Mineral Resource Estimate Update for the Ulu Gold Project, Nunavut, Canada

NI 43-101 Technical Report

PRESENTED TO

Blue Star Gold Corp.
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ACRONYMS AND ABBREVIATIONS

Acronym/Abbreviation	Definition
AAS	Atomic Absorption Spectroscopy
Aber	Aber Resources Ltd.
ACE	Axis-Central-East
GoldSpot	ALS GoldSpot Discoveries Inc
BD	BD Resource Consulting Inc.
Blue Star	Blue Star Gold Corp.
BHP	BHP Minerals Canada Ltd.
Bonito	Bonito Capital Corp.
CCD	Certified Collector Device
CD	Collector Device
CIM	Canadian Institute of Mining
CIRNAC	Crown-Indigenous Relations and Northern Affairs Canada
CRM	Certified Reference Materials
dU	Detection Unit
Echo Bay	Echo Bay Mines Ltd.
Elgin	Elgin Mining Inc.
FP	Feldspar Porphyry
FS	Feasibility Study
GBR	Golden Bull Resources
GT	Grade-Tonnage
HG	High Grade
HLVB	High Lake Volcanic Belt
ICP-AES	Inductively Coupled Plasma-Atomic Emission Spectrometry
ICP-MS	Inductively Coupled Plasma-Mass Spectrometry
IIBA	Inuit Impact and Benefits Agreement
IOL	Inuit Owned Lands
IP	Induced Polarization
IPD3	Inverse Power of Distance Cubed
IRC	International Royalty Corporation
JV	Joint Venture
KIA	Kitikmeot Inuit Association
Kinross	Kinross Gold Corp.
LG	Low Grade

Acronym/Abbreviation	Definition
Lytton	Lytton Minerals
MEA	Mineral Exploration Agreement
ML/ARD	Metal Leaching/Acid Rock Drainage
MMG	MMG Resources Inc.
MOU	Memorandum of Understanding
NFN	North Fold Nose
NI 43-101	National Instrument 43-101
NIRB	Nunavut Impact Review Board
NLCA	Nunavut Land Claims Agreement
NPC	Nunavut Planning Commission
NSR	Net Smelter Return
NTI	Nunavut Tunngavik Inc
NWB	Nunavut Water Board
OK	Ordinary Kriging
PAG	Potentially Acid Generating
PPPB	Portable PPB Pty Ltd
PEA	Preliminary Economic Assessment
PFS	Pre-Feasibility Study
QA/QC	Quality Assurance and Quality Control
QEMSCAN/MLA	Quantitative Evaluation of Mineralogy by a Scanning electron microscope / Mineral Liberation Analyzer
QMS	Quality Management System
QP	Qualified Person
QFP	Quartz-Feldspar Porphyry
RIA	Regional Inuit Association
RM	Reference Materials
RQD	Rock Quality Designation
SE	Search Ellipse
SG	Specific Gravity
SGS	SGS Canada Inc.
STF	Soil Treatment Facility
the Project	Ulu Gold Project
the Property	Ulu Mining Lease and Hood River MEA
TMI	Total Field Magnetics
UG	Underground

Acronym/Abbreviation	Definition
VLF-EM	Very Low Frequency-Electromagnetics
VLF-Resistivity	Very Low Frequency-Resistivity
VMS	Volcanic-hosted massive sulphide
Wahl	G H Wahl & Associates Geological Services
WPC	WPC Resources Inc.
Wolfden	Wolfden Resources Corporation

UNITS

above mean sea level	amsl
acre	ac
ampere	A
annum (year)	a
bank cubic metres	bm^3
bags	bgs
billion	B
billion tonnes	Bt
billion years ago	Ga
British thermal unit	BTU
centimetre	cm
cubic centimetre	cm^3
cubic feet per minute	cfm
cubic feet per second	ft^3/s
cubic foot	ft^3
cubic inch	in^3
cubic metre	m^3
cubic yard	yd^3
Curie	Ci
Coefficients of Variation	CVs
day	d
days per week	d/wk
days per year (annum)	d/a
dead weight tonnes	DWT
decibel adjusted	dBa
decibel	dB
degree	°
degrees Celsius	°C
diameter	ø
dollar (American)	USD$
dollar (Canadian)	Cdn$
dry metric ton	dmt
foot	ft
giga annum (billion years)	Ga.
gallon	gal
gallons per minute (US)	gpm
gauge	ga
gigajoule	GJ
gigapascal	GPa
gigawatt	GW

gram	g
grams per litre	g/L
grams per tonne	g/t
greater than	>
hectare (10,000 m^2)	ha
hertz	Hz
horsepower	hp
hour	h
hours per day	h/d
hours per week	h/wk
hours per year	h/a
inch	"
kilo (thousand)	k
kilogram	kg
kilograms per cubic metre	kg/m^3
kilograms per hour	kg/h
kilograms per square metre	kg/m^2
kilometre	km
kilometres per hour	km/h
kilopascal	kPa
kilotonne	kt
kilovolt	kV
kilovolt-ampere	kVA
kilovolts	kV
kilowatt	kW
kilowatt hour	kWh
kilowatt hours per tonne (metric ton)	kWh/t
kilowatt hours per year	kWh/a
less than	<
litre	L
litres per minute	L/m
mega annum (million years)	Ma.
megabytes per second	Mb/s
megapascal	MPa
megavolt-ampere	MVA
megawatt	MW
metre	m
metres above sea level	masl
metres Baltic sea level	mbsl
metres per minute	m/min
metres per second	m/s

metric ton (tonne)	t
microns	µm
milligram	mg
milligrams per litre	mg/L
millilitre	mL
millimetre	mm
million	M
million bank cubic metres	Mbm^3
million bank cubic metres per annum	Mbm^3/a
million pounds	Mlb
million tonnes	Mt
minute (plane angle)	'
minute (time)	min
month	mo
Neutron	N
ounce	oz
pascal	Pa
pico	p
centipoise	mPa·s
parts per million	ppm
parts per billion	ppb
percent	%
pound(s)	lb
pounds per square inch	psi
revolutions per minute	rpm
second (plane angle)	"
second (time)	s
specific gravity	SG
square centimetre	cm^2
square foot	ft^2
square inch	in^2
square kilometre	km^2
square metre	m^2
twenty-foot equivalent unit	TEU
thousand tonnes	kt
tonne (1,000 kg)	t
tonnes per day	t/d
tonnes per hour	t/h
tonnes per year	t/a
tonnes seconds per hour metre cubed	ts/hm^3
volt	V

week	wk
weight/weight	w/w
wet metric ton	wmt
year (annum)	a

1.0 SUMMARY

1.1 Introduction

This Technical Report was prepared in accordance with the formatting requirements of National Instrument 43-101 (NI 43-101) and Form 43-101F1 Standards of Disclosure for Mineral Properties to be a comprehensive review of the results of exploration activities on the Ulu Gold Project (the Project) as of the effective date of this Technical Report and, if warranted, to provide recommendations for future work. This Technical Report is intended to be read in its entirety.

1.2 Property Description and Ownership

The Ulu Gold Project is located within the Kitikmeot Settlement Area of western Nunavut. The Project is located approximately 523 km north-northeast of Yellowknife, NWT, approximately 210 km southeast of Kugluktuk, approximately 340 km southwest of Cambridge Bay, and approximately 45 km north of the Arctic Circle. The Project is situated approximately 130 km north-northeast of the past-producing Lupin Gold Mine and is immediately north of the Hood River.

The Ulu Gold Project is comprised of the Crown-granted Ulu Mining Lease, L-3563, and the Hood River Mineral Exploration Agreement held with Nunavut Tunngavik Inc (NTI), agreement number HoodRiver-001. Both components of the Ulu Gold Project surface rights are regulated by the Kitikmeot Inuit Association (KIA).

The Ulu Mining Lease, 947 ha, was initially staked by BHP Minerals Canada Ltd. (BHP) as a mineral claim (Ulu F16928) in 1988 under the *Canada Mining Regulations* and subsequently converted under the same regulations to a renewable 21-year Crown mining lease, L-#3563, in 1996. The mining lease was renewed as of November 18, 2017, with an expiry date of November 18, 2038, and is registered to Blue Star Gold Corp. (Blue Star or the Company). The Canada Mining regulations apply to lands where the Crown administers mineral rights. The legal description is Lot 1000, Quad 76L-14, plan of survey #79614. The Ulu Mining Lease boundary has been surveyed and is well-marked with survey monuments.

After Ulu's staking and conversion to the mining lease, the status of surface and some subsurface rights changed with the Nunavut Land Claims Agreement (NLCA). However, all mineral claims in existence prior to the date when the Nunavut Agreement came into force were grandfathered under the *Canada Mining Regulations* to what was then the Department of Indian and Northern Affairs of the Federal Government. The Inuit Owned Land Parcel CO-20/76 surrounds the Ulu Mining Lease, where surface and subsurface rights are owned by the NTI, with the surface rights administered by the KIA. As such, the Ulu Mining Lease subsurface mineral rights are owned and administered by Crown-Indigenous Relations and Northern Affairs Canada (CIRNAC); however, the surface rights are owned and administered by the KIA.

The mining lease is subject to a 5% net proceeds royalty ('Ulu Royalty') payable to Royal Gold, who obtained the royalty by the takeover of International Royalty Corporation (IRC) in 2010, on all refined gold, silver, and other metals derived from mineralized material following mining and recovery of 675,000 oz of gold. The royalty was originally granted pursuant to a Purchase and Sale Agreement dated November 17, 1995, between BHP. and Echo Bay Mines Ltd. (Echo Bay), as assigned to IRC pursuant to a Royalty Assignment Agreement dated March 31, 2005, modified by an Acknowledgment Agreement dated February 18, 2004, among Echo Bay, BHP Billiton Diamonds Inc., and Wolfden Resources Corp. (Wolfden), a Release and Assumption Agreement dated July 8, 2011, among MMG Resources Inc. (MMG), Bonito Capital Corp. (Bonito), and IRC, and an Assumption Agreement between Blue Star and IRC dated January 20, 2021. Concurrent with granting the royalty, rights to explore for diamonds at Ulu, in areas not occupied by gold mining or processing facilities or other improvements, were granted to BHP; subsequently, in January 2022, all exploration rights on the Hood River concession reverted to a 100% owned subsidiary, Inukshuk Exploration Inc. (Inukshuk), of Blue Star. In February 2010, Royal Gold, Inc acquired IRC and now holds the rights to the Ulu Royalty.

The Hood River property, 11,204 ha, exists entirely on surface and subsurface Inuit Owned Lands (IOL). Inukshuk has 100% interest in the Hood River property through a renewable, 20-year MEA with NTI. The Company's predecessor, WPC Resources Inc. (WPC), executed a letter of intent with Inukshuk in 2014, and subsequently, as Blue Star executed a Final Transaction Agreement and Net Smelter Return (NSR) Royalty Agreement on February 26, 2018 (effective September 18, 2014) to acquire 100% of the outstanding shares of Inukshuk; Inukshuk is a wholly owned subsidiary of Blue Star.

The Hood River property, located within the CO-20 IOL parcel, is administered by the NTI through an MEA signed between Inukshuk and NTI dated June 01, 2013, and amended January 1, 2022. All properties administered by NTI through the MEA are maintained in good standing by payment of an annual fee to use the land and by applying an annual work commitment or a payment in lieu of work against the Property as set out by the MEA.

Through the execution of the Final Transaction Agreement and NSR Royalty Agreement in 2018, an advance royalty payment was made, and Inukshuk will also pay a 3% NSR on the disposition of all minerals produced from the Hood River property. Further, prior to the commencement of commercial production on the Hood River property, Inukshuk has the option to acquire up to 2% of the NSR for a payment totalling up to $8,000,000 under specified terms. Finally, should Inukshuk abandon the Hood River property, past shareholders and assignees retain a right of conveyance.

1.3 Accessibility and Physiography

The Project is remote and accessible only by chartered aircraft onto its 1,350 m x 30 m gravel airstrip. There are several charter companies based in Yellowknife, NWT, with aircraft capable of landing on the Ulu airstrip. The main access route is through Yellowknife, which has scheduled flights from a few southern Canadian centres. An alternate route could be chartered flights from the Hamlet of Kugluktuk, located approximately 210 km to the northwest, receiving daily scheduled flights from Yellowknife.

Once on the Property, there is a limited road system connecting the old camp, support laydowns, and airstrip to the camp proper. Helicopter support is needed to mobilize personnel within the Property to access other areas.

A winter road, which linked Yellowknife to the Lupin mine site on Contwoyto Lake, had historically been used for economical transportation of supplies in winter months. During 1996, Echo Bay constructed a winter road that linked Lupin and Ulu to bring in equipment, personnel, supplies, and camps, which may be re-established as a winter trail in the future. The proposed route corridor for the all-weather Gray's Bay road passes in close proximity to the Project and provides an opportunity to permit a winter trail to the Coronation Gulf if staging of supplies can be contemplated.

Within the Ulu and Hood River properties, there is approximately 115 m of relief in the form of deeply incised linear valleys bounded by steep bluffs. The mafic volcanic units form topographic plateaus, elevated over the other geological units. Outcrop density here is typically 50-60%, with the cover consisting of north-trending lakes, grassy swamps, boulder-strewn glacial drift, and frost-heaved blocks. Regional drainage is easterly into Bathurst Inlet. Major rivers include the James River to the north and the Hood River, located 8 km south-southeast of Ulu. Drainage in the vicinity is poorly organized, with ponds of standing water without associated inlets and outlets. Locally, the Property is located within the Rio Fido watershed that includes Penthouse Lake on the Hood River property and drains northeastward into Frayed Knots River, a tributary of the Hood River. The Hood River valley is incised over 100 m below the surrounding upland plateau. Hood River eventually flows into the Arctic Ocean near Bathurst Inlet.

1.4 History

Table 1-1: History of the Deposit

Period	Area	Company	Activity
1967–1970	Hood River	Borealis Exploration	base metal reconnaissance
1985–1987	Hood River	Aber Resources	prospecting, trenching, drilling, staking
1988–1995	Ulu and Hood River	BHP_Utah Mines	mapping, sampling, drilling, definition drilling, geophysics, metallurgy, environmental baseline
1993–1997	Hood River	Lytton Minerals, Kennecott, Snowpipe Resources	staking, diamond exploration
1995–2002	Ulu	Echo Bay Exploration	drilling, infrastructure building, underground development, underground drilling, bulk sample, metallurgy, technical studies, environmental baseline
2002–2004	Ulu	Kinross Gold Corp	desktop evaluations
2004–2006	Ulu	Wolfden Resources	technical studies, metallurgy, drilling
2004–2006	Hood River	Tahera Resources, Gold Bull Resources	exploration agreements for diamonds and non-diamonds
2007–2011	Ulu	MMG Resources	no work
2010	Hood River	Shear Minerals	acquires diamond properties
2011–2013	Ulu	Elgin Mining Inc.	drilling, technical studies
2012–2013	Hood River	Inukshuk Exploration	enters into MEA for the current Hood River property
2014–2018	Ulu	WPC Resources	mapping, channel sampling, reclamation

1.5 Geology Setting

The Ulu Mining Lease and the Hood River property cover part of the central portion of the Archean-aged High Lake Volcanic Belt (HLVB) in the northern part of the Slave Structural Province. The HLVB is part of a northerly trending complex of volcanic and sedimentary rocks bounded to the west and east by extensive granitic plutons. This belt is 7–15 km wide and 135 km long, extending in a north-south orientation almost to the Coronation Gulf. The HLVB has been characterized as a “Hackett River”-type volcanic belt due to the predominance of felsic to intermediate volcanic rocks relative to the mafic volcanic rock-dominated Yellowknife-type volcanic belts.

The belt is noteworthy for its abundant pyritic siliceous gossans and major shear zones. The oldest domain is the felsic volcanic-dominated Western Domain of the belt, with a rhyolite crystallization age of 2.705 Ga., and is located west of the regional Kennarctic Shear Zone. The High Lake volcanogenic massive sulphide deposit is hosted in rhyolitic flows and fragmental volcanics. Carbonate-rich sediments and banded iron formation are also found in the Western Domain. The Eastern Domain with basalt, andesite, and dacitic flows and tuffs yielded the next youngest age of 2.67 Ga. and is located east of the Thunder Break fault. The sedimentary rock-dominated Central Domain yielded the youngest ages between 2.664 to 2.607 Ga.

Regionally, the belt has been deformed into a major syncline with a subsidiary antiform in the central portion. There are three main deformation events recorded in the HLVB. Evidence for D_1 is an early cleavage that parallels and is folded along with bedding (S_0) in later D_2 folds (F_2). This second deformation event, D_2, produced north-trending isoclinal F_2 folds, which lack an axial planar cleavage (Henderson et al. 1993). A well-developed northeast-trending penetrative fabric records a third major deformation event, D_3. This S_3 fabric postdates F_2 folding and predates the emplacement of the granitoids (Kleespies 1994).

The Ulu Gold Project is located in the Central Domain on the western margin of the HLVB. The properties cover several lobes of folded greenschist to amphibolite facies, mafic volcanic, and sedimentary rocks separated by a leucogranite intrusion and surrounded by granitic stocks. These supracrustal rocks consist of a sequence of basalts, greywackes, and gabbroic sills that have been folded into a series of F_2 anticlines and synclines. There are no felsic volcanic rocks on the Property. Late-stage feldspar porphyry (FP), quartz diorite, and diabase dykes locally intrude in this sequence. On the east side of the Hood River property is a distinct north-trending linear terrain consisting of intermediate volcanics, subordinate mafic volcanics, and a marble unit.

The 5 km long F_2 Ulu Fold hosts essentially all of the known Ulu mineralization. Although the structural setting at Ulu appears to be a relatively simple folded sequence of supracrustal rocks, the area is considerably more complex. The 8 km x 13 km area of supracrustal rock surrounding the Flood Zone can be divided into three structurally distinct areas. The regions directly east and west of the Ulu Granite, including the Ulu Fold, comprise a sequence of close (interlimb angles of 70° to 30°) F_2 synforms and antiforms which lack axial planar cleavage, which is sheared by discrete northeast trending D_3 structures a few metres wide. The area west of the Ulu Fold, known as Ulu West, is moderately pervasively foliated and is a homoclinal, north-trending succession. South of the Ulu Granite, some isoclinal F_2 folds are evident, and the geology is generally linear. The Thunder Break marks the eastern margin of the Central Domain and occurs on the eastern side of the Hood River property.

The Ulu Fold trends northwest in its southern half and north in its northern half due to refolding from a later fold event (F_3) or the interference of one or more post-fold shears (S_3) with the northern segment of the Ulu Fold. The southern part of the fold is anticlinal and plunges steeply northwest to north. The northern extent, an area called North Fold Nose (NFN), which lies approximately 2 km north of the Ulu Mining Lease (on the Hood River property), is a south-plunging synform and is documented as overturned (Rhys 1996).

A pronounced east-west structure dissects the Ulu Fold and extends into the surrounding granitic batholith. The eastern margin of this east-west ravine structure displays a 300 m sinistral offset (Jackson et al. 1986), and it has been interpreted to be a normal, north-down fault. North of the ravine, the supracrustal rocks are tightly folded with a high concentration of gossans and discontinuous fracture-type quartz veins with Au-Ag-Bi associations. North of the ravine, both dextral and sinistral northeast-trending faults display offsets of 20–60 m +/- 220 m. South of the ravine fault, east-west faults cut the F2 fold with <25 m of offset. Apart from these orientations, the Flood, Gnu, and Central Zone trend northwest, reflecting another set of faults/fractures. The northwest-trending Flood Zone appears to coincide with an interpreted northwest-trending, west-dipping normal fault which is at least 1,300 m long, which offsets the sedimentary rock core of the Ulu Fold at its southern end and several other lithological contacts at its northern end.

1.6 Mineralization

High-grade (HG) gold values occur coincident with intense silicification, which is accompanied by fine-grained needle arsenopyrite mineralization and forms the most important style of mineralization on Ulu. This style of mineralization is typically hosted in basalt units, although wackes and argillites can be a host. Secondary styles of mineralization found on Ulu are polymetallic quartz veins containing pyrite, pyrrhotite, sphalerite, galena, and visible gold; quartz-bismuth veins containing pyrite, pyrrhotite, native bismuth, and visible gold; and propylitic alteration often found in breccias containing pyrite, pyrrhotite, epidote, and magnetite. Disseminated pyrite and pyrrhotite (<1%) generally occur in the basalt and gabbroic units throughout the Property. Locally these units have higher pyrite and pyrrhotite concentrations (1% to 2%), forming patchy gossans but are not generally gold-bearing.

The Flood Zone is a northwest-trending, shear-controlled anastomosing epigenetic vein/alteration system proximal to a basalt-metagreywacke contact at the core of the Ulu anticline. Gold is intimately associated with very fine-grained acicular arsenopyrite within zones of intense silicification and quartz veins. The typical alteration assemblage includes quartz + biotite + amphibole (actinolite) + titanite + epidote + clinopyroxene + tourmaline.

HG gold values correspond to intense silicification and acicular arsenopyrite mineralization. The host basalt here is extremely silicified (up to 86% SiO_2) and has undergone potassic enrichment (biotite + microcline) and sodic depletion (breakdown of plagioclase). Alteration minerals include biotite, chlorite, sericite, hornblende, actinolite-tremolite, and potassium feldspar (microcline) with minor calcite, epidote, tourmaline, clinozoisite, and titanite. Biotite, sericite, and titanite appear to be the earliest alteration minerals and are overprinted by clinozoisite and arsenopyrite. Arsenopyrite makes its first appearance in the proximal calc-silicate-rich laminated replacement zone.

The NFN is the northernmost terminus of the Ulu Fold. The F_2 Ulu Fold is a broad north-plunging anticline with shallow limbs in the south. This geometry changes in the north to an overturned (steeply west-dipping), tight to isoclinal south-plunging synform. The core basalt forms a topographic high, elevated approximately 25 m above the valley of biotite schist. Regional stresses created a series of fractures closely associated with the trace of the Ulu Anticline. The competency contrast between the units of basalt and biotite schist allowed for dilation zones to form along these partially delaminated contacts, particularly in the northern section of the fold, which were later mineralized with arsenopyrite carrying gold (Flood et al. 2004). Given the synformal nature of the NFN, the mineralized zones on the limbs are projected to converge at depth.

The western limb of the NFN dips shallowly to the east and is variably and generally less mineralized than the steeply west-dipping east limb. Mineralization occurs at and adjacent to the sheared basalt-schist contact. Mineralization occurs as Au-hosting quartz-carbonate veins with pyrrhotite, arsenopyrite and chalcopyrite, and sericite + biotite + calc-silicate alteration which forms a halo around the mineralization for tens of metres, and which is well developed in the basalt rock. The mineralized zone ranges from about 2.5 m wide on the western limb and centre of the synform to 4 m wide on the eastern limb.

The Gnu Zone lies 600–750 m north of the Flood Zone. It is bounded to the northwest by the Ravine and to the southwest by the Ulu Granite, and mineralization is observed to be limited to occurring within the gabbro unit. The zone comprises several north-south trending polymetallic veins developed in brittle structures in gabbro and one east-west acicular arsenopyrite zone of mineralization also hosted in gabbro, which is subparallel to the Flood Zone. Here, quartz with acicular arsenopyrite and minor pyrrhotite mineralization visually identical to the Flood Zone has been intersected along a 575 m strike length. Polymetallic veins are thought to be present everywhere in the gabbro between the Ravine and the Ulu Granite.

Four polymetallic veins of interest are named Miksuk, Qipjaaq, Igutaaq, and Alone. The acicular arsenopyrite mineralization is called Miqqut. Alteration of the Miqqut mineralization is similar to that of the Flood Zone, generally comprising calc-silicate-biotite-chlorite-k-feldspar, and, unique to alteration of gabbro, leucoxene. Gold mineralization is coincident with strongly sheared host rock overprinted with silica/quartz veins and acicular arsenopyrite. Pyrite, pyrrhotite, and chalcopyrite can also be present in low amounts. Qipjaaq and Igutaaq are similar styles of fine to medium-grained quartz developed in brittle to ductile structures in gabbro. The gabbro host rock is often more highly strained where quartz veins have been emplaced, but the quartz veins themselves are not strained, suggesting that the gabbro was sheared prior to vein emplacement. Gabbro is often altered to leucoxene, and proximal to mineralization is strongly biotite-actinolite-chlorite altered. Commonly, the upper and/or lower margin of the quartz veins are mineralized with pyrrhotite-chalcopyrite-pyrite +/- sphalerite; here, the sulphides and quartz can be brecciated. Sulphide mineralization also occurs as blocky infill surrounding quartz crystals, or stringers, within the quartz veins. Visible gold has been observed at the contacts and within the quartz veins. The Miksuk Zone is unique in that the quartz and mineralization in this zone are sheared, as well as the gabbro host rock, and arsenopyrite is sometimes present.

1.7 Recent Exploration

Blue Star's exploration program in 2019 focused on targets in the Hood River MEA. This work included drilling of the NFN Zone with 11 holes for 1,535 m. The Company conducted a surface sampling program in 2019 which consisted of prospecting and channel sampling along gossanous outcrops extending southwards from the NFN.

Exploration in 2020 comprised of limited field sampling and drill target mapping followed by completing 7,621 m in 38 drill holes which evaluated a number of targets, including additional infill on the NFN target, selected target areas in the Flood Zone Gold deposit, and limited testing of a number of other peripheral showings (PC Zone, Crown, INT Zone, Bizen showing). The NFN drilling continued to confirm the close-spaced continuity of the target mafic-sediment contact. The limited testing of distal targets was mixed with no proposed follow-up resulting from that portion of the program.

Between July 6 and September 23, 2021, Blue Star completed a field program consisting of geological mapping, rock chip and grab sampling, soil and till sampling, and airborne magnetics surveying. Limited resampling of the historical drill core was also completed at the same time as the field program. Blue Star contracted Precision Geophysics Inc. of Langley, BC, to fly an airborne geophysical survey over portions of the Ulu Mining Lease and Hood River MEA covering 55.3 km^2. Historic channel samples were surveyed with a Trimble differential GPS using a local control station, and high-resolution drone imagery was taken of the Gnu Zone and Flood Zone trenching. Local grab samples were collected during limited mapping on the Ulu Lease and Hood River MEA.

Drilling in 2021 comprised approximately 5,000 m in 25 holes testing 6 target areas, including select Flood Zone test, Gnu Zone, NFN Zone, and the Axis-Central-East (ACE) Area; all drilling was to better understand the mineralization styles and controls for the refinement of an exploration model. Significant effort was made to digitally capture legacy data throughout the year.

The 2022 exploration program consisted of an airborne magnetometry survey covering 61.9 km^2, a ground Very Low Frequency-Electromagnetics (VLF-EM) survey covering 41 line-kms of surveying, a surface mapping and rock sampling program, a pilot till program, and a 3,800 m drill program testing seven targets on the Ulu property. A large component of the program was to compile and evaluate all historical showings and prospects using the Company's revised understanding of the geological exploration model. Approximately half of the known ~100 showings were reviewed in the field after prioritization.

Drilling of 3,800 m in 28 drillholes targeted select sections of the Flood Zone, with most of the metres expended on the Gnu Zone resulting in the confirmation of the presence of two distinct styles of mineralization in this target area.

1.8 Mineral Resource Estimate

The Mineral Resource Table for the Ulu deposit can be seen in Table 1-2.

Table 1-2: Mineral Resource Estimate Table for the Ulu Deposit, Nunavut (Effective Date: February 22, 2023)

	Zone	COG	Class	Quantity	Grade	Contained Metal
				('000 t)	Gold (g/t)	Gold (oz '000)
In Pit	Flood	1.5	Measured	678	6.05	132
			Indicated	318	5.14	53
			Inferred	40	5.35	7
	NFN	1.5	Inferred	159	12.66	65
	GNU		Inferred	41	17.85	24
Underground	Flood	3.5	Measured	339	9.78	107
			Indicated	1,200	7.29	281
			Inferred	603	5.55	108
	NFN	3.5	Inferred	113	7.10	26
	GNU		Inferred	327	7.02	74
Combined	All Zones	-	Measured	1,017	7.29	238
			Indicated	1,518	6.84	334
			Inferred	1,283	7.34	303
			Total M & I	2,535	7.02	572
			All combined	**3,818**	**7.13**	**875**

Note: Figures may not add to totals shown due to rounding.

1.9 Mineral Processing and Metallurgical Testing

Blue Star has completed early-stage mineralogical and metallurgical evaluation on the NFN and the Gnu (Nutaaq) exploration targets.

Gnu (Nutaaq) Zone

- The Gnu (Nutaaq) Zone master composite sample contained 6.69 g/t gold, 0.028% Cu, and 0.081% Zn with 2.03% S.
- Mineralogy analysis indicated 94.9% silicate-rich non-sulphide minerals and approximately 5.1% by weight were sulphide minerals, pyrrhotite, pyrite, chalcopyrite, and sphalerite.
- Bottle roll ground whole-ore cyanidation recovered 91.8% to 94.0% Au in 48 hours at grind size at 80% passing 41 µm to 72 µm.
- Gold recovery from the combination of the flotation + cyanidation process route is expected to be in the range of 92.0% to 93.8%.
- The gravity separation and cyanidation combined produced an overall gold recovery of 91.6%.

NFN Zone

- The NFN Zone master composite sample contained 7.03 g/t gold and 2.8 g/t Ag with 1.40% S.

- Mineralogy analysis indicated 96.6% silicate-rich non-sulphide minerals and approximately 3.4% by weight were sulphide minerals, pyrrhotite, pyrite, and arsenopyrite.
- Bottle roll ground whole-ore cyanidation recovered 92.4% to 93.3% Au in 48 hours at grind size at 80% passing 26 µm to 73 µm.
- An overall gold recovery of 86.8% is expected from the combination of the flotation + cyanidation process route.

1.10 Recommendation

Recommendations for further Mineral Resource estimates are presented in Section 26.0.

2.0 INTRODUCTION

2.1 Introduction and Terms of Reference

At the request of Blue Star, the authors conducted independent reviews of the Ulu Gold Project located in the Kitikmeot Region of western Nunavut, Canada. The Ulu Gold Project is comprised of a Crown Mining Lease L-3563 and the contiguous Hood River Mineral Exploration Agreement Hood River-001 held with NTI. The authors reviewed available exploration results for the Project, studied reports of nearby mineral occurrences, and prepared this independent Technical Report. This Technical Report was prepared in accordance with the formatting requirements of NI 43-101 and Form 43-101F1 Standards of Disclosure for Mineral Properties to be a comprehensive review of the results of exploration activities on the Project to date and, if warranted, to provide recommendations for future work. This Technical Report is intended to be read in its entirety.

2.2 Personal Inspections and Qualified Persons

A summary of the Qualified Persons (QPs) responsible for this Technical Report is provided in Table 2-1. The following QPs conducted personal inspections of the Property:

- Chris MacInnis, P.Geo., was on the Property from July 12–16, 2022, reviewing the geology, alteration, and mineralization style in the field and the drill core. He undertook a detailed review of data collection from the drill core, including all drilling-related procedures and data entry, sampling procedures, data capture, and quality assurance and quality control procedures. Mr. MacInnis provided the Company with a field trip report summarizing observations and recommendations for improved workflow and data collection.
- Hassan Ghaffari, P.Eng., M.A.Sc., conducted a personal inspection of the site on October 14, 2015.
- Jianhui (John) Huang, P.Eng., Ph.D., conducted a personal inspection of the site on October 14, 2015.

The authors have reviewed previous exploration activities on the Project, including historical assessment reports and various internal files from the current and previous operators provided by the Company, which were prepared between 1989 and 2015.

Table 2-1: Summary of Qualified Persons

No.	Report Section	Company	Qualified Person
1.0	Summary	All	Sign-off by Section
2.0	Introduction	Tetra Tech	Hassan Ghaffari, P.Eng., M.A.Sc.
3.0	Reliance on Other Experts	ALS Goldspot	Chris MacInnis, P.Geo.
4.0	Property Description and Location		
5.0	Accessibility, Climate, Local Resources, Infrastructure and Physiography		
6.0	History		
7.0	Geological Setting and Mineralization		
8.0	Deposit Types		
9.0	Exploration		
10.0	Drilling		
11.0	Sample Preparation, Analyses and Security		
12.0	Data Verification		
13.0	Mineral Processing and Metallurgical Testing	Tetra Tech	Jianhui (John) Huang, Ph.D., P.Eng.
14.0	Mineral Resource Estimates	ALS Goldspot	Chris MacInnis, P.Geo.
15.0	Mineral Reserve Estimates	NA	NA
16.0	Mining Methods	NA	NA
17.0	Recovery Methods	NA	NA
18.0	Project Infrastructure	Tetra Tech	Hassan Ghaffari, P.Eng., M.A.Sc.
19.0	Market Studies and Contracts	NA	NA
20.0	Environmental Studies, Permitting and Social or Community Impact		
21.0	Capital and Operating Costs		
22.0	Economic Analysis		
23.0	Adjacent Properties	ALS Goldspot	Chris MacInnis, P.Geo.
24.0	Other Relevant Data and Information	NA	NA
25.0	Interpretation and Conclusions	All	Sign-off by Section
26.0	Recommendations		
27.0	References		
28.0	Certificates of Qualified Persons		

2.3 Units of Measure

Metric units are used throughout this Technical Report, and currencies are in Canadian Dollars (Cdn$) unless otherwise stated. Market gold or silver metal prices are reported in USD$ per troy ounce.

3.0 RELIANCE ON OTHER EXPERTS

On January 24, 2023, the authors confirmed the status of the Ulu Mining Lease, L-3563, with information available through the CIRNAC mineral tenure map viewer (Nunavut Map Viewer [aadnc-aandc.gc.ca]) and the Hood River-001 Mineral Exploration Agreement through direct contact with the Lands Office of NTI.

Chris MacInnis, P.Geo., relied on Ms. Sharleen Hamm of Hamm Consulting Inc. to provide a review of the lands, licenses, and permitting status and drafting of the section included in the Property section of this Technical Report.

4.0 PROPERTY DESCRIPTION AND LOCATION

4.1 Mineral Resources

The most recent NI 43-101 Mineral Resource estimate was undertaken for the Ulu Project in 2015 and is documented. (Cowley et al 2015). Numerous prior reports have been undertaken, including Mineral Resource estimations and pre-feasibility level documents, most prior to the implementation of NI 43-101.

4.2 Property Location

The Ulu Gold Project is located within the Kitikmeot Settlement Area of western Nunavut. The Project is located approximately 523 km north-northeast of Yellowknife, NWT, approximately 210 km southeast of Kugluktuk, approximately 340 km southwest of Cambridge Bay, and approximately 45 km north of the Arctic Circle. The Project is situated approximately 130 km north-northeast of the past-producing Lupin Gold Mine and is immediately north of the Hood River. The mineral tenure is centred at longitude 110° 55' W and latitude 66° 54' N or in North American Datum 83 ('NAD83') coordinate system Zone 12 at 500500m E and 7421250m N on NTS map sheets 76L/14 and 76L/15 (Figure 4-1 to Figure 4-3).

Figure 4-1: Ulu Gold Project Location Map.

Figure 4-2: Ulu Gold Project Location Map within Nunavut

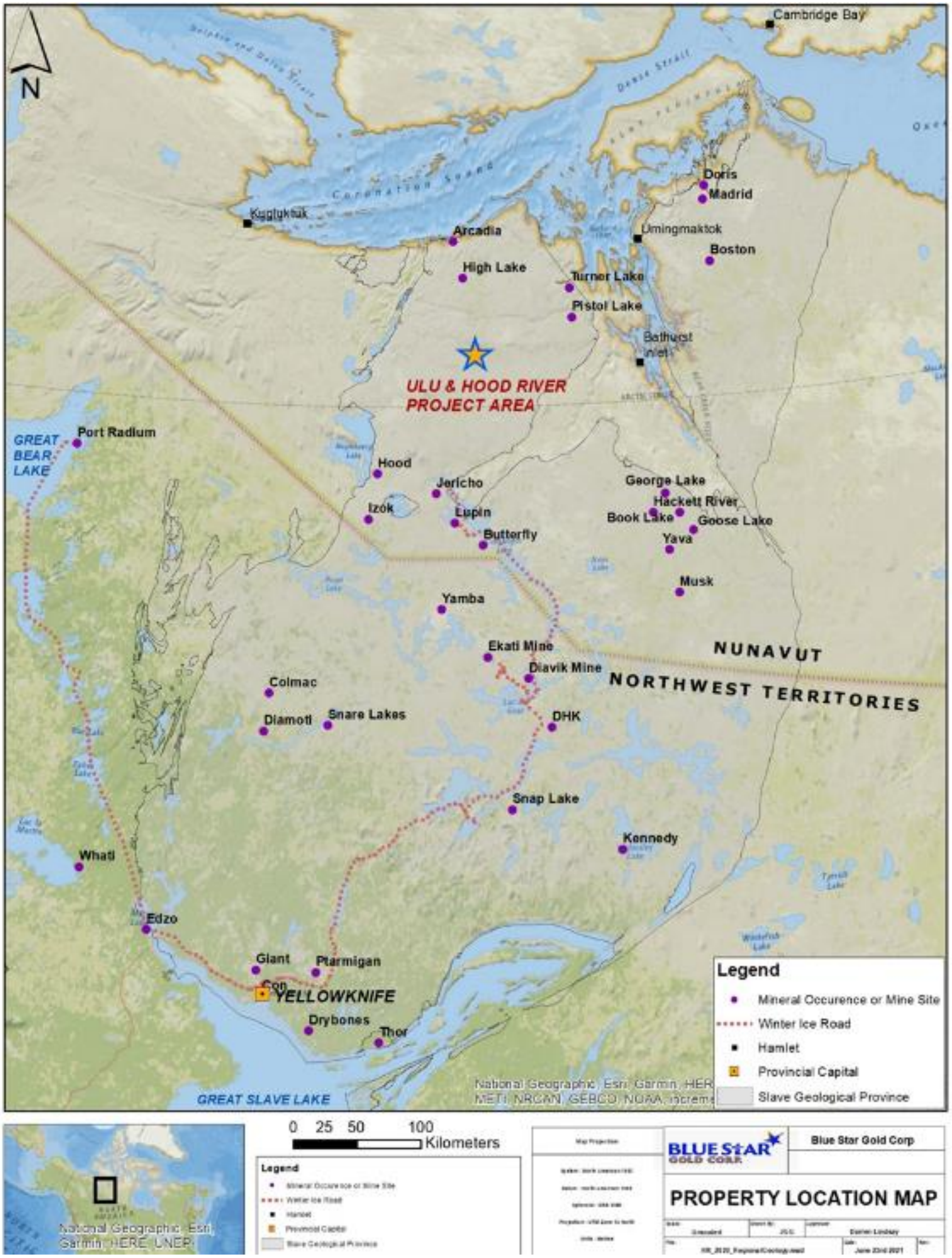

Figure 4-3: Ulu Gold Project within the Slave Structural Province

4.3 Property Description

The Ulu Gold Project is comprised of the Crown-granted Ulu Mining Lease, L-3563, and the Hood River Mineral Exploration Agreement held with NTI, agreement number HoodRiver-001. These two components of the Project will be discussed individually in select following sections to provide adequate information to understand each property that makes up the Project. Both components of the Ulu Gold Project surface rights are regulated by the KIA, as indicated below.

4.3.1 Ulu Mining Lease

The Ulu Mining Lease, 947 ha, was initially staked by BHP as a mineral claim (Ulu F16928) in 1988 under the *Canada Mining Regulations* and subsequently converted under the same regulations to a renewable 21-year Crown mining lease, L-#3563, in 1996. The mining lease was renewed as of November 18, 2017, with an expiry date of November 18, 2038, and is registered to Blue Star. The Canada Mining regulations apply to lands where the Crown administers mineral rights. The legal description is Lot 1000, Quad 76L-14, plan of survey #79614. The Ulu Mining Lease boundary has been surveyed and is well-marked with survey monuments. The annual rental fee of $4,736.85 is due November 18 of each year. For additional historical details, the reader is directed towards the previous technical report, Technical Report on the Ulu Gold Property, Nunavut, Canada (Cowley et al. 2015).

Subsequent to Ulu's staking and conversion to a mining lease, the status of surface and some subsurface rights changed with the NLCA. However, all mineral claims in existence prior to the date when the Nunavut Agreement came into force were grandfathered under the *Canada Mining Regulations* to what was then the Department of Indian and Northern Affairs of the Federal Government. The Inuit Owned Land Parcel CO-20/76 surrounds the Ulu Mining Lease, where surface and subsurface rights are owned by the NTI, with the surface rights administered by KIA. As such, the Ulu Mining Lease subsurface mineral rights are owned and administered by CIRNAC; however, the surface rights are owned and administered by the KIA.

The mining lease is subject to a 5% net proceeds royalty ('Ulu Royalty') payable to Royal Gold, who acquired the royal by the takeover of IRC in 2010, on all refined gold, silver, and other metals derived from mineralized material following mining and recovery of 675,000 oz of gold. The royalty was originally granted pursuant to a Purchase and Sale Agreement dated November 17, 1995, between BHP and Echo Bay, as assigned to IRC pursuant to a Royalty Assignment Agreement dated March 31, 2005, modified by an Acknowledgment Agreement dated February 18, 2004, among Echo Bay, BHP Billiton Diamonds Inc. and Wolfden, a Release and Assumption Agreement dated July 8, 2011, among MMG, Bonito, and IRC, and an Assumption Agreement between Blue Star and IRC dated January 20, 2021. Concurrent with granting the royalty, rights to explore for diamonds at Ulu, in areas not occupied by gold mining or processing facilities or other improvements, were granted to BHP; subsequently, in January 2022, all exploration rights on the Hood River concession reverted to a 100% owned subsidiary, Inukshuk, of Blue Star. In February 2010, Royal Gold, Inc acquired IRC and now holds the rights to the Ulu Royalty.

Blue Star does not currently have an Inuit Impact and Benefits Agreement (IIBA) with the KIA to address the social and economic issues of the Project.

The authors are unaware of any current or pending challenges to the ownership of the lease. The authors are unaware of any actual or alleged breaches of any regulations, policies, or permits at Ulu.

4.3.2 Hood River Mineral Exploration Agreement

The Hood River property, 11,204 ha, exists entirely on surface and subsurface IOL. Inukshuk has 100% interest in the Hood River property through a renewable, 20-year MEA with NTI. The Company's predecessor, WPC, executed a letter of intent with Inukshuk in 2014, and subsequently, as Blue Star executed a Final Transaction Agreement and NSR Royalty Agreement on February 26, 2018, (effective September 18, 2014) to acquire 100% of the outstanding shares of Inukshuk; Inukshuk is a wholly owned subsidiary of Blue Star.

The Hood River property, located within the CO-20 IOL parcel, is administered by the NTI through an MEA signed between Inukshuk and NTI dated June 1, 2013, and amended January 1, 2022. All properties administered by NTI through the MEA are maintained in good standing by payment of an annual fee to use the land and by applying an annual work commitment or a payment in lieu of work against the Property as set out by the MEA. HoodRiver-001 tenure summary and property particulars are listed in Table 4-1.

