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NI 43-101 Technical Report
Golden Summit Project Mineral Resource Estimate
Fairbanks North Star Borough, Alaska USA

Document:

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Prepared by Greg Mosher, P. Geo.

DATE AND SIGNATURE PAGE

This report, titled *NI 43-101 Technical Report Golden Summit Mineral Resource Estimate*, and dated October 25, 2024 (Technical Report), has been completed in compliance with NI 43-101 standards of disclosure for mineral projects following the guidelines set forth on Form 43-101F. The undersigned author is a “Qualified Person” as outlined in the Instrument.

Dated in Vancouver, British Columbia, this 25th, day of October 2024.

gzmosher

Gregory Z. Mosher, P.Geo.

Permit to Practice # 1000333

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Acronym	Definition	Acronym	Definition
ADL	Alaska Division of Lands	LR2000	US Bureau of Land Management online Legacy Rehost System (BLM land status)
ADEC	Alaska Department of Environmental Conservation	MHT	Alaska Mental Health Trust Land Authority
ADR	Absorption, Desorption and Refining	MRSF	Mine Rock Storage Facility
AOI	Area of influence	MSGP	Multisector Stormwater General Permit
APDES	Alaska Pollution Discharge Elimination System	NEPA	National Environmental Policy Act
APMA	Application for Permits to Mine in Alaska	NAD	North American Datum
AQIA	Air Quality Impact Assessment	NOAA	National Oceanic and Atmospheric Administration
ADNR	Alaska Department of Natural Resources	NRCS	National Resource Conservation Service
CAPEX	Capital cost estimate	NSR	Net Smelter Royalties
CEQ	Council of Environmental Quality	OPEX	Operating expenses
CFS	Code of Federal Regulations (U.S. Federal Code)	POD	Point of diversion
CO2	Carbon dioxide	PSD	Prevention of significant deterioration
CWA	Clean Water Act	PTE	Potential to emit
DDH	Diamond drillhole	PZM	Precipitation Zone Method
DEM	Digital Elevation Model	QAPP	Quality Assurance Project Plan
DRI	Desert Research Institute	RAB	Reverse Air Blast (drillhole)
DST	Dry stack tailings	RC	Reverse circulation (drillhole)
EA	Environmental Assessment	RCH	MODFLOW recharge
EIS	Environmental Impact Statement	SAG	Semi-autogenous grinding
EPM	Equivalent porous media	SCS	Soil Conservation Service (or NRCS, National Resource Conservation Service)
ET	Evapotranspiration	SDR	Standard dimension ratio
FA/AA	Fire Assay with Atomic Absorption finish, analytical technique for gold analysis	SEDAR	System for Electronic Document Analysis and Retrieval
FEI	Fairbanks Exploration Inc.	SFR	MODFLOW Stream Flow Routing
FGMI	Fairbanks Gold Mining Inc.	SWWB	Site-wide water balance
F.M.	Fairbanks Meridian	TMT	Tentative Minimum Tax
FNSB	Fairbanks North Star Borough	TSF	Tailings Storage Facility
GHB	General head boundaries	TU	Tritium Unit
GIS	Geographic Information System	UIC	Underground injection control
GMWL	Global Metric Water Line	USACE	U.S. Army Corps of Engineers
GPS	Global Positioning System	USEPA	U.S. Environmental Protection Agency
HDPE	High density polyethylene	USGS	U.S. Geological Survey
HLP	Heap Leach Storage Facility	UTM	Universal Transverse Mercator
ICP	Inductively Coupled Plasma (geochemical analytical method)	WEL	MODFLOW well
IP	Induced polarization	WMB	Water management basin
LLDPE	Linear Low-Density Polyethylene	WMC	Water Management Consultants
LMPT	Large Mine Permitting Team	WRCC	Western Region Climate Center

LIST OF ABBREVIATIONS

Abbreviation	Definition	Abbreviation	Definition
μg/m^3	micrograms per cubic meter	Kz	vertical conductivity
μm	micrometers (microns)	lb	pound
ac-ft	acre-feet	lb/t	pounds per ton
amsl	above mean sea level	LF	linear foot
cfm	cubic feet per minute	LoM	life of mine
cfs	cubic feet per second	Ma	million years ago
cm/s	centimeters per second	m	meter
cy	cubic yards	m^2	square meter
d	day	mg/L	milligrams per liter
dmt	dry metric tonne	mg/m^3	milligrams per cubic meter
dst	dry short ton	mm	millimeter
fpm	feet per minute	MMBtu	million British thermal units
ft	feet	mph	miles per hour
ft/d	feet per day	MVA	megavolt-ampere
ft/hr	feet per hour	MW	megawatt
ft^2	square foot	opt	ounces per ton
ft^2/tpd	square feet per ton per day	Oz	ounce
ft^3	cubic foot	PAG	potentially acid generating
ft^3/d	cubic foot per day	Pcf	pounds per cubic foot
ft^3/hr	cubic foot per hour	PGM	plant growth medium
ft^3/t	cubic foot per ton	pH	hydrogen ion concentration
G	gram	PIW	pounds per inch of width
g/cc	grams per cubic centimeter	PoO	Plan of Operations
g/t	grams per tonne	ppm	parts per million
gpd	gallons per day	psf	pounds per square foot
gpm	gallons per minute	psi	pounds per square inch
h; hr	hour	Rb/Sr	Rubidium-Strontium
Hp	horsepower	Rpm	revolutions per minute
In	inch	SG	specific gravity
in/yr	inches per year	st/h	short tons per hour
Kg	kilogram	Tc	time of concentration
kg/m^{2}hr	kilograms per square meter per hour	Tlag	lag time
km	kilometer	TDS	total dissolved solids
kV	kilovolt	t/m^3	tonnes per cubic meter
kVA	kilovolt-ampere	toz	troy ounce
kW	kilowatt	tpd	tons per day
kWh	kilowatt hour	tph	tons per hour
kWh/t	kilowatt hour per ton	tpy	tons per year
Kxy	horizontal hydraulic conductivity	yd^2	square yard

ABBREVIATIONS OF THE PERIODIC TABLE

actinium = Ac
aluminum = Al
amercium = Am
antimony = Sb
argon = Ar
arsenic = As
astatine = At
barium = Ba
berkelium = Bk
beryllium = Be
bismuth = Bi
bohrium = Bh
boron = B
bromine = Br
cadmium = Cd
calcium = Ca
californium = Cf
carbon = C
cerium = Ce
cesium = Cs
chlorine = Cl
chromium = Cr
cobalt = Co
copper = Cu
curium = Cm
dubnium = Db
dysprosium = Dy
einsteinum = Es
erbium = Er
europium = Eu
fermium = Fm
fluorine = F
francium = Fr
gadolinium = Gd
gallium = Ga
germanium = Ge
gold = Au
hafnium = Hf
hahnium = Hn
helium = He
holmium = Ho
hydrogen = H
indium = In
iodine = I
iridium = Ir
iron = Fe
juliotium = Jl
krypton = Kr
lanthanum = La
lawrencium = Lr
lead = Pb
lithium = Li
lutetium = Lu
magnesium = Mg
manganese = Mn
meltnerium = Mt
mendelevium = Md
mercury = Hg
molybdenum = Mo
neodymium = Nd
neon = Ne
neptunium = Np
nickel = Ni
niobium = Nb
nitrogen = N
nobelium = No
osmium = Os
oxygen = O
palladium = Pd
phosphorus = P
platinum = Pt
plutonium = Pu
polonium = Po
potassium = K
prasodymium = Pr
promethium = Pm
protactinium = Pa
radium = Ra
radon = Rn
rhodium = Rh
rubidium = Rb
ruthenium = Ru
rutherfordium = Rf
rhenium = Re
samarium = Sm
scandium = Sc
selenium = Se
silicon = Si
silver = Ag
sodium = Na
strontium = Sr
sulfur = S
technetium = Tc
tantalum = Ta
tellurium = Te
terbium = Tb
thallium = Tl
thorium = Th
thulium = Tm
tin = Sn
titanium = Ti
tungsten = W
uranium = U
vanadium = V
xenon = Xe
ytterbium = Yb
yttrium = Y
zinc = Zn
zirconium = Zr

UNITS OF MEASURE

All dollars are presented in U.S. dollars unless otherwise noted. Common units of measure and conversion factors used in this report include:

Weight:

1 oz (troy) =31.1035 g

Analytical Values:

	percent	**grams per metric tonne**
1%	1%	10,000
1 g/t	0.0001%	1.0
10 ppb		
100 ppm		

Linear Measure:

1 inch (in) =2.54 centimetres (cm)
1 foot (ft) =0.3048 metres (m)
1 year (yd) =0.9144 metres (m)
1 mile (mi) =1.6093 kilometres (km)

Area Measure:

1 acre = 0.4047 hectare
1 square mile = 640 acres = 259 hectares

1.0 SUMMARY

Freegold Ventures Limited (Freegold) has retained Tetra Tech Canada Inc. (Tetra Tech), to prepare this updated mineral resource estimate (MRE) for the Golden Summit Project (the Project or Property) in the Fairbanks Mining District, Alaska. The purpose of this Report is to provide Freegold with a current MRE based on drilling to the beginning of 2024, and to make recommendations for future work. This Report is in compliance with National Instrument 43-101 (NI 43-101).

1.1 PROJECT DESCRIPTION & OWNERSHIP

The Golden Summit Property (the Property) is located 32 km by road northeast of the City of Fairbanks, Alaska, United States of America, in the north portion of the Fairbanks Mining District, a northeast-trending belt of lode and placer gold deposits that comprises one of the largest gold-producing areas in the State of Alaska.

The Property is comprised of 53 patented claims, 107 unpatented federal claims, and 241 State of Alaska claims. Leases owned by the State of Alaska Mental Health Trust comprise 1,373 ha, bringing the total acreage to 15,098.6 ha. The Property is situated in Township 2N and 3N, Ranges 1E, 2E, and 3E of the Fairbanks Meridian, centered at approximately 479250 E, 7215464 N (UTM Zone 6 NAD 27 Alaska).

1.2 INFRASTRUCTURE

The Property is located approximately 32 km northeast of Fairbanks, Alaska, via State Highway 2 and State Highway 6 (Steese Highway), and is traversed by a series of gravel roads that provide access to most areas year-round. Fairbanks is served by daily international flights and the Alaska Railroad and is connected to Anchorage and Whitehorse, Canada, by well-maintained paved highways.

Fairbanks and its surrounding area serve as the regional service and supply center for interior Alaska and comprises a total population of approximately 100,000. Labor can be expected to come from the Fairbanks area with ready access to trained personnel.

1.3 HISTORY

Placer and lode gold mining have occurred almost continuously in the Property area since gold was discovered in the district in 1902. More recently, International Minerals and Chemical Corporation (IMC) explored the Property in 1969. In 1978, Placid Oil Company (POC) acquired the Property and conducted a seven-year exploration campaign before going bankrupt in 1985. Fairbanks Exploration Incorporated (FEI) subsequently acquired the Keystone and Christina claim groups in 1987 and completed limited exploration programs over several years. Initially, in 1991, through various joint agreements with FEI and other claim owners, Freegold acquired an interest in the Property since then has continued solidify its property position though outright purchases and/or additional lease agreements.

1.4 GEOLOGY AND MINERALIZATION

The Property contains gold mineralization that is spatially associated with, and in part hosted by, the Cretaceous-age Dolphin granodiorite stock, but predominantly occurs within the enclosing Precambrian-age Fairbanks schist. Gold mineralization occurs in three main forms: 1) intrusive and schist-hosted sulfide-quartz stockwork veinlets and veins such as the Dolphin deposit; 2) auriferous sulfide-quartz veins and disseminations such as those that were exploited by historic underground mines; and 3) shear and breccia-hosted gold-bearing veinlets. All three types are part of a large-scale intrusive-related gold system. In general, mineralization has an easterly strike, dips to the south, and plunges southwest towards the Dolphin intrusive, with gold mineralization increasing in abundance toward the Dolphin intrusive. The deposit conforms to the Reduced Intrusion Related Gold Systems (RIRGS) model that also includes the nearby Fort Knox deposit.

1.5 EXPLORATION

Table 1.1 is a chronological summary of work programs conducted by Freegold on the Property since 1991.

Table 1.1 Golden Summit History of Exploration Programs Conducted by Freegold

Company	Years	Exploration/Mining Activity	Principal Target
Freegold/FEI JV	1991	Property-wide data compilation	Property-wide
Freegold/Amax Gold JV	1992 1993 1994	Trenching, soil sampling, RC drilling, aerial geophysical surveys (EM), bottle roll testing, baseline water quality surveys, aerial photos, EDM surveys	Too Much Gold prospect Cleary Hill Mine area
Freegold	1995 1996	RC drilling	Dolphin Deposit Cleary Hill Mine area
Freegold/Barrick JV	1997 - 1998	Property-wide grid-base soils, recon and prospect mapping, grab sampling, limited RC and core drilling	Property-wide Goose Creek prospect North Extension prospect Coffee Dome Dolphin Deposit Newsboy Mine area Wolf Creek area
Freegold	2000	Limited core drilling	Cleary Hill Mine area
Freegold	2002	Trenching	Cleary Hill Mine Currey Zone
Freegold	2003	Limited core drilling	Cleary Hill Mine Currey Zone
Freegold/Meridian Minerals JV	2004	Trenching, core drilling	Tolovana Mine area Cleary Hill Mine area
Freegold	2005 2006	Trenching	Cleary Hill Mine area Wackwitz Vein area Beistline Shaft area
Freegold	2007 2008	Trenching, RAB drilling, core drilling, bulk sampling	Cleary Hill Mine area Tolovana Mine area
Freegold	2010	Induced Polarization Survey	Dolphin/Tolovana Area
Freegold	2011	Induced Polarization Survey, Geochemical Surveys, Core Drilling	Dolphin Deposit, Clearly Hill, Christina Prospect
Freegold	2012	Induced Polarization Survey, Geochemical Surveys, Trenching, Core Drilling	Dolphin/Tolovana Area, Cleary Hill, Christina Prospect
Freegold	2013	Core Drilling, Geophysics	Dolphin, Coffee Dome Area
Freegold	2014	Water Quality Sampling, Cultural Resource Studies, Metallurgical tests, Geochemical Surveys	Dolphin/Tolovana Area, Cleary Hill,
Freegold	2015	Geochemical Surveys	Dolphin/Tolovana Area, Cleary Hill,
Freegold	2016	Preliminary Economic Assessment	Dolphin/Tolovana Area, Cleary Hill,
Freegold	2017	Expansion oxide drilling 2017	Dolphin/Tolovana Area,
Freegold	2020	Core Drilling and Baseline Water Quality Sampling	Dolphin/Tolovana Area,
Freegold	2021	Core Drilling and Baseline Water Quality Sampling	Dolphin/Tolovana Area,

Company	Years	Exploration/Mining Activity	Principal Target
Freegold	2022	Core Drilling, Geochemical Surveys, Geophysical Surveys and Baseline Water Quality sampling	Dolphin/Tolovana and Saddle Areas
Freegold	2023	Core Drilling, Rock and Soil Sampling, Geophysical Surveying, Hyperspectral Analysis, Baseline Water Quality Sampling and Archaeological Efforts	Dolphin/Tolovana and Saddle Areas

Since 2011, exploration has focused primarily on the Dolphin-Cleary Zone to expand the existing resource and to evaluate the potential for increased grade. During 2023, Freegold drilled 37 holes with an aggregate length of 22,098 meters, mostly on the western margin of the area that has been tested by drilling to date, and in early 2024, drilled two more holes in the same area with an aggregate length of 1,697.7 meters. Table 1.2 lists the number of holes drilled by Freegold. By the beginning of 2024, a total of 799 holes had been drilled (196,959 m) by Freegold and previous operators. The relevant portion of this information has been used to generate the updated mineral resource estimate (MRE) for the Dolphin-Cleary Area described in Section 14 of this Technical Report.

Table 1.2 Golden Summit Freegold Drilling by Year 1995 – 2024

Year	# Holes	Metres
1995	20	1,965.00
1996	33	3,506.50
1997	4	578.5
1998	3	731
2001	1	304.8
2003	3	411.7
2004	13	2,604.60
2008	26	3,098.80
2011	47	9,842.60
2012	48	14,916.60
2013	13	5,138.60
2017	29	1,931.90
2020	18	8,845.00
2021	69	40,314.10
2022	44	34,669.60
2023	37	22,098.00
2024	2*	1,697.70
TOTAL	**410**	**152,655.00**

A 2024 drill program is currently in progress. Only two holes from the 2024 program were included in the current report, as assays are still pending.

1.6 MINERAL RESOURCES

This report contains a mineral resource estimate (MRE) that is an update of the 2023 MRE and includes data from the 2023 drill program on the Property and is based on 61,999 assays from 444 drillholes. The MRE has been constrained by two lithological domains: intrusive and schist. The intrusive is comprised of separate granodiorite and tonalite phases but as these have the same gold grade distribution and bulk density, they were modelled as a single unit. Because the schist domain is far more extensive than the volume of rock tested by drilling, the lithological domains were further constrained by a 0.2 g/t gold grade shell. Mineralization has been divided into oxidized and hypogene (unoxidized) phases as the basis for reporting the resource.

The estimate was made using three-meter composites and 10x10x10 meter blocks. Gold grades were interpolated by ordinary kriging and the resultant resource was constrained by a conceptual pitshell.

The resource is divided into pit-constrained oxide with a base case cutoff grade of 0.15 g/t Au, pit-constrained hypogene with a base case cutoff grade of 0.50 g/t Au, and under-pit hypogene resources with a base case cutoff grade of 0.75 g/t Au. These resources are summarized in Table 1.3.

Table 1.3 Golden Summit Mineral Resource Estimate

Cutoff Au g/t	Classification	Au g/t	Tonnes	Ounces
	Pit-Constrained Oxide			
0.15	Indicated	0.49	59,414,000	937,000
0.15	Inferred	0.45	3,252,000	47,000
	Pit-Constrained Hypogene			
0.5	Indicated	1.08	346,304,000	12,050,000
0.5	Inferred	1.04	308,311,000	10,306,000
	Under Pitshell (Hypogene)			
0.75	Indicated	1.29	2,867,000	119,000
0.75	Inferred	1.34	22,900,000	986,000

a) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
b) There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
c) Pit-constrained oxide resources are stated at a gold cutoff grade of 0.15 g/t and pit-constrained primary resources at a cutoff grade of 0.50 g/t; underground resources are stated at a cutoff grade of 0.75 Au g/t.
d) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
e) Mineral Resource tonnage and grades are reported as undiluted.
f) Mineral resource estimate is current as of September 09, 2024

1.7 RECOMMENDATIONS

The following recommendations are made based on work completed to date:

- Additional infill drilling should be undertaken to increase the Indicated Resource by bringing more of the Inferred Resource into the Indicated category to be followed by the completion of an updated MRE.
- Additional expansion drilling is warranted towards the west to test the extensive soil geochemical anomaly.
- Additional drilling is warranted to test additional targets on the Property;
- A combined Lidar/magnetic survey is warranted across the property.
- Additional metallurgical testing should be completed to define potentially viable extraction processes and;
- Continuing environmental baseline studies, archaeological and cultural resources work.

If successful, these activities will enable more comprehensive engineering/economic studies to be completed, leading to a Preliminary Feasibility Study (“PFS”).

15,000 meters diamond drilling and updated MRE	$10,000,000
Geophysics	$200,000
Metallurgy	$400,000
Baseline Environmental studies, groundwater testing, cultural resource and archaeological work	$400,000
Contingency	$1,200,000
	$12,200,000

2.0 INTRODUCTION

Freegold Ventures Limited (Freegold) has retained Tetra Tech, Canada Inc. (Tetra Tech), to prepare a National Instrument (NI) 43-101 Technical Report containing a mineral resource estimate (MRE) for the Golden Summit Property based on assay data obtained from drilling to the beginning of 2024.

In response to that request, Tetra Tech has completed an MRE based on assay data obtained from drilling up to the end of 2023 and the first two holes from the 2024 campaign, and has incorporated that MRE into this Technical Report, which is compliant with NI 43-101.

Information used in the preparation of this Report is listed in Section 27.

All units of measurement used in this report are metric unless otherwise stated. Historical grades and tonnages are reported as originally published. Gold grades are reported as referenced and conversion factors are listed below. Drillhole collar locations are referenced to the Universal Transverse Mercator (UTM) coordinate system, NAD 27 Alaska, Fairbanks Meridian (F.M.).

The author inspected the Property November 11-12th, 2022, September 12th, 2023, and October 17th, 2024, during which drill hole locations, an active drill site, core processing and sample preparation facilities were inspected, and core logging and sample preparation procedures were reviewed. In addition, discussions were held regarding property geology and the style and controls of mineralization. Further details of this site inspection are provided in Section 12. Data Validation.

3.0 RELIANCE ON OTHER EXPERTS

Tetra Tech has relied upon Freegold for information regarding the legal description of the Property, the nature and extent of Freegold’s title to the Property, any royalties, back-in rights, or other encumbrances and agreements to which the Property might be subject, permitting requirements and permits in place, and any environmental liabilities to which the Property might be subject.

Tetra Tech has obtained this information from Kristina Walcott, President and CEO of Freegold.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 LOCATION

The Property is located 32 km by road northeast of the City of Fairbanks, Alaska, United States of America, in the north portion of the Fairbanks Mining District (Figure 4.1). The Property is situated in Township 3N, Ranges 1E, 2E, and 3E of the Fairbanks Meridian, centered at approximately 479250 E, 7215464 N (UTM Zone 6 NAD 27 Alaska, Fairbanks Meridien).

Figure 4-1 Golden Summit Property Location Map

Source: Freegold 2024

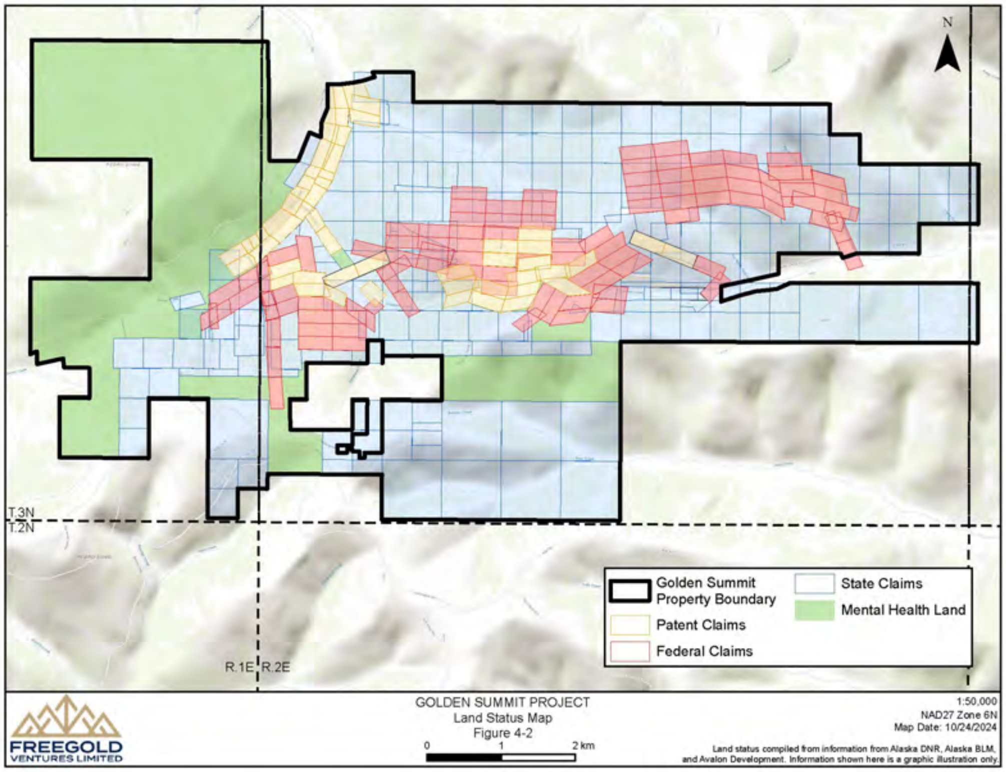
The Property is comprised of 53 patented claims, 107 unpatented federal claims managed by the U.S. Department of the Interior, Bureau of Land Management (BLM), and 241 State of Alaska claims managed by the State of Alaska Department of Natural Resources (DNR). It covers a total area of 6,109.6 hectares (Table 4.1). A lease, owned by the State of Alaska Mental Health Trust, comprises 1,373 ha.

Table 4.1 Summary of Claims Comprising the Golden Summit Property

Claim Type	Total Claims	Total Area (sq. mi)	Total Area (acres)	Total Area (hectares)
Federal Patented	53	1.08	693.6	280.6
Federal Unpatented	107	3.00	1925.0	779.0
State of Alaska	241	14.2	9086	3677
MHT Lease		5.30	3394.0	1373.0
Total	**401**	**23.58**	**15098.6**	**6109.6**

The agreements under which Freegold holds non-owned claims are summarized below. Total acreage under claim is greater than total area as there are overlapping State and Federal claims. Figure 4.2 shows the current land status and extent of the Property.

Figure 4-2 Golden Summit Project Land Status Map



Source: Freegold 2024

4.2 CLAIMS & AGREEMENTS

No annual payments or work are required by law in connection with patented federal mining claims. Annual claim maintenance fees or rents for unpatented federal claims or state claims vary according to the type of claims, claim size, and age, are adjusted every five to ten years, and are due and payable by August 31 of each year for unpatented federal claims, and November 30 of each year for state claims. Annual maintenance fees and rents that currently must be paid to maintain the claims in good standing are $21,400 (Federal Bureau of Land Management (BLM)) and $56,225.00 (State of Alaska Department of Natural Resources (DNR)).

No minimum amount of work is required by law to be performed on or for the benefit of the unpatented federal claims to maintain them in good standing. To maintain state claims in good standing, however, at least $2.50 per acre per year of work must be performed on or for the benefit of state claims, though work performed more than the minimum may be carried forward and used to satisfy future work requirements for up to four years. All unpatented federal claims and state claims included in the Property are currently in good standing with the BLM and DNR, with excess work banked for a maximum of four years into the future.

The 53 patented mining claims (fee simple lands) have not been surveyed by a registered land or mineral surveyor and there is no State or federal law or regulation requiring such a survey. Survey plats for the townships where the Property is situated and for all patented mining claims are open to public inspection at the BLM.

Freegold currently holds a valid Five Year Hardrock Exploration Permit from the State of Alaska (2021-2026) that enables the Company to conduct exploration within the Property. The land on which the Property is situated is zoned as Mineral Land by the Fairbanks North Star Borough, giving mineral development activities first priority use. However, as the Project moves forward, additional permits and approvals will need to be acquired from federal, state, and local regulatory agencies. Freegold also expects that it will need or desire to acquire certain additional property rights. For example, depending on how the Project moves forward, Freegold may need or wish (a) to extend or amend one or more of the agreements described in Sections 4.2.1 and 4.2.7, (b) to include additional lands in its Mental Health Trust (MHT) lease described in Section 4.2.6 below, or (c) to acquire certain surface rights from DNR or other third parties. There currently are no unusual social, political or environmental encumbrances to mining on the Property.

Some of the claims included in the Project are owned outright by Freegold; Freegold holds others under long-term leases. Some of the claims included in the Project are subject to various NSR royalties ranging from 2% to 5%, and all state claims are subject to a royalty payable to the State of Alaska equal to 3% of net income.

For the claims included in the Project that are subject to long-term leases, Freegold is required to make payments as per schedules 4.1 (i) through 4.1 (vii).

In 1997, Freegold acquired certain claims from Fairbanks Exploration Inc (FEI), subject to a 7% carried working interest held in trust by Freegold for FEI. After production is achieved, FEI must contribute 7% of any future approved budget. The same claims are also subject to a 2% NSR payable to FEI. Freegold has a 30-day right of first refusal in the event that the 7% carried working interest of FEI or the NSR is to be sold. Freegold can also purchase the NSR at any time following the commencement of commercial production, for a price equal to its then net present value (NPV) as determined in accordance with an agreed-upon formula.

(i) KEYSTONE CLAIMS

By agreement dated May 17, 1992, the Company entered into a lease agreement, subsequently amended, with Keystone Mines Partnership. The agreement was renegotiated in 2000 and subsequently amended. The Company agreed to make advance royalty payments. The Company has paid $2,405,000 to June 30, 2024 and under the current agreement will pay $75,000 per annum for as long as the advance royalty payment is being paid or mining, permitting or processing is being conducted on the Property. These claims are subject to a 3% NSR. If commercial production is achieved, the advance royalty payments may be deducted from royalties owing.

(ii) NEWSBOY CLAIMS

By lease agreement dated February 28, 1986, subsequently amended, the Company assumed the obligation to make advance royalty payments that amounted to $285,000 to June 30, 2024. On February 22, 2022, the Company received a lease extension for an additional 5-years from March 1, 2022, to February 28, 2027. The minimum royalty payable under the amended lease will be $12,000 per year for the term of the lease. The lease payment of $12,000 for 2024 was paid. The claims are subject to a 4% NSR. The Company has the option to purchase the NSR for the greater of the current value or US$1,000,000 less all advance royalty payments completed to date.

(iii) TOLOVANA CLAIMS

In May 2004, the Company entered into an Agreement with a third party (“the Seller”) whereby the Seller transferred 100% of the rights via a Quit Claim Deed to a 20-year lease on the Tolovana Gold Property. Under the terms of the Agreement, the Company assumed all of the Seller’s obligations under the lease, which included making annual lease payments. The Company paid $344, 750 to June 30th, 2024 (December 31, 2023 - $340,250). The Property was subject to a sliding scale NSR as follows: 1.5% NSR if the price of gold is below $300 per ounce 2.0% in the event the price of gold is between $300 and $400, and a 3.0% in the event gold is above $400. In 2024, the Company exercised its right to purchase the state and federal mining claims that had been previously subject to the 20-year lease by making a payment of $655,250 ($1,000,000 – less any amounts paid). The Tolovana exercise eliminates the NSR under the lease and further solidifies Freegold’s land position.

(iv) GREEN CLAIMS

On December 16, 2010, the Company entered into a 20-year lease agreement with Christina Mining Company, LLC to lease certain mineral claims in the Fairbanks Mining District of Alaska known as the Green Property. The Company has paid $1,550,000 to June 30, 2024 (December 31, 2023 - $1,550,000) and under the current agreement will pay $200,000 per annum until 2028 and $250,000 in 2029. Pursuant to the agreement, the Company was required to incur $1,000,000 in cumulative exploration expenditures (incurred). The claims are subject to a 3% NSR. The Company paid $100,000 in 2022 towards the 2022 advance royalty payment and the remaining $100,000 was paid in 2023 in addition to the $200,000 required for 2023.

(v) CHATHAM CLAIMS

The Company has a 100% interest in certain mineral claims known as the Chatham Property. The claims are subject to a 1.75% to 2.00% NSR.

(vi) ALASKA MENTAL HEALTH TRUST PROPERTY

By lease agreements from June 1, 2012 and subsequent, the Company entered into mining leases on certain mineral claims in the Fairbanks Mining District of Alaska known as the Alaska Mental Health Trust Property.

Lease for 403 acres:

The Company has paid lease payments of $119,705 to June 30, 2024 (December 31, 2023 - $107,615) and will pay $12,090 per annum until 2026 and $16,120 per annum from 2027 to 2029. The Company has met the cumulative exploration expenditure requirements of $1,293,630 to December 31, 2023 (2022 - $1,150,565) and is required to incur exploration expenditures of $227,695 per annum from 2024 to 2026 and $282,100 per annum from 2027 to 2029.

Lease for 627 acres:

The Company has paid lease payments of $97,969 to June 30, 2024 (December 31, 2023 - $82,294) and will pay $15,675 per annum until 2026 and $18,810 per annum from 2027 to 2029. The Company has met the cumulative exploration expenditure requirements of $1,269,675 to December 31, 2023 (2022 - $1,047,090) and is required to incur exploration expenditures of $282,150 per annum from 2024 to 2026 and $354,255 per annum from 2027 to 2029.

Lease for 546 acres:

The Company has paid lease payments of $32,760 to June 30, 2024 (December 31, 2023 - $24,570) and will pay $8,190 per annum until 2025, $10,920 per annum from 2026 until 2028 and $13,650 from 2029 to 2031. The Company has met the cumulative exploration expenditure requirements of $333,060 to December 31, 2023 (2022 - $204,750) and is required to incur exploration expenditures of $128,310 per annum from 2024 to 2025, $193,830 per annum from 2026 to 2028 and $245,700 per annum from 2029 to 2031.

Lease for 1,818 acres:

The Company has paid lease payments of $54,540 to June 30, 2024 (December 31, 2023 - $36,360) and will pay $27,270 per annum from 2025 until 2027 and $36,360 per annum from 2028 to 2030. The Company has met the cumulative expenditure requirements of $454,500 to December 31, 2023 (2022 - $227,250) and is required to incur exploration expenditures of $227,250 per annum until 2024, $454,500 per annum from 2025 to 2027 and $681,750 per annum from 2028 to 2030.The claims will be subject to the following NSR: Less than $500 – 1%, $500 -$700 – 2%, $700-$900 –3%, $900-$1,200 – 3.5%, above $1,200 – 4.5%

(vii) CHEECHAKO PROPERTY

By agreement effective November 29, 2023, the Company purchased certain mineral claims in the Fairbanks Mining District of Alaska. The purchase price consists of annual payments of $100,000 until the earlier of the seller's death or a total of $1,000,000. The Company has paid $100,000 to June 30, 2024 (December 31, 2023 - $100,000).

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOLOGY

5.1 ACCESSIBILITY

The Property is located within 32 km of the city of Fairbanks, the second largest city in Alaska, with a population within the greater Fairbanks area of approximately 100,000. Fairbanks serves as a major population and supply center for the interior region of Alaska.

Access to the Property from Fairbanks is by the paved Steese Highway. The Steese Highway transects the Property and connects to State and privately maintained gravel roads that allow easy year-round access to most areas of the Property. The Property has cellular phone service, and a high-voltage power line passes within seven kilometers.

5.2 CLIMATE

Sub-freezing temperatures are the norm in this region of Alaska during the six to eight months of winter. Following winter, four to six months of warm summer weather prevails. Precipitation in this part of Alaska averages 33 cm, occurring mostly as snowfall between October and March. Permafrost is discontinuous throughout the area. Drilling is possible on a year-round- basis on the Property.

5.3 LOCAL RESOURCES

Fairbanks is the seat for the Fairbanks NorthStar Borough, a region that supports a population of approximately 100,000 and has excellent labor and services infrastructure, including rail and international airport access. The Fairbanks International Airport is served by several major airlines with numerous scheduled daily flights. Fairbanks is also served by the Alaska Railroad, and is connected to Anchorage and Whitehorse, Canada, by well-maintained paved highways.

The main campus of the University of Alaska is located in Fairbanks in addition to State and Federal Offices. Major employers within the Fairbanks area include Fort Knox (Kinross), Fort Wainwright (U.S. Army), the University of Alaska, as well as numerous state and federal agencies. Exploration and development costs in the Fairbanks area are similar to those common in the western United States.

5.4 PHYSIOGRAPHY

The terrain in the Property area is comprised of low, rounded hills cut by steep-sided valleys and streams. Elevations on the Property range from 305 m to over 670 m above sea level. Outcrops are rare. Vegetation consists of a tundra mat that supports subarctic vegetation (alder, willow, black spruce, aspen and birch). A variable layer of aeolian silt covers most of the Property. Permafrost is limited to small discontinuous lenses on steep, poorly drained north-facing slopes and does not pose an obstacle to exploration or mining activities.

To the extent that can presently be foreseen, there are sufficient surface rights for mining operations, potential tailings storage areas, potential waste disposal areas, help leach pad areas if appropriate, and potential processing plant sites. Power can be obtained from the State grid and there are adequate sources of water locally. Given the level of mining activity in the area, mining personnel are readily available.

6.0 HISTORY

Placer and lode gold mining have occurred almost continuously in the Property area since gold was discovered in the district in 1902. Over 9.5 million ounces of placer gold have been recovered from the Fairbanks Mining District, of which 6.75 million ounces have been recovered from streams that drain the Property (Freeman, 1992e). In addition, over 506,000 ounces of lode gold were recovered from past-producing mines on the Property (Freeman and others, 1996). More than 80 lode gold occurrences have been documented in the Property area.

Several historic underground gold mines are located on the Property and the area was extensively explored by early prospectors using pick and shovel and primitive mechanical methods. For detailed summaries of exploration and mining activities conducted on and adjacent to the Property through the mid-1940's see Freeman, 1991. After the closure of the Cleary Hill Mine in 1942 and until 1969, the only exploration activity on the Property was some small-scale lode mining operations.

Table 6.1 summarizes exploration activities on the Property from 1969, when modern exploration began, until it was acquired by Freegold in 1991.

In 1969, International Minerals and Chemical Corporation (IMC) explored the Property for a year. There was no further exploration until 1978 when Placid Oil Company (POC) acquired the Property and conducted a seven-year exploration campaign before going bankrupt in 1985. From 1985, there was no exploration activity until Fairbanks Exploration Incorporated (FEI) acquired the Keystone and Christina claim groups in 1987 and completed limited exploration programs over the next few years. In 1991, through various joint agreements with FEI and other claim owners, Freegold acquired an interest in the Property.

Table 6-1 Summary of Pre-Freegold Property Exploration

Company	Years	Exploration Activity	Principal Targets
International Minerals & Chemicals	1969	Trenching RC Drilling	Saddle Zone, Circle Trail Zone
Placid Oil Company	1978 – 1986	Trenching, Core and RC Drilling, Adit Excavation, Christina Feasibility Study	Christina, Pioneer, American Eagle and Hi Yu Veins
SedCore	1980 – 1981	Diamond Core, RC drilling, Resource Estimate	Tolovana Shear Zone
Fairbanks Exploration	1988	Bulk sampling	Christina Vein
Keystone Mines Partnership	1989	Bulk Sampling of Mine Waste Dumps	American Eagle, Hi Yu, Cleary Hill areas
British Petroleum/Fairbanks Exploration(FEI) JV	1987 – 1988	Trenching, RC drilling	Too Much Gold prospect, Saddle Zone, Circle Trail Zone, Christina Vein

Since acquiring an interest in the Property, Freegold has conducted extensive geologic mapping, soil sampling, trenching, rock sampling, geophysical surveys, core, reverse circulation, and rotary air blast drilling.

Historically, approximately 506,000 ounces of gold were produced from several mines within the boundaries of the current Property.

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 REGIONAL GEOLOGY

The Golden Summit Property is in the west-central part of the Yukon-Tanana Terrane (YTT), an arcuate belt extending from the southeastern Yukon Territory into interior Alaska (Figure 7.1). The YTT is bounded on the north by the Tintina-Kaltag fault system and on the south by the Tanana-Denali-Farewell fault system. These fault systems form zones of major right-lateral strike-slip movement.

Figure 7-1 Yukon-Tanana Terrane

Source: Modified from Fama Clamosa -https://commons.wikimedia.org/w/index.php?curid=71271841

The YTT is a diverse litho tectonic terrane of Upper Paleozoic and older age, largely of continental affinity, and consisting primarily of quartzitic, pelitic, and calcareous metasedimentary rocks and local mafic and felsic meta-igneous rocks. These protoliths were intruded by Mesozoic and Cenozoic-age granitic rocks (Foster and others, 1994; Newberry, 2000).

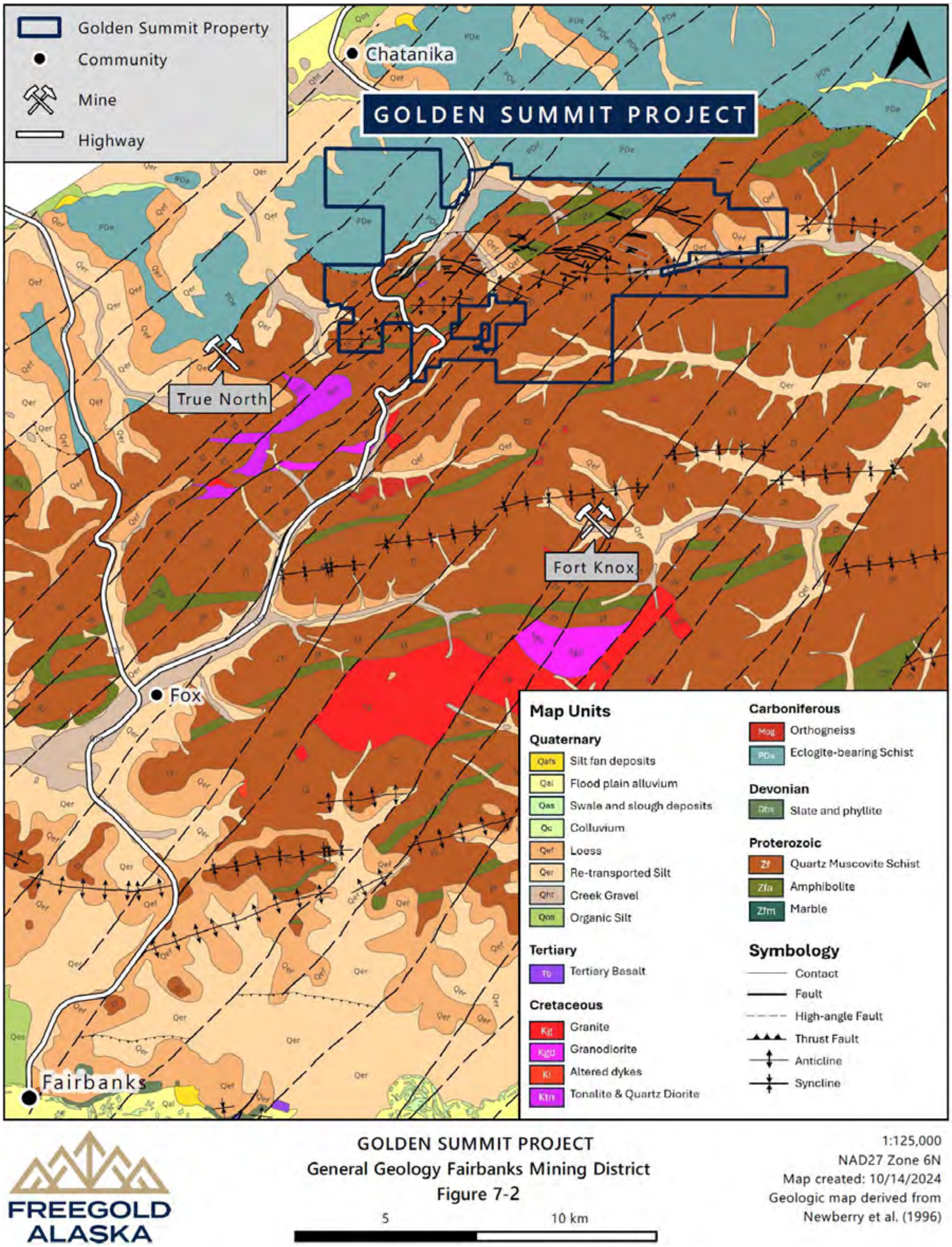
Igneous rocks are widespread throughout the YTT but are most abundant in the eastern portion. Age dates of plutonic rocks in the YTT generally cluster into three distinctive groups: 1) 215 - 188 million years ago (Ma), (Late Triassic–Early Jurassic); 2) 110 - 85 Ma (mid- to Late Cretaceous); and 3) 70 - 50 Ma (Latest Cretaceous-Eocene). Within the 110 - 85 Ma group, most age dates cluster within a sub-group ranging from 95 - 90 Ma and are typically referred to as the “Tombstone” suite (Mortinson et al, 2000). Tombstone suite compositions are predominantly granite, granodiorite, quartz monzonite, and diorite and are inferred to have been derived from crustal melts. Volcanic rocks in the YTT are far less voluminous than plutonic rocks, range from Cretaceous to Cenozoic in age, from rhyolite to basalt in composition, and occur in scattered locations throughout the YTT.

