
Open Pit Mining	2.5	1.3
On-site Development	20.0	1.1
Mineral Processing	25.0	35.0
Tailings and Waste Management	25.0	12.1
On-site Infrastructure	25.0	7.3
Off-site Infrastructure	5.0	2.3

Capital Cost Category	Contingency (%)	Pre-Production (M$)
Indirects & Owner's Costs	15.0	13.5
Closure	0.0	-
Total	**17.6**	**72.5**

22 OPERATING COST ESTIMATE

22.1 Operating Cost Summary

The operating cost estimate was prepared using first principles, applying project experience, and avoiding the use of general industry factors. Inputs are derived from engineers, contractors and suppliers who have provided similar services to other projects. The operating cost is based on owner owned and operated mining/services fleets and minimal use of permanent contractors except where value is provided through expertise and/or packaged efficiencies/skills.

Operating costs in this section of the report include mining, processing, and general & administration up to the production of doré from the site. Mine operating costs incurred during the construction phase (pre-production Years Y-2 and Y-1) are capitalized and form part of the capital cost estimate.

Total operating costs over the life of mine are $2,204.8M, with average annual operating costs over the life of mine of $183.7M, as summarized in Table 22-1. The total operating unit cost is $47.25/t processed.

Table 22-1: Breakdown of Estimated Operating Costs

Operating Costs	$/t Processed	Average Annual M$	LOM M$
Mining	24.79	96.4	1,156.7
Processing	17.31	67.3	807.9
G&A	5.15	20.0	240.2
Total	**47.25**	**183.7**	**2,204.8**

Labour requirements have been estimated for the major cost areas and the annual averages are presented in Table 22-2.

Table 22-2: Summary of Personnel

Position	Annual Average
Mining	
Mining General	8
Mine Operations	83
Mine Maintenance	95

Position	Annual Average
Technical Services	18
Total Mining Personnel	**204**
Process Plant	
Mill Operations	32
Mill Maintenance	28
Technical Services	18
Total Process Plant Personnel	**78**
G&A	
Management & Administration	3
Accounting	3
Human Resources	2
Community Relations	2
Health & Safety	7
Environment	5
IT & Communications	2
Procurement & Logistics	3
Security	6
Warehouse Operations	10
Site Services	16
Tailings Construction Services	4
Camp Catering & Cleaning	17
Personnel Transportation	2
Total General & Administration	**82**
Total Personnel - All Areas	**364**

22.2 Basis of Estimate

The operating cost estimate was developed from a number of sources, including quoted costs, database information, and costs from similar operations in Northern Canada. Mining costs were based on a first principles build up from the mine plan. Process cost determinations were based on fixed and variable components relating to mill throughput and the plant flow sheet. G&A costs were based on a first principles build up utilizing information from similar projects in Northern Canada.

Operating costs are presented in Q3 2022 Canadian dollars and do not include allowances for escalation or exchange rate fluctuations unless stated otherwise. A foreign exchange rate of CAD$1.00:US$0.77 is used where applicable. The estimate conforms to ± 30% accuracy which represents a Preliminary Economic Assessment (PEA) level estimate.

Key operating cost component assumptions are listed in Table 22-3.

Table 22-3: Summary of Key Operating Cost Assumptions

Item	Unit	Value
Average power consumption	MW	16.3
Diesel cost (delivered)	$/litre	1.60
LOM average manpower (including contractors, excluding corporate)	employees	364

22.3 Mine Operating Cost Estimate

Mine operating costs refer to expenses incurred including all activities directly related to the drilling, blasting, loading, and hauling of mill feed to the process plant, as well as waste to the various storage facilities. The mine operating costs include the following functional areas:

- Production – Direct costs, including labour, associated with the drilling, blasting, loading, and hauling of mill feed and mine waste;
- Mine General – Costs related to the operation of mine support and ancillary equipment as well as general supervision. This category also includes the monthly lease payments for all leased production and support equipment that was acquired up to Year 5 of production;
- Mine Maintenance – Primarily labour costs related to the maintenance of fixed and mobile equipment; and
- Technical Services – Labour costs associated with mine engineering, survey, geology, etc.

An operating cost model was developed for the production schedule. Life-of-mine mining costs average $3.68/t of material mined, as shown in Table 22-4.

Table 22-4: Summary of Mining OPEX Estimate

Mining Operating Cost	LOM ($M)	OPEX ($/t mined)	Total (%)
Drill	50.8	0.16	4%
Blast	215.0	0.68	19%
Load	93.9	0.30	8%
Haul	347.4	1.10	30%
Mine General	224.2	0.71	19%

Mining Operating Cost	LOM ($M)	OPEX ($/t mined)	Total (%)
Mine Maintenance	191.5	0.61	17%
Technical Services	33.9	0.11	3%
Total	**1,156.7**	**3.68**	**100%**

22.4 Processing Operating Cost Estimate

Process operating costs were estimated for the 10,600 t/d process facility which utilizes leach and Merrill Crowe to produce doré bars. Processing costs were estimated on an annual basis in the following functional areas:

- Labour – Process plant labour costs associated with operations, maintenance and technical services;
- Power & Fuel – Power costs calculated from the estimated mill power draw;
- Maintenance - Liner pricing and vendor recommended spare parts for one year of operation, and plant maintenance costs calculated by applying a factor of 2% to the major process equipment cost;
- Operations – Grinding media and reagent costs developed from metallurgical test results using database unit rates; and
- Assay Lab – Allowance for annual operation.

Separate estimates for AGB and Cliff Creek mill feed were performed to account for varying reagent costs estimates based on the metallurgical test results. The mill operating costs for the 10,600 t/d mill have been estimated to be $18.18/t processed for AGB mill feed, and $17.16/t processed for Cliff Creek mill feed. The breakdown of the costs can be found in Table 22-5 and Table 22-6.

Table 22-5: Summary of AGB Process OPEX Estimate

Processing Operating Cost	LOM ($M)	OPEX ($/t Processed)	Total (%)
Labour	15.8	2.18	12%
Power & Fuel	18.4	2.54	14%
Maintenance	10.6	1.46	8%
Operations	86.1	11.89	65%
Assay Lab	0.7	0.10	1%
	131.6	**18.18**	**100%**

Table 22-6: Summary of Cliff Creek Process OPEX Estimate

Processing Operating Cost	LOM ($M)	OPEX ($/t Processed)	Total (%)
Labour	86.1	2.18	13%
Power & Fuel	100.2	2.54	15%
Maintenance	57.7	1.46	9%
Operations	428.5	10.87	63%
Assay Lab	3.8	0.10	1%
Total	**676.3**	**17.16**	**100%**

22.5 General and Administration Operating Cost Estimate

The costs of general and administrative (G&A) expenses include two main components:

- Labour staff for the following areas: admin, accounting, HR, community relations, health & safety, environmental, IT, procurement, security, warehouse, site services, tailings maintenance, camp management; and
- Expenses for the following areas: admin, legal, insurance, recruitment, training, community relations, health & safety, environmental, IT, security, maintenance consumables & parts, equipment operation, camp catering & cleaning, transportation to site, power consumption.

Average camp requirements are expected to be approximately 190 people. The total G&A costs are summarized by cost center and cost type in Table 22-7.

Table 22-7: Summary of General & Administrative OPEX Estimate

G&A Operating Cost	LOM ($M)	OPEX ($/t Processed)	Total (%)
Management & Administration	14.9	0.32	6%
Accounting	4.3	0.09	2%
Human Resources	6.8	0.15	3%
Community Relations	5.1	0.11	2%
Health & Safety	13.8	0.30	6%
Environment	12.2	0.26	5%
IT & Communications	4.2	0.09	2%
Procurement & Logistics	4.7	0.10	2%
Security	7.6	0.16	3%
Warehouse	19.4	0.42	8%

G&A Operating Cost	LOM ($M)	OPEX ($/t Processed)	Total (%)
Tailings Construction Services	7.6	0.16	3%
Camp Catering & Cleaning	62.2	1.33	26%
Personnel Transportation	26.9	0.58	11%
Site Electrical Power Consumption	7.7	0.17	3%
Site Services & Maintenance	42.7	0.91	18%
Total	**240.2**	**5.15**	**100%**

23 ECONOMIC ANALYSIS

An engineering economic model was developed to estimate annual cash flows and sensitivities of the Project. Pre-tax estimates of Project values were prepared for comparative purposes, while after-tax estimates were developed and are likely to approximate the true investment value. It must be noted, however, that tax estimates involve many complex variables that can only be accurately calculated during operations and, as such, the after-tax results are only approximations.

Univariate sensitivity analyses were performed for variations in metal prices, head grades, operating costs, capital costs, and discount rates to determine their relative importance as Project value drivers.

This technical report contains forward-looking information regarding projected mine production rates, construction schedules and forecasts of resulting cash flows as part of this study. The mill head grades are based on sufficient sampling that is reasonably expected to be representative of the realized grades from actual mining operations. Factors such as the ability to obtain permits to construct and operate a mine, or to obtain major equipment or skilled labour on a timely basis, to achieve the assumed mine production rates at the assumed grades, may cause actual results to differ materially from those presented in this economic analysis.

The estimates of capital and operating costs have been developed specifically for this Project and are summarized in Section 21 and Section 22 of this report (presented in 2022 Canadian dollars). The economic analysis has been run with no inflation (constant dollar basis).

23.1 Summary of Results

The summary of the mine plan and payable metals produced is outlined in Table 23-1.

Table 23-1: Life of Mine (LOM) Summary

Parameter	Unit	Value
Mine Life	Years	12
Resource Mined	Mt	46.7
Gold (Au) Grade	g/t	1.18
Silver (Ag) Grade	g/t	22.71
Waste Mined	Mt	275
Strip Ratio	w:o	5.9
Total Mined	Mt	322
Processing Rate	t/d	10,600

Parameter	Unit	Value
Gold (Au) Payable	koz	1,634
	koz/a	136
Silver (Ag) Payable	koz	25,491
	koz/a	2,124

It must be noted that this PEA is preliminary in nature and includes the use of inferred mineral resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the results of the preliminary economic assessment will be realized.

23.2 Basis of Analysis

The economic analysis was based on the following factors:

- Discount rate of 5%;
- Nominal 2022 dollars;
- Revenues, costs, taxes are calculated for each period in which they occur rather than actual outgoing / incoming payment;
- Working capital calculated as half a month of operating costs (mining, processing and G&A) occurring in Y-1;
- Results are based on 100% ownership;
- No management fees or financing costs (equity fund-raising was assumed); and
- The model excludes all pre-development and sunk costs up to the start of detailed engineering (i.e., exploration and resource definition costs, engineering fieldwork and studies costs, environmental baseline studies costs, financing costs, etc.).

Table 23-2 outlines the metal prices and exchange rate assumptions used in the economic analysis. The gold and silver prices selected were loosely based on the three-year trailing average as of July 2022 and are in line with recently released comparable Technical Reports.

The reader is cautioned that the metal prices and exchange rates used in this study are only estimates based on recent historical performance and there is absolutely no guarantee that they will be realized if the Project is taken into production. The metal prices are based on many complex factors and there are no reliable long-term predictive tools.

Table 23-2: Metal Prices and Exchange Rates

Parameter	Unit	Value
Gold (Au) Price	US$/oz	1,735
Silver (Ag) Price	US$/oz	21.75
FX Rate	C$:US$	0.77

23.3 Assumptions

Mine revenue is derived from the sale of doré bars into the international marketplace. No contractual arrangements for refining currently exist. Table 23-3 indicates the NSR parameters that were used in the economic analysis.