Table 4-1: Tenure Summary of Inukshuk's Hood River-001 MEA

MEA Concession ID	NTS Map Sheet	Agreement Date	Anniversary Date	Amended Date	Area (ha)
HoodRiver-001	76L/14 & 15	June 1, 2013	June 1	January 1 2022	11,204

The Hood River property has not been surveyed. The author is not aware of any encumbrances on the concession, and as of December 2022, NTI indicated it had no record of related extraordinary rights. Through the execution of the Final Transaction Agreement and NSR Royalty Agreement in 2018, an advance royalty payment was made, and Inukshuk will also pay a 3% NSR on the disposition of all minerals produced from the Hood River property. Further, prior to the commencement of commercial production on the Hood River property, Inukshuk has the option to acquire up to 2% of the NSR for a payment totalling up to $8,000,000 under specified terms. Finally, should Inukshuk abandon the Hood River property, past shareholders and assignees retain a right of conveyance.

Annual fees for the Hood River property are based on a set rate shown in Table 4-2 multiplied by the size of the property. Each subsequent year's fees are due on the anniversary of the signing date. If the fees are not paid, the MEA will be forfeited, and the title to the ground will revert back to NTI. Annual fees to date have been paid in full. The property has minimum annual exploration expenditure commitments required to maintain the rights to the property. These annual work/payment commitments established by NTI are specified within the underlying MEA between Inukshuk and NTI. The minimum annual commitments can be met either by actual exploration expenditures or by making a cash payment in lieu of exploration expenditure. Excess work expenditures can be credited to the subsequent year's requirements. The annual work commitment required is based on the annual rate charged as set out in Table 4-2 multiplied by the size of the property, and is required to be expended prior to the anniversary date and required to be reported 90 days after the anniversary date. If payment in lieu of assessment work is required to maintain the property, the amount due would be equal to the annual work commitment. Inukshuk's account with NTI is in good standing.

Table 4-2: NTI Fees and Commitments from the Hood River-001 MEA

Year	Annual Fees (Amount/ha)	Work Commitments (Amount/ha)
1	$0.75	$5.00 (Waived)
2	$2.25	$5.00 (Waived)
3	$2.50	$10.00
4	$2.50	$10.00
5	$2.50	$10.00
6	$3.00	$20.00
7	$3.00	$20.00
8	$3.00	$20.00
9	$3.00	$20.00
10	$3.00	$20.00
11	$4.00	$30.00
12	$4.00	$30.00
13	$4.00	$30.00
14	$4.00	$30.00
15	$4.00	$30.00
16	$5.00	$40.00
17	$5.00	$40.00
18	$5.00	$40.00
19	$5.00	$40.00
20	$5.00	$40.00

4.4 Mineral Tenure Ownership in Nunavut

On April 1, 1999, the Nunavut Agreement, dated May 28, 1993, between the Inuit of the Nunavut Settlement Area as represented by the Tunngavik Federation of Nunavut and Her Majesty the Queen in right of Canada, came into force. Under this agreement, the Inuit were granted ownership of approximately 356,000 km^2 of land in an area referred to as the Nunavut Settlement Area, comprising 318,086 km^2 of surface lands and 37,882 km^2 of surface and subsurface lands (NTI 2000). Third-party interests in IOL within the Nunavut Settlement Area created on or after April 1, 1999, are granted, in the case of surface rights, by the appropriate Regional Inuit Association (RIA) and, in the case of subsurface rights, by NTI, which hold subsurface title to IOL and will be additionally responsible, in consultation with the appropriate RIA, for the administration and management of those subsurface rights. Until such time as control of Nunavut's public land and resources are transferred from the Crown to the territory (devolution), non-IOL surface and subsurface interests are granted by the Federal government as CIRNAC either through the Mining Recorder's office (subsurface) or the Lands Administration office (surface), pursuant to the *Territorial Lands Act* (2019) and its regulations (Territorial Land Use Regulations, 2020; Mining Regulations, 2020).

A licence to prospect is required to record a claim, lease a recorded claim, or renew a lease. A licence to prospect can be obtained by an individual or a company that is incorporated or registered in either Nunavut or Canada. Licences are valid from the date of issuance or renewal until March 31 of the following calendar year. The cost for a corporation to obtain or renew a licence to prospect is $50. With revisions to the *Nunavut Mining Regulations* coming into force in 2020, online map selection was established, requiring holders of licences to prospect to acquire and manage their rights online through the Nunavut Map Selection system.

Once a claim is recorded, it is valid for 30 years, beginning on its recording date, plus any extensions, unless it is cancelled or leased. The claim holder must do annual work incurring a cost of $45 to $270, depending upon the number of years the claim is held, to keep the claim in good standing. Reports detailing representative work must be filed with the Mining Recorders Office 120 days following the claim's anniversary date. Excess cost of work may be allocated to the next year or years for which work is still required to be done on the claim.

During the life of any claim, the holder can apply to convert all or part of the mineral claim to a mining lease, after which no work expenditures are required. The conversion to a mining lease requires the boundaries to be legally surveyed. Normally a Crown mining lease is granted for a 21-year term and is renewable for subsequent 21-year terms. The annual rent for a lease that was issued before November 1, 2020, is $2.50 per ha during the first term and $5 per ha during each renewed term before that date and is due on the lease anniversary date; as the Ulu lease has been renewed, the latter applies. Mining of any mineral can only be done with a mining lease by the lessee. The *Nunavut Mining Regulations* use a sliding royalty schedule between 0% and 14%, based on the value of the mine output, with that value based on a number of factors and deductions listed in the *Nunavut Mining Regulations*.

Rights to subsurface IOL are granted to interested parties to undertake mineral exploration through Mineral Exploration Agreements between NTI and the mineral explorer.

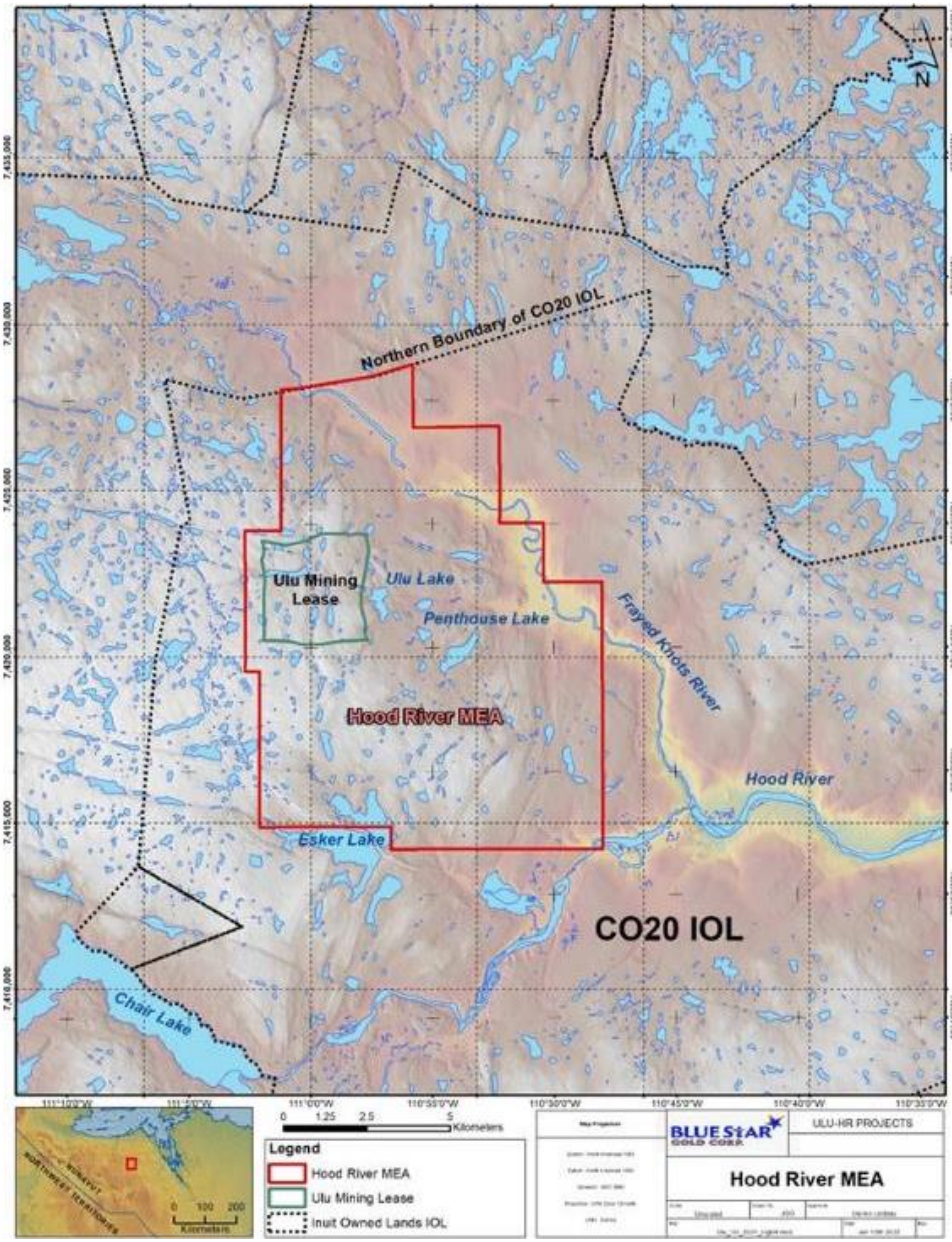

Figure 4-4: Location of Ulu Mining Lease and Hood River Concession, the Ulu Gold Project
(Ulu Mineral Lease [Green], Hood River Concession [Red])

4.5 Environmental Regulations and Exploration Permits

4.5.1 Exploration Permits

With very few limited exceptions, all activities occurring on the land in Nunavut require a conformity determination from the Nunavut Planning Commission (NPC) and a screening decision, at a minimum, from the Nunavut Impact Review Board (NIRB) pursuant to the *Nunavut Project Planning and Assessment Act* (2019). Mineral exploration activities such as diamond drilling require a Water Licence from the Nunavut Water Board (NWB) pursuant to the *Nunavut Waters and Nunavut Surface Rights Tribunal Act (*2019) and the *Nunavut Waters Regulations* (2019).

IOL surface title is managed by the KIA as the Designated Inuit Organization according to NTI. As the surface rights manager, KIA has the legal authority to enforce terms and conditions for the use of its lands, and these are set out in agreed-upon Land Use Licences, leases, and other agreements. Everyone, except the Inuit, must apply for a Land Use Licence from the KIA to cross or use IOL. For mapping and camping with no damage to the land, a Class C Land Use Permit is sufficient. Where there will be more people and intrusive use of the land, a Class B or Class A permit is required depending on the extent of the work to be done. The Company is in good standing with all licenses and permits.

Table 4-3: Current Authorizations Related to the Ulu Gold Project

Authorizing Agency	#	Description	Expiry Date
NPC	149067	Conformity determination	Does not expire
NIRB	19EA019	Screening Decision	Does not expire
NWB	2BE-HRP1932 and 2BM-ULU2030	Water Licences	June 8, 2032, and May 12, 2030
KIA	KTL311C013*	Land Use Licence	June 25, 2023

* Also licences land use activities on the Ulu mining lease

Exploration at Hood River, including drilling, fuel caching, and a temporary camp, is authorized as listed in Table 4-3. Blue Star has posted $75,000 in reclamation security with the KIA, which is required in order to allow exploration drilling to continue on IOL.

Currently, there is a Land Use Permit (KTL311C013) for a camp, fuel storage, prospecting, geochemical sampling, geophysical surveys, drilling (land and ice), landfilling, landfarming, baseline studies, test pitting, trenching, geological mapping, prospecting, and a Quarry Permit Agreement (KTCA20Q004) for quarrying 10,000 m^3 of esker material, both issued by the KIA in the name of Blue Star and renewable annually.

Amended Water Licence 2BE-HRP1932 allows for exploration, including drilling and a camp facility. 2BM-ULU2030 allows for exploration, quarrying, progressive reclamation, bulk sampling and construction of a non-hazardous waste landfill, a soil treatment facility (STF), a new camp, and the use of 299 m^3/day of water.

Since the acquisition of Ulu and Hood River, Blue Star has obtained approvals pursuant to the *Mines Health and Safety Act* (2011) and Regulations (2011), renewable annually with Worker Safety and Compensation Commission, for surface exploration; additional authorization is required to work underground (UG).

4.5.2 Historical Environmental Studies and Work

For a history of environmental studies and work on the Ulu mining lease, refer to the previous technical report by Cowley et al. (2015). The information is summarized below.

Environmental baseline studies began in 1990, which included wildlife sightings, bathymetry records, climatic records, water quality data collection, and acid rock drainage testing. More in-depth studies were completed in 1996 to support permit applications to conduct bulk sampling at Ulu and to construct a haulage road between Ulu and Lupin. Studies included archaeological resources, fisheries, wildlife, vegetation, terrain analysis for the Ulu site and along several proposed road routes, and potential for acid rock generation from the Ulu waste and mineralized material stockpiles. The result was a four volume Environmental Assessment report presented to the KIA, the predecessor to CIRNAC and the NIRB, in February 1997. Follow-up work continued through 1997.

Historical environmental studies inform an understanding of the biophysical environment at Ulu; however, they are inadequate for an Impact Assessment that would be required in order to proceed with the development of the Ulu Project.

4.6 Environmental Considerations

To the best of the knowledge of the authors, there are no environmental considerations or other significant factors or risks that may affect access, title, or the right or ability to perform work on the Property.

4.6.1 Current Environmental Conditions on Ulu Mining Lease

Progressive reclamation activities at the Ulu site began in 2014. Prior to Blue Star's acquisition of the Project, the following activities are understood to have taken place: backhaul of waste and hazardous materials to Yellowknife for offsite disposal; demolition of the Camp 3 fuel tank farm, excavation of the adjacent impacted soil, and relocation of the contaminated soil to the Ulu Camp; removal from service, cleaning, and demolishing all fuel tanks; demolition of accommodations considered by the preceding owner to be unnecessary for future site activities; demolition of the Camp 3 garage; decommissioning of the sewage treatment facility and associated infrastructure; decommissioning of the water supply infrastructure; burning of wood waste; consolidation of the resulting demolition waste into select areas at the Ulu camp; backfilling the vent raise; cutting a number of diamond drill casings flush with the ground; road maintenance repairs.

In 2019, prior to completing the Project acquisition, Blue Star retained qualified professionals to assess the geochemical characteristics of the mineralized rock and waste rock on the surface at the Ulu Camp and to determine the volume and character of petroleum hydrocarbon impacts at the site. The assessment confirmed previous findings that the mineralized rock currently on the surface might generate acidic drainage within a short timeframe, and the rates of metal leaching are expected to increase under acidic conditions.

During the 2020 field program, legacy contaminated soil/esker was stockpiled within the lined area of the former main tank farm (this material was tested in 2021 to determine the required treatment/suitability for placement in the landfill). Esker material was placed in the landfill footprint, which was later sampled and found to meet the criteria for use in landfill construction.

Blue Star is investigating Metal Leaching/Acid Rock Drainage (ML/ARD) conditions at Ulu arising from the legacy use of waste rock and mineralized rock in construction. The investigation is ongoing, and only preliminary outcomes were available at the time of writing. In fulfilment of a commitment made in the 2020 annual report, a portion of the rock occurring at the northwest edge of the laydown pad where acidic rock conditions were observed was excavated in 2021, placed in a windrow on the centre of the laydown pad, and covered in a tarp to temporarily mitigate the potential for ARD generation and flow into the West Lake catchment. Road repair locations at Culvert 6 and Camp 3 were also found to have potentially acid-generating (PAG) rock, intermittent flow, and are upstream of fish-bearing waters, so the roadbed and shoulders were excavated to remove PAG rock and reconstructed with non-PAG esker materials. The removed PAG rock has been relocated to the laydown pad and temporarily stored with other PAG rock.

Reclamation activities during 2021 included drill site cleanup (removal of casing from completed holes unless future hole extension was expected, spreading of peat moss), sorting of legacy waste, and disposal of decontaminated non-hazardous waste in the landfill (with residual hazardous waste and wash water sent off-site). During the course of landfill operations in July, Blue Star uncovered approximately 40 m^3 of waste buried within two of the access routes built with esker in 2020 within the landfill footprint. Blue Star considered this to be an unauthorized deposit of waste and so reported the finding, excavated the waste, and conducted limited sampling of the adjacent esker fill. Further investigation into contaminated soils observed in situ, staining following removal of legacy waste, and an oily sheen observed in test pits in the landfill staging areas is required. Hydrocarbon fumes were also observed in a soil sample collected from road construction materials near Camp 3. Fumes were detected in some other samples during test pitting associated with the ML/ARD program. Blue Star plans to compile a plan for the assessment and remediation of contaminated areas.

Reclamation activities during 2022 included drill site cleanup (removal of casing from completed holes, spreading of peat moss, removal of casing from nine historical drill locations), sorting and staging of legacy waste. Re-sampling of select sections of the stockpiled contaminated soil was also undertaken to better understand the natural processes of decontamination of these materials. Additionally, two thermistors were installed to gather information on infrastructure pad freeze/thaw depths throughout the year.

Under the current water licence, 2BM-ULU2030, a total of $2,435,542 in security is held: $943,835.00 is held by the KIA and $1,685,542 is held by the federal government. This amount is considered adequate for the current permitted activities, being exploration, bulk-sampling, and progressive reclamation of legacy waste. The current approved Interim Closure and Reclamation Plan and the related security pursuant to the water licence do not contemplate final mine site closure or mine construction and operations.

Blue Star's project archaeologist visited the Project in August 2021 to conduct an archaeological impact assessment of drill target areas. Preliminary findings include a site near Ulu Camp. The site will be recorded and reported as an archaeological site and will continue to be avoided.

4.6.2 Current Environmental Conditions on Hood River MEA

An aerial survey undertaken by Blue Star in 2019 indicated that the extents of the MEA at the time were free of any legacy environmental liabilities; it is possible that the recently acquired expanded area of the MEA may contain may be remains of previous campsites and/or pre-existing undocumented fuel caches on this property as it has not yet been similarly surveyed. Diamond drill core from BHP's drilling campaigns (on the now Ulu Mining Lease and Hood River MEA) is stored on the southwest shore of Penthouse Lake in an orderly fashion. Core from Blue Star's past drilling at Hood River is also stored adjacent to its recent former camp site, northwest of the Ulu mining lease. The rest of this site has been reclaimed to the satisfaction of the Inspectors. A portion of the Ulu mine site surface infrastructure does occur within the new boundaries of the MEA, including an airstrip, a quarry, a reclaimed campsite, and a fuel tank farm known as Camp 3, as well as laydown and fuel storage (bulk and drummed) at the Ulu airstrip (Figure 4-5).

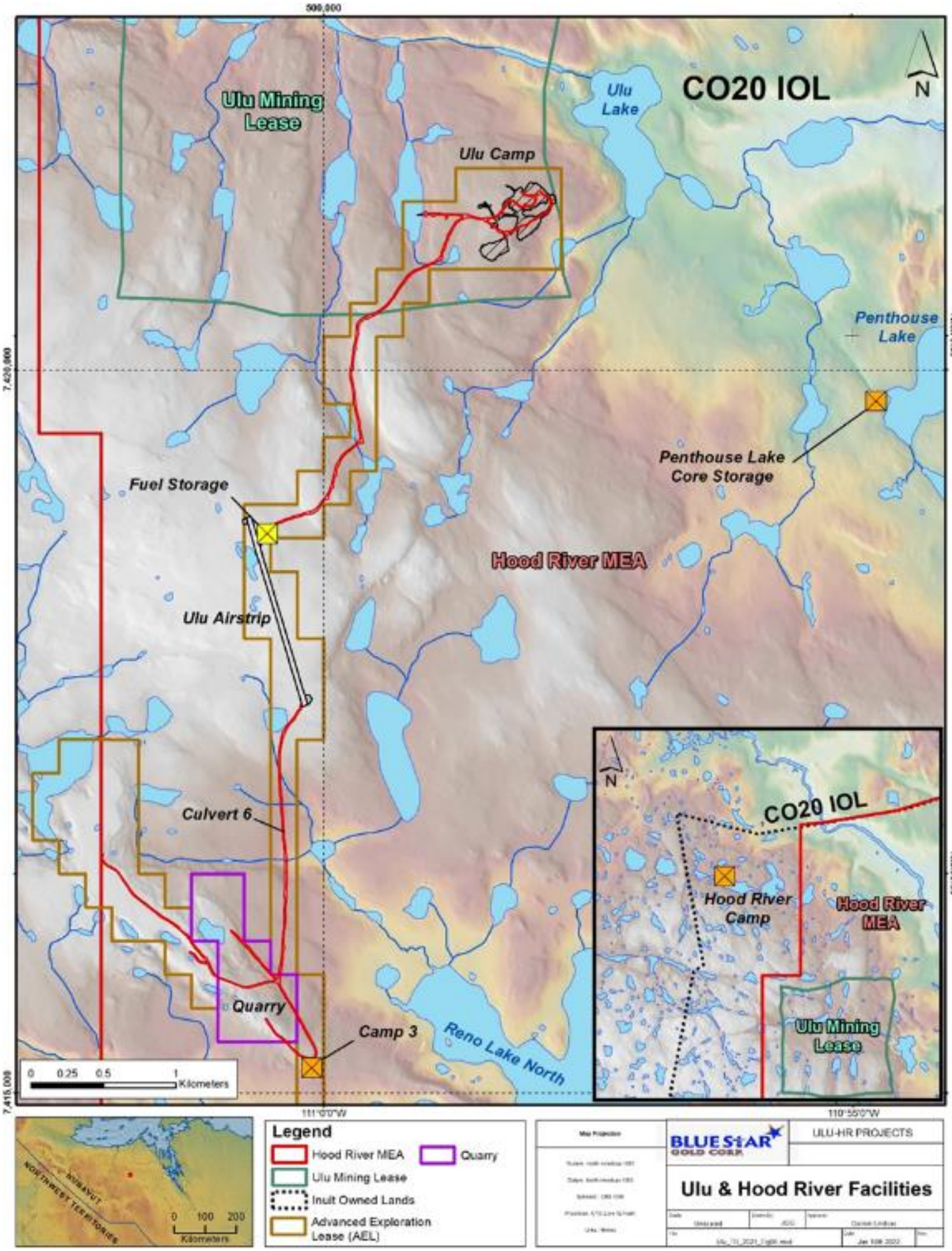

Figure 4-5: Location of Ulu Gold Project Infrastructure

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

5.1 Accessibility

The Project is remote and accessible only by chartered aircraft onto its 1,350 m x 30 m gravel airstrip. There are a number of charter companies based in Yellowknife, NWT, with aircraft that are able to land on the Ulu airstrip. The main access route is through Yellowknife, which has scheduled flights from a few southern Canadian centres. An alternate route could be a chartered flight from the Hamlet of Kugluktuk, located approximately 210 km to the northwest, which receives scheduled flights every day from Yellowknife.

Once on the Property, there is a limited road system connecting the old camp, support laydowns, and airstrip to the camp proper. To access other areas, helicopter support is needed to mobilize personnel within the Property.

A winter road, which linked Yellowknife to the Lupin mine site on Contwoyto Lake, had historically been used for economical transportation of supplies in winter months. During 1996, Echo Bay constructed a winter road that linked Lupin and Ulu to bring in equipment, personnel, supplies and camps, which may be re-established as a winter trail in the future. The proposed route corridor for the all-weather Gray's Bay road passes in close proximity to the Project and provides an opportunity to permit a winter trail to the Coronation Gulf if staging of supplies can be contemplated.

5.2 Climate and Vegetation

The weather in the Project area is typical of the continental barren lands, which experience cool summers and extremely cold winters. Winter temperatures can reach -45°C, and high winds can create extreme wind chill conditions and extensive drifting snow. Summer temperatures are generally in the range of 5–10°C but can reach as high as 30°C. The ground remains snow-covered for more than 250 days a year. Snow accumulation begins in September and remains into June. Average annual snowfall rarely exceeds 0.5 m, most of which falls during autumn and spring storms. Small lakes are clear of ice usually by the third week in June (though the ice on the larger lakes can persist into the middle of July) and start freezing over again in mid to late September. Wind speeds have been recorded in excess of 100 km per hour. Twenty-four-hour daylight persists from May to early August due to the northern location above the Arctic Circle.

Surface exploration is generally restricted to a period from June through to September, outside of which weather conditions, including whiteouts, impact the ability to safely and predictable land aircraft. UG work can be completed year-round, as proven by historical workers undertaking bulk sampling and advanced-stage infill drilling from UG platforms.

The Project is located above the treeline within the zone of permanent permafrost. Vegetation consists primarily of lichen and mosses with shallow valleys and protected areas hosting dwarf willows and barren land grasses. Most larger lakes contain lake trout and white fish. Caribou and muskox are seen sporadically throughout the summer, with rare sightings of grizzly bear, Arctic wolf, Arctic fox, and a few avian species such as falcons, geese, ptarmigan, and small songbirds.

5.3 Physiography

Within the Ulu and Hood River properties, there is approximately 115 m of relief in the form of deeply incised linear valleys bounded by steep bluffs. The mafic volcanic units form topographic plateaus, elevated over the other geological units. Outcrop density here is typically 50–60%, with the cover consisting of north-trending lakes, grassy swamps, boulder-strewn glacial drift, and frost-heaved blocks. Regional drainage is easterly into Bathurst Inlet. Major rivers include the James River to the north and the Hood River, which is located 8 km south-southeast of Ulu. Drainage in the vicinity is poorly organized, with ponds of standing water without associated inlets and outlets. Locally, the Property is located within the Rio Fido watershed that includes Penthouse Lake on the Hood River property and drains northeastward into Frayed Knots River, a tributary of the Hood River. The Hood River valley is incised over 100 m below the surrounding upland plateau. Hood River eventually flows into the Arctic Ocean near Bathurst Inlet.

5.4 Local Resources and Infrastructure

The closest hamlets are Kugluktuk and Cambridge Bay, both with commercial airstrips; in addition, the historical Lupin Mine site southeast of the Project has an active airstrip that can easily accommodate larger aircraft. Both Kugluktuk and Cambridge Bay have educated workforces, many with mine or exploration camp experience; these are good sources of skilled, semi-skilled, and unskilled labour.

The Project area is remote; there is no existing public infrastructure. The Ulu Camp was originally constructed by Echo Bay in 1996 and remained in operation until 1997, following which the camp was mostly inactive with periods of one or two years of seasonal activity by a variety of companies which undertook a variety of modifications. The original camp was built to house 60 persons and currently can house 45 persons. Since 2018 the camp has been repaired, maintained, and reopened seasonally for surface exploration and progressive reclamation programs.

A limited road network is maintained to connect the camp to the large laydown areas, airstrip, and quarry locations. A shop is part of the camp infrastructure but is in poor repair. It is used during the exploration season to maintain the heavy equipment at the site, mainly for loading/unloading aircraft, hauling water, and quarrying and staging material. As part of the recent reclamation work, an approved landfill has been created with waste materials from historical programs cleaned, cut up, and buried under an interim cover.

Camp power is provided using diesel generators. Camp water is sourced from West Lake, with all sumps or discharges located across a regional topographic break towards East Lake. East Lake was the discharge lake for treated black water and mine runoff during the 1996–1997 advanced exploration period and was also contemplated as the potential tailing facility. Currently, greywater is deposited in a camp sump and regularly pumped to a sump of the camp pad on the tundra.

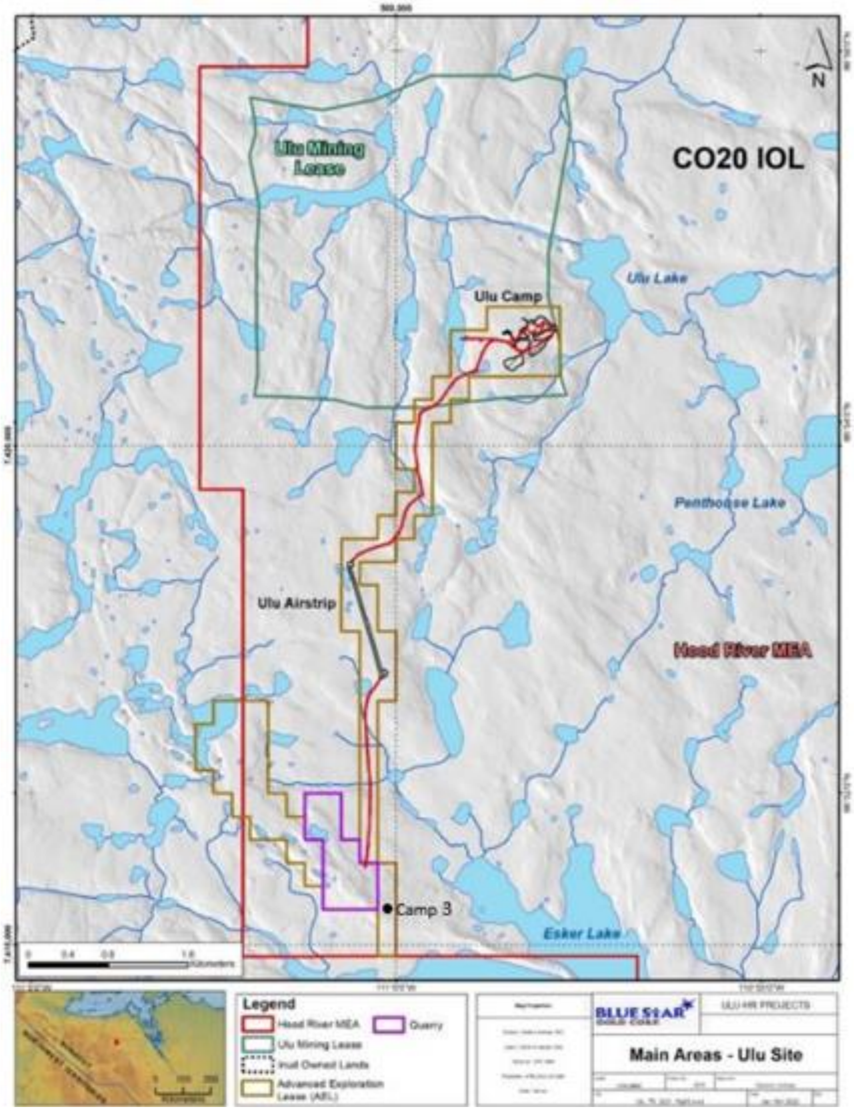

Figure 5-1: Ulu Gold Project Infrastructure

(Includes lease location, campsite, Land Use Permit limits, and airstrip)

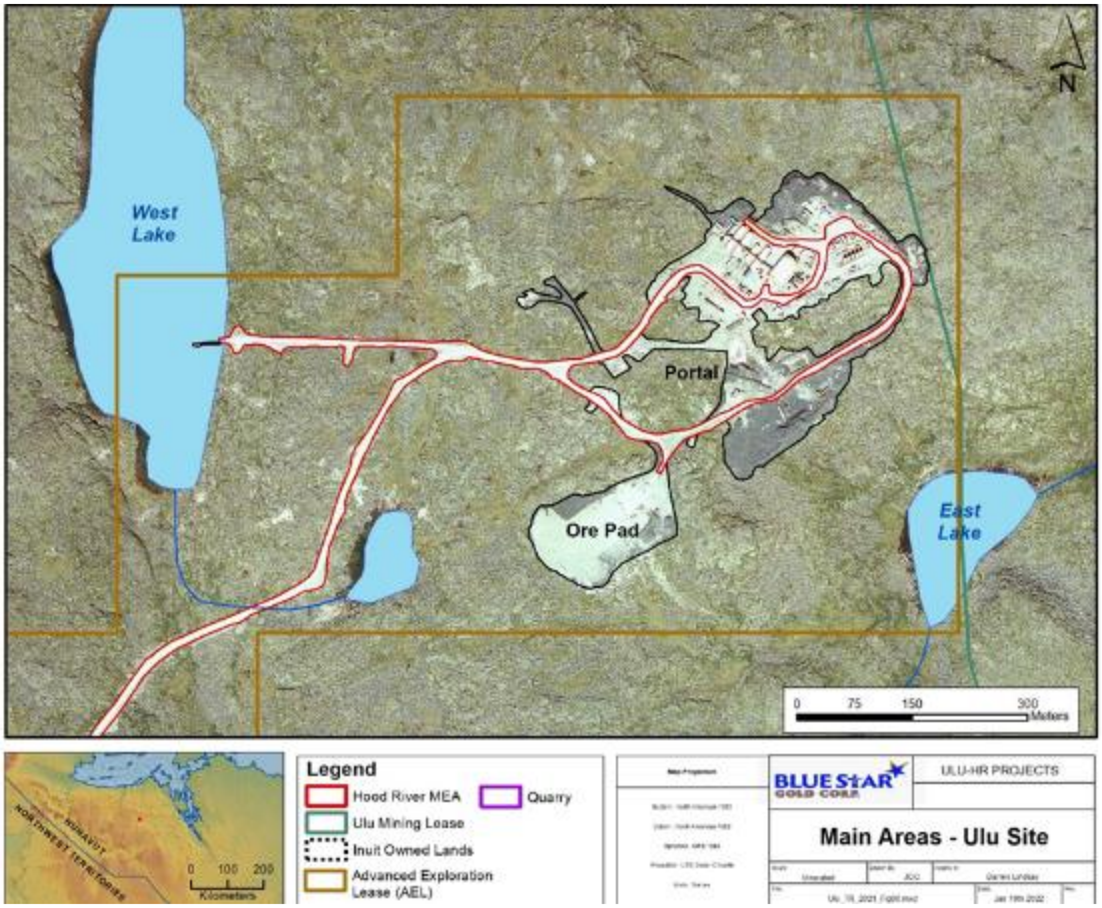

Figure 5-2: Detailed Ulu Mining Lease Infrastructure

(Includes camp and related water system, portal, and Flood Zone)

6.0 HISTORY

Blue Star's land holdings are located within the High Lake Greenstone Belt, a belt known to host numerous exploration targets and a few known deposits, including advanced-stage UG workings at the Ulu Deposit. There are no active mines or advanced projects currently; however, Blue Star is exploring around the advanced-stage UG workings of the Ulu Deposit. This section is paraphrased and borrowed from well-summarized sections of two previous reports by Cowley et al. (2015) titled *Technical Report on the Ulu Gold Property, Nunavut, Canada* and Cowley (2014) *Technical Report on the Hood Rover Property, Nunavut, Canada under the HOODRIVER-001 Mineral Exploration Agreement, CO-20 IOL*.

In this History section, there are numerous mentions of previously completed resource estimates and other technical studies such as preliminary economic assessments (PEAs), pre-feasibility studies (PFSs), and feasibility studies, many of which were completed prior to the establishment of NI 43-101. Regardless of the type or timing of the reports, all are considered historical, and readers and investors should not rely on any of these previously disclosed historical estimates for the Project, as they have not been reviewed or verified by a QP (as such term is defined in NI 43-101).

6.1 History of Exploration on the Ulu Mining Lease

The land package of the Ulu Gold Project has a complex and multi-faceted exploration history—several portions of the land package have undergone exploration efforts under a variety of owners over different periods of time, exploring different commodities. For the purposes of summarizing the exploration history, the following section, paraphrased and borrowed from Cowley et al. (2015) and Cowley (2014) and references within, focus on areas readily identified as being located on the current mining lease portion of the Project; additional historical information on the Hood River portion of the Project is described in Section 6.3. For a map of the mineral occurrences, see Figure 6-1.

6.1.1 Summary of 1988–1995 Exploration by BHP

The original Ulu claim was staked by BHP in 1988 on a grab sample during reconnaissance scale traversing, which returned 1.2 g/t Au in a site 1 km west of what became the Flood Zone. Additional claims were staked (Ulu 2-5 and 7-13) to protect 18 targets and gold showings found by BHP. The Ulu mineral claim block during BHP's period consisted of 13,271.15 ac in 11 claims owned 100% by BHP. Only the Ulu mining lease remains of that claim block, which corresponds to the original Ulu claims.

The Flood Zone Gold Deposit was discovered in 1989 with the identification of a 400 m long gossanous boulder trend of silicified acicular arsenopyrite-bearing mineralization, which returned surface grab samples with values in excess of 20 g/t Au. A local grid was established and mapped at 1:5,000 scale and later selectively mapped at 1:1,000. Prospecting throughout the 1989 to 1993 period identified numerous auriferous zones mainly by careful prospecting of weathered acicular arsenopyrite-bearing silicified frost-heaved blocks. Geochemical surveys included humus and B-horizon soil sampling. A limited trenching program in 1992 exposed the northwest portion of the Flood Zone mineralization in a 45 m x 15 m area. The trench was mapped at 1:50 scale and sampled by rock saw channel cuts. Geophysical surveys performed over various mineralized zones included: Total Field Magnetics (TMI), VLF-EM, Very Low Frequency-Resistivity (VLF-Resistivity), Induced Polarization (IP), Applied Potential, High-Frequency Electromagnetics, and Radiometrics. Orthophotographs supported by accurate surveying were generated in 1990 at a 1:1,000 scale for mapping control.

Diamond drilling of the Flood Zone commenced in late August of 1989, its surface discovery year, where 22 NQ holes were completed totalling 2,980 m. From 1990 to 1992, BHP continued to drill the Flood Zone in an additional 89 NQ holes in 40,167 m. From 1990 to 1993, BHP also drill-tested 14 of 17 outboard gold showings that it had discovered peripheral to the Flood Zone with a total of 80 NQ holes for 8,806 m. Table 6-1 summarizes BHP drilling and significant results from the Flood Zone and peripheral targets. The BHP drilling was conducted before NI 43-101 was implemented, and therefore Quality Control and Quality Assurance (QA/QC) protocols of today were not implemented during those programs.

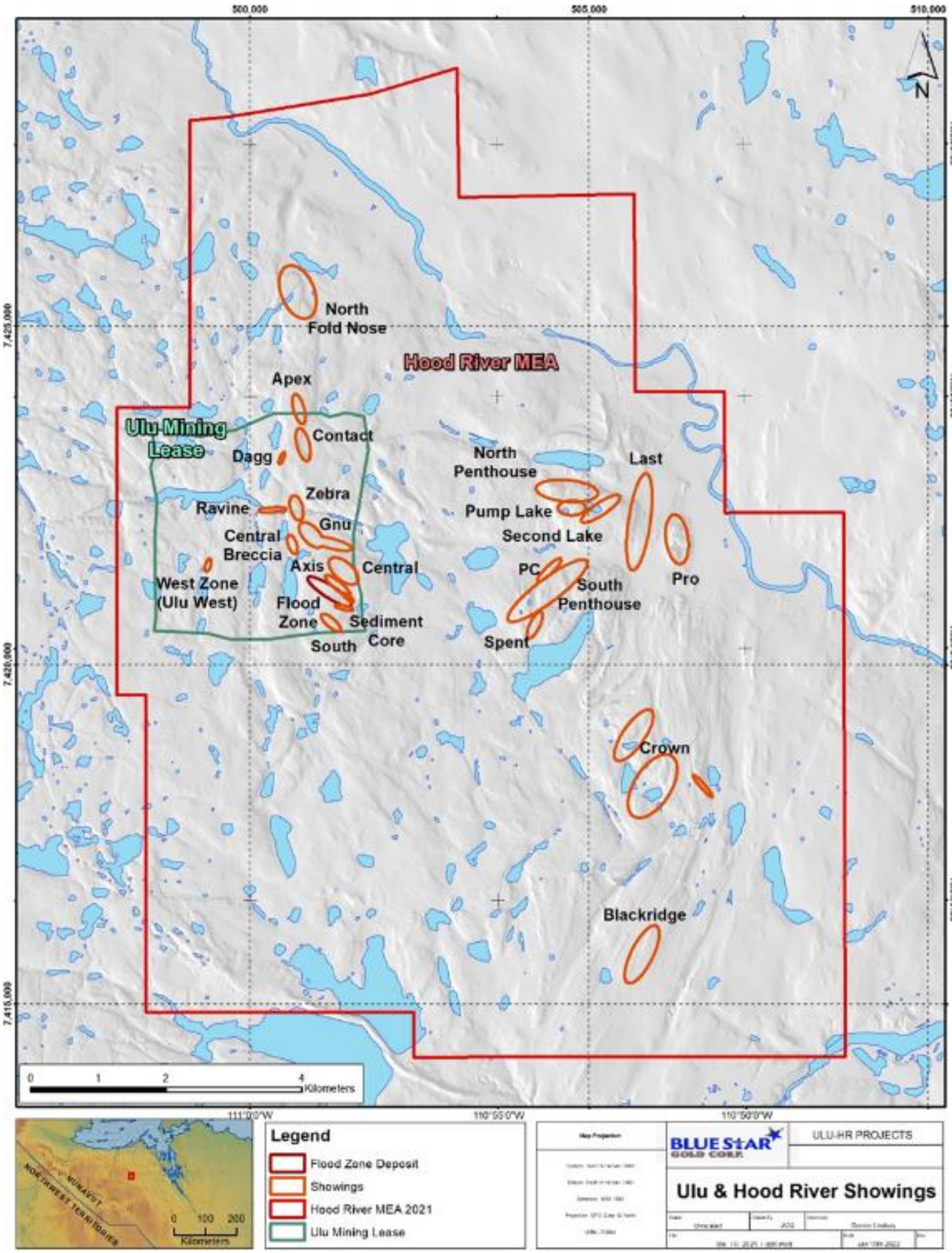

Figure 6-1: Mineral Occurrences on the Ulu Mining Lease and Hood River MEA

Table 6-1: Summary of BHP Drilling on Flood Zone and Peripheral Targets

Area Name	Year	No. DDHs	Length (m)	Significant Assay
Flood	1989	20	2,627	n/a
	1990	45	16,191	n/a
	1991	24	19,050	n/a
	1992	18	4,737	n/a
Total Flood	--	107	42,605	--
Central	1990	10	810	27.5 g/t Au / 1.09 m
	1991	5	789	16.2 g/t Au / 0.36 m
Axis	1989, 90, 92	5	656	9.5 g/t Au / 0.81 m
	1993	4	481	6.9 g/t Au / 0.62 m
Contact	1990	3	504	5.15 g/t Au / 1.89 m
	1991	3	616	12.1 g/t Au / 0.69 m
East Limb	1991	3	109	25.54 g/t Au / 0.64 m
Ulu West	--	--	--	untested
West Limb	1989	1	78	no significant values
	1992	3	292	no significant values
South Zone	1990	4	356	6.9 g/t Au / 0.35 m
GNU 1 & 2	1992	14	1,345	14.7 g/t Au / 3.22 m
	1993	1	52	10.1 g/t Au / 1.84 m
Sediment Core	1990	2	257	no significant values
Gabbro Breccia	1991	2	179	10.8 g/t Au / 1.0 m
Emerald Lake	--	--	--	untested
Zebra	1992	1	53	8.3 g/t Au / 2.5 m
	1993	2	215	5.8 g/t Au / 2.21 m
Battleship	1993	4	481	5.2 g/t Au / 0.8 m
Apex	1993	7	716	4.3 g/t Au / 0.59 m
Twilight	--	--	--	untested
Total Peripheral Targets	--	79	8,806	--

BHP modelled the Flood Zone into five individual zones incorporating surface evidence (trench exposures and frost-heaved trends) for strike orientation. The drill hole spacing for their model was approximately 80 m centres. BHP conducted an internal resource calculation in 1993, which preceded NI 43-101 and was not made public.