7.2 FAIRBANKS DISTRICT GEOLOGY

Bedrock geology of the Fairbanks Mining District, including the Property, is dominated by a northeast lithologic and structural trend covering an area 50 by 25 km (Robinson and others, 1990; Newberry and others, 1996). The Property is underlain by Lower to Middle Paleozoic-age metavolcanic and metasedimentary rocks of the Cleary Sequence and Fairbanks Schist, adjacent to the east-trending Chatanika thrust fault (Figure 7.2). Rocks of the Fairbanks Schist and Cleary Sequences are exposed at Golden Summit in the Cleary antiform, the more northerly of two northeast-trending antiformal belts that form distinctive marker horizons in the mineralized portions of the district. Lithologies in the Cleary Sequence include quartzite, massive to fine-laminated mafic to intermediate flows and tuffs, calc-schist, black chloritic quartzite, quartz-sericite schist of hydrothermal origin and impure marble. Lithologies in the Fairbanks Schist include quartz muscovite schist, micaceous quartzite, and biotite quartz mica schist. These lithologies have been metamorphosed to lower amphibolite grade.

Rocks of the Fairbanks Schist and Cleary Sequence have been overthrust from the northeast by eclogite to amphibolite facies rocks of the Chatanika Terrane (Newberry and others, 1996;). The Chatanika Terrane consists of quartz muscovite schist, carbonaceous quartzite, impure marble, garnet feldspar muscovite schist, and garnet-pyroxene eclogite that have yielded Ordovician Ar40/Ar39 age dates ranging from 470 to 500 Ma (Douglas, 1997). Motion on the Chatanika thrust fault has been dated at approximately 130 million years and resulted in the structural preparation of favorable host units in the Chatanika Terrane and adjacent lower plate rocks. Diamond drilling and trenching on the Property by Freegold have encountered Chatanika Terrane rocks over a zone extending for up to 1,600 meters south of the mapped contact of the Chatanika Terrane, suggesting that the contact between the upper and lower plates is a series of en-echelon, low-angle structures. This mixed terrane can be distinguished on airborne magnetic maps as a zone of intermediate magnetic intensity lower than the highly magnetic rocks of the Chatanika Terrane, but more magnetic than the Fairbanks Schist (Freeman, 2009).

Figure 7-2 General Bedrock Geology of the Fairbanks Mining District



Source: Freegold 2024

Intrusive rocks in the Fairbanks District have yielded Ar40/Ar39 and K-Ar dates of 85 to 95 million years (Freeman and others, 1996). These intrusives range in composition from diorite to granite and possess elevated Rb/Sr ratios indicative of significant crustal contribution to subduction-generated magmas. Several intrusive bodies of granodiorite to aplite composition are present in the Property area.

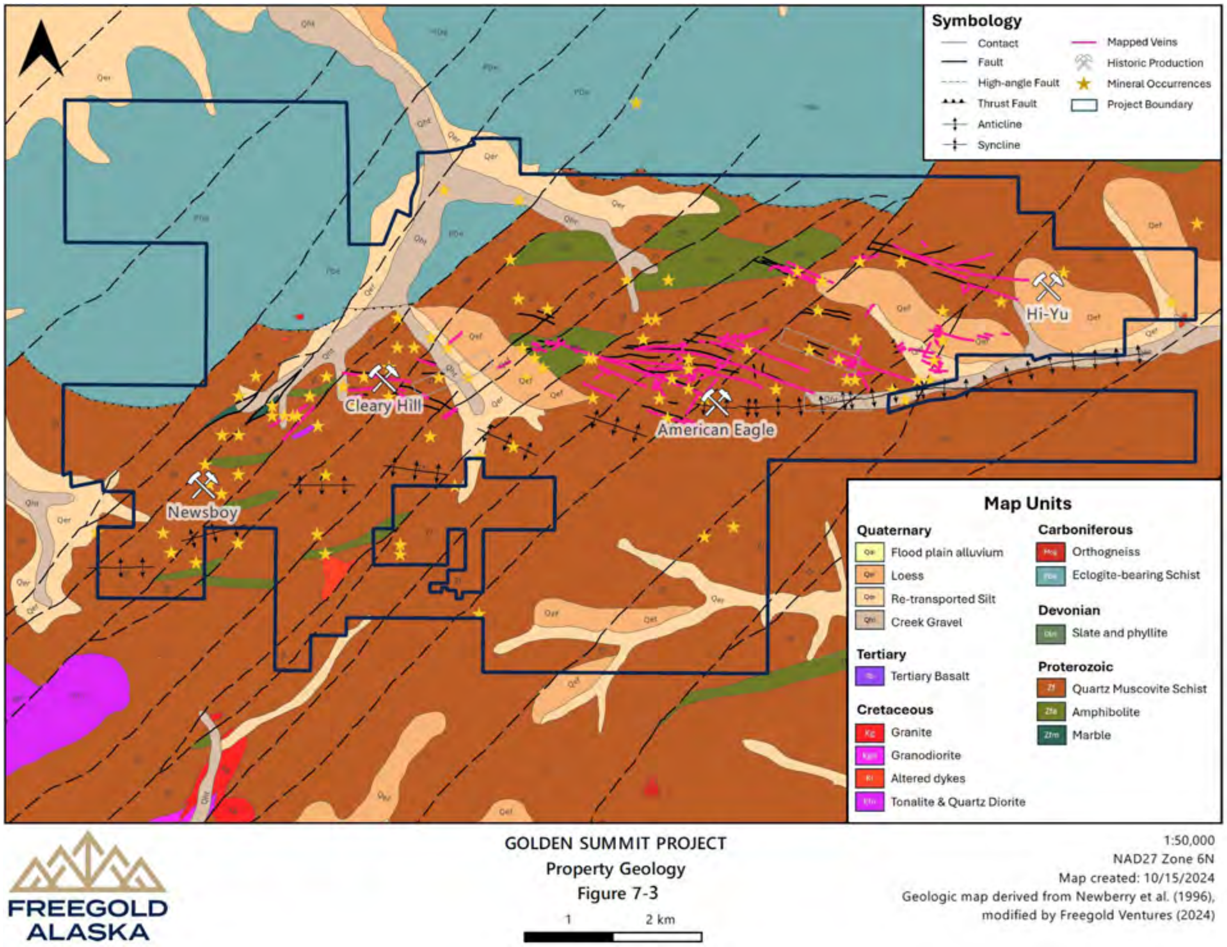
Rocks on the Property are folded about early northwest and northeast-trending, isoclinal, recumbent fold axes that were overprinted by an open-folded, N60°-80°E trending event (Hall, 1985). Upper plate rocks of the Chatanika Terrane have been affected by more intense northwest and northeast-trending isoclinal and recumbent folding followed by folding along the same N60-80E trending axis that affected lower plate rocks. Lithologic packages in both the upper and lower plates are cut by steep-dipping, high-angle, northwest and northeast-trending shear zones, some of which are mineralized (Figure 7.2). Bedrock exposed in trenches in the Cleary Hill Mine area indicates that numerous low-angle structures are present, some of which are mineralized. Late, post-mineral, north-trending structures with normal motion further dissect the Property. Airborne magnetic data in this part of the Fairbanks District indicate the presence of district-scale east- and northeast-trending structures that appear to postdate the N60-80E folding (DGGS, 1995). Emplacement of gold mineralization within the Property postdates the first phase of folding and is contemporaneous with, or slightly younger than, district-scale northeast-trending structures and plutonic activity. Excavations completed in the Cleary Hill area clearly indicate that the strike and dip of gold-bearing quartz veins were influenced by pre-existing fold geometry.

7.3 GOLDEN SUMMIT PROPERTY GEOLOGY

The following summary of the general geology of the Property is derived in large part from Freeman (2009), Adams and Giroux (2012), and Abrams et al. (2016).

Three main rock units underlie the Property: Fairbanks Schist, Chatanika Terrane, and intrusive rocks (Figure 7.3). Rocks of the Fairbanks Schist and Chatanika Terrane have both been subjected to one or more periods of regional metamorphism. The intrusive bodies are post-metamorphism. Chatanika Terrane rocks that underlie the northernmost portion of the Property occur structurally above the Fairbanks Schist and north of the Chatanika Thrust Fault. Intrusive rocks are poorly exposed and are primarily seen in drill core, in trenches, and in the Dolphin/Tolovana Area.

Figure 7-3 Golden Summit Property Geology



Most of the Property is underlain by the Fairbanks Schist, that consists mainly of quartz mica schist and micaceous, massive to laminated quartzite, with lesser amounts of amphibolite, chlorite schist, calc-schist, hornfels and marble. A unit within the Fairbanks Schist, referred to as the Cleary Sequence, consists of three mappable sub-units containing distinctive and highly variable lithologies. The lower portion of the Cleary Sequence (~140 meters thick) consists of massive, mafic metavolcanic rocks (flows and tuffs), and minor actinolite schist, quartzite, and dolomite. The middle portion of the Cleary Sequence (~90 meters thick) consists of massive quartzite, feldspathic quartz schist, and quartz mica schist. The upper portion (~75 meters thick) is like the middle portion but is distinguished by interlayered marble and minor amounts of garnet-bearing schist. Locally, the Cleary Sequence is capped by a distinctive grey, sulfide-bearing marble unit up to 15 meters thick. This marble unit has been intersected by drilling in the eastern area of the Property, e.g. DDH GS2130, 2131, as well as possibly at depth in the western area of the Property, e.g. DDH GS2221 and 2227, suggesting that these intercepts may represent the upper and lower limbs of the Cleary anticline. Other lithologic units, including a graphitic schist that underlies the pyritic marble, mimic the antiformal folding of the marble.

Chatanika Terrane rocks on the Property include muscovite quartzite, coarse-grained muscovite schist, amphibolite, massive actinolite greenschist, chlorite schist, and local garnet-diopside eclogitic rocks (Swainbank, 1971). Chatanika Terrane mafic rocks are not readily discernible from mafic rocks of the Fairbanks Schist, either in hand specimen or drill core, which has created difficulties with mapping, logging and establishing a stratigraphic section in the Tolovana Mine and Cleary Hill Mine areas.

The Dolphin stock is located on the ridge between Bedrock and Willow Creeks. Drillcore logging identified five intrusive phases within the Dolphin stock: 1) fine- to medium-grained, equigranular to weakly porphyritic biotite granodiorite; 2) fine- to medium-grained, equigranular to weakly porphyritic hornblende-biotite tonalite; 3) fine-grained biotite granite porphyry; 4) fine-grained biotite rhyolite to rhyodacite porphyry; and 5) rare fine-grained, chlorite-altered mafic dikes (Adams and Giroux, 2012). The limits of the stock have not been determined but drilling to date indicates that at surface the stock is approximately 500 m in width, plunges steeply to the southwest, and has been traced by drilling to a vertical depth of approximately 800 m.

Based on core and thin section studies, Raymond (2018) noted that due to extensive hydrothermal alteration of the intrusion, identifying rock types in hand sample and thin section and by standard compositional techniques, e.g., SiO2 vs. Na2O + K2O, has proven problematic. By plotting weight % TiO2 vs. P2O5 obtained from XRF analyses and four-acid digest ICP-MS data, two distinct population clusters appear. By comparison with analyses of the least-altered intrusive rocks from the Fairbanks district, it can be inferred that the igneous units of the Dolphin Stock were originally of granite and tonalite composition. Because there is no gradational transition through an intermediate granodiorite unit, they were most likely derived from two separate magmatic bodies rather than in-situ fractionation from a single parent. Tonalite is concentrated along the northern and eastern margins of the stock with granite comprising the rest of the body. Tonalite xenoliths in granite and granite dikes intruding tonalite indicate that tonalite is the older unit.

The presence of ilmenite rather than magnetite indicates that the Dolphin stock is a member of the reduced igneous intrusion suite as described by Hart (2007).

Small dikes of granodiorite cutting tonalite have been observed in core, and altered granitic dikes cut both altered and unaltered granodiorite and tonalite, suggesting multiple phases of intrusion and hydrothermal alteration. Two radiometric age dates, including two sericite Ar40/Ar39 plateau age dates (McCoy, 1996), place some constraints on the timing of crystallization and mineralization. The sericite ages were obtained from two different samples representing two distinctly different styles of gold mineralization. One sample, from stockwork style mineralization, was 90.1 Ma in age; another sample, from a sericitic shear zone, was 88.3 Ma. These ages are similar to ages from Fort Knox (86.3-88.2 Ma).

Nearly all rocks are highly deformed. Primary foliations (S0) in the Fairbanks Schist generally dip north on the north half of the Property and generally dip south on the south half of the Property, defining the large-scale northeast-trending Cleary antiform. The intensity of deformation increases to the north with proximity to the Chatanika Thrust fault. The Chatanika Thrust fault is thought to represent one of the earliest deformation events in the area.

Figure 7-4 Cut HQ Sample of Vein

Cut HQ core sample of vein with quartz (translucent, off-white) and dolomite (opaque, bright white) with visible gold occurrence within vein. Mineral identification supported by SWIR spectral data (GS2337 @ 774.8m

Source: Freegold 2024

7.4 MINERALIZATION

Gold mineralization is spatially associated with the Dolphin stock but predominantly occurs in the Fairbanks Schist. Within the area tested by drilling, the Fairbanks Schist is largely hornfelsed, presumably in response to the intrusion of the Dolphin stock.

Gold mineralization is hosted by discrete, high-grade quartz veins, veinlets, and areas of vein stockwork that form vein swarms, within a broad structural corridor comprised of the Dolphin stock and schistose Fairbanks metasedimentary rocks. The Cleary Hill Vein swarm ("CVS") mineralization dips to the south and plunges southwest towards the Dolphin intrusive, with the mineralization increasing in abundance toward the Dolphin intrusive, especially along the intrusive schist contact margins.

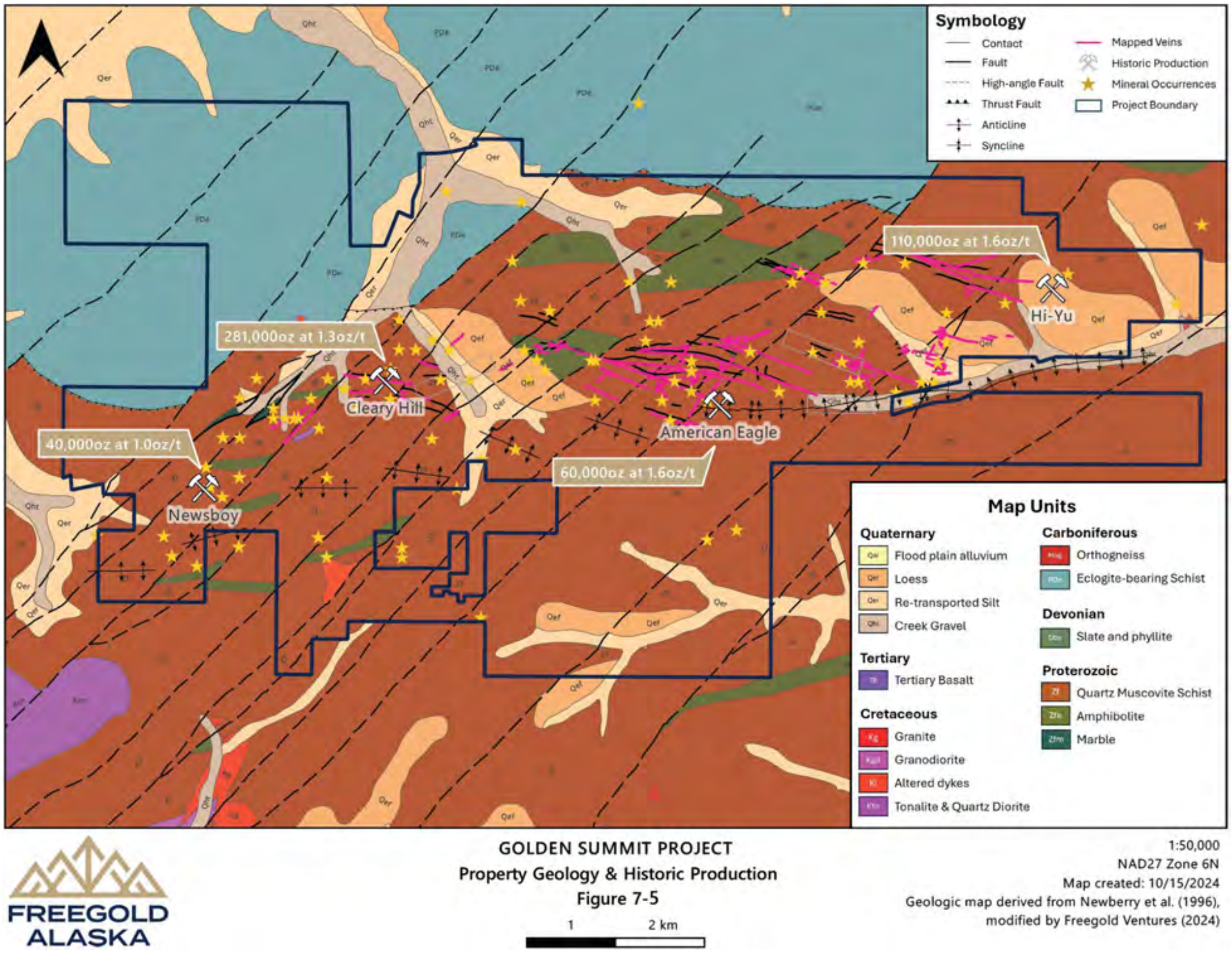
Most mineralized shear zones in the eastern area of the Property trend N60°-80°W and dip steeply to the southwest. Shear zones on the western end of the Property trend predominantly N60°-80°E and dip steeply to the north, possibly reflecting an arcuate trend around the Dolphin stock. Shear zones in the central portion of the Property, centred on the Dolphin/Cleary Hill area, trend closer to east-west with variable south dips and appear to mark a transition zone from primarily northwest trending, south-dipping shears to the east to primarily northeast-trending, north dipping shears to the west. Excavations made to collect bulk samples exposed flat-lying (10 to 30 degrees) mineralized structures that dip both to the north and south. In addition, exploration activities conducted by Freegold have identified previously unrecognized shear zones trending N30°-50°W and due north-south (Freeman and others, 1998). These shear zones possess significantly different metal suites than flat-lying structures or N80°W and N60°E trending shears. These shear zone geometries, and their distribution, may represent sympathetic structures generated by regional scale shear couples related to the Tertiary (post 55 Ma) motion of the Tintina and Denali faults (Flanigan and others, 2000).

The geometry of gold-bearing quartz veins of more than 80 known gold occurrences in the area suggests that veins tend to cluster into discrete vein swarms that are controlled by district-scale, northeast-trending structures that in the Property area are regularly spaced approximately 2.4 km apart. These structures were first identified as district-scale features by public-domain airborne geophysical surveys conducted in the mid-1990's (DGGS, 1995). The Eldorado fault, which appears to control mineralization at both the Ryan Lode and the True North deposits, is located to the west of the Property and is the best-documented of these district-scale northeast-trending structures. The Dolphin trend, located parallel to and 2,500 meters east of the Eldorado fault, is the next best-defined northeast-trending structure and is most likely critical to the mineralization in the Newsboy, Tolovana, and Dolphin/Cleary Hill that extends over a 1,300 by 600-meter area. Approximately 2,500 meters east of the Dolphin Trend, an unnamed northeast-trending structure passes through the Saddle Zone area of the Property where it may be integral to the formation of the highest known density of veins in the Fairbanks Mining District, including those hosting gold mineralization at the historic McCarty, American Eagle, Pioneer and Pennsylvania mines. Twenty-five hundred meters further east, another unnamed northeast-trending structure passes through the Hi Yu mine area and may be key to the formation of multiple veins in this area of the Property. This 2,500-meter periodicity is projected to extend to the east, where northeast structures may control mineralization on Coffee Dome, and to the west of the Eldorado Creek fault, where they may control gold mineralization in the Treasure Creek area and the Sheep Creek area of Ester Dome. Another feature of gold mineralization in the Property area is related to the structural relationship between "lower plate" rocks of the Fairbanks Schist – Cleary Sequence and "upper plate" rocks of the Chatanika Terrane. Published maps of the district (Robinson and others, 1990; Weber and others, 1992; Newberry and others, 1996) indicate that the contact between the overlying Chatanika Terrane and rocks of the lower plate is marked by a single north-dipping thrust plane that strikes northeast, according to Robinson and others (1990), or east-west according to Newberry and others (1996). Douglas (1997) dated this thrust event at 130 Ma based on data derived from a single core hole drilled by Placer Dome on the south flank of Marshall Dome near the northwestern edge of the Property. The actual contact between upper and lower plate rocks is not exposed at the surface anywhere along its mapped trace, so the direction of motion (thrust versus low-angle gravity fault) remains uncertain, and regional-scale kinematic evidence is permissible for the formation of either gravity or thrust faults. Douglas (1997) presents evidence of multiple low-angle fault events that structurally interpose thin (<75 meters) layers of upper and lower plate rocks over a 225-meter interval. Chemical evidence for structurally juxtaposed upper and lower plate rocks has also been documented in drilling in the Cleary Hill mine area (Freeman and others, 1998).

Except for gold and antimony mineralization in the vicinity of the True North deposit, published geologic maps of the district indicate that all historic lode gold, tungsten and antimony occurrences in the Project area are hosted in lower plate rocks. Geological and multi-element geochemical data suggest that all of the known lode gold occurrences within the Property are hosted in a zone containing structurally mixed lithologies derived from both upper and lower plate rocks. This mixed zone appears to be comprised of multiple en-echelon, low-angle structures that separate upper and lower plate rocks. If this interpretation is correct, the grade and geometry of gold mineralization in the Project area may be controlled in part by physical and/or chemical conditions that existed at the time of mineralization along or adjacent to en-echelon low-angle faults caused by emplacement of the Chatanika Terrane.

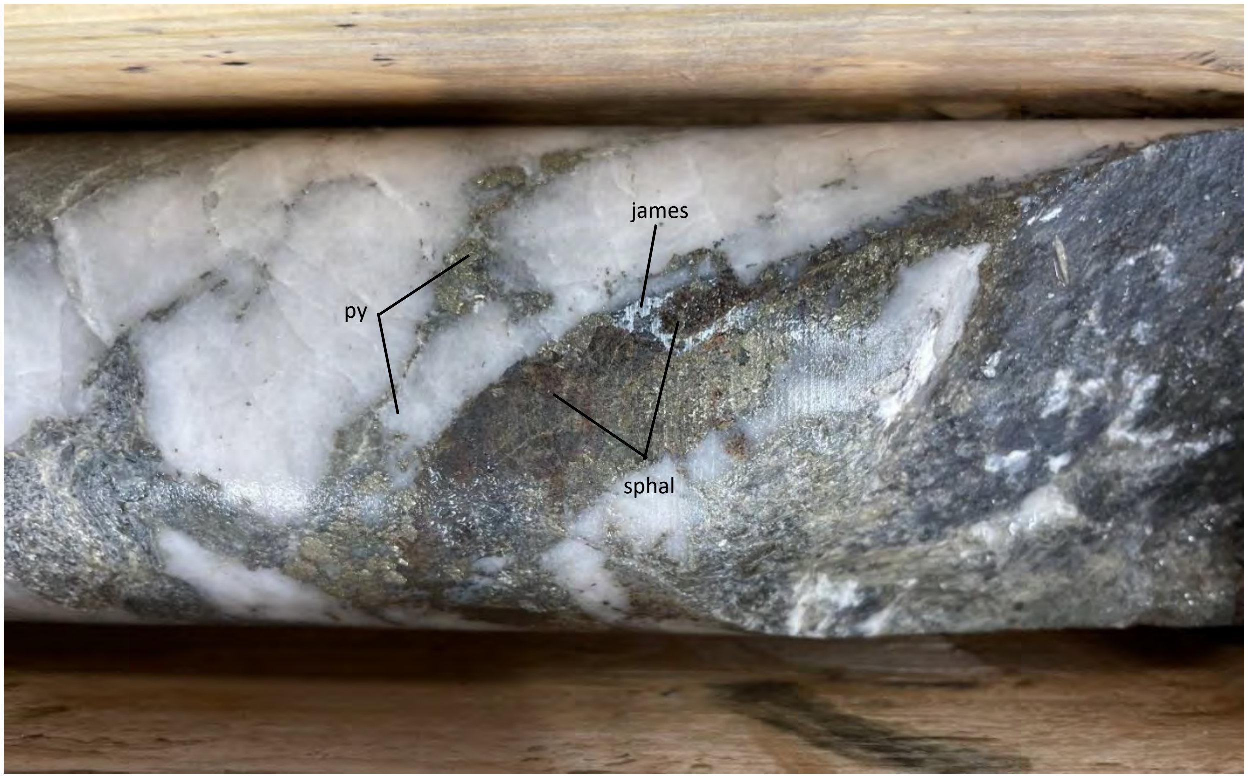
The major historic lode gold mines within the Property derived their production primarily from steep-dipping, northwest and northeast-trending, low-sulfide, gold-polymetallic quartz veins and shear zones that transect what is now thought to be the mixed upper plate - lower plate rock package (Hill, 1933; Pilkington, 1969; Metz, 1991; Freeman and others, 1996). These shear zones are characterized by a metal suite containing free gold with variable amounts of tetrahedrite, jamesonite/boulangerite, arsenopyrite, stibnite and scheelite with minor base metal sulfides. Fluid inclusion data suggest mineralization was associated with high CO2, low salinity fluids at temperatures averaging 350° Celsius (C). Lead and sulfur isotope data, tellurium geochemistry, and tourmaline compositions suggest a strong plutonic component to the Golden Summit shear-hosted mineralization (McCoy and others, 1997).

Figure 7-5 Property Geology and Historic Production



There are three main styles of gold occurrences identified on the Property: 1) intrusive-hosted sulfide disseminations and sulfide-quartz stockwork veinlets such as the Dolphin gold deposit; 2) auriferous sulfide-quartz veins; and 3) shear and breccia-hosted gold-bearing veinlets. All three types are part of a large-scale, intrusive-related gold system.

Figure 7-6 Pyrite, Sphalerite and Jamesonite Mineralization in Quartz (GS2402 @386.5m)



Source: Freegold 2024

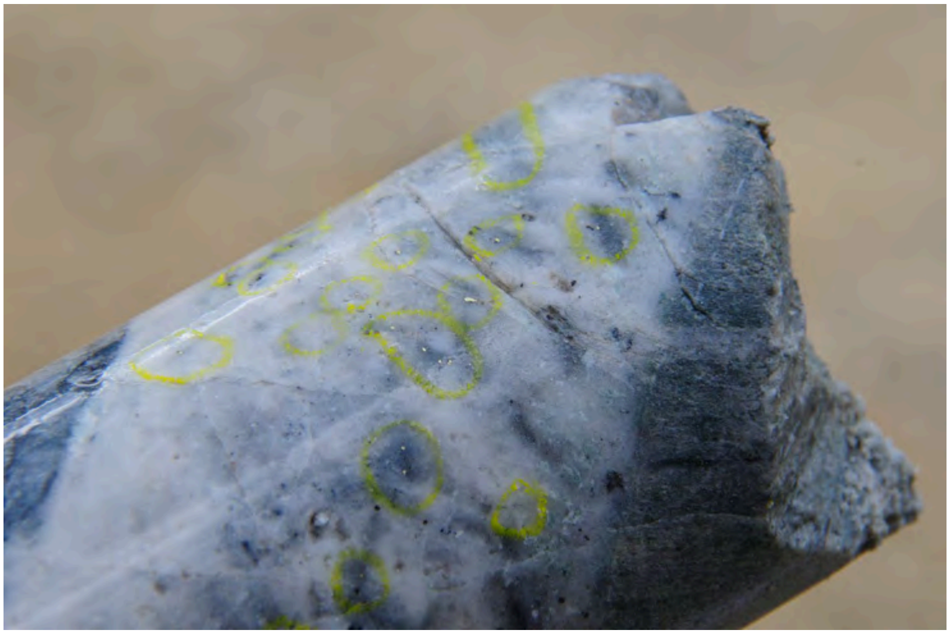
7.4.1 *Intrusive-Hosted Sulfide-Quartz Veinlets*

The highest gold grades in the Dolphin intrusive are associated with sulfide disseminations and 0.1 to 5 mm sulfide-quartz veinlets. (Figure 7.6 from DDH DGS2402, @386.5m). Gold also occurs with disseminated euhedral arsenopyrite (1 to 5 mm) that appears to belong to an earlier, higher-temperature mineralizing event (McCoy and Olson, 1997), and in fault gouge enriched with sulfides, sulfide-rich veins, and locally as narrow sulfide-quartz veins less than 15 cm thick.

Figure 7-7 Stacked Quartz Veins cut by Visible Gold-bearing Sheeted Vein in Altered Tonalite

Source: Freegold 2023

Figure 7-8 Multiple Gold Grains in a Quartz-arsenopyrite Vein



Source: Freegold 2023

Gold within the Dolphin - Cleary gold deposits occur largely as inclusions in sulfides, and locally as visible grains, within the sulfide-quartz veinlets (Figure 7.8 DDH GS2130, 305.4-306.6m).

Pyrite and arsenopyrite are the most common sulfide minerals although stibnite, lead-antimony sulfosalt minerals, tetrahedrite, scheelite, galena and sphalerite occur locally. McCoy and Olson (1997) identified two distinct varieties of arsenopyrite in the Dolphin gold deposit based on arsenopyrite geothermometry and age relations. Older arsenopyrite from quartz stockworks (90.1 Ma) formed at higher temperatures, whereas younger arsenopyrite from shear zones formed at lower temperatures (88.3 Ma). McCoy also noted that older “hotter” arsenopyrites were finer-grained compared to younger “cooler” arsenopyrites, which are generally coarse and blade finer-grained compared to younger “cooler” arsenopyrites, finer-grained compared to younger “cooler” arsenopyrites, which are generally coarse and blades. Furthermore, the high-temperature arsenopyrite contains particulate inclusions of gold, whereas the low-temperature arsenopyrite contains maldonite (a gold-bismuth mineral). Although stibnite and antimony sulfosalts are not uncommon in the deposit, geochemical studies suggest that high antimony values are generally associated with low gold values. Evidence suggests that the fluids evolved towards increasing base metals and antimony with time. For example, chalcopyrite embayments in pyrite were noted in thin section, and massive sulfide veins (jamesonite, galena, stibnite and/or sphalerite) cutting arsenopyrite-quartz veins are noted in several drill logs. In addition to sulfides, some portions of the Dolphin gold deposit contain abundant scheelite. Several forms of alteration have overprinted the Dolphin intrusive rocks. The most common alteration types are chloritization, kaolinitization, silicification and sericitization. Carbonate alteration, as calcite or less commonly dolomite or iron carbonate, is found locally. Alteration ranges from weak to intense, and is generally indicative of higher gold values, particularly where strong silicification and sericitization are present.

Strong sericite alteration is characteristic of shear zones, but weak to moderate sericite alteration is ubiquitous throughout the deposit and appears to be one of the earliest phases of hydrothermal alteration. Detailed core logging suggests the paragenetic sequence of alteration and mineralization events in the Dolphin intrusive range from early sericite alteration and disseminated arsenopyrite ± pyrite through sheeted auriferous quartz-sulfide veining to coarse-grained pyrite-dominated ± base metal sulfide veining with no associated quartz.

7.4.2 Auriferous Quartz Veins

High-grade auriferous quartz veins (2 cm to 3 m), hosted in metamorphic rocks, occur at numerous locations, and were the source of all previous gold production from the Property. Their general mineralogy, morphology and structural setting are summarized below.

Auriferous quartz veins occur both parallel to and cross cutting the primary host rock foliation at very high angles. A large number of veins dip south, although some dip north. Vein thickness is variable and ranges from a few centimeters to a few meters over short distances along both strike and dip. Pinch- and-swell features, bifurcations and splays are characteristic. Discrete auriferous quartz veins commonly have sharp wall rock contacts but can grade into shear zones, suggesting a continuum between this type of gold quartz veining and shear-hosted gold described below. In contrast to the high-grade quartz veins, barren, translucent or milky-colored metamorphic quartz most commonly occurs as seams or boudinage sub-parallel to the primary foliation of the host rocks.

Auriferous quartz veins consist of hydrothermal quartz with minor to trace amounts of sulfides. The quartz is opaque to milky-white and locally grey to mottled grey and white (Figure 7.5, DDH GS2212, 401-403m). Bands or laminations parallel to vein walls are not uncommon, and vein centers commonly contain vuggy or comb quartz crystals. Silicified vein breccia is also common and may comprise the entire vein or be restricted to bands within the banding sequence. This suggests that there were most likely multiple, possibly alternating, episodes of silicification and deformation.

Auriferous quartz veins rarely contain more than 5% total sulfides and average 1-3%. The most common sulfide is pyrite, although other sulfides are locally present, including arsenopyrite, stibnite, jamesonite, tetrahedrite, galena and sphalerite. Scheelite is present in a few specific veins and is notably abundant in the Cleary Hill and Wyoming vein. Visible gold typically occurs as crystals, coarse flakes, filigree, or wires suspended in quartz or mingled with sparse, scattered sulfides.

Figure 7-9 Gold in Quartz-Arsenopyrite Veinlet

Source: Freegold 2023

Locally, auriferous quartz veins may be accompanied by parallel stringers and pods of later, massive stibnite that occurs as seams and pods up to 25cm thick, parallel or adjacent to auriferous quartz veins, and as veins up to 1.3 m thick along steep cross-faults that offset the auriferous quartz veins. This stibnite mineralization is thought to have formed at lower temperatures as the last metal-bearing event.

7.4.3 Shear and Breccia-Hosted Veinlet Zones

Shear and breccia-hosted auriferous veinlet zones occur within some of the same shear zones that host major auriferous quartz veins and are likely parts of the same mineralizing event. The key characteristic of these zones is that they may contain sufficient polyphase veinlet density and gold grade to justify bulk-mining methods.

Shear and breccia-hosted veinlets consist largely of quartz with variable amounts of sulfides, although locally the veinlets may consist largely of sulfides with lesser amounts of quartz. Sulfide-quartz veins within shear-hosted zones generally are less than a few centimeters in thickness. Locally these veins form vein sets with spacings of a less than one meter, resembling a sheeted vein system (vein swarm). The veins are discontinuous along strike and dip, and commonly grade into broken veins, vein breccia, and zones of sugary, granulated crushed quartz material. Higher quartz vein and veinlet density is generally indicative of higher gold values.

Shear and breccia-hosted veinlet zones are characterized by pervasive sericite and clay alteration as well as by localized silicification and carbonate alteration. In addition, these zones are typically highly oxidized near the surface and contain locally intense iron, arsenic or antimony oxides. Most veinlets are sub-parallel to the strike and dip of the zone (Figure 7-10 through Figure 7-13).

Figure 7-10 Shear Hosted Breccia with incorporated Quartz Vein

Figure 7-11 Breccia / Gouge With Rounded Clasts in Argillic Matrix

Figure 7-12 Breccia With Rehealed Matrix

Figure 7-13 Cataclastic Breccia / Gouge With Rounded Quartz Vein Clasts

Source: Freegold 2024

Host rocks for the veinlet zones are variable. Differences in rock competency appears to influence the geometry of mineralization within and adjacent to the deformation zone. For example, massive quartzite units are more competent and tend to propagate fractures where fluids are more restricted, resulting in the formation of thinner but often higher-grade gold quartz veins. In comparison, thin-bedded units with higher pelitic, carbonaceous and calcareous components are more susceptible to shearing and widespread infiltration by metal-bearing fluids, resulting in stockwork of sheeted vein zones. Therefore, key factors are thought to be the combination of host rock lithology, location within a major shear zone, and access to a hydrothermal fluid source. These zones are best developed where multiple shears or faults intersect and cause widespread fracturing and increased permeability within metamorphic host rocks

8.0 DEPOSIT TYPES

Recent discoveries in the Fairbanks District have identified a series of distinctive mineral occurrences that appear to be genetically related to mid-Cretaceous plutonic activity that affected a large area of northwestern British Columbia, Yukon, Alaska and the Russian Far East (Flanigan and others, 2000). This work, based on extensive geologic and structural mapping and analytical studies (major and trace element analysis, fluid inclusion microthermometry, 40Ar/39Ar geochronology, and isotope analysis) has provided new information regarding gold metallogenesis in the Fairbanks District (Baker and others, 2006; Burns et al., 1991; Lelacheur et al., 1991; Hollister, 1991; McCoy et al., 1994; Newberry et al., 1995; McCoy et al., 1995). A synthesis of this information (Hart et al., 2002, Hart 2007, McCoy et al., 1997, Lang and others, 2001) suggests a deposit model in which gold and high CO2-bearing fluids fractionate from ilmenite series, I-type mid-Cretaceous intrusions during the late phases of differentiation. The gold is deposited in anastomosing pegmatite and/or feldspar-selvage quartz veins. Brittle fracturing and continued fluid convection lead to concentration of gold-bearing fluids in intrusions and schist-hosted brittle quartz-sericite shear zones. Carbonate and/or calcareous metabasite horizons host W-Au skarns and replacement deposits. Structurally prepared calcareous and/or carbonaceous horizons may host bulk-minable replacement deposits. These occur most distal to the intrusions within favorable host rock in the Fairbanks Schist and Chatanika Terrane.

Hart (2007) has synthesized these petrologic and tectonic characteristics into the Reduced Intrusion Related Gold System (RIRGS) model. The salient characteristics of this model are:

Reduced intrusion-related Au systems (RIRGS) include a wide range of Au-only mineral deposit styles that are considered to have had a direct genetic link with a cooling felsic intrusion during their formation. Associated deposit styles may be as varied as skarns, veins, disseminations, stockworks, replacements, and breccias. The most diagnostic deposit style within the RIRGS classification is intrusion-hosted, sheeted arrays of thin, low-sulphide quartz veins with an Au-Bi-Te-W signature that typically comprise bulk tonnage, low-grade Au resources. The host or associated intrusions characteristically have moderately low primary oxidation states, making them reduced ilmenite-series granitoids. The best examples of RIRGS include Fort Knox (Alaska) and Valley (Yukon).

North American examples of these deposits occur in the well-preserved, moderate- to high-temperature Tintina Gold Province (TGP), that is largely coincident with the Yukon-Tanana Terrane (Figure 8-1).

Figure 8-1 Tintina Gold Province

Tectonic setting

RIRGS deposits are best developed in intrusions emplaced into the region behind an accretionary orogen and into rocks of the deformed continental margin backstop. The TGP deposits occur within Paleoproterozoic and Paleozoic basinal miogeoclinal sedimentary rocks, some of which are carbonaceous, and their melting may have assisted in maintaining a low magmatic redox state. Many of the granites intrude unmetamorphosed to low-grade sedimentary rocks, whereas others intrude amphibolite facies metasedimentary rocks that were metamorphosed in response to crustal thickening during collision.

Depth of Formation

The intrusions and associated RIRGS mineralization exhibit a wide range of characteristics that indicate a range of magmatic and related hydrothermal events at depths of <1km to >8km, with most between 4 and 6 km. Clearly some magmatic-hydrothermal systems were active shallowly, as they are dominated by sills or dykes, and typically host low-temperature metal assemblages and alteration phases traditionally thought of as being characteristic of epithermal precious metal deposits, such as an As-Sb-Hg signature. Other auriferous systems include sheeted auriferous veins and W- and Au-bearing reduced skarns in the cupolas and in wide thermal aureoles to plutons. Mineral equilibrium assemblages and fluid inclusion data indicate formation pressures that vary greatly between 0.3 to 3.5 kbar, confirming various depths to pluton crystallization. The relatively weak mineralization in the Dolphin stock compared to the adjacent schist is inferred to be the result of significant depth of burial at the time of mineral emplacement – lithostatic pressure largely prevented the development of fractures within the intrusive so fluids moved into the less-resistant surrounding metasediments.

Magmatic Setting and Association

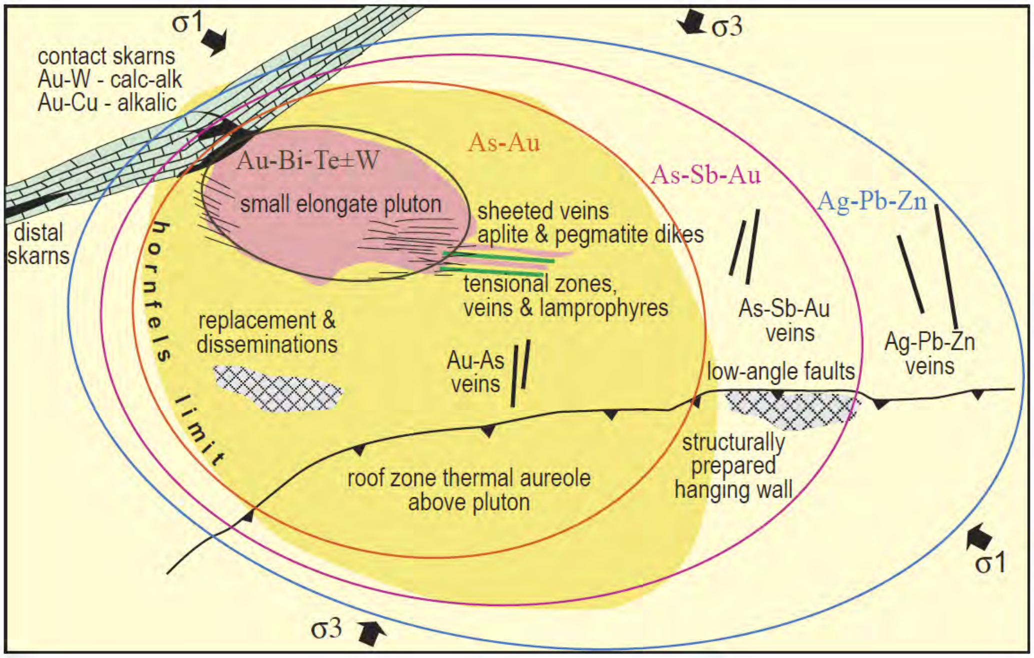
Several hundred granitoid plutons, dykes, and sills form a series of several hundred kilometer-long, coincident mineral and plutonic belts in the TGP. Among the most prolific is the Tombstone Belt, the youngest and most landward of all the Cretaceous magmatic systems within the orogen. Most plutons are typically small (<5km^2) and are dominated by leucocratic and felsic magmatic phases. There are no batholiths. The magmas are silica-rich (64-72%), and importantly, alkalic-leaning, forming quartz monzogranites, monzonites, and locally more mafic (monzodiorite) and more alkalic (quartz syenite) phases. Plutons have many phases, but variations are subtle. Biotite is the dominant mafic mineral, with considerably lesser hornblende, and pyroxene is locally common. The plutons are dominantly metaluminous, but highly fractionated peraluminous phases contain muscovite, garnet, and tourmaline. Associated dykes of aplite and pegmatite, as well as numerous mafic phases including lamprophyres, are common. The plutons defy characterization, are not typically calc-alkaline, are locally alkalic, and geochemically plot in the I-type field, but mostly lack hornblende and magnetite. Most plutons are considered ilmenite series because they lack magnetite. Initial Sr isotope values in excess of 0.71, epsilon Nd values between –8 and –20, and d18O values of 12-15 per mil, attest to a large crustal contribution to the magmas.

Deposit Variation and Zonation

There is considerable breadth in the metallogeny of the mid–Cretaceous plutons of the TGP (Fig. 8.1). Igneous bodies host associated tungsten, molybdenum, silver, uranium, tin, copper, and gemstone concentrations, in addition to gold. Additionally, there is considerable, but predictable, variation in the styles of mineralization and the elemental associations of gold occurrences surrounding any individual pluton (Figure 8-2). These include intrusion-hosted, sheeted, and rarely stockwork auriferous quartz veins (Au±Bi±W±Te). The intrusion-hosted mineral assemblage contains high fineness gold intergrown with bismuth- and tellurium-bearing phases, that locally are associated with scheelite. Skarns are present in contact zones adjacent to the intrusions (Au±W, Cu±Bi±Te); proximal, thermal aureole-hosted replacement, disseminated, and fracture-controlled mineralization occurs in metasedimentary rocks (Au-As±Sb); and fissure veins vary outward from Au-As to Au-As-Sb to Pb-Zn-Ag.