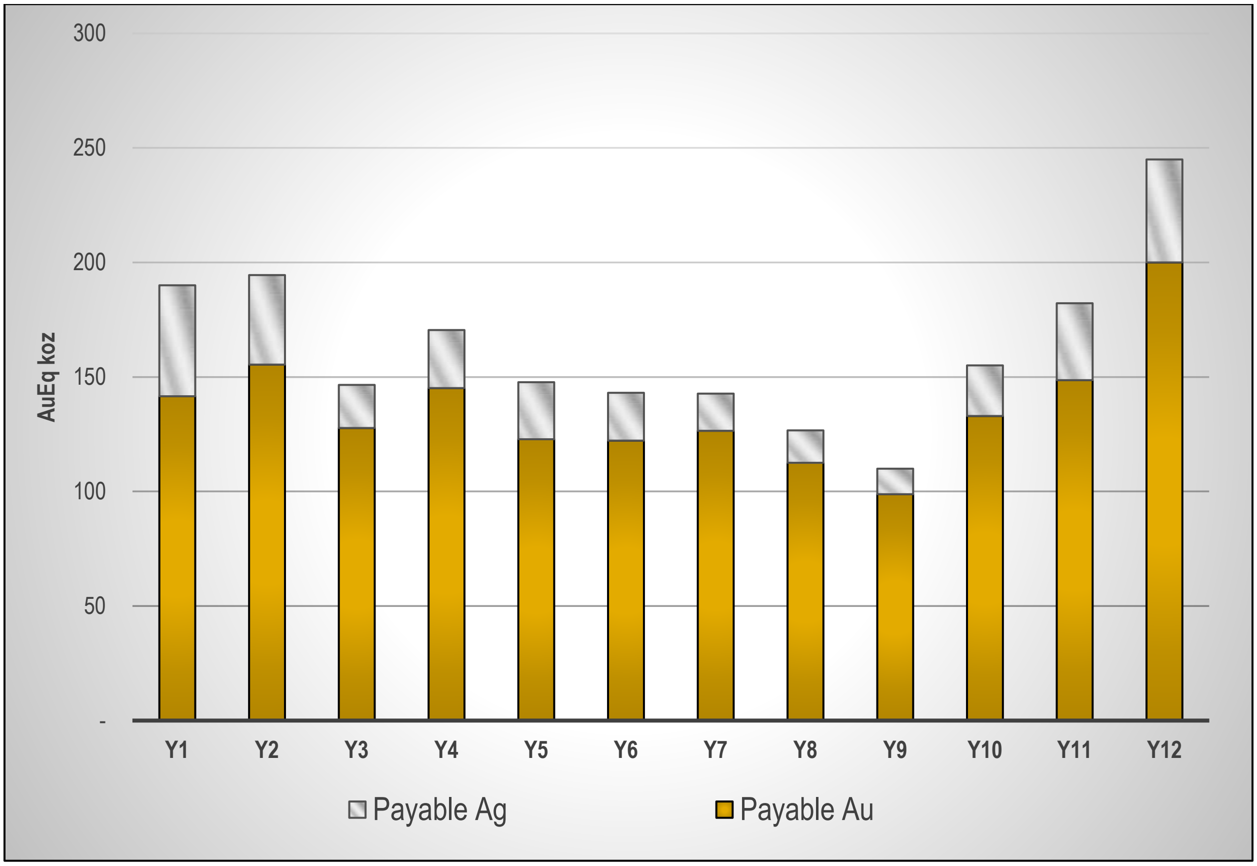
Table 23-3: NSR Parameters

Parameter	Unit	Value
AGB Gold Recovery	%	92.1
Cliff Creek Gold Recovery	%	92.5
AGB Silver Recovery	%	60.6
Cliff Creek Silver Recovery	%	83.0
Gold (Au) Payable	%	99.9
Silver (Ag) Payable		99.0
Gold (Au) Refining Charge	US$/pay oz	5.00
Silver (Ag) Refining Charge	US$/pay oz	0.25
Transportation	US$/pay oz (Au+Ag)	0.00*
Royalties	%	0.5

Note:
*Transportation included in the refining charges.

Figure 23-1 shows the value of the payable gold and silver on an annual basis. A total of 1,634 koz of gold and 25,491 koz of silver is projected to be produced over the life of mine.

Figure 23-1: LOM Payable Gold and Silver



23.4 Taxes

The Project has been evaluated on an after-tax basis to provide a more indicative, but still approximate, value of the potential Project economics. A tax model was prepared by Wentworth Taylor, an independent tax consultant, and reviewed by JDS personnel. Current tax pools were used in the analysis. The tax model contains the following assumptions:

- Federal Income Tax: 15%;
- BC Provincial Income Tax Rate: 12%;
- BC Mining Tax Rate: 13%; and
- Capital cost allowance applied on units of production basis and at specific rates in the tax act.

Total taxes for the Project amount to $531 M.

23.5 Royalties

The mined material at the Lawyers Project is subject to a 0.5% NSR royalty. This royalty has been included in the economic analysis and amounts to $17M over the life of mine.

23.6 Results

The Lawyers Project is economically viable with a post-tax IRR of 24.1% and a net present value using a 5% discount rate ($NPV_{5\%}$) of $589 M using the metal prices described in Section 23.2. Figure 23-2 shows the projected cash flows, and Table 23-4 summarizes the economic results of the Project.

The post-tax break-even gold price for the project is US$1,041/oz based on the LOM plan presented herein and assuming the silver price remains at the base case price of US$21.75/oz. This is the gold price at which the Project NPV at 0% discount rate is zero.

The life of mine all-in sustaining cost (AISC) net of by-products is US$786/oz. The AISC cost is calculated by adding the refining, royalty, operating, sustaining and closure costs together, subtracting the value of the silver, and then dividing that number by the total payable ounces of gold.

This preliminary economic assessment is preliminary in nature and includes the use of inferred mineral resources that are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as mineral reserves, and there is no certainty that the preliminary economic assessment will be realized.

Figure 23-2: Annual Pre-Tax Cash Flows

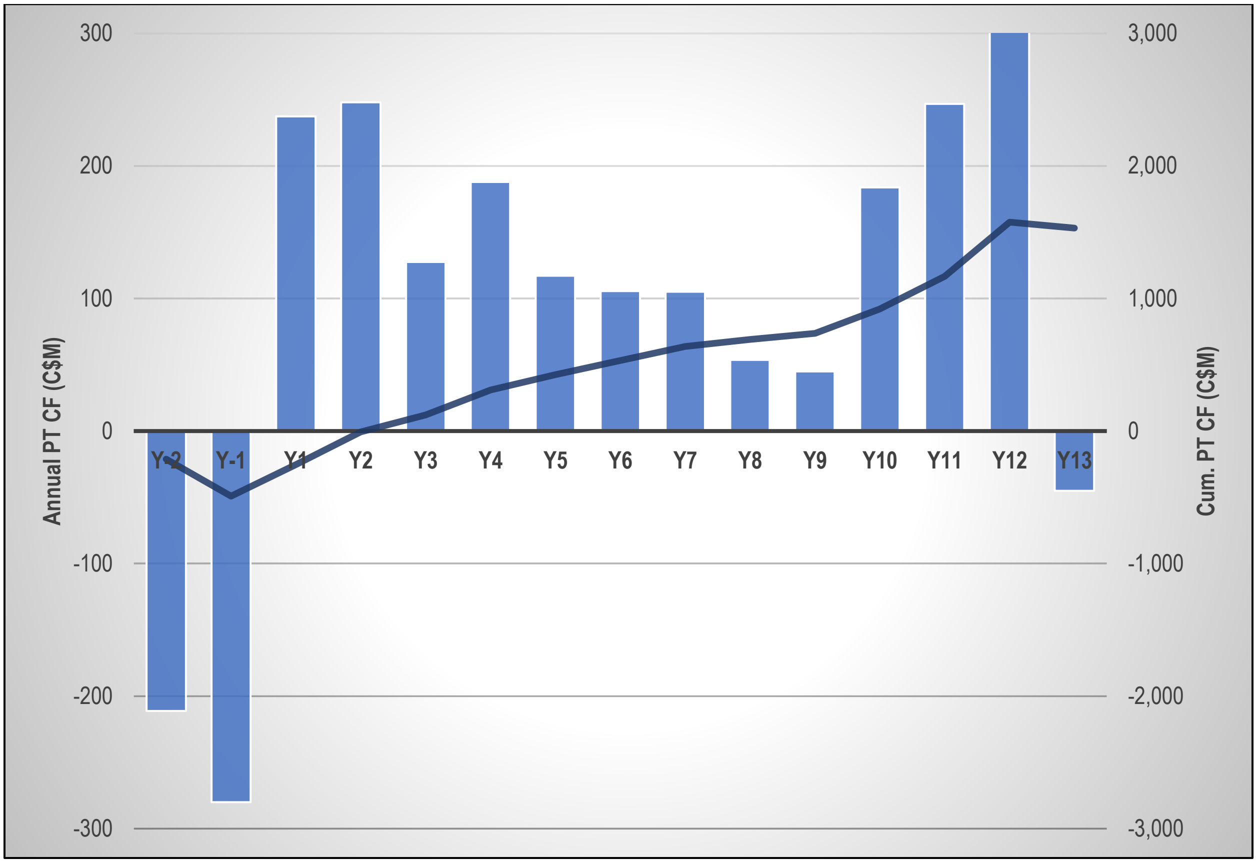


Table 23-4: Summary of Results

Summary of Results	Unit	Value
AISC (net of by-product)*	US$/oz	786
Capital Costs		
Pre-Production Capital	M$	412
Pre-Production Contingency	M$	73
Total Pre-Production Capital	**M$**	**484**
Sustaining and Closure Capital	M$	142
Sustaining and Closure Contingency	M$	0
Total Sustaining and Closure Capital	M$	142
Total Capital Costs Incl. Contingency	**M$**	**626**
Working Capital	M$	7.0

Summary of Results	Unit	Value
Pre-Tax Cash Flow	LOM M$	1,531
	M$/a	128
Taxes	LOM M$	531
After-Tax Cash Flow	LOM M$	1,000
	M$/a	83
Economic Results		
Pre-Tax $NPV_{5\%}$	**M$**	**939**
Pre-Tax IRR	**%**	**31.4**
Pre-Tax Payback	**Years**	**2.0**
After-Tax $NPV_{5\%}$	**M$**	**589**
After-Tax IRR	**%**	**24.1**
After-Tax Payback	**Years**	**2.8**

Note:

*All-in Sustaining Cost is calculated as: (Refining costs + royalties+ operating costs + sustaining and closure capital – value of payable silver) / payable gold ounces.