BHP conducted several metallurgical tests through its Sunnyvale, California, laboratory. In 1990, 120 assay pulps (generated by Acme Labs) from 10 different drill holes were pulverized to -200 mesh and blended into a single composite. The -400 mesh fraction was found to contain 63% of the gold distribution. The recovery of 95% of the gold was by flotation, and over 90% was recovered by cyanidation (Zigarlick 2003). Subsequently, BHP conducted additional metallurgical tests at their Sunnyvale laboratory on 7 composite samples from 16 blended drill hole samples. Direct cyanidation followed by flotation, flotation followed by cyanidation, and screen analyses of the cyanide residue were completed. Results suggest that gold recovery percentages of low to mid-90s could be achieved with a clean concentrate from a single-stage flotation with grinds of -200 or finer (Zigarlick 2003).

BHP conducted comprehensive baseline environmental studies starting in 1990, which included wildlife sightings, bathymetry records, climatic records, water quality data collection, and acid rock drainage testing. BHP had Rescan Environmental complete an overview of all environmental works done to date in December 1991.

6.1.2 Summary of 1995–2002 Exploration by Echo Bay Mines Ltd.

Echo Bay purchased the Ulu Project in November 1995. Echo Bay conducted an internal preliminary resource calculation when it was considering buying Ulu from BHP in 1995. It included only the BHP data, but was remodelled by Echo Bay at a 3 g/t cut-off to a depth of 500 m from the surface (Durston 1995). From that model and estimation, Echo Bay commissioned H.A. Simons to complete a PFS in 1995, which only included the work conducted by BHP up to that time (Durston 1995) and was undertaken prior to the establishment of NI 43-101 and, therefore should not be relied upon. Simons generated a minable diluted resource and mine plan to a 300 m depth using a long hole open stoping method at a rate of 750 t/d for seven years. The material was to be crushed on-site and stockpiled for winter transport to the Lupin Mine for processing.

Echo Bay re-evaluated the Flood Zone at the time of purchase to the 300 m level at a 5 g/t cut-off using only the BHP data at that time (Tansey 1998). In 1995, Echo Bay applied to Federal and Nunavut agencies for all appropriate permits (winter road, land use, quarry, etc.). In 1996, Echo Bay received all applicable permits and installed an interim winter road between Lupin and Ulu. They also mobilized surface and UG equipment and supplies by Nodwell and Commander vehicles to a temporary camp, Camp 3 (see Figure 5-1) prior to break-up and built an all-weather road from Camp 3 to the Ulu site.

Echo Bay installed a 60-person campsite (interconnected Weatherhaven insulated tents) between August and late September 1996. Power was provided by four generators. The water source was connected from West Lake 700 m to the camp (a 27,000 L general-use water tank and a 63,000 L tank for fire control). Sanitary sewage was set up to treat and released to a lake 300 m from the camp. The Ulu fuel tank farm of five 14,000 gal tanks was installed, surrounded by a diked-lined containment area.

In 1996, Echo Bay conducted surface diamond drilling of 38 holes totalling 4,012 m of NQ core specifically as an infill program on the Flood Zone. That year, Echo Bay collared a portal and installed a 632 m long, 5.2 m wide, 4.9 m high -15% ramp to the 75 m level to access the Flood Zone. A 750 kg bulk sample was excavated from the 25 m level of the V2 Zone of the Flood Zone for metallurgical test work at Lupin. Additionally, six surface drill holes for 1,114 m were used to evaluate peripheral targets. They also collected 338 surface channel samples from the NFN, Contact, Zebra, Gnu, Wolverine (Central), and Twilight peripheral zones.

In 1996, Echo Bay signed a historic IIBA with the KIA, where Echo Bay guaranteed 60% Inuit workforce at Ulu.

In 1997, the ramp was extended to the 155 m level. An escapeway/fresh air vent raise and seven cross cuts were also excavated. Cross-cuts were set at 20 m vertically apart (75 m, 95 m, 115 m, and 135 m levels), and the vent raise was connected to each level. From the 100 m and 120 m level cross-cuts, diamond drill stations were installed. From these two stations, a total of 101 diamond drill holes totalling 16,011 m in-filled the Flood Zone drill pattern to roughly 40 m centres. It was stated that the UG development to the 155 m level did not encounter any pervasive ground control problems, and none were anticipated in future programs. Groundwater was not a problem due to the entire development being in permafrost.

Echo Bay also completed an additional 13 surface diamond drill holes totalling 2,375 m on peripheral zones. The 1997 drill program was shut down prematurely in August 1997 when UG operations were suspended (Tansey 1998). From the 1996 and 1997 peripheral target testing, it was concluded that the Contact, South Zone, Flood Extension, and West Limb targets warranted further drilling. A total of 286 surface channel samples were collected from the Contact, Axis, West, and South peripheral zones.

Following and including the 1996 and 1997 drilling, Echo Bay updated the geological model of the Flood Zone. With the most detailed drilling pattern, they re-modelled the Flood Zone into 14 zones, labelled V1 to V14. Using a 5 g/t gold cut-off, a 1.5 m minimum mining width, a specific gravity of 3.00, and a vertical depth of 360 m, they developed a resource estimate using both ordinary kriging and inverse distance squared methods (Tansey 1998).

Echo Bay conducted metallurgical test work of the Flood Zone that followed the process flowsheet at the Lupin Mine. Echo Bay's strategy was to test the viability of processing Flood Zone as satellite feed to Lupin. Tansey (1998) stated that approximately 2,227 t at 13.82 g/t Au were stockpiled at Ulu from the 1996/97 UG program. The bulk sample was taken from the V2 on the 25 m level. The sample was crushed with a jaw crusher and split to about 300 lb, crushed further with a cone crusher and further split. Size fraction analyses showed the coarsest gold particle at 0.5 mm. About 10% of the gold was associated with silicates, with 84% passing 200 mesh. The bulk of that sample remained in a stockpile at the Ulu site.

In December 1997, Echo Bay produced an updated Feasibility Study (FS) on Ulu, authored by G. Tansey. This was further updated in an October 1998 edition (Tansey 1998). From the September 1997 geological resource, a diluted minable resource was generated. A mine plan of drift development and longhole open stoping at 590 t/d for seven years was proposed. The material was to be crushed on-site and stockpiled for winter transport to Lupin for processing. Cyanide leach of fresh mineralized rock ground to 200 mesh achieved 90% recovery (Zigarlick 2003).

In 2002, Echo Bay had costed a $15.7 million one-year-long program designed for 2003 to bring the Project to a production decision point, but the program was not funded (Tansey 2002). The program was designed to include 27,000 m of UG diamond drilling, 1,060 m of ramping, 1,130 m of lateral drifting in waste, 515 m of drifting in mineralized rock, and the establishment of a vent raise. The cost estimate did not include the development of a winter road between Lupin and Ulu. The program was in anticipation of a positive production decision at Ulu at 600 t/d. That rate had been chosen so as not to trigger a full Federal Environmental Assessment Study.

6.1.3 Summary of 2002–2004 Exploration by Kinross Gold Corp.

In 2002, Kinross Gold Corp. (Kinross) acquired the Ulu Project in a business combination with Echo Bay. Records are limited. It appears that Kinross did not conduct any physical exploration work on Ulu. Kinross conducted an internal evaluation of the site and data and chose not to continue with the project. Kinross allowed all of the Ulu claims except the Ulu Mining lease to lapse.

6.1.4 Summary of 2004–2006 Exploration by Wolfden Resources Corp.

Wolfden acquired the Ulu Mining Lease from Kinross in December 2003 for $2 million, 2 million units of Wolfden and $1.127 million cash for infrastructure, mining equipment, and fuel on-site as part of its strategy to acquire properties in the vicinity of its High Lake deposit to the north and use a common mill complex.

In 2004, Wolfden commissioned a Qualifying Technical Report on the Ulu Mine property dated August 9, 2004, authored by G.A. Harron. Between April and November 2004, Wolfden conducted a 44-drill hole surface NQ diamond drilling program totalling 18,569 m, principally on the Flood Zone (to achieve 25 m drill centres, extend the limits of the deposit, and discover new peripheral zones). Wolfden also completed mapping and sampling to assess peripheral gold targets. They recommended drilling only on the West Limb Zone. In 2004, Wolfden also extended the airstrip immediately south of Ulu by a further 150 m to a total length of 1,350 m. They also widened the strip by 5 m to a 30 m width. This was to remedy a safety issue and allow larger aircraft (Hercules) to reduce supply delivery costs. Wolfden had Wardrop Engineering, Gartner Lee Ltd. Points West Heritage Consulting Ltd., and BGC Engineering conduct several engineering, environmental, and archaeological studies as part of a bigger Environmental Impact Assessment for a combined High Lake deposit and Ulu Project evaluation.

A small 47 kg sample from the surface stockpile from Echo Bay's 1997 bulk sample was tested for Wolfden for gold gravity recovery. The Knelson Research and Technology Centre testwork suggested that approximately 50.8% of the gold was recoverable by a gravity step with a final grind size of 81 µm.

In 2005, Wolfden re-opened the Flood Zone portal, planning to extend the cross-cuts with a total of 395 m of lateral development and establish zone and grade continuity on additional zones at Flood. 2–4 m of ice at the portal hindered progress and, by June 2005, forced the suspension of the advancement until 2006. Wolfden also conducted mapping and prospecting in 2005 to upgrade other known gold showings and completed one diamond drill hole in the West Limb Zone without significant results.

G H Wahl & Associates Geological Services (Wahl) was commissioned to complete a technical report prepared in accordance with NI 43-101 in 2005. The report, dated February 28, 2005, and entitled *Technical Report Ulu Gold Project Resource Estimate*, reported Mineral Resource estimates for the Flood Zone at 5, 6, and 7 g/t cut-off grades (Wahl 2005). This resource included BHP, Echo Bay, and Wolfden drilling data to that date. Wahl appears to have accepted the Echo Bay mineralized shell model but renamed the zones 10 to 140.

In 2006, Wolfden resumed activities at Ulu to mine the remaining ice and conduct its original tunnelling plan from 2005. Procon Mining & Tunneling was contracted for the work, which commenced in May 2006 and went to early August when the Mines Inspector shut down the operation because the concrete collar of the vent raise was determined to be structurally unsafe as a secondary egress. The vent raise is the only secondary egress in the UG development. Wolfden determined the cost of re-establishing the secondary egress to be prohibitive and postponed further work at Ulu.

Wolfden completed additional metallurgical test work at Lakefield Research using material collected in 2004. The sample is presumed to be sourced from Echo Bay's surface stockpiles from the V2 Flood Zone. Flotation, gravity recovery, bottle rolls, and hardness test work were done (Wahl 2005).

Wardrop Engineering was commissioned to complete a PEA, which was finalized on June 26, 2006, and entitled *Preliminary Economic Assessment on the Ulu Property* authored by E. Harkonen, P.Eng. of Wardrop (Harkonen 2006). The PEA utilized the Wahl resource estimate. The proposed mine plan considered mining for six years at a rate of 800 t/d and assuming hauling and processing at High Lake. It also provided an analysis if there was milling on-site at Ulu.

6.1.5 Summary of 2007–2011 Exploration by Zinifex, Oz Minerals, and MMG Resources Ltd.

Wolfden was acquired by Zinifex of Australia in 2007, which merged with Oxiana Ltd. to become Oz Minerals. Oz Minerals was acquired by MMG in 2009. No exploration activities or studies are known to have occurred during this time.

6.1.6 Summary of 2011–2012 Exploration by Elgin Mining Inc./Bonito Capital Corp.

In 2012 the Property lease was transferred from MMG to Bonito.

Bonito, a private company, entered into an exclusivity agreement with MMG, pursuant to which it agreed to negotiate an agreement to acquire the Lupin Gold mine and the Ulu properties. On April 21, 2011, Elgin Mining Inc. (Elgin) entered into an agreement with Bonito, pursuant to which Elgin agreed to acquire all of the outstanding shares of Bonito. On May 6, 2011, Elgin, Bonito, and MMG entered into a purchase agreement whereby Bonito would acquire immediately following its acquisition by Elgin, among other things, 100% of the Lupin and Ulu gold deposits. The aggregate purchase which Elgin paid prior was: (a) $4,815,000 in cash (which included the $350,000 deposit previously paid to MMG by Bonito for exclusivity); and (b) 1,800,000 common shares of Elgin. In addition, Elgin was also required to replace the current MMG reclamation bonds (estimated to be $27,185,000 with the government of Canada (estimated to be $25.5 million for Lupin and $1.685 million for Ulu), which were security for the reclamation liability at the Lupin and Ulu sites.

Richard Graham, P.Geol., was commissioned to update the Ulu resource at a 2.5 g/t Au cut-off. The technical report dated June 27, 2011, estimated a resource from the surface to a vertical depth of 360 m (Graham & Wahl 2011). It appeared there was no new modelling undertaken with this resource estimate.

Elgin completed a desktop study and recommended mapping, sampling, and drilling at the West Limb, Central, Ravine, Contact, and West Sub Zone A, B, and C. In 2012, Elgin completed a 13-hole surface diamond drilling program on Ulu, with 2,860 m in 8 holes focused on extending the Flood Zone and 1,071 m in 5 holes exploring 3 peripheral targets (1 hole in the Ravine target, 2 holes in the Contact Zone, and 2 holes in a target called Interlake). Elgin’s drilling appeared to be driven by testing conductors coincident with iron-stained gossans in the vicinity of surface gold results. Two intercepts were returned from their Interlake Target (2 m of 4.33 g/t Au and 2 m of 2.71 g/t Au). Elgin reported taking 132 surface samples on Ulu from peripheral targets.

6.1.7 Summary of 2013

There is no recorded exploration during 2013. Elgin Mining was acquired by Mandalay Resources Corporation.

6.1.8 Summary of 2014–2018 Exploration by WPC Resources Inc.

In 2014, WPC entered into an option agreement to acquire a controlling interest, then negotiated a 100% interest in the Ulu Mining Lease. The Property was finally transferred to WPC in 2018 (WPC 2018). WPC conducted a small surface exploration program on the Ulu Mining Lease based at the Ulu camp. The work was conducted in late August and early September and consisted of prospecting and rock saw channel cutting of a number of the gold showings on the lease. A total of 27 channel cuts were taken. 11 channel cuts (0.90–2.10 m) were performed on Flood Zone exposures and returned values of 1.36–25.30 g/t Au. Five other targets (West Limb, Gnu, South Zone, Battleship, and DAG) received rock saw channel cuts (0.60–1.90 m), which returned 1.0–7.93 g/t Au (WPC 2014). As these zones are steeply dipping, the channel cuts, which cut perpendicular to the strike of each zone, are considered between 90% and 100% of the true width.

No additional work during this period has been recorded.

WPC changed its name to Blue Star Gold Corp. in January 2019 to reflect major changes to its management team and Board of Directors and better represent the Company’s dedication and focus on Canada’s north (Blue Star Gold Corp 2019).

6.2 Exploration History of Hood River Property

This section is summarized from prior reports, including the 2014 technical report on Hood River by Cowley.

Aber Resources Ltd. (Aber) drilled the Blackridge Showing during an exploration program in 1985 (Siddle 1985). BHP began to evaluate the southern portion of the HLVB in 1988 and discovered gold mineralization on the Ulu gold property in 1989, see Section 6.1. The last recorded gold exploration work on the current Hood River property was by BHP in 1991, after which BHP focused on the Flood Zone Gold Deposit and associated showings. Between 1995 and 2014, exploration on the ground covered by the current Hood River property focused entirely on diamond exploration—with the exception of two minor sampling programs resampling known gold showings by Golden Bull Resources in 2004 and again in 2006. Specifically focusing on the Hood River property, a brief itemized summary of the exploration history of the Property is as follows:

- 1967–1970 - Borealis Exploration undertook a regional reconnaissance program targeting gossans, expanding the exploration programs evaluating gossans. The Penthouse Pb/Zn (PC) Showing identified (Ursel 1968, and Ursel 1970).
- 1985 - Aber discovered, trenched, and drill tested the Blackridge Showing with six shallows (Winkie) core holes.
- 1987 - Aber staked the Den Claims.
- 1988 - Covello, Bryan, and Associates staked the Jeb and Fido Claims, which Aber then acquired.
- 1988 - BHP-Utah Mines/Aber JV (Joint Venture) undertook an exploration program that included gridding on the Den Claims. BHP mapped and prospected its Crown Property, followed by Crown Zone trenching and ground geophysical surveys.
- 1989 - BHP-Utah Mines continued exploration. They established a base camp at Penthouse Lake and carried out mapping, prospecting, ground geophysical surveys, and diamond drilling on Den, Crown, and Ulu Claims.
- 1989 - Expeditor Resources undertook geological and geochemical surveys on the adjacent Hy Claims (located south of the Crown Showings).
- 1990 - BHP undertook a limited drill program on the NFN Zone while assessing the Ulu property.
- 1991 - BHP continues to narrow their focus onto the adjacent Ulu property. Three drill holes collared on the NFN Zone.
- 1993 - Benachee/Snowpipe Resources staked the Hood Claims to explore the diamond potential of the area.
- 1993-97 - Lytton Minerals continued to explore the diamond potential of the Hood Claims.
- January 1995 - Kennecott acquired the original Hood MEA (CO20-00-03R) and continued to explore the diamond potential of the area.
- 1997 - Lytton Minerals and Kennecott formed a JV to continue diamond exploration on the Hood MEA.
- 2000 - Kennecott MEA was acquired by Tahera Diamonds. Tenacity Kimberlite was subsequently discovered.
- 2004 - Golden Bull Resources (GBR) and Tahera Diamonds struck an agreement which enabled GBR to evaluate the previous Hood MEA for all non-diamond minerals.
- 2004 - A two-week program of regional reconnaissance re-sampling of gold showings was undertaken on behalf of GBR on the original Hood MEA.

- 2006 - A second two-week re-sampling program was undertaken by GBR to evaluate the known gold showings on the original Hood MEA.
- 2010 - The original MEA was transferred from Tahera to GBR. No exploration was undertaken between 2006 and 2012.
- 2010 - Shear Diamonds acquired the Tenacity Kimberlite and unnamed adjacent anomalous property from Tahera.
- March 22, 2012 - GBR abandoned the title to the original Hood MEA.
- March 22, 2012 - Inukshuk submitted an Expression of Interest to NTI to acquire the current Hood River property.
- December 2012 - NTI and Inukshuk sign an MOU outlining the terms of the Hood River MEA.
- June 01, 2013 - Inukshuk signs the current Hood River Mineral Exploration Agreement.

6.2.1 Summary of the 1960s to 1988 Exploration

Borealis Exploration conducted a field program in 1970 in the "Penthouse" area (part of what became the Hood River property). The program consisted of mapping, trenching, sampling, and drilling. Trenching on the "Penthouse gossan" returned values up to 1.37 g/t Au, 92.57 g/t Ag, 6.48% Cu, and 1.10% Pb. Details of the density and quantity of sampling during this campaign are unavailable. An x-ray-sized drillhole drilled under the trench intersected 1.37 g/t Au, 15.09 g/t Ag, and 0.18% Pb over 0.9 m. The PH 1-13 claims were staked over this showing, which had lapsed by 1983. The Blackridge area (on the southern part of what became the Hood River property) was first investigated between 1965 and 1970 by Borealis Exploration (Siddle 1985). Borealis conducted an airborne EM/ mag/gamma-ray spectrometer survey over their Permit 62 (NTS 76L/15). The actual auriferous zone was discovered in 1974 by Long Lac Minerals as the North Mare prospect during regional prospecting in the Hood River area. A claim was staked here in 1975 as a result of reconnaissance prospecting returned two surface grab samples of 6.86 g/t Au and 9.26 g/t Au (Johnson & Robinson 1975). No details are available as to the density or quantity of other samples during this prospecting effort. Noranda Exploration Ltd. is reported to have done airborne geophysics and ground follow-up in 1981. Aber was the next company to have filed assessment work for the showing, having staked the Blackridge claim (F10283) in 1983, along with a contiguous claim BR1-2. A program of gridding, geophysical surveys (magnetics and VLF), and drilling (six holes totalling 199 m) was undertaken in 1985. A mineralized zone was traced for at least 700 m northeast in a 2.5–3.5 m wide zone within gabbro at a gabbro/sediment contact. No information is available as to the density and quantity of sampling along this trend; however, a chip sample of 7.5 g/t Au across 9 m was reported. The drilling tested a 300 m strike of the trend with six holes. Hy-Tech Resources Ltd. conducted an exploration program in 1988 on the HY 17-19 claims (the southern part of what became the Hood River property) to the west of Aber's claims. These claims, which belonged to Expeditor Resource Group Ltd., were staked on January 13, 1988. The rationale for staking these claims appears to be a 1986 report by DIAND geologists noting a gold value of 866 ppb Au along a sediment-volcanic contact to the northeast of the HY 17 claim (Karchmar & Lyman 1989). The work by Hy-Tech included 113 grab rock samples from small (1–2 m wide) oxidized discontinuous gossans and 60 soil samples all over an area of 2.5 km x 4.5 km. Approximately two-thirds of the rock samples were focused on three areas, but sampling density was still at a broad spacing of roughly one per 25 m strike length test of linear gossans. 11 rock samples returned values between 60 and 610 ppb Au. The best value of 610 ppb Au (with 4.3% As) was located at a volcanic–sediment contact in the southeast corner of historic HY 17.

6.2.2 Summary of 1988–1995 Exploration (Aber and BHP)

Areas described below are identified as the historical claims depicted in Figure 6-2.

Crown

BHP Minerals Ltd. staked the Crown and Crown 2 claims in 1987 (central part of what became the Hood River property) following the discovery of auriferous mineralization during reconnaissance scale prospecting and traversing. Grab samples of silicified rock with arsenopyrite and pyrrhotite at a sediment/volcanic contact returned values to 4 g/t Au. This "Main Zone" was intermittently traced for 800 m. Further work on the Crown Claims in 1988 and 1989 included 63 km of gridding (Cream, Mine, and Gravy grids), geological mapping (1:2,500 and 1:5,000 scale), rock chip sampling (181 samples), limited soil geochemical sampling (4 samples), 55 km of ground Mag-VLF surveys, and 77.5 m of trenching (Cullen & Ord 1989). BHP carried out some drilling (11 short holes) on the Crown Claims, with only 2 of the holes completed to the requested depths without loss of equipment in the hole. The best intercept returned 0.49 g/t Au over 0.5 m from drillhole OD01, with a recommendation for further drilling (BHP 1989). As much of the collar and assay data for these drillholes is not available to the authors at the time of writing, these short drillholes have not been included in drill summary tables.

Den

Aber staked the DEN 1 to 16, 19, and 20 Claims in 1987. They were located to the west of BHP's Crown Claims. Covello, Bryan and Associates then staked the JEB 1-3 and FIDO 1-3 Claims (further north) during 1988, which were also included in the Aber Claim Group. Work by Covello, Bryan and Associates in 1988 included gridding, mapping, sampling, VLF, and Mag. A total of 262 rock samples were taken during this program within an area of 6 km x 24 km. All rock samples were grab samples. Widths of sampled material were not generally given in the filed assessment reports. Geochemical results of 59 of the 262 (22.5%) samples returned gold values greater than 1 g/t Au and 17 samples were greater than 5 g/t Au. Elevated values (up to 15.63 oz/t Au from grab samples) were returned from these claims (Siddle 1988), which prompted BHP to enter into a joint venture with Aber. Between 1989 and 1991, BHP drilled 951.87 m in 18 diamond drill holes and took 253 drill core samples, 1,109 rock samples, and 573 soil samples. During the 1989 program, reconnaissance-scale exploration and more focused exploration work on three grids, Penthouse, Last, and Pro, returned 5–10% of the grab samples with greater than 2 g/t Au with an HG sample of 33.9 g/t Au. Gossan/vein widths of the material sampled are again generally not described in the assessment reports. The 1990 surface reconnaissance and grid area rock sampling program returned 15% of the grab samples greater than 1 g/t Au but rarely above 3 g/t Au. The completion of 55 km of grid layout allowed for 56 km of magnetic surveys, 53.3 km of VLF-EM surveys, and 9.9 km of pole-dipole IP surveys (Hewgill et al. 1990; Cullen et al. 1992). The Longspur/North Penthouse Grid was extended 700 m to the east. Several of the northernmost claims were relinquished from the Joint Venture after the 1990 field season, including FIDO 1-2, JEB 1-3, and DEN 3-9 Claims. Despite recommendations for further drilling on the Spent and Pro Zones and receiving results from surface grab samples which returned 76.8 g/t Au and an intersection of 7.8 g/t Au over 0.5 m in drilling, BHP did not recommend keeping the DEN claims in the Aber Joint Venture (Cullen et al. 1992).

Hy

BHP Minerals Ltd. evaluated the HY 17-19 claims in an agreement with the claim owners (Consolidated Envirowaste Industries Inc.) in 1992. 19 grab rock samples and 1 soil sample were taken from three separate 1–30 m long gossans, generally 100 ppb Au), and these corresponded with areas of silicification and arsenopyrite. The anomalous zones that trend northeast across the historic HY 18 claim may represent an on-strike continuation of the mineralization found on the HY 17 claim.

The 1993 Nunavut Agreement came into effect on April 1, 1999. The areas that BHP worked on in the Hood River property (Crown, Den, Fido, and Ulu claims) sometime after 1995 were ultimately incorporated into NTI lands, with the exception of the original Ulu 1 Claim, which was brought to lease by Echo Bay Mines Ltd.

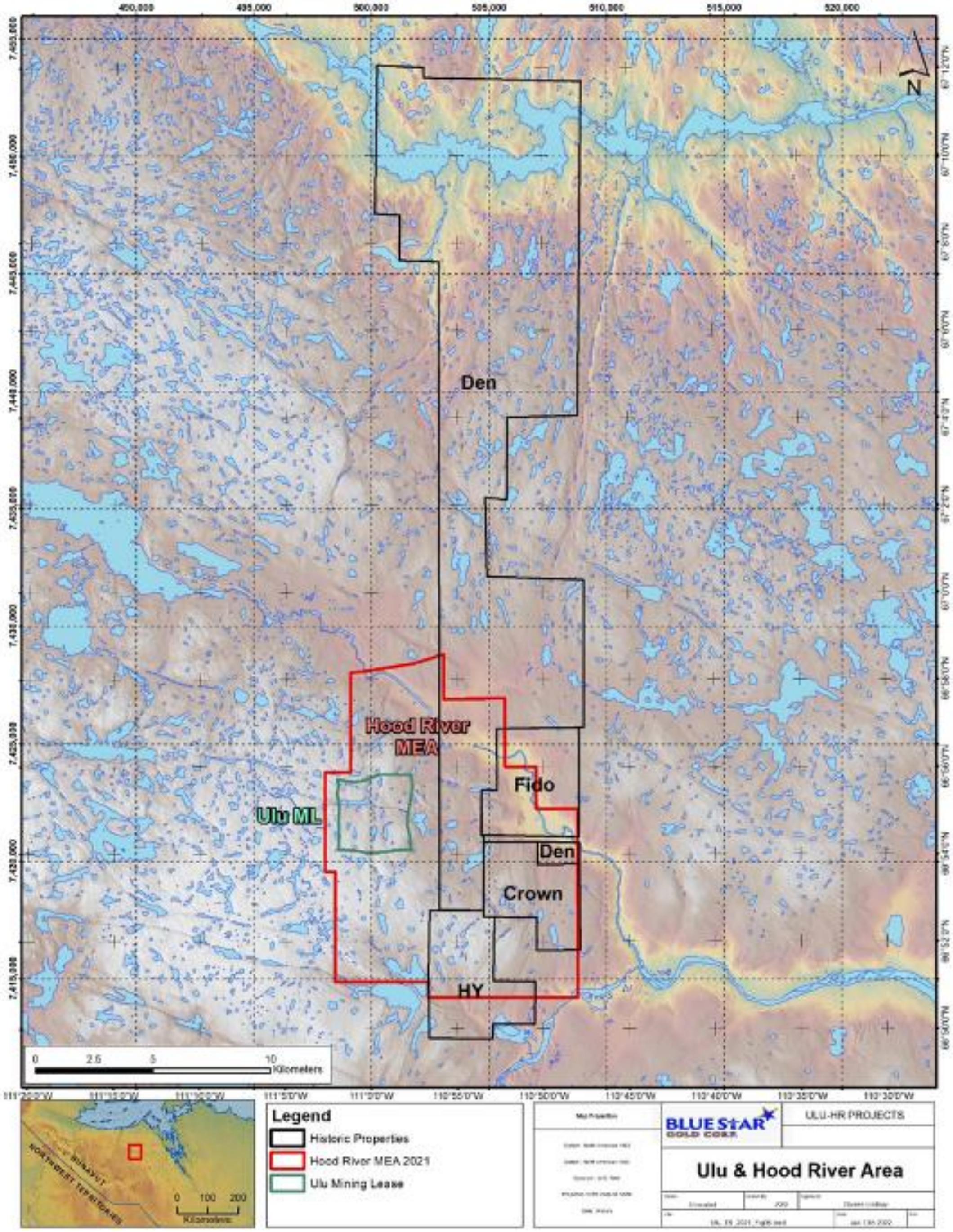

Figure 6-2: Location of Historic Claims

6.2.3 Summary of 1996–1997 Exploration Diamonds

Helicopter Mag-EM surveys were flown over the Property in 1996 and again in 1997 by previous operators of the Hood River ground (Tahera/Kennecott). Flight lines were flown at 50 m (1996) and 100 m (1997) line spacing. These surveys were flown to identify potential diamond-bearing kimberlite intrusions. The data were never utilized to evaluate any mineralization other than diamonds that may occur on the Property. Tahera drilled several shallow drillholes and conducted regional till sampling, the results of which are not available to the authors at this time.

Benachee Resources/Snowpipe Resources ran a regional till sampling program in 1996, which covered the Hood River property and focused on identifying diamond indicator minerals, which was followed up with additional sampling in 1998.

In 2003 Strongbow flew fixed-wing airborne magnetic surveys and conducted regional till sampling for diamond indicator minerals. Limited prospecting was conducted south of Hood River MEA to verify BHP mapping and sampling (Armstrong 2003).

6.2.4 Summary of 2004–2006 Exploration (GBR)

In 2004, GBR and Tahera Diamond Corp. reached an agreement whereby GBR could explore all of Tahera's land holdings for all non-diamond mineralization. GBR focused on the southern portion of the HLVB held by Tahera's CO-20-00-03R IOL MEA Agreement in 2004. GBR sent a four-person crew onto the Property for a two- to three-week period to evaluate the known gold showings. That company took 357 chip and grab samples on the ground, now covered by the Hood River property from six showings, and confirmed previous gold tenor and extent of known trends. 10% of the 367 samples returned values greater than 3–37.78 g/t Au. Table 6-2 shows a compilation of the best chip and grab sample results for each showing worked by Golden Bull Resources in 2004.

Table 6-2: Highlights of 2004 Sampling Results

Sample #	Showing	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	W ppm	Sample Type
145665	Blackridge	37.78	154.6	6.4	32	5.1	>10000	13.3	Grab Sample
145673	South Penthouse	30.32	12.9	586.7	127	11.2	>10000	8.9	Grab Sample
145559	NFN	22.99	1371.3	214.7	657	29.7	9519.3	0.3	Chip Sample – 2.0 m
145613	Crown	13.47	14.6	7.3	57	2.4	>10000	>100	Trench Chip Sample – 2.0 m
145588	North Penthouse	12.82	95.1	14	104	4.2	>10000	>100	Grab Sample

With the positive results of the 2004 sampling program, a follow-up, short gold exploration program was undertaken again by GBR during 2006. The purpose of this evaluation was to confirm the results obtained during the 2004 program and potentially identify additional gold-mineralized areas on the property. A total of 342 samples were taken on the Hood River MEA in 2006 from four showings. Of the 342 samples taken, 10% returned values greater than 3–70.48 g/t Au. The 2006 results supported the gold-bearing tenor of the previous sampling on the property. Table 6-3 shows a compilation of best-grab sample results for each showing worked by Golden Bull Resources in 2006.

Table 6-3: Highlights of 2006 Sampling Results

Sample#	Showing	Au ppm	Cu ppm	Pb ppm	Zn ppm	Ag ppm	As ppm	W ppm	Sample Type
150241	NFN	70.48	909.0	137.2	67	29.3	>10000	9.8	Grab Sample
167468	South Penthouse	62.18	30.7	661.0	258.0	12.9	>10000	23.6	Grab Sample
167913	Blackridge	18.40	196.7	4.3	34.0	1.7	>10000	100	Grab Sample
147250	North Penthouse	9.02	43.7	48.4	666.0	2.4	>10000	60.8	Grab Sample

6.2.5 Summary of 2007–2016 Exploration (GBR and WPC)

On January 8, 2008, Tahera entered receivership, and GBR subsequently acquired title to the Hood River MEA. This fact, compounded by the subsequent severe market turndown, hindered further exploration on the Property. In March 2012, GBR terminated all their Canadian exploration efforts and returned the Property to NTI.

In 2013, Inushuk, a wholly-owned subsidiary of Mandalay Resources Corporation, entered into a Mineral Exploration Agreement with NTI that covers the current Hood River property.

In 2014, WPC entered into an agreement to acquire 100% interest in the MEA by acquiring Inukshuk for 8 million post rollback common shares of WPC (WPC news release June 2, 2014). This agreement was superseded by an agreement in January 2018 in which WPC Resources announced it entered into an option agreement with Mandalay under which WPC could acquire a 100% interest in the Ulu Gold property (WPC news release January 11, 2018), which culminated in 2019.

WPC conducted a field program in 2014 and collected 155 rock and channel samples from NFN, Crown, Blackridge, and the North Penthouse area. All areas returned anomalous gold results, including 31 g/t Au over 1 m at NFN, a 10.45 g/t Au chip sample over 1 m at Crown, a 10.95 g/t Au grab sample at Blackridge, and a 5.52 g/t Au grab sample with anomalous silver, copper, and zinc from the North Penthouse area (WPC News Releases October 23, and October 29, 2014).

WPC also contracted Tetra Tech to coordinate mineralogical and metallurgical studies using Bureau Veritas Commodities Canada Ltd, BV Minerals – Metallurgical Division. A preliminary metallurgical and mineralogical study on a composite grab sample from the Echo Bay mineralized rock stockpile from the Ulu Gold Project was completed (Grcic and Shi 2016).

6.3 Summary of Historical Prospects

Prospects described below are divided into those occurring on the Ulu Mining Lease and those occurring on the Hood River property. Many prospects have been identified over the history of the Project, with very few of them receiving sufficient follow-up exploration programs to advance them to the drill-ready stage; this is a result of a rapid focus on the Flood Zone gold deposit for all of the historical project operators. BHP defined codes for the various styles of mineralization (Kleespies 1994): Type I syngenetic base metal, Type II grey quartz and acicular arsenopyrite as veins, replacements or breccias within calc-silicate alteration, Type III quartz vein stockwork, swarms, tension veins associated with bismuth and Type IV undefined; which are shown listed in the tables below but are not elaborated on in the text.

6.3.1 Prospects on the Ulu Mining Lease

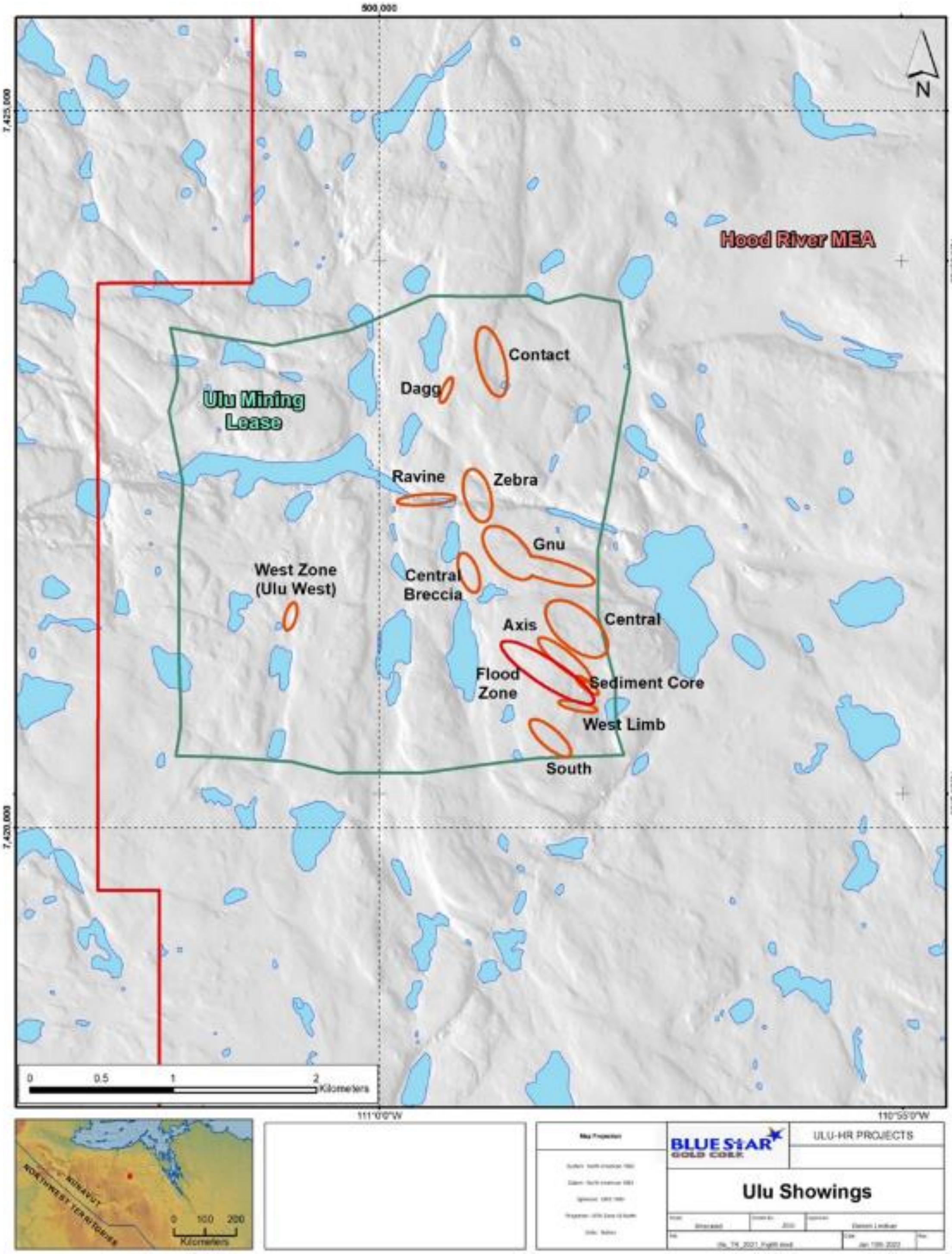

Figure 6-3: Map of Historical Prospects on Ulu Mining Lease

Table 6-4: Summary of Ulu Mining Lease Prospects & Showings

Area Name	Distance from Flood Zone	BHP Code - Min. Style	Typical Surface Grade (g/t) Au /m	Drill Testing	Potential
Central	300 m NE	I, II	5.0-25.0/ 0.5-3.0m	30 DDH, 4,837 m	300 m length, 1 m width, tested to 130 m depth
Axis	50-200 m NE	I, II	5.0-14.0/ 0.3-3.0 m	11 DDH, 1,595 m	Potential to widen at depth
West Limb	200 m S	I, II	4.0-9.0/ 0.3-0.7 m	6 DDH, 687 m	150 m x 80 m area
Sediment Core	0-120 m SE	I, IV	5.0-14.0/ grab	3 DDH, 423 m	120 m length
South Zone	450 m S	I	7.0-15.0/ 0.5-1.5 m	10 DDH, 1,400 m	200 m inferred length
Dagg	2.1 km NNW	I	2.4 -12.9/ grab	n.a.	Traced 100 m x 280 m
GNU	900 m N	I, IV	7.9-14.0/ grab	27 DDH, 3264 m	500 m x 200 m area, gabbro host, open to NW for 275 m
Zebra	1.3 km NNW	I, IV	7.0-17.0/ grab	4 DDH, 413 m	300 m length, > 1 m width, tested to 75 m, gabbro host, open N and S
Contact	2.2 km N	I, II, III, IV	5.0-25.0/ 0.3-1.0 m	8 DDH, 1,617 m	2.8 km soil Au anomaly, tested to 140 m depth
Ulu West	2 km NE	II, III	7.0-11.0/ 1.0 m	n/a	Many quartz veins, maybe 1 km x 1 km, basalt, gabbro, sediment host rocks
Central Breccia	530 m NW	III	3.5-31.0/ grab	2 DDH, 179 m	30 m x 30 m breccia pipe, tested to 62 m, gabbro host rocks
Ravine	1.5 km NNW	III	22.8-89.1/ grab	1 DDH, 197 m	450 m length, merges with GNU, gabbro host

Axis

The Axis target is a 450 m x 225 m area 50–150 m northeast of the Flood Zone with several mineralized planes sub-parallel to the Flood Zone. Exposure is poor and dominated by felsenmeer. On the surface, mineralized planes occur as <2 m wide, poorly defined auriferous zones with quartz-acicular and blocky arsenopyrite mineralization. This target was first drilled by BHP in 1989, with follow-up drilling by Blue Star in 2021. From the drilling, it appears that the mineralized zones within this sector are <1 m wide; however, these structures have the potential to thicken with depth as in the Flood Zone and should be further evaluated, particularly since the site is so close to the Flood Zone.

Central

The Central target area is 200 m x 350 m and is located 300 m northeast of the Flood Zone. Flood-style quartz-acicular arsenopyrite is present in three mineralized planes oriented sub-parallel to the Flood Zone. Outcrop density is low. The target was drilled by BHP, Echo Bay, and Blue Star. The Central target area has promise because of the multiple, reasonably wide zones identified proximal to the Flood Zone. Gold grade has been low to date but with several HG spikes. Currently, drill spacing is still broad, and there is the potential for further drilling to encounter improved width and gold grade in these structures along strike or at depth.

Central Breccia (Gabbro Breccia)

The Central Breccia is an ellipsoid-shaped breccia pipe dipping ~45° to the southwest with a 30 m x 15 m surface expression and at least 80 m vertical expression (from drilling). It lies 530 m northwest of the Flood Zone, where a gabbro unit is fragmented with a quartz matrix and hosts 1% disseminated pyrite-pyrrhotite-chalcopyrite. Alteration consists of silicification and local chloritization, as well as rusting of barren quartz veins. Drilling returned significant intercepts at shallow depths associated with elevated bismuth and copper.

Contact

The Contact Zone, first identified in 1988, is located 2.2 km north of the Flood Zone, focused within the north-trending, east-dipping sediment-basalt contact of the east limb. A variety of mineralization styles have been observed, including Flood Zone-style, siliceous envelopes/quartz veins with blocky arsenopyrite along a southwest trending fault, quartz-pyrrhotite-pyrite-chalcopyrite veins with native bismuth where a northeast-trending fault intersects the contact, and polymetallic veins in the northern Contact Zone. Quartz veins in the zone were noted to have actinolite alteration.