The deposits typically show an evolution from early, high-temperature magmatic stages to lower temperature hydrothermal veins. The spatial relationships and metal assemblages of the occurrences are zoned with respect to a central mineralizing pluton in response to steep temperature and fluid chemical gradients away from the causative pluton.

Figure 8-2 Zonation of RIRGS Mineral Deposit Types



Source: Hart (2007)

Oxidation State

Plutons that are associated with gold mineralization in the TGP have a low primary oxidation state. The deposits are characterized by a low-sulphide (<5 volume %; often <1 volume %) reduced mineral assemblage dominated by pyrrhotite, locally containing loellingite, and typically arsenopyrite and pyrite, but no magnetite or hematite. Fluid inclusions locally contain methane. Plutons mostly contain ilmentite and titanite and lack magnetite. Aeromagnetic responses are low. Magnetic susceptibility measurements average 0.15 but are all less than 0.5 x 10-3 SI units. The Fe2O3/FeO ratios are 0.15 to 0.3 and are mostly at or below the quartz-fayallite-magnetite (QFM) oxide buffer.

Timing

Magmatism and associated mineralization are entirely post-orogenic, occurring at least 10 m.y. after peak metamorphism of rocks in the TGP. The gold deposits are associated with the last magmatic pulse in the belt, although the significance of this feature is not yet clear. Mineralization is the same age as the host or causative granite. Even with variations between isotopic systems, decay constants, and standards, most geochronological age data for deposits are within two million years of granitoid crystallization dates.

Fluids

There is a wide variation in fluid inclusion compositions between deposits displaying mesozonal and epizonal characteristics. Deposits in shallow environments, with nonetheless high formation temperature (>350 °C), are characterized by an immiscible brine (>30 wt% NaCl equiv.) and low-salinity (< 5 wt% NaCl equiv.) vapor that commonly contains CO_2. Deposits of similar temperatures, but in deeper environments, contain abundant low-salinity (<10 wt% NaCl equiv.), CO_2-H_2O fluids, which in some deposits are postdated by moderate to high salinity brines (10 to 40 wt% NaCl equiv.). These contrasting fluid types are interpreted as magmatic in origin, and to be the result of complex interplay between exsolution of different volatiles (carbon dioxide, water, and chlorine) from felsic melts at differing crustal levels.

Key Exploration Criteria

At the regional scale, exploration should focus on the foreland parts of orogenic belts where felsic plutons have intruded ancient continental margins, inland of accreted terranes or collisional zones. These regions may be historically better recognized for their W or Sn metal tenor and may also host Ag-rich veins or Au placers that are associated with the plutons. All mineralizing plutons that belong to the same suite or time interval are potential targets for RIRGS. Prospective plutons were preferably intruded deeper than ~5 km to keep these low-volume hydrothermal systems contained in the melts and subsequently focused during exsolution. RIRGS associated with shallower plutons are characterized by more diffuse epizonal styles of mineralization and an Au-As-Sb-Hg signature. Associated plutons will have low primary oxidation states and are, therefore, easy to differentiate from magnetite-series plutons of true continental margin arcs that have associated Cu-Mo porphyry deposits.

At the deposit scale, targeting the pluton carapace is critical such that those plutons that are barely unroofed are considered the best locations for RIRGS. Roof zones above plutons are also highly prospective but may be difficult to target as they are rarely noted on geological maps. Deeply eroded plutons, recognized by their large circular-shaped surface areas, are unlikely to yield large-tonnage intrusion-hosted sheeted vein deposits, but may nevertheless have hornfels with Au-bearing skarns or veins. Understanding the structural controls on pluton emplacement may be key to developing targets and preferred deposit orientations within a magmatic- hydrothermal system.

Regional geochemical surveys are very good at identifying mineralizing plutons, particularly where characterized by broad As aureoles. Placer Au may occur in related drainages in significant amounts (>100 000 oz). Placer scheelite is also a feature of many occurrences. Soil geochemistry can be extremely effective locally at delineating potential mineralization within the area of a causative pluton and recognizing mineralized portions of its hornfelsed zone. Soil lines should cross the extensional direction that may mimic a pluton’s elongation direction. Gold grades can be up to several grams per tonne in some soils, but low anomaly thresholds (25 ppb Au) may be required for surveys with low geochemical response (Diment and Craig, 1999). Anomalous Bi, Te, or W values, or multi-element analyses using metal ratios or factor analysis can assist in interpretation of vein types or predicting more proximal (i.e., intrusion-hosted) ores in areas with poor rock exposure.

A number of mineral occurrences within the Fairbanks area conform to the RIRGS model. The following examples are listed from proximal to distal relative to the causative intrusion. (See Figures 7-2 and 7-3).

Stockwork and sheeted vein style mineralization hosted in porphyritic intermediate to felsic intrusives: Mineralization contains Au with anomalous Bi, Te, W and trace Mo. There is a strong genetic relationship between host intrusion and gold mineralization. The most prominent example is Fort Knox (10 Moz).

Porphyritic stockwork with intrusion/schist shear hosted Au-As-Sb with a strong genetic relationship between host intrusion and gold mineralization: Ryan Lode (2.4 Moz) and the Dolphin area are examples of this type of mineralization.

Gneiss or high-grade schist-hosted quartz veins or metasomatic replacement zones proximal to or within causative intrusives: Metals associated include Au, Bi, and As and possibly Cu. Gil (+0.5 Moz) is an example of such mineralization.

Structurally controlled mineralization hosted by schist-only high-angle shear zones and veins: Associated metals include Au, As, Sb, Ag, Pb and W in low-sulfide quartz-carbonate veins. Alteration adjacent to veins is a pervasive quartz-sericite-sulfide alteration that can extend up to one mile from the source structure. Deposits were mined heavily prior to World War II and are noteworthy because of their exceptional grades (+1 to +5,000 ounces per ton (opt) Au). Examples include Cleary Hill (281,000 oz production), Christina (20,000 oz production), American Eagle (60,000 oz production), Hi Yu (110,000 oz production) and Newsboy (40,000 oz production) veins.

Low angle, disseminated, carbonate-hosted Au-As-Sb mineralization associated with brittle thrust or detachment zones distal to generative intrusives: The True North deposit (1.3 Moz) is an example of this type of mineralization.

Base metal ± Au, Ag and W intrusion hosted mineralization with a possible genetic relationship between precious metal mineralization and intrusion: Silver Fox prospect is an example.

Shear-hosted monomineralic massive stibnite pods and lenses: Trace As, Au, Ag and Pb but these prospects are noteworthy because they appear to represent the most distal end members of the intrusive gold hydrothermal systems. Examples include the past producing Scrafford and Stampede mines.

9.0 EXPLORATION

Table 9.1 provides a summary of work programs conducted by Freegold on the Property since 1991.

Table 9-1 Summary of Freegold Exploration 1991 – 2023

Company	Years	Exploration/Mining Activity	Principal Target
Freegold/FEI JV	1991	Property-wide data compilation	Property-wide
Freegold/Amax Gold JV	1992 1993 1994	Trenching, soil sampling, RC drilling, aerial geophysical surveys (EM), bottle roll testing, baseline water quality surveys, aerial photos, EDM surveys	Too Much Gold prospect Cleary Hill Mine area
Freegold	1995 1996	RC drilling	Dolphin Deposit Cleary Hill Mine area
Freegold/Barrick JV	1997 - 1998	Property-wide grid-base soils, recon and prospect mapping, grab sampling, limited RC and core drilling	Property-wide Goose Creek prospect North Extension prospect Coffee Dome Dolphin Deposit Newsboy Mine area Wolf Creek area
Freegold	2000	Limited core drilling	Cleary Hill Mine area
Freegold	2002	Trenching	Cleary Hill Mine Currey Zone
Freegold	2003	Limited core drilling	Cleary Hill Mine Currey Zone
Freegold/Meridian Minerals JV	2004	Trenching, core drilling	Tolovana Mine area Cleary Hill Mine area
Freegold	2005 2006	Trenching	Cleary Hill Mine area Wackwitz Vein area Beistline Shaft area
Freegold	2007 2008	Trenching, RAB drilling, core drilling, bulk sampling	Cleary Hill Mine area Tolovana Mine area
Freegold	2010	Induced Polarization Survey	Dolphin/Tolovana Area
Freegold	2011	Induced Polarization Survey, Geochemical Surveys, Core Drilling	Dolphin Deposit, Clearly Hill, Christina Prospect
Freegold	2012	Induced Polarization Survey, Geochemical Surveys, Trenching, Core Drilling	Dolphin/Tolovana Area, Cleary Hill, Christina Prospect
Freegold	2013	Core Drilling, Geophysics	Dolphin, Coffee Dome Area
Freegold	2014	Water Quality Sampling, Cultural Resource Studies, Metallurgical tests, Geochemical Surveys	Dolphin/Tolovana Area, Cleary Hill,
Freegold	2015	Geochemical Surveys	Dolphin/Tolovana Area, Cleary Hill,
Freegold Freegold	2016 2017	Preliminary Economic Assessment Expansion oxide drilling 2017	Dolphin/Tolovana Area, Cleary Hill, Dolphin/Tolovana Area,
Freegold	2020	Core Drilling and Baseline Water Quality Sampling	Dolphin/Tolovana Area,
Freegold	2021	Core Drilling and Baseline Water Quality Sampling	Dolphin/Tolovana Area,
Freegold	2022	Core Drilling, Geochemical Surveys, Geophysical Surveys and Baseline Water Quality sampling	Dolphin/Tolovana and Saddle Areas
Freegold	2023	Core Drilling, Rock and Soil Sampling, Geophysical Surveying, Hyperspectral Analysis, Baseline Water Quality Sampling and Archaeological Efforts	Dolphin/Tolovana and Saddle Areas

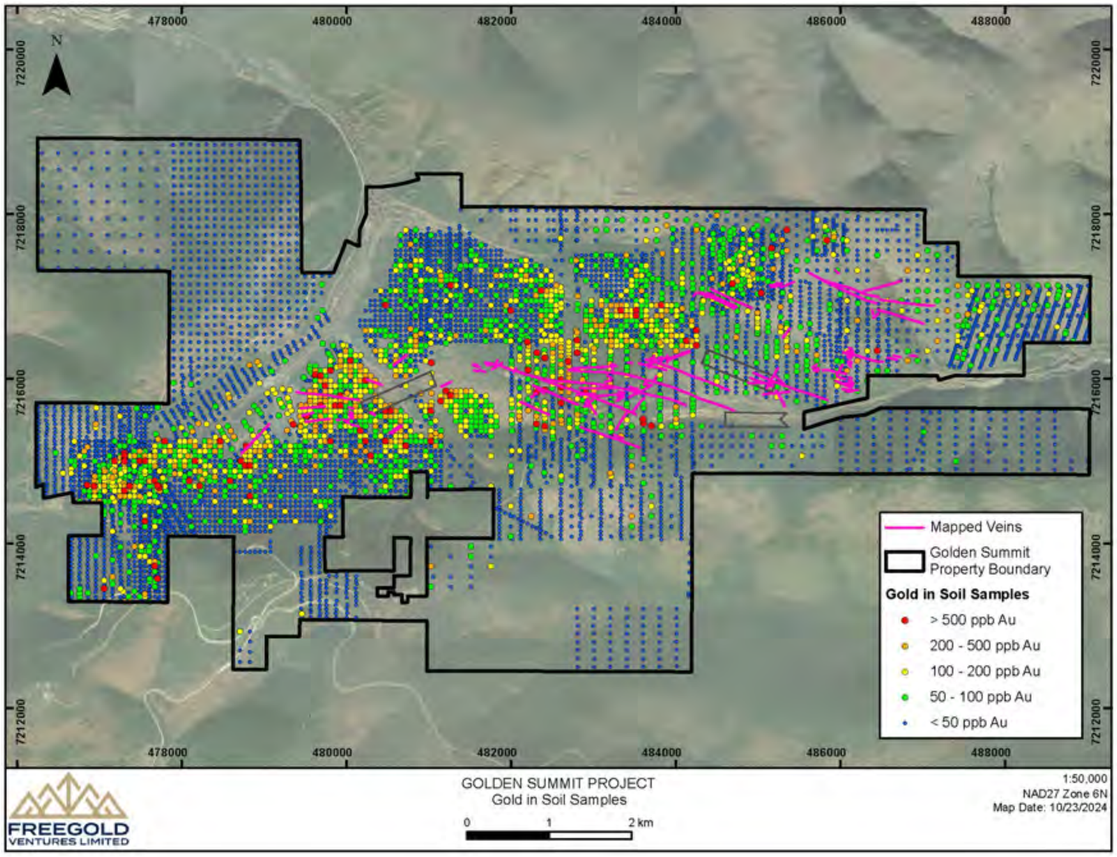
9.1 GEOCHEMISTRY

Since Freegold began exploring the area, they have maintained a digital database containing all assay and geochemical work completed on the Property, including results from all drilling programs as well as rock and soil sampling. Starting in 1997, all rock and soil geochemical samples were described in the field and located using hand-held global positioning system (GPS) methods. Data from each sample was then entered into a digital GIS database. Channel samples were taken along trench floors or ribs using a rock pick and chisel.

In 2011, twelve lines of samples were collected at IP stations (Section 9.2) spaced 50m apart, for a total of 424 soil samples.

In 2012, a total of 1,210 soil samples were collected on the Property. Of these, 740 were collected in the Bear Creek area on the south edge of the Property, 218 in the Newsboy area, and an additional 252 samples were collected on the western portion of the Property. Assaying of soil samples has revealed a correlation between anomalous gold values and mineralization in bedrock. Further soil sampling has been conducted on the Mental Health Trust Authority land and the Chatham area. In the fall of 2022, a soil sampling program was carried out on lease blocks that were newly acquired from the Mental Health Trust Authority, resulting in the collection of 527 samples, none of which yielded significant values . Figure 9-1 is a map of soil geochemical assay values to the end of 2023.

Figure 9-1 Golden Summit Soil Geochemical Values



Source: Freegold 2024

Hyperspectral Data

In late 2023, hyperspectral data was collected for holes GS2306, GS2333, and GS2337 and partially for GS2335 and SZ2304. The two main reasons for collecting spectral data were: 1) to gain a better understanding of hydrothermal alteration and its correlation with Au mineralization, and 2) to gauge how well alteration is being logged.

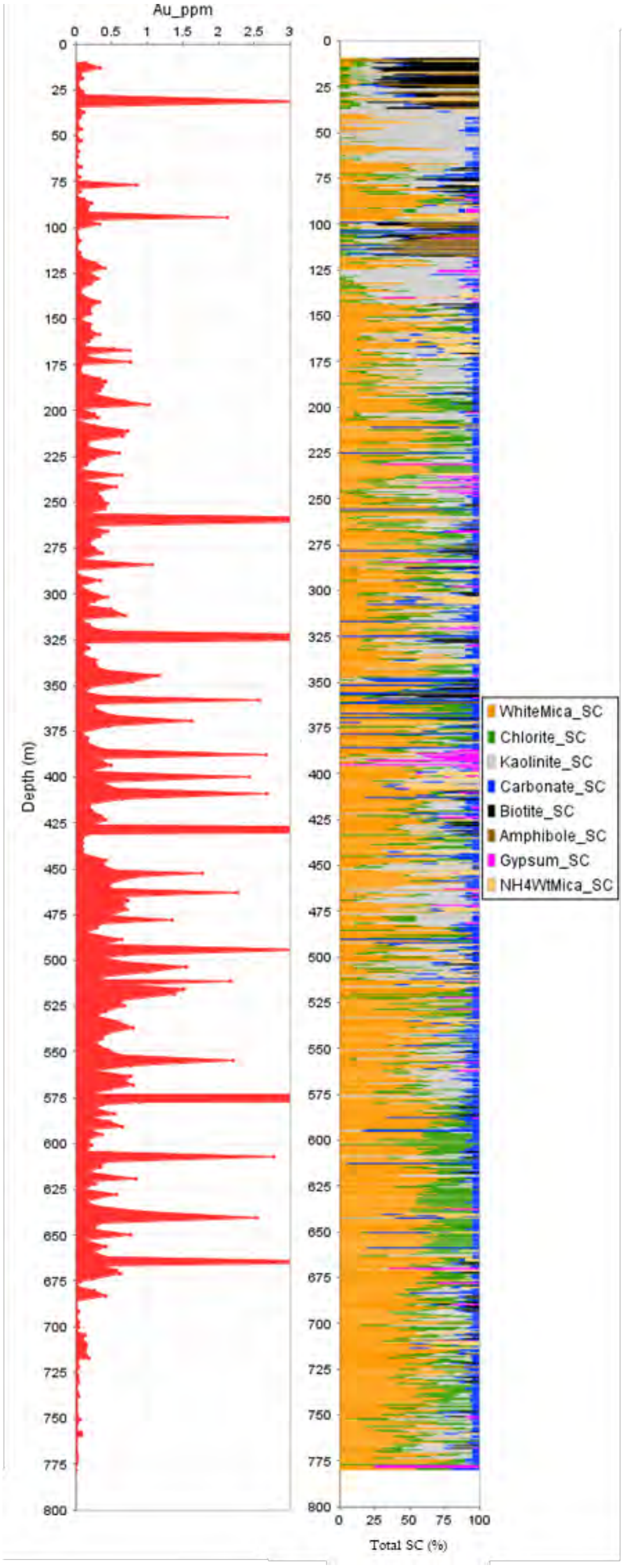
Data was collected using a portable spectrometer, ASD TerraSpec Halo, then analyzed using aiSIRIS, a cloud-based AI software for mineralogical interpretation of VNIRSWIR data for rapid and detailed mineral identification.

Point spectra of the rock matrix at an interval of roughly 0.7m or one measurement per column in each core box was collected. Additional measurements of veins and unidentifiable mineral grains were collected to supplement the systematic methodology. In summary, a strong correlation between Au mineralization and phyllic alteration at a broad (100m) and small (1-10m) scale, as shown in Figure 9-2 was observed. Where Au tends to crystallize, a compositional increase in white mica having more of a phengitic composition (AlOH wavelength greater than 2,210nm), kaolinite with high crystallinity (KX index greater than 1), minor clinochlore (Mg-chlorite indicated by a MgOH wavelength less than 2,245nm) and accessory amounts of Fe-bearing carbonates that constitutes phyllic alteration is observed. This alteration grades into white mica having a more paragonitic composition (AlOH wavelength less than 2,205nm), chlorite with typical ratios of Mg/Fe (MgOH wavelength around 2,255nm), and minor amounts of calcite in the propylitic alteration. Visual core logging captures the broad zones of alteration seen by the spectral data but does not encapsulate the small-scale alteration zones to the same degree.

In addition to helping to understand alteration, the spectral data has proven useful for discerning different lithologic contacts of schist by looking at the fluctuation of spectral contribution ratios between micas that may be difficult to discern by visual means.

Although the collection of more spectral data would be beneficial, it is not absolutely necessary. This small subset of data has already proven helpful as a guide to better utilizing the geochemical data from assays to identify alteration zones.

Figure 9-2 Two Strip Logs of GS2306



The plot on the left is Au values in ppm and the plot on the right is spectrally identifiable minerals stacked on top to100% based off their original spectral contribution percent value (SC).

9.2 GEOPHYSICS

Induced polarization (IP) geophysics was conducted on the Property in 2010, 2011 and 2012. IP lines were established using a compass, GPS and tight chain. Lines were lightly brushed out and flagged.

In 2010, 22.5 km of IP surveying was conducted in the Dolphin area on 15 parallel lines spaced 100 and 200 meters apart, and ranging in length from 1.1 km and 2.3 km. This survey appeared to define the Dolphin intrusive and alteration halo.

In 2011, 101.75 km of IP surveying was conducted on Christina, Goose Creek and Too Much Gold prospects. The IP survey was done on 33 parallel lines spaced 200 meters apart and ranging in length from 1.1 km and 3.5 km. The IP and Resistivity were effective in mapping structural and topographical features and highlighting high-chargeability values over high-resistivity zones that may be indicative of structural traps where mineralization may occur.

In 2012, an additional 49.3 km of IP surveying was conducted primarily on the western side of the Property to expand coverage of the 2010 IP program. In total, 37 lines, spaced 100 meters apart and ranging in length from 500 meters to 2.7 km, were surveyed. Measurements of apparent chargeability and resistivity were made along the traverse lines using the pole-dipole technique with a 50-meter dipole.

Five lines of Controlled Source Audio-Frequency Magnetotellurics (CSAMT) using 25-meter dipoles were carried out over the Saddle Zone to test for silicified zones associated with an elevated resistivity response. The lines were orientated perpendicular to known veins as mapped and defined by historical drilling. The resulting CSAMT data was then modelled using a 2D finite element inversion code. The survey identified a number of parallel and sub-parallel resistivity features proximal to known mineralization.

On the Dolphin zone, a broad-spaced trial Natural Source Audio-frequency Magnetotelluric (NSAMT) survey was carried out over the core of the deposit. The original intent was to utilize CSAMT; however, due to weather-related logistical constraints, NSAMT was carried out. Stations were positioned at 250-meter centers collecting full tensor data. The times series were subsequently processed obtaining Zxy and Zyx for each of the respective locations. Tipper data was not collected.

The results were loaded into Mod3dMT for subsequent 3D Modelling incorporating topography. The 3D modelling yielded a broad zone of elevated resistivity zones potentially associated with higher intensity of silicification. This feature remains open and untested in both the westerly and northerly directions.

On June 29th and 30th, 2023, Expert Geophysics Limited conducted a survey of the Golden Summit Block using a helicopter-borne system. The survey employed MobileMT, VLF-EM, and Total Magnetic Intensity (TMI) data. Two production flights were flown to cover the 61 sq. km area, with survey lines oriented N-S (0°) at a 200 m spacing and tie lines oriented E-W (90°E) at 2,000 m spacing. TechnoImaging then focused on the 3D inversion of the airborne MobileMT data over the Golden Summit Block, resulting in resistivity models generated by Glass Earth®. The study aimed to map bedrock structure and lithology, as well as possible alteration and mineralization zones. The distribution of resistivity with depth and the magnetic properties of the various bedrock units were obtained using EM and magnetic data, respectively. The focus of the Glass Earth® technology was to study the electrical properties of the bedrock units to assist in defining mineralization using MobileMT data. The data will be incorporated into future programs at Golden Summit.

Magnetic Susceptibility

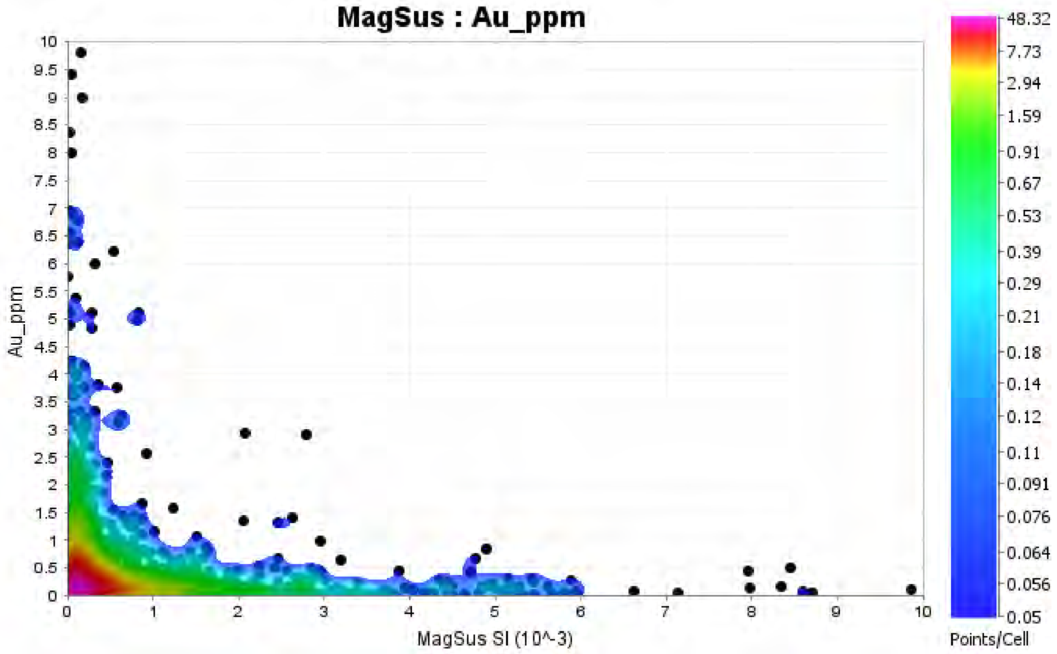
In 2023, magnetic susceptibility measurements were collected from core from holes GS2306, GS2333, GS2337, and partially for GS2335 and SZ2304 to test whether the presence of pyrrhotite Fe(1-x)S is related to Au mineralization. Data was collected using a SM30 magnetic susceptibility meter from ZH Instrument.

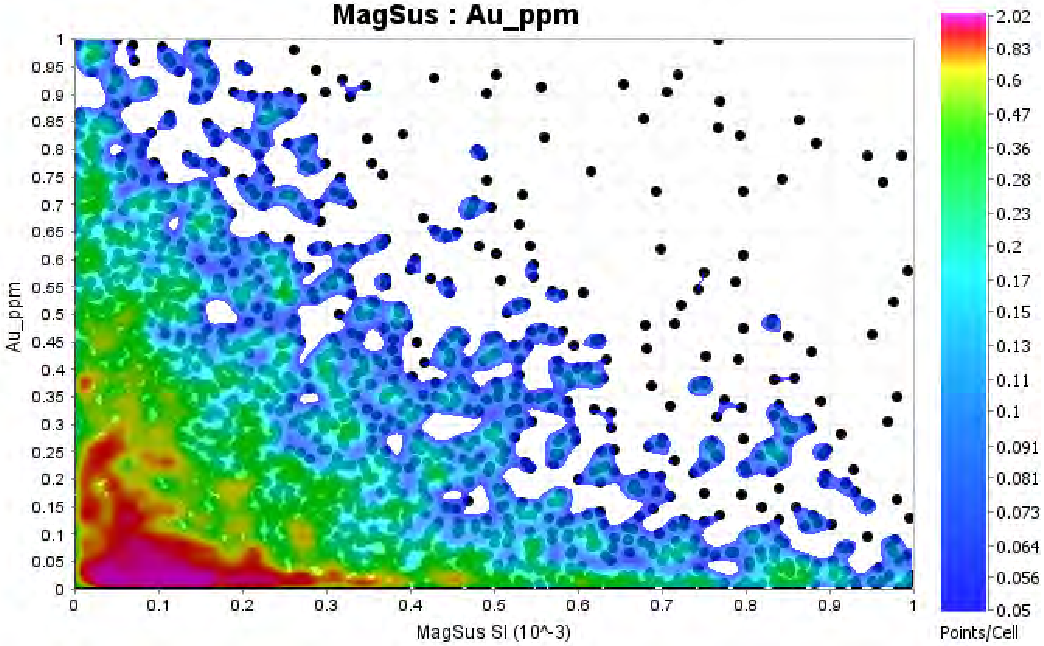
One representative measurement was collected for each sample, typically avoiding direct contact with quartz veins and quartz augens and focusing on the rock matrix. In summary, there appears to be an inverse relationship between magnetic susceptibility and zones of intense hydrothermal alteration associated with Au mineralization (Figure 9-3)

Downhole plots show this relationship at large (100m) and small (1m) scales, as shown in Figure 9-4. This relationship has encouraged a closer examination of the drill core during logging and the implementation of regular magnetic susceptibility measurements, one per sample, for the 2024 drilling season.

The typical range of values is from 0.001 to 3.0 ($10^{\wedge-3}$) SI. Values below 0.100 usually indicate a high presence of sericite with veining, while values between 0.100 and 0.200 indicate either unaltered or near-margin conditions in a high vein zone. Values above 0.200 are associated with the presence of pyrrhotite and are distal from veins. Areas of high magnetic susceptibility with and without the presence of pyrrhotite and observed grains of pyrite with a pyrrhotite halo have been observed. This suggests a greater role in pyrrhotite formation than originally thought for vectoring towards Au mineralization. This may represent the decomposition of pyrite according to the equation $2FeS_2 \rightarrow FeS + S_2$. This process involves the rapid crystallization of sulfides and metals, as evidenced by the presence of fine-grained sulfides and gold in and around the veins. These conditions allow pyrite to be affected by prolonged exposure to hydrothermal fluids. If true, such hydrothermal fluids must have been in a specific range of temperature, pressure, and sulfur fugacity for the formation of late-stage pyrrhotite. These fluid conditions were likely around 400°C, at moderate depth, with low sulfur fugacity. These conditions can encourage remobilization of metals and sulfides. More data needs to be collected in thin sections, high-density magnetic susceptibility sampling of the drill core, and a high-resolution magnetic survey of the property to confirm the role and distribution of pyrrhotite. During 2024, thin-section work and high-density magnetic susceptibility measurements were undertaken, and a detailed magnetic survey is planned for the 2025 season.

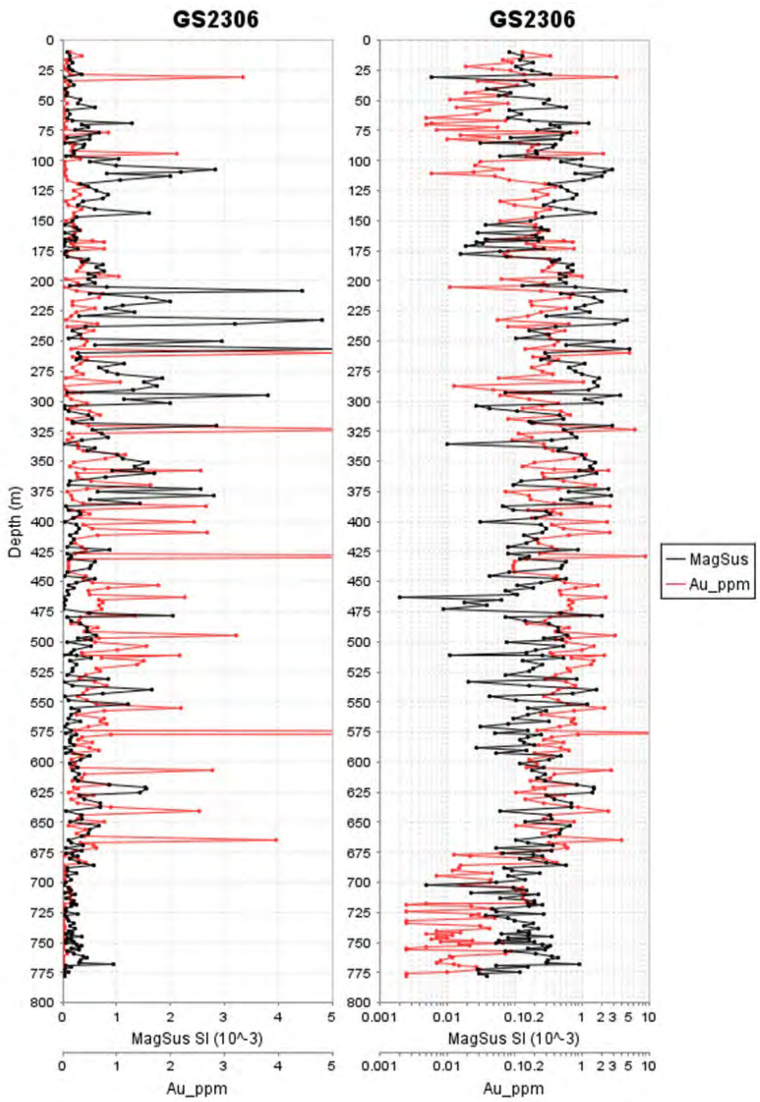
Figure 9-3 Plots showing Magnetic Susceptibility over Au ppm for GS2306



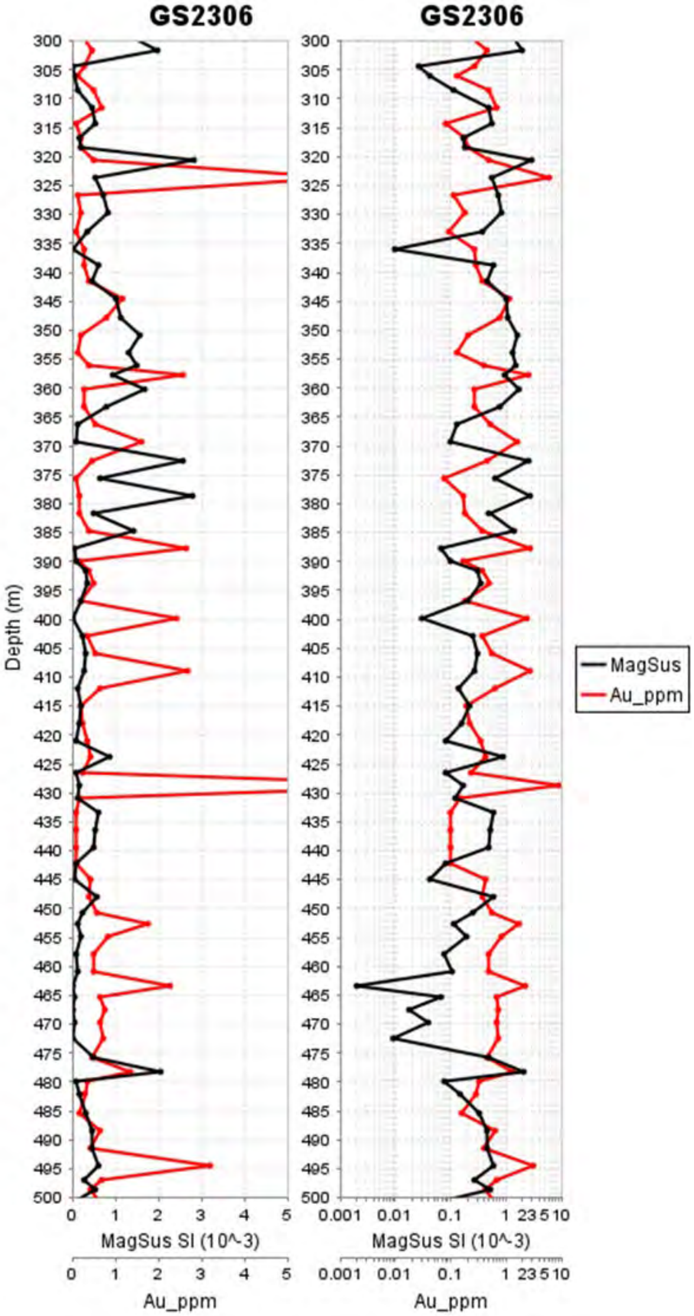


Plots showing Magnetic Susceptibility over Au ppm for GS2306 with a point density cloud where warmer colors indicate a higher density of sample points, upper plot is showing a greater range in values for both variables.

Figure 9-4 Strip logs of GS2306 plotting Au against Magnetic Susceptibility

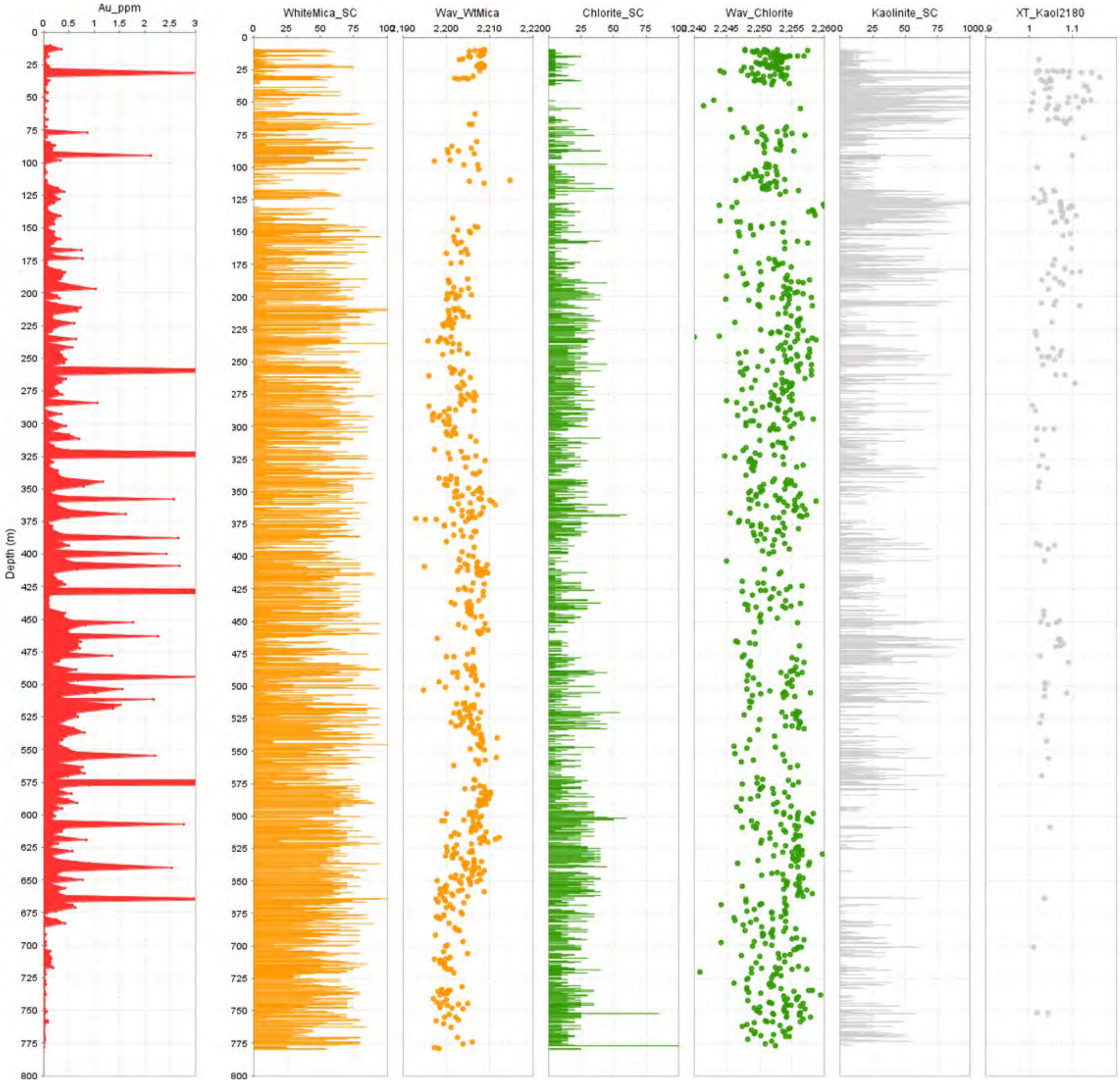


Two strip logs of GS2306 plotting Au against Magnetic Susceptibility. The left plot is based on a normal numeric scale and the right plot is based on a logarithmic scale.



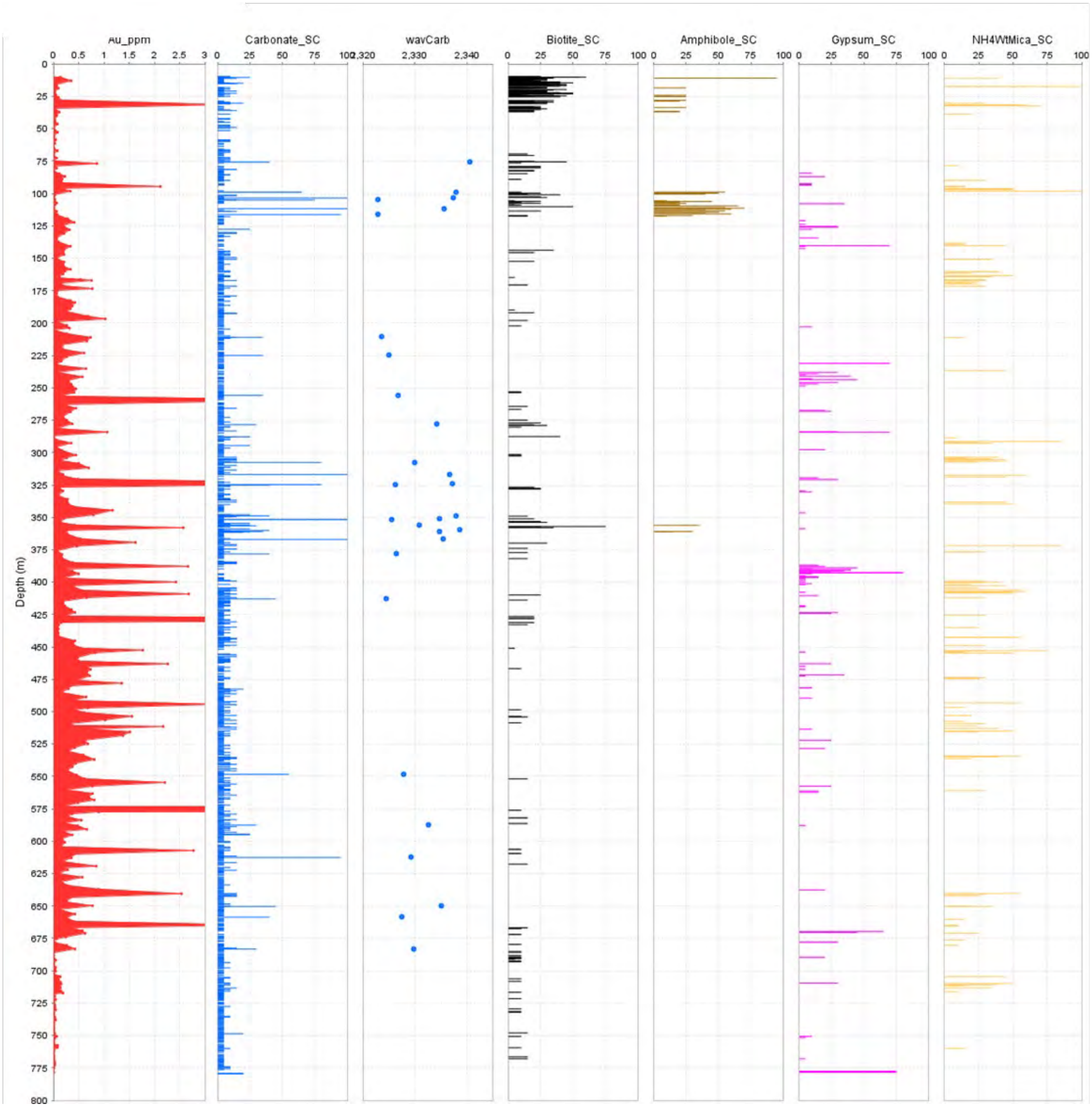
Same plots as Figure 9.4 just zoomed in to 300-500m

Figure 9-5 Multiple Strip Logs



Multiple strip logs of GS2306 comparing Au values to spectral contribution percentages (SC) and wavelength position of diagnostic spectral feature in nanometers that correlate to a specific mineral species in a solid solution series.

Figure 9-6 Multiple Strip Logs of GS2306



Multiple strip logs of GS2306 comparing Au values to spectral contribution percentages (SC) and wavelength position of diagnostic spectral feature in nanometers that correlate to a specific mineral species in a solid solution series with additional minerals

9.3 TRENCHING

Trenching programs were completed during 2002, 2004, 2005, and 2006 to expose bedrock and provide access for sampling of the Currey Shear Zone, the Wackwitz Vein, the Tolvana Mine area, and the Cleary Hill Mine area. Eighty-two samples were collected from the Currey Shear Zone, tested by metallic screen analysis, and confirmed the existence of coarse gold in both chip-channel and grab samples. In 2004, a trenching program was completed in the Tolovana Mine area. Most of these trenches were re-excavations and extensions of unreclaimed trenches from Sed Core's trenching program during 1981. In total, 14 backhoe trenches with an aggregate length of 545 linear meters were excavated. 365 chip-channel samples and 70 grab samples were collected. Chip-channel samples were collected on 1.5-meter intervals along the trench floors.

The Wackwitz trenches, excavated in 2005, successfully exposed the Wackwitz Vein, a 0.15 to 0.6 meter, competent, through-going, gold-bearing quartz vein containing almost no sulfides. Numerous grab samples of the vein returned gold values greater than 30 g/t.