23.7 Sensitivities

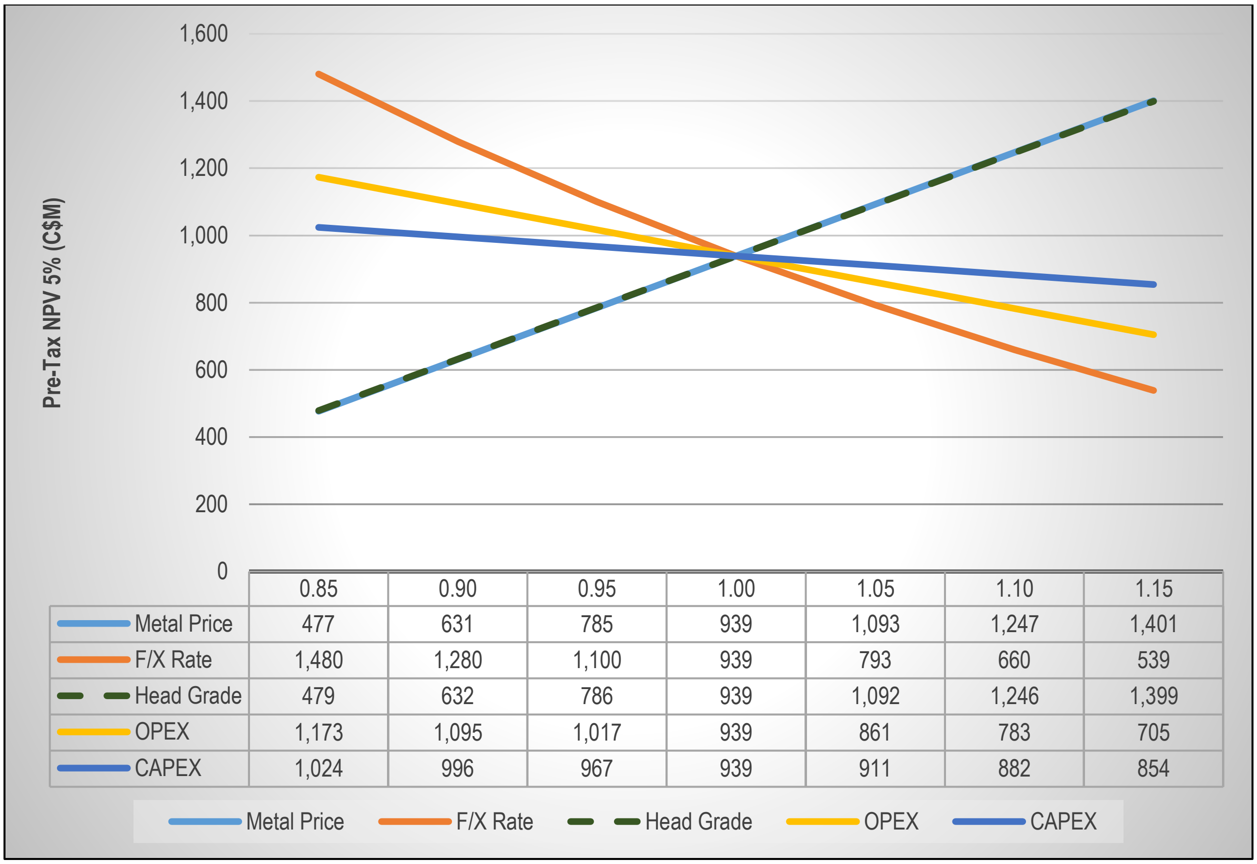
A univariate sensitivity analysis was performed to examine which factors most affect the Project economics when acting independently of all other cost and revenue factors. Each variable evaluated was tested using the same percentage range of variation, from -15% to +15%, although some variables may actually experience significantly larger or smaller percentage fluctuations over the LOM. For instance, the metal prices were evaluated at a ± 15% range to the base case, while the CAPEX and all other variables remained constant. This may not be truly representative of market scenarios, as metal prices may not fluctuate in a similar trend. The variables examined in this analysis are those commonly considered in similar studies – their selection for examination does not reflect any particular uncertainty.

Notwithstanding the above noted limitations to the sensitivity analysis, which are common to studies of this sort, the analysis revealed that the Project is most sensitive to metal prices and head grade. The Project showed the least sensitivity to capital costs. Table 23-5 and Figure 23-3 show the results of the sensitivity tests, while Table 23-6 shows the NPV at various discount rates.

Table 23-5: Pre-Tax and After-Tax Sensitivity Results on NPV @ 5%

Variable	After-Tax $NPV_{5\%}$ (M$)			Pre-Tax $NPV_{5\%}$ (M$)		
	-15% Variance	0% Variance	15% Variance	-15% Variance	0% Variance	5% Variance
Metal Price	292	589	883	477	939	1,401
F/X Rate	934	589	332	1,480	939	539
Head Grade	293	589	882	479	939	1,399
OPEX	738	589	439	1,173	939	705
CAPEX	674	589	504	1,024	939	854

Figure 23-3: Pre-Tax Sensitivity Analysis on $NPV_{5\%}$ (C$M)



	0.85	0.90	0.95	1.00	1.05	1.10	1.15
Metal Price	477	631	785	939	1,093	1,247	1,401
F/X Rate	1,480	1,280	1,100	939	793	660	539
Head Grade	479	632	786	939	1,092	1,246	1,399
OPEX	1,173	1,095	1,017	939	861	783	705
CAPEX	1,024	996	967	939	911	882	854

Table 23-6: Project NPV at Various Discount Rates

Discount Rate (%)	Pre-Tax NPV (M$)	Post-Tax NPV (M$)
0	1,531	1,000
5	939	589
6	853	528
7	775	473
8	704	423
10	580	336
12	477	263

The economic cash flow model for the Project is illustrated in Table 23-7.

Table 23-7: Project Cash Flow

Parameter	Unit	LOM Total	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14
Metal Prices & F/X Rate																		
Au	US$/oz	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735	1,735
Ag	US$/oz	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75	21.75
F/X	US$:C$	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77	0.77
Mine Production																		
AGB																		
Resource Mined	ktonnes	7,240		774	3,095	3,371	-	-	-	-	-	-	-	-	-	-	-	
Au Grade	g/t	1.32		1.23	1.24	1.42	-	-	-	-	-	-	-	-	-	-	-	
Ag Grade	g/t	48.42		82.6	44.1	44.6	-	-	-	-	-	-	-	-	-	-	-	
Waste Mined	ktonnes	24,677		6,765	12,586	5,327	-	-	-	-	-	-	-	-	-	-	-	
Total Mined	ktonnes	31,918	-	7,538	15,681	8,698	-	-	-	-	-	-	-	-	-	-	-	-
Cliff Creek																		
Resource Mined	ktonnes	39,422		-	-	501	3,868	3,869	3,868	3,869	3,869	3,871	3,868	3,869	3,869	4,101		
Au Grade	g/t	1.15		-	-	0.94	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64		
Ag Grade	g/t	17.98		-	-	16.6	14.7	19.8	19.4	16.3	12.7	11.0	8.7	17.2	26.2	33.10		
Waste Mined	ktonnes	250,809		-	-	6,359	25,459	25,226	25,619	33,895	35,549	35,840	29,763	14,420	12,832	5,847		
Total Mined	ktonnes	290,231	-	-	-	6,860	29,326	29,095	29,487	37,765	39,418	39,710	33,631	18,289	16,701	9,948	-	-
Total																		
Resource Mined	ktonnes	46,662		774	3,095	3,872	3,868	3,869	3,868	3,869	3,869	3,871	3,868	3,869	3,869	4,101	-	-
Au Grade	g/t	1.18		1.23	1.24	1.36	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64	-	-
Ag Grade	g/t	22.71		82.58	44.1	40.9	14.7	19.8	19.4	16.3	12.7	11.0	8.7	17.2	26.2	33.1	-	-
Waste Mined	ktonnes	275,486		6,765	12,586	11,686	25,459	25,226	25,619	33,895	35,549	35,840	29,763	14,420	12,832	5,847	-	-
Strip Ratio	w:o	5.9	-	8.7	4.1	3.0	6.6	6.5	6.6	8.8	9.2	9.3	7.7	3.7	3.3	1.4	-	-
Total Mined	ktonnes	322,148	-	7,538	15,681	15,558	29,326	29,095	29,487	37,765	39,418	39,710	33,631	18,289	16,701	9,948	-	-
Mill Schedule																		
AGB																		
Resource Milled	ktonnes	7,240			3,869	3,371	-	-	-	-	-	-	-	-	-	-	-	-
Au	g/t	1.32			1.24	1.42	-	-	-	-	-	-	-	-	-	-	-	-
Ag	g/t	48.42			51.78	44.56	-	-	-	-	-	-	-	-	-	-	-	-
Contained Au	koz	308	-	-	154	154	-	-	-	-	-	-	-	-	-	-	-	-
Contained Ag	koz	11,271	-	-	6,441	4,830	-	-	-	-	-	-	-	-	-	-	-	-
Cliff Creek																		
Resource Milled	ktonnes	39,422			-	501	3,868	3,869	3,868	3,869	3,869	3,871	3,868	3,869	3,869	4,101	-	-
Au	g/t	1.15			-	0.94	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64	-	-
Ag	g/t	17.98			-	16.60	14.68	19.77	19.44	16.29	12.67	11.03	8.70	17.23	26.20	33.10	-	-
Contained Au	koz	1,462			-	15	138	157	133	132	137	122	107	144	161	216	-	-

Parameter	Unit	LOM Total	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14
Contained Ag	koz	22,793			-	267	1,826	2,459	2,418	2,026	1,575	1,373	1,082	2,144	3,259	4,364	-	-
Total																		
Resource Milled	ktonnes	46,662	-	-	3,869	3,872	3,868	3,869	3,868	3,869	3,869	3,871	3,868	3,869	3,869	4,101	-	-
Au	g/t	1.18	-	-	1.24	1.36	1.11	1.26	1.07	1.06	1.10	0.98	0.86	1.16	1.29	1.64	-	-
Ag	g/t	22.71	-	-	51.78	40.94	14.68	19.77	19.44	16.29	12.67	11.03	8.70	17.23	26.20	33.10	-	-
Contained Au	koz	1,770	-	-	154	169	138	157	133	132	137	122	107	144	161	216	-	-
Contained Ag	koz	34,064	-	-	6,441	5,097	1,826	2,459	2,418	2,026	1,575	1,373	1,082	2,144	3,259	4,364	-	-
NSR Terms																		
Recovery																		
Au Recovery	AGB	92.1%	0.0%	0.0%	92.1%	92.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Cliff Creek	92.5%	0.0%	0.0%	0.0%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	92.5%	0.0%	0.0%
	koz	1,636	-	-	142	156	128	145	123	122	127	113	99	133	149	200	-	-
Ag Recovery	AGB	60.6%	0.0%	0.0%	60.6%	60.6%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
	Cliff Creek	83.0%	0.0%	0.0%	0.0%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%	83.0%	0.0%	0.0%
	koz	25,749	-	-	3,904	3,149	1,515	2,041	2,007	1,682	1,308	1,139	898	1,779	2,705	3,622	-	-
Payables																		
Payable Au	% Payable	99.9%	0.0%	0.0%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	99.9%	0.0%	0.0%
	koz	1,634	-	-	142	155	128	145	123	122	127	113	99	133	149	200	-	-
	US$M	2,835.8	-	-	245.7	269.7	221.6	251.9	213.1	212.1	219.5	195.3	171.5	230.7	257.9	347.0	-	-
Payable Ag	% Payable	99.0%	0.0%	0.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	99.0%	0.0%	0.0%
	koz	25,491	-	-	3,865	3,117	1,500	2,021	1,987	1,665	1,294	1,128	889	1,762	2,678	3,586	-	-
	koz AuEq	320	-	-	48	39	19	25	25	21	16	14	11	22	34	45	-	-
	US$M	554.4	-	-	84.1	67.8	32.6	44.0	43.2	36.2	28.2	24.5	19.3	38.3	58.2	78.0	-	-
Total Payable Metal	US$M	3,390.3	-	-	329.7	337.5	254.3	295.8	256.3	248.3	247.7	219.8	190.8	269.0	316.1	425.0	-	-
	C$M	4,402.9	-	-	428.2	438.3	330.2	384.2	332.9	322.4	321.6	285.5	247.8	349.4	410.5	552.0	-	-
Au Refining Charge	US$/oz	5.00	-	-	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00	-	-
	US$M	8.2	-	-	0.7	0.8	0.6	0.7	0.6	0.6	0.6	0.6	0.5	0.7	0.7	1.0	-	-
Ag Refining Charge	US$/oz	0.25	-	-	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	0.25	-	-
	US$M	6.4	-	-	1.0	0.8	0.4	0.5	0.5	0.4	0.3	0.3	0.2	0.4	0.7	0.9	-	-
Transport Charge	US$/oz	0.00	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
	US$M	0.0	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
Royalty																		
Royalty	%	0.5%	-	-	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	0.5%	-	-
	US$M	16.9	-	-	1.6	1.7	1.3	1.5	1.3	1.2	1.2	1.1	1.0	1.3	1.6	2.1	-	-
Total NSR	US$M	3,358.8	-	-	326.4	334.2	252.0	293.1	253.9	246.0	245.5	217.9	189.1	266.6	313.1	421.0	-	-
	C$M	4,362.1	-	-	423.9	434.1	327.2	380.7	329.8	319.5	318.8	283.0	245.6	346.2	406.7	546.8	-	-
	C$/tonne	93.48	-	-	109.56	112.09	84.61	98.38	85.26	82.57	82.40	73.10	63.50	89.48	105.10	133.32	-	-