Dagg

The Dagg zone, first identified by Wolfden Resources in 2005, is located 2.1 km north-northwest of the Flood Zone and hosted within the Ulu fold east limb basalt. Here, quartz-arsenopyrite mineralization is traced sporadically for 280 m in a northwest trend (up to 100 m wide), dipping steeply to the northeast. Minimal biotite, hornblende, and actinolite alteration are present throughout the zone.

Ravine

The Ravine Zone is located 1.5 km north-northwest of the Flood Zone, hosted within basalt and sediment on the west limb of the Ulu anticline, proximal to an east-west trending fault corresponding with a topographic break. The zone of intense gossan has a strike length of 20–30 m, but extends for 200 m east-west and appears to consist of discrete steeply dipping zones parallel to regional structures, bisected by the ravine/fault and quartz veins with trace sulphides. Alteration consists of minor chloritization and iron oxide staining. A sulphide replacement style of mineralization was observed, with 1–2% arsenopyrite in finely disseminated discrete zones.

Nutaaq (renamed from historical Gnu)

The Nutaaq Zone, 600 m north of the Flood Zone, hosts two types of mineralization of different styles and orientations. Northwest-trending acicular arsenopyrite mineralization hosted in silicified and quartz-veined gabbro occurs in two planes which are subparallel to the Flood Zone; one plane is within gabbro, and the second occurs at the contact of the gabbro and sedimentary rock unit. These two zones have a strike length of at least 450 m. Polymetallic veins comprising quartz with sphalerite, chalcopyrite, pyrrhotite, pyrite, arsenopyrite, and local visible gold strike north to the north-northeast. Current drilling has established a strike length of each zone of about 100 m. All mineralization remains open along the strike and at depth, though the polymetallic veins are suspected to be constrained to the gabbro host rock for a strike length of approximately 150 m each. In the 1990s, BHP named this zone ‘Gnu’; in 2022, Blue Star rebranded it ‘Nutaaq’, which is the Inuktitut word for ‘new’.

Sediment Core Zone

A sedimentary rock unit forms the core of the Ulu anticline. The mineralized Core Zone is directly southeast of the Flood Zone. Mineralization occurs within 100 m of the sediment-volcanic contact and is thought to be the along-strike continuation of the Flood Zone. Mineralized zones exhibit stockwork quartz veins and polymetallic veins. The large brittle breaks which control mineralization in the Flood Zone are not as well developed within the Core Zone, likely due to rheological differences in the host rock. Rather, the mineralization appears to follow several dispersing fractures, remnants of the more well-developed Flood Zone structure.

South Zone

The South Zone is located 450 m south of the Flood Zone. Flood-style mineralization is poorly expressed within the felsenmeer blocks. Two distinct zones with strike lengths of 30 m may be connected to form a continuous 220 m long zone up to 1.5 m wide.

Ulu West

The Ulu West Zone, first identified by BHP during their reconnaissance traverses in 1998, is approximately 2 km northwest of the Flood Zone. The zone is underlain by mafic flows intercalated with sediment, gabbro sills, granodiorite intrusions, and diabase dykes. Mineralization occurs in widespread discontinuous quartz veins within a variety of lithologies. Gold mineralization is erratic and associated with anomalous Ag-Bi. The quartz veins are up to 1 m wide and carry disseminated pyrite-pyrrhotite-chalcopyrite and lesser sphalerite and galena mineralization. Subzones (A, B, and C) have been identified within the zone, with the most promising results from Subzone C.

West Limb

The West Limb Zone is located immediately south of the Flood Zone at the basalt-sediment contact (lower contact of the hosting basalt to Flood Zone) parallel to the trend of the Flood Zone. Mineralization occurs as Flood-style gold-quartz-acicular arsenopyrite as well as with blocky arsenopyrite in both the basalt and sediment. The sediment exhibits strong biotite and muscovite alteration with minor chlorite and sericite alteration, while the volcanic rocks show chlorite and biotite alteration along with amphibolite stringers. Both units are strongly silicified.

Zebra

The Zebra Zone, first identified by BHP in 1992, lies 1.3 km north-northwest of the Flood Zone near the axis of the Ulu anticline. The gossanous zones are contained in an area measuring 200 x 200 m, hosting generally north-striking veins. Here, quartz with acicular arsenopyrite has been traced along a north-trending 300 m strike length and is hosted in a gabbro within 20–75 m of its contact with sediment on the east limb of the Ulu anticline. Surface samples indicate this area also hosts polymetallic and sediment-hosted acicular arsenopyrite mineralization, similar to the Nutaaq (Gnu) Zone. The zone dips steeply westward (70°) roughly parallel to the gabbro-sediment contact. Alteration includes quartz-actinolite veining with biotite, chlorite, tourmaline, and leucoxene.

6.3.2 Prospects on the Hood River MEA

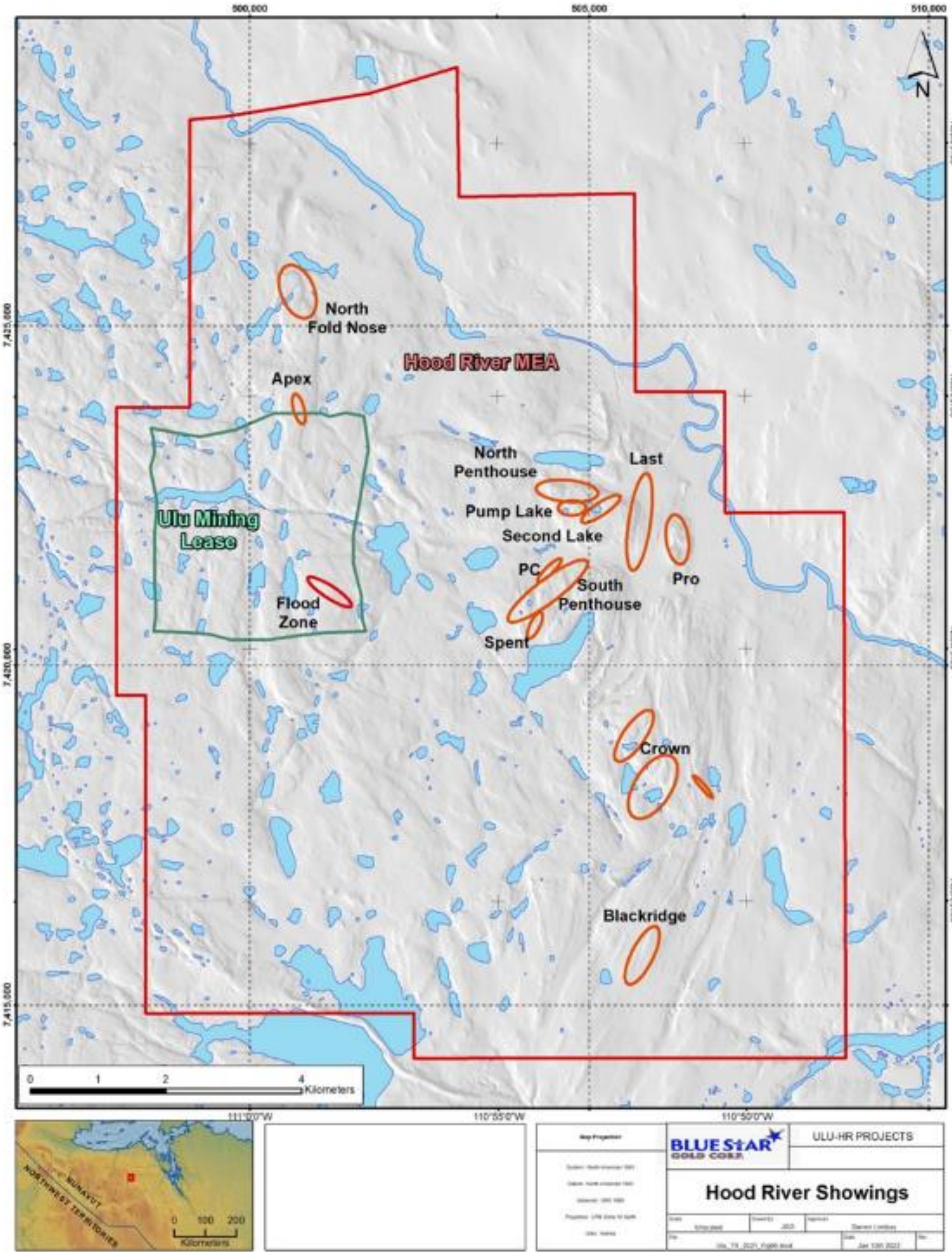

Figure 6-4: Map of Historical Prospects on Hood River MEA

Table 6-5: Summary of Hood River MEA Prospects & Showings

Area Name	Distance from Flood Zone	Min. Style	Typical Surface Grade (g/t) Au /m	Drill Testing	Potential
Apex	2.7 km N	I	3.0-16.7 channel/ grab	10 DDH, 1,290 m	400 m length, 100 m wide, tested to 180 m depth
Blackridge	7 km SE	I	No Data	6 DDH, 202 m	800 m length, tested to 70 m depth
Crown	5 km ESE	I	2.0-24.4 channel/ grab	14 DDH, 787 m	1,000 m x 200 m, tested to 152 m depth
NFN	4.5 km N	I, IV	1.0 - 176 grab	34 DDH, 4,910 m	600 m x 350 m, tested to 215 m depth
Last	4.6 km NE	I	1.0-16.8 grab	n.a.	1,200 m x 100 m
PC	3.2 km E	IV	1.0-23.9 grab	3 DDH, 213 m	400 m x 70 m, tested to 107 m depth
South Penthouse	3.3 km E	I	1.0-220.0 grab	3 DDH, 235 m	1,200 m x 300 m, tested to 81 m depth
North Penthouse	3.7 km NE	IV	1.0-131.0 grab	12 DDH, 388 m	650 m x 250 m, tested to 75 m depth
Pump Lake	3.5 km ENE	I	1.0-4.6 grab	n.a.	250 m x 100 m
Pro	5.2 km ENE	I	1.0-15.0 grab	4 DDH, 399 m	500 m x 200 m, tested to 121 m depth
Second Lake	4.5 km NE	I	1.0-21.2 grab	n.a.	400 m x 100 m
Spent	3 km E	I, IV	1.0-32.2 grab	n.a.	400 m x 200 m

Apex

The Apex Showing is a Flood-style showing 2.7 km north of the Flood Zone along the Ulu anticline axis. It consists of two discontinuous gossans that merge towards the north, containing acicular arsenopyrite with associated gold in thin quartz-calc-silicate veins. The mafic volcanic host rocks are variably altered with biotite, chlorite, and occasionally actinolite, with sericite alteration proximal to the auriferous veins.

Blackridge

The Blackridge Zone is located 7 km southeast of the Flood Zone, traceable for 700–800 m north-northeast within a brecciated and silicified gabbro. Mineralization extends to the gabbro-sediment contact and is associated with biotite, chlorite, and amphibole alteration, as well as strong silicification. Surface samples contained up to 20% acicular arsenopyrite and indicated that the zone may extend further still along strike both to the north and south.

The Blackridge North Zone was discovered during the 2006 program, located 1,800 m northeast of the Blackridge Zone. Following along the strike projection of the Blackridge mineralized zone, an area of narrow massive arsenopyrite-quartz veins along fractures was identified over a distance of approximately 100 m. This may be the northern extension of the Blackridge Zone.

Crown

A number of discrete zones of mineralization have been found in the Crown area to date, located approximately 5 km east-southeast of the Flood Zone. The area was initially mapped and trenched by BHP in 1988 after the Crown claim was staked in 1987. A succession of mafic volcanic and sedimentary rocks are folded into north-plunging anticlinal and synclinal warps, with most units displaying strong foliation. Mineralization generally occurs in silicified mafic volcanics, often at mafic volcanic-sediment contacts, associated strongly with quartz and arsenopyrite (Flood-style). Several of the zones strike parallel to each other and may converge at depth. These zones are unconstrained in strike length to the north, with gossanous boulder trains extending for hundreds of metres. Mineralized zones are associated with chloritization and extensive silicification.

North Fold Nose

NFN consists of a tightly folded south plunging synform, approximately 4.5 km north of the Flood Zone, with the core of mafic volcanics forming a topographic high above a valley of biotite schist. Two styles of mineralization have been observed; a polymetallic quartz vein at the volcanic-sediment contact of the eastern limb and Flood-style acicular arsenopyrite within silicified shears in multiple areas of the fold, typically at the volcanic-sediment contact. Some biotite and actinolite alteration is associated with quartz veins in the zone, which have returned anomalous Ag and Bi values. Hydrothermal flooding of dilatant zones is considered to be the mechanism of mineralization at the NFN.

Last Zone

The Last Zone was first reported in BHP's 1992 Assessment Report (AR083089). Located 4.6 km northeast of the Flood Zone along a gabbro/volcanic intrusive contact, this 800 m long, north-striking silicified zone is weakly mineralized with mm-scale bands of arsenopyrite and gold. The highest gold grades occur where the zone is crosscut by a barren quartz vein in strongly silicified and scorodite-altered mafic volcanics. The zone may consist of more than one parallel mineralized horizon, with observed widths varying from a few centimetres to 0.5 m. Due to lack of exposure, the zone is poorly defined.

PC Showing

Mineralization observed to the north of the South Penthouse showing (3.2 km east of the Flood Zone) has been trenched by Borealis Exploration in 1970 and named the PC Showing. Massive sulphide mineralization is present within the sediments as discontinuous pods up to 1.5 m thick, returning anomalous Ag, Pb, Zn, and Cu values. An auriferous sediment-hosted polymetallic quartz vein 10–15 cm wide was found adjacent to the massive sulphide horizons (style IV) immediately below the volcanic-sediment contact. North striking foliation planes are present, and the mineralization likely lies within the hinges of parasitic folds.

South Penthouse

The South Penthouse Zone is located approximately 3.3 km east of the Flood Zone and was first identified as the "Longspur South" shown by Aber in 1988. The highest grading samples were taken from a 2 m wide silicified north-trending shear zone dipping steeply to the east, which was discontinuously traceable for 200 m in the area. Mineralization along the shear is variable, generally occurring in silicified arsenopyrite-bearing veins. Base metal sulphides have also been found to occur discontinuously. A rubble zone of massive arsenopyrite was identified by GBR in 2006 within the axial plane of a poorly exposed fold, although the amount of overburden limited the extent to which mineralization could be traced along the strike.

North Penthouse

The North Penthouse Zone (historically North Longspur) was first identified by Aber in 1988 and is located 3.7 km northeast of the Flood Zone. Four styles of mineralization are described here: Au-asp with silicified sediment and quartz veins, polymetallic quartz veins which cross-cut volcanic stratigraphy, strata-bound massive sulphide, and polymetallic quartz veins hosted in sediment (Hewgill et al. 1990). The area is also weakly anomalous in tungsten and uranium (Hewgill and Ord 1990). Several rock samples have returned moderate to highly anomalous Au values up to 130 g/t Au, and these rock samples are generally from shear-hosted polymetallic veins.

Pump Lake

The Pump Lake Area is a widespread area of anomalous gold/arsenic geochemistry 3.5 km east-northeast of the Flood Zone. The area contains several narrow, mineralized quartz veins (0.1–0.2 m wide) in addition to an area of arsenopyrite mineralization in the silicified, sediment-volcanic contact area potentially associated with quartz veins (Flood-style). Drilling returned anomalous Au results from an intensely silicified interval at the lower contact of a porphyry.

Pro Zone

The Pro Zone is an occurrence of Flood-style acicular arsenopyrite identified in strongly silicified and biotite-altered mafic volcanics 5.2 km east-northeast of the Flood Zone. Several parallel, north-striking 10–60 cm bands of tuff carry up to 15% arsenopyrite which returned anomalous gold values along a 400 m trend. The zone is located in a tightly folded south-plunging synform, with volcanic rock forming the core of the fold.

Second Lake Showing

BHP identified a narrow, silicified shear along a volcanic-gabbro contact 4.5 km northeast of the Flood Zone, which returned anomalous Au from a single sample containing 10% fine-grained acicular arsenopyrite (Flood-style). The host rock is a strongly actinolite-altered mafic volcanic. This highly anomalous sample area was never subsequently re-evaluated by BHP. The Second Lake anomaly is located 450 m west of the Last Zone which is situated on the east side of the same potentially mineralizing gabbro intrusion.

Spent Zone

The Spent Zone, 3 km east of the Flood Zone, consists of a north-trending 1 m wide weakly mineralized arsenopyrite and gold-bearing quartz vein traceable for over 300 m until becoming obscured by overburden to the south. Mineralization is similar to the North Penthouse Zone, with anomalous Ag and base metal values. The selvedges of the vein are silicified and actinolite-altered up to 30 cm into the host basalt. The total width of the zone varies from 1.5–2 m, including the quartz vein. Limited sampling to the west of the vein identified a 50 m wide zone of arsenopyrite and silica-flooding that occurs in the sediment (Spent West Zone). This zone is barely evident in a poorly exposed area 200 m southwest of the Spent Showing. BHP assessment reports (AR083089) indicate that a second, parallel quartz vein 0.5 m wide is located approximately 100 m to the east of the Spent Vein and can be traced intermittently for over 300 m (Spent East Zone).

7.0 GEOLOGICAL SETTING AND MINERALIZATION

7.1 Regional Geology

The Ulu Mining Lease and the Hood River property cover part of the central portion of the Archean-aged HLVB in the northern part of the Slave Structural Province. A compilation of the geology mapping of the Slave Craton was published in 1993 by Hoffman and Hall. In 2012, Helmstaedt and Pehrsson newly interpreted terrane boundaries within the slave. The map is reproduced below in Figure 7-1.

The HLVB has been characterized as a "Hackett River"-type volcanic belt (Padgham 1985) due to the predominance of felsic to intermediate volcanic rocks relative to the mafic volcanic rock dominated Yellowknife-type volcanic belts (Helmstaedt and Pehrsson 2012). Early exploration activity in the HLVB focused on the potential for syn-volcanic massive sulphides in intermediate to felsic volcanic rocks. Government mapping includes work by Fraser (1964), Easton et al. (1:125,000 scale; 1982), Jackson et al. (1:30,000 scale; 1985 and 1986), and Henderson et al. (1:20,000 scale; 1993, 1994, 1995, 1997). Henderson's mapping and age dating by Villeneuve (Henderson et al. 1995) established that there are three domains in the belt.

The HLVB is part of a northerly trending complex of volcanic and sedimentary rocks bounded to the west and east by extensive granitic plutons. This belt is 7–15 km wide and 135 km long, extending in a north-south orientation almost to the Coronation Gulf. The belt is noteworthy for its abundant pyritic siliceous gossans and major shear zones. The oldest domain is the felsic-dominated western section of the belt, which produced an age date of 2.70 Ga. (Henderson et al. 1995). Carbonate-rich sediments and banded iron formation are also found in the Western Domain. The High Lake Volcanogenic Massive Sulphide deposit is found in rhyolitic flows and fragmental volcanics of this domain. The Eastern Domain with basalt, andesite, dacitic flows, and tuffs yielded the next youngest age of 2.67 Ga. Interestingly, the youngest domain is located in the sediment-dominated centre of the belt. A dacite sample found between greywacke and graphitic argillite yielded an age of 2.62 Ga. (Villeneuve et al. 1997). In the southern half of the belt, which hosts the Ulu Project, massive and pillowed mafic and intermediate flows tend to be amygdaloidal and often porphyritic. Relatively thick accumulations of intermediate fragmental rocks, interbedded and interfingered with felsic equivalent rock and intermediate flows, occur in the vicinity of Frayed Knots River (Jackson et al. 1986).

The HLVB has been subject to greenschist metamorphism, increasing to amphibolite-grade metamorphism in the vicinity of granitoid intrusions (Henderson et al. 1993). The northerly trending supracrustal rocks in the HLVB are surrounded and intruded by 2.62–2.58 Ga. granitic plutons and batholiths. HG deformed-metamorphosed rocks (including banded orthogneiss and paragneiss) are found on the western boundary of the central part of the HLVB (Kleespies 1994).

Regionally, the belt has been deformed into a major syncline with a subsidiary antiform in the central portion. There are three main deformation events recorded in the HLVB. Evidence for D_1 is an early cleavage that parallels and is folded along with bedding (S_0) in later D_2 folds (F_2). This second deformation event, D_2, produced north-trending isoclinal F_2 folds, which lack an axial planar cleavage (Henderson et al. 1993). A well-developed northeast-trending penetrative fabric records a third major deformation event, D_3. This S_3 fabric postdates F_2 folding and predates the emplacement of the granitoids (Kleespies 1994).

Post-Yellowknife Supergroup plutonic rocks include granodiorites and leucogranites. The coarse-grained granodiorites form the bulk of the plutonic rocks and have been dated at 2,605 Ma. (Villeneuve et al. 1997). Biotite and hornblende are present as the principal accessory phases. Leucogranites, with biotite and muscovite as accessory minerals, are found as small coarse-grained plutons. One such pluton, the 'Ulu Granite' located east of Ulu Lake in the central domain, has been dated 2,588 Ma. (Villeneuve et al. 1997).

Three orientations of diabase dykes exist in the HLVB. The dominant NW trending (340°) dykes are interpreted to be correlative to the 1.27 Ga. Mackenzie swarm. East-northeast (070°) trending dykes are less common and may correspond to the similarly orientated swarm in the Lac de Gras area. The third diabase dyke set is east-west striking and plagioclase-phyric. This set might be related to the Mackay suite of 2.21 Ga.

One kimberlite pipe, Tenacity, is known to occur within the HLVB. The surface expression is approximately 80 m x 100 m. Tenacity has an age date of 540 Ma. This pipe is within the Hood River MEA.

Quaternary surficial deposits in the Hood River area include glaciofluvial boulders, thin sandy-silty till deposits less than 2 m thick and locally thicker hummocky drift sheets composed of subglacial tills. These are interlayered with areas of extensive glaciofluvial sediments in eskers, deltas, and kames.

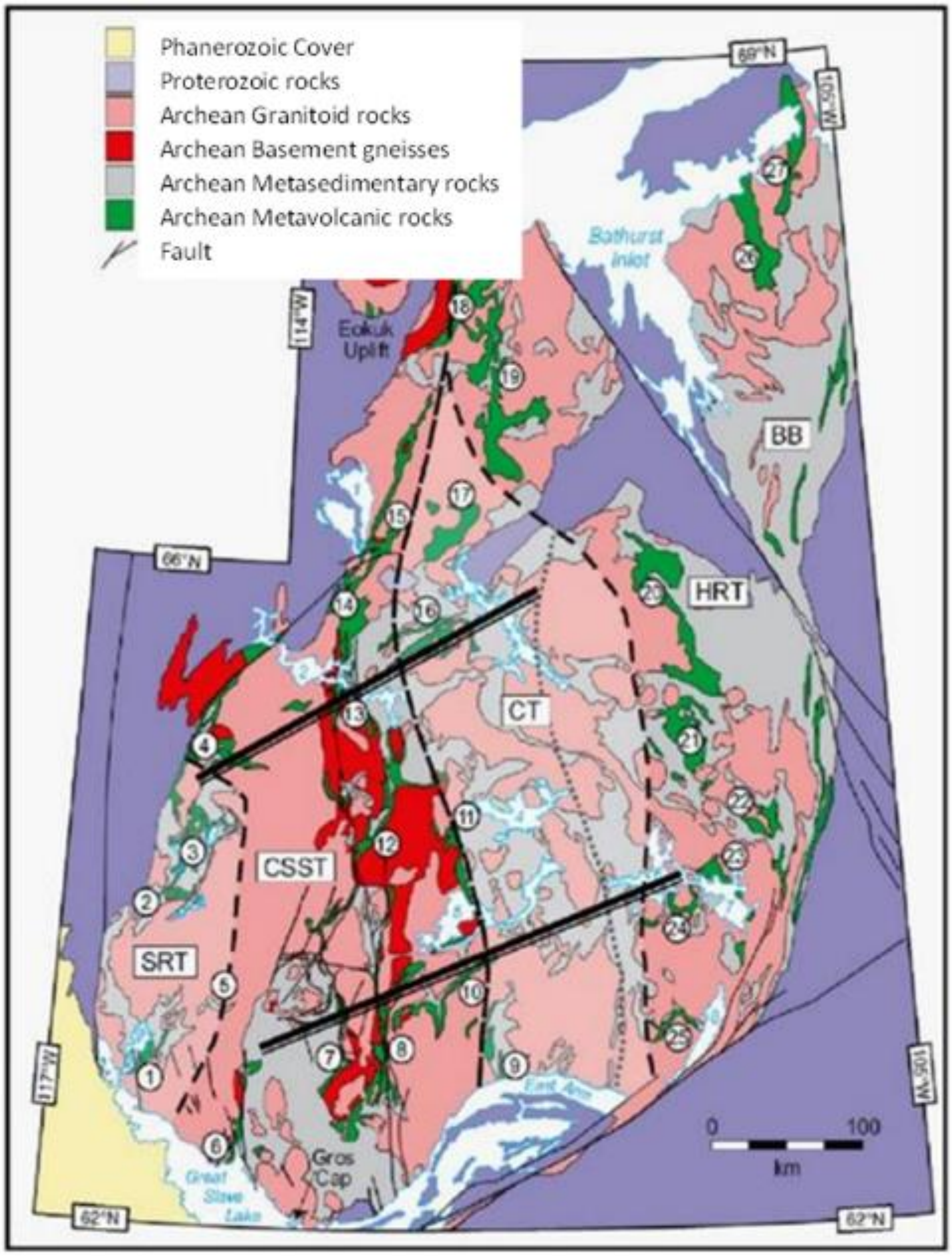

Figure 7-1: Terrane Map of the Slave Province (After Helmstaedt and Pehrsson 2012)

SRT — Snare River terrane, CSST — Central Slave superterrane, CT — Contwoyto terrane, HRT — Hackett River terrane, BB — Bathurst Block. Terrane boundaries are outlined by heavy dashed lines. The boundary between CSST and CT corresponds to the Pb isotopic boundary of Thorpe et al. (1992). The dotted line represents Nd isotopic boundary (Davis and Hegner, 1992) as extrapolated to the south by Cairns et al. (2005). The position of the boundary between HRT and BB is uncertain but is presently assumed to lie in the vicinity of the Bathurst fault zone. Two northeast trending double lines are lithospheric domain boundaries of Grütter et al. (1999). Numbers in circles: 1 — Russel – Slemon lakes; 2 — Kwejinne Lake; 3 — Indin Lake; 4 — Grenville Lake; 5 — Wheeler Lake; 6 — Yellowknife; 7 — Cameron River; 8 — Beaulieu River; 9 — Benjamin (Brisbane) Lake; 10 — Camsell Lake; 11 — Courageous Lake; 12 — Winter Lake; 13 — Point Lake; 14 — Northern Point Lake; 14a — Amooga-Booga volcanic belt (Hanikahimajuk Lake); 15 — Napaktulik Lake; 16 — Central Volcanic Belt; 17 — Willingham Lake; 18 — Anialik River (with Kangguyak gneiss belt on the west side); 19 — High Lake; 20 — Hackett River; 21 — Back River; 22 — Healey Lake; 23 — Clinton-Golden Lake; 24 — Aylmer Lake; 25 — Cook Lake; 26 — Hope Bay; 27 — Elu. Note that Yellowknife supracrustal domain (YKD on Fig. 8) is located between the Yellowknife greenstone belt (6) and the Cameron River greenstone belt (7). The Sleepy Dragon complex is located between the Cameron River (7) and Beaulieu River (8) greenstone belts.

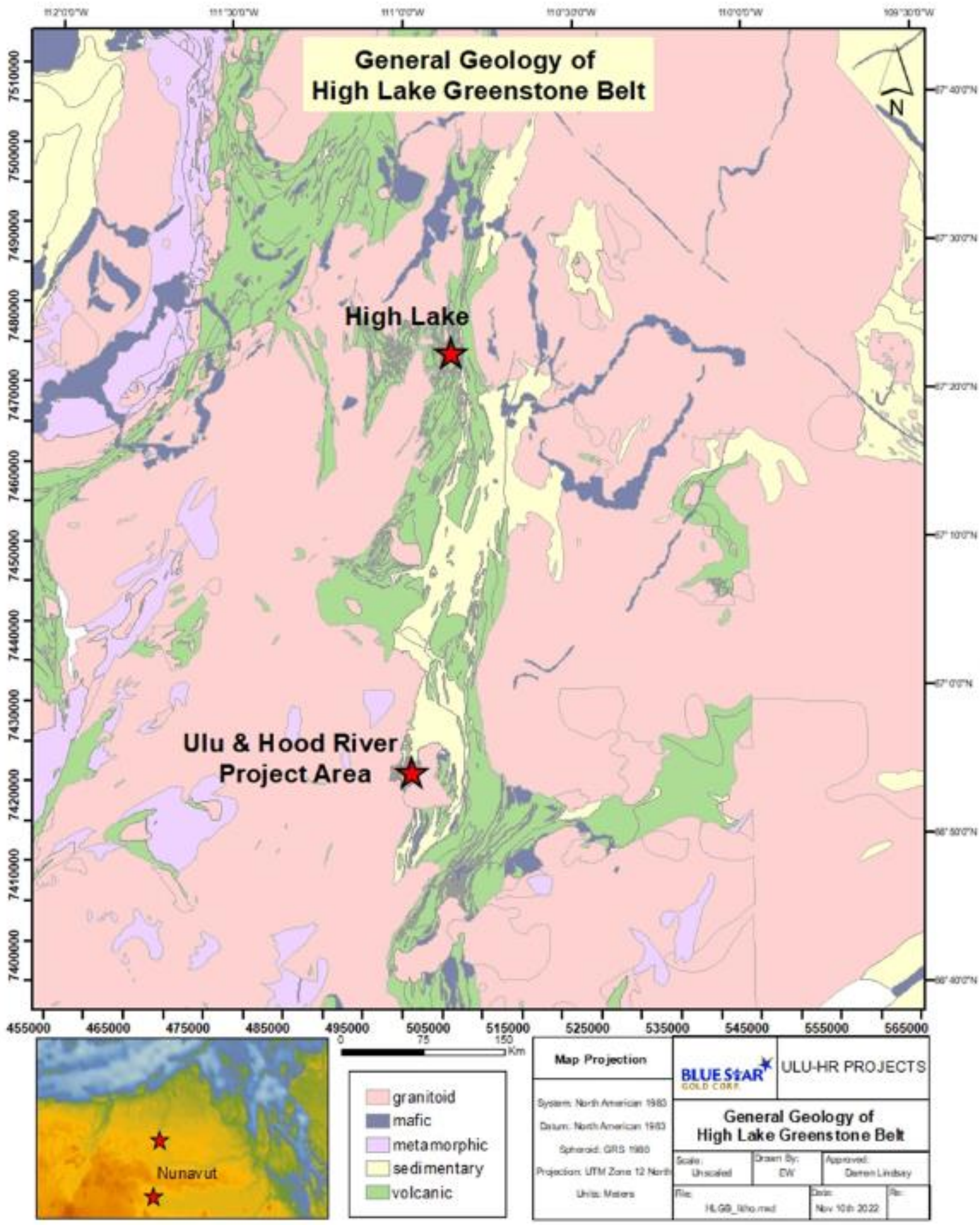

Figure 7-2: General Geology of the High Lake Greenstone Belt after Stubley et al., 2019

7.2 Property Geology

The Ulu Gold Project is located in the Central Domain on the western margin of the HLVB (Figure 7-2). The properties enclose several lobes of folded greenschist to amphibolite facies mafic volcanic and sedimentary rocks separated by a two-mica leucogranite intrusion and surrounded by granitic stocks (Figure 7-3). These supracrustal rocks consist of a sequence of coeval basalts, greywackes, and gabbroic sills that have been folded into a series of north-trending F_2 anticlines and synclines and locally folded and sheared by northeast-trending F_3 folds and S_3 cleavage. There are no felsic volcanic rocks on the Property. Late-stage FP, quartz diorite, and diabase dykes locally intrude in this sequence. On the east side of the Hood River property is a distinctly linear north-trending terrain consisting of intermediate volcanics, subordinate mafic volcanics, and a marble unit.

7.2.1 Lithological Units

High-iron tholeiitic basalt units, 0.2–1.0 km thick, form topographically dominant plateaus. The basalts are typically very fine-grained light green, dark green to black, and massive to poorly foliated flows with remnant pillows. Younging-northwest indicators from pillow structures are found on the western limb of the main F_2 fold on Ulu. The basalt units have associated massive phases of fine to medium grain size and which appear to be conformable.

Gabbro rocks form layers 150–300 m thick. They are medium to dark green uniform, massive, medium to coarse-grained bodies with biotite metacrysts and are occasionally feldspar-phyric. The gabbro units appear concordant to stratigraphy with both gradational and semi-sharp contacts. The gabbro bodies may represent the hypabyssal equivalents of the basaltic flows, or they may have intruded along basalt contacts as sills.

Sedimentary rocks comprise approximately 45% of the rocks on the Property, but given that they weather recessively, exposure is, for the most part, restricted to frost-heaved blocks. These rocks form intervals tens to hundreds of metres thick and consist of primarily quartz-biotite +/- cordierite schist beds with thin argillitic interbeds. The biotite schists are medium grey to dark grey-brown, fine-grained, and well foliated. Andalusite, muscovite, and almandine garnets are also minor components in the sedimentary rocks producing a knotty texture. The protolith may be quartz-feldspar greywacke (turbiditic). Remnant sedimentary features are not generally preserved, but upward fining sequences have been noted in the drill core. The argillites are dark grey to black, foliated and may have white quartz veining or carbonate flooding. Minor concordant units of fine-grained intermediate and mafic tuff with thicknesses varying between 2 m and 10 m are present within the basaltic domains and distinguished from the massive basalts by stronger foliation development accompanied by biotite and chlorite with alternating colour banding.

On the Ulu property, a greywacke unit forms the core of the main F_2 Ulu fold. Its upper contact is both sharp and transitional (intercalated) with the overlying basalt unit. This is overlain by a 100-300 m thick basalt unit which hosts the majority of the Flood Zone and other key outboard gold zones to the Flood Zone, such as Central, West Limb, Axis, and Battleship. This mafic unit is capped by a 5-15 m thick greywacke unit, which is then overlain by a 150–300 m thick gabbro unit.

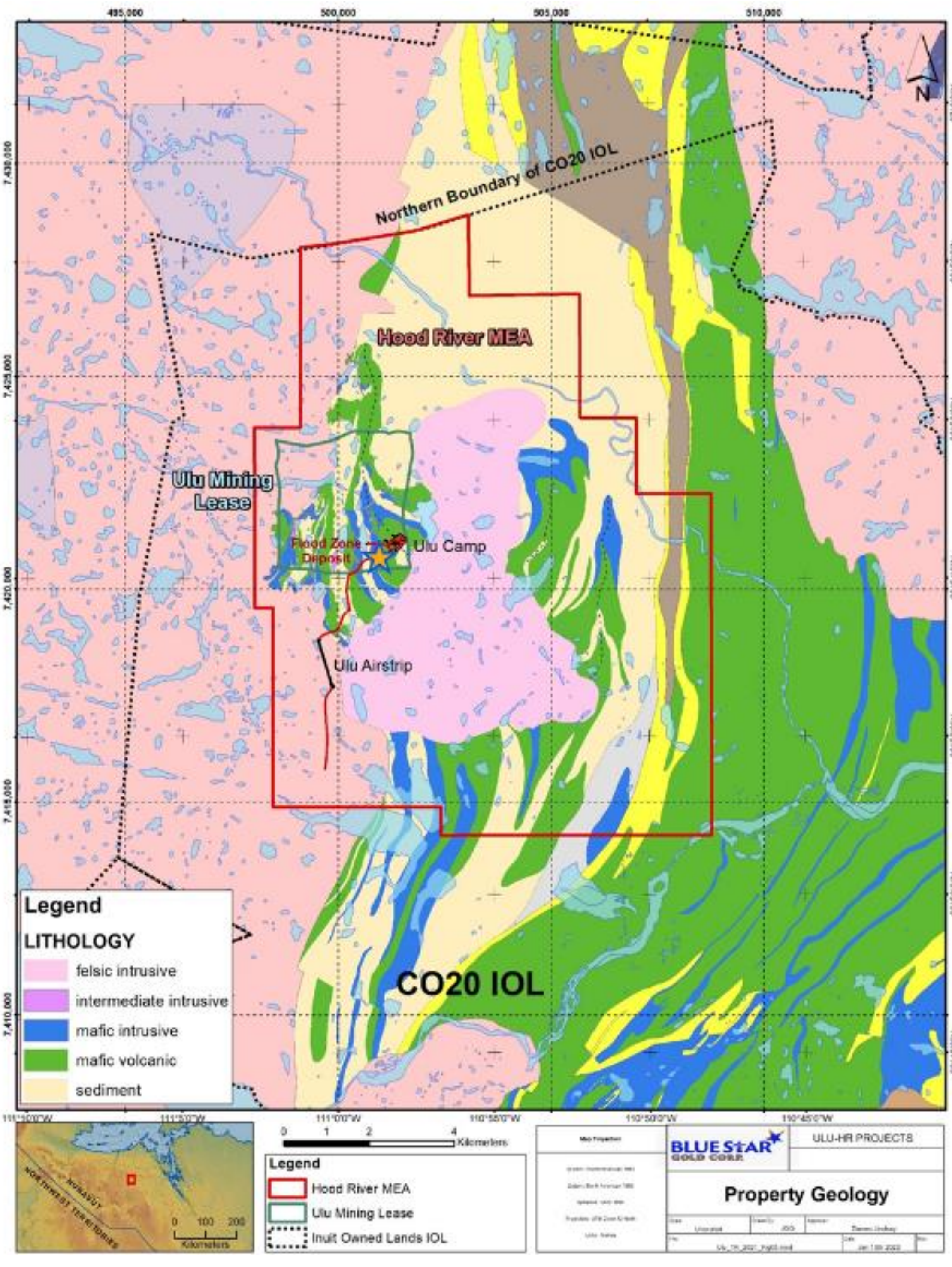

Figure 7-3: General Geology of the Ulu Mining Lease and Hood River Property Area
(Adapted after Stubley et al. [2019] and Flood [1992])

Basalt units can be highly altered, coinciding with areas of intense structural deformation. The basalts may be sheared, brecciated, and silicified or quartz-veined along lithological contacts, faults, and near-fold hinges. Rocks with higher concentrations of biotite and actinolite deform in a ductile fashion producing a distinctly banded shear texture. These units display mm to cm scale banding of biotite, quartz, actinolite, and hornblende +/- chlorite. More pyroxene-hornblende-rich units respond to stress in a more brittle fashion with brecciation and quartz stock working.

Northeast-trending, medium to coarse-grained quartz-feldspar porphyry (QFP) and FP dykes, 3–30 m wide, locally intrude the volcanic package (post folding). These dykes are dark grey to light grey. Quartz and feldspar phenocrysts occur in a fine to medium-grained biotite matrix. They display sharp contacts with chilled margins. These dykes are considered to have been emplaced very close to the end of the mineralizing event. These dykes have similar geochemistry as high Al_20_3 trondhjemite. They appear to crosscut Au-As mineralized zones, but can themselves be weakly sheared and contain minor arsenopyrite. A QFP dyke crosscuts the Flood Zone with an orientation of 240°/50° (dipping northwest). Another occurrence (in sub-crop) cross-cuts the gabbro that hosts the Gnu Zone.

The bulk of the well-exposed granitoids at Ulu are typical S-type peraluminous granites. They are massive except at contact with the supracrustal rocks, where the granitoid are sheared, faulted, and quartz veined. The granite is well exposed and forms low relief with flat exfoliation features and is thought to have originated as an intraplate melt of sedimentary rocks.

The second type of mafic intrusive present is Proterozoic diabase dykes. These brown to purple medium-grained dykes have a strong magnetic signature, are typically 5–20 m thick, and generally trend 160°. The margins are chilled, and the contacts are sharp. These dykes are traceable for hundreds of metres. Often, the plagioclase phenocrysts are stained with hematite. A single 15 m wide diabase dyke cross-cuts the Flood Zone.

7.2.2 Structural Geology

The 5 km long F_2 Ulu Fold hosts essentially all of the known Ulu mineralization. Although the structural setting at Ulu appears to be a relatively simple folded sequence of supracrustal rocks, the area is considerably more complex. The 8 km x 13 km area of supracrustal rock surrounding the Flood Zone can be divided into three structurally distinct areas. The regions directly east and west of the Ulu Granite, including the Ulu Fold, comprise a sequence of close (interlimb angles of 70° to 30°) F_2 synforms and antiforms which lack axial planar cleavage, which is sheared by discrete northeast trending D_3 structures a few metres wide. The area west of the Ulu Fold, known as Ulu West, is moderately pervasively foliated and is a homoclinal, north-trending succession. South of the Ulu Granite, some isoclinal F_2 folds are evident, and the geology is generally linear. The Thunder Break marks the eastern margin of the Central Domain and occurs on the eastern side of the Hood River property.

The Ulu Fold trends northwest in its southern half and trends north in its northern half due to refolding from a later fold event (F_3) or from the interference of one or more post-fold shears (S_3) with the northern segment of the Ulu Fold. The southern part of the fold is anticlinal and plunges steeply northwest to north. The northern extent, an area called NFN, which lies approximately two km north of the Ulu Mining Lease (on the Hood River property), is a south-plunging synform and is documented as overturned (Rhys 1996).

A pronounced east-west structure dissects the Ulu Fold and extends into the surrounding granitic batholith. The eastern margin of this east-west ravine structure displays a 300 m sinistral offset (Jackson et al. 1986), and it has been interpreted to be a normal, north-down fault. North of the ravine, the supracrustal rocks are tightly folded with a high concentration of gossans and discontinuous fracture-type quartz veins with Au-Ag-Bi associations. North of the ravine, both dextral and sinistral northeast-trending faults display offsets of 20–60 m, +/- 220 m (note the mineralized zones, such as the Gnu, Zebra, and Contact Zones in Figure 7-4, mimic this northeast orientation). South of the ravine fault, east-west faults cut the F2 fold with <25 m of offset. Apart from these orientations, the Flood, Gnu, and Central Zone trend northwest, reflecting another set of faults/fractures. The northwest-trending Flood Zone appears to coincide with an interpreted northwest-trending, west-dipping normal fault which is at least

1,300 m long, which offsets the sedimentary rock core of the Ulu Fold at its southern end and several other lithological contacts at its northern end.