During 2006, trenching programs in the western Cleary Hill Mine area focused on potential bulk sample targets. Specific targets included: 1) Wackwitz Vein system, 2) Currey Shear Zone, 3) Beistline Vein system, and 4) Colorado Vein system. Nineteen trenches, totaling more than 700 linear meters, were excavated.

9.4 BULK SAMPLING

A bulk sampling program in the Cleary Hill Mine area was carried out during the period 2006 to 2008. Most of the bulk sample material was extracted from three main pits, the Beistline, Cleary, and the Fence 1 Pit ("Colorado Pit"), and from two different levels in the Beistline and Colorado Pits. In 2006, several other smaller pits were sampled, including the Cleary High-Grade, Wackwitz, Alaska, Currey Shear Zone, D-8 and Red Vein pits.

9.5 HISTORIC RESOURCE ESTIMATES

In March 2011, a NI 43-101 compliant resource for the Dolphin gold deposit, using ordinary kriging, was estimated using pre-2011 drill results. At a 0.3 g/t cut off, this estimate included 7,790,000 tonnes at 0.695 g/t (174,085 ounces) Indicated, and 27,010,000 tonnes at 0.606 g/t (526,324 ounces) of Inferred resource.

In October 2012, a NI43-101-compliant resource was estimated for the Dolphin/Cleary Hill area and included 20 holes that were completed in 2011, as well as all the 2012 drill holes, increasing the number of holes within the mineralized solid from the 77 used in the 2011 estimate, to 177 holes. At a cutoff grade of 0.3 g/t gold, the October 2012 gold resource estimate was 73,580,000 tonnes at 0.67 g/t Indicated, (1,576,000 ounces), and 223,300,000 tonnes at 0.62 g/t Inferred (4,437,000 ounces).

In 2013, an update of the October 2012 estimate incorporated an additional ten drillholes completed in 2013. The update also subdivided the resource into oxide and sulfide portions. The effective date for this resource was May 31, 2013. Of the total 330 drillholes on the Property, 185 were used for the estimate. Grades for gold were interpolated into blocks 10 x 10 x 5 meters in dimension by a combination of Indicator and Ordinary Kriging. A total of 66 specific gravity measurements showed no correlation to gold grades and as a result an average density value of 2.51 g/cm3 was used above the oxide surface and 2.67 g/cm3 below this surface to convert volume to tonnage. Estimated blocks were classified, based on geologic and grade continuity, into Indicated and Inferred. A conceptual open pit, based on $1,300/oz Au was developed to constrain the resource and only blocks falling within this pit were reported. At a 0.3 g/ cutoff, this estimate contained 61,460,000 tonnes of Indicated resource with an average grade of 0.69 g/t

(1,363,000 ounces) and 71,500,000 Inferred tonnes with an average grade of 0.69 g/t (1,584,000 ounces). The 2013 MRE was used in the 2016 Preliminary Economic Assessment.

A MRE was completed in 2023. The mineral resource estimate was based on 75,979 assays from 371 drillholes and was constrained by two lithological domains: intrusive and schist. The intrusive is comprised of granodiorite and tonalite phases but these have the same gold grade distribution and bulk density, so they were treated as a single unit. Because the schist domain is far more extensive than the volume of rock that has been tested by drilling, the lithological domains were further constrained by a 0.2 g/t gold gradeshell. Mineralization was divided into oxidized and hypogene (unoxidized) phases as the basis for reporting the resource.

The estimate was made using three-meter composites, 10x10x10 meter blocks, grade interpolation by ordinary kriging and was constrained by a conceptual pitshell.

The resource was divided into pit-constrained oxide with a base case cutoff grade of 0.15 g/t Au, pit-constrained hypogene, with a base case cutoff grade of 0.45 g/t Au, and under-pit hypogene resources with a base case cutoff grade of 0.75 g/t Au. The 2023 MRE is summarized in Table 9.2.

Table 9-2 Golden Summit Mineral Resource Estimate 2023

Golden Summit Mineral Resource Estimate March 31, 2023					
Domain	**Cutoff Au g/t**	**Classification**	**Tonnes**	**Au gpt**	**Au Ounces**
Pit-Constrained Oxide	0.15	Indicated	52,030,000	0.39	657,000
Pit-Constrained Oxide	0.15	Inferred	18,187,000	0.47	272,000
Pit-Constrained Primary	0.45	Indicated	407,544,000	0.92	12,011,000
Pit-Constrained Primary	0.45	Inferred	282,303,000	0.85	7,736,000
Under-Pit Primary	0.75	Indicated	1,600,000	1.42	73,000
Under-Pit Primary	0.75	Inferred	15,776,000	1.21	614,000

None of these resource estimates is current.

9.6 MINERAL PRODUCTION

There has been no mineral production by Freegold, but historically, approximately 506,000 ounces of gold were produced from several mines within the boundaries of the current Property.

10.0 DRILLING

Freegold has conducted drilling programs on the Property since 1995. Table 10-1 displays the years and meterage of the drilling programs between 1995 and 2023.

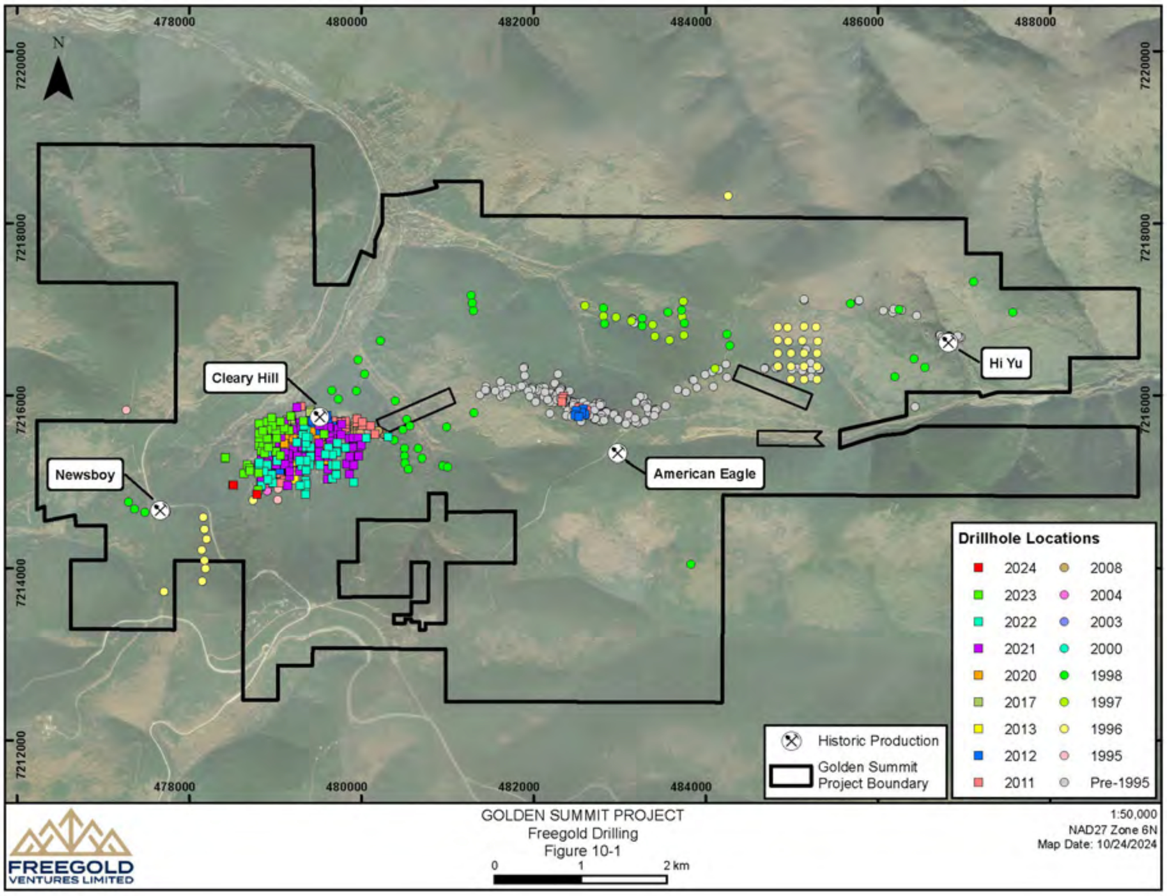
Table 10.1 Golden Summit Freegold Drilling by Year 1995 – 2023

Year	# Holes	Meters
1995	20	1,965.00
1996	33	3,506.50
1997	4	578.5
1998	3	731
2001	1	304.8
2003	3	411.7
2004	13	2,604.60
2008	26	3,098.80
2011	47	9,842.60
2012	48	14,916.60
2013	13	5,138.60
2017	29	1,931.90
2020	18	8,845.00
2021	69	40,314.10
2022	44	34,669.60
2023	37	22,098.00
2024	2*	1,697.70
TOTAL	**410**	**152,655.00**

- *A 2024 drill program is currently in progress. Only two holes from the 2024 program are included in the current report, as assays for the remaining holes are still pending.*

Initially, holes were drilled in two main areas of known gold mineralization, Dolphin and Cleary. As the known limits of mineralization were extended, the drilling filled the gap between the two. A summary of pre-2017 Freegold drilling activities can be found in Adams and Giroux (2012) and Abrams and Giroux (2012, 2013). This information is not repeated here. A map showing all Freegold drilling during the period 1995 - 2023 is presented in Figure 10-1. the majority of holes drilled in 2023, and the two holes completed in early 2024, were located on the western edge of the Dolphin area (Figure 10-2).

Figure 10-1 Golden Summit Drill Hole Locations 1995 - 2023



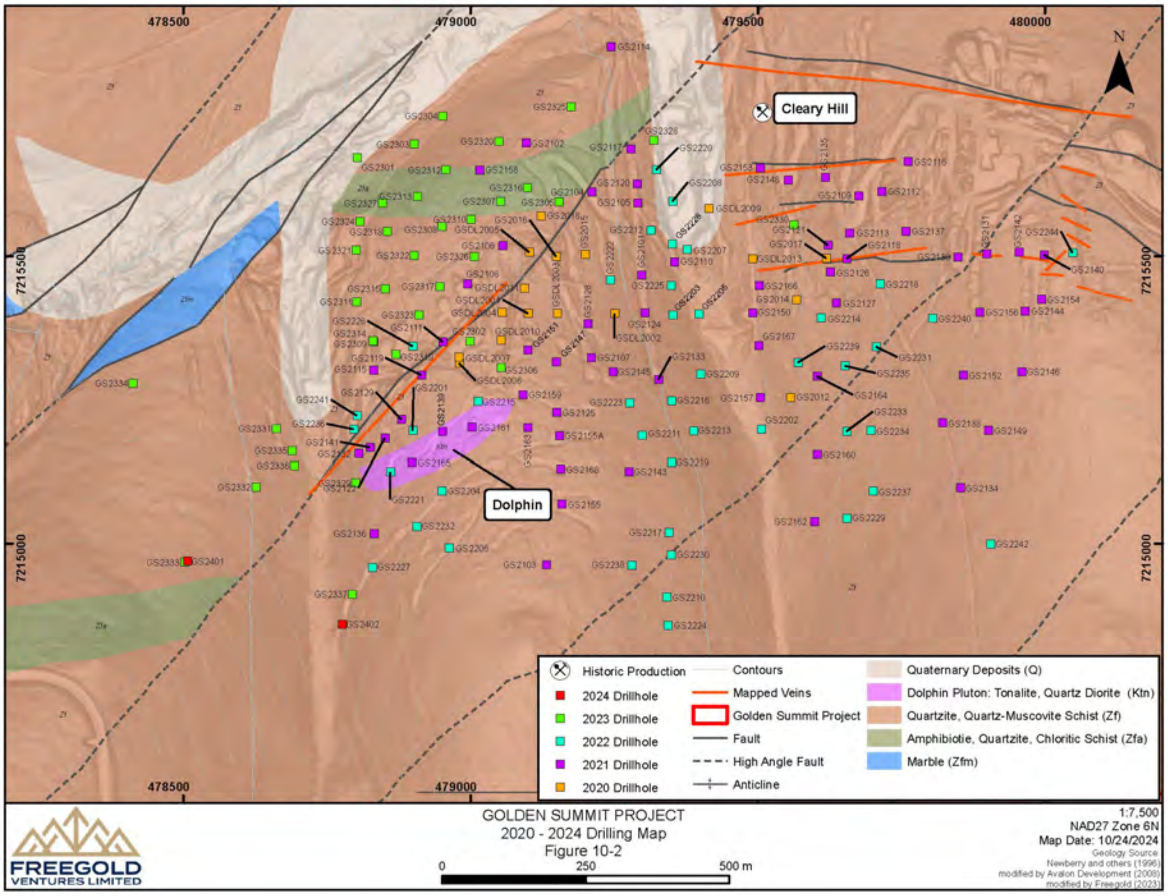
Source: Freegold 2024

In 2017, a shallow oxide drill program was conducted to expand the oxide mineralization to the north. A total of 1,931.9 meters were drilled, with an average depth of 70 meters in 29 holes.

Exploration since 2011 has mainly focused on the Dolphin – Cleary Zone to expand the existing resource and assess the potential for increased grade. Between 2020 and 2023, a total of 168 holes were drilled (105,926.6m). This information has been utilized to produce an updated mineral resource estimate that integrates data from the drilling program in the Dolphin/Cleary Area until the end of 2023 and includes two holes from the early 2024 drill program. Figure 10.2 displays the location of holes drilled during the period 2020 to 2024 (GS2401 and GS2401).

During 2024 drilling continues to the west and southwest where mineralization remains open.

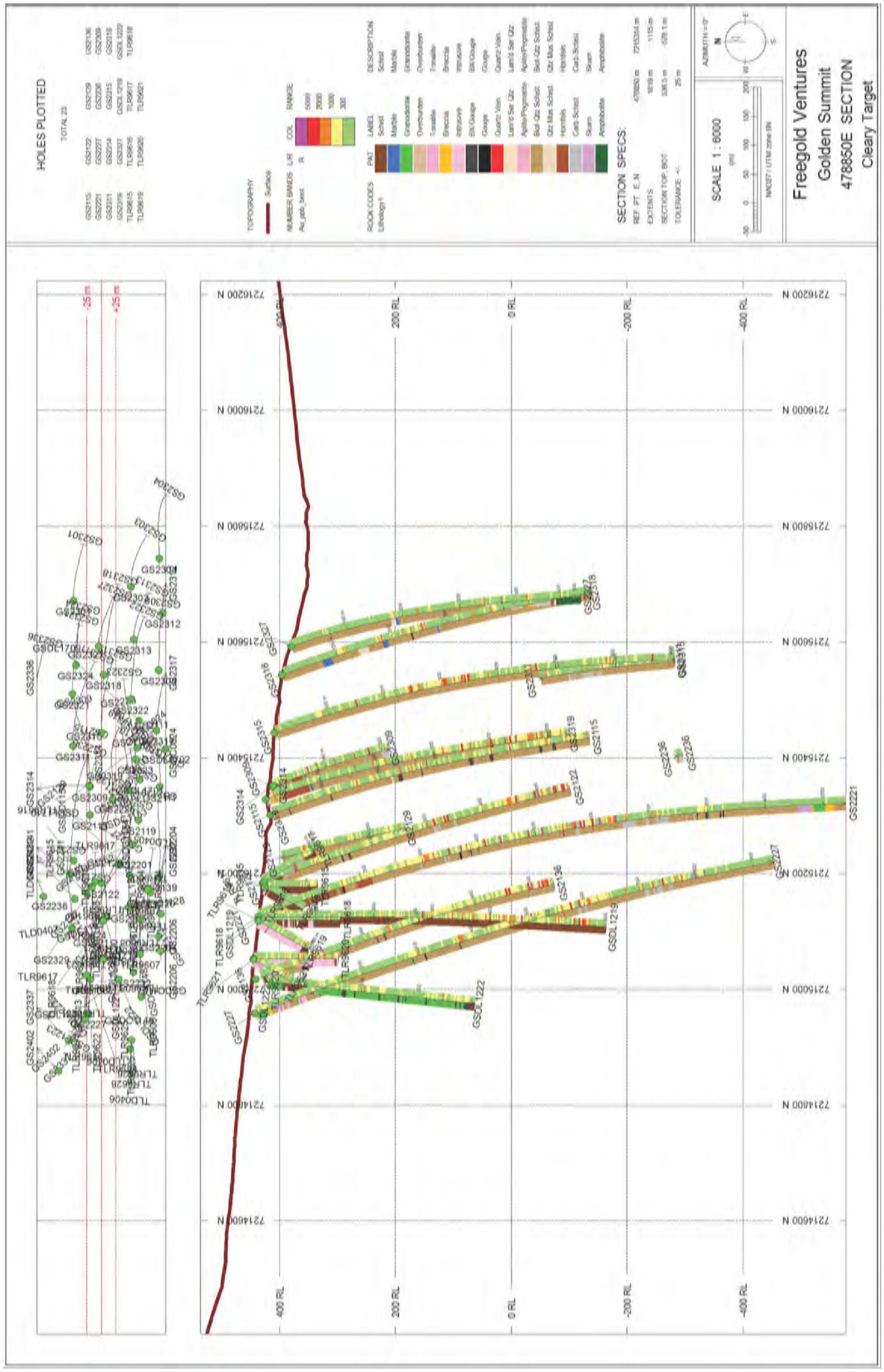
Figure 10-2 Golden Summit Drillhole Locations (2020 – 2024)



Source: Freegold 2024

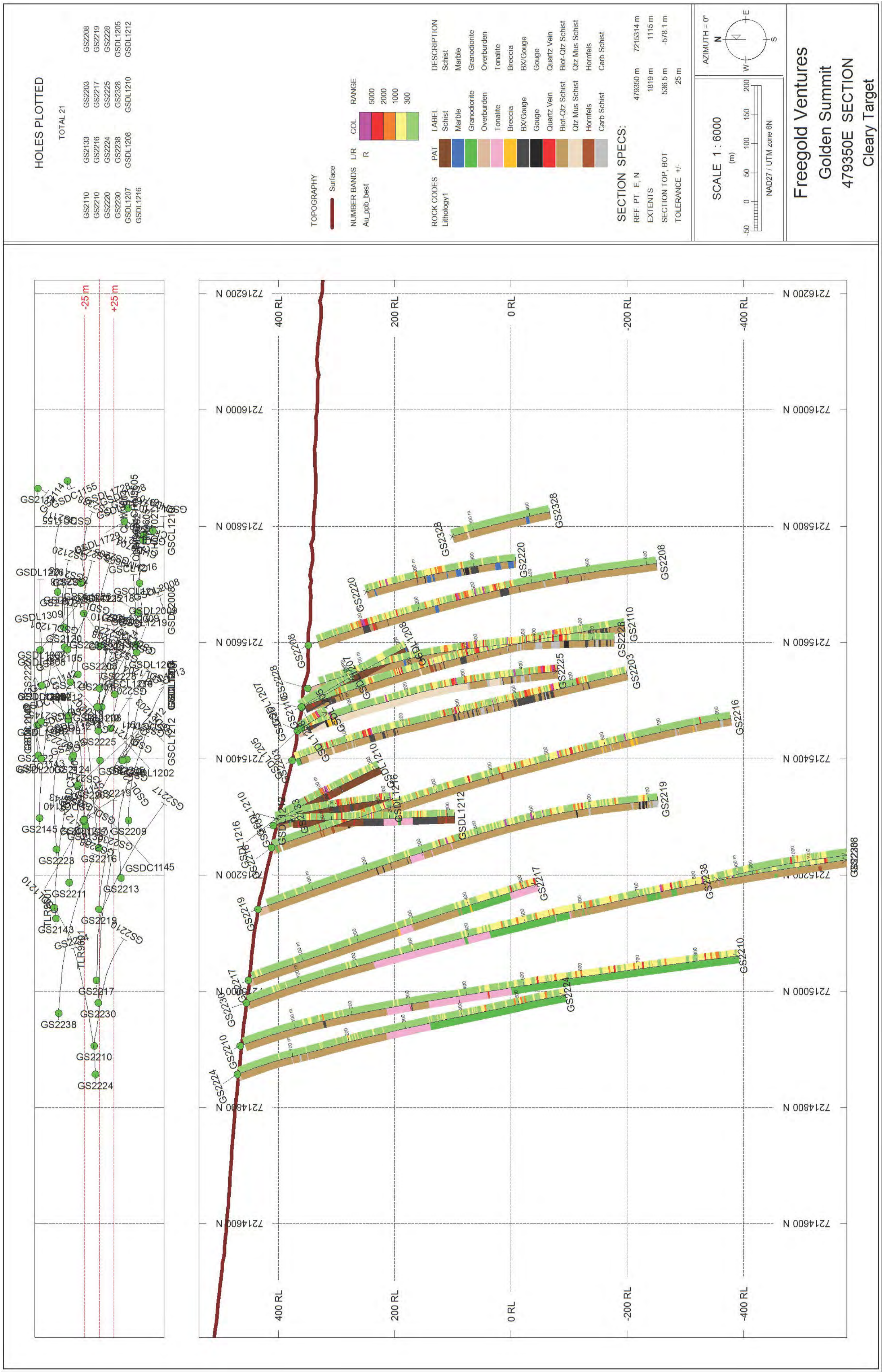
With a few exceptions, all holes were collared with HQ-sized core to maximize core recovery in difficult ground conditions, particularly within the schist and breccia zones. HQ core also provides a larger sample size, which is normally more representative of gold grades, and provides better recoveries. Some of the deeper holes were drilled using PQ (3.345 inch) tooling to ensure that the hole could be reduced to HQ size if downhole conditions required. About 25% of the holes required a reduction to NQTW due to drilling conditions. All holes were sampled from top to bottom and block to block. RQD for each sample is noted, and overall, the recovery has been considered good to excellent. Figures 10-3, 10-4 and 10-5, are west-facing vertical sections through the Dolphin Cleary Zones.

Figure 10-3 Golden Summit Vertical Section 478,850E – Looking West



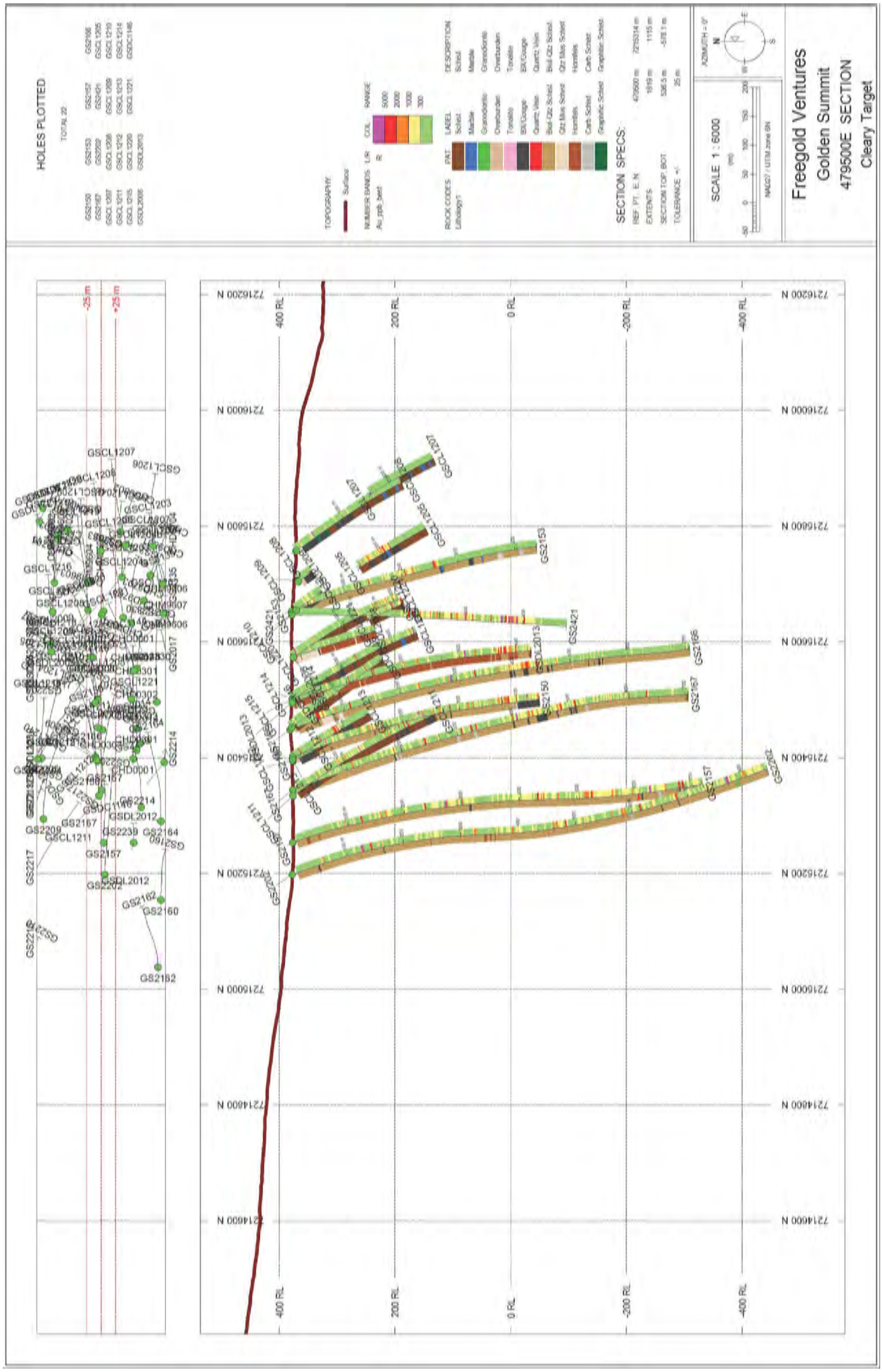
Source: Freegold 2024

Figure 10-4 Golden Summit Vertical Section, 479,350E - looking West



Source: Freegold 2024

Figure 10-5 Golden Summit Vertical Section, 479,500E - looking West



Source: Freegold 2024

It is possible that incomplete core recovery in fractured and faulted areas may have reduced the recovery of gold due to the loss of fine particles during drilling. However, since fractured areas often contain higher-than-average gold grades, it cannot be assumed that core recovery in these areas has a positive or negative impact on gold grades. There are no known drilling, sampling, or recovery factors that could significantly affect the accuracy and reliability of the results.

Saddle Zone

In addition to the drilling in the Dolphin/Cleary area in 2023, seven reconnaissance (4,072.7 metres) style holes were drilled in the Saddle Zone.

The Saddle Zone is located 4 kilometers east of the central Dolphin/Cleary Zone and has the potential for further expansion to the east. It consists of an extensive vein system covering a 3km by 1km area. In 2023, a program tested an 800-meter section of this vein system and found promising gold and silver mineralization in all seven reconnaissance holes. Unlike the Dolphin/Cleary Zone, where mineralization occurs within broad, continuous lower-grade halos surrounding higher-grade veins, the Saddle Zone hosts mineralization within discrete higher-grade veins, commonly with attractive silver values.

In 2011 and 2012, Freegold conducted a small drilling program on the Christina Vein, one of several veins found within the 3km by 1km wide Saddle Vein Swarm. The drilling focused on a 150-meter section of the Christina Vein located west of the Main Saddle Zone. (Figures 10-7 and 10-8)

Figure 10-6 Map Showing Location of Saddle Zone Drilling, 2023

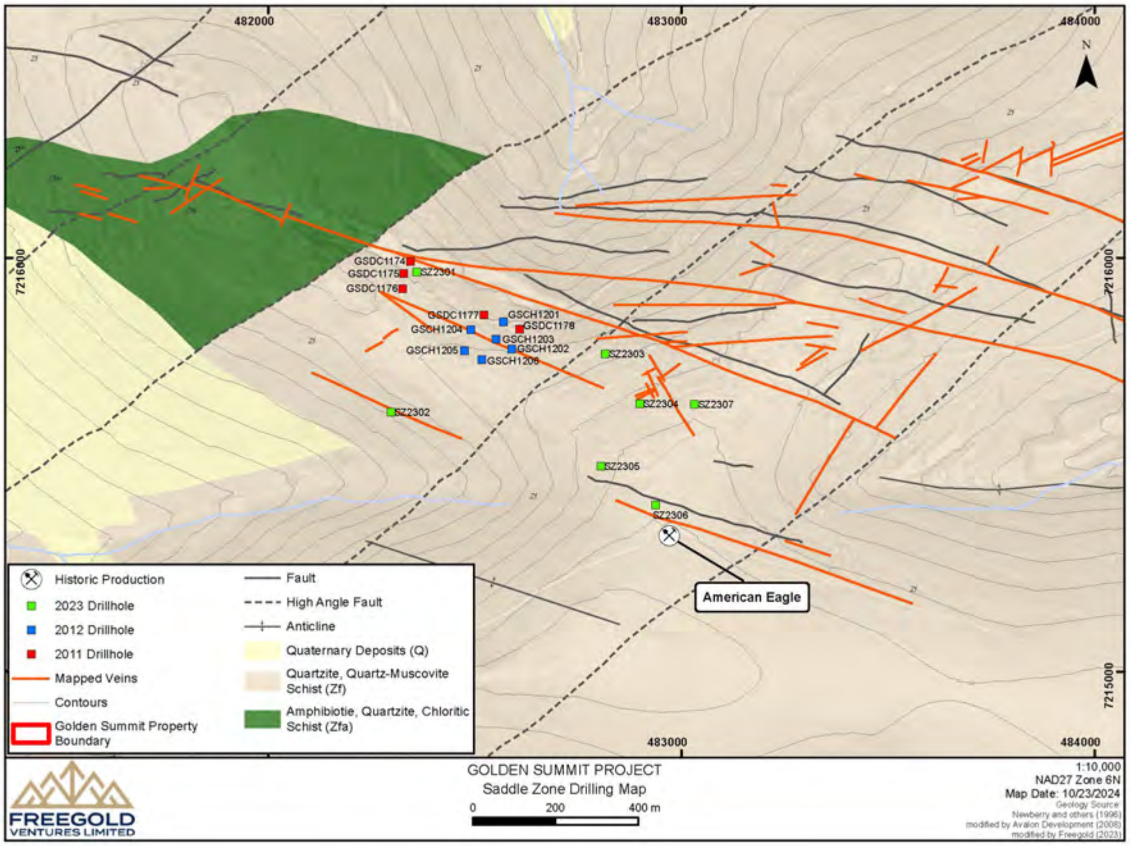
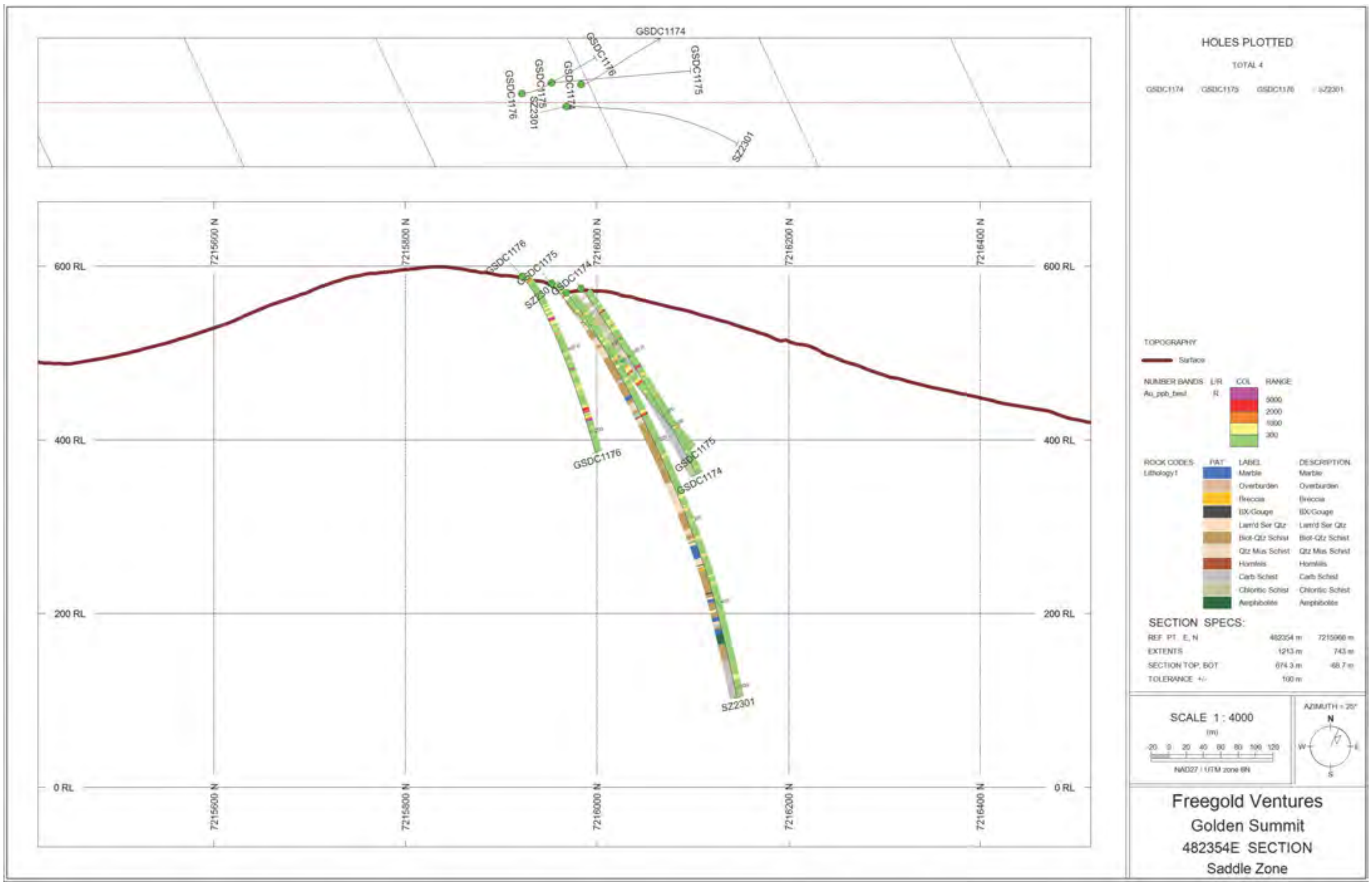


Figure 10-7 Section 482354E – Saddle Zone Drilling



The Saddle Zone and the Hi Yu, both targets east of the main resource, are areas that may have potential to host additional mineral resources. Additional drilling will be required to delineate these targets further. The results of the 2023 drilling demonstrate the potential for mineralization to extend to depth.

11.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following is a summary of the methods and procedures employed for the various drill campaigns.

11.1 1992–2004

Avalon Development was the project manager during this period. For all the relevant programs, Avalon Development collected, logged and retained samples collected in the field until they were turned over to a commercial laboratory representative, either Chemex or Bondar Clegg. Sample preparation was completed by Chemex and Bondar Clegg in their laboratories in Anchorage or Fairbanks, and analytical work was completed by Chemex Labs and Bondar Clegg Ltd., at their facilities in Vancouver, B.C. Assaying of gold was by fire assay and of multi-elements by inductively coupled plasma (ICP) analysis. Prior to 2000, all samples were prepared using two-acid digestion. Samples collected in 2000 through 2004 were subjected to four-acid digestion. Selected sample pulps were reanalyzed by metallic screen methods to quantify the presence of elemental gold.

In 1996, quality assurance consisted of duplicate samples that were inserted on a 1:10 basis. During 1997 - 1998, additional quality assurance was added with blanks and standards. Blanks were inserted on a 1:25 basis from 2000-2004, and commercially prepared standards were introduced on a 1:50 basis during 2004. Blanks consisted of Browns Hill Quarry basalt, an unmineralized Quaternary basalt flow from the Fairbanks Mining District.

11.2 2005–2011

Exploration during 2005 focused on a limited trenching program. During 2005, Alaska Assay Labs in Fairbanks, prepared trench samples and ALS Chemex Labs completed sample analysis until August 2005. Commercial standards containing 1.5 and 2.5 ppm gold were introduced on a 1:50 basis in 2005. Analysis of variance of samples analyzed by ALS Chemex indicated no unacceptable sample results.

RAB (Rotary Air Blast) drill samples were collected during 2006, 2007 and 2008. Sampling consisted of a 100% split of the drill cuttings. Samples were collected by Avalon Development personnel and weighed from 4 kilograms to 54 kilograms, averaging about 7 kilograms. The samples were weighed and logged on-site and transported daily to a locked warehouse at Avalon Development's office complex for subsequent pick-up, preparation and analysis by ALS Chemex or Alaska Assay Laboratories. Starting in June 2007, samples were collected at 2.5-foot intervals and passed through a Jones-type splitter until the sample intended for analysis weighed between 250 and 500 grams. Results of RAB drilling were considered to be a geochemical exploration tool and have not been used in any of the mineral resource estimates that have been conducted on the Property.

Samples collected from September 2006 were prepared and analyzed by Alaska Assay Laboratories, that was fully accredited to ISO 17025. Samples were crushed to 70% passing -10 mesh, a 250-gram riffle split was taken, and then subsequently pulverized to 85% passing -200 mesh. The subsequent pulp was assayed utilizing Fire Assay with an AA finish. Samples in excess of 10,000 ppb gold were re-run with a gravimetric finish.

In 2006, commercial standards containing 0.627, 2.56. 5.46, and 11.33 pp, gold were included in sample streams at a rate of 1.25 for rock and channel samples and one per rotary air blast drill role. (approx. 1 per 17 to 25 samples). No unacceptable analytical results were returned for these standards from either

ALS Chemex of Alaska Assay Labs. During the program, one duplicate sample was inserted per hole (average 14m), and a blank or standard was inserted every 10 samples. No unacceptable analytical results were returned for these standards and blanks from either ALS Chemex or Alaska Assay Labs.

11.3 2008 CORE DRILLING

The following procedures describe sample preparation, analysis and security for drill samples collected in 2008 and later Golden Summit drill programs:

Core was moved by Avalon from the drill rig to the secure logging facilities at each shift change.

a) Core boxes were stacked in numerical order in the core logging area.

b) Core boxes were inspected for proper labeling, and the core in the boxes was inspected to ensure that it had been placed in the boxes at the drill rig in the proper order with the proper footage markings on the core run blocks.

c) Core was moved to logging tables and washed with a spray bottle to remove polymer or other drill mud.

d) Core recovery was calculated and marked on the logging sheet for each core run interval pulled by the drilling company. This information was entered in the logs as a percent recovered.

e) Rock Quality Designation (RQD) was calculated for each core run. RQD information was recorded in percentage form on the logging sheet for each core run interval pulled by the drilling company.

f) A senior geologist with experience in rock type, alteration, and mineralization logged the drill core.

g) Following logging, the geologist selected sample intervals for geochemical analyses. Sample intervals did not cross core recovery block boundaries and were no longer than1.5 meters and no shorter than 15 cm in length.

h) The core was wetted and digitally photographed.

i) The original hand-written drill core logs were scanned to a digital format (Adobe pdf) and the resulting scans were checked for clarity and completeness. Hard copy hand drill logs were converted to a digital drill log format (Excel format).

j) Sampling Procedure: Once all the above steps were completed and verified by the geologist, each marked geochemical sample interval was extracted from the core box.

k) 2008*:* 100% of the core from each sample interval was placed in a canvas sample bag bearing the sample number on the sample interval block in the sample bag. Individual sample bags were sealed and stored in Avalon's warehouse for subsequent batch shipping to the geochemical lab

Samples were crushed to 70% passing -10 mesh, and then a riffle split of 250 grams was taken. This split was subsequently pulverized to 85% passing -200 mesh. Analytical procedures included fire assay for gold using AA/Gravimetric which had detection limits ranging from 10 ppb to 3.1 g/t.

During the 2008 core drilling program, 117 blank samples were inserted into the sample submittals. Sample blanks were inserted on a two per one hundred sample basis and consisted of Browns Hill Quarry basalt, an unmineralized Quaternary basalt flow from the Fairbanks Mining District. Eight different commercial standards provided by Analytical Solutions were also used. Values of these standards raged from 0.627 ppm to 11.33 ppm gold. Whole core analyses were performed by Alaska Assay Labs, Fairbanks, (Subsequently acquired by Acme Laboratories). No unacceptable analysis results were returned for these standards and blanks from Alaska Assay Labs.

11.4 2011 – 2013 CORE DRILLING

Core was split in half lengthwise using a tile saw fitted with a diamond blade. The core was then sampled in its entirety by taking one half of the core drilled between each set of run blocks. The individual sample bags were sealed and stored in Avalon's warehouse for subsequent batch shipping to the geochemical lab. The remaining half core is stored in Fairbanks.

Bagged and labeled samples were loaded into large, nylon, poly-sacks capable of holding 2,000 pounds. Representatives of the geochemical lab collected the poly-sacks and handled all sample preparation and analysis from that point forward.

Drill core samples from the 2011 – 2013 programs were prepared at ALS Chemex in Fairbanks with pulps analyzed at either ALS Chemex analytical facilities in Reno, Nevada or Vancouver, BC. Approximately half of the samples during the 2012 drilling campaign were sent to Acme Lab as ACME Lab had both prep and analysis laboratories in Fairbanks. ALS Chemex holds ISO 9001:2008 registration and an ISO 17025 accreditation for specific laboratory procedures. ACME was an ISO/IEC 17025 Accredited facility. There is no relationship between Freegold and any of the laboratories. Sample preparation procedures between the facilities has varied over time however, analytical work consisted of gold by fire assay with atomic absorption or gravimetric finish plus a variable multi-element suite analyzed by inductively coupled plasma emission spectroscopy (ICP) methods.

Drill core and rock samples assayed by ALS Chemex underwent the following preparatory and assay procedures: The sample was crushed to better than 70 % passing -2 mm. A split of up to 250 g was taken and pulverized to better than 85 % passing 75 microns. Gold was assayed by AA23 AU Atomic Absorption Spectroscopy (AAS). Multi-element analyses were by ME ICP61 – Inductively Coupled Plasma – Atomic Emission Spectroscopy (ICP – AES).

Soil samples were analyzed by multi-element analysis for gold and pathfinder elements. Fire assay with an AA finish was used for the gold and four-acid digestion and ICP-AES was used for the 33 pathfinder elements.

In 2011, a total of 10,790 samples were analyzed, including assay and QA\QC samples. QA\QC samples used included standards, blanks and duplicates. Standards were inserted at a rate of approximately seven standard samples per 100 assay samples (7%), blanks were inserted at a rate of approximately two blank samples per 100 assay samples (2.3%), and duplicates (a quarter-section of core) were inserted at a rate of approximately one duplicate sample per 100 assay samples (1%).

The standards were obtained from Analytical Solutions and had values ranging from 0.098 ppm gold to 7.15 ppm gold. Seventeen different standards were used. Standard samples that returned suspect values were re-run, and in all cases the re-assay values fell within the acceptable range.

In 2012, QAQC samples were inserted into the drill sample strings based on approximately one QAQC sample per 10 assay samples (approximately 10%). A total of 13,519 samples were analyzed, including QAQC samples. Standards, blanks and duplicates were used. Standards were inserted at a rate of approximately seven standard samples per 100 assay samples (7%), blanks were inserted at a rate of approximately two blank samples per 100 assay samples (2.3%), and duplicates (a quarter-section of core) were inserted at a rate of approximately one duplicate sample per 100 assay samples (1%).

Sixteen standards were used in the 2012 drill program. Four standards were obtained from Rocklabs and ranged in value from 0.203 ppm gold to 3.562 ppm gold and twelve standards were obtained from Analytical Solutions and ranged in value from 0.334 ppm gold to 7.15 ppm gold. Of the 941 standards used in the 2012 drill program, 11 returned values differing by more than 15% from the expected value. Those standard samples that returned suspect values were re-run at Avalon's request along with core samples surrounding the standard in question, and in all cases the re-assay values fell within the acceptable range.

In 2013, 2,448 samples were analyzed, including assay and QAQC samples and QAQC procedures and materials were similar to those used in 2012. Of the 71 standards used in the 2013 drill program, none returned values differing more than 15% from the expected value.

11.5 2020-2024 CORE DRILLING

From 2020 to 2024, Freegold drilled almost 108,000 meters in 170 core holes.