Parameter	Unit	LOM Total	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14
OPEX																		
Mining	C$M	1,156.7			78.7	80.5	108.2	104.7	109.0	124.1	124.2	123.3	105.1	72.0	72.5	54.3	-	-
	C$/tonne	3.68	-	-	5.02	5.17	3.69	3.60	3.70	3.29	3.15	3.10	3.13	3.94	4.34	5.46	-	-
Processing - AGB	C$M	131.6		-	70.3	61.3	-	-	-	-	-	-	-	-	-	-	-	-
	C$/tonne	18.18		-	18.18	18.18	-	-	-	-	-	-	-	-	-	-	-	-
Processing - CC	C$M	676.3		-	-	8.6	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	66.4	70.4	-	-
	C$/tonne	17.16		-	-	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	17.16	-	-
G&A	C$M	240.2			19.9	19.9	20.2	20.1	20.2	20.1	20.1	20.1	19.9	19.9	19.9	19.7	-	-
	C$/tonne	5.15			5.15	5.15	5.23	5.20	5.21	5.19	5.20	5.20	5.15	5.15	5.15	4.79		-
Total OPEX	C$M	2,204.8	-	-	169.0	170.3	194.8	191.3	195.6	210.5	210.7	209.8	191.4	158.3	158.8	144.3	-	-
	C$/tonne	47.25	-	-	43.68	43.99	50.37	49.43	50.56	54.41	54.46	54.21	49.49	40.92	41.03	35.18	-	-
Net Operating Income	C$M	2,157.3	-	-	254.9	263.7	132.4	189.4	134.2	108.9	108.1	73.1	54.2	187.9	247.9	402.5	-	-
	C$/tonne	46.23	-	-	65.88	68.10	34.24	48.95	34.70	28.16	27.94	18.90	14.02	48.56	64.06	98.14	-	-
CAPEX																		
Open Pit Mining	C$M	84.0	-	52.5	5.3	-	4.4	0.8	1.6	3.2	2.3	2.3	9.0	2.6	-	-	-	-
On-Site Development	C$M	5.5	2.7	2.7	-	-	-	-	-	-	-	-	-	-	-	-	-	
Mineral Processing	C$M	140.1	70.0	70.0	-	-	-	-	-	-	-	-	-	-	-	-	-	
Tailings & Waste Management	C$M	98.0	24.1	24.1	1.2	14.8	0.4	0.4	14.6	0.2	0.2	16.4	0.2	1.0	0.4	-	-	
On-Site Infrastructure	C$M	39.6	14.5	14.5	10.5	-	-	-	-	-	-	-	-	-	-	-	-	
Off-Site Infrastructure	C$M	46.2	23.1	23.1	-	-	-	-	-	-	-	-	-	-	-	-	-	
Project Indirects	C$M	54.3	25.7	25.7	0.5	0.3	0.0	0.5	0.3	0.0	0.5	0.3	0.0	0.5	0.1	-	-	
Engineering & Project Management	C$M	26.8	12.3	12.3	-	0.5	-	-	0.5	-	-	0.5	-	0.1	0.5	-	-	
Owners Costs	C$M	14.1	3.6	10.6	-	-	-	-	-	-	-	-	-	-	-	-	-	
Closure	C$M	45.0															45.0	
Subtotal	C$M	553.5	176.0	235.5	17.5	15.7	4.8	1.6	17.1	3.4	2.9	19.6	9.1	4.1	1.1	-	45.0	-
Contingency & Escalation	C$M	72.5	35.1	37.5														
Total CAPEX	C$M	626.1	211.1	273.0	17.5	15.7	4.8	1.6	17.1	3.4	2.9	19.6	9.1	4.1	1.1	-	45.0	-
	C$/tonne	13.42																
Pre-Production	C$M	484.1	211.1	273.0														
Sustaining	C$M	142.0			17.5	15.7	4.8	1.6	17.1	3.4	2.9	19.6	9.1	4.1	1.1	-	45.0	-
Working Capital	C$M	0.0		7.0	-	-	-	-	-	-	-	-	-	-	-	- 7.0	-	-
Net Pre-Tax Cash Flow	C$M	1,531.2	-211.1	-280.0	237.4	248.0	127.6	187.8	117.1	105.5	105.2	53.6	45.1	183.8	246.8	409.5	-45.0	0.0
Cumulative Net Pre-Tax Cash Flow	C$M	1,531.2	-211.1	-491.1	-253.7	-5.7	121.9	309.7	426.9	532.4	637.5	691.1	736.2	919.9	1,166.7	1,576.2	1,531.2	1,531.2
					1.0	1.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
TAXES																		
BC Mineral Tax	C$M	169.9	-	-	5.1	5.3	2.7	3.8	8.7	13.9	13.9	7.1	6.0	24.1	32.3	52.7	- 5.9	-
Income Taxes	C$M	361.1	-	-	22.1	44.2	15.8	35.5	22.4	16.4	18.3	11.7	7.5	39.6	54.6	91.7	- 12.6	- 6.1

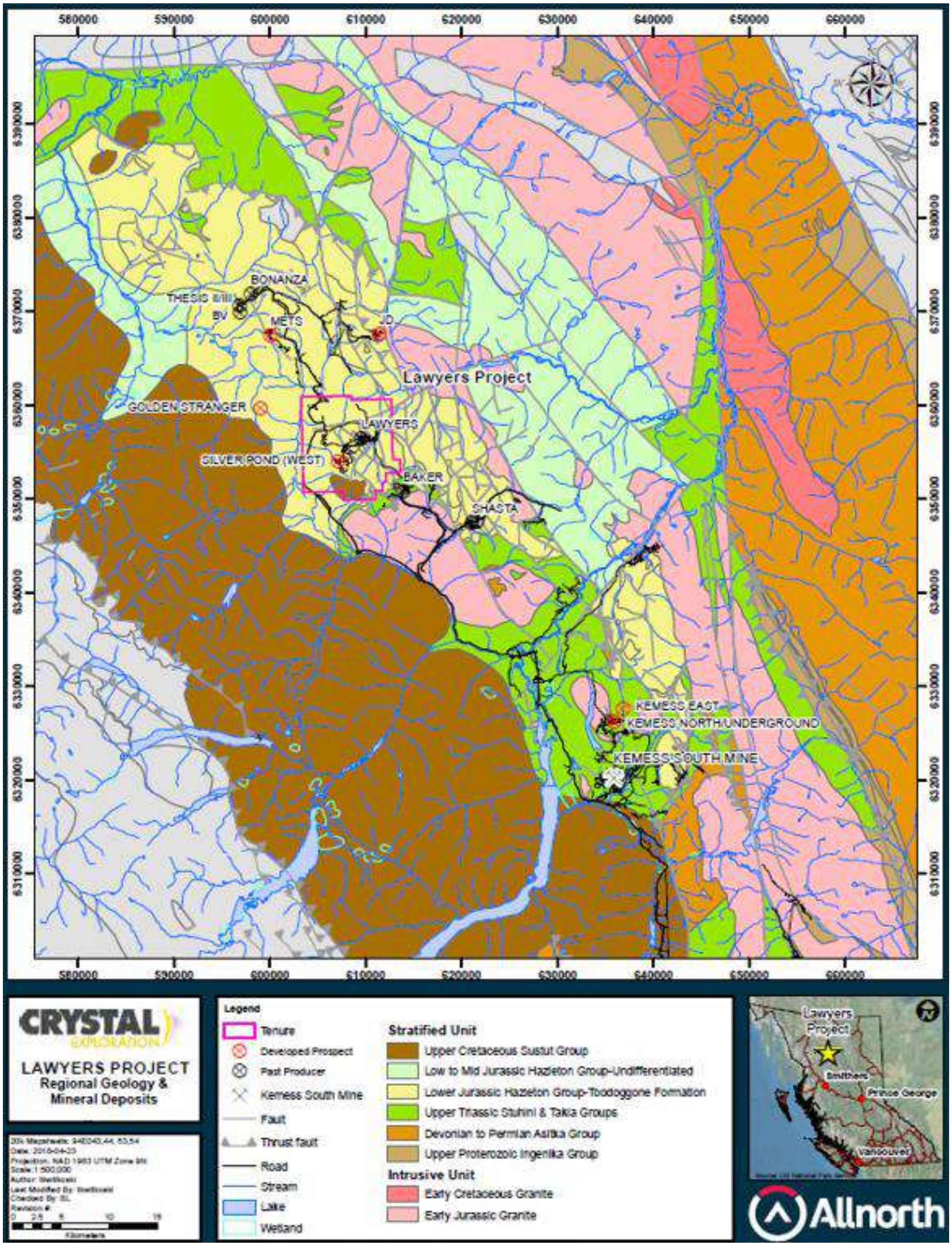
Parameter	Unit	LOM Total	Y-2	Y-1	Y1	Y2	Y3	Y4	Y5	Y6	Y7	Y8	Y9	Y10	Y11	Y12	Y13	Y14
Total Taxes	C$M	531.0	-	-	27.3	49.5	18.5	39.4	31.1	30.3	32.2	18.9	13.5	63.7	86.9	144.4	- 18.5	- 6.1
Net After-Tax Cash Flow	C$M	1,000.2	-211.1	-280.0	210.1	198.5	109.1	148.4	86.1	75.2	73.0	34.7	31.6	120.0	159.9	265.1	-26.5	6.1
Cumulative Net After-Tax Cash Flow	C$M	1,000.2	-211.1	-491.1	-281.0	-82.5	26.6	175.1	261.1	336.4	409.4	444.1	475.6	595.7	755.5	1,020.7	994.1	1,000.2

ECONOMIC INDICATORS			
		Pre-Tax	**After-Tax**
NPV @ 5%	C$M	939	589
NPV @ 0%	C$M	1,531	1,000
IRR	%	31.4%	24.1%
Payback	Years	2.0	2.8

24 ADJACENT PROPERTIES

The information in this section was extracted and summarized from Lane et al., (2018) and P&E Mining Associates., (2021) and public domain MinFile descriptions. The authors of this Technical Report have not verified the information presented for the adjacent properties and that the information presented for the adjacent properties is not necessarily indicative of the mineralisation on the Lawyers Property.