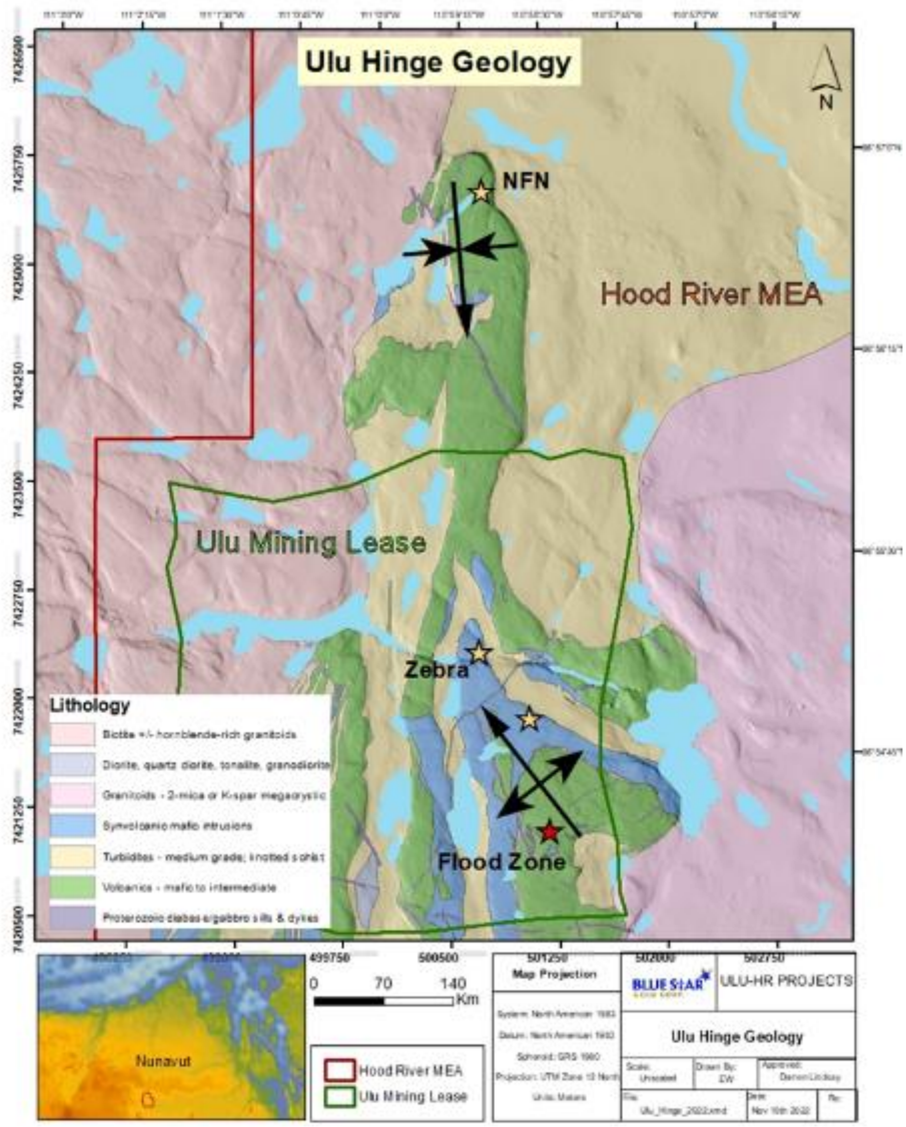

Figure 7-4: General Geology of the Ulu Fold
(Adapted after Stubley et al. [2019] and Flood [1992])

The Tenacity Kimberlite Pipe, the only kimberlite known to occur within the High Lake Belt to date, is located in the southeastern portion of the Hood River property. The surface expression of the pipe is approximately 80 m x 100 m. Tenacity has a preliminary age date of 540 Ma.

7.2.3 Mineralization

HG gold values occur coincident with intense silicification, which is accompanied by fine-grained needle arsenopyrite mineralization and forms the most important style of mineralization on Ulu. This style of mineralization is typically hosted in basalt units, although wackes and argillites can be a host. Secondary styles of mineralization found on Ulu are polymetallic quartz veins containing pyrite, pyrrhotite, sphalerite, galena, and visible gold; quartz-bismuth veins containing pyrite, pyrrhotite, native bismuth, and visible gold; and propylitic alteration often found in breccias containing pyrite, pyrrhotite, epidote, and magnetite. Disseminated pyrite and pyrrhotite (<1%) generally occur in the basalt and gabbroic units throughout the Property. Locally these units have higher pyrite and pyrrhotite concentrations (1–2%), forming patchy gossans, but are not generally gold-bearing. The four styles of mineralization are well documented on the Ulu property.

In addition, five styles of mineralization are recognized on the Hood River property. These styles likely are of the same type as those on Ulu, but locally higher amounts of sedimentary rock lend some dissimilarity. They are auriferous, silicified sediments hosting arsenopyrite; auriferous arsenopyrite-bearing quartz veins which occur at the mafic volcanic-sediment contact; auriferous, poly-metallic quartz veins which transect the mafic volcanic stratigraphy; stratabound, massive sulphide mineralization at the mafic volcanic-sediment contact; and auriferous, poly-metallic quartz veins hosted within the sedimentary units but adjacent to a mafic volcanic-sedimentary contact.

Of the primary style of mineralization on Ulu, the Flood Zone is the principal gold zone on the Property, forming a deposit and resource in the southeast corner of the Ulu Mining Lease. The Flood Zone is located near the core of the fold. A detailed description of the Flood Zone follows in Section 7.2.3.1. There are 15 other known gold showings similar in many respects to the Flood Zone on Ulu, but these zones have not been drilled to the extent of the Flood Zone and have yet to be proven to have significant size potential. Four of these zones have defined strike lengths greater than 300 m on the Ulu Mining Lease. There is potential in each zone to demonstrate grade and tonnage continuity. There are several principal factors in the control and focus of gold mineralization on Ulu: structures, chemistry, and felsic intrusive rocks.

Structures are a primary control. Mineralization appears to be associated with penetrative through-going structures with brittle and ductile features and with folding on a macro (F_2 Ulu fold) to micro (folds seen in Flood Zone drillcore) scale. Auriferous zones are preferentially located within or near the north-trending anticlinal Ulu fold axis, which is traceable for 5 km on both the Ulu and Hood River properties. Mineralized gold zones are identified in Figure 7-4 on the Ulu Mining Lease, showing a strong association with the axis and limbs of the F_2 structure. Gabbro has discrete localized strong shears up to metre-scale width but are generally less wide and also host brittle veins. Basalt units may be sheared, brecciated, and silicified or quartz-veined along lithological contacts, faults, and near-fold hinges. In general, shearing/foliation is more pervasive and stronger in sedimentary rocks, then basalt and then gabbro.

Rock chemistry is a second control on mineralization. A propensity of mineralized zones lies within basalt units and, in particular, one of the basalt units near the core of the F_2 fold. The iron-rich tholeiitic nature of the basalt provides a primary geochemically reactive unit for hydrothermal solutions favourable for gold and arsenopyrite deposition.

The "Ulu Granite" two-mica leucogranite stock could have been an important heat, fluid and/or gold source. Numerous gold-arsenopyrite showings lie within 1 km on either side of the intrusion.

7.2.3.1 Mineralization of the Flood Zone Gold Deposit

The Flood Zone is a northwest-trending, shear-controlled anastomosing epigenetic vein/alteration system proximal to a basalt-metagreywacke contact at the core of the Ulu anticline. The Flood Zone exhibits a high degree of structural control with mineralization which post-dates F_2 folding. The structure is hosted principally by tholeiitic basalt and marginally by metasediments and gabbro. Mineralization is generally restricted to certain lithologies, being hosted by iron-rich rocks which have been deformed and altered. The zone of sulphide mineralization and associated gold pinches, swells, and rolls with unpredictable variability within the constraints of the alteration zone. The description of the Flood Zone is principally taken from Kleespies (1994).

Gold is intimately associated with very fine-grained acicular arsenopyrite within zones of intense silicification and quartz veins. The typical alteration assemblage includes quartz + biotite + amphibole (actinolite) + titanite + epidote + clinopyroxene + tourmaline and early k-feldpsar, which is generally completely overprinted by mineralization and silica.

The Flood Zone has been exposed by trenching and reveals an essentially continuous zone of quartz-arsenopyrite lenses within an intensely contorted alteration fabric of quartz-actinolite-hornblende-biotite acicular arsenopyrite. The zone strikes 118° and dips steeply (70° to 80°) to the southwest. This structure, which has been traced for 435 m on the surface, is oblique to and west of the F_2 Ulu fold axis. The Flood Zone is generally thought to be restricted in strike length to no more than 435 m by a gabbro sill to the northwest and sedimentary rock to the southeast; however, mineralization is known to occur in the sedimentary rocks along splay faults to the main structure. Siliceous lenses of the Flood Zone are higher grade (>15 g/t Au) than adjacent lesser altered lenses, which are still >7 g/t Au. The contact with the zones is undulatory. Orientations of individual lenses vary widely (135° to 200°). Various workers have suggested a variety of structural interpretations for the Flood Zone (Flood et al. 1993; Helmstaedt 1992).

In cross-section, the Flood Zone is sigmoid shaped. Multiple anastomosing auriferous zones have been identified as part of the Flood Zone system or structure. Various workers (BHP, Echo Bay, Elgin) have interpreted between 4 and 14 zones. The principal zone averages 5 m thick with local thickening greater than 10 m. Individual zones range in true width from 2.0–17.9 m. The deepest intersection of mineable width is 14.9 g/t Au over 7.7 m in drill hole 90VD-75 at 610 m below the surface. Thickness isopach work exhibits at least three major areas of thickening, all subvertically plunging. Dimensions of these blow-outs are in the order of 100–150 m vertically and 100 m laterally. The position of the large dilational jogs may correspond to or be influenced by two gabbro bodies within the favoured basalt host unit. Increased thicknesses correspond to flexure points along the down-dip surface of the mineralized planes. Sympathetic hangingwall and footwall zones are preferentially developed outwards from these areas of greater dilatancy.

It is suggested that the mineralized zones have developed over a progressive deformation history. The structure hosting the Flood Zone mineralization exhibits both brittle and ductile features attributed to the reactivation of structures in different pressure and temperature regimes. Multiphase deformation is exhibited by multiphase brecciation and vein paragenesis, suggesting zone development over an extended period of time by repeated hydraulic fracturing. Typically, mineralized veins contain centimetre-scale fragments of wall rock that can be parallel to vein walls or chaotically oriented. The arsenopyrite occurs pervasively within these wall rock fragments where adjacent to quartz veins or silica flooding.

Arsenopyrite is the main sulphide in the Au-As zones constituting up to 40–60% of the sulphide content. The arsenopyrite constitutes approximately 5% of the zone, occurring as needle aggregates within quartz veins, fractures and near complete replacement of brecciated basalt wallrock fragments. Crystal habits for the arsenopyrite include fine acicular needles (<25 µm), coarse or blocky needles (>50 µm), and blocky porphyroblasts (>200 µm). Arsenopyrite is the dominant sulphide in the auriferous zone, occurring as disseminated needle aggregates within quartz veins, stringers within fractures, and densely matted replacements of brecciated basalt wallrock fragments. Arsenopyrite may be as isolated euhedral grains or as interlocking with pyrite and pyrrhotite. There is a direct positive correlation between arsenic concentrations and gold grades. The highest grades (7 to greater than 30 g/t Au) are always associated with fine acicular arsenopyrite crystals. Pyrrhotite is the second most abundant sulphide (20–30% of sulphide content), with grain sizes of a few microns to a few millimetres as isolated grains or interlocked with arsenopyrite and pyrite. This sulphide is present as isolated crystals or interlocked with pyrite and arsenopyrite.

Pyrrhotite commonly exceeds pyrite by a 3:1 ratio. Disseminated pyrite maintains a grain size of 4–20 µm. Where pyrite dominates over pyrrhotite, gold content is lower. The least abundant sulphide, chalcopyrite, has a grain size of 5–25 µm and occurs as inclusions in quartz, pyrrhotite, pyrite, and arsenopyrite. Accessory sulphides in the auriferous zones include very fine-grained sphalerite and galena.

Native gold grains typically range from 3–300 µm, but they tend to cluster into two populations; 10–30 µm and 60–80 µm. Three distinct types of gold settings are recognized. Approximately 60% of the total gold forms along arsenopyrite-quartz boundaries, 30% within quartz, and 10% in open space fillings within fractured arsenopyrite crystals and at arsenopyrite-loellingite grain boundaries. In rare occurrences, gold is found within late fractures in pyrite. Metallurgical tests confirm that the gold is free milling. The small gold grain size indicates a low nugget effect.

HG gold values correspond to intense silicification and acicular arsenopyrite mineralization. The host basalt here is extremely silicified (up to 86% SiO_2) and has undergone potassic enrichment (biotite + microcline) and sodic depletion (breakdown of plagioclase). Alteration minerals include biotite, chlorite, sericite, hornblende, actinolite-tremolite, and potassium feldspar (microcline) with minor calcite, epidote, tourmaline, clinozoisite, and titanite. Biotite, sericite, and titanite appear to be the earliest alteration minerals and are overprinted by clinozoisite and arsenopyrite. Arsenopyrite makes its first appearance in the proximal calc-silicate rich laminated replacement zone. Arsenopyrite occurs as fine euhedral acicular crystals, and the deposition of arsenopyrite appears to have been an early sulphidization reaction with the wallrock.

Each of the mineralized zones is enveloped by distinct proximal alteration haloes, 1–20 m wide. The most distal alteration is the presence of biotite knots or "books" in weakly altered host rocks up to 60 m from the Flood Zone. Alteration associated with the biotite includes titanite (rimming corroded ilmenite grains) and tourmaline. Silicification with actinolite + carbonate + sericite + clinopyroxene (diopsidic hedenbergite) becomes more prominent towards the auriferous zones. Footwall alteration appears to be more intense than the hanging-wall and often contains arsenopyrite. Inter-pillow areas of pillow basalt are mineralized with quartz-arsenopyrite-pyrrhotite, and the selvedges are altered to hornblende +/- almandine garnets and chlorite. A strong north-northwesterly striking foliation fabric is restricted to the alteration zone and does not continue into the unaltered country rock.

Quartz-acicular arsenopyrite-gold mineralization is also present within the quartz-biotite schist unit at the core of the Ulu Fold. Quartz stockwork and brecciation with acicular and blocky arsenopyrite develop in this unit. Gold values tend to range between 9 and 31 g/t Au from grab samples of frost-heaved rock. This style of mineralization occurs along the strike of the Flood Zone; (developed in the basalt, but as modelled, is extrapolated into the sedimentary rock). It is suggested that the open fracture-type brittle structures that are typical in the rheologically competent massive basalt are not well developed in the more plastic metasedimentary rocks.

7.2.3.2 Mineralization of the North Flood Nose Zone

The F_2 Ulu Fold is a broad north-plunging anticline with shallow limbs in the south. This geometry changes in the north to an overturned (steeply west-dipping), tight to isoclinal south-plunging synform. The core basalt forms a topographic high, elevated approximately 25 m above the valley of biotite schist. Regional stresses created a series of fractures closely associated with the trace of the Ulu Anticline. The competency contrast between the units of basalt and biotite schist allowed for dilatancy along these partially delaminated contacts, particularly in the northern section of the fold, to be later mineralized with arsenopyrite carrying gold (Flood et al. 2004). Given the synformal nature of the NFN, the mineralized zones on the limbs are projected to converge at depth.

At the NFN Area surface, grab sampling reported values of 27.7 g/t Au and 66.0 g/t Au from a 1 m wide rubble zone of polymetallic quartz veining which contained arsenopyrite, pyrite, pyrrhotite, chalcopyrite, and rare native copper mineralization. The density and quantity of accompanying samples in this trend were not reported. Highly anomalous silver and bismuth were also returned from these samples. This quartz vein is variably exposed along 40 m at the volcanic-sediment contact on the east limb of the fold at the NFN. During the 2006 exploration program, values of 57,793 ppb Au / 70.46 g/t Au (Sample # 150241) and 40,704 ppb Au / 46.06 g/t Au (Sample #150245) were also obtained from surface grab samples of the 1m wide polymetallic quartz vein.

BHP tested the NFN Area with five diamond drill holes in 1990 and 1991. Diamond drill hole 90VD-81 tested the vein on the east limb and returned 6.03 m grading 7.31 g/t Au, including 25.63 g/t Au over 1.54 m at a vertical depth of 60 m. Ashley and Flood (1991) estimated the true width of 95% of the intercept. 91VD-111 was drilled underneath 90VD-81 the following year and intersected 9.16 g/t Au over 6.88 m, including 54.94 g/t Au over 0.95 m and 0.25 m grading 18.2 g/t Au (estimated true width 85% of intercept) at a vertical depth of 95 m below surface. The vein remains concordant to the contact, which changes dip from -45° west at the 60 m level to 73° west at the 95 m level. This mineralization is open at depth. 91VD-113 also tested 110 m south of holes 90VD-81 and 91VD-111. This hole intersected the contact with an intercept of 1.13 m grading 0.47 g/t Au.

Diamond drill hole 91VD-112, which tested 160 m along strike to the northwest at the fold hinge, returned 0.8 g/t Au over 1.05 m (true width estimate). This mineralization was again at the brecciated contact, which dipped 46° south. Gold mineralization is also present on the west limb of the fold. A 1 m wide shear zone in basalt returned surface values of 5.0–9.0 g/t Au. The density and quantity of accompanying samples were not reported. Drill hole 90VD-85 on the west limb intersected 9.2 g/t Au over 0.8 m (estimated true width) in a silicified basalt with 0.5% disseminated arsenopyrite mineralization. This intercept was at the sediment/basalt contact on the western limb at the 80 m level below the surface. This contact is dipping eastward at 42°. Of 55 core samples split in the 1990 reported drill program, 12 returned gold values >1 g/t Au with a high of 44 g/t Au. Core samples were generally 0.5–1.0 m in length.

Further mineralized zones were discovered in the core of the NFN. A gold value of 176 g/t Au was produced from a grab sample of narrow quartz-pyrite vein rubble taken from within a northeast linear by BHP. The density and quantity of accompanying samples were not reported. BHP did more drilling in the NFN (E. Flood, pers. comm.) than is outlined here, but this work is not documented in assessment reports.

After a hiatus, the NFN was tested with drilling again in 2019 (11 drillholes), 2020 (16 drillholes), and 2021 (2 drillholes) by Blue Star. In 2019, diamond drillholes HR19-002 to HR19-010 tested the eastern limb with a series of fences of two to three closely spaced drillholes, and all returned gold grades at the folded and sheared, quartz-flooded basalt-sedimentary rock contact. Here, the mineralized zone in the northeast portion of the main fold structure was shown to have an average thickness of 4 m. Drillhole HR19-002 returned 12.92 g/t Au over 6.0 m (including 25.4 g/t Au over 1.0 m and 48.7 g/t Au over 1.0 m); HR19-003 intersected the contact about 15 m away and returned 15.19 g/t Au over 3.0 m. HR19-004 returned 4.14 g/t over 10.0 m; HR19-005 intersected the contact about 20 m away and returned 5.33 g/t Au over 2.0 m. HR19-006, which twinned hole 91VD-111, returned 8.47 g/t over 2.0 m; HR19-007 was spaced about 40 m away from this intersection and returned 6.84 g/t over 4.0 m. The final fence of drillholes saw each hole spaced about 25 m apart. HR19-008 returned 1.77 g/t over 5.0 m; HR19-009 returned 5.89 g/t Au over 6.0 m (including 32.5 g/t Au over 1 m); and HR19-010 returned 2.19 g/t over 1.0 m. Two other drillholes tested the western limb and a linear structure with high Au grades in surface samples along its length, but neither returned significant mineralization.

2020 drilling followed up this campaign with a set of fenced drillholes which continued testing the basalt-sedimentary rock contact away from the main zone of mineralization drilled in 2019. The 2020 drillholes span the width of the fold, testing both limbs and through the fold axis. Herein, the mineralized zone has an approximate thickness of 2.5 m. Significantly, hole HR20-013 intercepted 2 m of 13.18 g/t Au, hole HR20-014 intercepted 4 m of 7.59 g/t Au, HR-016 intercepted 4 m of 6.09 g/t Au, HR20-017 intercepted 3 m of 13.87 g/t Au, HR20-018 intercepted 2 m of 9.1 g/t Au, and HR20-020 intercepted 4 m of 5.52 g/t Au. The aforementioned mineralized linear structure was drilled with a fence of two drillholes collared about 220 m southwest along strike from the 2019 drill test; these drillholes returned one wide interval of low-grade gold (9 m of 0.44 g/t Au).

2021 drilling was designed to test both the western and eastern limbs. A single drill test of each side of the NFN was completed. Hole 21BSG-013 graded 0.66 m of 2.33 g/t Au, and hole 21BSG-017 returned 2.05 m of 10.10 g/t Au, both at the basalt-sedimentary rock contact.

The modern drilling campaigns allowed the basalt-sedimentary contact to be modelled with accuracy; the contact dips about 40° south at the northern terminus of the fold, and it flattens as the fold axis is approached at depth. The drilling confirms the southward plunge of the fold, as was suggested during the previous mapping from 1990 and earlier. The west limb is shallowly dipping, and here mineralization is thin and variable; the eastern limb is steeply dipping and hosts wider intervals of higher gold grade. Drilling has also confirmed that gold is present everywhere so far tested along the lithological contact. The contact is sheared, and mineralization is developed in both the basaltic volcanic rock and the underlying biotite-cordierite schist. Mineralization occurs as quartz-carbonate veins with pyrrhotite, arsenopyrite and chalcopyrite. Sericite, biotite, and calc-silicate alteration are developed for tens of metres in the basalt.

7.2.3.3 Mineralization of the Gnu (Nutaaq) Zone

The Gnu Zone lies 600–750 m north of the Flood Zone and is limited to the north by the Ravine. It comprises several north-south trending polymetallic veins developed in brittle structures in gabbro and one east-west acicular arsenopyrite zone of mineralization also hosted in gabbro, which is subparallel to the Flood Zone. Here, quartz with acicular arsenopyrite and minor pyrrhotite mineralization visually identical to the Flood Zone has been intersected along a 575 m strike length. Polymetallic veins are thought to be present everywhere in the gabbro between the Ravine and the Ulu Granite. Towards the Ravine, the polymetallic vein structures strike northeast-southwest and have not been tested with recent drilling. Within the gabbro, about 470 m to the southeast of the present Gnu Zone resource, the Alone polymetallic vein has a strike length of about 300 m.

Outcrop density is low (20%) in the area, and the zone is generally exposed as felsenmeer blocks 20–40 cm in size, occurring in patches 2 m x 5 m in dimension. Quartz veins are sometimes visible on the surface, and strike and dip can often be measured and relied on to guide modelling and drilling. Currently, four polymetallic veins of interest are named Miksuk, Qipjaaq, Igutaaq, and Alone. The acicular arsenopyrite mineralization is called Miqqut.

Alteration of the Miqqut mineralization is similar to that of the Flood Zone, generally comprising calc-silicate-biotite-chlorite-k-feldspar, and, unique to alteration of gabbro, leucoxene. Gold mineralization is coincident with strongly sheared host rock overprinted with silica/quartz veins and acicular arsenopyrite. Pyrite, pyrrhotite, and chalcopyrite can also be present in low amounts.

Qipjaaq and Igutaaq are similar styles of fine to medium-grained quartz developed in brittle to ductile structures in gabbro. The gabbro host rock is often more highly strained where quartz veins have been emplaced, but the quartz veins themselves are not strained, suggesting that the gabbro was sheared prior to vein emplacement. Gabbro is often altered to leucoxene, and proximal to mineralization is strongly biotite-actinolite-chlorite altered. Commonly, the upper and/or lower margin of the quartz veins are mineralized with pyrrhotite-chalcopyrite-pyrite +/- sphalerite; here, the sulphides and quartz can be brecciated. Sulphide mineralization also occurs as blocky infill surrounding quartz crystals, or stringers, within the quartz veins. Visible gold has been observed at the contacts and within the quartz veins. The Miksuk Zone is unique in that the quartz and mineralization in this zone are sheared, as well as the gabbro host rock, and arsenopyrite is sometimes present.

Surface samples of the Gnu Zone show up to 22.0 g/t Au. In the early 1990s, BHP drilled 15 holes along a strike length of 450 m to a vertical depth of 65 m. An HG Au bismuth polymetallic vein was intersected in 92VD-161 at

120 m vertical depth and gave a 3.22 m intercept of 14.7 g/t Au. Other intercepts include 10.1 g/t Au across 1.84 m, 3.5 g/t Au across 6.60 m, and 4.7 g/t Au across 2.40 m. Echo Bay conducted two exploration holes in the Gnu Zone, each encountering wide and lower-grade intercepts (5.0–5.68 m wide and 1.12–3.77 g/t Au).

Blue Star drilled two fences of two holes in the Gnu Zone in 2020 on either side of hole 92VD-161. One hole, BS2020ULU-007, intersected 2 m of 52.7 g/t Au. The intersection was shown with later drilling and modelling to be part of the Miksuk polymetallic vein.

In 2021, nine holes were drilled to target the acicular arsenopyrite mineralization and polymetallic veins. 21BSG-005 drilled the acicular arsenopyrite plane, and 21BSG-007 undercut this hole. Both intersected the arsenopyrite mineralization; 21BSG-007 also intersected an unknown polymetallic vein at an oblique angle, which graded 8.15 m of 20.8 g/t Au. The vein was drilled with 21BSG-020 at a perpendicular angle to test the true thickness, and the mineralization was named Qipjaaq. 21BSG-006 intersected the Miksuk vein. Several other holes drilled to test polymetallic veins did not intersect mineralization; the zone was remapped on the surface and remodelled prior to the 2022 drilling.

In 2022, five drillholes tested the Miksuk vein, three holes were drilled into the Miqqut acicular arsenopyrite mineralization, four holes were drilled into the Qipjaaq polymetallic vein, and one hole drilled to test a new polymetallic vein, Igutaaq, originally intersected in a 2022 hole meant to test the Miqqut Zone.

Modern work by Blue Star, including analysis of geophysical surveys, has shown that the entire length of gabbro between the Gnu Zone and the Alone vein has the potential to host north-south trending, HG polymetallic mineralization.

8.0 DEPOSIT TYPES

Key deposit types known in the High Lake Volcanic Belt include shear zone-hosted gold and volcanogenic massive sulphide mineral systems. The Flood Zone Gold Deposit and the majority of the prospects on the Property can be assigned to orogenic style with a few distal prospects considered to be massive sulphide or gold enriched massive sulphide styles of mineralisation. The orogenic gold model is currently used as the exploration model on the Project.

8.1 Orogenic Gold Systems

These systems go by many names: greenstone gold, Archean lode gold, shear zone hosted gold, mesothermal gold, and orogenic gold deposits. While a brief summary is provided here, the reader is referred to Groves et al., 2020, Goldfarb & Groves, 2015, Groves, 1993, and references therein for a comprehensive overview of orogenic gold systems, and to Poulsen et al., 2000 for the Canadian context.

According to Goldfarb & Groves (2015), orogenic gold deposits across the globe have several features in common. These include 1) (most commonly) ore formation very late in to post-peak metamorphic timing; 2) being located in a fore-arc or back-arc tectonic setting (associated with subduction at a continental margin [Groves et al. 2020]); 3) forming in broad thermal equilibrium with country rocks (as opposed to under high geothermal gradients); 4) hydrothermal addition (alteration) of K, S, CO_2, H_2O, Si, and Au, with variable additions of As, B, Bi, Na, Sb, Te, and W, but with low base-metal contents; and 5) the presence of supralithostatic H_2O-CO_2-CH_4-N_2-H_2S, low to moderate salinity ore-forming fluids that may have undergone phase separation during advection and gold deposition.

Broadly, the formation of orogenic gold deposits requires the interplay between fertile gold-bearing fluid, favourable structural architecture, and preservation of the deposit after formation (Groves et al. 2020). Fertility is linked to subduction at convergent plate margins since the gold-bearing fluid is derived from either devolatilization of a subducted slab and the overlying sediment wedge or from reactivated mantle lithosphere, which has been previously metasomatized by those fluids (Groves et al. 2020). A favourable structural system must be capable of focussing the fertile fluids on multiple scales (Groves et al. 2020). Lithosphere-to-crust scale faults or shear zones are capable of delivering a focussed flux of fertile fluid to the crust during seismic activity, most favourably (for deposition of gold) to the ductile-brittle transition between 3 km and 15 km (Groves 1993). Once in the crust, fluid is focussed in to spaced damage zones, which are normally jogs or flexures in the first-order fluid channels via injection-driven swarm seismology. The fluid migrates along pressure gradients towards lower-order, interconnected structures with repetitive architectures related to critical controls such as fault arrays, locked-up anticlinal hinges, or anomalous configurations of igneous intrusions. Conjunctions of these parameters produced world-class to giant deposits (Groves et al. 2020). At these structural sites, depositional traps connected to fluid pathways are controlled by rheology and geochemical contrasts between rock units in the host rock sequences (Groves et al. 2020). These deposits usually survive exhumation and erosion because of their deep crustal formation and extensive vertical extent. Figure 8-1 is a diagram of the various aspects of the generalized orogenic gold system.

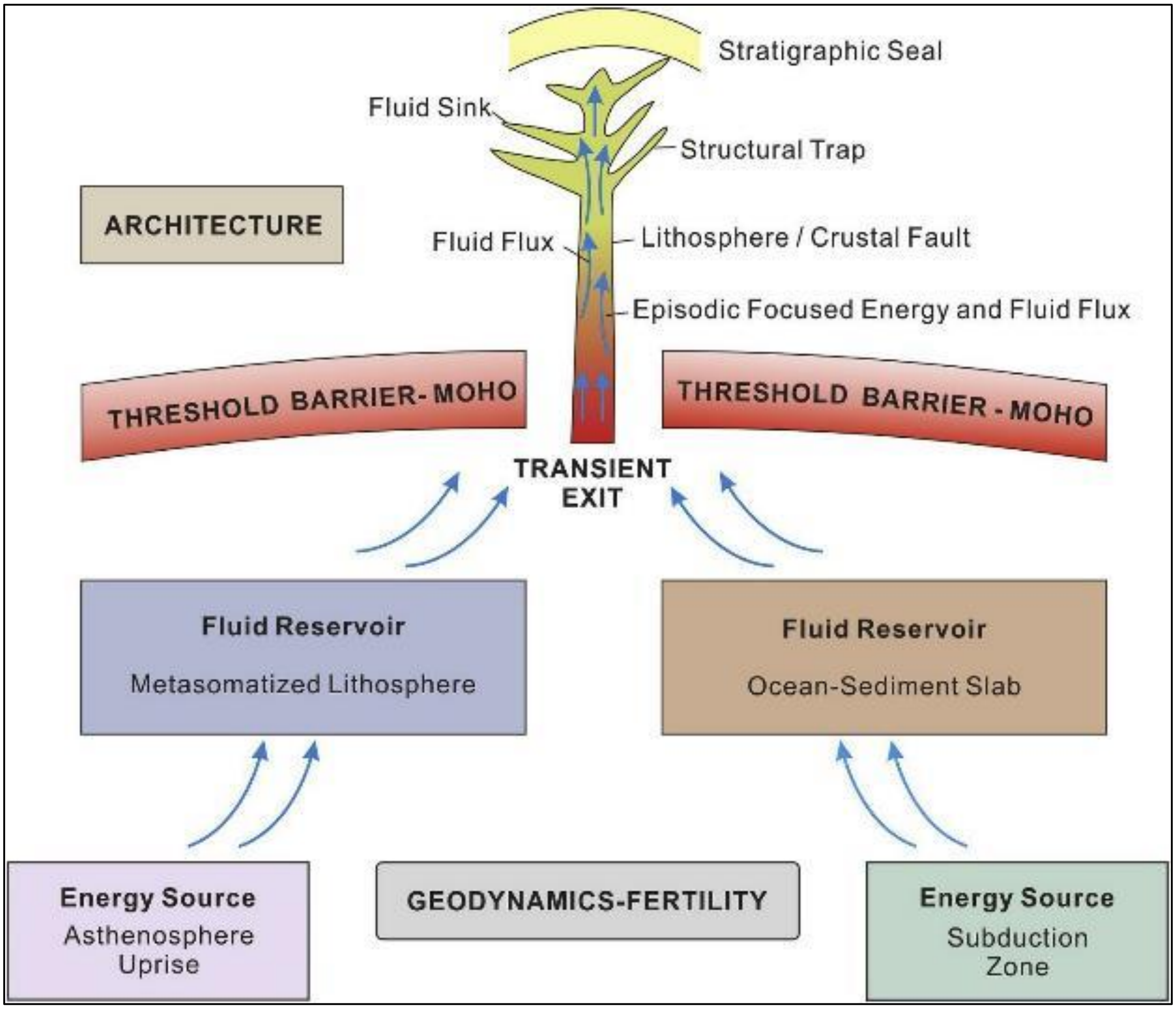

Figure 8-1: Schematic self-organizing critical orogenic Gold Mineral System Showing Alternate Fertility Sources that Have the Same Basic Architecture Parameters (Groves et al. 2020)

According to Paulsen et al., 2020, the subgroup of orogenic gold deposits termed Greenstone vein type is characterized by carbonate-sericite alteration and less than 20% sulphide minerals, and may be hosted in either volcanic rock or related intrusions within a submarine basaltic/sedimentary rock geological setting (Figure 8-2).

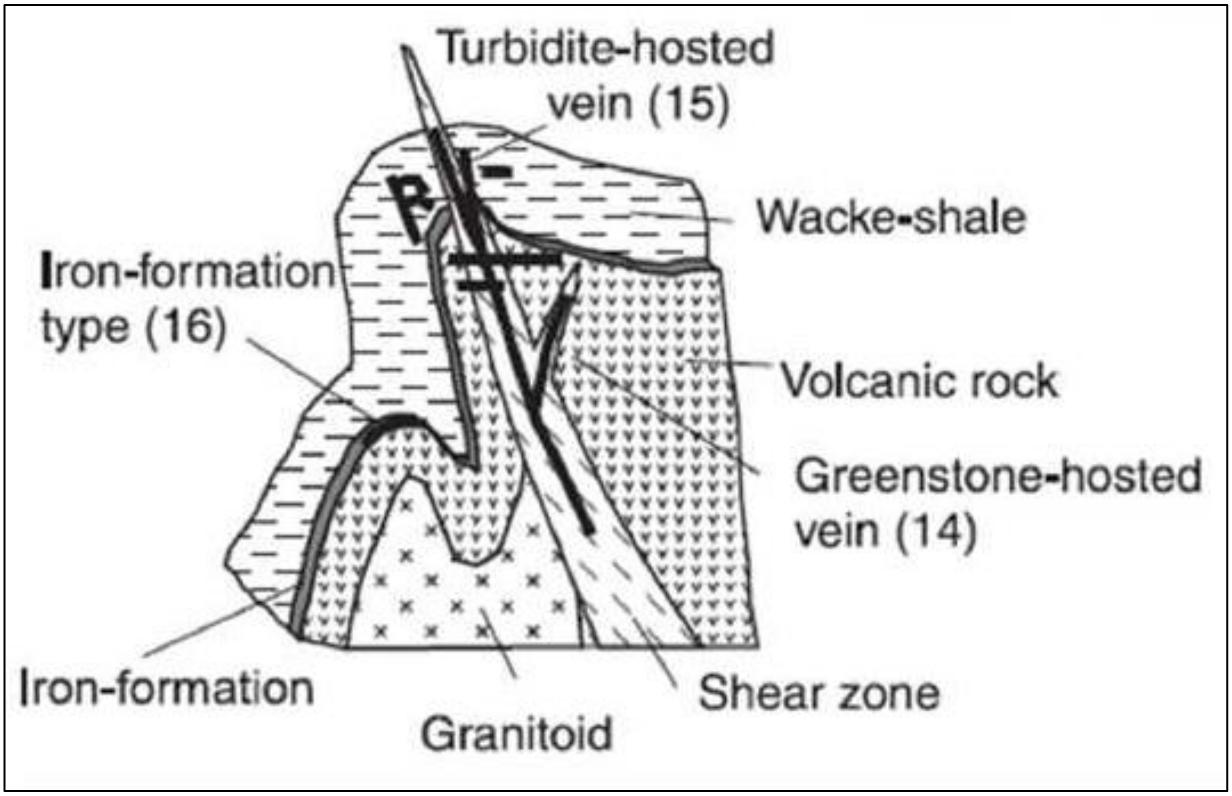

Figure 8-2: Generic Orogenic Gold Deposit Settings of Shear-related Greenstone Hosted Gold (Poulsen et al. 2000)

The Flood Zone and mineralization on the Property, in general, possess the following specific attributes which are common amongst Archean-aged orogenic gold deposits:

1. Deformation of the host rocks has produced dilatant structures in which late hydrothermal fluids rich in silica, arsenic, and gold, have precipitated out and filled shear zones;

2. Hosted in high-iron host rock and a close spatial relationship with the mineralization to the hinge of an anticline, as well as the presence of late-stage QFP dykes;

3. The deposit is located at a zone of high competency contrast between a basalt-sediment contact;

4. Gold is intimately associated with very fine acicular arsenopyrite within zones of intense silicification and quartz veining. The typical alteration assemblage includes quartz + biotite + amphibole (actinolite) + titanite + epidote + clinopyroxene + tourmaline; and

5. Multiphase deformation is exhibited by the presence of crack-seal veins, rebrecciation, and crosscutting mineralized zones. Both brittle and ductile features are often present.

Mineralization at Ulu is unusual relative to the norm for Archean lode gold deposits in that it is not associated with a significant, first-order, belt-scale structure. It is hosted in amphibolite grade rocks, and the inferred temperature of formation is relatively high (360–515°C).

8.2 Volcanic-Hosted Massive Sulphide

Volcanic-hosted massive sulphide (VMS) style mineralization is categorized as stratiform accumulations of sulphide minerals that precipitated on or near the seafloor, commonly closely associated with hydrothermal vents. They form polymetallic lenticular bodies and commonly contain economic concentrations of precious and base metals (Pb, Zn, Cu, Ag, and Au). Many VMS deposits occur in clusters within a few km of each other and are often stacked stratigraphically.

9.0 EXPLORATION

Exploration work by previous owners is detailed in Section 6.0. This section covers work completed since the acquisition of the properties that make up the Ulu Gold Project by Blue Star.

9.1 2019–2020 Exploration

Blue Star's exploration programs in 2019 and 2020 focused on targets in the Hood River MEA. This work included drilling of the NFN Zone and surface sampling programs; drilling is discussed in Section 10.0.

The Company conducted a surface sampling program in 2019 which consisted of prospecting and channel sampling along gossanous outcrops extending southwards from the NFN.

Exploration in 2020 consisted of limited fieldwork, including drill location-associated mapping and environmental reviews (Lindsay et al. 2021).

9.1.1 Rock Sampling

During the 2019 and 2020 seasons, a total of 142 channel samples and 20 grab samples were collected. Blue Star did not conduct any surface sampling on the Ulu Mining Lease in 2020. Samples were collected by contracted Blue Star geologists using a rock hammer. Channel samples were collected using a standard gas-powered rock saw using a pressurized water spray bottle to lubricate and clean the blade. Samples were broken using a hammer and placed and sealed into a polybag with a unique sample identification number which was also used as a bag label. Sample locations were recorded using a handheld GPS unit. Each sample consisted of approximately 3 kg of material. All rock samples were shipped to ALS Yellowknife, NWT, for preparation, with resulting sample pulps forwarded to ALS Global in North Vancouver for analysis. All rock samples were subject to a 30 g fire assay with atomic absorption spectroscopy (AAS) finish for gold analysis, as well as, for multi-element analysis, an ultra-trace four acid digestion inductively coupled photogrammetric method. ALS method numbers, respectively: Au-30FA and ME-ICP61.

9.2 2021 Exploration Program

Between July 6 and September 23, Blue Star completed a field program consisting of geological mapping, rock chip and grab sampling, soil and till sampling, and airborne magnetics surveying. Limited resampling of the historical drill core was also completed at the same time as the field program. Blue Star contracted Precision Geophysics Inc. of Langley, BC, to fly an airborne geophysical survey over portions of the Ulu Mining Lease and Hood River MEA. Historic channel samples were surveyed with a Trimble differential GPS using a local control station, and high-resolution drone imagery was taken of the Gnu Zone and Flood Zone trenching. Local grab samples were collected during limited mapping on the Ulu Lease and Hood River MEA. Drilling was also undertaken and is reported in Section 10.0.

9.2.1 Airborne Geophysical Survey

A high-resolution helicopter-borne magnetic gradiometer survey was flown by Precision GeoSurveys for Blue Star in July 2021. The survey covered 55.3 km^2 of Ulu-Hood River (2,030 line-km), flown at 30 m line spacings at a heading of 090° to 270°. Tie lines were flown at 300 m spacing and a heading of 000° to 180°. Field processing and quality control checks were performed daily, and data were inspected to ensure compliance with contract specifications.

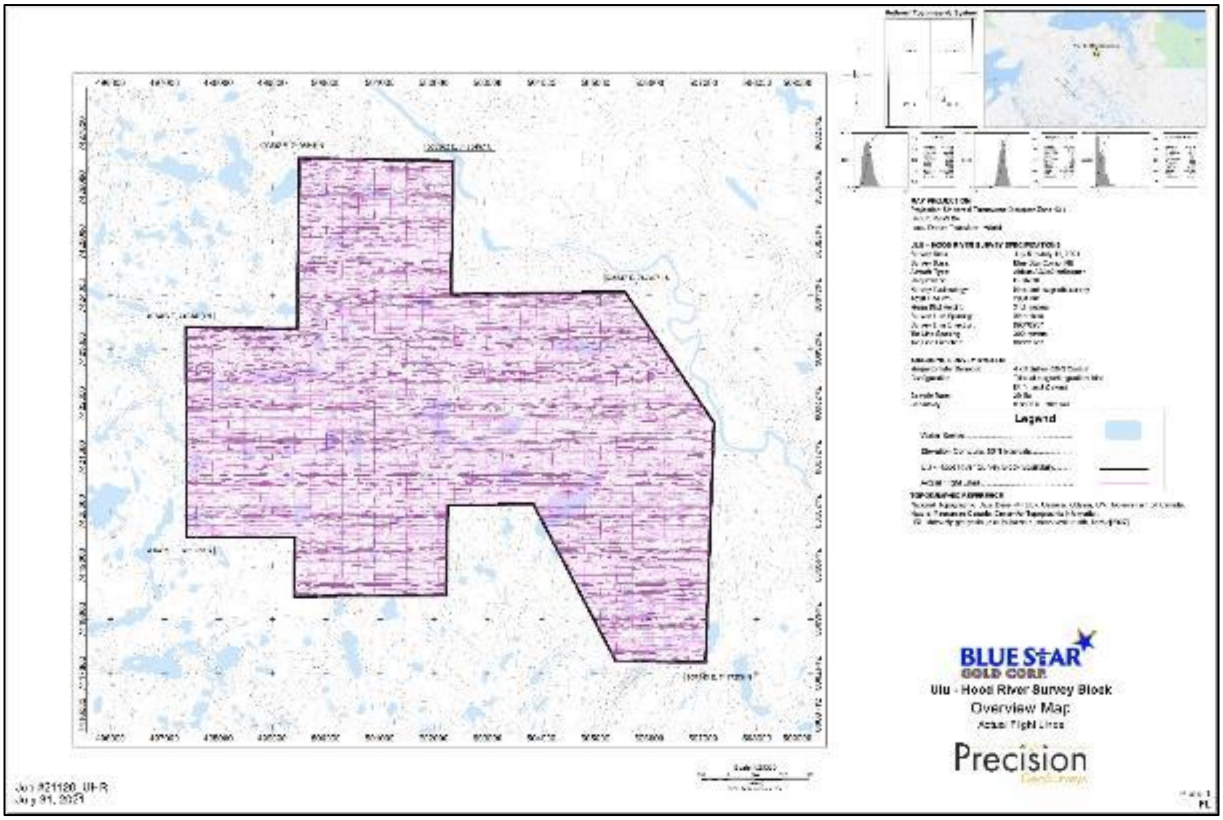

Figure 9-1: Flown Flight Lines and Tie Lines over the Ulu-Hood River Survey Block

9.2.2 Mapping

Geological mapping on the Ulu Gold Project was undertaken by Blue Star geologists and was conducted intermittently between July 7 and September 7. Mapping was targeted towards following up on select target areas prior to proposing drilling. Data was used to update geological maps locally. 2021 mapping led to a better understanding of select proposed drill targets.