At the start of the initial 2020 program, core was delivered by the drill contractor twice daily to the preparatory facility in Fairbanks for logging and sample tagging in a secure logging facility rented by Freegold from ALS. The program commenced in February 2020 and was suspended due to COVID19 in March 2020. In June 2020, in order to conduct exploration during the COVID 19 pandemic, a camp was established at the Property. Logging and sampling procedures employed at the ALS facility were as follows:

Logging Procedure:

a) Core was placed on logging tables and washed.

b) Core recovery was calculated for each drill run and was entered into an Excel spreadsheet.

c) The RQD (Rock Quality Designation) was calculated for each core run.

d) Geologists logged the drill core.

e) Following logging, the geologist selected sample intervals for geochemical analysis.

f) ALS digitally photographed the core and uploaded the images to the ALS CoreViewerTM. A total of 5,794 boxes were photographed. Core photography began on-site in January 2021 using Imago

g) Core cutting was initially performed by ALS.

The core was split in half lengthwise using a tile saw fitted with a diamond blade. 19,833 meters were sawed at the ALS facility. One-half of the core was sampled in its entirety between each set of run blocks (9,801 samples).

The following summarizes the procedure used for sample preparation, analysis and security sampling collected in the Golden Summit drilling programs following the establishment of a camp at the Property.

a) At shift changes (two per day) drill company representatives delivered core to the core logging facilities established at the Golden Summit camp. Two logging tents were established, one for each of the two primary drill companies contracted on the project.

b) Core boxes were stacked in numerical order in the core logging area.

c) Core boxes were inspected for proper labeling and core in the boxes were inspected to ensure that the core was placed in the boxes at the drill rig in the proper order with the proper footage markings on the core run blocks.

d) Core was placed on logging tables and washed.

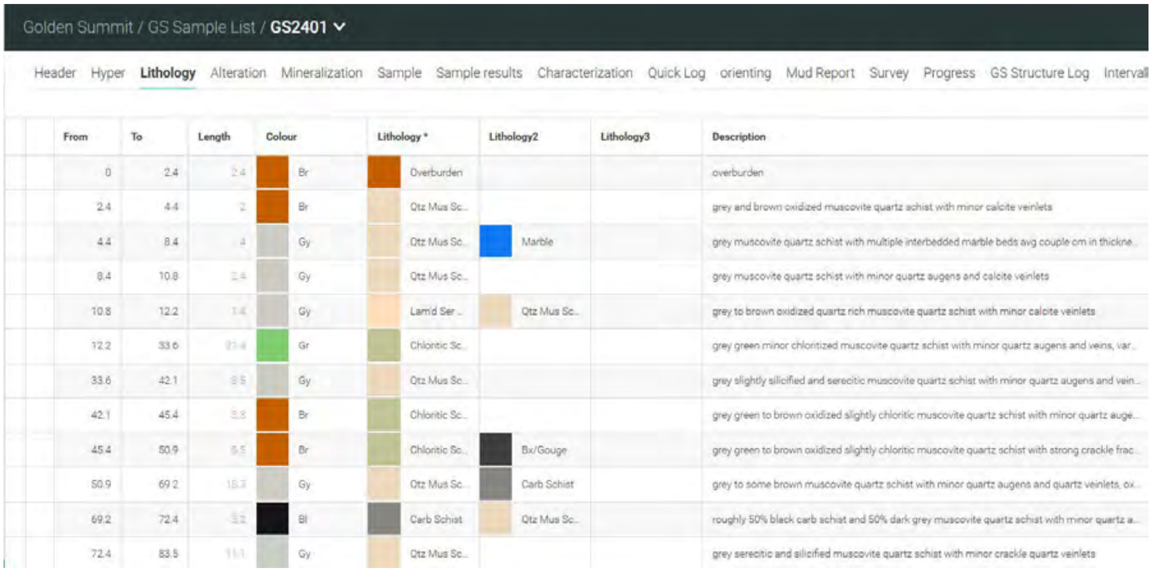
e) Core recovery was calculated and logged into MX Deposit software. This information was entered into the logs as a percent recovered.

f) The RQD, or Rock Quality Designation was calculated for each core run.

g) The drill core was logged by geologists with experience in the rock type, alteration, and mineralization. Details relating to lithology, structure, alteration, and mineralization were recorded systematically within separate logging tabs in MX Deposit software. A core logging manual was developed on-site to standardize logging descriptions further.

h) Lithology is based on contacts between different lithologies rather than sample intervals. There may be large intervals of a single lithology. Lithology may cross sample boundaries. Rock types are selected from the *Lithology* drop-down menu. In the case of thinly interbedded units that may be grouped into a single lithological zone, include the percent of each Lithology present in the interval. For example, quartz muscovite schist (QMS) and carbonaceous schist are often interbedded and logged as “interbedded 75% QMS 25% carb schist,” with QMS in the primary *Lithology* column and Carb Schist in *Lithology 2.* It is important to use the *Description* column to thoroughly describe how lithologies are being broken out, as often strong alteration and the presence of mineralization play key roles in determining lithology breaks.

Figure 11-1 MX Deposit - Lithology



From	To	Length	Colour	Lithology *	Lithology2	Lithology3	Description
0	2.4	2.4	Br	Overburden			overburden
2.4	4.4	2	Br	Qtz Mus Sc...			grey and brown oxidized muscovite quartz schist with minor calcite veinlets
4.4	8.4	4	Gy	Qtz Mus Sc...	Marble		grey muscovite quartz schist with multiple interbedded marble beds avg couple cm in thickne...
8.4	10.8	2.4	Gy	Qtz Mus Sc...			grey muscovite quartz schist with minor quartz augens and calcite veinlets
10.8	12.2	1.4	Gy	Lam'd Ser...	Qtz Mus Sc...		grey to brown oxidized quartz rich muscovite quartz schist with minor calcite veinlets
12.2	33.6	21.4	Gr	Chloritic Sc...			grey green minor chloritized muscovite quartz schist with minor quartz augens and veins, var...
33.6	42.1	8.5	Gy	Qtz Mus Sc...			grey slightly silicified and serecitic muscovite quartz schist with minor quartz augens and vein...
42.1	45.4	3.3	Br	Chloritic Sc...			grey green to brown oxidized slightly chloritic muscovite quartz schist with minor quartz auge...
45.4	50.9	5.5	Br	Chloritic Sc...	Bx/Gouge		grey green to brown oxidized slightly chloritic muscovite quartz schist with strong crackle frac...
50.9	69.2	18.3	Gy	Qtz Mus Sc...	Carb Schist		grey to some brown muscovite quartz schist with minor quartz augens and quartz veinlets, ox...
69.2	72.4	3.2	Bl	Carb Schist	Qtz Mus Sc...		roughly 50% black carb schist and 50% dark grey muscovite quartz schist with minor quartz a...
72.4	83.5	11.1	Gy	Qtz Mus Sc...			grey serecitic and silicified muscovite quartz schist with minor crackle quartz veinlets

Core is sampled by drill run, intervals are recorded in MX by the depth written on each run block. Intervals were recorded from the shallowest to the deepest depths of the core on the logging table. Once the initial *'From'* and *'To'* values are entered, MX automatically populated the proceeding *'From'* value. Interval length was automatically calculated in MX.

Six alteration styles are logged at Golden Summit: propylitic, argillic, sericitic, potassic, carbonate, and silicic. Alteration was logged for each interval, and was assigned a value based on alteration strength:

- 0.25 – Trace
- 1 – Weak
- 2 – Moderate
- 3 – Strong
- 4 – Very Strong

Common mineralization observed at Golden Summit includes pyrite, arsenopyrite, jamesonite, stibnite, galena, sphalerite, pyrrhotite, and native gold. Mineralization is logged for each interval and was assigned a value based on mineralization strength:

- 0.25 – Trace
- 1 – Weak
- 2 – Moderate
- 3 – Strong
- 4 – Very Strong

In addition, magnetic susceptibility is measured using an SM-30 handheld meter comprised of a probe and display screen. The probe contains a magnetic sensor that is placed parallel to the core axis to collect a reading.

Figure 11-2 Magnetic Susceptibility Measurement

i) Following logging, the geologist selected sample intervals for geochemical analyses. Sample intervals did not cross core recovery block boundaries. These sample blocks were marked in red while core footage run blocks were marked in black. Blanks and standards comprised approximately 10% of the samples submitted to the lab from any given drill hole.

j) The core was digitally photographed using IMAGO software to create a consistent visual record. The footage was entered into a tablet at the time of photographing. Core run block and sample interval blocks were plainly visible in the photos. In addition to photographing each core box, the core logger took close-up or macro photos of any obviously mineralized intervals, significant alteration or textures, noteworthy lithologic contacts, distinctive structural zones, etc.

k) Once all the above steps were completed and verified by the geologist, each marked geochemical sample interval was extracted from the core box.

l) Sampling Procedure: Core was split in half lengthwise using either a Pothier and/or Husqvarna core saw fitted with a diamond blade. Core was cut normal to the foliation and bedding. Rock that lacks any linear features or mineral alignment were cut to ensure an even, representative split.

Veins were cut normal to the vein; or concentration of stockworks. Following the cutting of visible gold blades were cleaned on the sharpening stone, blank rock or brick.

m) Every section of core drilled was then sampled by taking one half of the core drilled between each set of run blocks. The individual sample bags were sealed and stored at Freegold's core facility for subsequent batch shipping to the geochemical lab. The core was delivered weekly to the preparatory facilities in Fairbanks. The remaining half of the core is stored both on-site and off-site.

n) On-site geologists completed the geochemical laboratory submittal paperwork. Bagged and labeled samples were then loaded into large nylon polysacks capable of holding 2,000 pounds. The core was delivered to either ALS's preparatory facility or Bureau Veritas's facility in Fairbanks. Sample preparation instructions were included with the sample shipments, and a copy was also sent electronically to the relevant lab personnel.

The 2023 Golden Summit Technical Report (Mosher 2023) describes the QA/QC protocols and procedures used for the 2020 – 2022 drill programs. The following description pertains to the 2023-2024 drill programs.

o) QAQC samples were inserted into the drill sample strings at a ratio of one QAQC sample per 20 assay samples. QAQC samples comprised standards, blanks and duplicates. Standards were inserted at a minimum rate of 1 standard sample per 20 assay samples. Blanks were inserted at a rate of a minimum of one blank sample per 50 assay samples at the start of each work order, and as determined visually by the on-site geologist. Duplicate samples were taken every 20 samples. Standard and blank samples were analyzed in order of sample number by ALS Chemex or ActLabs along with the core samples. Blanks are inserted at the beginning of each submittal.

p) Eleven standards were used in the 2023 drill program. Commercially prepared standards were obtained from OREAS and with an average range value from 0.176 ppm gold to 2.26 ppm gold. 2,097 standards, blanks and duplicate samples were used.

q) Efforts were made to insert standards based on observed mineralization. Standards with higher base metal values were used in zones with higher sulfide concentration, and standards with higher gold values were used where gold mineralization was observed or suspected in drill core. Blank samples consisted of unmineralized blank material supplied by ALS.

r) Most assays were completed by ALS Chemex, with a smaller proportion completed by ActLabs, including additional check assays.

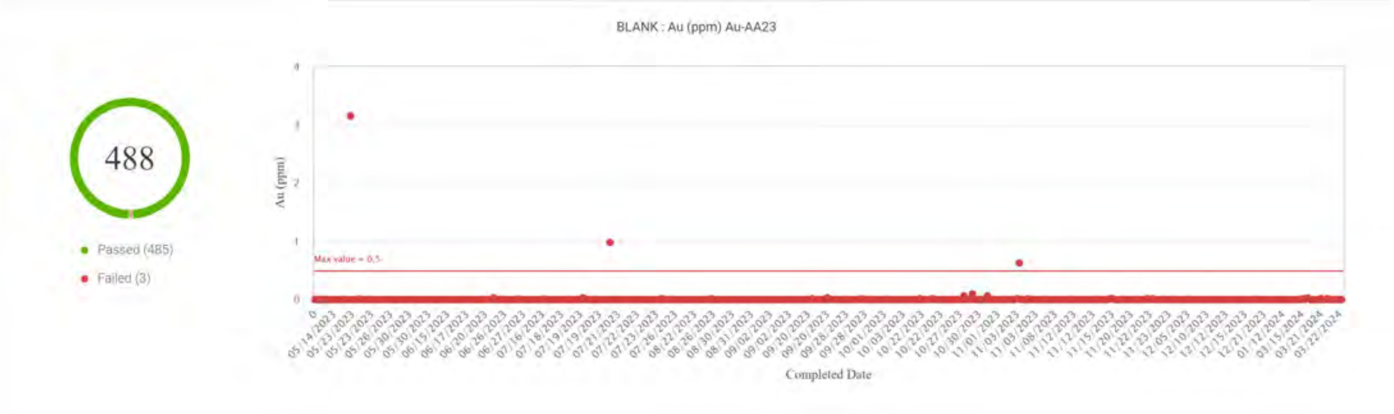
s) Core samples were delivered to ALS in Fairbanks. Under the direction of ALS, samples were shipped to various preparatory facilities in Whitehorse, Reno, or Vancouver, where they followed the prescribed preparatory methods. PREP-31BY package: Each core sample was crushed to better than 70 % passing -2 mm. A split of 1kg was taken and pulverized to better than 85 % passing 75 microns. A portion of this pulverized split was digested by four-acid and analyzed by ICP-AES (ME-ICP61). All gold assays were by fire assay with an AAS finish, (Au-AA23, 30g sample size) and samples that assayed over 10 g/t were automatically re-assayed using a FA Gravimetric method, Au-GRAV21. Metallic gold screening was performed using ALS's Au-SCR24 procedure. Analyses and assaying was primarily conducted in ALS's North Vancouver and Reno facilities.

ALS Chemex meets all the requirements of ISO/IEC 17025:2017 and ISO 9001:2015. ActLabs is an ISO/IEC 17025 accredited facility. There is no relationship between Freegold and any of the laboratories. Sample preparation procedures between the facilities has varied over time, however, analytical work consisted of gold by fire assay with atomic absorption or gravimetric finish plus a variable multi-element suite analyzed by inductively coupled plasma emission spectroscopy (ICP) methods. Core Samples prepared by ActLabs followed the PRP80-1 Kg procedure. Each core sample was crushed to better than 70 % passing -2 mm from which a split of 1 kg was taken and pulverized to better than 85 % passing 75 microns. A portion of this pulverized split was digested by four-acid and analyzed by ICP-ES (MA200).

Samples were analyzed by fire assay with an AAS finish, (FA-430, 30g sample size) and assays over 10 g/t were automatically re-assayed using FA/Gravimetric method, FA530. Additional Au screening was performed using ActLabs's FA632 method. AQA/QC program included laboratory and field standards inserted every ten samples, with a blank at the start of every work order.

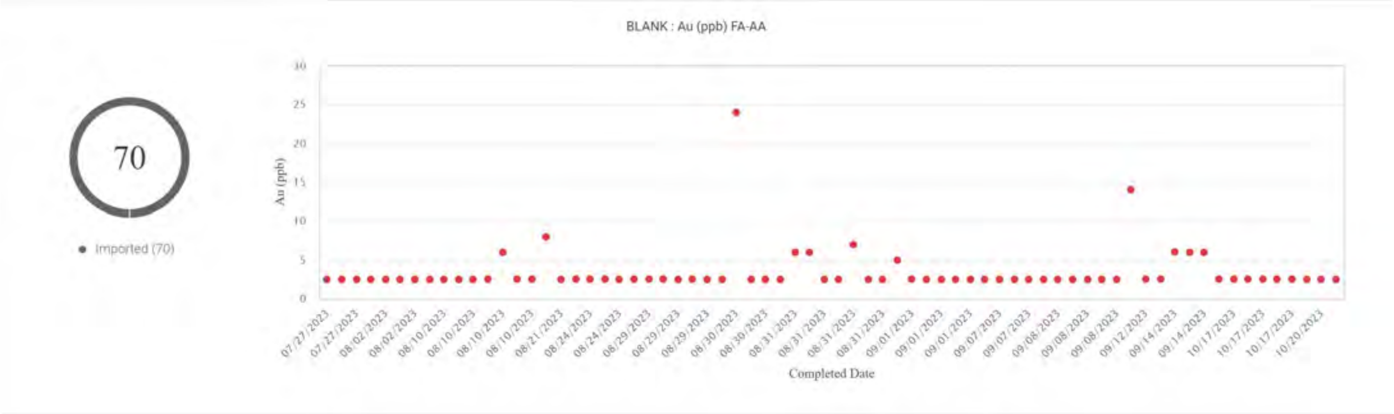
A total of 488 blanks were submitted to ALS and 70 to Act Labs. Blanks assayed by ALS had a failure rate of 0.6% (3 out of 488 greater than 500 ppb, and a zero failure rate for blanks assayed by ActLabs. Figure 11-3 shows analyses of blanks by ALS and Figure 11-4 for blanks assayed by ActLabs.

Figure 11-3 Golden Summit Blanks ALS 2023



Source: Freegold 2024

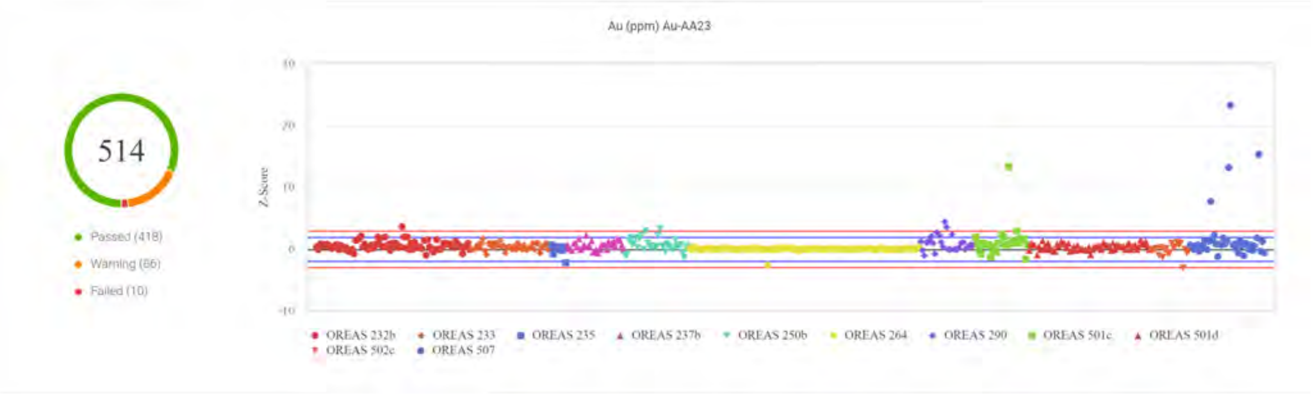
Figure 11-4 Golden Summit Blanks Act Labs 2023



Source: Freegold 2024

Eleven standards, provided by OREAS, were used as reference materials. A total of 585 standards were submitted to both labs (514 to ALS and 71 to ActLabs). Those submitted to ALS had a failure rate of 2% (10/514). Those submitted to ActLabs had no failures and one warning. Figures 11-5 and 11-6 show the Z-Scores for ActLabs and ALS respectively.

Figure 11-5 Golden Summit Standards Z-Scores ALS 2023



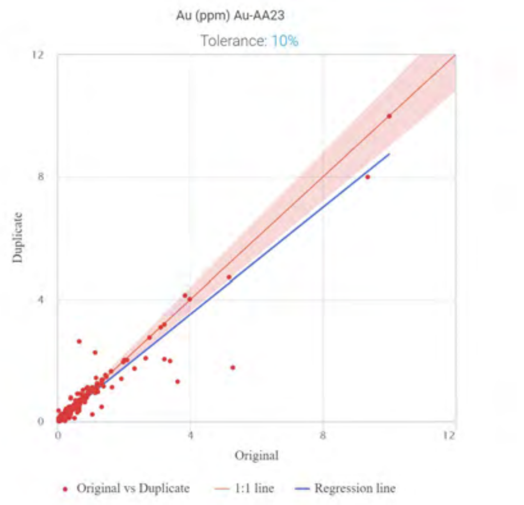
Source Freegold 2024

Figure 11-6 Golden Summit Standards Z-Scores ActLabs 2023

Source: Freegold 2024

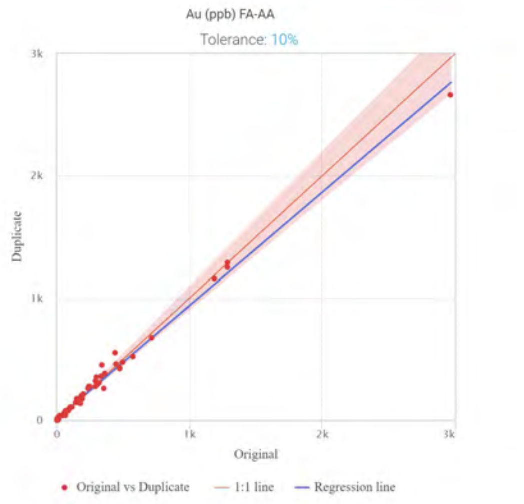
Freegold submitted 825 duplicate samples during the 2023 drill campaigns, 751 to ALS and 74 to ActLabs. Figure 11-7 shows the correlation for pairs analyzed by ALS and Figure 11-8 shows the correlation between pairs analyzed by ActLabs. The correlation coefficient for ActLabs was higher than for ALS but both are high.

Figure 11-7 Golden Summit Duplicate Pairs ALS 2023



Source: Freegold 2024

Figure 11-8 Golden Summit Duplicate Pairs ActLabs 2023



Source: Freegold 2024

Assay data was imported regularly into MX Deposit software. Sample numbers and QA/QC standard results were regularly reviewed. In the event of a QA/QC failure, handwritten logs and photographic records of the standard submitted were examined to ensure that the proper standard had been inserted. In the event the standard was correct, the reporting lab was contacted, noting both the work order and sample number, which appeared erroneous. Generally, new standards were submitted, and sample pulps were re-run on either side of the sample in error. Corrected data, if applicable, was imported into MX Deposit. Freegold maintained a set of blind standards at ALS facilities in Vancouver and Reno to facilitate re-analyses.

There are no known drilling, sampling or recovery factors that could materially impact the accuracy and reliability of the results obtained from any of the programs described above.

The relationship between sample length and the true thickness of the mineralization is highly variable or is not known. As most mineralization is of a “bulk” nature, true thickness pertains more to the overall volume of mineralization rather than to individual occurrences of veins or mineralized shear zones.

Higher-grade intervals within lower-grade intervals were accommodated in the mineral resource estimate described in Section 14 of this report by capping. This process is described in Section 14 of this report.

The author is of the opinion that sample preparation, security, and analytical procedures meet industry standards and that the results obtained from them are suitable for use in the MRE described in Section 14 of this report.

12.0 DATA VERIFICATION

The author verified the data used in the mineral resource estimate described in Section 14 of this report by several means:

1. During the site visit, locations of several holes drilled during the 2023 season were inspected as well as an active drill site. Logging, sampling and core storage facilities and procedures were reviewed. Core was previously stored on site but now is stored in a facility offsite, so stored core could not be inspected, although the manner of packing and shipping the core was reviewed.
2. Assay certificates were provided for all holes drilled by Freegold during 2023. A random selection of assay values on certificates were compared with assay values in the database. Approximately 500 assay values, from holes drilled in 2023, were checked, and no discrepancies were found.

The author is of the opinion that the sample data are adequate for the purpose of the mineral resource estimate described in Section 14 of this technical report.

13.0 MINERAL PROCESSING & METALLURGICAL TESTING

Metallurgical test work for the Project was initiated in 2012 with bottle roll tests of 10 different drillcore samples by Kappes, Cassiday & Associates (KCA), with the final report dated March 21, 2012. The primary objective of the tests was to obtain a preliminary indication of the cyanide leaching characteristics of the oxide minerals in the deposit.

A second set of process tests was started in 2013 by SGS Canada Inc. (SGS), on five different mineralogical composites, with the final report dated May 21, 2014. This test work primarily focused on investigation of processing methods for the recovery of gold from sulfide materials.

Additional bottle roll and column leach test work was performed in 2014 to investigate grind sensitivities in four drill core composites and to examine heap leach behavior in the oxide material. These tests were performed by McClelland Laboratories, Inc. with a final report dated January 9, 2015.

A further metallurgical test program was undertaken at SGS on three of the five composites tested in 2013 and 2014.

This program was a follow-up to the SGS work reported in May 2014. The main areas of focus were flotation of a bulk sulfide concentrate and the assessment of downstream treatment alternatives including Carbon In Leach (CIL), Pressure Oxidation (POX) and Albion Technology.

The most recent metallurgical test work has been performed at BaseMet Laboratories from Q1 2023 through to Q1 2024. A total of eight drill hole composites and a master composite were the subject of testing of gravity, whole ore CIL, flotation and CIL on sulfide concentrate. Initial environmental characterization of a flotation rougher tailing stream was also undertaken

13.1 KCA TEST WORK

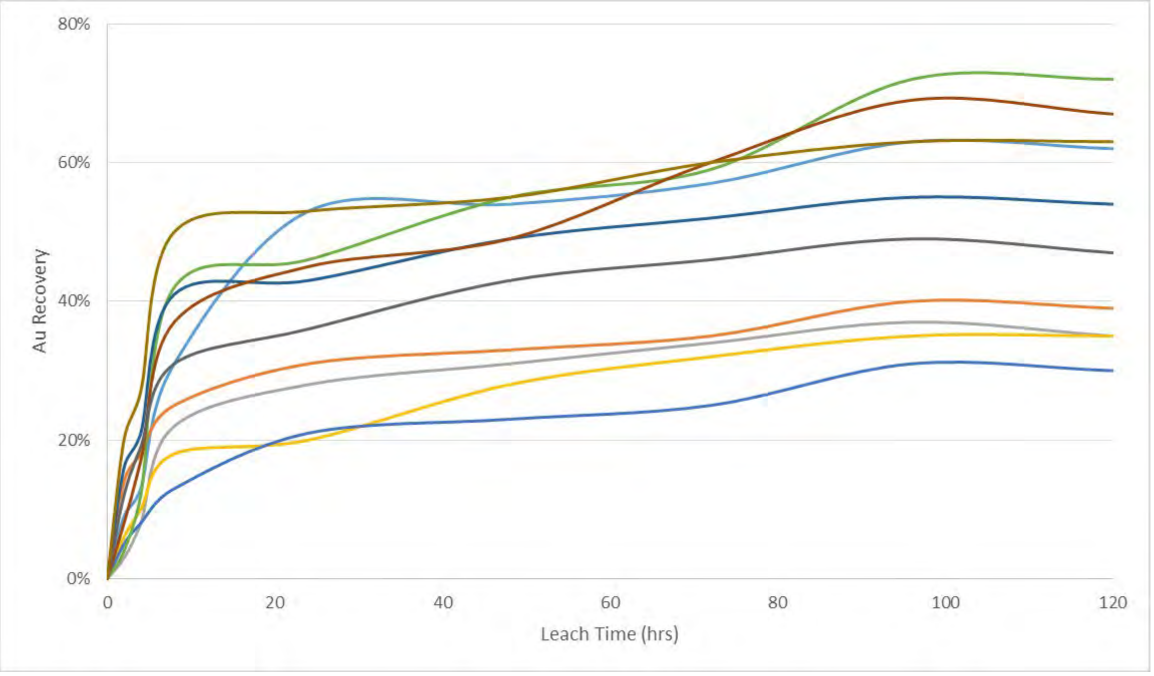
13.1.1 Bottle Roll Test work

On February 16, 2012, KCA received 13 drill core samples to prepare ten separate bottle roll tests. The metallurgical test work consisted of 120-hour bottle roll tests on seven individual samples and three composite samples.

The samples were first crushed and mixed with water to create a slurry. Sodium cyanide and hydrated lime were then added to the slurry to achieve 1.0 g/L NaCN at a pH between 10.5 and 11.0; additional reagents were added to maintain these values throughout the test period. The slurry was then agitated for two minutes every hour, with solution samples initially taken at two, four, eight, and 24 hours. After the initial 24 hours, samples were taken every 24 hours for four days.

Gold head grades for the ten samples ranged from 0.34 g/t to 1.4 g/t. Final soluble gold recoveries, after 120 hours, ranged from 38% to 73%, with no measurable correlation to head grade. The tests show that all the samples have fast leaching kinetics, with over 60% of the total soluble recovery occurring in the first 24 hours. Figure 13-1 shows the time vs recovery curve for each of the ten tests.

Figure 13-1: KCA Gold Leaching Kinetics



13.2 SGS PROCESS FLOWSHEET TESTWORK

In 2013, SGS received 279 drill core samples that were composited into five different rock types: oxide, transition, hornfels sulfide, intrusive sulfide, and schist sulfide. All five composites were subjected to Bond Ball Mill Work Index and whole mineralized material cyanide leach testing. The four non-oxide composites were also subjected to additional sulfide recovery tests, including whole mineralized material roasting, whole mineralized material pressure oxidation (POX), flotation, and flotation followed by pressure oxidation. A summary of the highest gold recoveries is presented in Table 13.1.

Table 13-1: SGS Summary of the Highest Leach Recoveries

Mineralized Material Type	Flowsheet	Gold Head Grade (g/t)	Gold Recovery (%)
Oxide	Whole Mineralized Material	0.94	89.3
	Coarse Mineralized Material	0.97	88.2
Transition	Whole Mineralized Material	0.66	75.6
	Coarse Mineralized Material	0.52	57.3
	Whole Mineralized Material POX	0.55	98.3
	Whole Mineralized Material Roast	0.57	85.4
	Flotation	0.66	74.8
	Flotation – POX	0.60	91.1
Hornfels Sulfide	Whole Mineralized Material	0.66	57.8
	Whole Mineralized Material POX	0.68	98.5
	Whole Mineralized Material Roast	0.63	81.5
	Flotation	0.78	57.0
	Flotation – POX	0.80	91.0
Intrusive Sulfide	Whole Mineralized Material	0.95	65.2
	Whole Mineralized Material POX	0.89	97.9
	Whole Mineralized Material Roast	0.94	84.0
	Flotation	1.02	66.6
	Flotation – POX	0.77	95.7
Schist Sulfide	Whole Mineralized Material	0.93	15.5
	Whole Mineralized Material POX	0.92	97.9
	Whole Mineralized Material Roast	1.13	68.4
	Flotation	0.91	14.1
	Flotation – POX	0.87	89.1

Results from process flowsheet test work show that the oxide and, to a lesser extent, the transition material are recoverable without any form of sulfide oxidation. Both the hornfels and intrusive sulfide material can be recovered with direct cyanidation, although at much lower recoveries. All the sulfide-containing material was shown to respond favorably to both POX and roasting.

13.2.1 Bond Ball Mill Work Index Test work

All five composites were subjected to Bond Ball Mill Work Index testing. The composites were crushed to minus 6 mesh with the tests conducted on a 150-mesh closing size. A summary of the test results is presented in Table 13.2 indicating that the mineralized materials have a medium hardness.

Table 13-2: SGS Bond Ball Mill Work Index

Mineralized Material Type	F_{80} (µm)	P_{80} (µm)	BWI (kWh/t)
Oxide	1484	81	12.5
Transition	1601	81	13.6
Hornfels Sulfide	1590	80	14.8
Intrusive Sulfide	844	77	13.7
Schist Sulfide	1485	79	12.8

13.2.2 Whole Mineralized Material Leaching

Whole mineralized material leaching test work was performed on all five composites using standard bottle roll test procedures. The bottle roll tests were conducted for 48 hours at a range of target grind sizes, from P_{80} 20 µm to P_{80} 106 µm, with a cyanide concentration of 1.0 g/L.

Both oxide and transition samples had recoveries that were slightly dependent on grind size. The oxide sample had gold recoveries between 85.2% at the coarsest grind and 89.3% at the finest grind. The transition sample had slightly lower gold recoveries than the oxide sample, recovering between 68.2% at the coarse size and 75.6% at the fine size.

The hornfels sulfide and intrusive sulfide samples had lower gold recoveries with the hornfels sample recovery ranging between 47.9% and 57.8% and the intrusive sample recovery ranging from 57.8% to 65.2%. The schist sulfide sample had very low gold recoveries, ranging from 8.5% to 15.5%. All three sulfide composites were shown to have no measurable correlation between grind size and recovery at the tested grind sizes.

13.2.3 Whole Mineralized Material Pressure Oxidation and Leaching

Whole mineralized material POX test work was performed on the four sulfide-containing composites. Two samples from each of the sulfide-containing composites were ground to P_{80} 75 µm and P_{80} 53 µm. All of the samples underwent 45 minutes of pre-acidification, to a pH of 2.0, prior to POX. The samples were then oxidized in an autoclave at 200°C with 100 psi of overpressure for 80 minutes. POX residue showed that over 97% of the sulfides in the samples were oxidized.

Residues of the POX tests were washed and neutralized prior to undergoing cyanidation bottle roll testing. Test parameters for the bottle roll tests were the same as those used in the whole mineralized material leaching test work. The test results from the leaching show that gold recovery is insensitive to grind size in the ranges tested. Average gold recovery for the transition composite was 96.4%. The hornfels, intrusive, and schist sulfide samples had average gold recoveries of 97.1%, 97.2%, and 97.0%, respectively.

13.2.4 Whole Mineralized Material Roasting

Whole mineralized material roasting test work was performed on the four sulfide containing composites. All of the samples were ground to P_{80} 75 µm and heated to 550°C for 90 minutes. The samples were then neutralized prior to leaching. Sulfide analysis on the roasted material showed that over 95% of the sulfides in the samples were oxidized.

The samples were leached using the same standard bottle roll test procedures as for the whole mineralized material leaching. All four samples showed increased gold recoveries compared to whole mineralized material leaching. The transition sample had the highest gold recovery, at 85.4%, an increase of approximately 15% compared to whole mineralized material leaching. Gold recovery in the hornfels sample increased to 81.5%, an increase of approximately 28% compared to whole mineralized material leaching. The gold recovery for the intrusive sample increased to 84.0%, an increase of approximately 25% compared to whole mineralized material leaching. The schist sample had the highest overall increase in gold recovery when compared to whole mineralized material leaching, an increase of approximately 57%, but also had the lowest overall recovery, at 68.4%.

13.2.5 Sulfide Flotation & Leaching

Rougher kinetic flotation tests were performed on each of the four sulfide-containing composites to determine flotation characteristics of the composites. Three tests were performed on each composite at grind sizes ranging between P_{80} 80 µm and P_{80} 130 µm. Copper sulfate was used to activate the sulfide minerals in the samples with potassium amyl xanthate (PAX) and Aero 407 being used as collectors. Gold recoveries into flotation concentrate are shown in Table 13.3.

Table 13-3: SGS Flotation Concentrate Gold Recoveries

Composite Rock Type	Test #	Au Recovery (%)
Transition	R-04	85.2
Transition	R-08	88.1
Transition	R-12	95.9
Hornfels Sulfide	R-01	88.1
Hornfels Sulfide	R-05	83.9
Hornfels Sulfide	R-09	88.8
Intrusive Sulfide	R-02	92.8
Intrusive Sulfide	R-06	93.8
Intrusive Sulfide	R-10	96.1
Schist Sulfide	R-03	83.0
Schist Sulfide	R-07	91.4
Schist Sulfide	R-11	92.9

At the conclusion of the rougher kinetic tests, twelve batch flotation tests were performed to generate concentrate for downstream testing. The products from the twelve tests were combined to form composites for each of the four sulfide rock types.

Samples from each of the bulk flotation concentrates were ground for zero, 15, and 45 minutes and then subjected to leaching with a 5 g/L sodium cyanide solution. Gold recoveries for the transition sample averaged 74.8%. Gold recoveries for the hornfels, intrusive, and schist sulfide samples had recoveries averaging 58.0%, 69.0%, and 13.4%, respectively. These recoveries were similar to the recoveries seen in the whole mineralized material leaching test work, indicating that oxidation of the sulfides is required to improve recoveries.

Additional cyanide leaching test work was performed on flotation tailings to determine gold extractions from the tailings stream. Gold recoveries in the tailings streams ranged from 18.1% to 61.4%. The low recoveries reflect the low proportion of gold reporting to the flotation tailings.

13.2.6 Flotation Pressure Oxidation & Leaching

Flotation concentrates from the bulk flotation tests were subjected POX tests. Eight 80-minute POX tests were performed, two from each sulfide composite, using an autoclave at 200°C and 100 psi oxygen overpressure. The residues from the POX tests indicated that sulfide oxidation was greater than 98% for all samples.

Residues of the POX tests were washed and neutralized prior to undergoing intense cyanidation bottle roll testing. Test parameters for the bottle roll tests were the same as those used in the flotation concentrate leaching test work. Gold recoveries for the transition samples averaged 95.9%. Gold recoveries for the hornfels and schist Sulfide composites averaged 98.4% and 91.6%, respectively. One of the cyanidation tests performed on the intrusive sulfide composite achieved a gold recovery 83.8%. This result was likely erroneous due to poor solution chemistry. The second test performed on the intrusive sulfide composite achieved a much higher gold recovery of 97.1%.

13.2.7 Coarse Mineralized Material Cyanidation

Four coarse mineralized material bottle roll tests, two on each of the oxide and transition composites, were conducted to examine the sensitivity of gold recoveries to particle size. The samples were crushed to minus 6 mesh before the material was added to a 5 g/L sodium cyanide leach solution. The bottle roll tests were conducted by rotating the bottles for one minute every hour. Solution samples were taken at two, six, and 24 hours, and every 24 hours after, until the 120-hour mark.

The leaching kinetics for both samples were very fast, with greater than 95% of the total gold recovery occurring in the first 24 hours. Overall gold recoveries for the oxide sample averaged 88.1%, only one percent lower than the best result from the whole mineralized material test work ground to P_{80} 50 µm. The transition sample did not perform as well as the oxide sample when compared to the whole mineralized material test work. The transition samples only achieved 57.3% gold recovery, compared to the 75.6% achieved for the whole mineralized material test work ground to P_{80} 50 µm.

13.3 MCCLELLAND TEST WORK

In 2014, metallurgical test work was performed on four drill core composites of different mineralogy from the Property. The composites were designated as oxide, transition, intrusive sulfide, and hornfels sulfide and were initially subjected to coarse bottle roll tests conducted at five different feed sizes. Due to poor recoveries on the non-oxide composites, additional bottle roll tests were performed at the finer grind sizes in attempt to increase recoveries.

One column leach test was performed on the crushed oxide composite to determine heap leaching characteristics of the material.

13.3.1 Bottle Roll Test work

Bottle roll test work was performed on four composites using standard bottle roll test procedures. The first set of bottle roll tests were run for 120 hours, agitating for one minute every hour. Target grind size ranged from P_{80} 25 mm to P_{80} 1.7 mm, with cyanide concentrations of 1.0 g/L.

The oxide sample had gold recoveries between 77.2% and 81.3%. Grind size did not appear to have an appreciable effect on gold recoveries at the sizes tested. The transition sample had gold recoveries between 21.5% and 40.4%. Similar to the oxide sample, the grind size did not appear to have an appreciable effect on gold recoveries between 25 mm and 6.3 mm, as all four tests had recoveries between 21.5% and 29.4%. Grind size did appear to have an effect when going from 6.3 mm to 1.7 mm as gold recovery improved to 40.4%.

Both the intrusive sulfide and hornfels sulfide samples had low gold recoveries, with the intrusive sample recovery ranging between 17.9% and 41.5% and the hornfels sample recovery ranging from 12.3% to 27.9%. Finer grind sizes appeared to have a positive effect on recoveries. Recoveries increased at each finer grind size with the exception of the coarsest hornfels sample.

Due to the low recoveries achieved on the transition, hornfels, and intrusive samples, additional bottle roll tests were performed at P_{80} 212 µm and P_{80} 75 µm. The test procedures for the additional bottle rolls differed from the previous tests by decreasing the leach time to 96 hours and increasing the cyanide concentration to 5 g/L. All three samples had higher recoveries than the previous tests. Gold recoveries ranged from 57.9% to 65.8% in the transition sample, 54.7% to 63.9% in the intrusive sample, and 44.2% to 53.3% in the hornfels sample. Grind size did not appear to have an effect on recoveries between 212 µm to 75 µm.

Table 13.4 summarizes gold recoveries for the bottle roll tests

Table 13-4: Bottle Roll Test Results

Composite	Feed Size	Leach Time (hr)	NaCN Conc. (g/L)	Au Recovery (%)
Oxide	25 mm	5	1.00	79.8
Oxide	19 mm	5	1.00	79.2
Oxide	12.5 mm	5	1.00	77.8
Oxide	6.3 mm	5	1.00	77.2
Oxide	1.7 mm	5	1.00	81.3
Transition	25 mm	5	1.00	21.5
Transition	19 mm	5	1.00	29.4
Transition	12.5 mm	5	1.00	25.9
Transition	6.3 mm	5	1.00	26.7
Transition	1.7 mm	5	1.00	40.4
Transition	1.7 mm	5	1.00	36.6
Transition	1.7 mm	5	5.00	34.9
Transition	212 µm	4	5.00	65.8
Transition	212 µm	4	5.00	57.9
Transition	75 µm	4	5.00	57.8
Intrusive Sulfide	25 mm	5	1.00	17.9
Intrusive Sulfide	19 mm	5	1.00	25.3
Intrusive Sulfide	12.5 mm	5	1.00	29.7
Intrusive Sulfide	6.3 mm	5	1.00	31.9
Intrusive Sulfide	1.7 mm	5	1.00	41.5
Intrusive Sulfide	1.7 mm	5	1.00	36.4
Intrusive Sulfide	1.7 mm	5	5.00	39.5
Intrusive Sulfide	212 µm	4	5.00	63.9
Intrusive Sulfide	212 µm	4	5.00	54.7
Intrusive Sulfide	75 µm	4	5.00	60.2
Hornfels Sulfide	25 mm	5	1.00	23.6

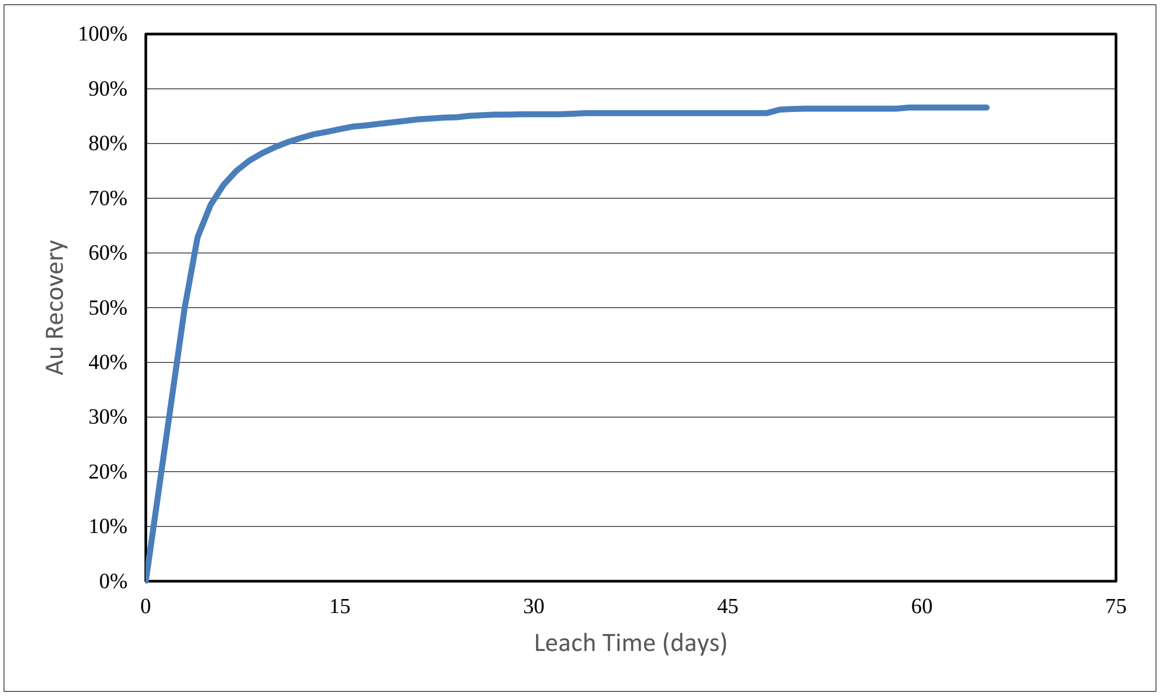
Composite	Feed Size	Leach Time (hr)	NaCN Conc. (g/L)	Au Recovery (%)
Hornfels Sulfide	19 mm	5	1.00	12.3
Hornfels Sulfide	12.5 mm	5	1.00	15.4
Hornfels Sulfide	6.3 mm	5	1.00	18.9
Hornfels Sulfide	1.7 mm	5	1.00	26.5
Hornfels Sulfide	1.7 mm	4	1.00	27.9
Hornfels Sulfide	1.7 mm	4	5.00	26.7
Hornfels Sulfide	212 µm	4	5.00	47.8
Hornfels Sulfide	212 µm	4	5.00	44.2
Hornfels Sulfide	75 µm	4	5.00	53.3

13.3.2 Column Leach Test work

Column leach test work was performed on the oxide composite in a 15-cm diameter by 3-m high column. The material, crushed to a P_{80} 25 mm, was loaded into the column and subjected to cyanidation using a cyanide solution of 1.0 g/L sodium cyanide. The cyanide solution was applied at a rate of 12 Lph/m^2 with solution samples being collected every 24 hours for analysis. The total overall leach cycle for the test was 55 days, that included a 34-day primary leach cycle followed by a 14-day rest cycle and an additional 7-day secondary leach cycle. The leach cycle was followed by a nine-day rinse cycle and a 10 drain-down test.