Figure 24-1: Locations of Properties Proximal to the Lawyers Property



Source: Lane et al., (2018)

24.1 Past Producers

24.1.1 Ranch Property (MinFile No. 094E 079, 091 and 099)

The Ranch Property is located approximately 19 km northwest of the Lawyers Property. It is currently covered by claims 100% owned by Thesis Gold Inc. of Vancouver, B.C.

Past work on the Ranch Property has identified 19 zones of gold mineralisation over a 25 km^2 area. Producers. Historical Mineral Resource Estimates have been completed on eight (8) mineralised zones, including the past-producing Bonanza, Thesis Ill and BV zones. However, there are no current NI 43-101 compliant Mineral Resources on any of the zones.

In August 2020, Guardsmen Resources Ltd. (a private company) entered into an agreement with Thesis Gold Inc. (a public company), whereby the Ranch Property claims were transferred to the latter company effective October 30, 2020. Since the acquisition of the Ranch Property,

Thesis Gold has completed an NI 43-101 Technical Report (APEX, 2020), compiled historical geophysical, geochemical and drilling datasets, completed a new ground MAG survey, and produced targets for a 2021 drill program.

24.1.2 Baker (MinFile No. 094E 026)

The Baker Mine Property, the first operating lode gold mine in the Toodoggone District, is located approximately 7 km southeast of the Lawyers Property. The Baker Mine Property is currently owned by TDG Gold Corp., an exploration company registered in British Columbia. TDG Gold Corp. completed an NI 43-101 report (SGDS-HIVE Geological, 2020), provided assay results for grab samples collected in October 2020, and generated a new geological model and new targets for drill testing. The Baker Mine is currently on care and maintenance.

24.1.3 Shasta (MinFile No. 094E 050)

The Shasta Property is located about 15 km southeast of the Lawyers Property and is currently covered by Mining Lease R243454, which is 100% owned by TDG Gold Corp. of Vancouver, B.C. Between 1989-1991 and 2000, 20,000 oz. gold and 1.1 Moz. silver were extracted from the Shasta Property TDG has completed an NI 43-101 report (SGDS-HIVE Geological, 2020), provided assay results for grab samples collected in October 2020, completed a detailed compilation of historical datasets, and generated a large exploration target area.

24.2 Development Projects

24.2.1 Mets (MinFile No. 094E 093)

The Mets Deposit Property, on Metsantan Mountain, is located approximately 16 km northwest of the Lawyers Property. The deposit was discovered by Golden Rule Resources Ltd. in 1980 and hosts several quartz-barite breccia zones accessed by trenching and surface diamond drilling. Cheni Gold Mines optioned the Mets Property in July 1992, and by September of the same year had developed a 60 m decline to cross cut the A Zone and a 160 m-long exploration drift along the zone and mined approximately 2,300 t of mineralisation and 3,700 t of waste (MinFile, 2015c).

In January 2019, Sable Gold announced sale of the Mets Property and other properties in the area to Euro control Technics Group Inc of Toronto. The latter company subsequently changed its name to Talisker Resources Ltd. On July 8, 2020, Talisker Resources Ltd. announced sale of the Mets Property to TDG Gold Corp., an exploration company registered in British Columbia. TDG Gold Corp. subsequently completed an NI 43-101 report (SGDS-HIVE Geological, 2020).

24.2.2 Golden Stranger (MinFile No. 094E 076)

The Golden Stranger Property is located 11 km west-northwest of the Lawyers Property, on claim 1070992 owned by the Clive Gerrard Brookes. The original gold-silver showings on the property were discovered by Western Horizons Resources Ltd. in 1983.

24.2.3 JD (MinFile No. 094E 171)

The JD Property is located about 11 km north-northeast of the Lawyers Property on a claim (521291) owned 50% by Victor F. Erickson and 50% by Thomas Cameron Scott. Attention first focused on the area in 1931, when a prospector was reported to have taken several thousand dollars-worth of gold from placer workings. In 1971, Sumac Mines Ltd. staked claims in the area to cover lead and zinc showings hosted in quartz veins. Previous option holders that a program including deep penetrating IP surveys followed by diamond drilling are warranted to fully test the porphyry potential in the eastern part of the JD Property.

25 OTHER RELEVANT DATA AND INFORMATION

To the best of the authors' knowledge there is no other relevant data, additional information or explanation necessary to make the Report understandable and not misleading.

26 INTERPRETATIONS AND CONCLUSIONS

26.1 Risks

The most significant project risks are summarized in Table 26-1.

Table 26-1: Main Project Risks

Risk	Explanation/Potential Impact	Possible Risk Mitigation
Metal Prices and Exchange	Higher than expected dilution has a severe impact on project economics. The mine must ensure accurate drilling and blasting practices are maintained to minimize dilution from wall rock backfill and other mineralized zones, minimize secondary breaking and optimize extraction. The ability to segregate higher grade material, early in the mine life, is critical to project economics.	A well planned and executed grade control plan is necessary immediately upon commencement of mining.
Resource Modelling	All Mineral Resource Estimates carry some risk and are one of the most common issues with project success.	Infill/confirmatory drilling may be recommended in order to provide a greater level of confidence in the Mineral Resource.
Dilution	Higher than expected mine dilution will impact project economics.	Ensure accurate drilling and blasting practices are maintained to minimize dilution along with establishing a grade control program.
Pit Slope Stability	Worse than anticipated ground conditions and/or previously unidentified major geologic structure(s) resulting in reduced slope angles sub-optimal project economics.	Additional core analysis and development of 3D structural model.
Metallurgical Recoveries	Negative changes to metallurgical assumptions could lead to reduced metal recovery, increased processing costs, and/or changes to the processing circuit design. If LOM metal recovery is lower than assumed, the project economics would be negatively impacted.	Additional sampling and testwork is needed at the next level of study.
CAPEX and OPEX	The ability to achieve the estimated CAPEX and OPEX costs are important elements of project success. If OPEX increases then the NSR cut-off would increase and, all else being equal, the size of the mineable resource would reduce yielding fewer mineable tonnes.	Further cost estimation accuracy with the next level of study, as well as the active investigation of potential cost-reduction measures would assist in the support of reasonable cost estimates.
Permit Acquisition	The provincial and federal regulatory processes under recent legislative changes may influence overall timelines to obtain permits for the Project.	Field work to support permit applications should be undertaken as soon as possible to maintain schedule.

Risk	Explanation/Potential Impact	Possible Risk Mitigation
Development Schedule	The project development could be delayed for a number of reasons and could impact project economics. A change in schedule would alter the project economics.	If an aggressive schedule is to be followed, PFS or FS field work should begin as soon as possible.
Waste & Water Management	Given the lack of available baseline studies, a number of assumptions have been made with respect to geotechnical conditions at the TMF & WRSF, precipitation conditions on site, geochemical properties of mine waste materials, etc. The following risks have been identified: • Advanced geochemical baseline studies result in higher proportions of PAG material (both tailings and waste rock), resulting in additional management and mitigation measures being required; • Advanced climate and hydrology baseline studies result in higher precipitation estimates, resulting in higher surplus water accumulation; • Advanced climate studies result in lower precipitation estimates resulting in average annual deficit condition; • Advanced water quality modelling results in water treatment being required to treat WRSF run-off or TMF surplus water prior to discharge to environment; and • Lack of available geotechnical information at the TMF & WRSF locations may result in more conservative TMF embankment or WRSF designs being required.	Additional Field work and testwork should be undertaken to better define the parameters and have more confidence in the inputs and assumptions.
Community Agreements	The Project is within the territories of Indigenous groups. Agreements for the Project proposed herein with such groups that may be affected by the envisaged project remain to be negotiated. If such agreements include royalty or similar payments, this could result in changes to the assumptions made in the economic analysis.	Maintain collaborative relationships with Indigenous groups on whose territories the project is located. Work towards formalizing agreements.

26.2 Opportunities

The main opportunities identified for the project are listed in Table 26-2.

Table 26-2: Identified Project Opportunities

Opportunity	Explanation	Potential Benefit
Expansion of the Mine	The Mineral Resource has not been fully delineated and there is an opportunity to expand the mineable Mineral Resource. Including the following: • Opportunity for additional expansion of the main deposits, with high grade underground intersections still open at depth at Cliff Creek and Dukes Ridge; and • Potential for additional drilling to better define some of the nearby targets where mineralization has already been intersected, such as Marmot Lake.	Increased mine life.
Waste Rock Storage	Optimize waste rock storage and inpit backfilling.	Decrease haulage requirements and lower mining costs.
Optimize Mine Plan	Further optimize the mine plan and production sequence.	Improve project economics by bringing higher value material forward in schedule.
Inclusion of Underground	Increase mineable Mineral Resources and potentially reduce open pit waste stripping requirements.	Improve project economics by increasing mineable resource and extending mine life through inclusion of underground mining resources below current pit shapes; potentially reduce open pit waste stripping by accessing mineralized material via underground mining methods. Further details on this opportunity are discussed in Section 26.2.1.
Mine Geotech/Pit Slopes	Better than expected geotechnical conditions.	Steeper pit walls and improved project economics.
Tailings	Include energy recovery measures in the tailings distribution system.	Reduces energy consumption and resulting operating costs.
Tailings	Opportunity to source filter and transition zone materials from local granular deposits to reduce requirements for crushing and screening of ROM waste rock to produce embankment fill material.	Reduction in associated CAPEX.

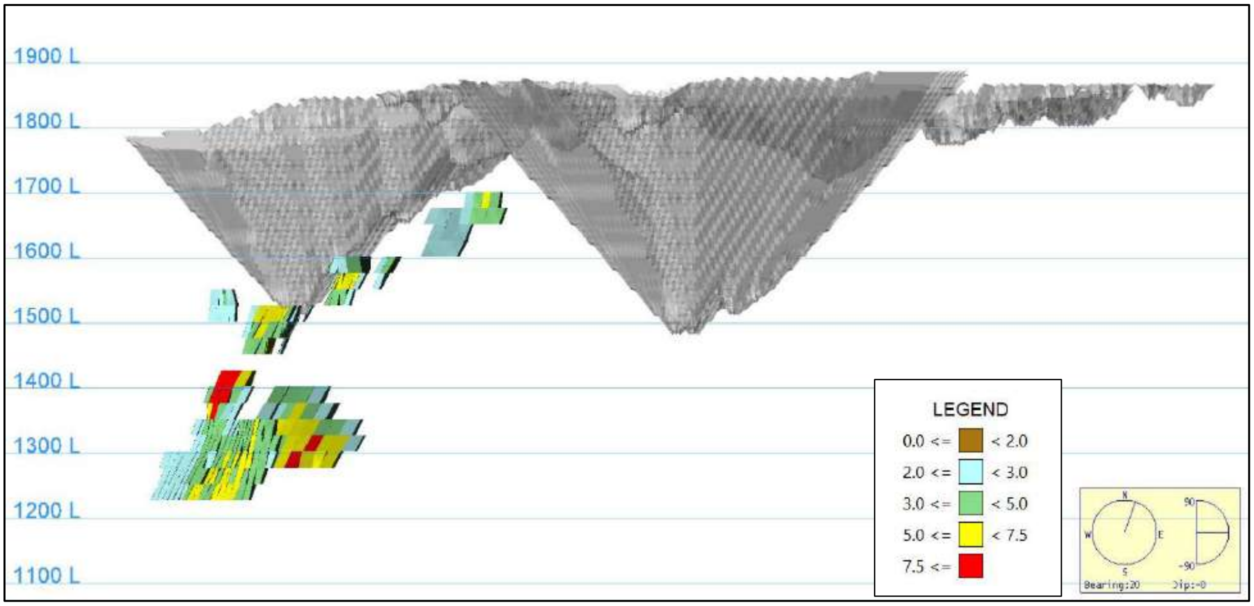
Opportunity	Explanation	Potential Benefit
Satellite Deposits	Potential additional resources in close proximity to the current planned development could provide additional feed for the mill.	Additional mill feed (especially at higher grade) could improve the project economics by speeding up project payback and/or extending the mine life.
Community Engagement	Collaboration with Indigenous Groups to develop the Project Closure and Reclamation Plan to meet long term Indigenous End Land Use objectives.	Can assist in gaining support for the Project and reduce post-closure cost estimate uncertainty.