9.2.3 Rock Sampling

During the 2021 field program, a total of 37 rock grab samples were collected. Samples were collected by contracted Blue Star geologists using a rock hammer. Samples were broken using a hammer and placed and sealed into a polybag with a unique sample identification number which was also used as a bag label. Sample locations were recorded using a handheld GPS unit. Each sample consisted of approximately 3 kg of material. All rock samples were shipped to ALS Yellowknife, NWT, for preparation, with resulting sample pulps forwarded to ALS Global in North Vancouver for analysis. All rock samples were subject to a 50 g fire assay with AAS finish for gold analysis, as well as, for multi-element analysis, an ultra-trace four acid digestion inductively coupled photogrammetric method. ALS method numbers, respectively: Au-AA26 and ME-ICP61.

9.3 2022 Exploration Program

Between June 9 and August 27, 2022, the Company undertook drilling, till sampling, mapping, prospecting, ground VLF-EM surveying, and airborne magnetics surveying. Resampling of the historical drill core was also completed at the same time as the field program.

Precision GeoSurveys Inc. of Langley, BC, was contracted to fly an airborne geophysical survey over the Ulu Mining Lease and Hood River MEA.

A ground VLF-EM survey was conducted using a GSM-19 Walking Overhauser Magnetometer with VLF and GPS and a GEM-2 with GPS rented from Terraplus Inc., with results interpreted by Campbell and Walker Geophysics Ltd of Vancouver, BC.

Prospecting was conducted to follow up and expand on historical showings across both properties. Mapping was completed to understand the geological context and potential size of historical showings. High-resolution drone imagery was taken over much of the Ulu Mining Lease to inform mapping.

Till sampling was performed along lines spaced 200 m apart with 50 m between samples. Lines were oriented northeast-southwest perpendicular to the measured ice flow in the region. Till samples were analyzed for gold using the Portable PPB Pty Ltd (PPPB) DetectORE™ system and an Olympus Vanta- M pXRF device.

Drilling of 3,700 m of NQ diamond drill core was performed by Northtech Drilling Ltd. of Yellowknife, NWT, using a customized Sanvick A5 drill.

9.3.1 Airborne Geophysical Survey

A high-resolution helicopter-borne magnetic gradiometer survey was flown by Precision GeoSurveys Inc. for Blue Star in June 2022. The survey used Precision's propriety four-gradiometer equipment flown by a Great Slave Helicopter Ltd AS350B2 helicopter. The survey covered 61.9 km^2 of Ulu-Hood River (1,368 line-km), flown at 50 m line spacings at a heading of 090° to 270°. Tie lines were flown at 500 m spacing and a heading of 000° to 180°. Field processing and quality control checks were performed daily, and data were inspected to ensure compliance with contract specifications.

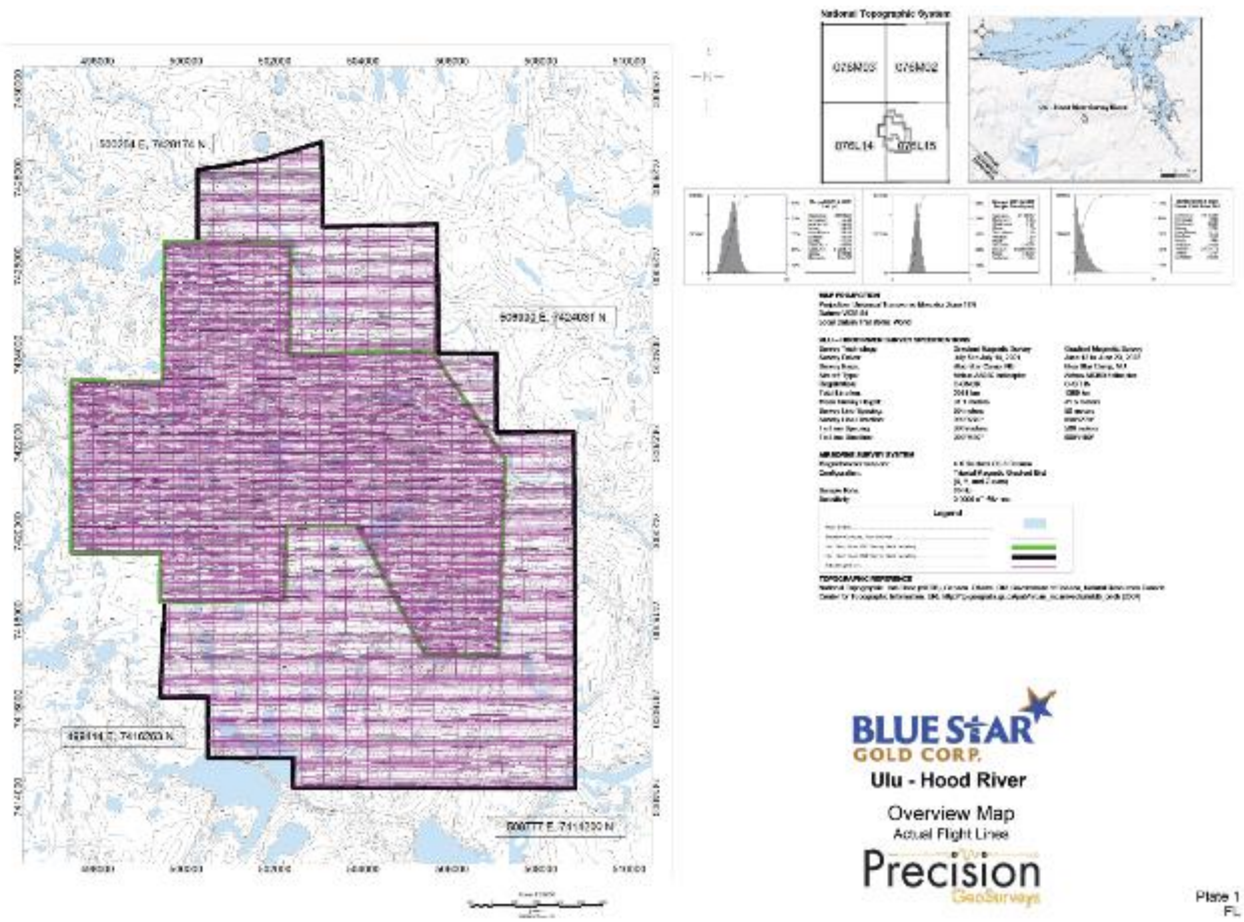

Figure 9-2: Flown Flight Lines and Tie Tines over the Ulu-Hood River Survey Block

9.3.2 Ground VLF-EM Survey

Two grids on the Ulu Mining Lease and one grid on the Hood River MEA, for a total of 41 line-km, were surveyed with two different techniques: VLF-EM using a GSM-19 Walking Overhauser Magnetometer and multi-frequency broadband EM using a GEM-2. The two surveys collected high-resolution VLF-EM and magnetic data and broadband EM data, respectively. Field processing and quality control checks were performed daily. Lines were spaced 10 m apart with a continuous collection of magnetic data and collection of VLF data every 25 m. Lines were walked perpendicular to known or suspected geological features.

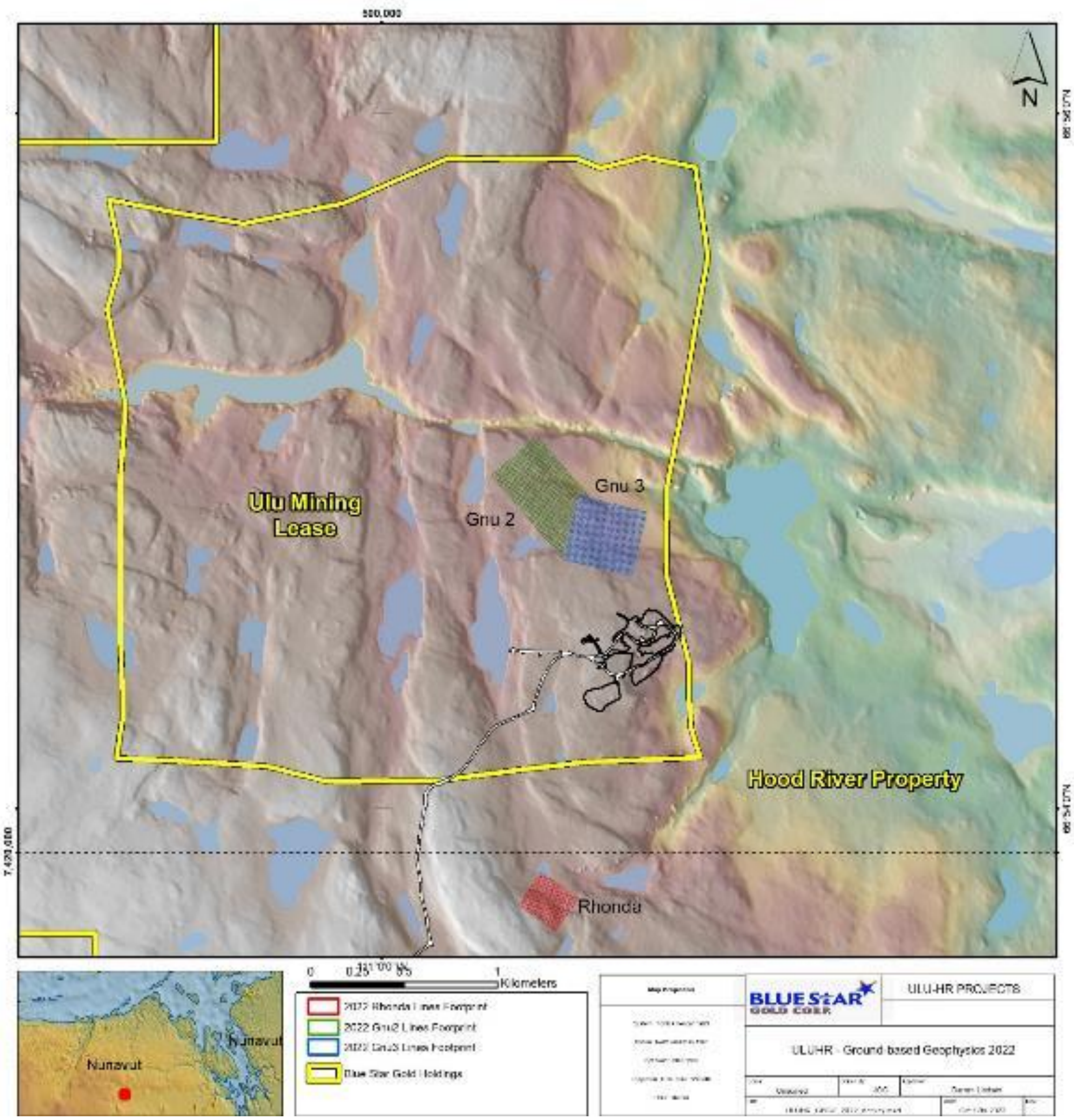

Figure 9-3: Ground VLF-EM Survey Grids

9.3.3 Mapping

Geological mapping on the Ulu Gold Project was undertaken by Blue Star geologists between June 17 and August 26. Mapping of a 500 m x 1,200 m area comprising the Zebra and surrounding showings was conducted at a scale of 1:2500. Other mapping included ground-truthing select areas on the Hood River MEA and analysis of historical showings of interest.

9.3.4 Prospecting and Showings Reviews

A total of 245 rock grab samples were collected, 121 from Hood River MEA and 125 from the Ulu Mining Lease. Samples were collected by contracted Blue Star geologists using a rock hammer. Samples were broken using a hammer, placed into a polybag with a unique sample identification number which was also used as a bag label, and sealed. Sample locations were recorded using a handheld GPS unit. Each sample consisted of approximately 2 kg of material. All rock samples were shipped to ALS Yellowknife, NTW, for preparation, with resulting sample pulps forwarded to ALS Global in North Vancouver for analysis. All rock samples were subject to a 50 g fire assay with AAS finish for gold analysis, as well as, for multi-element analysis, an ultra-trace four acid digestion inductively coupled photogrammetric method. ALS method numbers, respectively: Au-AA26 and ME-ICP61.

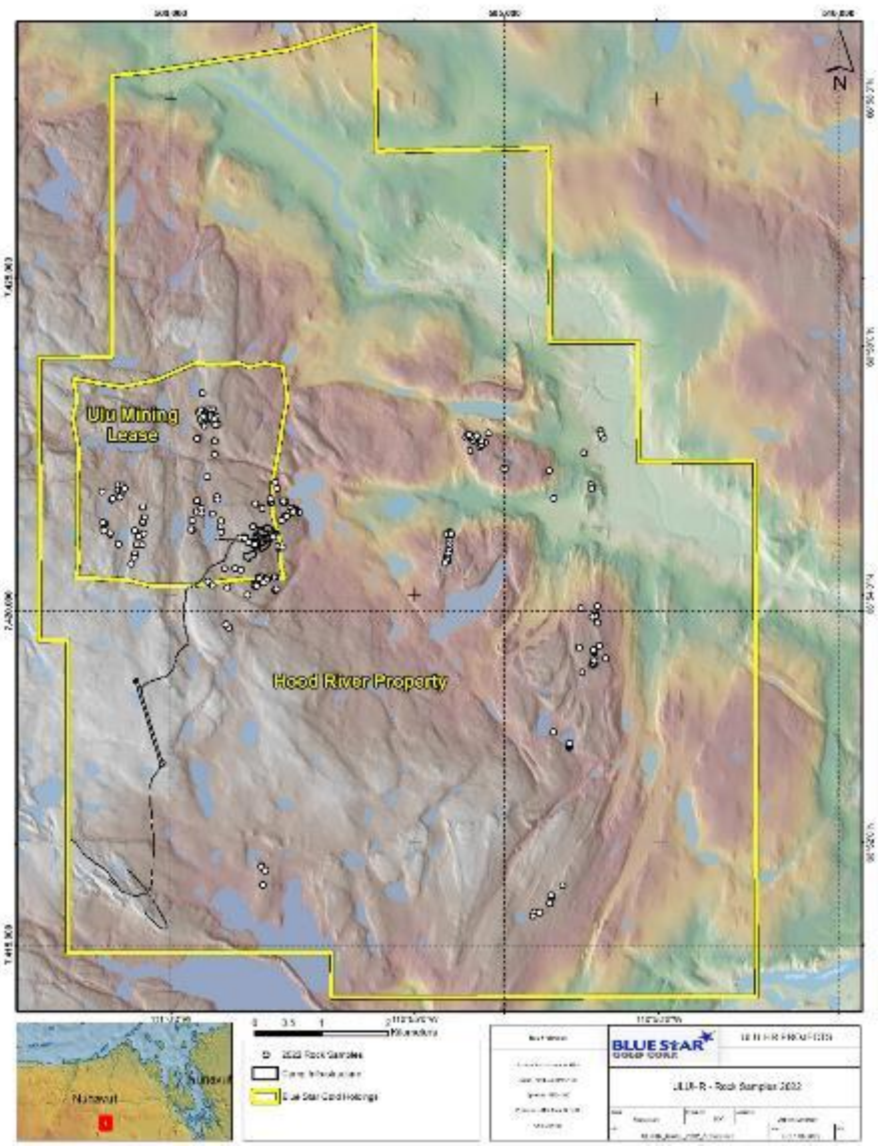

Figure 9-4: Rock Samples Collected on Ulu-Hood River

9.3.5 Till Sampling

A total of 159 till samples were collected from Ulu-Hood River along a grid of 6 lines spaced 200 m apart with 50 m between samples. Lines were oriented NE-SW perpendicular to the measured ice flow in the region. The sample grid was preloaded into GPS units and tablets, and teams of two navigated to each point on the grid using either a Garmin InReach or a tablet loaded with the SW Maps application. Two sampling teams of two persons located the sampling locations using a handheld GPS unit. At each sample site, the sampling team sourced appropriate sample material within a 25 m radius from the sample point in order to locate the best basal till material, usually to be found in frost boils. Once adequate material was located, one to many sample pits were hand dug with shovels to a depth of up to 40 cm, collecting approximately 3 kg of till material. Large clasts greater than approximately 5 cm were hand-screened out of the sample. The collected sample was placed in a plastic sample bag labelled with a unique sample number corresponding to the sample tag placed within the sample bag. Till samples were transported back to camp at the end of each sampling day. Till samples were prepared and analysed in camp using a pXRF for pathfinder elements and gold using the PPPB DetectOre™ system for rapid gold analysis by pXRF (see Section 11.0 for preparation and analyses details). DetectOre™ is a new geochemical technique which was used to rapidly screen for anomalies. The following is taken and paraphrased from the PPPB website's FAQ page:

detectORE™ is a technique exclusive to Portable PPB Pty Ltd for enabling low level gold analysis from anywhere using the detectORE™ lab materials, proprietary software and a portable XRF. It is a system and a process. The system involves the sample preparation, sample processing and use of a pXRF to obtain low level gold results in the field. It is a process that enables rapid progress through "reactive sampling", whereby the explorer can change the sample spacing as results come to hand on a daily basis. This helps to quickly define and delineate gold anomalies across a range of sample media. This enables explorers to explore smarter and discover faster™.

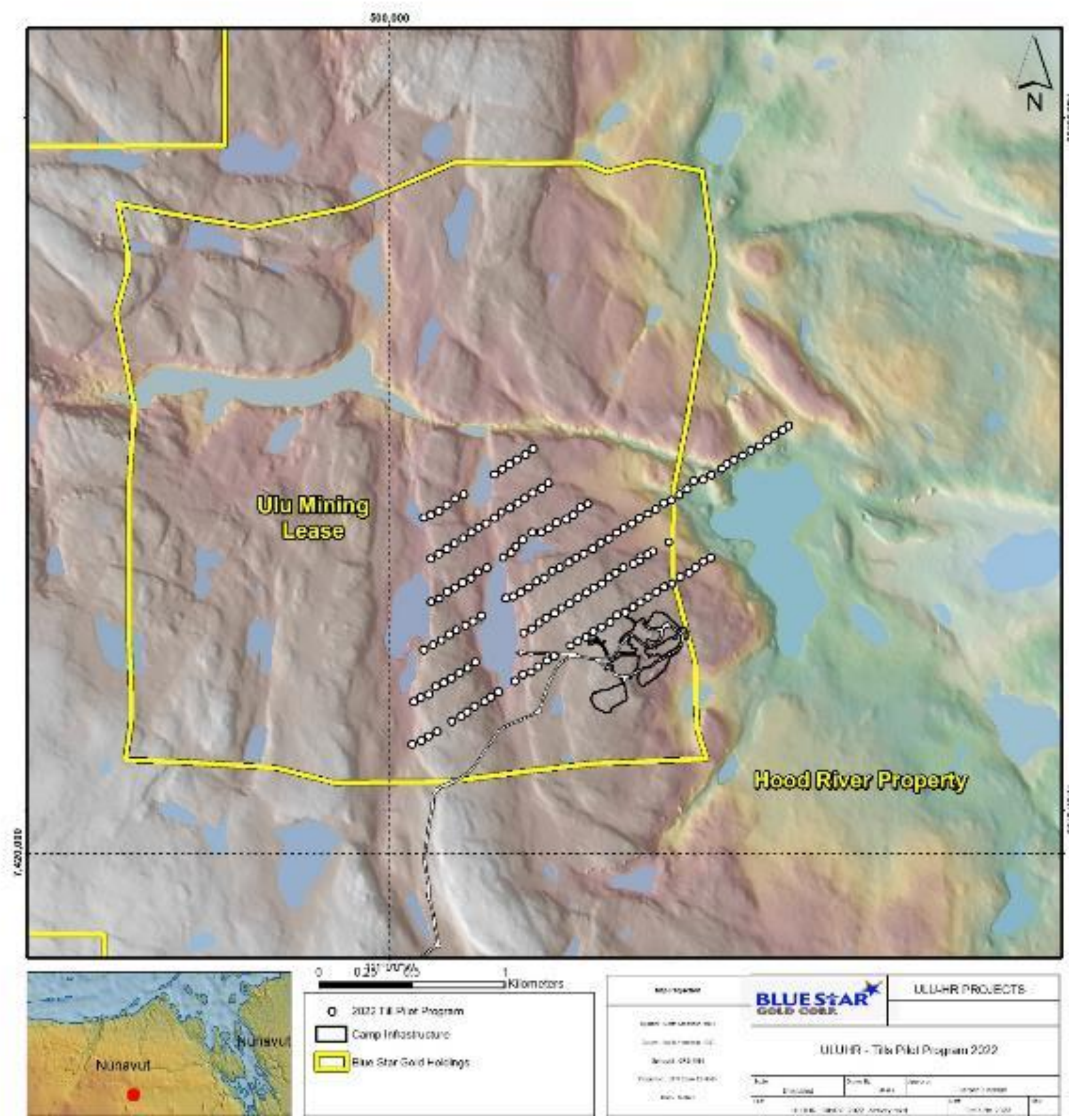

Figure 9-5: Till Samples Collected on Ulu-Hood River

9.4 Exploration Results

9.4.1 Airborne Geophysical Survey

Precision GeoSurveys processed the data and provided Blue Star with digital data, including 12 grids, KMZ files, 13 digital maps, and a PDF report. The grids provided included the following:

- Digital Terrain Model
- Total Magnetic Intensity

- Residual Magnetic Intensity
- Reduced To Magnetic Pole
- In-line Gradient
- Cross-line Gradient
- Vertical Gradient
- Horizontal Gradient
- Analytic Signal
- Gradient Enhanced Total Magnetic Intensity
- Gradient Enhanced Residual Magnetic Intensity
- Gradient Enhanced Reduced to Magnetic Pole

Maps were prepared by merging 2021 data with the newly acquired 2022 data, producing maps of actual flight lines with topographic features, a digital terrain model, and magnetic maps corresponding to each of the grids. These were used to refine mapped inferred geological contacts and to provide additional information for general dipping directions of major contacts.

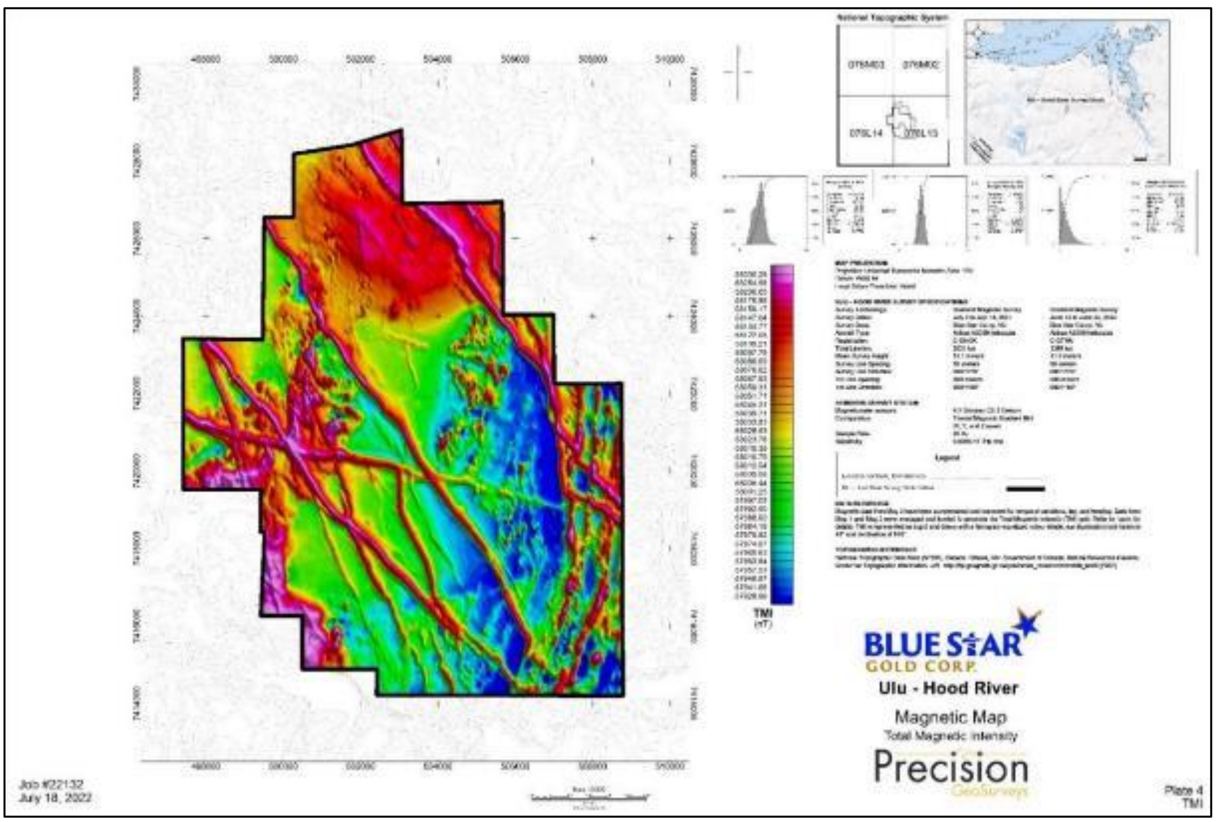

Figure 9-6: Total Magnetic Intensity Map Over the Ulu Gold Project

9.4.2 Ground VLF-EM Survey

A subcontractor was used to run the ground VLF-EM and broadband EM surveys. N. Wicharuk conducted fieldwork and provided a final report. Third-party consultant Campbell and Walker Geophysics Ltd. oversaw the survey, provided daily data quality checks, and processed the survey data to provide products for geological interpretations. The following grids were provided to Blue Star for each of the three locations (Roma, Nutaaq 1, and Nutaaq 2):

- Coronal Magnetograph (total magnetic field)
- Electric Conductivity (18330 Hz, 2850 Hz and 450 Hz)
- I1 (18330 Hz, 2850 Hz and 450 Hz)
- Magnetic Susceptibility (18330 Hz, 2850 Hz and 450 Hz)
- Q1 (18330 Hz, 2850 Hz and 450 Hz)
- NAA Quad
- NLK IP
- NLK Quad
- Total Electrical Conductivity

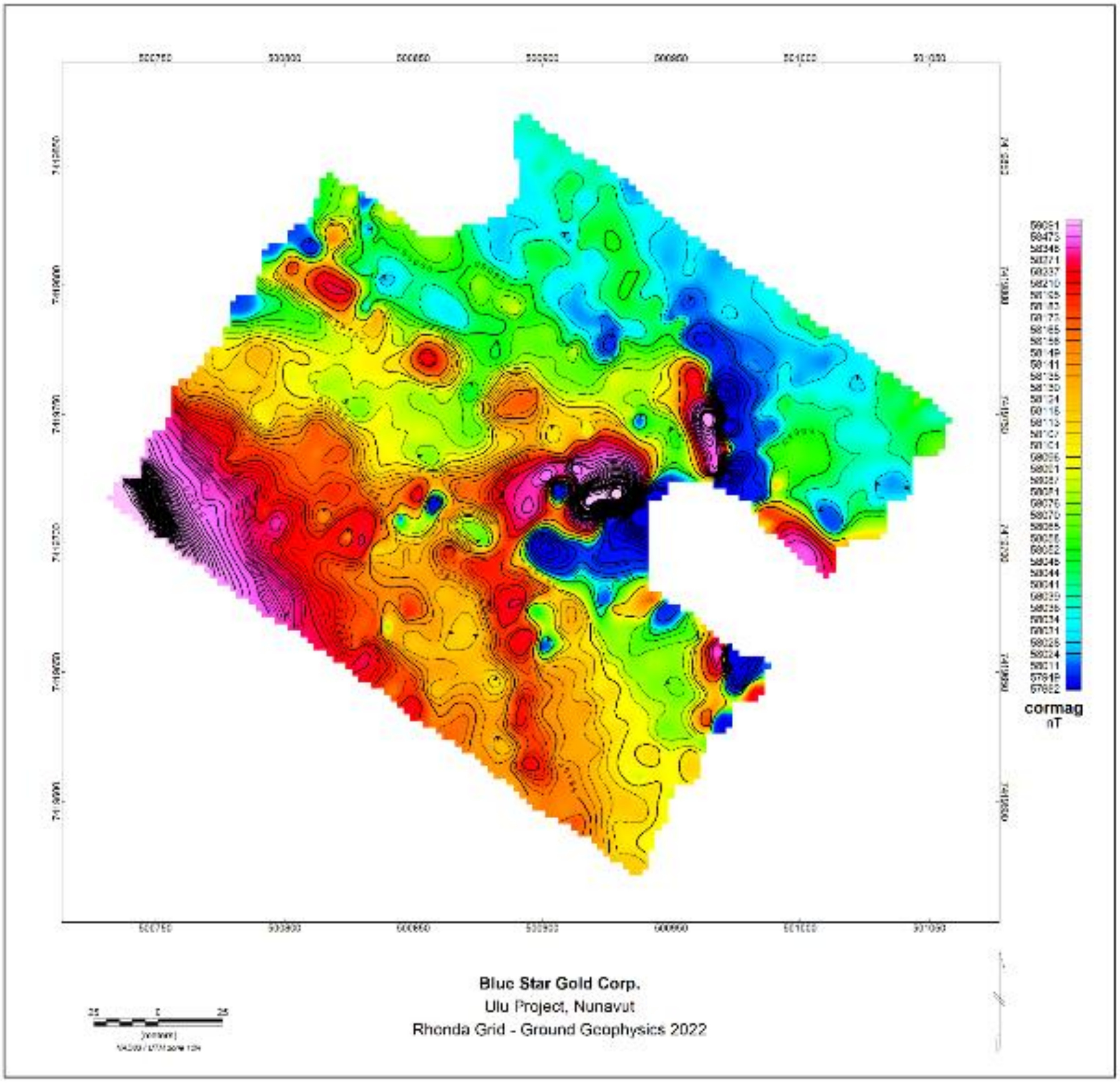

Figure 9-7: Contoured Total Magnetic Field Map of Rhonda Grid

9.4.3 Mapping

Mapping of a 500 m x 1,200 m area around the Zebra showing was conducted at a scale of 1:2500, with the goal of determining the plunge of the Ulu Anticline here and of evaluating the extent of mineralization within the fold hinge and limbs at this location. Here, the stratigraphy of basalt overlying sedimentary rock is similar to that at the Flood Zone, where mineralization is concentrated along the north-plunging hinge line of the Ulu Anticline, with basalt above the sedimentary rock. Gossan was 'traced out' using hand-held tablets, and rock samples from within the hinge and along limbs were collected.

On the Hood River MEA, limited mapping was conducted but led to a new understanding of the lithological units on the east side of the late two-mica granite in the vicinity of the North Penthouse showing. A compilation map using this new data and the existing historical outcrop maps is to be completed.

9.4.4 Prospecting and Showings Reviews

The Ulu Mining Lease and Hood River MEA host 35 and 68 historical showings, respectively. Prospecting was performed at 23 Ulu and 17 Hood River showings. Prior to fieldwork, historical records of work performed by each company were translated from reports into a searchable format by year and type of work, and showings were rated against one another in terms of the potential size of mineralization and amount and type of data collected at each. In 2022, specific showings of interest were visited in order to prospect, collect information about the potential size (width, strike length, depth) of each historical showing, and add geological context. Several showings, in particular, stood out as having enough potential size and sufficient gold grade to warrant drilling in 2023. Further mapping and prospecting in 2023 will be required to move others to a drill-ready stage.

In particular, the Bouncer showing on the western side of the Ulu Mining Lease was demonstrated to have a continuous strike length of ~750 m and a gold grade of up to 17.6 g/t. The Subzone C area to the northwest of Bouncer has a gold value of 7.03 g/t associated with a shear zone and felsic dyke, which, although smaller in size, would provide a sound drill target. Many rock samples were collected from the Zebra fold nose. The highest grade returned is 7.83 g/t Au, and the next highest is 3.69 g/t Au.

On Hood River, the Alone showing is traced northeast-southwest for ~270 m and has a gold grade of up to 6.53 g/t. At the Gravy showing, two ~300 m long subparallel mineralization trends run linearly north-south. The highest grade from the northern of the two traces is 8.81 g/t. Spotty mineralization was traced through cover to the Crown Zone. Although further investigation is required, the strike length of the entire system could be over 2 km.

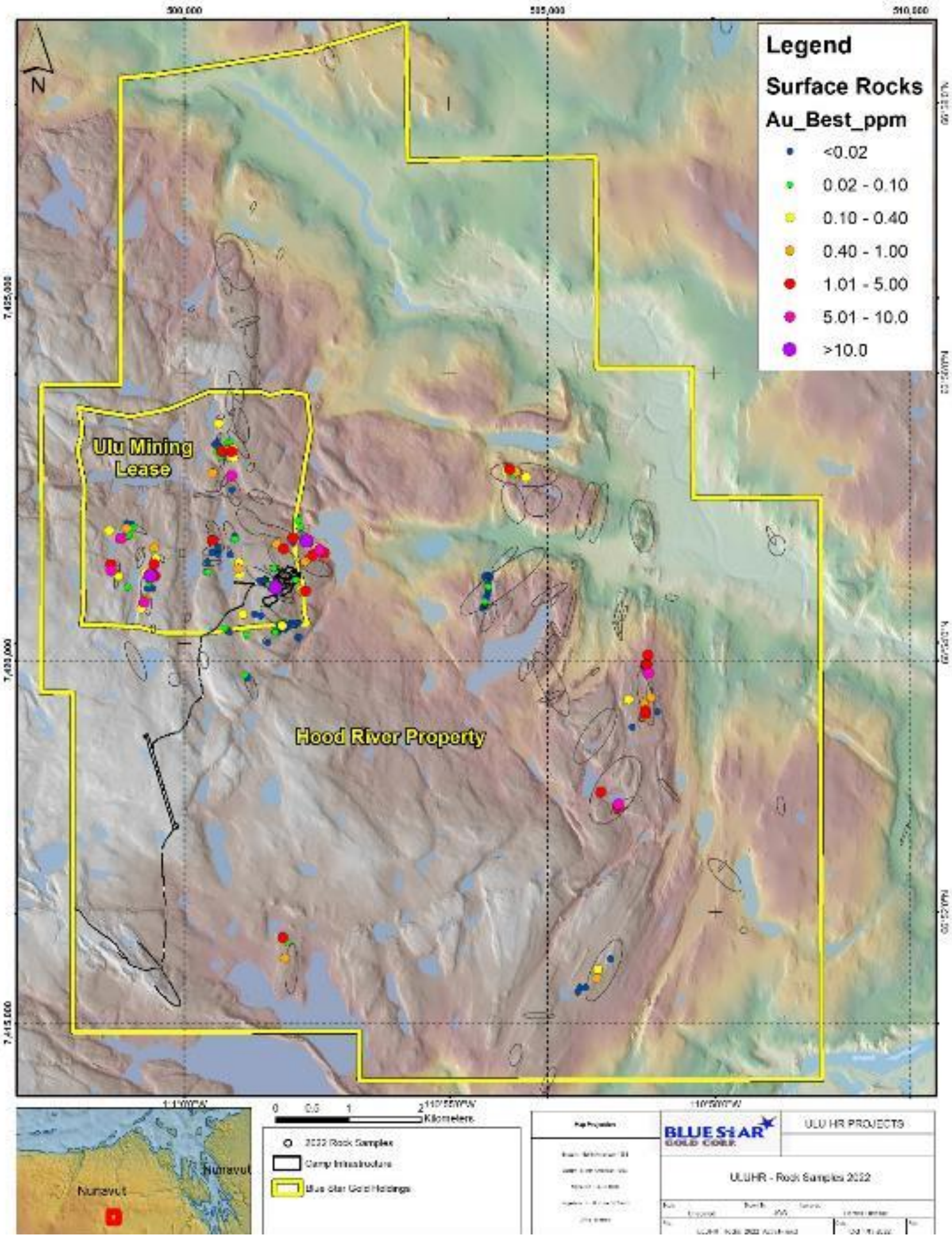

Figure 9-8: Results of Rock Samples Collected at Ulu-Hood River, with Showings

9.4.5 Till Sampling

In 2022, Blue Star Gold collected 159 till samples on the Ulu property across lines perpendicular to the inferred down-ice direction north and west of the Flood Zone. This sampling was conducted in order to test for any gold dispersion in tills from the surface exposure of the Flood Zone gold deposit in order to gain confidence in using this method to employ a regional till sampling program to test for new gold anomalies. The results showed a dispersion of anomalous gold down-ice of the Flood Zone. The distribution of the anomaly appears to have been influenced by the different glacial events and, potentially, the topography of the area.

Of note, the Central and East Limb Zones showed a weak to no response in the tills, which would have been sourced from very narrow discontinuous surface exposures observed during sampling. Given the limited surface exposures of the mineralization, no response was expected. Additionally, a gold in till anomaly is observed in the data west of the Flood Zone; this can be interpreted as a larger/stronger glacial movement initially to the west, as evidenced by local mega-grooves with a later distribution northly. Alternatively, there could be a second source for this anomaly to the southeast of the Flood Zone gold deposit.

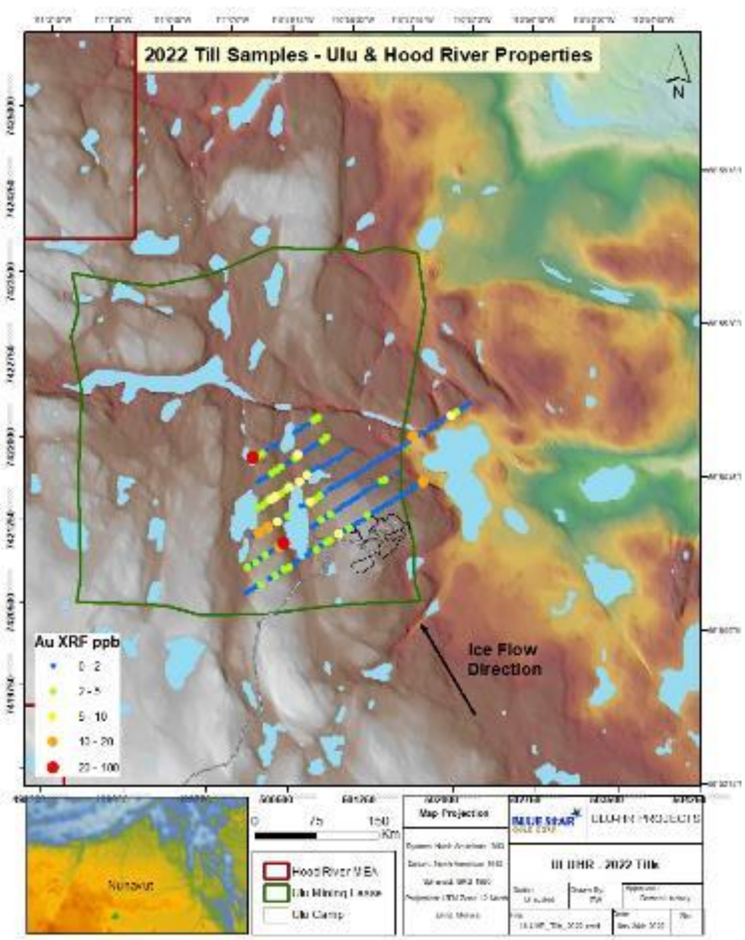

Figure 9-9: Results of Till Samples Collected at Ulu-Hood River

10.0 DRILLING

Drilling first occurred in 1985 at the Blackridge prospect, and numerous drill programs by various operators have taken place subsequently. To date, a total of 113,951 m has been drilled on the Property in 537 separate drill holes (Figure 10-1). Table 10-1 provides an overview of drilling by target area at the Ulu Gold Project, including drilling completed by the Company. Table 10-2 provides details for the Company's drilling. Details of historical exploration, including drill program highlights, are presented in Section 6.0. The following section details the exploration drilling undertaken by the Company and draws upon and references the 2020 Hood River NTI Annual Exploration Report (Lindsay et al. 2021), the 2019 Hood River Annual Exploration Report (Rubiolo et al. 2020), and a Blue Star internal memo (Lindsay 2021).

Drilling by Blue Star in 2019, 1,535 m in 11 drill holes, was focused on the NFN target area, located at the northern edge of the Ulu Mining Lease on the Hood River MEA concession. The preliminary objective was to tighten drill spacing to approximately 30 m to better determine mineralization continuity. The drilling confirmed that the mineralized vein and shearing were controlled by the contact between the overlying basalt and underlying sediment, which formed a southerly plunging, synformal fold.

Drilling by the Company in 2020, 7,621 m in 38 drill holes, evaluated a number of targets, including additional infill on the NFN target, selected target areas in the Flood Zone Gold deposit and limited testing of a number of other peripheral showings (PC Zone, Crown, INT Zone, Bizen showing). The NFN drilling continued to confirm the close-spaced continuity of the target contact. The Flood Zone drilling was not successful in locating additional continuity in the areas tested; however, in many cases did not completely remove the potential for additional opportunity in the deposit. The limited testing of distal targets was mixed with no proposed follow-up resulting from that portion of the program.

For the 2021 exploration campaign, the Company expanded the drill evaluation of existing target areas in the immediate vicinity of the Flood Zone Gold deposit under the thesis that an incremental discovery close to the known deposit would have better value than a distal discovery. A total of 5,012 m was completed in 25 drill holes between July 16 and August 23. Drilling was completed by NorthTech Drilling, Yellowknife, NWT, using a heli-portable Hunter HT1000 rig capable of 900 m depths with NQ (47.6 mm) diameter core. Drills, drilling supplies, and personnel were transported by an AS350B2 helicopter provided by Great Slave Helicopters of Yellowknife, NWT. The 2021 drill campaign included 3 drillholes at the Flood Zone, 28 tested the NFN target, 11 were drilled at the Gnu (Nutaaq) Zone, and 13 at Axis/Central/East target area.

The 2022 drill campaign focused on infill drilling of select results from 2021 and tested for a continuation of the Flood Zone mineralization to the southeast of the deposit. A total of 3,856 m in 28 drill holes were drilled between June 19 and August 28. Drilling was completed by NorthTech Drilling, Yellowknife, NWT, using a heli-portable customized Sandvik A5 drill with NQ (47.6 mm) diameter core. Drills, drilling supplies, and personnel were transported by an AS350B2 helicopter provided by Great Slave Helicopters of Yellowknife, NWT. The 2022 drill campaign included 8 drillholes at the Flood Zone, 15 drillholes at the Gnu (Nutaaq) Zone, 4 drillholes at the Central target area, and 1 drillhole at the Axis target.