The test showed that the oxide composite had extremely fast leaching kinetics, achieving greater than an 80% gold recovery in 11 days with a total gold recovery of 87%. The gold recovery curve for the tests is presented in Figure 13-2.

Figure 13-2: McClelland Gold Recovery Curve



13.4 SGS TESTWORK 2017

A second phase of process flowsheet investigation was completed at SGS laboratories in Burnaby, BC in 2017. The program used the inventory of composites created and utilized in the 2013 test program at SGS. The focus of the 2017 program was to further investigate responses of the fresh rock (sulfide) material from the Golden Summit deposit.

The three sulfide composites were evaluated in this phase test work. The process flowsheets tested were:

- Flotation followed by CIL of rougher flotation concentrate
- Flotation with Pressure Oxidation (POX) treatment of the rougher flotation concentrate, followed by CIL of the POX residue
- Flotation with Albion oxidation treatment of the rougher flotation concentrate followed by CIL of the Albion product

Head assays of the Schist Sulfide, Hornfels Sulfide and Intrusive Sulfide composites are shown in Table 13.5

Table 13-5 Head assays of the Schist Sulfide, Hornfels Sulfide and Intrusive Sulfide composites

	Au	Ag	S	C	As	Sb	Cu	Zn
Unit	g/t	g/t	%	%	%	%	g/t	g/t
Schist S	0.94	1.7	1.55	1.24	0.41	0.34	<40	<300
Hornfels S	0.57	<0.5	1.03	0.49	0.21	<0.01	<40	<300
Intrusive S	0.90	2.5	1.00	0.51	0.21	<0.01	<40	500

13.4.1 Flotation and CIL

Samples were ground to a nominal 80% passing 60 microns and subjected to standard flotation conditions of 15 minutes of flotation with activation with copper sulfate and collection with potassium amyl xanthate. All three composites responded well with both gold and sulfur recoveries of mid 90's or better in cases. The rougher concentrates were reground to 80% passing 10 microns and CIL tests run on the reground rougher concentrates. The overall gold recovery is summarized in table 13.6

Table 13-6 Overall Gold Recovery Flotation and CIL

													Recovery			
	calc head		Concentrate	Assays									Flot		CIL	Overall
	Au	S	Mass %	Au	Ag	S	S=	C	As	Sb	Fe		Au	S	Au	Au
Unit	g/t	%		g/t	g/t	%	%	%	%	%	%		%	%	%	%
Schist S Conc	0.75	1.15	6.9	9.05	13.1	14.1	11.9	1.13	4.4	3.9	13.7		95.0	96.2	9.1	8.6
Hornfels S Conc	0.56	0.97	9.9	7.68	4.8	13.5	13.1	0.47	3.9	0.1	15.6		94.3	97.7	57.7	54.4
Intrusive S Conc	1.11	1.00	8.0	10.6	23.1	11.5	10.9	0.58	2.9	0.2	12.2		96.3	98.4	68.0	65.5

The CIL stage recovery for the hornfels and intrusive composites ranged from 54 to 66% however the schist composite had a low CIL stage recovery of 9% which led to a low overall recovery of gold.

13.4.2 POX and CIL

The as produced rougher flotation concentrates were subjected to POX treatment using two temperatures of 140 and 200 C and retention times of 10 to 50 minutes. Partial oxidation of sulfides was targeted with arsenopyrite being the prime gold carrier as identified in gold deportment studies. The POX conditions and results and CIL and overall results are shown in the summary tables 13.7:

Table 13-7 Overall Gold POX and CIL – Summary Tables

		Feed			POX Conditions			POX PLS				POX Residue	
Material Type	**Test ID**	**K_{80} µm**	**C %**	**S^{2-} %**	**Feed Pulp Density %**	**POX Time min**	**Temp. °C**	**pH**	**ORP mV**	**As mg/L**	**Fe mg/L**	**S^{2-} %**	**S^{2-} Oxd'n %**
Hornfels	POX-01	59	0.47	13.1	17.5	30	140	6.36	220	<3	1.5	11.4	19.3
	POX-04	59	0.47	13.1	17.4	30	200	1.24	404	568	5000	5.8	62.1
	POX-07	59	0.47	13.1	17.5	40	200	1.50	443	1260	9130	0.7	95.6
Schist	POX-02	62	0.58	10.9	17.5	40	140	5.98	144	15.0	0.2	11.1	16.6
	POX-05	62	0.58	10.9	17.5	30	200	2.27	355	48.0	45.1	10.3	20.1
	POX-08	62	0.58	10.9	17.6	50	200	1.31	423	1340	5370	3.5	74.8
Intrusive	POX-03	66	1.13	11.9	17.5	10	140	2.44	329	13.0	326	9.9	15.9
	POX-06	66	1.13	11.9	17.7	30	200	6.08	238	8.0	0.50	8.9	23.0
	POX-09	66	1.13	11.9	17.4	50	200	1.67	417	865	2630	3.7	69.0

Material Type	Flotation					POX			CIL			S2-	S2- Oxd'n
	Mass	Grade, g/t, %		Recovery, %		Test	Au Rec, %	Au Rec, % (whole ore)	Test	Au Extraction, % (Loading)-Stage	Au Extraction, % (Loading)-Whole Ore	%	%
	%	Au	S	Au	S	No.	(Stage)		No.				
Hornfels S	6.90	7.68	13.50	95.0	96.2	POX1	99.4	94.5	CIL-04	27.6	26.1	11.4	19.3
						POX4	99.6	94.6	CIL-07	74.3	70.3	5.8	62.1
						POX7	99.4	94.5	CIL-10	97.2	91.8	0.7	95.6
Schist S	8.00	9.05	14.10	96.33	98.39	POX2	99.5	95.9	CIL-05	38.7	37.1	11.1	16.6
						POX5	99.5	95.9	CIL-08	23.9	22.9	10.3	20.1
						POX8	99.0	95.3	CIL-11	75.2	71.7	3.5	74.8
Intrusive S	9.88	10.60	11.50	94.32	97.67	POX3	99.6	93.9	CIL-06	64.6	60.7	9.9	15.8
						POX6	98.2	92.6	CIL-09	65.3	60.5	8.9	23.0
						POX9	99.6	93.9	CIL-12	94.6	88.9	3.7	69.0

The low temperature and short retention time applied is not sufficient to achieve complete oxidation of sulfides, of note however is for the intrusive composite, 95% CIL stage extraction was achieved with only 69% sulfide oxidation.

Flotation followed by POX targeting full sulfide oxidation does appear to be a technically viable flowsheet with significant improvements in overall gold recovery for all three material types when near total sulfide oxidation is applied.

13.4.3 Albion and CIL

The rougher concentrates were subject to additional tests using the Albion Process Technology. Test conditions indicate the Technology may not have been properly applied as no sulfur oxidation was achieved. Subsequent CIL extractions on the Albion product were like the CIL results from the reground rougher concentrate. Further evaluation of Albion Technology, however, is warranted.

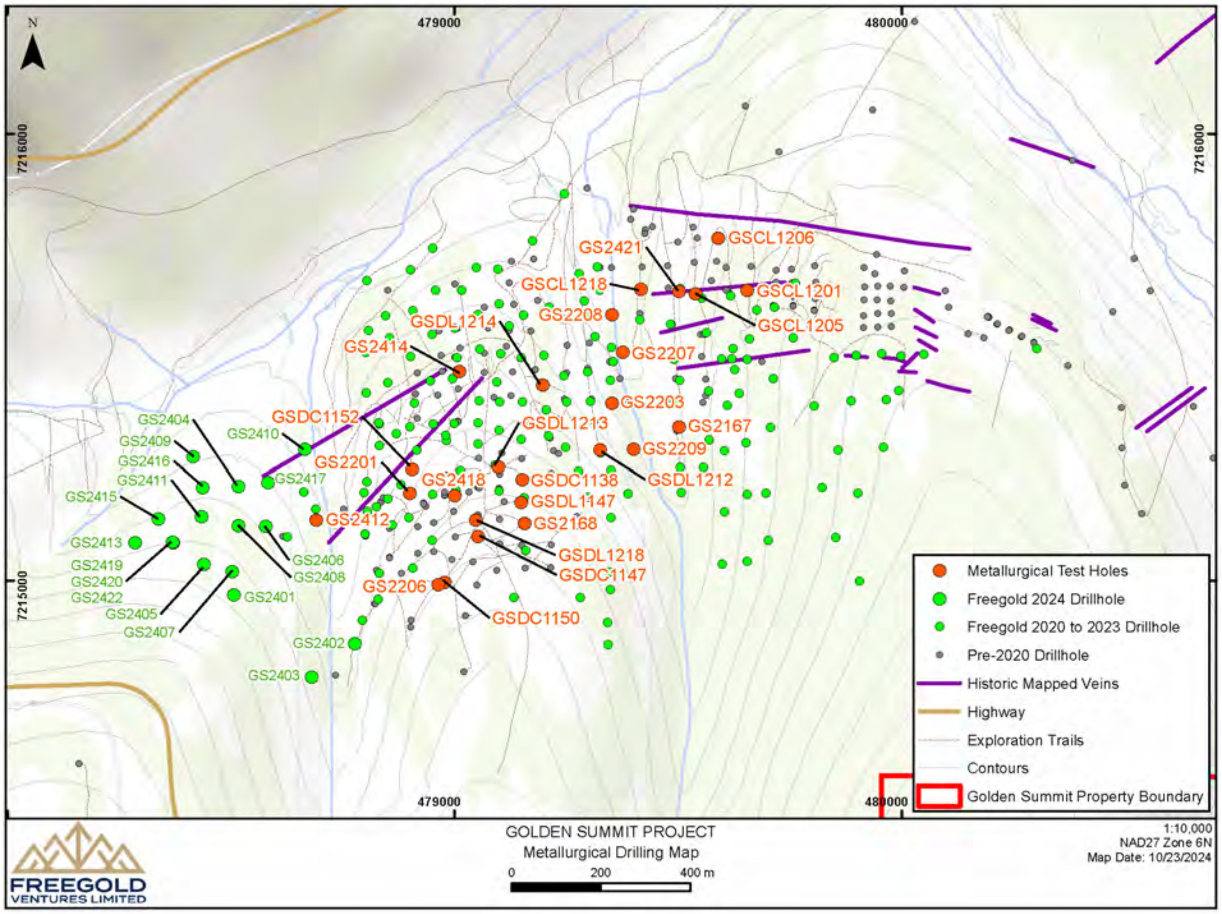
13.5 BASEMET LABS (BML) TESTWORK

A total of eight drill hole assay rejects were used to create individual drill hole composites and a master composite was then assembled by blending proportionate amounts of the eight drill hole composites. The eight drill holes were sampled to create drill hole composites, mass was removed in 1/8 or ¼ representative interval splits.

The drill holes used in the program and their location within the Golden Summit deposit are:

- GS2201 Dolphin
- GS2203 Dolphin
- GS2206 Dolphin
- GS2207 Dolphin
- GS2208 Dolphin
- GS2209 Dolphin
- GS2168 Dolphin
- GS2167 Cleary

Figure 13-3 Metallurgical Hole Locations



The drill holes and their corresponding Metallurgical Composite designation and intervals, mass and preparation are shown in table 13.8.

Table 13-8 Drill Holes & Corresponding Metallurgical Composites

DDH no.	Met Comp	from m	to m	int m	no. intervals	total mass avail	total mass prep
						kg	kg
GS2201	1	441.1	648.3	207.2	74	889.6	98.6
GS2203	2	287.8	478	190.2	138	830.1	81.3
GS2206	3	383.1	586.1	203	76	812.8	89.4
GS2207	4	261.9	468.7	206.8	108	1054.6	114.5
GS2208	5	266.3	367.2	100.9	52	377.8	40.8
GS2209	6	419	544.5	125.5	70	566.0	60.8
GS2168	7	352.7	479.5	126.8	50	479.6	51.5
GS2167	8	396.3	428	31.7	19	145.9	30.6
Total of DDH's				1192	587	5156	567

A Master Composite was made up from splits from the prepared drill hole composites as shown in the following table 13.9

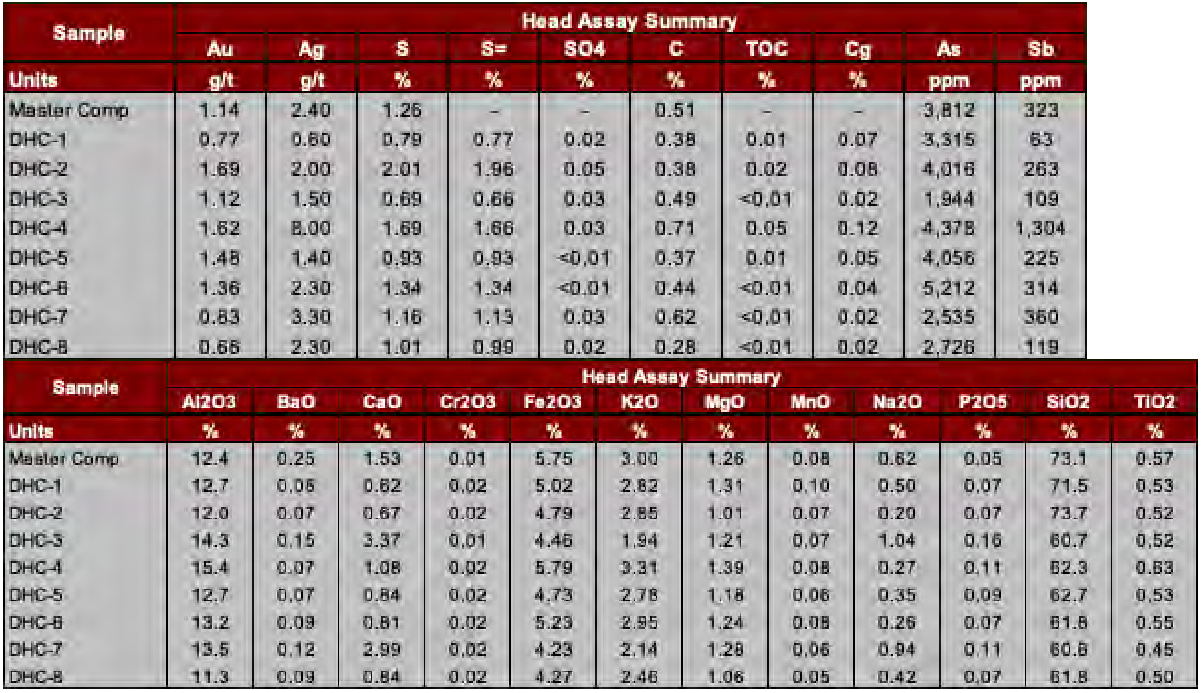
Table 13-9 Master Composite

		Master Comp 1.0 (Original)		Master Comp 1.2 (July'24)	
Sub-Comp	DDH	wt. kg	wt. %	wt. kg	wt. %
DHC-1	2201	24.7	17.4	37.0	17.5
DHC-2	2203	20.3	14.3	30.5	14.5
DHC-3	2206	22.4	15.8	33.5	15.9
DHC-4	2207	28.6	20.2	42.9	20.4
DHC-5	2208	10.2	7.2	13.3	6.3
DHC-6	2209	15.2	10.7	22.8	10.8
DHC-7	2168	12.9	9.1	19.3	9.2
DHC-8	2167	7.7	5.4	11.5	5.5
	TOTAL:	141.9	100	210.8	100

13.5.1 Composite Assays

The chemical analyses of key elements and whole rock make-up of the composites are summarized in table 13.10. The gold assays for the head summary were determined by screen metallics.

Table 13-10 Chemical Analysis of Key Elements and Whole Rock Make Up



Sample	Head Assay Summary									
	Au	Ag	S	S=	SO4	C	TOC	Cg	As	Sb
Units	g/t	g/t	%	%	%	%	%	%	ppm	ppm
Master Comp	1.14	2.40	1.26	–	–	0.51	–	–	3,812	323
DHC-1	0.77	0.60	0.79	0.77	0.02	0.38	0.01	0.07	3,315	63
DHC-2	1.69	2.00	2.01	1.96	0.05	0.38	0.02	0.08	4,016	263
DHC-3	1.12	1.50	0.69	0.66	0.03	0.49	<0.01	0.02	1,944	109
DHC-4	1.62	8.00	1.69	1.66	0.03	0.71	0.05	0.12	4,378	1,304
DHC-5	1.48	1.40	0.93	0.93	<0.01	0.37	0.01	0.05	4,056	225
DHC-6	1.36	2.30	1.34	1.34	<0.01	0.44	<0.01	0.04	5,212	314
DHC-7	0.83	3.30	1.16	1.13	0.03	0.62	<0.01	0.02	2,535	360
DHC-8	0.66	2.30	1.01	0.99	0.02	0.28	<0.01	0.02	2,726	119

Sample	Head Assay Summary											
	Al2O3	BaO	CaO	Cr2O3	Fe2O3	K2O	MgO	MnO	Na2O	P2O5	SiO2	TiO2
Units	%	%	%	%	%	%	%	%	%	%	%	%
Master Comp	12.4	0.25	1.53	0.01	5.75	3.00	1.26	0.08	0.62	0.05	73.1	0.57
DHC-1	12.7	0.06	0.62	0.02	5.02	2.82	1.31	0.10	0.50	0.07	71.5	0.53
DHC-2	12.0	0.07	0.67	0.02	4.79	2.85	1.01	0.07	0.20	0.07	73.7	0.52
DHC-3	14.3	0.15	3.37	0.01	4.46	1.94	1.21	0.07	1.04	0.16	60.7	0.52
DHC-4	15.4	0.07	1.08	0.02	5.79	3.31	1.39	0.08	0.27	0.11	62.3	0.63
DHC-5	12.7	0.07	0.84	0.02	4.73	2.78	1.18	0.06	0.35	0.09	62.7	0.53
DHC-6	13.2	0.09	0.81	0.02	5.23	2.95	1.24	0.08	0.26	0.07	61.8	0.55
DHC-7	13.5	0.12	2.99	0.02	4.23	2.14	1.28	0.06	0.94	0.11	60.6	0.45
DHC-8	11.3	0.09	0.84	0.02	4.27	2.46	1.06	0.05	0.42	0.07	61.8	0.50

13.5.2 Mineralogical Analysis and Gold Associations

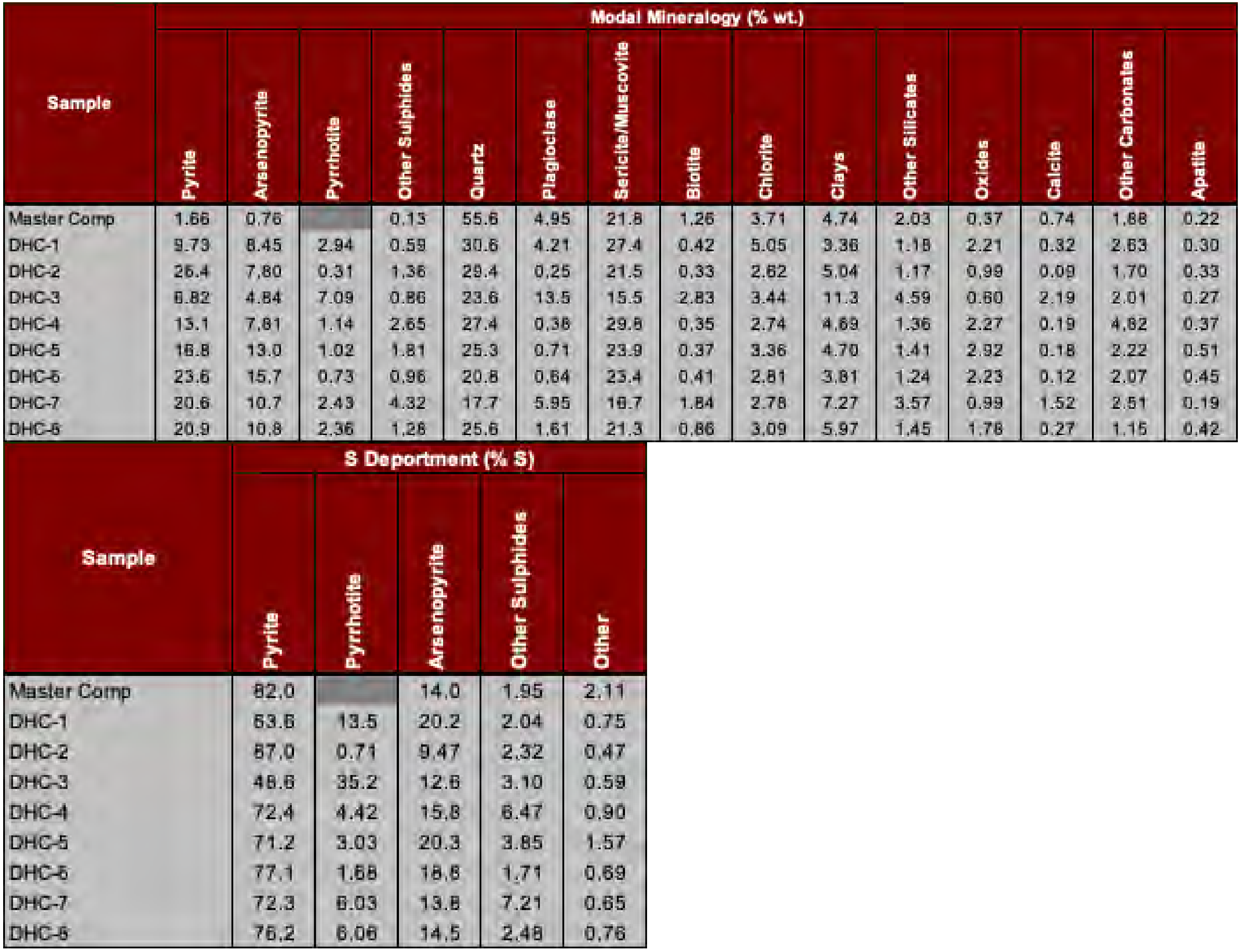
Modal mineralogy was completed on the Master Composite and the eight individual drill hole composites. Polished sections were created and analyzed by QEMSCAN (quantitative mineralogy) with the primary intention to collect mineral abundance and sulfur deportment. QEMSCAN data was collected by Bulk Mineral Analysis (BMA). The Master Composite was examined on a test feed basis and after initial gravity + flotation test work demonstrated high gold and sulfur recoveries in all composites to gravity + flotation products, the drill hole composite bulk rougher concentrates were then examined. Findings are presented in the tables following.

A detailed gold deportment study was completed on the master composite rougher concentrates, it should be noted gold was not preconcentrated and the study did not include free gold recovered into the gravity concentrate. Polished sections were created to represent the rougher and analyzed by QEMSCAN using the Trace Mineral Search (TMS) mode to identify visible gold. It should be noted, minimal visible gold was identified. Full gold deportment data is provided within the appendices.

Invisible gold was determined by preparing unsized duplicate polished section from rougher concentrates from each drill-hole composite and master composite. These were submitted for Laser Ablation (LA) to quantify gold in solid solution.

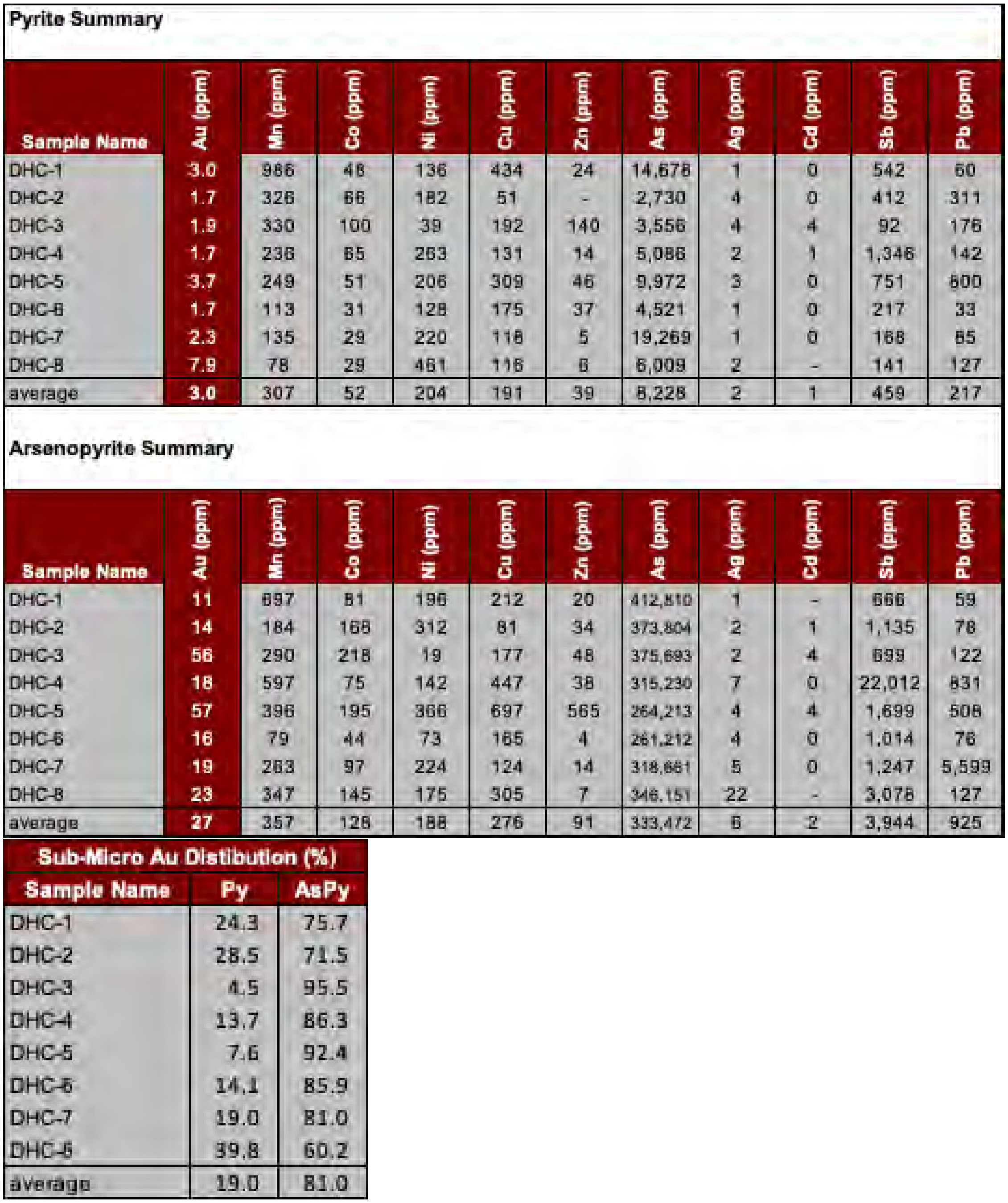
Bulk mineral identification and sulphide mineral speciation is provided Table 13.11

Table 13-11 Bulk Mineral Identification and Sulphide Mineral Speciation



Sample	Modal Mineralogy (% wt.)														
	Pyrite	Arsenopyrite	Pyrrhotite	Other Sulphides	Quartz	Plagioclase	Sericite/Muscovite	Biotite	Chlorite	Clays	Other Silicates	Oxides	Calcite	Other Carbonates	Apatite
Master Comp	1.66	0.76		0.13	55.6	4.95	21.8	1.26	3.71	4.74	2.03	0.37	0.74	1.88	0.22
DHC-1	9.73	8.45	2.94	0.59	30.6	4.21	27.4	0.42	5.05	3.36	1.18	2.21	0.32	2.63	0.30
DHC-2	26.4	7.80	0.31	1.36	29.4	0.25	21.5	0.33	2.62	5.04	1.17	0.99	0.09	1.70	0.33
DHC-3	6.82	4.84	7.09	0.86	23.6	13.5	15.5	2.83	3.44	11.3	4.59	0.60	2.19	2.01	0.27
DHC-4	13.1	7.81	1.14	2.65	27.4	0.38	29.8	0.35	2.74	4.69	1.36	2.27	0.19	4.82	0.37
DHC-5	16.8	13.0	1.02	1.81	25.3	0.71	23.9	0.37	3.36	4.70	1.41	2.92	0.18	2.22	0.51
DHC-6	23.6	15.7	0.73	0.96	20.8	0.64	23.4	0.41	2.81	3.81	1.24	2.23	0.12	2.07	0.45
DHC-7	20.6	10.7	2.43	4.32	17.7	5.95	16.7	1.84	2.78	7.27	3.57	0.99	1.52	2.51	0.19
DHC-6	20.9	10.8	2.36	1.28	25.6	1.61	21.3	0.86	3.09	5.97	1.45	1.76	0.27	1.15	0.42

Sample	S Deportment (% S)				
	Pyrite	Pyrrhotite	Arsenopyrite	Other Sulphides	Other
Master Comp	82.0		14.0	1.95	2.11
DHC-1	63.6	13.5	20.2	2.04	0.75
DHC-2	87.0	0.71	9.47	2.32	0.47
DHC-3	48.6	35.2	12.6	3.10	0.59
DHC-4	72.4	4.42	15.8	6.47	0.90
DHC-5	71.2	3.03	20.3	3.85	1.57
DHC-6	77.1	1.68	18.6	1.71	0.69
DHC-7	72.3	6.03	13.8	7.21	0.65
DHC-6	76.2	6.06	14.5	2.48	0.76



Pyrite Summary

Sample Name	Au (ppm)	Mn (ppm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Cd (ppm)	Sb (ppm)	Pb (ppm)
DHC-1	3.0	986	46	136	434	24	14,678	1	0	542	60
DHC-2	1.7	326	66	182	51	-	2,730	4	0	412	311
DHC-3	1.9	330	100	39	192	140	3,556	4	4	92	176
DHC-4	1.7	236	65	263	131	14	5,086	2	1	1,346	142
DHC-5	3.7	249	51	206	309	46	9,972	3	0	751	800
DHC-6	1.7	113	31	128	175	37	4,521	1	0	217	33
DHC-7	2.3	135	29	220	116	5	19,269	1	0	168	65
DHC-8	7.9	78	29	461	116	6	6,009	2	-	141	127
average	3.0	307	52	204	191	39	8,228	2	1	459	217

Arsenopyrite Summary

Sample Name	Au (ppm)	Mn (ppm)	Co (ppm)	Ni (ppm)	Cu (ppm)	Zn (ppm)	As (ppm)	Ag (ppm)	Cd (ppm)	Sb (ppm)	Pb (ppm)
DHC-1	11	697	81	196	212	20	412,810	1	-	666	59
DHC-2	14	184	168	312	81	34	373,804	2	1	1,135	78
DHC-3	56	290	218	19	177	48	375,693	2	4	699	122
DHC-4	18	597	75	142	447	38	315,230	7	0	22,012	831
DHC-5	57	396	195	366	697	565	264,213	4	4	1,699	508
DHC-6	16	79	44	73	165	4	261,212	4	0	1,014	76
DHC-7	19	263	97	224	124	14	318,661	5	0	1,247	5,599
DHC-8	23	347	145	175	305	7	346,151	22	-	3,078	127
average	27	357	128	188	276	91	333,472	6	2	3,944	925

Sub-Micro Au Distibution (%)		
Sample Name	Py	AsPy
DHC-1	24.3	75.7
DHC-2	28.5	71.5
DHC-3	4.5	95.5
DHC-4	13.7	86.3
DHC-5	7.6	92.4
DHC-6	14.1	85.9
DHC-7	19.0	81.0
DHC-8	39.8	60.2
average	19.0	81.0

Key Observations Related to Mineral Abundance:

- The study was completed using Master Composite feed and Rougher concentrates for each DHC
- The key sulphides were identified as Pyrite, Arsenopyrite, Pyrrhotite and other sulphides that accounted for ~ 2 to 7% of the total S
    - Pyrite accounted between 70 and 87% of the total S, DHC-03 contained the highest proportion

  - Arsenopyrite accounted for 9.5 to 20% of the total S, DHC-1 and -5 contained the highest proportion

- The remaining non-sulphide minerals were mainly comprised of Quartz, Mica and to a minor extent Clays and Carbonates, carbonates averaging 2.4% in the rougher conc

- Gold visible in the rougher concentrate is 40% liberated with the remainder mainly associated with pyrite and arsenopyrite

- Invisible gold is split between pyrite and arsenopyrite, which on average accounts for 19 and 81%, respectively.

13.5.3 Comminution

The study included Bond Ball Mill Work Index (BWI) completed at a 106 µm closing screen size for each DHC. Results are presented in the Table 13-12

Table 13-12 Ball Work Index

Sample ID	Mesh of Grind	F_{80} (µm)	P_{80} (µm)	g / rev	Work Index (kWh/t)	Category
DHC-1	150	2,024	82	1.34	15.0	medium hard
DHC-2	150	1,466	80	1.43	14.6	medium hard
DHC-3	150	1,759	80	1.09	17.8	hard
DHC-4	150	1,866	80	1.34	14.9	medium hard
DHC-5	150	2,046	82	1.51	13.5	medium
DHC-6	150	2,157	82	1.33	14.9	medium hard
DHC-7	150	2,044	81	1.09	17.5	hard
DHC-8	150	2,044	82	1.32	15.1	medium hard

Statistics

Average		**1,926**	**81**	**1.31**	**15.4**
Std. Dev.		223	1	0.15	1.5
Rel. Std. Dev.		11.6	1.2	11.3	9.6
Minimum		1,466	80	1.09	13.5
75th Percentile		2,045	82	1.36	15.7
90th Percentile		2,079	82	1.45	17.6
Maximum		2,157	82	1.51	17.8

The BWI produced product sizing of approximately 80 µm K_{80}, with work index of these samples ranging between 13.5 and 17.8 kWh/t and a 75th percentile of hardness of 15.7 kWh/t, classifying these samples as medium hard to hard.

13.5.4 Metallurgical Testing

The current phase of metallurgical testing was intended to confirm previous flotation and leach conditions by benchmark each drill-hole composite. Testing initially confirmed bulk results by treating the Master Composite. Three flowsheets were considered in the study and each composite was tested:

Flowsheet A: Gravity / Rougher Flotation / Concentrate Leach (No Regrind)
Flowsheet B: Gravity / Rougher Flotation / Concentrate Leach (10 µm Regrind)
Flowsheet C: Gravity / Leach

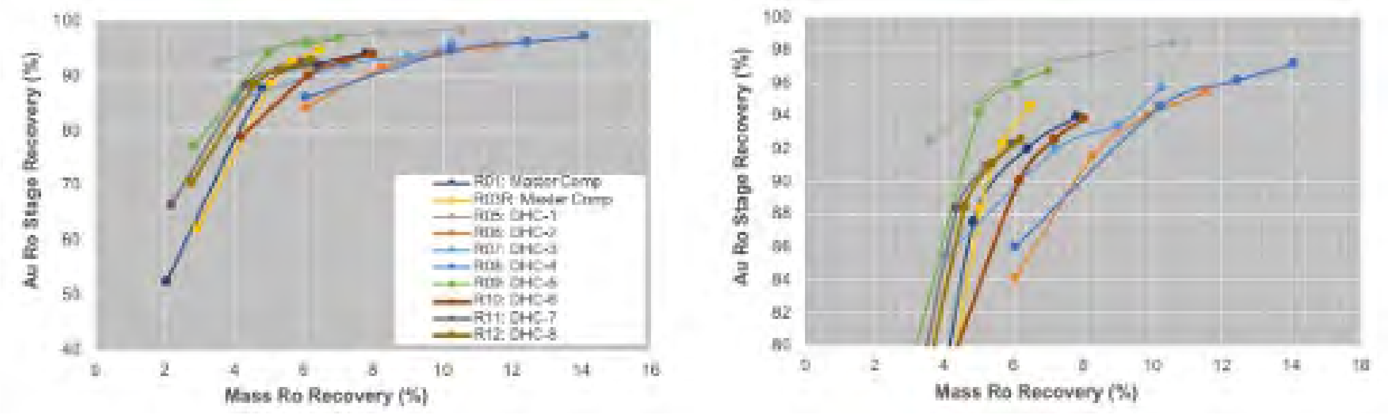
Each leach was completed as a carbon in leach (CIL) with cyanide. Free gold was gravity concentrated using a combination of a Knelson Concentrator with the Knelson Concentrate upgraded using a Mozley Table to a low weight gravity concentrate.

The Master Composite was treated in separate batches of 4kg and 1kg decoupled gravity/flotation and gravity/CIL stages, while the DHC used 10kg for each gravity/flotation and 1kg for each gravity/CIL respective stage. In both cases representative splits of rougher concentrates were split for side-by-side comparison and effect of regrinding the rougher concentrates to 10 µm.

13.5.4.1 GRAVITY & FLOTATION

Based on the high level of gold associated with Pyrite and Arsenopyrite and known appreciable levels of free gold, treating Golden Summit material to produce a gravity plus flotation concentrate was considered. For each composite a gravity and flotation test was included, material was ground to a k_{80} of 75 µm before passing through a Knelson gravity concentrator. The Knelson Concentrate was transferred to a Mozley Shaking Table and upgraded to a low-weight gravity concentrate. The gravity concentrate was assayed to extinction for gold. The Knelson and Mozley Tails were combined for rougher flotation. Rougher flotation was carried out at 35% solids. Rougher kinetics stage gold recovery from gravity tailigs are shown in figure 13-4.

Figure 13-4 Rougher Stage Kinetics Stage Gold Recovery from Gravity Tailings



Gravity gold recovery ranged between 24 and 56%, averaging 44%. DHC-5 and DHC-7 produced the lowest gravity gold (DHC-7 was inconsistent, with two tests producing 27 and 41%).

Flotation stage gold recovery was high, recoveries averaging 95% producing a rougher flotation tail measuring 0.01 to 0.05 g/t Au, averaging 0.04 g/t Au.

Mass pull rates were variable between the composites tested. Future testing should consider cleaning the rougher concentrate to a low-weight high-grade flotation concentrate.

13.5.4.2 FLOTATION CONCENTRATE LEACHING

For each rougher concentrate produced two CIL tests were completed to compare leaching with and without fine regrinding to a k_{80} of 10 µm. Each leach was completed in bottles on rolls as a carbon-in-leach. Conditions are summarized as follows:

Feed:	200g
Solids:	33%
pH:	11.0 (maintained)
NaCN:	3 g/L (maintained)

Carbon: 20 g/L
Retention: 48 hour (no kinetics)

Results comparing no regrind denoted as Flowsheet Option A and with 10 µm regrind Flowsheet Option B are provided by Table 13-13

Average gold recovery from the DH C without regrinding averaged 42.8% and regrinding increased to 53.2%. Regrinding the rougher concentrate and leaching increased incremental (overall) gold recovery by only 2.5% for the master composite, however this averaged over 10% incremental increase in gold for the DHC, ranging between 6.3 and 14.4%.

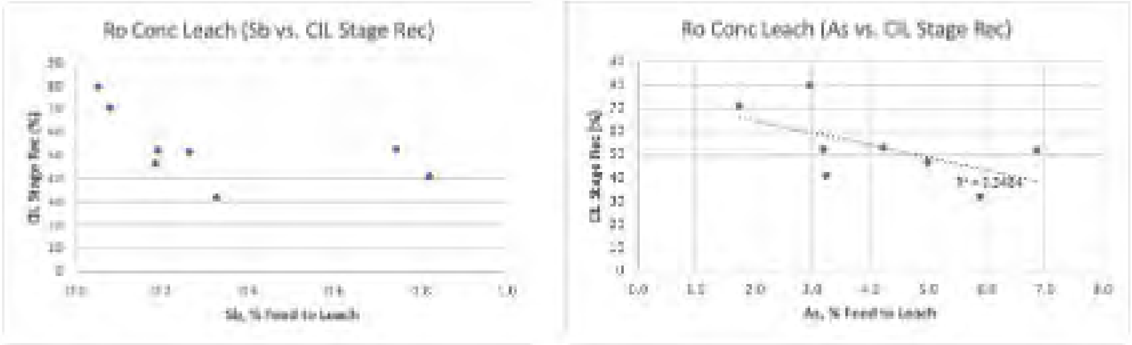
Lowest leach performance was produced by DHC-5 (31%), DHC-4 (41%) and DHC-8 (47%).

Comparing Sb and As in the feed to each rougher concentrate leach are compared on Figure 13-5 for each Drill-Hole Comp leach. Overall, leaching stage gold recoveries are low, identifying an economically viable option to oxidize and release gold in solid solution with iron sulphides will improve recovery (such as Pressure Oxidation demonstrated as a successful option in treating Golden Summit material in previous metallurgical studies).

Table 13-13 Results no regrind with 10µm regrind

			Head Au basis									
Sample ID	Test ID	Flowsheet	Float	Leach	Float Conc		Leach Fd.			CIL (Stage Rec %)	Normalized Consumption (kg/t)	
		Option	g/t (calc)		Au (g/t)	Rec (%)	Au, g/t (calc)	As, %	Sb, %	48h	NaCN	$Ca(OH)_2$
Master Composite	CN04B	A	1.68	2.66	9.12	42.5	10.3	-	-	52.3	0.37	0.39
	CN01B	B		1.63			9.69	-	-	54.8	1.01	0.52
DHC-1	CN05B	A	1.04	1.06	5.19	52.8	5.41	-	-	65.3	0.45	0.35
	CN05C	B		1.07			5.57	2.97	0.05	79.7	1.61	0.95
DHC-2	CN06B	A	2.27	2.27	9.60	48.9	9.58	-	-	38.8	0.47	0.43
	CN06C	B		2.19			9.04	3.20	0.19	52.0	1.98	1.33
DHC-3	CN07B	A	1.00	0.97	5.81	59.9	5.54	-	-	58.3	0.41	0.40
	CN07C	B		1.00			5.93	1.75	0.08	70.5	1.64	0.93
DHC-4	CN08B	A	1.79	1.76	8.26	65.0	8.07	-	-	34.3	0.68	0.57
	CN08C	B		1.73			7.95	3.26	0.82	40.6	1.86	1.27
DHC-5	CN09B	A	1.49	1.54	15.6	73.5	16.3	-	-	24.3	0.43	0.23
	CN09C	B		1.43			14.8	5.89	0.33	31.7	1.02	0.66
DHC-6	CN10B	A	1.48	1.53	8.72	47.1	9.31	-	-	42.0	0.38	0.26
	CN10C	B		1.51			9.31	6.88	0.26	51.6	1.28	1.14
DHC-7	CN11B	A	0.84	0.83	9.44	67.2	9.32	-	-	46.0	0.28	0.24
	CN11C	B		0.79			8.81	4.24	0.75	52.8	0.78	0.64
DHC-8	CN12B	A	1.01	1.01	7.52	46.2	7.48	-	-	33.1	0.34	0.25
	CN12C	B		1.00			7.52	5.00	0.19	46.6	0.92	0.64

Figure 13-5 Comparing Sb and As in the feed to each rougher concentrate



13.5.4.3 GRAVITY TAILING LEACHING

A gravity / Carbin-in-Leach test was completed for each DHC and Master Composite, this was identified as flowsheet option C for the program. In each case gravity tailings were leached with conditions summarized as follows. Results are provided in Table 13-14

Feed:	1,000g
Solids:	40%
pH:	10.5 (maintained)
NaCN:	1 g/L (maintained)
Carbon:	20 g/L
Retention:	48 hour (no kinetics)

Combined gravity and leach recovery averaged 75% from the DHC (ranging 69 to 88%) with DHC-4 and -8 being the worst performers.