26.2.1 Underground Potential

The PEA has been presented with surface mining only. However, there is a strong opportunity to enhance the Base Case economics with supplemental feed from underground operations. The most encouraging location is adjacent to and beneath the Cliff Creek Pit, where the mineralised zones are sub-vertical and reasonably thick at 4 to 15 m. This makes them amenable to preferred low-cost mining methods, such as sub-level open stoping, and allows for a moderate production rate, as opposed to the low throughput typical of narrow-vein operations.

Underground stopes would either be accessed from multiple portals driven in the pit walls or by a dedicated ramp driven beneath the pit (see Figure 26-1), for potential stope shapes above a 2.0 g/t AuEq cut-off.

Figure 26-1: Potential Stope Shapes Adjacent to and Below Cliff Creek Pit



If underground mining is proven to be economic in future stages of study, there are three possible scenarios that should be evaluated:

1. The underground could be mined in conjunction with open pit operations, potentially improving the grade of the mill feed and extending the project operating life;

2. An underground operation could be mined at the end of open pit operations, extending operational life; and

3. A cross-over analysis could demonstrate that underground mining is more cost-effective for the deepest pit phases, reducing surface mining in favour of underground operations.

Such analyses should be performed on all deposits, not just at Cliff Creek.

27 RECOMMENDATIONS

In the opinion of JDS, the Project is of sufficient merit to proceed to the PFS stage. This more advanced study will further substantiate:

- Mineral Reserves;
- Engineering design;
- Project scheduling;
- Process flowsheet parameters;
- Material characterization; and
- Capital and operating costs.

Details of these recommendations can be found the proceeding sections.

27.1 Drilling and Exploration

Drilling is open at depth at both the Cliff Creek Main Zone and Dukes Ridge Zone. In both these zones, intervals of strong high-grade mineralization were intersected in the 2021 and 2022 drilling. It is recommended that ~10, 000 m of deeper drilling is completed, split between Cliff Creek and Dukes Ridge. At Cliff Creek some deep infill drilling is required to better define out-of-pit Mineral Resources and expand on existing intersections and at Dukes Ridge deeper drilling is required to chase the high-grade mineralization at depth. The estimated cost of this program is $3.8M.

Another drilling recommendation is to complete an infill drill program to convert Indicated into Measured Mineral Resources for the anticipated first 5 years of production for the Feasibility Study. This would involve about ~10,000 m of drilling split between Cliff Creek and AGB with a small amount of infill required at Dukes Ridge. The estimated cost of this program is $3M.

Several highly prospective Exploration Targets occur across the Property. It is recommended that a drill program of 10,000 m -15,000 m is completed to test new targets and better define existing Exploration Targets. Approximately 4000 m could be drilled at Marmot to follow up on the 2021-2022 drilling and to test additional rock and geophysics anomalies at the prospect. This drilling could be designed to test and update mineralization and structural models and ultimately generate a new additional Mineral Resource Estimate for the Marmot Lake prospect. The AGB North prospect, as well as the Kodah and Round Mountain prospects have recently been better defined by NW trending structures evident in the ground magnetics and VLF data, which are coincident with Au-Ag-Cu soil and rock anomalies. These areas have not been drilled previously. A few thousand m of exploration drilling, testing these structures and anomalies, is recommended. Other areas that have not been previously drill tested and have interesting surface and geophysics anomalies include the Black Lake Alteration Corridor, Arctic, Giffords Edge and Lala prospects. It is recommended that exploration drill holes are planned and drilled in these areas. The cost of this program is expected to be $3.8M to $5.6M (covers ~10,000 m - 15,000 m of drilling). This program is not required to advance the project to the next stage; however, it could be a source of additional project opportunities.

There are several prospects which have been previously drill tested, but still warrant follow up with additional drilling. These areas include Silver Pond North, Silver Pond Clay, Marmot Lake East, Silver Pond West and Silver Creek. It is recommended that the existing drilling, geophysics and surface data be reviewed, and follow up drilling in these areas is considered.

27.2 Metallurgy Recommendations

The preliminary metallurgical assessment using conventional whole rock leaching shows gold, which is the principal payable metal, having a recovery at typically over 90% for the samples tested. Silver recovery is more variable in a range 50% to 90% and averaging approximately 70% for the PEA level testing undertaken. The higher-grade silver samples containing coarse electrum appear to provide the greatest processing challenge. There is opportunity to improve on silver recovery by incorporating more aggressive leaching procedures including potentially the use of two stage cyanidation, with regrinding between leach stages. Such procedures would need to be evaluated in context with the mineralogy of feasibility reserves to support a potential improvement to project economics.

The metallurgical results to date support continuing project advancement. Additional metallurgical studies are required to evaluate the process response for the various geological zones, spatial areas, and mineralogy of the Lawyers resource moving forward. This work would include comminution, gravity pre-treatment, leaching and circuit simulation studies to cover the anticipated mine schedule, particularly in the initial years of production. Undertaking the project to feasibility level is estimated to require an additional expenditure of $1M in further laboratory process testing. The majority of this work would be focused on the leaching response of various material within the feasibility reserve.

27.3 Mining

Further work to optimize mining methods, including more detailed studies on the underground potential should be undertaken to optimize the potential project economics.

27.4 Waste Rock Storage Facility

Recommendations for the next phase of project development (Feasibility Study and Environmental Assessment Application) are summarized below:

- Advance environmental baseline programs to enhance understanding of Project characteristics and confirm design assumptions;

- Complete geochemical testing of the waste rock materials to determine the ML/ARD characteristics of the waste rock and inform source term development for water quality modelling;

- Complete geotechnical site investigations at the WRSF to support a Feasibility Level Design;
- Complete stability modelling for the WRSF to confirm designs comply with regulatory requirements for static and seismic stability; and
- Develop detailed sequencing and staging of the WRSF to model development of the WRSF over time.

The estimated cost for the above WRSF recommendations is $0.5M.

27.5 Tailings Management Facility

Recommendations for the next phase of Project development (Feasibility Study and Environmental Assessment Application) are summarized below:

- Advance environmental baseline programs to enhance understanding of Project characteristics and confirm design assumptions;
- Complete testing on embankment construction materials and tailings materials to confirm suitability for proposed management strategies, and estimate material parameters for design (dry density, consolidation characteristics, strength parameters, etc.);
- Complete geotechnical site investigations at the TMF to support a Feasibility Level Design and to comply with regulatory requirements;
- Complete seepage and stability modelling for the TMF to confirm designs comply with regulatory requirements for static and seismic stability;
- Advance designs to a Feasibility Level Design, incorporating all relevant data collection;
- Update the Mine Waste Disposal Alternatives Assessment to comply with provincial and federal guidance, as more information becomes available and alternative characterization can be advanced; and
- Complete a dam breach and inundation assessment to evaluate the impacts of failure of the TMF on the receiving environment and to inform a dam classification.

The estimated cost for the above TMF recommendations is $1.5M.

27.6 Environmental Management

Additional work will be required to support the environmental assessment, including:

- Baseline and targeted environmental studies – many of these studies are currently underway. However, they must continue to meet minimum data requirements;
- Consultations and negotiations with Indigenous groups;

- Other stakeholder engagement and consultation;
- Development of water balance and water quality models to inform makeup requirements, distribution of site flows, site water quality, and water treatment requirements;
- Development of baseline study report and models to support an environmental impact assessment application for environmental assessment through either a substituted or coordinated process between the federal and provincial regulators; and
- Mine permitting will follow after the environmental assessment certificate is received.

A budget of approximately $7.5M is recommended to conclude the environmental assessment. These costs do not include costs for permitting.

In addition to the areas identified above, an estimated $3.5M would be required to support the project management and engineering work required to achieve the next stage of study. Total costs to progress the project through the next stage of study is $18M, in addition to $5M of exploration drilling for targets outside of the immediate study area.

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29 UNITS OF MEASURE, ABBREVIATIONS AND ACRONYMS

Symbol / Abbreviation	Description
$	dollar(s)
°	degree(s)
°C	degrees Celsius
<	less than
>	greater than
%	percent
3-D	three-dimensional
AA	atomic absorption
AAS	atomic absorption spectrometry
ABA	acid base accounting
Ag	silver
AG	prefix label for AGB mineral zone
AGB (Zone)	Amethyst Gold Breccia (Zone)
AGC	Americas Gold Corp.
AgEq	silver equivalency
Agnico-Eagle	Agnico-Eagle Mines Limited
AI	abrasion index
AIIP	airborne inductively induced polarization
ALS	ALS Global Laboratories
Antares	Antares Mining and Exploration Corp.
APEX	APEX Geoscience Ltd.
Asl	above sea level
Au	gold
AuEq	gold equivalency
BBMWi	bond ball mill work index
BCGS	British Columbia Geological Survey
BCWQGs	BC Water Quality Guidelines
BEC	biogeoclimatic ecosystem classification
Benchmark	Benchmark Metals Inc.
BFA	bench face angles
Bishop	Bishop Gold Inc.
BLAC	Black Lake Alteration Corridor
BMP	Best Management Practices

Symbol / Abbreviation	Description
Bond	Bond Gold Inc.
BRMWi	Bond rod mill work index
BV	Bureau Veritas Minerals Laboratories, located in Richmond, BC
BVMMD	Bureau Veritas Minerals Metallurgical Division
CAPEX	capital expenditure
CC	Cliff Central
CCD	counter current decantation
CB	coarse blank
CDA	Canadian Dam Association
CDN$	Canadian Dollar
CDN	CDN Resource Laboratories Ltd.
Centerra	Centerra Gold Inc.
CET	Centre for Exploration Targeting
Cheni	Cheni Gold Mines Inc.
CIL	carbon in leach
CIM	Canadian Institute of Mining, Metallurgy, and Petroleum
Cm	centimetre(s)
CN	cyanide
CN	Cliff Creek North
CNR	Canadian National Railway
Comp.	composite
Company	Benchmark Metals Inc. that the report is written for
Comp. AB4(160-214)	AGB Zone drill hole interval composite (AB4 160-214)
Comp. MAB	AGB Zone composite
Comp. MCC	Cliff Creek Zone master composite
CRM or standards	certified reference material
Crystal	Crystal Exploration Inc.
CS	Cliff Creek South
CVR	common voltage reference
DCIP	direct current electrical resistivity and induced polarization
DDH	diamond drill hole
dGPS	real-time differential GPS
DR	Dukes Ridge
DSM	digital surface model
$M	dollars, millions
EA/IA	Environmental Assessment / Impact Assessment
EDGM	Earthquake Design Ground Motion