Drill pad locations in 2019 and 2020 were surveyed using a handheld GPS and Brunton compass, while in 2021 and 2022, drill pads were laid out using a Trimble R12 DGPS with collars set using a TN14 GyroCompass. During drilling, downhole orientation tests were taken using a Reflex EZ-Shot tool to track hole azimuth and dip at 30 m intervals. On completion of the drill hole, a single continuous downhole survey was completed using a Reflex Gyro Sprint-IQ tool (2021 and 2022). Core was oriented using the Reflex ACT III™ tool system.

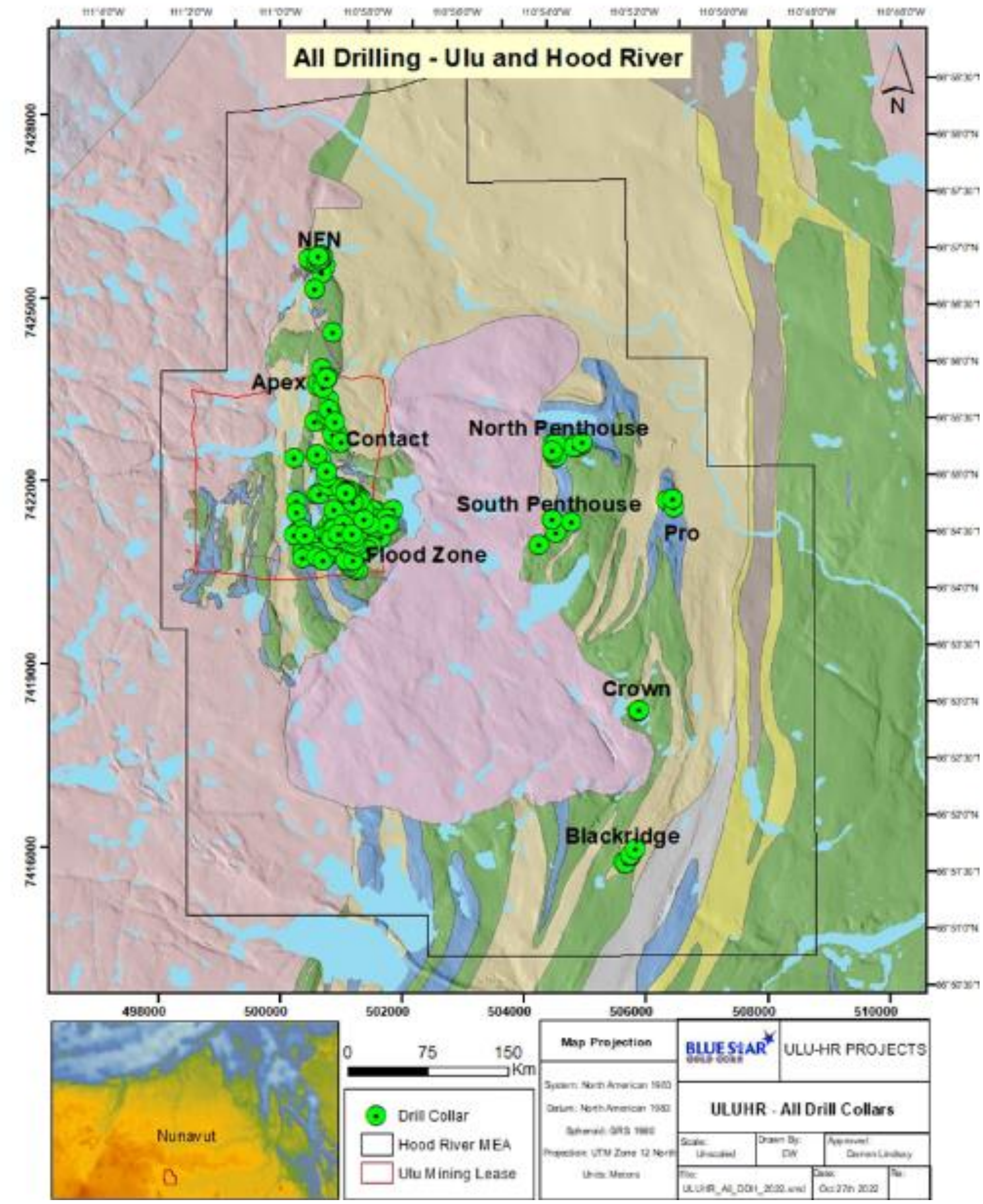

Figure 10-1: Drill Collar Locations on the Property

Table 10-1: All Drilling to date on the Ulu-Hood River Gold Project by Target Area

Target Area	# Drill Holes	m
Alone	1	28.65
Apex	10	1,289.78
Axis	13	1,824.54
Bizen	1	314
Blackridge	6	201.91
Central	34	5,309.79
Contact	8	1,616.83
Contact - South	8	1,778.67
East Limb	4	192.39
Flood Zone	315	88,019.11
Gabbro Breccia	2	179.22
Gnu Zone	27	3,344.44
Gnu - Iguttaq	2	154.00
Gnu - Miqqut	4	763.32
Gnu - Miksuk	5	688.00
Gnu - Qipjaak	4	521.00
INT	2	245.00
Interlake	2	341.30
NFN	33	4,905.04
North Penthouse	12	388.32
PC	3	212.95
Pro	4	398.89
Ravine	1	197.20
Sediment Core	5	802.83
South Penthouse	3	235.05
South Zone	10	1,400.02
West Limb	6	686.19
Zebra	4	413.44
Grand Total	**529**	**116,451.88**

Table 10-2: Summary of Drilling by the Company

Target Area	Year	# Drill Holes	m	Total	
				# Drill Holes	m
Apex	2020	3	573.20	3	573.20
Axis	2021	3	624.00	4	759.00
	2022	1	135.00		
Bizen	2020	1	314.00	1	314.00
Central	2021	8	1,886.57	12	2,359.57
	2022	4	473.00		
Contact	2020	1	284.00	1	284.00
Contact – South	2020	1	383.00	1	383.00
Crown	2020	3	390.00	3	390.00
East Limb	2021	1	89.00	1	89.00
Flood Zone	2020	6	2,486.00	15	3,784.43
	2021	3	674.43		
	2022	6	624.00		
Gnu Zone	2020	4	543.50	11	1,727.50
	2021	7	1,184.00		
Gnu - Iguttaq	2022	2	154.00	2	154.00
Gnu - Miqqut	2022	4	763.32	4	763.32
Gnu - Miqsuk	2022	5	688.00	5	688.00
Gnu - Qipjaak	2022	4	521.00	4	521.00
INT	2020	2	245.00	2	245.00
NFN	2019	11	1,535.00	28	4087.90
	2020	14	2,187.00		
	2021	3	365.90		
PC	2020	3	212.95	3	212.95
Sediment Core	2021	1	206.00	3	546.00
	2022	2	340.00		
Grand Total				**103**	**17,881.87**

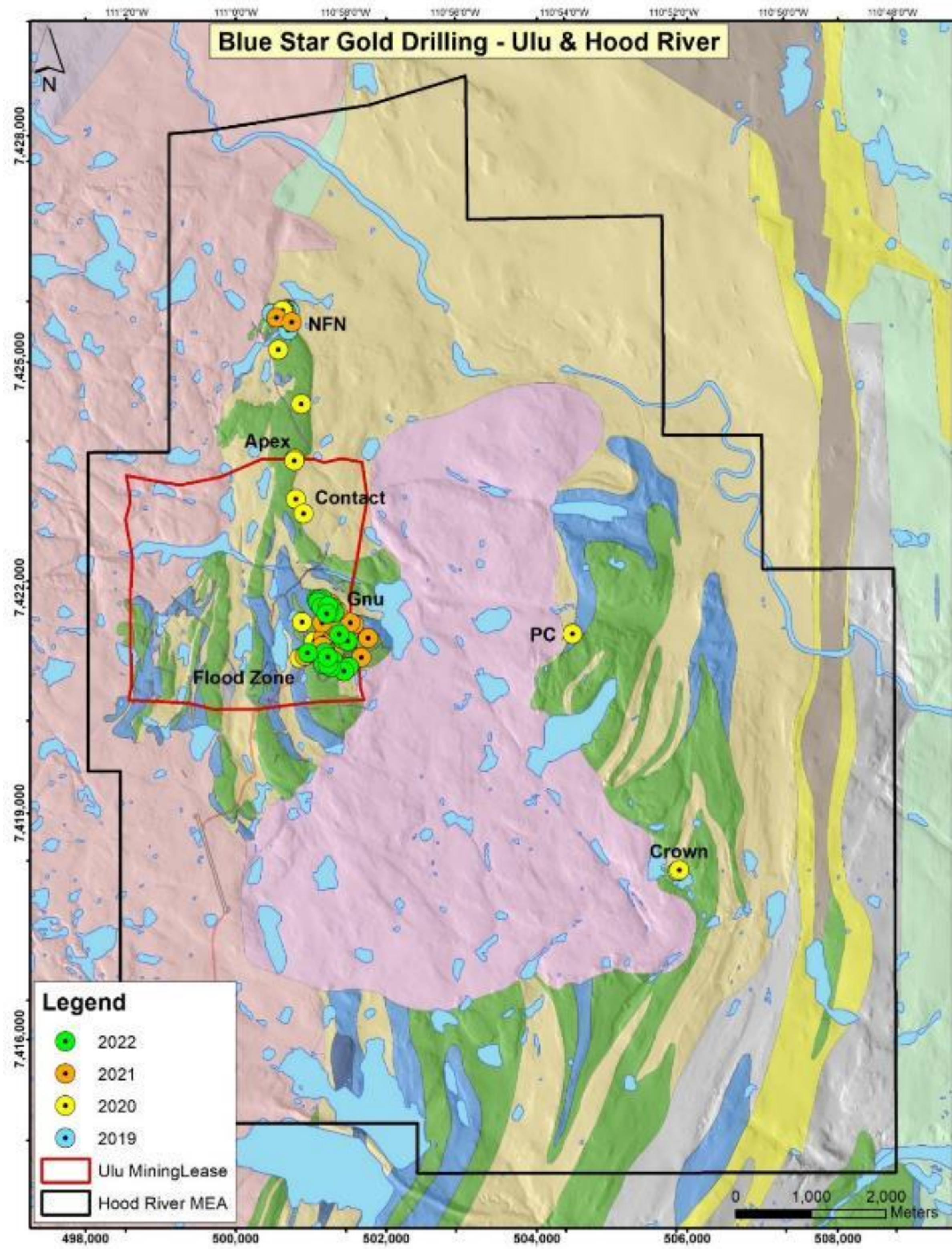

Figure 10-2: Location Map of 2019, 2020, 2021, and 2022 Drill Collars and Traces

Table 10-3: 2019, 2020, 2021, and 2022 Drillhole Collar Information

Drillhole	Easting	Northing	Elevation	Length (m)	Azimuth	Dip	Year	Target
21BSG-001	501240	7421038	470.17	200	25	47	2021	Flood Zone
21BSG-002	500916	7421087	460.97	194.4	62	45	2021	Flood Zone
21BSG-003	501669	7421066	454.94	206	226	45	2021	Sediment Core
21BSG-004	501300	7421142	465.92	167	121	45	2021	Axis
21BSG-005	501254	7421645	438.82	182	15	45	2021	Gnu
21BSG-006	501176	7421799	441.83	104	256	65	2021	Gnu
21BSG-007	501237	7421599	447.13	275	15	50	2021	Gnu
21BSG-008	501263	7421741	440.17	152	256	50	2021	Gnu
21BSG-009	501187	7421176	471.87	281	59	45	2021	Axis
21BSG-010	501467	7421314	455.28	239	208	45	2021	Central
21BSG-011	501505	7421390	454.94	230	209	45	2021	Central
21BSG-012	501575	7421505	440.14	428	209	52	2021	Central
21BSG-013	500544	7425581	425.82	152	270	50	2021	NFN
21BSG-013B	500544	7425581	425.82	31.9	270	50	2021	NFN
21BSG-014	501525	7421528	443.07	415.2	210	51	2021	Central
21BSG-015	501165	7421336	465.4	152	64	45	2021	Central
21BSG-016	501145	7421218	470.49	176	64	45	2021	Axis
21BSG-017	500748	7425519	420.5	182	0	50	2021	NFN
21BSG-018	501288	7421478	453.12	215	240	45	2021	Central
21BSG-019	501763	7421323	442.43	89	197	45	2021	East Limb
21BSG-020	501345	7421681	432.92	149	280	47	2021	Gnu
21BSG-021	501239	7421521	453.05	124.3	290	45	2021	Central
21BSG-022	501296	7421657	436.2	149	10	45	2021	Gnu
21BSG-023	501259	7421786	439.35	173	255	50	2021	Gnu
21BSG-024	501151	7421529	459.79	83	79	45	2021	Central
21BSG-025	501131	7421087	470.65	280	59	47	2021	Flood Zone/Axis
BS2020-ULU-001	500850	7421056	461.1	400	17	65	2020	Flood Zone
BS2020-ULU-002	501229	7421062	471.73	17	270	50	2020	Flood Zone
BS2020-ULU-003	501229	7421062	471.73	350	270	55	2020	Flood Zone
BS2020-ULU-004	500882	7421537	458.55	641	205	62	2020	Flood Zone
BS2020-ULU-005	501045	7421285	468.04	536	230	57	2020	Flood Zone
BS2020-ULU-006	501045	7421285	468.04	542	217	61	2020	Flood Zone
BS2020-ULU-007	501150	7421755	445.28	170	27	50	2020	Gnu

table continues…

Drillhole	Easting	Northing	Elevation	Length (m)	Azimuth	Dip	Year	Target
BS2020-ULU-008	501150	7421755	445.28	101	27	65	2020	Gnu
BS2020-ULU-009	501105	7421781	446.93	130.5	27	45	2020	Gnu
BS2020-ULU-010	501105	7421781	446.93	142	27	60	2020	Gnu
BS2020-ULU-011	500802	7423170	448.76	284	234	55	2020	Contact
BS2020-ULU-012	500902	7422979	449.62	383	275	50	2020	Contact
DD22-AXS-001	501192	7421127	472.61	135	27	50	2022	Axis
DD22-CEN-C-001	501426	7421311	456.431	98	207	50	2022	Central
DD22-CEN-C-002	501426	7421311	456.427	167	207	65	2022	Central
DD22-CEN-C-003	501488	7421283	453.508	128	207	45	2022	Central
DD22-CEN-C-004	501379	7421376	457.512	80	203	55	2022	Central
DD22-FLO-001	501298	7421028	465.133	71	55	60	2022	Flood Zone
DD22-FLO-002	501173	7420975	472.554	194	55	60	2022	Flood Zone
DD22-FLO-003	501507	7420939	436.53	149	51	50	2022	Sediment Core
DD22-FLO-004	501444	7420883	443.753	191	52	50	2022	Sediment Core
DD22-FLO-005	501268	7420934	466.925	83	15	57	2022	Flood Zone
DD22-FLO-006	501228	7420970	467.989	122	23	47	2022	Flood Zone
DD22-FLO-007	500960	7421127	460.145	74	300	50	2022	Flood Zone
DD22-FLO-008	501228	7421074	471.141	80	26	50	2022	Flood Zone
DD22-IGU-001	501286	7421731	439.292	50	110	57	2022	Gnu
DD22-IGU-001A	501286	7421731	439.292	104	109	53	2022	Gnu
DD22-MIQ-001	501312	7421662	434.596	200	10	65	2022	Gnu
DD22-MIQ-002	501215	7421676	440.356	167	10	65	2022	Gnu
DD22-MIQ-003	501214	7421650	440.477	199.3	10	65	2022	Gnu
DD22-MIQ-003A	501213	7421650	440.477	197	5	62	2022	Gnu
DD22-MSK-001	501081	7421841	445.712	194	117	55	2022	Gnu
DD22-MSK-002	501151	7421848	442.489	71	103	55	2022	Gnu
DD22-MSK-003	501106	7421829	445.526	131	118	55	2022	Gnu
DD22-MSK-004	501094	7421801	447.406	152	116	47	2022	Gnu
DD22-MSK-005	501094	7421801	447.406	140	116	62	2022	Gnu
DD22-QIP-001	501240	7421706	440.287	83	110	50	2022	Gnu
DD22-QIP-002	501142	7421736	445.414	230	105	57	2022	Gnu
DD22-QIP-003	501232	7421742	441.832	134	90	55	2022	Gnu
DD22-QIP-004	501212	7421650	440.457	74	92	50	2022	Gnu
HR19-001	500484	7425638	426.31	155	323	45	2019	NFN

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Drillhole	Easting	Northing	Elevation	Length (m)	Azimuth	Dip	Year	Target
HR19-002	500702	7425695	420.21	83	70	60	2019	NFN
HR19-003	500702	7425695	420.21	152	50	70	2019	NFN
HR19-004	500715	7425673	420.72	146	95	69	2019	NFN
HR19-005	500715	7425673	420.72	86	70	60	2019	NFN
HR19-006	500620	7425629	425.53	188	70	45	2019	NFN
HR19-007	500620	7425629	425.53	183	70	60	2019	NFN
HR19-008	500661	7425670	424.83	116	40	60	2019	NFN
HR19-009	500661	7425670	424.83	116	40	75	2019	NFN
HR19-010	500661	7425670	424.83	137	40	87	2019	NFN
HR19-011	500701	7425415	422.09	173	309	45	2019	NFN
HR20-013	500677	7425640	423.98	126	40	55	2020	NFN
HR20-014	500677	7425640	423.98	151	40	73	2020	NFN
HR20-015	500677	7425640	423.98	181	240	79	2020	NFN
HR20-016	500677	7425640	423.98	210.5	240	58	2020	NFN
HR20-017	500677	7425640	423.98	215	240	45	2020	NFN
HR20-018	500608	7425588	425.52	211	67	86	2020	NFN
HR20-019	500608	7425588	425.52	164	67	73	2020	NFN
HR20-020	500662	7425622	424.54	154	67	55	2020	NFN
HR20-021	500662	7425622	424.54	148	67	76	2020	NFN
HR20-022	500662	7425622	424.54	163	67	88	2020	NFN
HR20-023	500626	7425678	424.89	109	67	85	2020	NFN
HR20-024	500626	7425678	424.89	120.5	40	60	2020	NFN
HR20-025	500626	7425678	424.89	101	247	70	2020	NFN
HR20-026	500626	7425678	424.89	133	245	48	2020	NFN
HR20-027	500568	7425157	437.65	100	356	45	2020	INT
HR20-028	500568	7425157	437.65	145	356	70	2020	INT
HR20-029	500872	7424437	461.49	314	90	45	2020	Bizen
HR20-030	500785	7423707	471.27	300.7	290	55	2020	Apex
HR20-031	500781	7423684	471.02	161	180	45	2020	Apex
HR20-032	500781	7423684	471.02	111.5	180	75	2020	Apex
HR20-033	505876	7418227	426.79	149	45	45	2020	Crown
HR20-034	505876	7418227	426.79	89	45	85	2020	Crown
HR20-035	505901	7418239	426.36	152	290	55	2020	Crown
HR20-036	504480	7421380	378.82	107	15	55	2020	PC

table continues…

Drillhole	Easting	Northing	Elevation	Length (m)	Azimuth	Dip	Year	Target
HR20-037	504480	7421380	378.82	46	15	87	2020	PC
HR20-038	504480	7421380	378.82	62	1	70	2020	PC

10.1 Flood Zone Drilling

Drilling at the Flood Zone by Blue Star Gold included 17 holes for 4,125 m. The objectives for drilling differed from campaign to campaign as follows: 2020 targeted deep gaps in inferred grade shells based on the 2015 geological model; in 2021, drilling selected potential shallow gaps in interpreted grade to improve continuity in the geological model; and in 2022, drilling was executed to provide additional data in select areas to improve continuity of the geological and resource models in shallow portions of the deposit.

Overall results from 2020

Six drillholes (BS2020-ULU-001 to BS2020-ULU-006) were completed at the Flood Zone in 2020, totalling 2,486 m. Two holes were drilled relatively shallow in the southeast end of the deposit (BS2020-ULU-002 and 003), three holes were drilled in a rough fence in the middle of the deposit (BS2020-ULU-001, 005, and 006), and one hole was drilled down plunge at the north end of the known deposit (BS2020-ULU-004). The two holes in the southeast were drilled from east to west roughly along the strike of the known mineralization, and although they intersected the mineralized structure where expected, these holes do not follow best practices in mineral exploration. The other drillholes from this year generally intersected mineralization where expected based on the 2015 geological model and returned moderate gold grades, in some cases adding a small amount of tonnage to the resource. However, they were generally drilled too close to existing drillholes to add much information.

Overall results from 2021

All three holes testing the Flood Zone returned significant results. 21BSG-001 intercepted acicular arsenopyrite mineralization, expanding the higher-grade core to the southeast. 21BSG-002 intercepted acicular arsenopyrite mineralization with visible gold, expanding the HG core of the Flood Zone into a previously modelled grade gap. Hole 21BSG-025 was targeting the Flood Zone shallowly and the Axis Zone at mid-depths. The hole intersected better than expected mineralization, including visible gold at 26 m downhole.

Overall results from 2022

The 2022 drill program saw six holes (DD22-FLO-001 and -002 and DD22-FLO-005 to -008) for 624 m. DD22-FLO-001 intersected mineralization where previous drilling ended at the very edge of the resource model, leaving the Flood Zone open at shallow depths to the southeast. DD22-FLO-002 targeted a sparsely-drilled area of the Flood Zone and intersected a 17.65 m wide interval of 15.00 g/t Au. DD22-FLO-005 was drilled to test a zone hanging-wall to the main Flood Zone but returned insignificant gold results. Hole DD22-FLO-006 intersected and expanded a shallow zone hanging-wall to the main Flood Zone. Hole DD22-FLO-007 intersected a 4.62 m wide zone of mineralization from 6.66 m depth, confirming the potential for mineralization to be developed in oblique orientations to the Flood Zone. Hole DD22-FLO-008 intercepted a zone footwall to the main Flood Zone, which had previously been drilled from a poor direction.

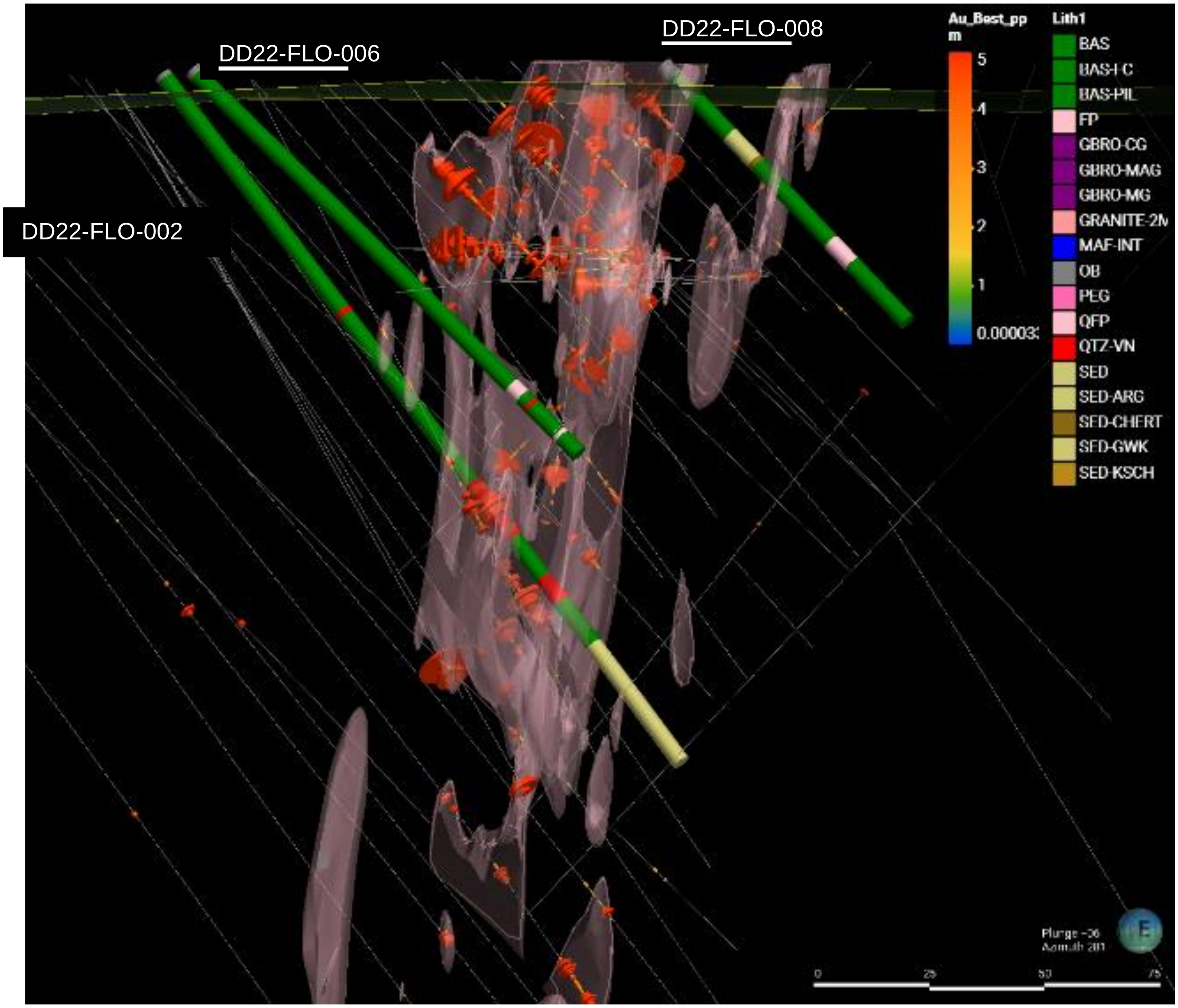

Figure 10-3: Type Section for Flood Deposit

(200 m wide Cross-section Looking East [towards 281°]. 2022 and 2021 drillholes are shown with lithologies. All other drillholes are shown as traces. The 2021 Goldspot vein model is shown in translucent pink)

Table 10-4: Significant Results from Blue Star Gold Flood Zone Drilling

Significant Flood Zone Intercepts					
Hole	**Target**	**From (m)**	**To (m)**	**Interval (m)**	**Au (g/t)**
BS2020-ULU-001	Flood Zone	78	79	1	2.95
and		243	245	2	4.65
including		243	244.1	1.1	7.85
and		295	299	4	1.24
BS2020-ULU-002	Flood Zone	9	16	7	13.42
including		12	13	1	31.5
and		13	14	1	17.95
and		14	15	1	23
and		15	16	1	13.65
BS2020-ULU-003	Flood Zone	13	22	9	8.67
and		110	118	8	8.26
and		160	164	4	8.17
BS2020-ULU-004	Flood Zone	400	401	1	2.72
and		448	449	1	2.62
and		481	482	1	4.21
BS2020-ULU-005	Flood Zone	426.2	440	13.8	14.65
and		446	449	3	11.57
and		453	455	2	9.26
and		459	465	6	9.65
BS2020-ULU-006	Flood Zone	407	411	4	12.5
and		432	436	4	9.98
and		487	501	14	4.23
and		504	511	7	12.5
21BSG-001	Flood Zone	7.77	12.68	4.91	19.1
and		25.48	32.48	7	6.9
21BSG-002	Flood Zone	164.48	167.12	2.64	13
21BSG-025	Flood Zone	18	19.44	1.44	5.59
and		25.15	29.8	4.65	5.8
DD22-FLO-001	Flood Zone	4.4	21.8	17.4	6.52
including		4.4	10.7	6.3	9.96
including		14.8	17.8	3	10.56
and		30.1	30.7	0.5	19.8

table continues…

Significant Flood Zone Intercepts					
Hole	Target	From (m)	To (m)	Interval (m)	Au (g/t)
and		38.3	41.3	3	7.62
including		39.3	41.3	2	10.72
DD22-FLO-002	Flood Zone	115.2	132.8	17.7	15
including		119.8	124.8	5	27.68
and		137.8	138.9	1.1	2.75
and		143	148.7	5.7	5.31
DD22-FLO-005	Flood Zone	32.8	33.34	0.54	1.06
DD22-FLO-006	Flood Zone	51.16	52	0.84	4.7
and		60.93	71.35	10.42	4.41
DD22-FLO-007	Flood Zone	6.66	11.28	4.62	3.52
and		38.46	40	1.54	2.32
DD22-FLO-008	Flood Zone	48.97	50.53	1.56	2.54
DD22-FLO-006	Flood Zone	51.16	52	0.84	4.7
and		60.93	71.35	10.42	4.41
DD22-FLO-007	Flood Zone	6.66	11.28	4.62	3.52
and		38.46	40	1.54	2.32
DD22-FLO-008	Flood Zone	48.97	50.53	1.56	2.54

10.1.1 Flood Zone Drill Hole Summaries

BS2020-001 was drilled as part of a fence along with holes BS2020-005 and BS2020-006. It was drilled above a wide mineralized zone and pierced within 10 m of existing drillholes, so it does not seem to have had any impact in terms of adding geological knowledge or tonnage.

BS2020-002 was a shallow hole drilled in the southeast part of the Flood Zone, along with hole BS2020-003. The shallowest intercept from 9–16 m depth returned 7 m of 13.42 g/t Au. This may have expanded tonnage by adding to the mineralization shape.

BS2020-003 was drilled in the southeast part of the Flood Zone. The shallowest intercept of this hole from 13–22 m may have added a small amount of tonnage by expanding the mineralization shape by a few metres. This intercept returned 8.67 g/t Au over 9 m. A mid-level intercept from 110–118 m returned 8.26 g/t over 8 m. A deeper intercept from 160–164 m returned 8.17 g/t Au over 4 m. This interval may have added some tonnage as the mineralization interpretation was expanded to capture this intercept; however, it is already within the inferred spacing.

BS2020-004 may have been drilled to target a narrow HG zone. However, the drill hole appears to have deviated more than expected and probably missed the target.

BS2020-005/006 were drilled as two scissor holes. These holes had limited impact as two shallower intercepts of mineralization were within the existing mineralization shell and within 20 m of existing intercepts. Therefore the impact, at best, may be moving inferred tonnes to the indicated category. The deeper intercept, although close to previous intercepts, lays outside of the mineralization shape and, therefore, will add some tonnes to the resource and most likely in the indicated or even measured category due to the proximity of existing drill intercepts.

21BSG-001 was drilled to evaluate a complex area in the shallow southeast part of the Flood Zone proximal to the sediment–basalt contact and to evaluate the Axis trend at a moderate depth. The interval from 7.77–13.68 m was intensely silicified and calc-silicate altered mafic volcanic rock with 7–10% acicular arsenopyrite and visible gold, and it returned 19.1 g/t gold over the 4.91 m. The expected extension of the Axis Zone was drilled but returned no significant values.

21BSG-002 was drilled to intersect the mineralized zone at a perpendicular angle, as historical drilling in the vicinity of this hole had been drilled at an oblique angle. From 164.48–167.12 m, an intensely silicified alteration zone with K-feldspar and diopside hosts 7–10% acicular arsenopyrite with pyrite, pyrrhotite, and fine specks of visible gold. This interval returned 13.0 g/t gold over 2.64 m.

21BSG-025 returned several anomalous gold intervals near the top of the hole (5.59 g/t gold from 18.00–19.44 m; 5.80 g/t gold over 4.65 m from 25.15–29.80 m; 9.18 g/t gold over 0.43 m from 38.35–38.78 m; 1.85 g/t gold over 0.87 m from 44.13–45.00 m) corresponding to mineralized planes within or slightly footwall to the Flood Zone. All zones correlate with increased As and variable Ti content of the basalt host rock.

DD22-FLO-001 intersected 6.52 g/t over 17.4 m and 7.62 g/t over 3.0 m in an area of the Flood Zone where previous drilling ended in the mineralized zone at the very edge of the resource model**.** These intercepts are within a structurally disrupted zone between a high Fe-Ti basalt unit and a lower Fe-Ti basalt unit immediately adjacent to the sediment fold hinge. These results appear to leave the Flood Zone open at shallow depths to the southeast.

DD22-FLO-002 intersected 15.00 g/t gold over 17.65 m and 5.30 g/t gold over 5.70 m in a sparsely drilled area of the Flood Zone at approximately 100 m vertical depth. Both intercepts are within a structurally disrupted zone between a high Fe-Ti basalt unit and a lower Fe-Ti basalt unit immediately adjacent to the sediment fold hinge.

DD22-FLO-005 was drilled to test a hanging wall zone to the main Flood Deposit and better define the basalt sediment contact on the west side of the Ulu fold. The hole encountered basalt, a transitional contact zone and then greywacke. A 2 m zone of strain and alteration was encountered in the transitional basalt immediately above the sediment contact with disseminated pyrite> pyrrhotite and trace arsenopyrite. Assays indicated gold was present, indicating continuity of the zone, but grades were insignificant.

DD22-FLO-006 was drilled to evaluate additional hanging wall zones closer to the main Flood Deposit. Pillowed to massive basalt was intersected and intruded by numerous QFP dykes. Moderate to strong calc-silicate alteration with increasing silicification occurs in the upper 75 m of the hole, with short sections of acicular arsenopyrite present within the 61–71 m interval and potentially around 51.5 m. A 1 m quartz veined occurs at 106.4 m within a sheared basalt. Assays expanded the shallow hanging wall zone with results of 4.41 g/t gold over 10.42 m.

DD22-FLO-007 evaluated an inferred oblique structure in the Flood Zone. This hole cut only pillowed basalt; calc-silicate alteration of varying intensity was observed throughout the drill hole. Mineralization included acicular arsenopyrite observed between 7.84–10.76 m. Assays indicated the potential for the oblique mineralized structure to the Fold Zone with a result of 3.52 g/t Au over 4.62 m, including 7.31 g/t over 1.56 m.

DD22-FLO-008 was drilled to evaluate a footwall zone that had previously been drilled from a poor direction. The hole intercepted pillow basalt and basalt flow core rock, with short intervals of argillite and chert. A fault zone with gouge and fractured core is intersected from 12.78–13.55 m; a second fault occurs from 76.50–76.53 m. A chert interval and the marginal basalt are mineralized with 1.5% blocky arsenopyrite from 27.18 m–31.16 m. A second mineralized interval from 48.97–50.53 m is developed in strained basalt containing 7% acicular/blocky/stringer arsenopyrite, 5% pyrrhotite, and 3% pyrite stringers. This interval returned 2.54 g/t Au over 1.56 m.

10.2 NFN Target and Ulu Fold Hinge Drilling

Drilling at the NFN by Blue Star included 28 holes for 4,088 m. The objectives for drilling differed from campaign to campaign as follows: 2019 drilling followed up on HG surface samples and infilled historic previous HG drill results to approximately 30 m centres, drilling in 2020 tested mineralization along a strike length of 200 m, and the 2021 drill program tested the sediment basalt contact for mineralization.

Overall results from 2019

Target mineralization was intersected in all holes (HR19-001 to HR19-011), confirming high grades of surface samples with intersections of up to 32.5 g/t Au over 1.0 m in -009. HG gold mineralization was identified within a highly folded and sheared quartz-flooded zone at the contact between meta-volcanic and metasedimentary rocks. The mineralized zone was found to extend for more than 50 m along the strike, with an approximate average thickness of 4 m and has been traced for over 130 m down dip.

Overall results from 2020

Holes HR20-013 to HR20-026 tested a 100 m x 215 m area of NFN to 180 m depth. All the holes intersected the targeted structure, and 12 of 14 returned significant gold grades. The mineralized intervals were typically 2–4 m wide and in quartz-carbonate-sericite-pyrrhotite-arsenopyrite shear veins. Higher grade intercepts included 13.87 g/t Au over 3.00 m (HR20-17) and 13.18 g/t Au over 2.00 m (HR20-13). The two holes (HR20-19 and HR20-26) that failed to return anomalous gold values tested the northwestern and southern boundaries of drill coverage and intersected the targeted contact; however, only moderate silicification and traces of arsenopyrite were observed.

Prospecting and channel sampling in 2019 and 2020 highlighted the Bizen showing and the newly discovered INT Zone, 1,200 m and 400 m south of the NFN, respectively. As a result, INT was tested with two holes in 2020 (HR20-027 and -028), and the Bizen showing with one (HR20-029) that intercepted some narrow, moderate-grade zones and some broad low-grade intercepts.

Overall results from 2021

21BSG-013 and -017 both intersected polymetallic quartz veins at the basalt-sediment contact on the west and east limbs.

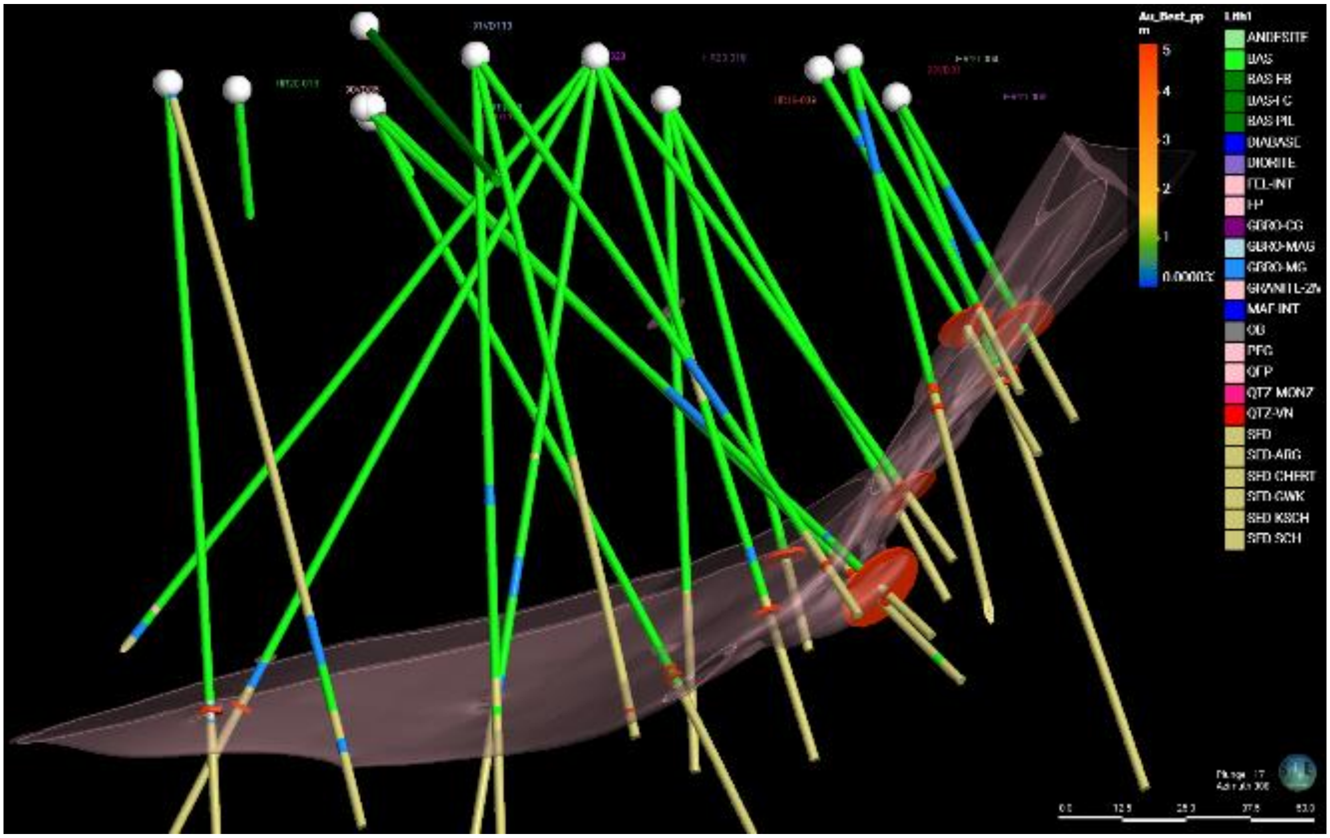

Figure 10-4: Type Section of NFN Zone

The section is 100 m wide. Veining developed at the contact between basalt, and sedimentary rock is shown with the translucent pink layer (modelled by Goldspot 2021). The view is looking east (towards 308°).

Table 10-5: Significant Results from NFN Zone Drilling

Significant NFN Intercepts					
Hole	Target	From (m)	To (m)	Width (m)	Au (g/t)
HR19-001	NFN	113.00	114.00	1.00	1.11
HR19-002	NFN	56.00	62.00	6.00	12.92
including		57.00	58.00	1.00	25.40
including		58.00	59.00	1.00	48.70
HR19-003	NFN	61.00	64.00	3.00	15.19
including		61.00	62.00	1.00	31.10
including		63.00	64.00	1.00	14.20
HR19-004	NFN	78.00	88.00	10.00	4.14
including		79.00	80.00	1.00	9.58
including		80.00	81.00	1.00	9.70
including		84.00	85.00	1.00	10.30
including		87.00	88.00	1.00	6.83
HR19-005	NFN	64.00	66.00	2.00	5.33
including		64.00	65.00	1.00	9.51
HR19-006	NFN	152.00	154.00	2.00	8.47
including		152.00	153.00	1.00	4.23
including		153.00	154.00	1.00	12.70
HR19-007	NFN	139.00	143.00	4.00	6.84
including		140.00	141.00	1.00	10.95
including		142.00	143.00	1.00	13.25
HR19-008	NFN	86.00	91.00	5.00	1.77
including		90.00	91.00	1.00	5.86
HR19-009	NFN	91.00	97.00	6.00	5.89
including		96.00	97.00	1.00	32.50
HR19-010	NFN	101.00	102.00	1.00	2.19
HR19-011	NFN	no significant results			
HR20-013	NFN	109.00	111.00	2.00	13.18
HR20-014	NFN	118.00	122.00	4.00	7.59
HR20-015	NFN	132	134	2	1.22
HR20-016	NFN	143.00	145.00	2.00	10.85
HR20-017	NFN	164.00	167.00	3.00	13.87
HR20-018	NFN	127	129	2	9.1

table continues…

Significant NFN Intercepts					
Hole	**Target**	**From (m)**	**To (m)**	**Width (m)**	**Au (g/t)**
including		128	129	1	17.9
HR20-019	NFN	150	151	1	0.56
HR20-020	NFN	140.00	144.00	4.00	5.52
including		142.00	143.00	1.00	6.79
HR-20-021	NFN	141.50	143.00	1.50	6.39
including		142.10	143.00	0.90	8.70
HR20-022	NFN	139	141	2	1.68
HR20-023	NFN	86.7	89.3	2.6	1.87
HR20-024	NFN	90	92	2	2.42
HR20-025	NFN	86	88	2	2.0
HR20-026	NFN	no significant results			
21BSG-013	NFN	101.29	101.95	0.66	2.33
21BSG-017	NFN	171.26	173.39	2.05	10.10
including		172.85	173.31	0.46	17.00
Significant Intercepts Peripheral to NFN					
HR20-027	INT	15.00	17.00	2.00	0.97
HR20-028	INT	no significant results			
HR20-029	Bizen	156.00	157.00	1.00	1.37
and		164.00	165.00	1.00	2.73
and		250.00	251.00	1.00	1.66
and		262.00	263.00	1.00	1.05

10.2.1 NFN Drill Hole Summaries

HR19-001 was drilled to test the volcanic-sediment contact on the western limb of NFN. The contact was intersected at 56.6 m depth. A 13 m zone of anomalous gold was sampled between 107 m and 120 m, including 1 m of 1.1 g/t Au from 113–114 m within a strongly silicified meta-sedimentary schist. Trace arsenopyrite was observed from 112.4–113.8 m in the sediments.