Table 13-14 Gravity and Tailings Leaching Flowsheet Option C Results

		Head Au basis							Net		
Sample ID	Test ID	Float	Leach	Grav Conc		Leach Fd.	CIL (Stage Rec %)		Au Rec	Normalized Consumption (kg/t)	
		g/t (calc)		Au (g/t)	Rec (%)	Au, g/t (calc)	48h	CIL	(%)	NaCN	$Ca(OH)_2$
MC	CIL02	1.84	1.84	417	44.4	0.39	62.0	0.39	78.9	0.84	1.01
DHC-1	CIL13	1.16	1.16	203	43.4	0.15	77.1	0.15	87.1	1.03	1.22
DHC-2	CIL14	2.10	2.10	343	44.9	0.48	58.6	0.48	77.2	1.32	1.05
DHC-3	CIL15	1.36	1.36	364	58.1	0.17	70.1	0.17	87.5	1.14	1.40
DHC-4	CIL16	1.89	1.89	360	50.6	0.57	39.6	0.57	70.2	1.41	1.27
DHC-5	CIL17	1.37	1.37	202	28.9	0.64	34.3	0.64	53.3	1.18	1.00
DHC-6	CIL18	1.78	1.78	417	56.3	0.34	56.9	0.34	81.2	1.30	1.17
DHC-7	CIL19	0.89	0.89	139	41.2	0.24	54.4	0.24	73.2	1.20	1.17
DHC-8	CIL20	0.92	0.92	217	47.3	0.29	41.7	0.29	69.2	1.27	0.98

13.5.4.4 FLOWSHEET COMPARISONS

A summary of the metallurgical performance for gold in the Master Composite and the eight drillhole composites is shown in Table 13-15.

Table 13-15 Flowsheet Comparison Summary

			Head Au basis						Net		
Sample ID	Test ID	Flowsheet	Float	Leach	Grav Conc	Float Conc	Leach Fd.	CIL (Stage Rec %)	Au Rec	Normalized Consumption (kg/t)	
		Option	g/t (calc)		Rec (%)	Rec (%)	Au, g/t (calc)	48h	(%)	NaCN	$Ca(OH)_2$
MC	CN04B	A	1.68	2.66	54.8	42.5	10.3	52.3	77.0	0.37	0.39
	CN01B	B		1.63			9.69	54.8	78.1	1.01	0.52
	CIL02	C	1.84	1.84	44.4	-	0.39	62.0	78.9	0.84	1.01
DHC-1	CN05B	A	1.04	1.06	46.4	52.8	5.41	65.3	80.8	0.45	0.35
	CN05C	B		1.07			5.57	79.7	88.4	1.61	0.95
	CIL13	C	1.16	1.16	43.4	-	0.15	77.1	87.1	1.03	1.22
DHC-2	CN06B	A	2.27	2.27	48.8	48.9	9.58	38.8	67.8	0.47	0.43
	CN06C	B		2.19			9.04	52.0	74.2	1.98	1.33
	CIL14	C	2.10	2.10	44.9	-	0.48	58.6	77.2	1.32	1.05
DHC-3	CN07B	A	1.00	0.97	37.4	59.9	5.54	58.3	72.3	0.41	0.40
	CN07C	B		1.00			5.93	70.5	79.6	1.64	0.93
	CIL15	C	1.36	1.36	58.1	-	0.17	70.1	87.5	1.14	1.40
DHC-4	CN08B	A	1.79	1.76	33.1	65.0	8.07	34.3	55.4	0.68	0.57
	CN08C	B		1.73			7.95	40.6	59.5	1.86	1.27
	CIL16	C	1.89	1.89	50.6	-	0.57	39.6	70.2	1.41	1.27
DHC-5	CN09B	A	1.49	1.54	24.0	73.5	16.3	24.3	41.9	0.43	0.23
	CN09C	B		1.43			14.8	31.7	47.3	1.02	0.66
	CIL17	C	1.37	1.37	28.9	-	0.64	34.3	53.3	1.18	1.00
DHC-6	CN10B	A	1.48	1.53	49.8	47.1	9.31	42.0	69.6	0.38	0.26
	CN10C	B		1.51			9.31	51.6	74.1	1.28	1.14
	CIL18	C	1.78	1.78	56.3	-	0.34	56.9	81.2	1.30	1.17
DHC-7	CN11B	A	0.84	0.83	27.2	67.2	9.32	46.0	58.1	0.28	0.24
	CN11C	B		0.79			8.81	52.8	62.7	0.78	0.64
	CIL19	C	0.89	0.89	41.2	-	0.24	54.4	73.2	1.20	1.17
DHC-8	CN12B	A	1.01	1.01	50.2	46.2	7.48	33.1	65.4	0.34	0.25
	CN12C	B		1.00			7.52	46.6	71.6	0.92	0.64
	CIL20	C	0.92	0.92	47.3	-	0.29	41.7	69.2	1.27	0.98

Comparing flowsheet option B (with 10 µm regrind) to the gravity tail leach option C, the 'gravity and leach' option produces higher gold recovery. The master composite flowsheet comparison marginally different between flowsheet options with Option B recovering 78 vs Option C recovering 79% gold. The differences in performance between the same options for the DHC is more noticeable with Flowsheet Option B recovering an average of 4.4% lower gold when compared to Option C. Results from DHC-4 and -7 are the most pronounced with lower gold recoveries of 10.7 and 10.5% respectively between Flowsheet B and C.

Despite low flotation concentrate leach performance overall gravity and flotation recovery is consistently high, all above 90% and averaging 95% combined gold recovery while recalling select DHC produced low gravity/CIL recoveries in the low 50%, pursuing viable concentrate treatment options to oxidize and leach the gold in concentrate should warrants further investigation.

13.5.5 Environmental Analysis of Flotation Tailings

Preliminary static testing was conducted on the tailings produced by rougher flotation. The tailings were submitted for ABA/NAG analysis. The tailings ABA NP of 25.5 with a <0.3 AP and NAG NAP pH of 9.55 determined by Modified Sobek place the material in the non-acid generating category as shown in Figure 13-16.

Figure 13-6 Preliminary Static Testing Results

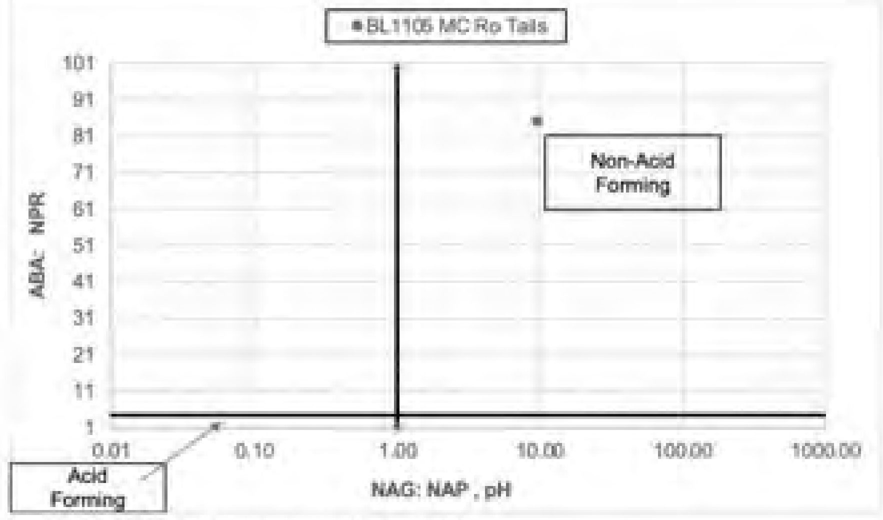
ABA:

					Sequential Leach						
Paste pH	Fizz Rating	Total Inorganic C	$CaCO_3$ Equivalents[*1]	Total Sulphur	Sulphate Sulphur	Sulphide Sulphur	Non-Extractable Sulphur[*2]	AP[*3]	Modified ABA NP	NNP[*4]	NPR[*5]
pH Units		wt %	kg CaCO3/tonne	wt %	wt %	wt %	wt %	kg CaCO3/tonne			
0.1		*0.02*	*1.7*	*0.01*	*0.01*	*0.01*	*0.01*	0.3	*0.5*		
8.6	Slight	0.35	29.2	0.03	0.02	<0.01	0.01	<0.3	25.5	25.5	N/A

- *1 CaCO3 Equivalents: Is based on TIC (Total Inorganic Carbon)
- *2 Non-Extractable Sulphur: Total sulphur - (sulphate sulphur + sulphide sulphur)
- *3 AP (Acid Potential): Sulphide-sulphur x 31.25
- *4 NNP (Net Neutralization Potential): NP - AP
- *5 NPR (Neutralization Potential Ratio): NP/AP

NAG:

Vol. of 15% H_2O_2 (mL)	NAG pH (pH Units)	NaOH to pH 4.5 (mL)	NaOH to pH 7.0 (mL)	NaOH Conc. (N)	NAG Acidity pH 4.5 (kg H_2SO_4/tonne)	NAG Acidity pH 7.0 (kg H_2SO_4/tonne)
250	9.55	0.00	0.00	0.1	0.0	0.0



ABA NPR: NP/AP (used 0.2 for calc as AP is <0.3

13.5.6 Conclusions and Recommendations

The current Golden Summit metallurgical test program phase serviced as benchmarking study with minimal optimization. Optimal conditions established during the previous metallurgical phase were applied to each a Master and eight Drill-Hole composites representing Dolphin zone.

Mineralogical evaluations were completed on the master composite feed for bulk mineralogy followed by bulk mineralogy and gold chemistry of sulphides using rougher concentrates from each drill-hole composite and the master composite. Gold recovered to the rougher concentrate contains visible gold as free gold and gold associated with pyrite and arsenopyrite. Invisible gold or gold in solid-solution is distributed between pyrite (~19%) and arsenopyrite (81%). Taking advantage of the gold mineralogy and selecting a process that combines gravity recoverable gold with flotation to recover gold associated sulphides could lead to a preferred flowsheet option.

Three flowsheets were compared with Option A and B being a slight variation of a Gravity / Float / Conc leach With and without regrinding and Option C a Gravity / Tail Leach. Flowsheet Option B which included Gravity/Flotation/Leaching with regrind could lead to the most favorable option, however further testing will be needed to demonstrate an effective tertiary concentrate treatment option can be applied to oxidize the concentrate ahead of leaching to maximize gold recovery. Otherwise Option C overall produces the highest gold recovery of 79% from the master composite or averaging gold recovery of 75% from the Drill-Hole Composites.

Considering Flowsheet Option A or B produced a final tailing low in sulfur, preliminary static environmental testing indicated the tailings would be non-acid generating with a NAG: NAP pH of 9.55 and ABA NPR Ratio of 85 places the tailings in the non-acid forming category.

14.0 MINERAL RESOURCE ESTIMATES

14.1 INTRODUCTION

Freegold Ventures Limited (Freegold) provided Tetra Tech with an Excel format drillhole database, complete to the end of 2023 as well as for two holes drilled early in 2024, that included collar locations, downhole surveys, assays, and lithologies.

14.2 EXPLORATORY DATA ANALYSIS

The Golden Summit assay dataset used for the current MRE contains collar locations for 460 drillholes and gold assay values for 89,844 samples. Of these, 444 drillholes and 61,999 assays are located within the boundaries of the 0.2 g/t Au gradeshell. Mineralization is contained within two lithological domains that have been used for resource estimation: Intrusive and Schist. Descriptive statistics of gold assays for the two lithological domains that are contained within a 0.2g/t gold gradeshell are presented in Table 14.1. In addition to gold, statistics were also generated for arsenic, iron, sulphur and antimony.

Table 14-1 Golden Summit Assay Descriptive Statistics 0.2 g/t Au Gradeshell

INTRUSIVE Assays 0.2 Au g/t Gradeshell	
Statistic	Au g/t
Mean	0.57
Standard Deviation	1.5
Coefficient of Variation	2.65
Minimum	0
Maximum	76.65
Non-Zero Data	9,048
SCHIST Assays 0.2 Au g/t Gradeshell	
Statistic	Au g/t
Mean	0.639
Standard Deviation	5.06
Coefficient of Variation	7.92
Minimum	0.001
Maximum	609
Non-Zero data	52,892

14.3 COMPOSITES

Compositing of samples is done to overcome the influence of sample length on the contribution of sample grade (sample support). Assays were composited to a length of three (3) meters as approximately 92% of the samples have a length shorter than three meters. Composites honor domain boundaries and if the last sample within a domain was less than 1.5 meters in length, it was discarded. Table 14-2 provides descriptive statistics of the Golden Summit composites by estimation domain. The compositing process generates continuous composites within the volume to be estimated and if unsampled intervals are present, they are incorporated into the composite population at zero grade. The compositing process reduced the 60,824 assays within the gradeshell to 50,073 composites.

Table 14-2 Golden Summit Composite Descriptive Statistics

INTRUSIVE Composites 0.2 g/t Au Gradeshell	
Statistic	**Au g/t**
Mean	0.57
Standard Deviation	1.5
Coefficient of Variation	2.65
Minimum	0
Maximum	76.65
Non-Zero Data	9,048
SCHIST Composites 0.2 g/t Au Gradeshell	
Statistic	**Au g/t**
Mean	0.64
Standard Deviation	5.06
Coefficient of Variation	7.92
Minimum	0
Maximum	609
Non-Zero Data	52,892

14.4 CAPPING

In a sample population comprised of many low grades, and a few very high grades that are atypical of the sample population, capping of the anomalously high grades is commonly used to overcome the influence of the high-grade samples on sample statistics that otherwise would be disproportionate to their number, and to limit their potential to overstate the grade of the resulting resource estimate. In this instance, the capping level was determined by plotting the composites on a log-scale cumulative frequency plot. If there were no outliers present, the plot would form a relatively straight line; offsets in the trend of the line are indicative of potentially distinct sub-populations, in this case a sub- population of uncharacteristically high grades.

Capping analysis was carried out for composites in the Intrusive and Schist domains using cumulative frequency curves. Figure 14-1 shows the cumulative frequency curve for the Intrusive domain and 14.2 for the Schist domain.

A break in the cumulative frequency curve for the Intrusive domain has a break at 20 g/t and was capped at that level (Figure 14-3). Six composites are affected and capping to 20 g/t reduces the aggregate value of the population by 2.3%. The cumulative frequency curve for Schist domain has a break at approximately 90 g/t that affects only 12 composites that represent approximately 6.2% of the aggregate value of that population. The Schist domain composites were capped at 90 g/t Au.

Figure 14-1 Golden Summit Capping Curve Intrusive Domain

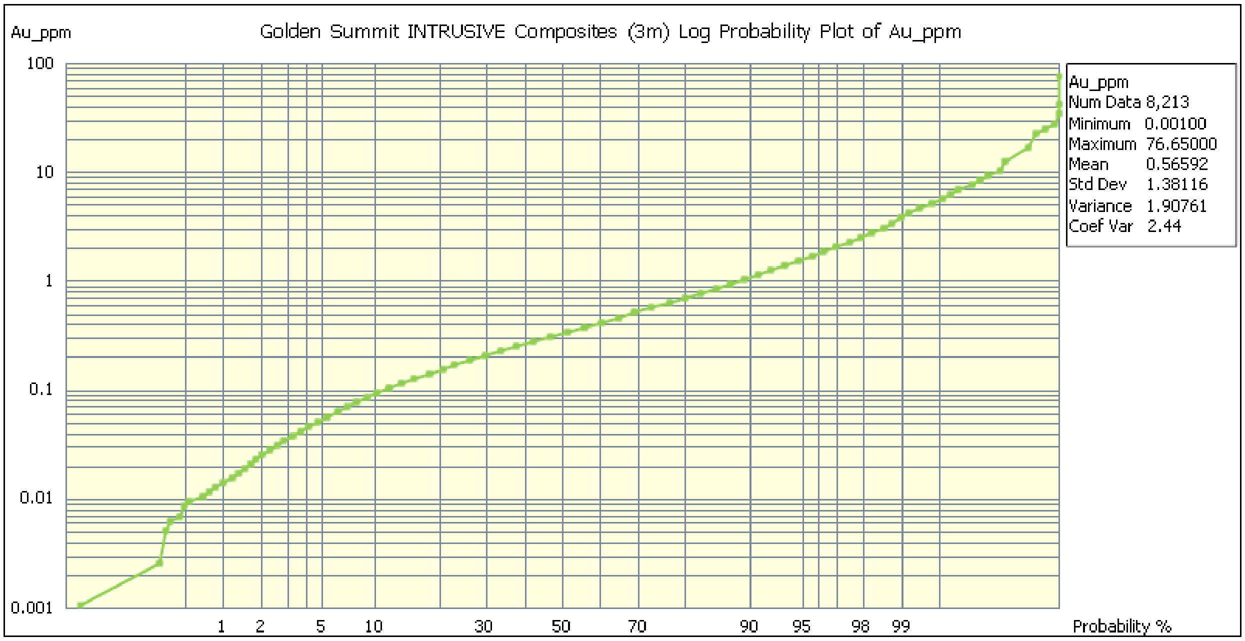
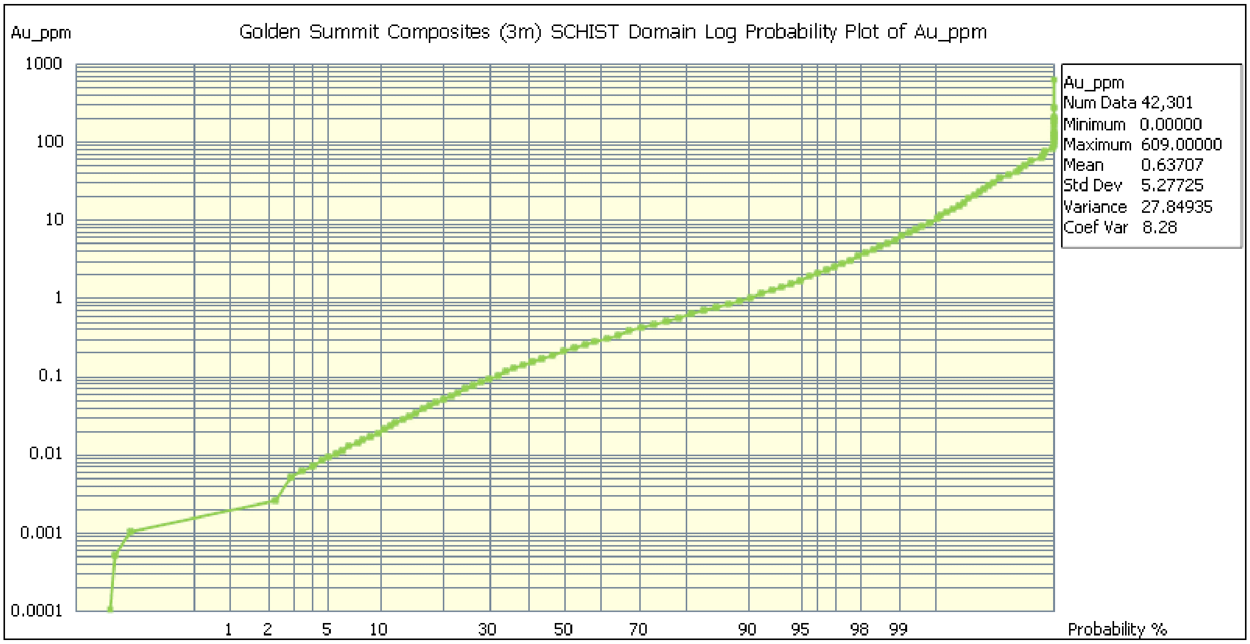


Figure 14-2 Golden Summit Capping Curve Schist Domain



14.5 BULK DENSITY

In 2024, Freegold provided Tetra Tech with 75 specific gravity measurements, 33 of which were identified as intrusive and 42 as schist. The average value for intrusive samples was 2.68 g/cm^3 and for schist samples, 2.67 g/cm^3. These average values are very similar to previous measurements and were applied to the estimation domain wireframes.

14.6 GEOLOGICAL INTERPRETATION

The area of the Property for which this mineral resource estimate was carried out is underlain by deformed metasediments of the Fairbanks Schist that have been intruded by the Dolphin Stock of granodiorite and tonalite composition. The granodiorite and tonalite have been modelled as a single intrusive domain as both have a similar gold endowment and bulk density, so from the perspective of resource estimation, they are indistinguishable. The Fairbanks Schist is cut by a series of east-trending, south-dipping fault, vein, and breccia zones, the most significant of which are named the Cleary, Colorado, Wyoming and Wackwitz Veins, some of which were mined historically. These zones can be identified in the drill data by an abundance of faulted intervals as well as by a greater than average occurrence of gold assays greater than 1 g/t, although they are not sufficiently discrete to be modelled as individual zones. Further, there are numerous samples with gold values greater than 1 g/t that are not obviously associated with any of these zones. Therefore, the mineral resource estimate has been carried out within the two lithological domains schist, and intrusive, within a 0.20 g/t gold gradeshell without attempting to model more discrete trends of mineralization (Figures 14-3 and 14-4) within the schist. Near-surface -- mineralization is oxidized so, in addition to the two lithological domains, the mineralization can be partitioned into oxide and hypogene phases. The resource estimate is stated in terms of oxide and hypogene phases.

Figure 14-3 Golden Summit Lithology Domains in Gradeshell Plan View

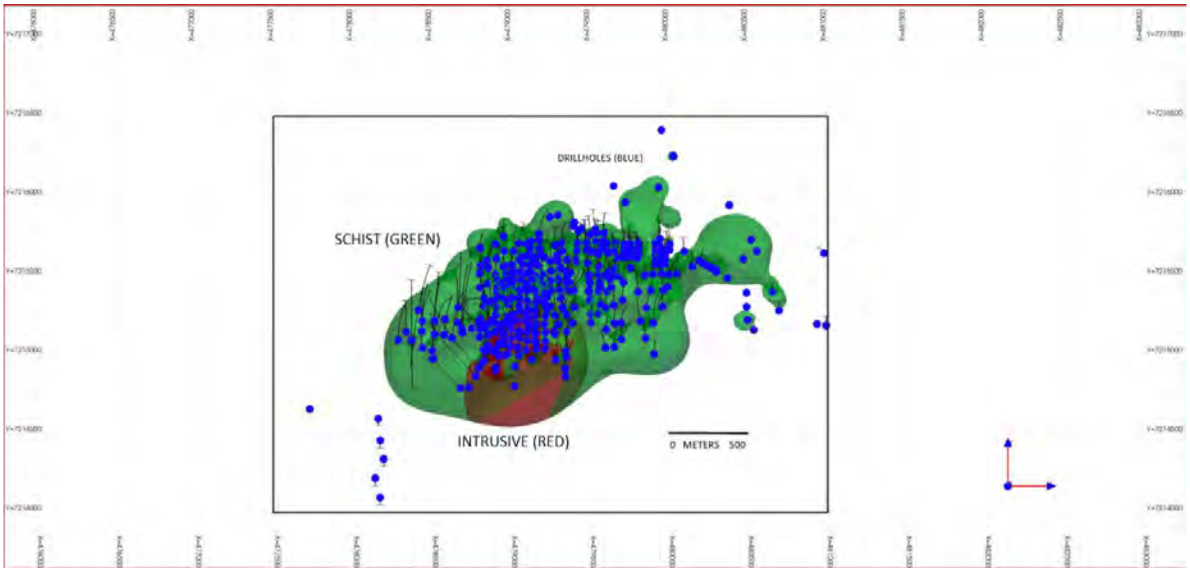
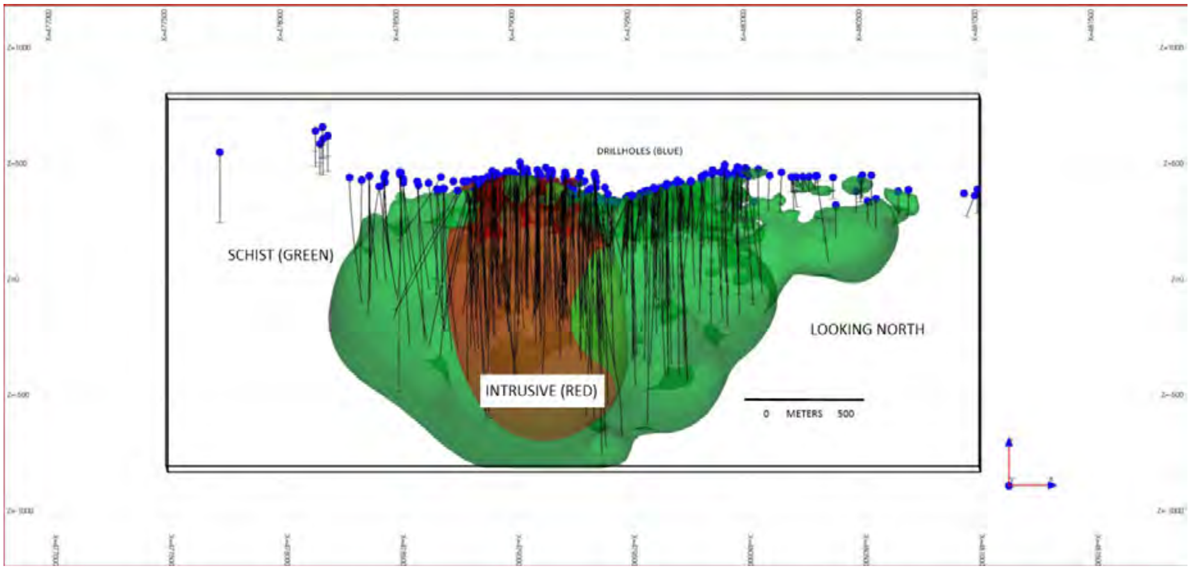


Figure 14-4 Golden Summit Lithology Domains in Gradeshell Vertical View



14.7 ANALYSIS OF SPATIAL CONTINUITY

Variographic ranges were investigated with Sage 2001 software that generates least-squares, best-fit curves to the variogram values. The gold variogram ranges and orientations for the Intrusive and Schist domains are set out in Table 14.3. The Schist parameters were used for the High-Grade domain as it is almost entirely within the Schist domain. Interpolation of the High-Grade and Schist domains used a variable ellipse to capture the change or orientation of the mineralized structures. The search ellipse is oriented nearly north-south on the western side of the model and gradually swings to nearly east-west on the eastern side of the model.

Table 14-3 Golden Summit Gold Variogram Parameters

Domain	Structure	Sill	Range (m)			Orientation (°)		
			Principal (Y)	Intermediate (X)	Minor (Z)	Azimuth	Plunge	Spin
Intrusive	C0	0.339						
	C1	0.606	50	5	40	315	20	-70
	C2	0.055	515	50	180	-10	70	60
Schist	C0	0.596						
	C1	0.388	35	15	10	255	-10	-75
	C2	0.015	365	175	1335	320	65	-25

14.8 BLOCK MODEL

Block model parameters are set out in Table 14.4. The block model is not rotated. The origin is the block centroid.

Table 14-4 Golden Summit Block Model Parameters

Origin (WGS 84)		Block Size (m)	Discretization	Model Size (#)		Ending (WGS 84)
X	477500	10	5	Columns	351	481000
Y	7214000	10	5	Rows	251	7216500
Z	-800	10	5	Levels	161	800
Rotation	**0**	**Origin = Block Centroid**				

14.9 INTERPOLATION PLAN

Grades were interpolated into the block model in a single pass using SGS Genesis software and ordinary kriging. For a grade to be interpolated into a block it was necessary that a minimum of four (4) and a maximum of 12 composites were located within the volume of the search ellipse. A maximum of two composites was allowed for a single drillhole which means that the grade interpolated into each block was informed by composites from at least two drillholes. The search ellipse parameters are for each estimation domain are set out in Table 14.5. Grades were interpolated into the Intrusive domain using just the search ellipse as shown; grades were interpolated into the Schist domain using the search ellipse dimensions but also, using dynamic anisotropy so that the search direction was oriented northeasterly on the western side of the intrusive, and turned to be nearly east-west to the east of the intrusive. The orientations of the search ellipses reflect the trends of mineralization, and the dimensions of the ellipses are a combination of variographic ranges and minimum requirements to capture at least two drill holes.

Table 14-5 Golden Summit Search Ellipse Parameters

Domain	Range (m)			Orientation (°)		
	Principal	Intermediate	Minor	Azimuth	Plunge	Spin
Intrusive	150	200	300	180	20	0
Schist	200	150	100	90	0	35

14.10 MINERAL RESOURCE CLASSIFICATION

Mineral Resources were classified as Indicated or Inferred as defined by CIM (2014) and quoted verbatim in the following paragraphs.

Inferred Mineral Resource

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. eAn Inferred Mineral Resource is based on limited information and sampling gathered through appropriate sampling techniques from locations such as outcrops, trenches, pits, workings and drill holes. Inferred Mineral Resources must not be included in the economic analysis, production schedules, or estimated mine life in publicly disclosed pre- feasibility or feasibility studies, or in the life of mine plans and cash flow models of developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43-101.f***Indicated Mineral Resource**

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. tAn 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.

Table 14.6 sets out the criteria for the search ellipses used to establish these two categories. The maximum number of composites per hole ensures that the classification of all blocks is based on a minimum of two drillholes.

Table 14-6 Golden Summit Classification Search Ellipse Parameters

Category	Orientation			Axes (Radius in m)			Number of Composites		
	Azimuth (°)	Dip (°)	Spin (°)	Major	Median	Minor	Minimum	Maximum	Max per Hole
Indicated	0	0	0	100	100	100	8	12	2
Inferred	0	0	0	300	300	300	4	12	2

14.11 REASONABLE PROSPECTS OF EVENTUAL ECONOMIC EXTRACTION

Because the Golden Summit mineralization occurs in part at or near surface, it is necessary to demonstrate the potential economic viability of the mineralization by constraining the global estimated resource with a conceptual pitshell. The parameters used to construct the pitshell are set out in Table 14.7. The gold price was obtained from three-year trailing averages (Table 14.8), mining and processing costs were obtained from the 2016 Freegold Preliminary Economic Assessment report adjusted for inflation, and the process recovery is based on 2023/2024 metallurgical tests.

Table 14-7 Golden Summit Conceptual Pit Parameters

Parameter	Unit	Value
Gold	US$/ounce	1973.00
Gold	US$/g	63.44
Mining Open Pit	US$ Cost/tonne	2.50
Processing	US$ Cost/tonne	14.00
General & Administration	US$ Cost/tonne	2.00
Overburden Pit Slope	Degrees	45.00
Bedrock Pit Slope	Degrees	45.00
Mining Recovery	%	100.00
Mining Dilution	%	0.00
Process Recovery	%	0.72
Grams / Ounce	31.10348	

Table 14-8 Three Year Trailing Average Gold Price

Year	Au $/oz
2024	2,175.00
2023	1,943.00
2022	1,802.00
Average	**1,973.33**

Source: https://www.macrotrends.net/1333/historical-gold-prices-100-year-chart

14.12 MINERAL RESOURCE TABULATION

The Golden Summit mineral resource estimate is presented in Table 14.9. The resource is divided into three parts: Pit-Constrained Oxide, Pit-Constrained Hypogene, and Under-Pitshell Hypogene. For the pit-constrained hypogene and oxide resource, after incorporating all associated cost (processing and G&A costs) and recovery, the calculated cut-off grade is rounded to 0.50 g/t and 0.50 g/t, respectively.

For the underground resource, the mining cost is assumed to be US$20.50 / tonne, which translates to a cutoff grade of 0.75 g/t Au.

Table 14-9 Golden Summit Mineral Resource Estimate

CutOff Au g/t	Classification	Au g/t	Tonnes	Ounces Au
	Pit-Constrained Oxide			
0.15	Indicated	0.49	59,414,000	937,000
0.15	Inferred	0.45	3,252,000	47,000
	Pit-Constrained Hypogene			
0.50	Indicated	1.08	346,304,000	12,050,000
0.50	Inferred	1.04	308,311,000	10,306,000
	Under Pitshell (Hypogene)			
0.75	Indicated	1.29	2,867,000	119,000
0.75	Inferred	1.34	22,900,000	986,000

a) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
b) There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
c) Pit-constrained oxide resources are stated at a gold cutoff grade of 0.15 g/t and pit-constrained primary resources at a cutoff grade of 0.50 g/t; underground resources are stated at a cutoff grade of 0.75 Au g/t.
d) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
e) Mineral Resource tonnage and grades are reported as undiluted.
f) Mineral resource estimate is current as of September 09, 2024

Table 14.10 shows the resource estimate at a range of cutoff values. The base cases for both the pit-constrained and underground resources are highlighted.

Table 14-10 Golden Summit Mineral Resource Estimate Cutoff Grade Sensitivity

Golden Summit MRE Pit-Constrained Oxide				
CutOff Au g/t	**Classification**	**Au g/t**	**Tonnes**	**Ounces**
1.00	**Indicated**	1.73	4,745,000	265,000
0.75	**Indicated**	1.35	8,430,000	366,000
0.50	**Indicated**	0.97	17,324,000	541,000
0.40	**Indicated**	0.81	24,758,000	647,000
0.15	**Indicated**	0.49	59,414,000	937,000
1.00	**Inferred**	1.77	127,000	7,000
0.75	**Inferred**	1.17	359,000	14,000
0.50	**Inferred**	0.84	919,000	25,000
0.40	**Inferred**	0.72	1,322,000	31,000
0.15	**Inferred**	0.45	3,252,000	47,000

Golden Summit MRE Pit-Constrained Hypogene				
CutOff Au g/t	**Classification**	**Au g/t**	**Tonnes**	**Ounces**
1.00	**Indicated**	2.07	99,704,000	6,628,000
0.75	**Indicated**	1.55	174,604,000	8,694,000
0.50	**Indicated**	1.08	346,304,000	12,050,000
0.40	**Indicated**	0.92	461,582,000	13,711,000
0.15	**Indicated**	0.66	778,574,000	16,609,000
1.00	**Inferred**	2.01	82,640,000	5,352,000
0.75	**Inferred**	1.49	151,918,000	7,271,000
0.50	**Inferred**	1.04	308,311,000	10,306,000
0.40	**Inferred**	0.88	426,343,000	12,003,000
0.15	**Inferred**	0.62	752,540,000	14,960,000

Golden Summit MRE Under Pitshell (Hypogene)				
CutOff Au g/t	**Classification**	**Au g/t**	**Tonnes**	**Ounces**
1.00	**Indicated**	1.89	1,193,000	73,000
0.75	**Indicated**	1.29	2,867,000	119,000
0.50	**Indicated**	0.84	7,958,000	216,000
0.40	**Indicated**	0.66	14,765,000	313,000
0.15	**Indicated**	0.35	64,264,000	720,000
1.00	**Inferred**	1.82	11,605,000	677,000
0.75	**Inferred**	1.34	22,900,000	986,000
0.50	**Inferred**	0.87	61,179,000	1,720,000
0.40	**Inferred**	0.71	100,288,000	2,282,000
0.15	**Inferred**	0.41	290,423,000	3,826,000

Figure 14-5 shows the block model (gold g/t) in plan view; Figure 14-6 shows the block model on vertical, east-west section 479500. Figure 14-7 shows the block model classification in plan view and Figure 14-8 shows the block model (gold g/t) and the conceptual pit in perspective view.

Figure 14-5 Golden Summit Block Model Showing Gold g/t Plan View

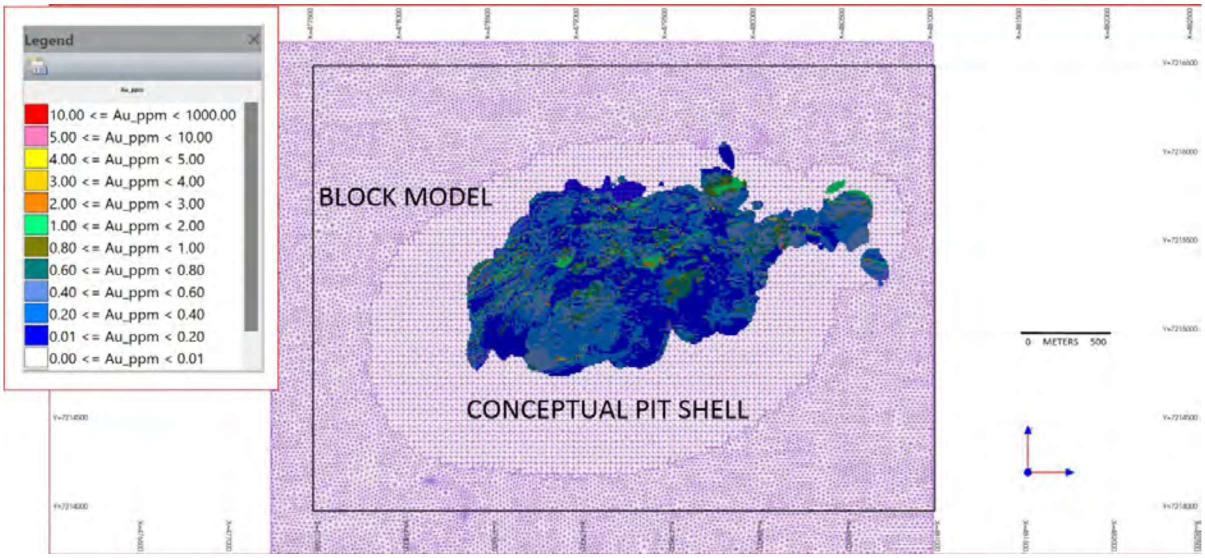


Figure 14-6 Golden Summit Block Model (Au g/t) Section 479500

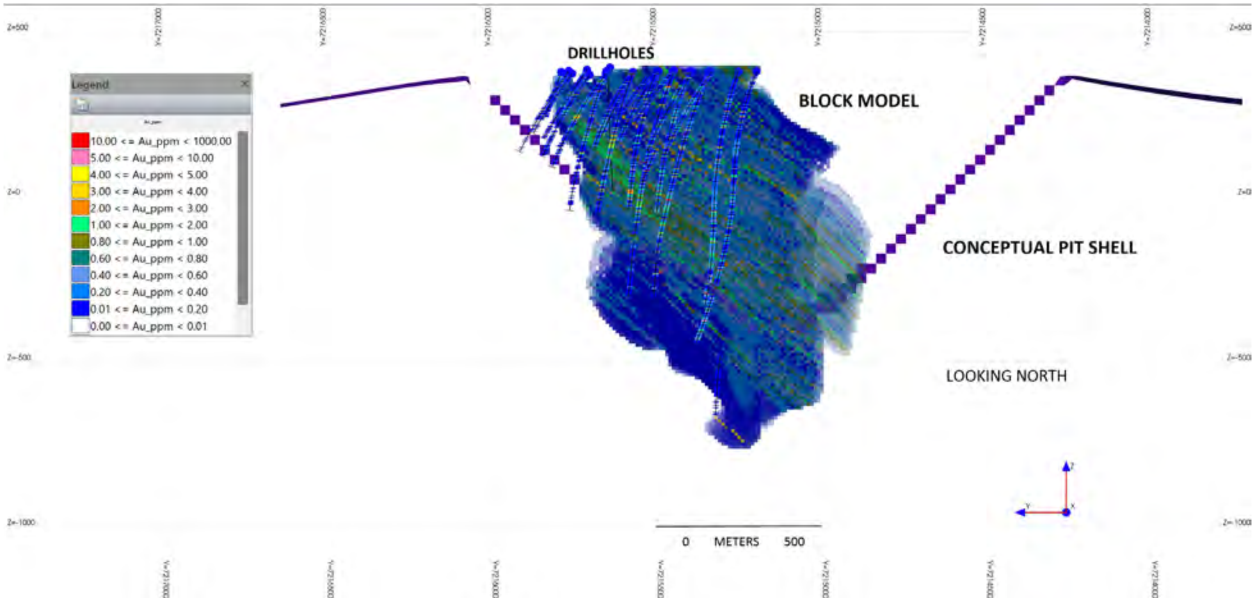


Figure 14-7 Golden Summit Block Model Classification Plan View

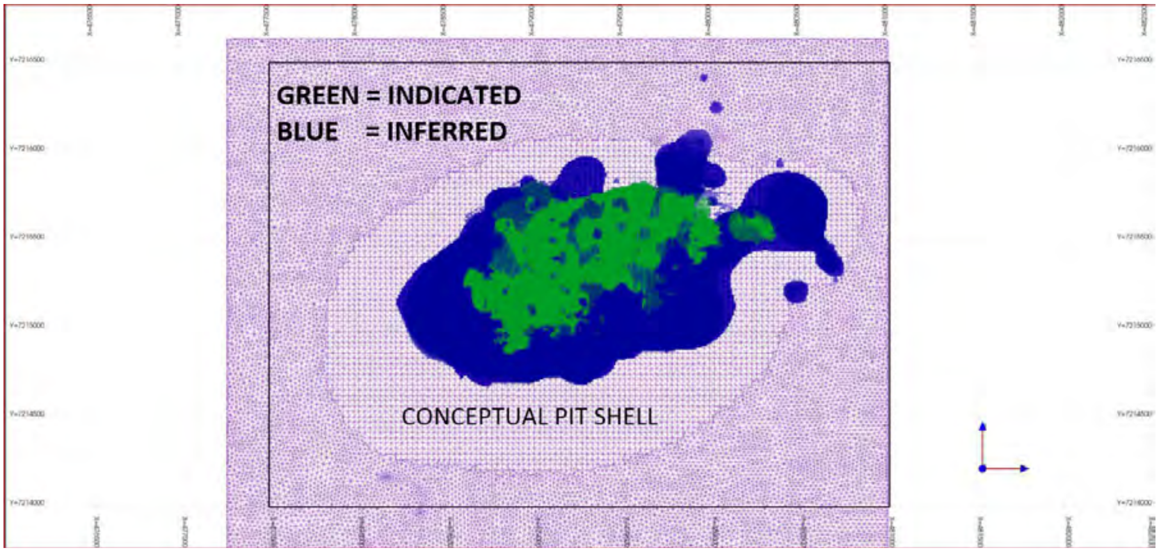
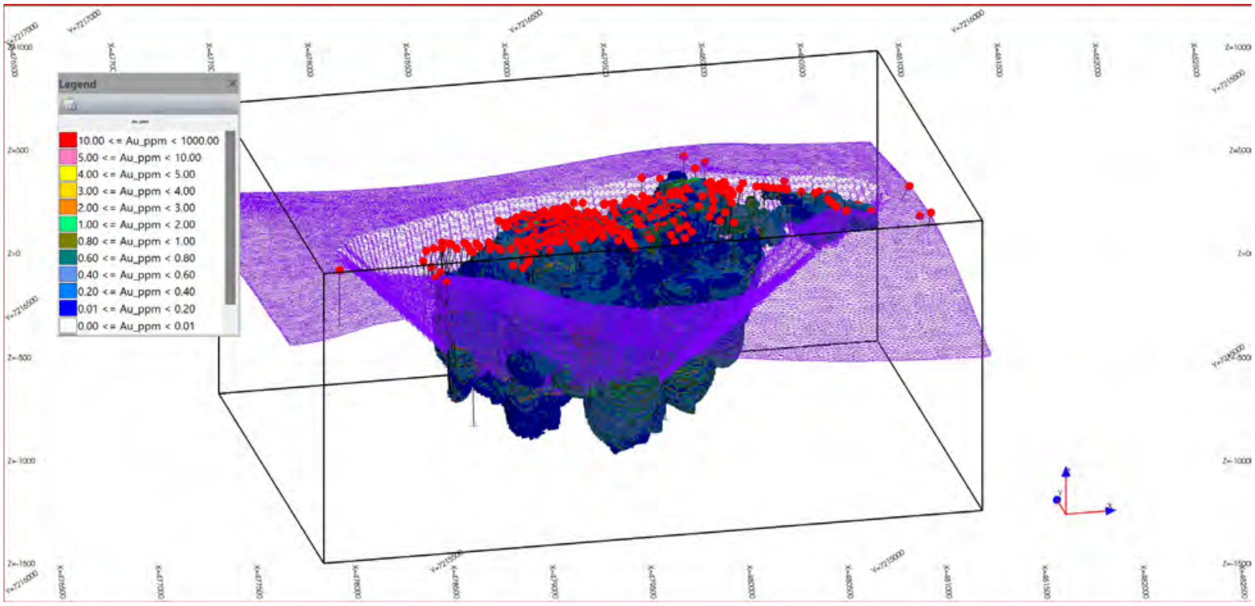


Figure 14-8 Golden Summit Block Model (Au g/t) with the Conceptual Pitshell



14.13 BLOCK MODEL VALIDATION

The block model has been validated by visual comparison of blocks and associated assay grades and by numeric comparison of assay, composite and block model grades. Figure 14-6 shows the reasonable agreement between block grades and the underlying assay grades. Table 14-11 shows the comparison of assay, composite and block model average grades.