Symbol / Abbreviation	Description
EDI	Environmental Dynamics Inc.
EGL	effective grinding length
EM	electromagnetic
EMLI	BC Ministry of Energy, Mines and Low Carbon Innovation
ENE	east-northeast
ENV	Ministry of Environment and Climate Change Strategy
ERT	Emergency Response Team
FA-ICP	fire assay inductively coupled plasma
FEL	front-end loader
Ft	foot
FSR	Forest Service Road
g	gram
g/L	grams per litre
g/t	grams per tonne
GCP	ground control points
Geotech	Geotech Ltd.
GPS	Global Positioning System
Guardsmen	Guardsmen Resources Inc.
GWP	Great Western Petroleum Corporation
ha	hectare(s)
HDPE	high-density polyethylene
IC	intense cyanidation
ICP	inductively coupled plasma
ICP-MS	inductively coupled plasma mass spectrometry
ID	identification
ID^3	Inverse Distance Cubed
IDF	Intensity-Duration-Frequency
Imperial Metals	Imperial Metals Corp.
IP	induced polarization
IRA	inter-ramp angles
ISO	International Organization for Standardization
k	thousand(s)
k-feldspar	potassium-feldspar
Kennco	Kennco Explorations (Western) Ltd.
kg	kilograms(s)
km	kilometre(s)
kW	kilowatt

Symbol / Abbreviation	Description
kWh/t	kilowatt-hour per metric tonne
l	litre(s)
L/s	litres per second
Lakefield	Lakefield, Ontario
Level	mine working level referring to the nominal elevation (m RL), e.g., 4285 level (mine workings at 4285 m RL)
LIDAR	Light Detection and Ranging
LRMPs	Land and Resource Management Plan
M	million(s)
m	metre(s)
m^3	cubic metre(s)
Ma	millions of years
MAG	magnetic
masl	metres above sea level
mbgs	metres below ground surface
mm	millimetre
Moz	million ounces
MS	mass spectrometer
Mt	mega tonne or million tonnes
N	north
NaCN	sodium cyanide
NaSH	sodium sulphate
NAD	North American Datum
NE	northeast
Nexus	Nexus Resources Corp.
NI	National Instrument
NN	Nearest Neighbour
NNP	net neutralization potential
NPAG	non-potentially acid generating
Norecol	Norecol Environmental Consultants Ltd.
NSR	net smelter return
NTS	National Topographic Service
NW	northwest
OPEX	operational expenditure
ORE	ORE Research & Exploration Pty Ltd.
ORAR	Omineca Resource Access Road
oz	ounce
P_{80}	80% percent passing

Symbol / Abbreviation	Description
P&E	P&E Mining Consultants Inc.
PAG	potential acid generation
PAX	potassium amyl xanthate
PEA	Preliminary Economic Assessment
P.Eng.	Professional Engineer
P.Geo.	Professional Geoscientist
ppb	parts per billion
ppm	parts per million
PPM	PPM Phoenix Precious Metals Corp.
Property	the Lawyers Property that is the subject of this Technical Report
PX	Phoenix
Q1, Q2, Q3, Q4	first quarter, second quarter, third quarter, fourth quarter of the year
QA/QC	quality assurance/quality control
QMS	quality management system
QEMSCAN	quantitative evaluation of materials by scanning electron microscopy
QSP	quartz-sericite-pyrite
R^2	Coefficient of Determination
RC	reverse circulation
RDI	resistivity depth imaging
RES	resistivity survey
RMI	residual magnetic intensity
RTP	reduced to magnetic pole
RQD	rock quality determination
S	south
SAG	semi-autogenous grinding
SE	southeast
SEDAR	System for Electronic Document Analysis and Retrieval
SEREM	SEREM Inc.
SGS	SGS Canada Ltd.
St. Joe	St. Joe Canada Inc.
standards or CRM	certified reference material
Sudbury Contact	Sudbury Contact Mines Limited
SW	southwest
SWIR	shortwave infrared
t	metric tonne(s)
t/d	tonnes per day
t/m^3	tonnes per cubic metre

Symbol / Abbreviation	Description
TCG	Tahltan Central Government
TDH	total dynamic head
Technical Report	this NI 43-101 Technical Report
TMF	tailings storage facility
UAV	unmanned aerial vehicle
US$	United States dollar(s)
UTM	Universal Transverse Mercator grid system
VLF	very low frequency
VTEM™	versatile time domain electromagnetic
WEL	Wright Engineers Limited
Wi	work index
WMP	Wildlife Management Plan
WNW	west-northwest
XRD	X-ray diffraction
XRF	X-ray fluorescence
yr	year
Zn	zinc

Scientific Notation	Number Equivalent
1.0E+00	1
1.0E+01	10
1.0E+02	100
1.0E+03	1,000
1.0E+04	10,000
1.0E+05	100,000
1.0E+06	1,000,000
1.0E+07	10,000,000
1.0E+09	1,000,000,000
1.0E+10	10,000,000,000

30 CERTIFICATES

CERTIFICATE OF QUALIFIED PERSON

Carly Church, P. Eng.

I, Carly Church, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project" (the "Technical Report") with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as a Project Manager with JDS Energy & Mining Inc. with an office at Suite 900 – 999 West Hastings Street, Vancouver, British Columbia, V6C 2W2;
3. I am a graduate of the University of British Columbia, with a B.A.Sc. in Mechanical Engineering, 2006. I have practiced my profession intermittently since 2006;

   I have spent the last 9 years working on mining projects; where I have performed, project engineering & infrastructure design, project management, purchasing and expediting, cost estimation and project controls, economic modelling, construction planning and management for mining projects;

   I am a Registered Professional Mining Engineer in British Columbia (#46451) and the Yukon (#2749);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
4. I have visited the Lawyers Project Site on August 19, 2020;
5. I am responsible for Sections 1.1,1.18-1.19, 2-3, 19, 23 - 29 (except 27.4 and 27.5) of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had no prior involvement with the property that is the subject of this Technical Report;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Carly Church, P.Eng."

Carly Church, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Michael E. Levy, P.E.

I, Michael E. Levy, P.E., do hereby certify that:

1. I am currently employed as Geotechnical Manager with JDS Energy & Mining Inc. with an office at Suite 900 - 999 West Hastings St, Vancouver, BC V6C 2W2;
2. This certificate applies to the Technical Report titled "Preliminary Economic Assessment, Lawyers Gold-Silver Project", with an effective date of September 30, 2022 (the "Technical Report") prepared for Benchmark Metals Inc.;
3. I hold a bachelor's degree (B.Sc.) in Geology from the University of Iowa in 1998 and a Master of Science degree (M.Sc.) in Civil-Geotechnical Engineering from the University of Colorado in 2004. I have practiced my profession continuously since 1999 and have been involved in numerous mining and civil geotechnical projects around the world;
4. I am a registered Professional Engineer (P.E.) in the states of Colorado (#40268), California (#70578) and Arizona (#61372) and a registered Professional Geologist P.G.) in the state of Wyoming (#3550). I am also a registered Professional Engineer (P.Eng.) in the province of British Columbia (#216542) and Yukon Territory (#2692). I am a current member of the Society for Mining, Metallurgy & Exploration (SME) and the American Society of Civil Engineers (ASCE);
5. I have not visited the property that is the subject to the Technical Report;
6. I am responsible for the preparation of Section 16.3 of the Technical Report;
7. I have not had prior involvement with the company nor the property that is the subject of this Technical Report;
8. I am independent of the issuer, Benchmark Metals Inc. as defined in Section 1.5 of National Instrument 43-101;
9. I have read the definition of "Qualified Person" set out in NI 43-101 – Standards of Disclosure for Mineral Projects ("NI 43-101") and certify that by reason of my education, affiliation with a professional association, and past relevant experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;
10. I have read National Instrument 43-101, Standards for Disclosure of Mineral Properties and Form 43-101F1. This technical report has been prepared using the guidance of that instrument and form; and
11. As of the effective date of the Report, to the best of my knowledge, information and belief, the sections of this technical report for which I am responsible contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Michael Levy, P.E."

Michael Levy, P.E.

CERTIFICATE OF QUALIFIED PERSON

Shane Tad Crowie, P.Eng.

I, Shane Tad Crowie, P.ENG., do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project" (the "Technical Report") with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as Senior Metallurgist with JDS Energy & Mining Inc. with an office at Suite 900 – 999 West Hastings Street, Vancouver, British Columbia, V6C 2W2;
3. I am a graduate of the University of British Columbia with a B.A.Sc. in Mining and Mineral Process Engineering, 2001. I have practiced my profession continuously since 2001;

   I have worked in technical, operations and management positions at mines in Canada. I have been responsible for recovery optimization projects, capital improvement projects, budgeting, planning, and pilot plant operations. I have been an independent consultant for 4 years and have performed mill design, mill cost estimation, operations management, technical due diligence reviews and technical report writing for mines worldwide;

   I am a Registered Professional Mining Engineer in British Columbia (#34052);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
4. I have not visited the Lawyers Project Site;
5. I am responsible for Sections 1.14, 17, and 22.4 of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had no prior involvement with the property that is the subject of this Technical Report;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Shane Tad Crowie, P.Eng."
Shane Tad Crowie, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Brandon Chambers, P.Eng.

I, Brandon Chambers, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled “Preliminary Economic Assessment, Lawyers Gold-Silver Project” (the “Technical Report”) with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as Mining Engineer with JDS Energy & Mining Inc. with an office at Suite 900 – 999 West Hastings Street, Vancouver, British Columbia, V6C 2W2;
3. I am a graduate of Queen’s University with a B.Sc. in Mining Engineering, 2010, and with a MASc. in Mining Engineering, 2012.

   I have practiced my profession continuously since 2012.

   I have worked in technical, operations, and management positions at mines in Canada and Southern Africa. I have performed mine design & planning, infrastructure design & planning, cost estimation, operations & construction management, and procurement for mining projects.

   I am a Registered Professional Mining Engineer in British Columbia (#45269);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
4. I have not visited the Lawyers Project Site;
5. I am responsible for Sections 1.15 (except 1.15.1-1.15.3), 1.17, 18 (except 18.5-18.7), 21 (except 21.4 and 21.6), 22 (except 22.3 and 22.4) of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had no prior involvement with the property that is the subject of this Technical Report;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 23, 2022

(Original signed and sealed) “Brandon Chambers, P. Eng.”

Brandon Chambers, P. Eng.

CERTIFICATE OF QUALIFIED PERSON

Tysen Hantelmann, P.Eng.

I, Tysen Hantelmann, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project" (the "Technical Report") with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as Engineering Manager with JDS Energy & Mining Inc. with an office at Suite 900 – 999 West Hastings Street, Vancouver, British Columbia, V6C 2W2;
3. I am a graduate of the University of Alberta with both a B.Sc. in Mining Engineering, 2001 and a M.Eng. in Mining Engineering, 2003. I have practiced my profession continuously since 2001;

   I have worked in technical and operational positions at several mines in Canada. I have been an independent consultant for over fourteen years and have performed all aspects of mine planning design and costing on over a hundred projects and studies worldwide;

   I am a Registered Professional Engineer and member in good standing in Alberta (#71697), Yukon (#2631), and Northwest Territories (L2810);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;
4. I have not visited the Lawyers Project Site;
5. I am responsible for Sections 1.12, 1.13, 16 (except 16.3 and 16.4), 21.4 and 22.3 of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had no prior involvement with the property that is the subject of this Technical Report;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Tysen Hantelmann, P.Eng."

Tysen Hantelmann, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Eugene Puritch, P.Eng., FEC, CET

I, Eugene Puritch, do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project" (the "Technical Report") with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as President of P&E Mining Consultants Inc., 201 Country Court Blvd., Suite 304, Brampton, Ontario, L6W 4L2;
3. I am a graduate of The Haileybury School of Mines with a Technologist Diploma in Mining, as well as obtaining an additional year of undergraduate education in Mine Engineering at Queen's University. In addition, I have also met the Professional Engineers of Ontario Academic Requirement Committee's Examination requirement for a Bachelor's degree in Engineering Equivalency. I have practiced my profession continuously since 1978;

   I have worked in technical and operations at mines and offices in Canada and Australia. I have been an independent consultant for over 25 years and have performed mine design, mine planning, cost estimation, technical due diligence reviews, and technical report writing for mineral and mining projects worldwide;

   I am a mining consultant currently licensed by the: Professional Engineers and Geoscientists New Brunswick (License No. 4778); Professional Engineers, Geoscientists Newfoundland and Labrador (License No. 5998); Association of Professional Engineers and Geoscientists Saskatchewan (License No. 16216); Ontario Association of Certified Engineering Technicians and Technologists (License No. 45252); Professional Engineers of Ontario (License No. 100014010); Association of Professional Engineers and Geoscientists of British Columbia (License No. 42912); and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (No. L3877). I am also a member of the National Canadian Institute of Mining and Metallurgy.I am a Registered Professional Geoscientist in Ontario (#1569) and Newfoundland and Labrador (#10221);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
4. I have not visited the Lawyers Project Site;
5. I am responsible for Section 14 of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had prior involvement with the property that is the subject of this Technical Report; I was a "Qualified Person" for a Technical Report titled "Technical Report and Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Ominica Mining Division, British Columbia, Canada", by P&E Mining Consultants Inc., F. Wright Consulting Inc., and One-Eighty Consulting Group Inc. for Benchmark Metals Inc., dated June 28, 2021;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Eugene Puritch, P.Eng., FEC, CET"

Eugene Puritch, P.Eng., FEC, CET

CERTIFICATE OF QUALIFIED PERSON

William Stone, Ph.D., P.Geo.

I, William Stone, do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project" (the "Technical Report") with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as Senior Associate Geologist with P&E Mining Consultants Inc., 201 Country Court Blvd., Suite 304, Brampton, Ontario, L6W 4L2;
3. I am a graduate of the University of Western Ontario with a Ph.D., 1988. I have practiced my profession continuously since 1985;

   I have worked in technical, operations and management positions at mines and offices in Canada and Australia. I have been an independent consultant for over seven years and have performed drilling programs, exploration management, cost estimations, technical due diligence reviews, and technical report writing for mineral and mining projects worldwide;

   I am a Registered Professional Geoscientist in Ontario (#1569) and Newfoundland and Labrador (#10221);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
4. I have not visited the Lawyers Project Site;
5. I am responsible for Sections 1.2-1.9, 1.11 and 4 - 10 of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had prior involvement with the property that is the subject of this Technical Report; I was a "Qualified Person" for a Technical Report titled "Technical Report and Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Ominica Mining Division, British Columbia, Canada", by P&E Mining Consultants Inc., F. Wright Consulting Inc., and One-Eighty Consulting Group Inc. for Benchmark Metals Inc., dated June 28, 2021;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "William Stone, Ph.D., P.Geo."

William Stone, Ph.D., P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Brian Ray, P.Geo.

I, Brian Ray, do hereby certify that:

1. This certificate applies to the Technical Report entitled “Preliminary Economic Assessment, Lawyers Gold-Silver Project” (the “Technical Report”) with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as Associate Geologist with P&E Mining Consultants Inc., 201 Country Court Blvd., Suite 304, Brampton, Ontario, L6W 4L2;
3. I am a graduate of the School of Mining and Geology “Hristo Botey, Pernik (1980). In addition, I have a Master of Science Degree in Geology and Exploration of Mineral Resources from the University of Mining Engineering and Geology “St. Ivan Rilsky”, Sofia (1993). I have practiced my profession as a geologist for over 40 years;

   I have worked in technical, operations and management positions at mines and offices in Bulgaria and Canada. I have been an independent consultant for over eight years and have performed drilling programs, exploration management, cost estimations, technical due diligence reviews, and technical report writing for mineral and mining projects worldwide;

   I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (#33418);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
4. I visited the Lawyers Property that is the subject of this Technical Report on September 18, 2020, and on July 6 and 7, 2022;
5. I am responsible for co-authoring Section 12 of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had prior involvement with the property that is the subject of this Technical Report; I was a “Qualified Person” for a Technical Report titled “Technical Report and Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Ominica Mining Division, British Columbia, Canada”, by P&E Mining Consultants Inc., F. Wright Consulting Inc., and One-Eighty Consulting Group Inc. for Benchmark Metals Inc., dated June 28, 2021;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) “Brian Ray, P.Geo.”

Brian Ray, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Jarita Barry, P.Geo.

I, Jarita Barry, do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project" (the "Technical Report") with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as an Associate Geologist with P&E Mining Consultants Inc., 201 Country Court Blvd., Suite 304, Brampton, Ontario, L6W 4L2;
3. I am a graduate of RMIT University of Melbourne, Victoria, Australia, with a B.Sc. in Applied Geology. I have practiced my profession for over 15 years since obtaining my B.Sc. degree;

   I have worked in technical positions with mineral and mining companies in Australia and Canada. I have been an independent consultant for over seven years and have performed drilling programs, exploration management, cost estimations, technical due diligence reviews, and technical report writing for mineral and mining projects worldwide;

   I am a geological consultant currently licensed by Engineers and Geoscientists British Columbia (#40875), Professional Engineers and Geoscientists Newfoundland & Labrador (#08399), and Northwest Territories and Nunavut Association of Professional Engineers and Geoscientists (#L3874). I am also a member of the Australasian Institute of Mining and Metallurgy of Australia (Member No. 305397);

   I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
4. I have not visited the Lawyers Project Site;
5. I am responsible for Section 11 and co-authoring Section 12 of this Technical Report;
6. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
7. I have had prior involvement with the property that is the subject of this Technical Report; I was a "Qualified Person" for a Technical Report titled "Technical Report and Updated Mineral Resource Estimate of the Lawyers Gold-Silver Property, Ominica Mining Division, British Columbia, Canada", by P&E Mining Consultants Inc., F. Wright Consulting Inc., and One-Eighty Consulting Group Inc. for Benchmark Metals Inc., dated June 28, 2021;
8. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
9. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Jarita Barry, P.Geo."

Jarita Barry, P.Geo.

CERTIFICATE OF QUALIFIED PERSON

Frank Wright, P.Eng.

I, Frank R. Wright, P.Eng., of Delta, BC, do hereby certify that:

1. I am currently employed as a Metallurgical Engineer with F. Wright Consulting Inc., with an office at #45-10605 Delsom Cr. Delta BC, Canada V4C 0A4;
2. This certificate applies to the Technical Report titled "Preliminary Economic Assessment - Lawyers Gold-Silver Property, British Columbia, Canada", (The "Technical Report") with an effective date of September 30, 2022;
3. I am a graduate of University of Alberta, in Edmonton, AB Canada with a Bachelor of Science in Metallurgical Engineering in 1979, and from Simon Fraser University in Burnaby, BC Canada with a Bachelor of Business Administration in 1983. I am a member in good standing with the Engineers and Geoscientists British Columbia (License #15747) and Permit to Practice #1001106. I am a member of the Canadian Institute of Mining and Metallurgy. I have continuously practiced my profession in the areas of hydrometallurgy, environmental, and mineral process engineering since 1979 as an employee of various resource companies and consulting firms. Since 1998, I have been the principal and a self-employed consultant with F. Wright Consulting Inc., primarily providing services, including the co-authoring of technical reports for junior and mid-tier mineral exploration and mining firms;
4. I have read the definition of "Qualified Person" set out in National Instrument 43-101 ("NI 43-101") and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "Qualified Person" for the purposes of NI 43-101;
5. I have not visited the Property that is the subject of this Technical Report;
6. I am responsible for authoring Sections 1.10 and 13 of this Technical Report;
7. I am independent of the Issuer applying the test in Section 1.5 of NI 43-101;
8. I have had no prior involvement with the Property that is the subject of this Technical Report;
9. I have read NI 43-101 and Form 43-101F1 and this Technical Report has been prepared in compliance therewith; and
10. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Sections for which I am responsible in the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Frank R. Wright, P.Eng."

Frank R. Wright, P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Jim Fogarty, P.Eng.

I, Jim Fogarty, P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled "Preliminary Economic Assessment, Lawyers Gold-Silver Project, Stikine Terrace, BC" with an effective date of September 30, 2022, (the "Technical Report") prepared for Benchmark Metals Inc.;
2. I am employed as Senior Engineer of Knight Piésold Ltd. with an office at Suite 1400 - 750 West Pender Street, Vancouver, British Columbia, V6C 2T8, Canada;
3. I am a graduate of the National University of Ireland, Galway with a bachelor's degree in Civil Engineering (B.Eng. (Civil)), graduating in 2010. I have practiced my profession continuously since 2011. My experience includes tailings, waste and water management designs, mine planning and permitting, cost estimates and technical report writing for mine developments in Canada, USA, Europe and South America;
4. I am a Professional Engineer (P.Eng.) in good standing with Engineers and Geoscientists of British Columbia in the area of civil engineering (No. 44041);
5. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101;
6. I visited the August 9, 2020;
7. I am responsible for Sections 1.15.1 - 1.15.3, 16.4, 18.5 - 18.7, 21.6 and 27.4 - 27.5 of this Technical Report;
8. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
9. I have had no involvement with the property that is the subject of this Technical Report;
10. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
11. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) "Jim Fogarty, B.Eng. (Civil), P.Eng."

Jim Fogarty, B.Eng. (Civil), P.Eng.

CERTIFICATE OF QUALIFIED PERSON

Mary Mioska, M.Sc., P.Eng.

I, Mary Mioska, M.Sc., P.Eng., do hereby certify that:

1. This certificate applies to the Technical Report entitled “Preliminary Economic Assessment, Lawyers Gold-Silver Project” (the “Technical Report”) with an effective date of September 30, 2022 prepared for Benchmark Metals Inc;
2. I am currently employed as Director, Regulatory Affairs with One-Eighty Consulting Group Inc., with an address as Suite 300-1168 Hamilton Street, Vancouver, British Columbia, V6B 2S2;
3. I graduated from the University of British Columbia in 2006 with a Bachelor of Science degree and from Royal Roads University in 2012 with a Master of Science degree. I have practiced my profession continuously since 2006;
4. I have experience in environmental engineering, geochemistry, water quality prediction, hydrology, hydrogeology, and environmental impact assessment and permitting related to mining projects in Canada;
5. I am a licensed Professional Engineer in British Columbia (EGBC #38394) and in the Yukon Territory (APEY #2704);
6. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101. I am independent of the issuer, vendor, property and related companies applying all of the tests in Section 1.5 of NI 43-101;
7. I visited the Lawyers Project Site on September 21, 2020;
8. I am responsible for Sections 1.16 and 20 of this Technical Report;
9. I am independent of the Issuer and related companies applying all of the tests in Section 1.5 of the NI 43-101;
10. I have had no prior involvement with the property that is the subject of this Technical Report;
11. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, this Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading; and
12. I have read NI 43-101, and the Technical Report has been prepared in accordance with NI 43-101 and Form 43-101F1.

Effective Date: September 30, 2022
Signed Date: September 30, 2022

(Original signed and sealed) “Mary Mioska”

Mary Mioska, M.Sc., P.Eng.