Table 14-11 Golden Summit Comparison of Assay, Composite and Block Model Average Gold Grades

INTRUSIVE	Assay	Composite	BM
Statistic	**Au g/t**	**Au g/t**	**Au g/t**
Mean	0.57	0.57	0.55
Std Dev	1.50	1.38	0.36
Coeff Var	2.65	2.44	0.65
Minimum	0.00	0.00	0.02
Maximum	76.65	76.65	5.64
Non-Zero Data	9,048	8,213	151,974
Mean	0.64	0.64	0.50
Std Dev	5.06	5.28	0.80
Coeff Var	7.92	8.28	1.60
Minimum	0.00	0.00	0.00
Maximum	609.00	609.00	28.13
Valid data	52,892	42,301	764,420

14.14 COMPARISON WITH PREVIOUS ESTIMATES

The most recent resource estimate prior to the current estimate was included in NI 43-101 Technical Report completed by Tetra Tech with an effective date of March 31, 2023. This estimate has been superseded by the current estimate. In Table 14.12, the 2023 pit-constrained hypogene estimate is stated at a cutoff of 0.45 g/t gold and the 2024 estimate is stated at a cutoff 0. 0.50 g/t gold. Despite the higher cutoff and lower recovery (90% for 2023, 72% for 2024, the 2024 pit-constrained hypogene resource is larger than the corresponding 2023 resource. The current pit-constrained oxide and hypogene resources are slightly larger than the corresponding 2023 resources. The increase in attributed to the increase in the average price of gold as well as the addition of well-mineralized holes on the current western margin of the deposit.

Table 14-12 Golden Summit Comparison of Current and Previous Resource Estimate

Golden Summit Mineral Resource Estimate September 09, 2024					
Domain	**Cutoff Au g/t**	**Classification**	**Tonnes**	**Au gpt**	**Au Ounces**
Pit-Constrained Oxide	0.15	Indicated	59,414,000	0.49	937,000
Pit-Constrained Oxide	0.15	Inferred	3,252,000	0.45	47,000
Pit-Constrained Hypogene	0.5	Indicated	346,304,000	1.08	12,050,000
Pit-Constrained Hypogene	0.5	Inferred	308,311,000	1.04	10,306,000
Under-Pit Hypogene	0.75	Indicated	2,867,000	1.29	119,000
Under-Pit Hypogene	0.75	Inferred	22,900,000	1.34	986,000
Golden Summit Mineral Resource Estimate March 31, 2023					
Domain	**Cutoff Au g/t**	**Classification**	**Tonnes**	**Au gpt**	**Au Ounces**
Pit-Constrained Oxide	0.15	Indicated	52,030,000	0.39	657,000
Pit-Constrained Oxide	0.15	Inferred	18,187,000	0.47	272,000
Pit-Constrained Primary	0.45	Indicated	407,544,000	0.92	12,011,000
Pit-Constrained Primary	0.45	Inferred	282,303,000	0.85	7,736,000
Under-Pit Primary	0.75	Indicated	1,600,000	1.42	73,000
Under-Pit Primary	0.75	Inferred	15,776,000	1.21	614,000

14.15 RISKS

Other than the normal risks that are associated with all mineral exploration properties because of inherent uncertainties pertaining to continuity of mineralization, metal prices, and potential production costs, the author is not aware of any specific environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant factors that could materially affect this mineral resource estimate.

15.0 ADJACENT PROPERTIES

The Property is adjacent to leases controlled by Kinross Gold Corporation (Kinross) on the southern border of Section 32 of Township 3 North 2 East associated with the Fort Knox Mine.

The qualified person has not independently verified the past production, resources or reserve estimates of any adjacent properties. Results from adjacent properties are not necessarily indicative of the mineralization on the property that is the subject of the technical report.

15.1 FORT KNOX MINE

The Fort Knox Mine is located nine km to the southwest of the Project and includes an open pit, carbon-in-pulp mill, heap leach, and a tailings storage facility. As of 2023, the mine had produced 9 million ounces of gold since commencing commercial production in 1997. The remaining Proven and Probable reserves stated on Kinross's website as of December 31, 2023 were 1,586 Au koz.. https://www.kinross.com/operations/default.aspx#americas-fortknox

15.2 TRUE NORTH MINE

The True North Mine, part of the greater Fort Knox Mine project, is located six km west of the Golden Summit Property and is currently under post-closure monitoring. In 1997, estimated resources were 18.2 M tons grading 0.072 Au opt containing 1.3 million ounces of gold (La Teko Resources Ltd. June 1997). The True North Mine achieved commercial production in early April 2001 and closed in 2004. While in production, 11,026,772 tons of ore were delivered to the Fort Knox Mine for processing (USGS Alaska Resource Data File).

The QP has been unable to verify the information, and that the information is not necessarily indicative of the mineralization on the property that is the subject of this Technical Report.

16.0 OTHER RELEVANT DATA AND INFORMATION

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

17.0 INTERPRETATION & CONCLUSIONS

The Golden Summit Property contains gold mineralization that is spatially associated with the Cretaceous-age Dolphin granodioirite stock and is hosted by both the granodiorite stock and the enclosing Fairbanks schist. Gold occurs in discrete high-grade veins, veinlets, and areas of vein stockwork that form vein swarms within a broad structural corridor comprised of the Dolphin stock, and schistose metasedimentary rocks.

In general, mineralization dips to the south and plunges southwest towards the Dolphin intrusive, with the mineralization increasing in abundance toward the Dolphin intrusive, especially along the intrusive-schist contact margins.

Three main styles of gold mineralization have been identified on the Property: 1) intrusive-hosted sulfide disseminations and sulfide-quartz stockwork veinlets (such as the Dolphin gold deposit); 2) auriferous sulfide-quartz veins; and 3) shear and breccia-hosted gold-bearing veinlets. All three types are considered to be part of a large-scale intrusive-related gold system.

For the purpose of the mineral resource estimate mineralization has been assigned to three domains: granodiorite, tonalite and schist. Further, the mineralization has been divided into oxidized and primary phases.

The estimate was made using three-meter composites, 10x10x10 meter blocks, and ordinary kriging and was constrained by a conceptual pitshell.

The resource is divided into pit-constrained oxide with a basecase cutoff grade of 0.15 g/t Au, pit-constrained primary with a basecase cutoff grade of 0.50 g/t Au, and under-pit primary resources with a basecase cutoff grade of 0.75 g/t Au. These resources are summarized in Table 17.1.

Table 17-1 Golden Summit Mineral Resource Estimate March 31, 2023.

CutOff Au g/t	Classification	Au g/t	Tonnes	Ounces Au
	Pit-Constrained Oxide			
0.15	Indicated	0.49	59,414,000	937,000
0.15	Inferred	0.45	3,252,000	47,000
	Pit-Constrained Hypogene			
0.50	Indicated	1.08	346,304,000	12,050,000
0.50	Inferred	1.04	308,311,000	10,306,000
	Under Pitshell (Hypogene)			
0.75	Indicated	1.29	2,867,000	119,000
0.75	Inferred	1.34	22,900,000	986,000

a) Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability.
b) There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves.
c) Pit-constrained oxide resources are stated at a gold cutoff grade of 0.15 g/t and pit-constrained primary resources at a cutoff grade of 0.50 g/t; underground resources are stated at a cutoff grade of 0.75 Au g/t.
d) Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, and numbers may not add due to rounding.
e) Mineral Resource tonnage and grades are reported as undiluted.
f) Mineral resource estimate is current as of September 09, 2024

The intensive drilling conducted between 2020 and 2024 continues to demonstrate the robust and relatively homogenous nature of mineralization at Golden Summit. Drilling near the end of the 2023 program also demonstrated the potential for higher grade mineralization to the west, along trend of the surface geochemistry. The 2024 drilling continues to further delineate this mineralization. Generally, mineralization dips to the south, but early results from the 2024 program appear to show a change in orientation, accordingly the author understands that the more western drill holes are now being orientated vertically.

18.0 RECOMMENDATIONS

The following recommendations are made on the basis of work completed to date:

- Additional infill drilling should be undertaken to increase the Indicated Resource by bringing more of the Inferred Resource into the Indicated category to be followed by the completion of an updated MRE.
- Additional expansion drilling is warranted towards the west to test the extensive soil geochemical anomaly.
- Additional drilling is warranted to test additional targets on the Property;
- A combined Lidar/magnetic survey is warranted across the property.
- Additional metallurgical testing should be completed to define potentially viable extraction processes; and
- Continue environmental baseline studies, archaeological and cultural resources work

If successful, these activities will enable more comprehensive engineering/economic studies to be completed leading to a Preliminary Feasibility Study.

15,000 meters diamond drilling & updated MRE	$10,000,000
Geophysics	$200,000
Metallurgy	$400,000
Baseline Environmental studies, groundwater testing, cultural resource and archaeological work	$400,000
Contingency	$1,200,000
Total	**$12,200,000**

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20.0 CERTIFICATE OF QUALIFIED PERSONS

I, Gregory Z. Mosher, P. Geo., of North Vancouver, British Columbia, do hereby certify:

1. I am a geologist with a business address at #304 – 3373 Capilano Crescent North Vancouver, Canada, V7R 4W7.
2. This certificate applies to the technical report entitled "Technical Report ", dated October 25th, 2024 (the "Technical Report").
3. I am a graduate of Dalhousie University (B.Sc. Hons., 1970) and McGill University (M.Sc. Applied, 1973). I am a member in good standing of the Engineers and Geoscientists BC, License #19267. My relevant experience with respect to exploration for basemetal deposits includes over 40 years of exploration for and evaluation of such deposits. I am a "Qualified Person" for the purposes of National Instrument 43-101 (the "Instrument").
4. My personal inspection of the Property was on November 10 and 11, 2022, September 12th, 2023, and October 17th, 2024 for a total of five days.
5. I am responsible for all sections of the Technical Report.
6. I am independent of Freegold Ventures Limited as defined by Section 1.5 of the Instrument.
7. I have no prior involvement with the Property that is the subject of the Technical Report.
8. I have read the Instrument and the Technical Report has been prepared in compliance with the Instrument.
9. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Signed and dated this 25th day of October, 2024 at Vancouver, British Columbia.

gzmosher

Gregory Z. Mosher, P. Geo.

APPENDIX A – LIST OF CLAIMS

NO.	Claim Name	Section	Township	Range	Meridian	ADL #
1	Anticline #1	24	T3N	R2E	Fairbanks	501825
2	Anticline #2	24	T3N	R2E	Fairbanks	501836
3	Crane #4	24	T3N	R2E	Fairbanks	501930
4	Crane #1	24	T3N	R2E	Fairbanks	502551
5	Crane #2	24	T3N	R2E	Fairbanks	502552
6	Crane #3	24	T3N	R2E	Fairbanks	502553
7	Blueberry	21	T3N	R2E	Fairbanks	308497
8	Robin 1	28,29	T3N	R2E	Fairbanks	308498
9	Robin 2	29	T3N	R2E	Fairbanks	308499
10	Robin 3	29	T3N	R2E	Fairbanks	308500
11	Robin 4	29	T3N	R2E	Fairbanks	308501
12	Robin 5	29,30	T3N	R2E	Fairbanks	308502
13	Robin 6	30	T3N	R2E	Fairbanks	308503
14	Ing Fraction	22,27	T3N	R2E	Fairbanks	315014
15	Gene Fraction	22	T3N	R2E	Fairbanks	315015
16	Beta Fraction	22	T3N	R2E	Fairbanks	315016
17	Alpha Fraction	21,22	T3N	R2E	Fairbanks	315017
18	Arnold Fraction	22,27	T3N	R2E	Fairbanks	315018

19	RAM 1	17	T3N	R2E	Fairbanks	303366
20	RAM 2	17	T3N	R2E	Fairbanks	303367
21	RAM 3	17	T3N	R2E	Fairbanks	303368
22	RAM 4	17	T3N	R2E	Fairbanks	303369
23	RAM 5	16	T3N	R2E	Fairbanks	303370
24	RAM 6	16	T3N	R2E	Fairbanks	303371
25	RAM 7	16	T3N	R2E	Fairbanks	303372
26	RAM 8	16	T3N	R2E	Fairbanks	303373
27	RAM 9	15	T3N	R2E	Fairbanks	303374
28	RAM 10	15	T3N	R2E	Fairbanks	303375
29	RAM 11	15	T3N	R2E	Fairbanks	303376
30	RAM 12	15	T3N	R2E	Fairbanks	303377
31	RAM 13	17	T3N	R2E	Fairbanks	303378
32	RAM 14	17	T3N	R2E	Fairbanks	303379
33	RAM 15	17	T3N	R2E	Fairbanks	303380
34	RAM 16	17	T3N	R2E	Fairbanks	303381
35	RAM 17	16	T3N	R2E	Fairbanks	303382
36	RAM 18	16	T3N	R2E	Fairbanks	303383
37	RAM 19	16	T3N	R2E	Fairbanks	303384
38	RAM 20	16	T3N	R2E	Fairbanks	303385

39	RAM 21	15	T3N	R2E	Fairbanks	303386
40	RAM 22	15	T3N	R2E	Fairbanks	303387
41	RAM 23	15	T3N	R2E	Fairbanks	303388
42	RAM 24	15	T3N	R2E	Fairbanks	303389
43	RAM 25	17	T3N	R2E	Fairbanks	303390
44	RAM 57	14	T3N	R2E	Fairbanks	303422
45	RAM 59	14	T3N	R2E	Fairbanks	303423
46	RAM 60	14	T3N	R2E	Fairbanks	303424
47	RAM 62	14	T3N	R2E	Fairbanks	303426
48	RAM 63	14	T3N	R2E	Fairbanks	303427
49	RAM 64	14	T3N	R2E	Fairbanks	303428
50	RAM 65	14	T3N	R2E	Fairbanks	303429
51	RAM 66	20	T3N	R2E	Fairbanks	306460
52	RAM 67	20	T3N	R2E	Fairbanks	306461
53	RAM 68	20	T3N	R2E	Fairbanks	306462
54	RAM 69	20	T3N	R2E	Fairbanks	306463
55	RAM 70	21	T3N	R2E	Fairbanks	306464
56	RAM 71	21	T3N	R2E	Fairbanks	306465
57	RAM 72	20	T3N	R2E	Fairbanks	306466
58	RAM 73	20	T3N	R2E	Fairbanks	306467

59	RAM 74	20	T3N	R2E	Fairbanks	306468
60	RAM 75	20	T3N	R2E	Fairbanks	306469
61	RAM 76	21	T3N	R2E	Fairbanks	306470
62	RAM 2A	20	T3N	R2E	Fairbanks	302892
63	RAM 3A	20	T3N	R2E	Fairbanks	302893
64	RAM 58	19	T3N	R2E	Fairbanks	302894
65	RAM 58A	19	T3N	R2E	Fairbanks	302895
66	RAM 58B	19	T3N	R2E	Fairbanks	302896
67	RAM 58C	19	T3N	R2E	Fairbanks	302897
68	RAM 58D	19	T3N	R2E	Fairbanks	302898
69	RAM 58E	19	T3N	R2E	Fairbanks	302899
70	RAM 58F	20	T3N	R2E	Fairbanks	302900
71	RAM 58G	20	T3N	R2E	Fairbanks	302901
72	RAM 58H	20,29	T3N	R2E	Fairbanks	302902
73	RAM 58I	18	T3N	R2E	Fairbanks	302903
74	RAM 58J	20,29	T3N	R2E	Fairbanks	302904
75	RAM 58K	20	T3N	R2E	Fairbanks	302905
76	RAM 58L	20	T3N	R2E	Fairbanks	302906
77	VD 1	20	T3N	R2E	Fairbanks	302907
78	VD2	20	T3N	R2E	Fairbanks	302908

79	GOOSE 1	21	T3N	R2E	Fairbanks	342763
80	GOOSE 2	21	T3N	R2E	Fairbanks	342764
81	GOOSE 3	20	T3N	R2E	Fairbanks	342765
82	GOOSE 4	20	T3N	R2E	Fairbanks	342766
83	GOOSE 5	20	T3N	R2E	Fairbanks	342767
84	GOOSE 6	20	T3N	R2E	Fairbanks	342768
85	MOOSE FRACTION 1	23	T3N	R2E	Fairbanks	344966
86	MOOSE FRACTION 2	23	T3N	R2E	Fairbanks	344967
87	MOOSE FRACTION 3	23	T3N	R2E	Fairbanks	344968
88	MOOSE FRACTION 4	23	T3N	R2E	Fairbanks	344969
89	OAKIE FRACTION 1	30	T3N	R2E	Fairbanks	342791
90	OAKIE FRACTION 2	30	T3N	R2E	Fairbanks	342792
91	OAKIE FRACTION 3	30	T3N	R2E	Fairbanks	342793
92	OAKIE FRACTION 4	25	T3N	R1E	Fairbanks	342794
93	OAKIE FRACTION 5	19	T3N	R2E	Fairbanks	348966
94	OAKIE FRACTION 6	19	T3N	R2E	Fairbanks	348967
95	OAKIE FRACTION 7	19	T3N	R2E	Fairbanks	348968
96	OAKIE FRACTION 8	19	T3N	R2E	Fairbanks	348969
97	OAKIE FRACTION 9	19	T3N	R2E	Fairbanks	348970
98	OLD GOLD 1	21	T3N	R2E	Fairbanks	322801

99	OLD GOLD FRACTION 2	21	T3N	R2E	Fairbanks	322802
100	OLD GOLD FRACTION 3	21	T3N	R2E	Fairbanks	322803
101	OLD GOLD 4	21	T3N	R2E	Fairbanks	322804
102	OLD GOLD FRACTION 5	21	T3N	R2E	Fairbanks	322805
103	OLD GOLD FRACTION 6	21	T3N	R2E	Fairbanks	322806
104	OLD GOLD FRACTION 7	21	T3N	R2E	Fairbanks	322807
105	OLD GOLD FRACTION 8	21	T3N	R2E	Fairbanks	322808
106	OLD GOLD FRACTION 9	23	T3N	R2E	Fairbanks	322809
107	OLD GOLD FRACTION 11A	28	T3N	R2E	Fairbanks	336671
108	OLD GOLD FRACTION 13	22	T3N	R2E	Fairbanks	336672
109	OLD GOLD FRACTION 14	22	T3N	R2E	Fairbanks	336673
110	OLD GOLD FRACTION 15	23	T3N	R2E	Fairbanks	336674
111	OLD GOLD FRACTION 16	22	T3N	R2E	Fairbanks	336675
112	OLD GOLD FRACTION 17	22	T3N	R2E	Fairbanks	336676
113	OLD GOLD FRACTION 18	22	T3N	R2E	Fairbanks	336677
114	OLD GOLD 19	23	T3N	R2E	Fairbanks	336666
115	OLD GOLD FRACTION 20	23	T3N	R2E	Fairbanks	336678
116	OLD GOLD FRACTION 21	23	T3N	R2E	Fairbanks	336679
117	OLD GOLD FRACTION 22	23	T3N	R2E	Fairbanks	336680
118	OLD GOLD FRACTION 23	22	T3N	R2E	Fairbanks	336681

119	OLD GOLD FRACTION 24	22	T3N	R2E	Fairbanks	336682
120	OLD GOLD FRACTION 25	22	T3N	R2E	Fairbanks	336683
121	OLD GOLD FRACTION 26	23	T3N	R2E	Fairbanks	336667
122	OLD GOLD FRACTION 34	27	T3N	R2E	Fairbanks	336684
123	OLD GOLD FRACTION 35	26	T3N	R2E	Fairbanks	336685
124	OLD GOLD FRACTION 36	21,28	T3N	R2E	Fairbanks	336686
125	OLD GOLD FRACTION 37	27	T3N	R2E	Fairbanks	336687
126	OLD GOLD FRACTION 38	27	T3N	R2E	Fairbanks	336688
127	OLD GOLD FRACTION 39	27	T3N	R2E	Fairbanks	336689
128	OLD GOLD FRACTION 40	27	T3N	R2E	Fairbanks	336690
129	OLD GOLD FRACTION 41	27	T3N	R2E	Fairbanks	336691
130	OLD GOLD FRACTION 42	28	T3N	R2E	Fairbanks	336692
131	OLD GOLD FRACTION 43	27	T3N	R2E	Fairbanks	336668
132	OLD GOLD FRACTION 44	27	T3N	R2E	Fairbanks	336669
133	OLD GOLD FRACTION 45	27	T3N	R2E	Fairbanks	336670
134	RUBY 1	25	T3N	R1E	Fairbanks	354215
135	RUBY 2 FRACTION	25	T3N	R1E	Fairbanks	354216
136	RUBY 3 FRACTION	25	T3N	R1E	Fairbanks	354217
137	RUBY 4 FRACTION	25	T3N	R1E	Fairbanks	354218
138	WW FRACTION 1	20	T3N	R2E	Fairbanks	342778

139	WW FRACTION 2	20	T3N	R2E	Fairbanks	342779
140	WW FRACTION 3	20	T3N	R2E	Fairbanks	342780
141	WW FRACTION 4	20	T3N	R2E	Fairbanks	342781
142	WW FRACTION 5	20	T3N	R2E	Fairbanks	342782
143	WW FRACTION 6	20	T3N	R2E	Fairbanks	342783
144	WW 7	29	T3N	R2E	Fairbanks	342784
145	WW FRACTION 8	29	T3N	R2E	Fairbanks	342785
146	WW FRACTION 9	29	T3N	R2E	Fairbanks	342786
147	WW FRACTION 10	29	T3N	R2E	Fairbanks	342787
148	WW FRACTION 11	19	T3N	R2E	Fairbanks	342788
149	WW FRACTION 12	30	T3N	R2E	Fairbanks	342789
150	WW FRACTION 13	30	T3N	R2E	Fairbanks	342790
151	WW FRACTION 14	30	T3N	R2E	Fairbanks	506514
152	FRG # 1	31	T3N	R2E	Fairbanks	558129
153	FRG # 2	31	T3N	R2E	Fairbanks	558130
154	FRG # 3	31	T3N	R2E	Fairbanks	558131
155	FRG # 4	31	T3N	R2E	Fairbanks	558132
156	FRG # 5	32	T3N	R2E	Fairbanks	575592
157	FRG # 6	32	T3N	R2E	Fairbanks	575593
158	Erik 1	18	T3N	R2E	Fairbanks	574226

159	Erik 2	18	T3N	R2E	Fairbanks	574227
160	Erik 3	18	T3N	R2E	Fairbanks	574228
161	Kelly 1	27	T3N	R2E	Fairbanks	574122
162	Kelly 2	27	T3N	R2E	Fairbanks	574123
163	Kelly 3	27	T3N	R2E	Fairbanks	574124
164	Kelly 4	27	T3N	R2E	Fairbanks	574125
165	Kelly 5	27	T3N	R2E	Fairbanks	574126
166	Kelly 6	27	T3N	R2E	Fairbanks	574127
167	Starbucks 1	16	T3N	R3E	Fairbanks	574128
168	Starbucks 2	16	T3N	R3E	Fairbanks	574129
169	Starbucks 3	16	T3N	R3E	Fairbanks	574130
170	Starbucks 4	16	T3N	R3E	Fairbanks	574131
171	Butterfly 1	33	T3N	R3E	Fairbanks	575583
172	Butterfly 2	33	T3N	R3E	Fairbanks	575584
173	Butterfly 3	33, 34	T3N	R3E	Fairbanks	575585
174	Butterfly 4	3, 4	T2N	R3E	Fairbanks	575586
175	Butterfly 5	3	T2N	R3E	Fairbanks	575587
176	Butterfly 6	34	T3N	R3E	Fairbanks	575588
177	Butterfly 7	34	T3N	R3E	Fairbanks	575589
178	Butterfly 8	33	T3N	R3E	Fairbanks	575590

179	Lauren #9	18	T3N	R2E	Fairbanks	604794
180	3 Above 2 T LL	18, 19	T3N	R2E	Fairbanks	519698
181	4 Above 2 T LL	18, 19	T3N	R2E	Fairbanks	519699
182	FRG 7	26	T3N	R2E	Fairbanks	714368
183	FRG 8	26	T3N	R2E	Fairbanks	714369
184	FRG 9	26	T3N	R2E	Fairbanks	714370
185	FRG 10	26	T3N	R2E	Fairbanks	714371
186	FRG 11	26	T3N	R2E	Fairbanks	714372
187	FRG 12	25	T3N	R2E	Fairbanks	714373
188	FRG 13	25	T3N	R2E	Fairbanks	714374
189	FRG 20	32	T3N	R2E	Fairbanks	714381
190	FRG 21	32	T3N	R2E	Fairbanks	714382
191	FRG 22	31	T3N	R2E	Fairbanks	714383
192	FRG 23	32	T3N	R2E	Fairbanks	714384
193	FRG 24	32	T3N	R2E	Fairbanks	714385
194	FRG 25	32	T3N	R2E	Fairbanks	714386
195	FRG 32	31	T3N	R2E	Fairbanks	714393
196	FRG 33	32	T3N	R2E	Fairbanks	714394
197	FRG 34	32	T3N	R2E	Fairbanks	714395
198	FRG 35	33	T3N	R2E	Fairbanks	714396

199	FRG 36	33	T3N	R2E	Fairbanks	714397
200	FRG 43	36	T3N	R1E	Fairbanks	714966
201	FRG 44	36	T3N	R1E	Fairbanks	717880
202	FRG 45	36	T3N	R1E	Fairbanks	717881
203	FRG 46	36	T3N	R1E	Fairbanks	717882
204	What's Next #1	24	T3N	R2E	Fairbanks	501821
205	What's Next #2	24	T3N	R2E	Fairbanks	501822
206	What's Next #3	24	T3N	R2E	Fairbanks	501823
207	What's Next #4	24	T3N	R2E	Fairbanks	501824
208	What's Next #5	22	T3N	R2E	Fairbanks	502196
209	What's Next #6	22	T3N	R2E	Fairbanks	502197
210	What's Next #7	22	T3N	R2E	Fairbanks	502198
211	What's Next #8	22	T3N	R2E	Fairbanks	502199
212	Ruby 3A Fraction	25	T3N	R1E	Fairbanks	515911
213	Ruby 4A Fraction	25	T3N	R1E	Fairbanks	515912
214	Ruby 5 Fraction	25	T3N	R1E	Fairbanks	515913
215	Ruby 6 Fraction	25	T3N	R1E	Fairbanks	515914
216	Ruby 7 Fraction	25	T3N	R1E	Fairbanks	515915
217	Ruby 8 Fraction	30	T3N	R2E	Fairbanks	515916
218	Ruby 9 Fraction	30	T3N	R2E	Fairbanks	515917

219	Ruby 10 Fraction	30	T3N	R2E	Fairbanks	515918
220	Ruby 11 Fraction	30	T3N	R2E	Fairbanks	515919
221	Ruby 12 Fraction	29	T3N	R2E	Fairbanks	515920
222	Ruby 13 Fraction	29	T3N	R2E	Fairbanks	515921
223	Ruby 14 Fraction	29	T3N	R2E	Fairbanks	515922
224	Ruby 15 Fraction	28,29	T3N	R2E	Fairbanks	515923
225	Ruby 16 Fraction	28	T3N	R2E	Fairbanks	515924
226	Ruby 17 Fraction	28	T3N	R2E	Fairbanks	515925
227	Ruby 18 Fraction	28	T3N	R2E	Fairbanks	515926
228	Ruby 19 Fraction	28	T3N	R2E	Fairbanks	515927
229	Greenback 1	35	T3N	R1E	Fairbanks	359771
230	Greenback 2	35	T3N	R1E	Fairbanks	359772
231	Greenback 3	26	T3N	R1E	Fairbanks	361184
232	Greenback 4	25	T3N	R1E	Fairbanks	505192
233	Newsboy	26	T3N	R1E	Fairbanks	333135
234	Newsboy Extension	25,26	T3N	R1E	Fairbanks	333136
235	VDH-AMS #1	25	T3N	R1E	Fairbanks	344681
236	VDH-AMS #2	25	T3N	R1E	Fairbanks	344682
237	VDH-AMS #3	25	T3N	R1E	Fairbanks	344683
238	USMS 2376	25	3N	1E	Fairbanks	576677

239	USMS 2376 WEST	25	3N	1E	Fairbanks	576776
240	LULU	33	3N	2E	Fairbanks	615637
241	JADE	33	3N	2E	Fairbanks	615638

No	Claim Name	Section	Township	Range	Meridian	BLM #
1	Alabama	30	T3N	R2E	Fairbanks	F45603
2	Disc. on Bedrock Cr.	24,25	T3N	R1E	Fairbanks	F45604
3	July #1	30	T3N	R2E	Fairbanks	F45605
4	July #2	30	T3N	R2E	Fairbanks	F45606
5	July #3	30	T3N	R2E	Fairbanks	F45607
6	July Frac. #4	30	T3N	R2E	Fairbanks	F45608
7	Liberty Lode #1	30	T3N	R2E	Fairbanks	F45609
8	Liberty Lode #2	30	T3N	R2E	Fairbanks	F45610
9	Liberty Lode #3	30	T3N	R2E	Fairbanks	F45611
10	Millsite Fraction	30	T3N	R2E	Fairbanks	F45612
11	New York Mineral	24,25	T3N	R1E	Fairbanks	F45613
12	No Name	30	T3N	R2E	Fairbanks	F45614
13	#1 Above Disc. on Bedrock Cr	30	T3N	R2E	Fairbanks	F45615
14	Snow Drift	19	T3N	R2E	Fairbanks	F45616
15	Texas	19	T3N	R2E	Fairbanks	F45617
16	Wyoming Quartz	30	T3N	R2E	Fairbanks	F45618

17	Wyoming Frac.	25	T3N	R1E	Fairbanks	F45619
18	Button Weezer	27,28	T3N	R2E	Fairbanks	F45620
19	Caribou Frac.	21,28	T3N	R2E	Fairbanks	F45621
20	Caribou #1	21,22	T3N	R2E	Fairbanks	F45622
21	Caribou #2	21,22	T3N	R2E	Fairbanks	F45623
22	Fern	28	T3N	R2E	Fairbanks	F45624
23	Free Gold	21	T3N	R2E	Fairbanks	F45625
24	Henry Ford #1	28	T3N	R2E	Fairbanks	F45626
25	Henry Ford #2	21	T3N	R2E	Fairbanks	F45627
26	Henry Ford #3	28	T3N	R2E	Fairbanks	F45628
27	Henry Ford #4	28	T3N	R2E	Fairbanks	F45629
28	Laughing Water	21	T3N	R2E	Fairbanks	F45630
29	Little Jim	28	T3N	R2E	Fairbanks	F45631
30	Minnie Ha Ha	21	T3N	R2E	Fairbanks	F45632
31	Pennsylvania	21	T3N	R2E	Fairbanks	F45633
32	Ruth Frac.	21	T3N	R2E	Fairbanks	F45634
33	Speculator	28	T3N	R2E	Fairbanks	F45635
34	Wolf Lode	20,21	T3N	R2E	Fairbanks	F45636
35	Bonus	22	T3N	R2E	Fairbanks	F45637
36	Don	15,22	T3N	R2E	Fairbanks	F45638

37	Durando	22	T3N	R2E	Fairbanks	F45639
38	Edythe	15,22	T3N	R2E	Fairbanks	F45640
39	Flying Joe	22	T3N	R2E	Fairbanks	F45641
40	Gold Point	22	T3N	R2E	Fairbanks	F45642
41	Helen S.	23	T3N	R2E	Fairbanks	F45643
42	Hi Yu	23	T3N	R2E	Fairbanks	F45644
43	Hi Yu Millsite	23	T3N	R2E	Fairbanks	F45645
44	Homestake	23	T3N	R2E	Fairbanks	F45646
45	Inez	22	T3N	R2E	Fairbanks	F45647
46	Insurgent #1	23	T3N	R2E	Fairbanks	F45648
47	Insurgent #2	23	T3N	R2E	Fairbanks	F45649
48	Julia	15, 22	T3N	R2E	Fairbanks	F45650
49	Jumbo	22	T3N	R2E	Fairbanks	F45651
50	Laura	22	T3N	R2E	Fairbanks	F45652
51	Lillian	23	T3N	R2E	Fairbanks	F45653
52	Long Shin	23	T3N	R2E	Fairbanks	F45654
53	Mame	14,15	T3N	R2E	Fairbanks	F45655
54	Mayflower	22,27	T3N	R2E	Fairbanks	F45656
55	Mohawk	22	T3N	R2E	Fairbanks	F45657
56	#1 Moose Gulch	23	T3N	R2E	Fairbanks	F45658

57	#2 Moose Gulch	23	T3N	R2E	Fairbanks	F45659
58	N.R.A.	15	T3N	R2E	Fairbanks	F45660
59	Nars	22,23	T3N	R2E	Fairbanks	F45661
60	O'Farrel Frac.	23	T3N	R2E	Fairbanks	F45662
61	Ohio	22	T3N	R2E	Fairbanks	F45663
62	Rand	23	T3N	R2E	Fairbanks	F45664
63	Red Top	22	T3N	R2E	Fairbanks	F45665
64	Rob	23	T3N	R2E	Fairbanks	F45666
65	Royalty	15	T3N	R2E	Fairbanks	F45667
66	Santa Clara Frac.	23	T3N	R2E	Fairbanks	F45668
67	Summit	22,23	T3N	R2E	Fairbanks	F45669
68	Sunnyside	22	T3N	R2E	Fairbanks	F45670
69	Teddy R.	23	T3N	R2E	Fairbanks	F45671
70	Yankee Doodle	23	T3N	R2E	Fairbanks	F45672
71	Insurgent #3	14,23	T3N	R2E	Fairbanks	F45673
72	Roy	23	T3N	R2E	Fairbanks	F45674
73	Christina	20,	T3N	R2E	Fairbanks	F58503
74	Fraction #1	20, 21	T3N	R2E	Fairbanks	F58504
75	Fraction #2	20, 21	T3N	R2E	Fairbanks	F58505
76	Fraction #3	20	T3N	R2E	Fairbanks	F58506

77	Carrie A	20	T3N	R2E	Fairbanks	F58507
78	Carrie A #1	20	T3N	R2E	Fairbanks	F58508
79	Carrie A #2	20	T3N	R2E	Fairbanks	F58509
80	Grace E	20	T3N	R2E	Fairbanks	F58510
81	Grace E #1	20	T3N	R2E	Fairbanks	F58511
82	Grace E #2	20	T3N	R2E	Fairbanks	F58512
83	Grace Eva #1	20	T3N	R2E	Fairbanks	F58513
84	Grace Eva #2	20	T3N	R2E	Fairbanks	F58514
85	Grace Eva #3	30	T3N	R2E	Fairbanks	F58515
86	Wolf Lode #1	20, 21	T3N	R2E	Fairbanks	F58516
87	Wolf Lode #2	20, 21	T3N	R2E	Fairbanks	F58517
88	Fairbanks #1	21	T3N	R2E	Fairbanks	F58518
89	Fairbanks #2	21	T3N	R2E	Fairbanks	F58519
90	Fairbanks #3	21	T3N	R2E	Fairbanks	F58520
91	Willow Creek #1	25, 26	T3N	R1E	Fairbanks	24963
92	Willow Creek #2	25	T3N	R1E	Fairbanks	24964
93	Willow Creek #3	25	T3N	R1E	Fairbanks	24965
94	Willow Ck. #1 Placer	25	T3N	R1E	Fairbanks	24966
95	#1 Above Disc. on Bedrock Cr	30	T3N	R1E	Fairbanks	62794
96	#2 Above Disc on Bedrock Cr	30,25	T3N	R2E	Fairbanks	55403

97	#3 Above Disc on Bedrock Cr	30	T3N	R2E	Fairbanks	55404
98	#4Above Disc on Bedrock Cr	30	T3N	R2E	Fairbanks	55405
99	Alaska 1	19,20,29	T3N	R2E	Fairbanks	55406
100	Alaska 2	29	T3N	R2E	Fairbanks	55407
101	Alaska 3	19,20	T3N	R2E	Fairbanks	55408
102	Alaska 4	29	T3N	R2E	Fairbanks	55409
103	Central	20,29,30	T3N	R2E	Fairbanks	55411
104	Ground Hog 1	30	T3N	R2E	Fairbanks	55414
105	Ground Hog 2	29	T3N	R2E	Fairbanks	55415
106	Wyoming (one half interest)	30	T3N	R2E	Fairbanks	55416
107	Oklahoma Quatz	30	T3N	R2E	Fairbanks	55417

NO.	Claim Name	Section	Township	Range	Meridian	BLM #
1	Chatham #2 Lode	20, 29	T3N	R2E	Fairbanks	1713
2	Fey Lode	20, 29	T3N	R2E	Fairbanks	1713
3	Colby #2 Lode	29	T3N	R2E	Fairbanks	1713
4	Colby Lode	28, 29	T3N	R2E	Fairbanks	1713
5	Fay Claim #2 Lode	20, 28, 29	T3N	R2E	Fairbanks	1713
6	I.B. Claim	28	T3N	R2E	Fairbanks	1676
7	Margery Daw Claim	28, 29	T3N	R2E	Fairbanks	1676
8	Freegold	19	T3N	R2E	Fairbanks	MS821

9	Colorado	19,30	T3N	R2E	Fairbanks	MS1639
10	California	19,30	T3N	R2E	Fairbanks	MS1639
11	Pauper's Dream	30	T3N	R2E	Fairbanks	MS1639
12	Idaho	30	T3N	R2E	Fairbanks	MS1639
13	Keystone	20,21	T3N	R2E	Fairbanks	MS1607
14	Kawalita	20,21	T3N	R2E	Fairbanks	MS1607
15	Fairbanks	21	T3N	R2E	Fairbanks	MS1607
16	Hope	21	T3N	R2E	Fairbanks	MS1607
17	Willie	21	T3N	R2E	Fairbanks	MS2198
18	Marigold	21,28	T3N	R2E	Fairbanks	MS2198
19	Pioneer	21	T3N	R2E	Fairbanks	MS2198
20	Henry Ford	21,28	T3N	R2E	Fairbanks	MS2198
21	Henry Clay	21	T3N	R2E	Fairbanks	MS2198
1	No. 9 Number Nine Above Discovery On Cleary Creek					1687
2	Bench Claim No. 9 Above Discovery, Left Limit Cleary Creek					1671
3	No. 8 Above Discovery On Cleary Creek					1670
4	No. 7 Above Discovery On Cleary Creek					1670
5	No. 6 Above Discovery Cleary Creek					1670
6	Side Claim No. 8, Above Left Limit On Cleary Creek, Placer					807
7	Side Claim No. 8, Above Left Limit, Cleary Creek, Placer					524

8	Side Claim No. 8, Above Left Limit, Cleary Creek	1968
9	No. 7 Above Discovery, 1st Tier, Left Limit Placer	1968
10	Placer Mining Claim No. 6, 1st T.LL. Above Discovery on Cleary Creek Placer	1972
11	Bench No. 5, Above Discovery On Left Limit Cleary Creek	367
12	No. 5 Above Discovery On Cleary Creek	365
13	No. 4 Above Discovery On Cleary Creek	365
14	No. 5 Above Discovery L.L. First Tier, Placer	836
15	The Lower Divided One Half of the Upper One Half of Number 4 Above Left Limit Bench Placer	1793
16	The Lower Half of Number 4 Above Discovery Creek Claim Placer	1793
17	Claim No. Three (3) Above Discovery On Cleary Creek Placer	1793
18	Fraction No. Three Above Discovery First Tier Left Limit Placer	1793
19	No. 3 Above Discovery, First Tier, Left Limit on Cleary Creek, Placer	1919
20	Discovery Placer	805
21	No. 1 Above Discovery	805
22	No. 2 Above Discovery	805
23	No. 2 Side Claim, Left Limit, Cleary Creek, Placer	1798
24	No. Two Above Fraction Placer	1798
25	No. 1 One Above Discovery on the Left Limit of Cleary Creek, Placer	1605
26	Discovery Bench Left Limit Cleary Creek, Placer	1926
27	Side Claim on Right Limit of Discovery Cleary Creek, Placer	1794

28	Discovery Claim on Wolf Creek Placer	1901
29	Bench Claim Right Limit Opposite Discovery on Wolf Placer	1920

MHT LEASES:
Land Description:
Township 003 North, Range 001 East, Fairbanks Meridian, Alaska
Section 13: ALL;
Section 14: ALL;
Section 24: Lots 4-9 inclusive, N1/2NE1/4, SW1/4NE1/4, W1/2; excluding: Mineral Survey No. 1672, Sections 24 and 25, which appears to include mining claim recordation F-45604; Mineral Survey Application F-67670 (M.S. No. 2448) which includes mining claim recordations F-24963 through F-24966, and appears to be located in Sections 24 and 25; and excluding Federal mining Claim Recordations, which appear to be located within Section 24;
According to the survey map examined and approved by the U.S. Surveyor General's Office in Juneau, Alaska on December 16, 1914 and the supplemental survey plat accepted by the United States Department of the Interior, Bureau of Land Management, in Washington, D.C. on September 21, 1971
And
Township 003 North, Range 002 East, Fairbanks Meridian, Alaska
Section 19: Unencumbered lands west of the boundary of Mineral Survery No. 1968, Mineral Survey No. 1972, Mineral Survey No. 836, Mineral Survey No. 1793, Mineral Survey No. 1919 and Mineral survey No. 367;
According to the survey map examined and approved by the U.S. Surveyor General's Office in Juneau, Alaska on December 16, 1914, and the supplemental survey plat accepted by the United States Department of the Interior, Bureau of Land Management, in Washington, D.C. on September 21, 1971.
NW1/4(Excluding portion of MS2376, MS2448
and ADL344682)
25 T3N R1E
E1/2NE1/4 26 T3N R1E
87.5 Acres
(S1/2S1/2) 24 T3N R1E
(NW1/4NE1/4) 25 T3N R1E
92.12 Acres 25 T3N R1E
S1/2S1/2
11.3 Acres 19 T3N R2E
S1/2S1/2
1,173 Acres - contained
within
5 irregularly shaped parcels 26 T3N R1E
35 T3N R1E
portions of 28-31 T3N R2E
1,818 Acres T3N R1E
All 13
All 14

Section 24: Lots 4-9 inclusive, N1/2NE1/4, SW1/4NE1/4, W1/2; excluding: Mineral Survey No. 1672, Sections 24 and 25, which appears to include mining claim recordation F-45604; Mineral Survey Application F-67670 (M.S. No. 2448) which includes mining claim recordations F-24963 through F-24966, and appears to be located in Sections 24 and 25; and excluding Federal mining Claim Recordations which appear to be located within Section 24;
And
Township 003 North, Range 002 East, Fairbanks Meridian, Alaska
Section 19: Unencumbered lands west of the boundary of Mineral Survery No. 1968, Mineral Survey No. 1972, Mineral Survey No. 836, Mineral Survey No. 1793, Mineral Survey No. 1919 and Mineral survey No. 367;