HR19-002 tested the volcanic-sediment contact on the eastern limb of the NFN syncline. The contact was intersected at 60.8 m depth. Sulphides were observed concentrated in meta-volcanics at the hanging wall, grading 12.92 g/t Au over 6 m (56.0–62.0 m). The observed sulphides included trace arsenopyrite, pyrrhotite, pyrite, sphalerite, and trace chalcopyrite and galena, concentrated adjacent to a quartz-flooded vein.

HR19-003 tested the same eastern limb volcanic-sediment contact as HR19-002, targeting the contact downdip from the previous hole as well as along the strike. The contact was intersected at 62.2 m. Sulphides were concentrated in the hanging wall within meta-volcanics, along with moderate to strong silicification. The interval from 61.0–64.0 m graded a weighted average of 15.19 g/t Au and 5.45 g/t Ag over 3 m.

HR19-004 tested the volcanic-sediment contact at the same location as 90-VD-81 but was drilled towards the east, downdip, and along the strike of the historical intercept. The contact between volcanic and sedimentary rock was intersected at 81.3 m. Shearing, brecciation, and silicification of the volcanic rock occur from 78–82 m. The interval from 78–88 m graded a weighted average of 4.14 g/t Au and 2.91 g/t Ag over 10 m.

HR19-005 tested the volcanic-sediment contact by twinning hole 90-VD-81 from the same location as HR19-004. The hole tested for mineralization downdip and along strike of the historical intercept. The contact between volcanic and sedimentary rock was intersected at 64.1 m. Shearing and silicification occur between 63.5–79.0 m. It is included a 4 m interval (64.1–68.0 m) with moderate silicification, quartz veining, and banded sulphides. The interval from 64.00–66.00 m graded a weighted average of 5.33 g/t Au and 2.05 g/t Ag over 2 m.

HR19-006 tested the volcanic-sediment contact from the location as 91-VD-111, testing for mineralization downdip of the mineralized intercept in HR19-005. The contact between volcanic and sedimentary rock was intersected at 146.5 m. The interval from 152.00–154.00 m returned a weighted average of 8.47 g/t Au and 2.3 g/t Ag over 2 m.

HR19-007 tested the volcanic-sedimentary rock contact from the same pad as hole HR19-006, testing the mineralization downdip of the mineralized intercept in hole HR19-006. The contact between volcanic and sedimentary rock was at 144.0 m. The interval from 139.00–143.00 m returned a weighted average of 6.84 g/t Au and 1.77 g/t Ag over 4 m.

HR19-008 tested the volcanic-sedimentary rock contact. The contact between volcanic and sedimentary rock was intersected at 87.2 m. The interval from 86.00–91.00 m returned a weighted average of 1.77 g/t Au and 2.54 g/t Ag over 5 m.

HR19-009 tested the volcanic-sedimentary rock contact from the same pad as HR19-008 and tested for mineralization downdip of the intercept in hole HR-19-008. The contact was intersected at 96.4 m. The interval from 93.00–97.00 m returned a weighted average of 11.54 g/t Au and 22.11 g/t Ag over 4 m.

HR19-010 tested the volcanic-sedimentary rock contact from the same pad as HR19-009, testing the downdip of the mineralized intercept in the earlier drillhole. The contact was intercepted at 100.30 m. The interval from 101.00–102.00 m returned 2.19 g/t Au over 1 m.

HR19-011 tested the INT Zone in volcanic rock, 270 m south of NFN, where channel sampling had returned 5.49 g/t and 4.2 g/t Au over 4.2 m (samples 622008-13). Pervasive strong silicification in mafic volcanic rock was intersected from 32.0–33.4 m, followed by shearing. Another shear was intersected at 48.80 m. No significant results were returned.

HR19-012 tested the volcanic-sedimentary rock contact from the same pad as hole HR19-011. The hole was abandoned at 5 m in mafic volcanic rock, and tools were lost in the hole. No intervals were sampled.

HR20-013 through HR20-026 tested the NFN target in fences along a consistent azimuth to obtain a spacing of roughly 30 m. As multiple holes were drilled from single pads, drill intercepts were not always orthogonal to the targeted zone. The major rock types intersected by these drill holes consisted of fine to medium-grained basalt, sediments (schist and greywacke), and gabbro. Shear zones were observed at the volcanic-sedimentary rock contacts. Alteration typically consisted of biotite and calc-silicate alteration, which extended tens of metres into the basalts hanging-wall of the volcanic-sedimentary rock contacts. All drillholes intersected the target mineralization, which consisted of quartz-carbonate-sericite-pyrrhotite-arsenopyrite (polymetallic) shear veins, generally in 2– 4 m wide intervals. Only HR20-019 and HR20-026, testing the northwestern and southern boundaries of 2020's drill coverage, did not return significant gold values despite intersecting the silicified contact. Some of the higher-grade intercepts include 13.87 g/t Au over 3 m (HR20-17) and 13.18 g/t Au over 2 m (HR20-13).

HR20-027 tested the INT target, drilling along the inferred fold axis and producing a best intercept of 0.97 g/t Au over 2 m within basalt from a zone with slightly elevated amounts of background pyrrhotite and pyrite (up to 3%), silicification and moderate calc-silicate alteration. The intercept correlates to very weakly elevated arsenic values.

HR20-028 was drilled as the deeper hole of a scissor with HR20-027 to test the INT target, but did not intercept any zones of note, nor did it return any significant gold grades. Silicification and calc-silicate alteration were observed throughout, along with background pyrrhotite and pyrite mineralization.

HR20-029 tested Bizen, targeting the east limb contact. The hole was collared in basalt, transitioning to gabbro at 140.7 m, followed by sediments from 158 m until the end of the hole. The hole resulted in four 1.0 m intervals from the calc-silicate altered and moderately silicified sediment returning respectively, 1.37, 2.73, 1.66, and 1.05 g/t gold, none of which were associated with elevated arsenic values despite trace arsenopyrite being logged in all of the intervals.

21BSG-013 was drilled from east to west to test the basalt-sedimentary rock contact on the west side of the NFN. The contact was intersected at ~101.29 m. Here it is mineralized with 2% blebby arsenopyrite, 6% pyrrhotite, and 7% pyrite. Muscovite, carbonate, and chlorite-actinolite define the alteration. From 101.29–101.95 m, this interval graded 2.33 g/t over 0.66 m.

21BSG-017 was drilled from south to north to test the basalt-sedimentary rock contact on the east side of the NFN. The contact was intersected at ~171.26 m. Here, it is mineralized with 2% pyrrhotite, 1% pyrite, and 1% anhedral and blocky arsenopyrite, and visible gold is noted. It is sheared with intense, pervasive silicification and quartz veining. The interval from 171.26–173.39 m graded 10.1 g/t over 2.05 m.

10.3 Gnu (Nutaaq) Zone

Drilling at the Gnu, renamed the Nutaaq Zone by Blue Star, included 26 holes for 3,854 m. The objectives for drilling differed from campaign to campaign as follows: 2020 drilling used two, two-hole scissor fences to box around a historical HG intercept, 2021 drilling planned to further evaluate the historically modelled acicular arsenopyrite trend and re-evaluate the area tested in 2020. Drilling at the Gnu Zone in 2022 focused on expanding the known extent of newly identified mineralized structures and further evaluating the area of HG tested in 2020 and 2021.

Overall results from 2020

Four drill holes in two scissors (BS2020-ULU-007 to BS2020-ULU-010) were drilled on either side of 92VD161 (intercept of 3.2 m of 14.5 g/t gold). The two shallower holes tested above the linear projection of the trend as interpreted in 2015. The two holes that were to undercut the horizon were shut down too early. BS2020-ULU-007 returned a strong shallow intercept of 2 m of 52.7 g/t gold from 25 m.

Overall results from 2021

Seven drill holes tested acicular and polymetallic mineralization. 21BSG-005 and 21BSG-007 targeted acicular arsenopyrite mineralization below intercepts in 92VD135 and 92VD150. Both intersected the acicular arsenopyrite mineralization plane at ~138 m (with 0.6 m of 2.9 g/t Au from 138.20–138.80 m and 1.54 m of 5.53 g/t Au from 146.86–148.40 m) and at ~162 m (with 8.15 m of 20.8 g/t Au from 162.10–170.25 m) respectively. 21BSG-007 intersected a polymetallic vein at an oblique angle higher in the hole; this mineralization was investigated at a perpendicular angle with hole 21BSG-020, which intersected the polymetallic mineralization at 111.76–117.10 m with 5.34 m of 3.72 g/t Au. Hole 21BSG-022 targeted the acicular arsenopyrite mineralization to the east of the earlier 2021 drill intercepts and intersected it at 128.63–129.63 m with 1 m of 1.32 g/t Au. Hole 21BSG-006 targeted another western, polymetallic vein and intersected it high in the hole from 48.04–50.22 m with 2.18 m of 11.06 g/t Au. Holes 21BSG-008 and 21BSG-023 targeted the polymetallic veins as modelled, but neither intersected mineralization.

Overall results from 2022

2,127 m across 15 drillholes were completed in 2022, targeting north-south, linear polymetallic veins and east-west acicular arsenopyrite mineralization. All mineralization planes were remodelled in 2022 prior to drilling based on surface mapping and drill results. Two veins were successfully targeted, and one was newly discovered. Acicular arsenopyrite mineralization was found to be limited in size but may be continuous at depth. Two holes were abandoned and redrilled. DD22-IGU-001 was evaluating a vein intersected in DD22-MIQ-001 earlier in the season, which returned 0.68 m of 1.06 g/t gold. The initial drill hole was lost due to a driller error and was redrilled (as DD22-IGU-001A). DD22-MIQ-003 was abandoned in mineralization at 196.71 m and was redrilled as DD22-MIQ-003A. Three holes did not intersect mineralization. DD22-MSK-002 was drilled too close to the gabbro-sedimentary rock contact, where necessary space for mineralization was not developed. DD22-MSK-004 intersected an alteration and structurally complex area, which may represent the margin of the polymetallic mineralization. Remodelling of the Qipjaak vein in 2022 shows that DD22-QIP-003 may have been drilled too short to intersect the mineralization.

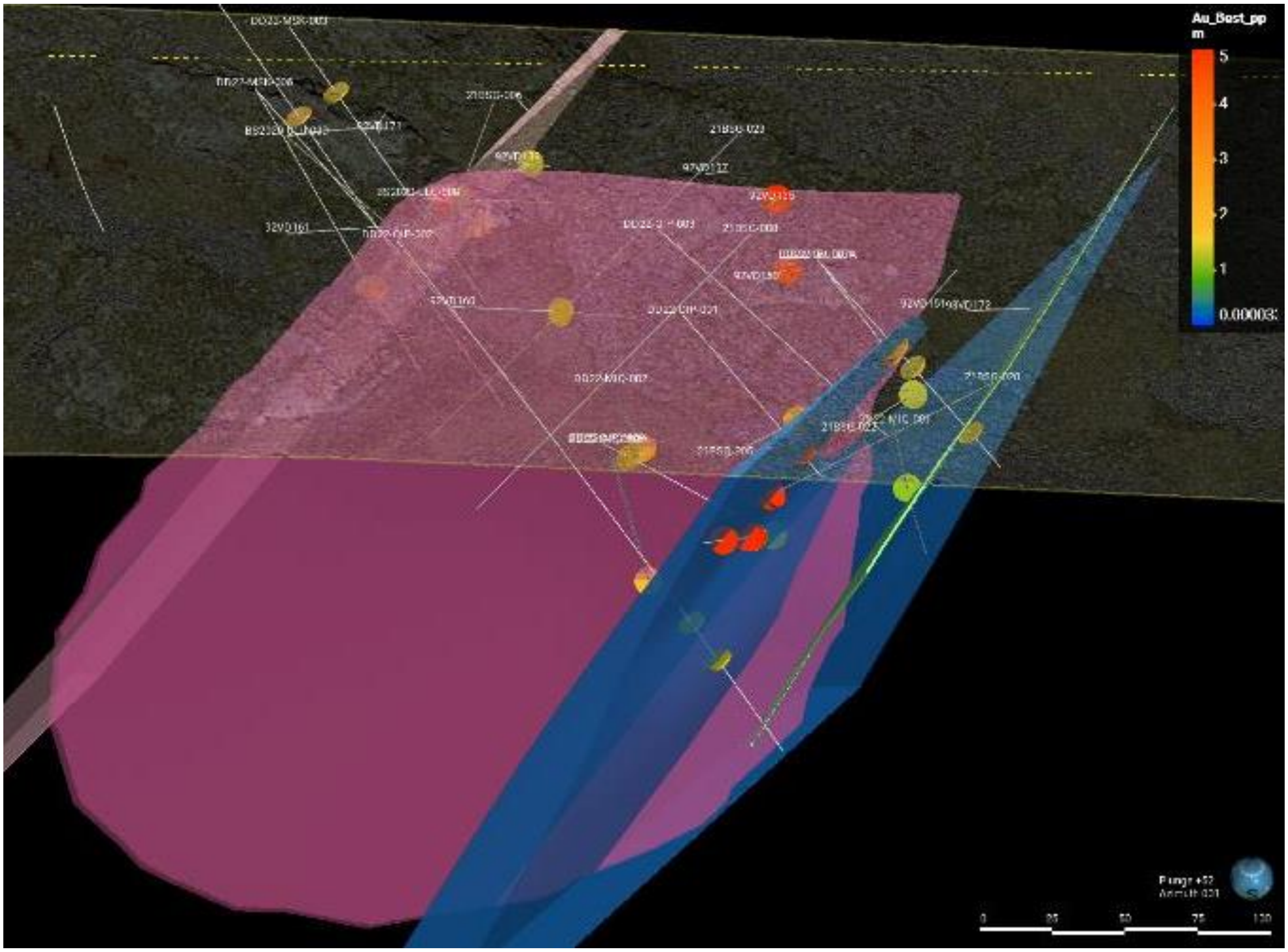

Figure 10-5: Gnu Zone Model (Current November 2022).

(Four planes of mineralization are shown: the acicular arsenopyrite mineralization [dark pink], and the three polymetallic veins, from west to east: Miksuk [light pink], Qipjaak [dark blue], Igutaaq [green]. The view is looking north [towards 001°] and angled down onto the topography. The 'slice' of the view is 400 m wide)

Table 10-6: Results from Gnu (Nutaaq) Zone Drilling

Significant Nutaaq Zone Intercepts					
Hole	**Target**	**From (m)**	**To (m)**	**Interval (m)**	**Au (g/t)**
BS2020-ULU-007	Miksuk	25.00	27.00	2.00	52.70
BS2020-ULU-008	Miqqut	no significant results			
BS2020-ULU-009	Miksuk	no significant results			
BS2020-ULU-010	Miksuk	no significant results			
21BSG-005	Miqqut	138.20	138.80	0.60	2.90
and		146.86	148.40	1.54	5.53

table continues…

Significant Nutaaq Zone Intercepts					
Hole	**Target**	**From (m)**	**To (m)**	**Interval (m)**	**Au (g/t)**
21BSG-006	Miksuk	48.04	50.22	2.18	11.06
including		48.04	49.15	1.11	18.10
21BSG-007	Miqqut	101.50	103.50	2.00	4.80
including		101.50	102.50	1.00	8.30
and		138.20	138.80	0.60	2.90
and		146.86	148.40	1.54	5.53
and		162.10	170.25	8.15	20.80
including		162.10	164.00	1.90	61.70
and		168.00	169.56	1.56	28.80
21BSG-008	Miqqut	no significant results			
21BSG-020	Qipjaak	111.76	117.10	5.34	3.72
including				0.83	12.95
21BSG-022	Miqqut	128.63	129.63	1.00	1.32
21BSG-023	Miqqut	no significant results			
DD22-IGU-001	Iguttaq	48.75	50.00	1.25	4.34
including		48.75	49.25	0.50	8.38
DD22-IGU-001A	Iguttaq	46.76	47.94	1.18	6.78
including		47.25	47.94	0.69	10.25
and		56.50	58.00	1.50	1.48
and		91.73	92.16	0.43	1.53
DD22-MIQ-001	Miqqut	97.30	98.00	0.70	1.06
DD22-MIQ-002	Miqqut	137.40	140.40	3.00	2.51
DD22-MIQ-003	Miqqut	195.70	196.70	1.00	2.17
DD22-MSK-001	Miksuk	55.40	56.40	1.00	2.45
and		124.24	126.60	2.36	8.50
including		126.00	126.60	0.60	20.10
DD22-MSK-002	Miksuk	no significant results			
DD22-MSK-003	Miksuk	30.63	31.60	1.00	1.60
and		93.20	94.91	1.71	1.90
including		94.23	94.91	0.68	3.93
DD22-MSK-004	Miksuk	no significant results			
DD22-MSK-005	Miksuk	94.08	98.33	4.25	8.18
including		95.18	97.37	2.19	13.53

table continues…

Significant Nutaaq Zone Intercepts					
Hole	**Target**	**From (m)**	**To (m)**	**Interval (m)**	**Au (g/t)**
DD22-QIP-001	Qipjaak	71.80	72.40	0.60	6.50
DD22-QIP-002	Qipjaak	196.00	197.00	1.00	1.28
and		214.30	215.50	1.10	1.37
DD22-QIP-003	Qipjaak	no significant results			
DD22-QIP-004	Qipjaak	14.20	15.20	1.00	2.29

10.3.1 Nutaaq (a.k.a., 'Gnu') Zone Drill Hole Summaries

BS2020-ULU-007 was drilled as part of a scissor with BS2020-ULU-008 to test mineralization intercepted in 92VD161 (14.5 g/t Au over 3.2 m). The hole returned 52.7 g/t Au over 2 m, from 25–27 m, with a polymetallic signature (high Pb, Zn, Ag, and anomalous Bi) and high arsenopyrite content. The zone occurs in quartz-flooded gabbro, below which is a short basalt unit (approximately 122–126 m), sedimentary rock (126–130 m), basalt (130–134 m), followed by sedimentary rock until the end of the hole.

BS2020-ULU-008 was drilled as part of a scissor with BS2020-ULU-007 to test mineralization intercepted in 92VD161 (14.5 g/t Au over 3.2 m). The hole is entirely in gabbro, with minor calc-silicate alteration from 46–88 m and trace pyrrhotite and pyrite mineralization throughout. Target mineralization was not intercepted due to an insufficient understanding of the Gnu Zone mineralization geometries at the time, although it is unclear why the previous hole, -007, intersected mineralization near the top of the hole, which was not seen in -008.

BS2020-ULU-009 was drilled as part of a scissor with BS2020-ULU-010 to test mineralization intercepted in 92VD161 (14.5 g/t Au over 3.2 m). The hole is collared in gabbro with weak calc-silicate alteration throughout, transitioning to sedimentary rock around 120 m. Mineralization is limited to background pyrrhotite and some pyrite. Target mineralization was not intercepted due to an insufficient understanding of the Gnu Zone mineralization geometries at the time.

BS2020-ULU-010 was drilled as part of a scissor with BS2020-ULU-009 to test mineralization intercepted in 92VD161 (14.5 g/t Au over 3.2 m). The hole is entirely gabbro, with rare patches of silicification and background pyrrhotite and pyrite mineralization. Target mineralization was not intercepted due to an insufficient understanding of the Gnu Zone mineralization geometries at the time.

21BSG-005 targeted the acicular arsenopyrite mineralization and intercepted it from 162.10–170.25 m with 8.15 m of 20.8 g/t Au. The mineralization plane was named Miqqut, and the shape of the mineralization was confirmed with further drilling.

21BSG-006 targeted a polymetallic vein and intersected it from 48.04–50.22 m with 2.18 m of 11.06 g/t Au. This polymetallic vein was subsequently named Miksuk.

21BSG-007 targeted the acicular arsenopyrite mineralization and intercepted it at 138.20–138.80 m with 0.6 m of 2.9 g/t Au and 1.54 m of 5.53 g/t Au from 146.86–148.40 m. This hole also intersected polymetallic mineralization at an oblique angle from 157.86-170.25, with 8.15 m of 20.8 g/t Au. This polymetallic mineralization intercept was followed up with 21BSG-020.

21BSG-008 targeted a polymetallic vein which was modelled pre-2021 drilling and did not intersect mineralization. The mineralization plane was subsequently remodelled.

21BSG-020 targeted the polymetallic mineralization intersected in hole 21BSG-007. The polymetallic vein (quartz with 1% pyrrhotite and pyrite) was hit at a depth of ~111 m (5.34 m at 3.72 g/t fold), which is ~30 m up-dip from the HG intercept reported previously in hole 21BSG-007 (8.15 m at 20.8 g/t gold), confirming the approximate true width of the zone. Visible gold was noted at 116.30 m.

21BSG-022 tested the Gnu Zone acicular arsenopyrite trend ~60 m to the east of the intersection at the bottom of hole 21BSG-007. A wide zone of alteration was intersected between ~124 m and 129 m and returned an interval of 1.32 g/t gold over 1 m from 128.63–129.63 m. This interval is moderately strained, hosts quartz veinlets, and correlates with elevated arsenic and silicification.

21BSG-023 targeted polymetallic veins but returned only weakly anomalous gold values, but did contribute to understanding the geology of the area. The planes it was targeting were subsequently remodelled prior to the 2022 drilling.

DD22-QIP-001 was drilled to evaluate the new polymetallic vein discovery (20.8 g/t Au over 8.15 m) made by Blue Star in 2021. The hole was drilled entirely in gabbro, intercepting the polymetallic pyrrhotite-pyrite-chalcopyrite-quartz vein from 71.84–72.44 m. Below the vein is an interval of up to 50% quartz veining with intense calc silicate alteration and pyrite-pyrrhotite mineralization. The vein graded 6.5 g/t Au over 0.6 m.

DD22-QIP-002 was drilled to evaluate the new polymetallic vein discovery (20.8 g/t Au over 8.15 m) made by Blue Star in 2021. The hole is entirely gabbro and intersects a new polymetallic vein from 26.00–26.90 m, which did not return significant results, as well as the targeted vein from 212.20–214.30 m. Disseminated pyrite, pyrrhotite, and chalcopyrite mineralization in the Qipjaak hanging wall returned 1.28 g/t Au over 1 m, while the Qipjaak vein returned 1.37 g/t Au over 1.1 m.

DD22-QIP-003 targeted the same Qipjaak polymetallic vein as the previous QIP drillholes and was drilled entirely in gabbro with a magnetite-bearing gabbro interval from approximately 14–26 m. Trace to 1% blocky arsenopyrite was observed around 80 m and 107 m but did not return any significant values. The highest gold value occurs at 127.00–128.00 m for 1 m of 0.78 g/t Au. This interval correlates with the predicted intercept of the Qipjaak vein in this location.

DD22-QIP-004 targeted the Qipjaak polymetallic vein. The hole was drilled entirely in gabbro. A brecciated quartz vein containing visible gold, sulphides, and sphalerite was observed from 14.19–14.65 m in a wider zone of intense diopside, chlorite, and actinolite alteration. The veining occurs above a fault zone (14.67 to 18.57 m) and returned 2.29 g/t Au over 1 m.

DD22-MIQ-001 was drilled to test the Miqqut acicular arsenopyrite trend, which was likely intercepted from 181.41–182.2 m, containing trace acicular arsenopyrite in gabbro but returning no anomalous gold values. The hole also intersected a new polymetallic vein (Iguttaq) from 95.90–100.25 m (4.35 m core length), which graded 1.06 g/t Au over 0.7 m.

DD22-MIQ-002 was drilled to test the Miqqut acicular arsenopyrite trend. The targeted zone was recorded in gabbro from 137.40–139.69 m, containing mats of up to 6% acicular arsenopyrite. A 10 cm quartz vein containing trace acicular arsenopyrite was observed within the zone, with up to 3% blocky arsenopyrite or potentially arsenian pyrite on the margins of the vein. The zone returned 2.51 g/t Au over 3 m.

DD22-MIQ-003/-003A targeted the Miqqut acicular arsenopyrite trend. DD22-MIQ-003 was drilled in gabbro to the end of the hole at 199.32 m, intersecting a 1 m polymetallic quartz vein from 96.6–97.6 m (which did not return any anomalous gold grades), and was just beginning to intersect the targeted zone with trace blocky arsenopyrite before the drillhole was prematurely shut down due to stuck rods. The zone contained 2.17 g/t Au over 1 m from 195.71–196.71 m. DD22-MIQ-003A was collared using the same pad in an attempt to redrill the target zone. DD22-MIQ-003A intercepted the target zone from 189.16–190.1 m, containing 1% acicular and 1% blocky arsenopyrite within calc-silicate alteration, but returned only 0.87 g/t Au from 189.16–190.10 m.

DD22-MSK-001 targeted the Miksuk polymetallic vein. It was drilled in gabbro with local metre scale strain and alteration zones spaced every 30–50 m; intense quartz veining is recorded in intervals from 109.33–114.31 m and from 124.24–126.57 m, the lower of which represents the Miksuk mineralization. This interval contains 12% pyrrhotite, 5% pyrite, 0.5% blocky arsenopyrite, multiple flakes of visible gold, and chalcopyrite in trace amounts from 124.05 to 126.57 m within quartz veins and strongly sheared gabbro. Multiple visible gold flakes occur from 126.12–126.35 m. From 124.24–126.60 m, assays returned 2.36 m of 8.5 g/t Au.

DD22-MSK-002 targeted the Miksuk mineralization but returned no significant intercepts, as it was drilled too close to the gabbro-sedimentary rock contact. The hole was drilled in gabbro. Blocky pyrrhotite (3%) and blocky chalcopyrite (1%) occur on the margins of a quartz vein from 44.19–44.29 m. The vein displays strong calc-silicate alteration.

DD22-MSK-003 targeted the Miksuk mineralization. The hole was drilled in gabbro, and two faults were noted in the drill hole: one fault (30 cm) with gouge and fragmented clasts of gabbro and quartz was intersected at approximately 37 m, the second larger fault zone from 112.27–113.11 m consists of multiple gouges (<10 cm each), with angular clasts and fractured core filled with calcite between the intervals. The targeted polymetallic vein (93.71–94.91 m) contains 7% pyrrhotite, 7% sphalerite, 5% blocky and acicular arsenopyrite, 1% pyrite and sphalerite with traces of chalcopyrite within strongly sheared gabbro. 3.93 g/t Au was returned from 94.23–94.91 m within a 1.71 m interval of 1.90 g/t Au.

DD22-MSK-004 targeted the Miksuk mineralization but returned no significant intercepts. The hole was drilled in gabbro and intersected a fault zone from 111.80–118.73 m and a quartz vein containing 1% blocky pyrite and pyrrhotite from 133.60–133.97 m. Below the highest strain portion of the fault zone, a few mm and cm scale quartz veins contain up to 3% blocky pyrite. Calc-silicate alteration bands occur at the same orientation as the mineralized veins, possibly representing the margins of the targeted polymetallic vein.

DD22-MSK-005 targeted the Miksuk mineralization. The hole was drilled in gabbro and intersected numerous centimetre-scale fault gouge zones. The mineralized zone from 94.08–98.33 m is comprised of cm- and mm-scale quartz veins and gabbro. The veins are discordant at a high angle to the fabric of the gabbro, the larger of which occur from 95.18 to 95.46 m, 97.72 to 96.66 m, and 96.88 to 97.37 m. The veins contain up to 6% blocky pyrrhotite, 1% blocky pyrite, 1% blocky chalcopyrite within wallrock fragments, and 2% to 3% blocky and acicular arsenopyrite. The interval from 94.08–98.33 m intersected 8.18 g/t gold over 4.2 m.

DD22-IGU-001/-001A targeted a polymetallic vein which was observed on the surface in 2021 and which was intersected at an oblique angle in hole DD22-MIQ-001 en route to a different target. Hole DD22-IGU-001 intersected a quartz vein from 48.92–49.25 m. Driller error caused the rods to become stuck in the hole, and the hole was abandoned and was redrilled as DD22-IGU-001A. Hole DD22-IGU-001A intercepted gabbro, hosting a smoky quartz vein from 46.76–47.94 m, returning a 1.18 m interval of 6.78 g/t Au. The vein contained pyrrhotite, sphalerite, pyrite, chalcopyrite, and rare visible gold mineralization. The host rock contained leucoxene alteration and exhibited moderate to strong strain around the veining. A second vein was intercepted from 91.73–92.16 m, returning 0.43 m of 1.53 g/t Au.

10.4 Axis-Central-East (ACE) Zones

Drilling at the ACE Zones by Blue Star included 17 holes for 3,208 m.

In 2021, four drillholes were tested for acicular arsenopyrite mineralization within the Axis Zone: 21BSG-004, -009, -016, and -025. Hole 21BSG-004 was aimed to intersect the hinge of the Ulu Anticline, which hosts the Flood Zone, to help determine the plunge of the fold axis at this location. The other three holes were aimed perpendicular across the suspected mineralization; holes -009 and -016 tested shallow mineralization below known high gold grades in historical holes, and -025 tested the Axis Zone at a deeper level, first testing the Flood Zone at a shallow depth. One hole was drilled in 2022 to test for the continuity of high gold values in holes 90VD46 and 21BSG-009.

The Central Zone was targeted with eight holes in 2021 and four in 2022. 2021 drilling was focused on testing three modelled mineralized planes—the Central A, B, and C planes—which were based on detailed 1990 surface alteration and mineralization mapping and historical downhole Au intercepts. 2022 drilling tested Central plane C around the 2021 drillhole with the best mineralization intercept, hole 21BSG-010, and around historical drill hole 90VD83, which graded 27.49 g/t Au over 1.09 m.

The East Limb was tested with one hole in 2021, 21BSG-019. This drillhole followed up on high gold intercepts from 1991 drilling and tested the mineralization mapped in detail on the surface by BHP geologists in the 1990s. No drilling was undertaken on the East Limb in 2022.

Overall results from 2021

Two of the four drillholes testing the Axis Zone returned a significant gold grade. This prompted a reinterpretation and remodelling of the Axis Zone mineralization prior to 2022 drilling.

The drillholes testing Central Zone generally intersected anomalous mineralization or, in the absence of that, altered zones within several tens of metres of modelled zones. However, the originally modelled planes often were extended through historical drillholes, which did not have anomalous gold mineralization, and an important felsic dyke which crosscuts the Central Zone, was not included in the model. This is significant because the felsic dyke intrudes and displaces or assimilates mafic volcanic rock, which would have otherwise hosted mineralization in this area. The Central Zone required remodelling after the 2021 drill season to better guide 2022 drilling.

The East Limb drill hole was terminated prior to reaching the target horizon due to rig breakdown. The hole intersected moderate gold grades over short intercepts higher in the hole.

Overall results from 2022

The Axis mineralization test did not intersect significant gold grades or widths, or visual mineralization, despite coming in close proximity to historical intercepts.

Only one section of the Central Zone, Central-C, was evaluated in more detail in 2022. Drill hole DD22-CEN-C-001 returned no significant intercepts, although the target was intersected as an 11 m wide section of calc-silicate alteration with intervals of silicification and low abundances of acicular arsenopyrite below a significant fault. DD22-CEN-C-002 returned an open 40.24 m wide moderately to strongly altered mineralized interval including up to 5.42 m of 1.35 g/t gold, and -003 intercepted the targeted acicular arsenopyrite zone (107–115 m), which contained two sections of strongly strained, altered, and silicified basalt hosting acicular arsenopyrite. DD22-CEN-C-004, drilled to test 90VD83, intercepted two zones of interest associated with silicified sections of calc-silicate altered rock and clusters of acicular arsenopyrite.

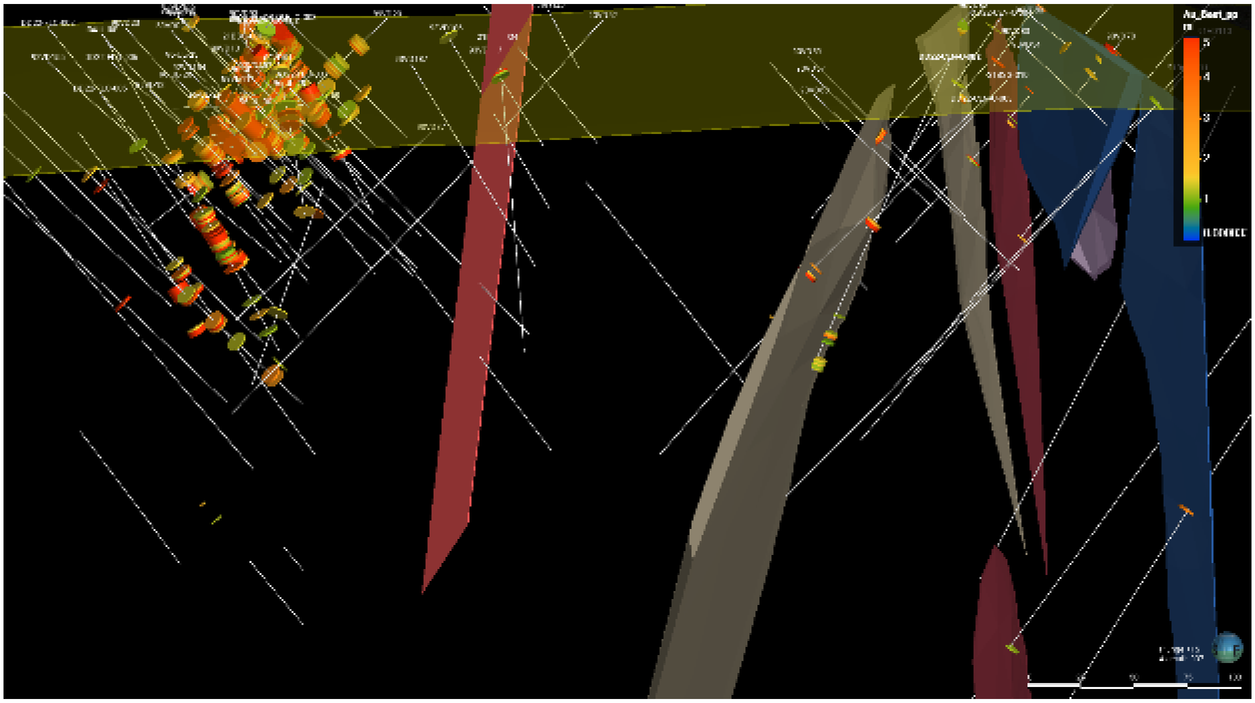

Figure 10-6: Central Planes (Rightmost Side of the Figure), Axis Plane (Centre), and Flood Zone (No Mesh or Plane, Assays Only, Leftmost Side of the Figure)

(The three main Axis mineralization planes [shown in beige, burgundy and dark blue] are disrupted by a felsic dyke which is not shown in the figure. The 'slice' of the view is 200 m wide. The view is looking east [towards 307°], generally perpendicular to the planes of interest)

Table 10-7: Results from ACE Zones Drilling

Significant Axis-Central-East Limb Intercepts					
Hole	Target	From (m)	To (m)	Interval (m)	Au (g/t)
21BSG-004	Axis	no significant results			
21BSG-009	Axis	83	86	3	2.51
21BSG-016	Axis	88.05	89.49	1.44	2.26
21BSG-025	Flood Zone	no significant results			
DD22-AXS-001	Axis	88.59	89.59	1.00	2.81
and		111.53	115.36	4.03	1.79
21BSG-010	Central	91	94	3	5.21
and		156	157	1	1.94
21BSG-011	Central	20	21.12	1.12	1.08
21BSG-012	Central	no significant results			
21BSG-014	Central	358.58	362.62	4.04	2.72
including		358.58	360.62	2.04	3.6
21BSG-015	Central	78.08	78.87	0.79	3.8
including		78.08	78.44	0.36	6.8
21BSG-018	Central	no significant results			
21BSG-021	Central	23	23.5	0.5	2
and		38.15	39.1	0.95	1.53
21BSG-024	Central	no significant results			
DD22-CEN-C-001	Central	no significant results			
DD22-CEN-C-002	Central	126.76	167	40.24	0.73
including		139.37	141.86	2.49	2.7
including		152.89	158.31	5.42	2.35
DD22-CEN-C-003	Central	112.29	114.79	2.5	4.24
including		113.2	114.79	1.59	5.59
and		108.7	109.56	0.86	3.22
DD22-CEN-C-004	Central	5.92	6.31	0.39	1.31
and		36.5	37.49	0.99	1.26
21BSG-019	East Limb	16.2	17.14	0.94	2.07
and		71.95	72.5	0.55	1.27

10.4.1 ACE 2021 and 2022 Drill hole Summaries

For the 2021 hole summaries, mention of Central Zones A, B, and C correspond to those planes as modelled by BSG prior to November 2022.

21BSG-004 targeted the Axis Zone. The hole was collared in strongly sheared and pyrrhotite-rich altered basalt and terminated in meta-sediments at 167 m. Arsenopyrite mineralization in veins was observed around 38 m, followed by a mineralized basalt zone between two metasediment units at 148–157 m depth contains blocky arsenopyrite. Both zones occurred at the predicted depths; however, neither zone returned significant gold values. QFPs were logged proximal to both mineralized zones.

21BSG-009 targeted the Axis Zone. The hole intersected an acicular arsenopyrite zone within a folded quartz vein and silicified basalt wallrock around 84 m, which graded 2.51 g/t Au over 3 m. Two additional acicular arsenopyrite zones occur in silicified basalt at 114.50 m and 118 m, neither of which returned significant results but correlated to the projected depth of mineralization.

21BSG-010 targeted the Central C Zone and intersected the modelled zone with up to 10% acicular arsenopyrite locally, returning 5.21 g/t Au over 3 m from 91–94 m in brecciated basalt. A second acicular arsenopyrite zone with <1% arsenopyrite at 99 m returned no significant assays.

21BSG-011 targeted the Central Zones A, B and C. The hole was drilled in basalt, with a QFP from 8.00–13.67 m and a short metasedimentary unit from 184.70–190.20 m. A significant gold intercept (1.08 g/t Au from 20.00–21.12 m) is characterized by pervasive silicification and pyrite, chalcopyrite, and pyrrhotite mineralization, representing Central Zone A. Similar zones were encountered at the modelled depths of Central Zones B and C but did not return significant gold grades.

21BSG-012 targeted the Central Zone. This hole is collared in intrusive gabbro and intersects variably textured basalt from around 14 m until the end of the hole, with metasediments intersected from approximately 16–33 m and 77–84 m. Other minor units include a low-strain plagioclase porphyroblastic diabase intrusion (247.80–276.10 m), a high-strain QFP (287.16–298.85 m) and a low-strain diorite (338.36–338.51 m). Trace arsenopyrite with strong alteration banding was observed around 227–243 m at the projected depth of the Central A plane. Other mineralized zones were intercepted around 338–350 m (Central B plane) and 386–394 m (Central C plane) in basalt and within the QFP. None of the zones returned any significant results.

21BSG-014 targeted the Central Zone. The hole is dominated by basalt with a short sediment interval from 21.22–38.35 m, felsic porphyry's from 137.45–147.41 m and 367.72–369.95 m, and a QFP from 407.32 m until the end of the hole. A pervasive zone of amphibole, calc-silicate, biotite, and k-feldspar alteration and silicification occurs from approximately 333–366 m, coinciding with the modelled Central B plane, which includes a blebby and acicular arsenopyrite mineralized zone from 359.52–360.62 m. The zone graded 2.72 g/t Au over 4.4 m.

21BSG-015 targeted the Central Zone. The hole was collared in basalt that transitioned to a metasedimentary unit from 18.54–22.30 m, followed by a second basalt unit containing the mineralized zones. A second metasedimentary unit and a third basalt unit follow until the end of the hole. A mineralized zone coinciding with the Central C zone containing up to 10% acicular arsenopyrite in mats and cm scale quartz veins, with possible visible gold observed at 78.2 m, returned 3.8 g/t Au over 0.79 m. Up to 5% blebbly arsenopyrite was observed within the zone as well as above and below it. Trace acicular arsenopyrite was present around 63.30 m but did not return significant grades.

21BSG-016 targeted the Axis Zone. The expected zone was intersected at 88.05–89.49 m, observed as 4% acicular arsenopyrite in mats and 3% subhedral blocky arsenopyrite in disseminated patches within a highly strained basalt unit. The zone returned 2.26 g/t Au over 1.44 m.

21BSG-018 targeted the Central Zone acicular arsenopyrite trend. The hole was collared in fine-grained basalt, which is present throughout the length of the hole except for a unit of gabbro intersected from 10.64–75.21 m. A brittle structure with fault gouge is present from 64.46–64.88 m. Additional work to better understand the potential merging of the zones or offset of the zones is required to explain the lack of mineralized and altered sections in this drill hole.

21BSG-019 targeted the East Limb acicular arsenopyrite trend. Hole 21BSG-019 intersected 2.07 g/t gold from 16.20–17.14 m in the hanging wall of the primary target zone before the hole was aborted due to mechanical problems with the drill rig. This intercept is ~200 m east along the trend of the next nearest anomalous assay result hosted in the Central A plane. A second anomalous gold interval (1.27 g/t gold from 71.95–72.5 m) lies in the hanging wall of the Central B plane and may represent another new zone.

21BSG-021 targeted the Central Zone, drilling along strike rather than perpendicular to mineralization, testing for structures and mineralization in this orientation. Mineralized zones were observed from 21.6–24.2m and 37.8–39.1 m, returning 2 g/t Au over 0.5 m and 1.53 g/t Au over 0.95 m, respectively. Both zones were arsenopyrite-bearing quartz veins.

21BSG-024 targeted the Central Zone. The hole was drilled moderately to strongly strained pillow basalt until the end of the hole. Characterized by amphibole-silica-biotite-carbonate bands and patches. Trace arsenopyrite, along with pyrrhotite and pyrite, occurs in a 2 cm thick amphibole-quartz band at 32.72 m depth. No samples returned significant results.

21BSG-025 targeted the Axis Zone at depth after drilling through the Flood Zone higher in the hole. The hole is almost entirely basalt with several short intervals (<1 m) of QFP/porphyritic diorite. Arsenopyrite was observed intermittently between 13 m and 48 m, along with strong silicification and visible gold at approximately 26 m; however, no significant results were returned.

DD22-AXS-001 was drilled to test for mineralization subparallel to the Flood zone while simultaneously undercutting a 2021 intercept in hole 21BSG-009 and targeting an area above a 1990 intercept in hole 90VD46. The hole was drilled through various types of basalt rock for the entire length of the hole. A zone of alternating bands of chlorite/diopside-biotite occurs in weakly strained, fine-grained basalt from 88.59–90.84 m, with approximately 7% pyrrhotite, 5% acicular/blebby/disseminated arsenopyrite, and 4% pyrite. This interval returned 1 m of 2.81 g/t gold. Another significant mineralization zone occurs within silicified pillow basalt from 111.33–115.36 m, with approximately 8% pyrrhotite, 5% acicular arsenopyrite, and 3% pyrite. This interval returned 4.03 m of 1.79 g/t gold and confirms 90 m of vertical continuity between the 2021 and 1990 drill holes mentioned above.

DD22-CEN-001 was drilled as part of a two-scissor test along with hole DD22-CEN-002, testing around a 2021 gold hit in hole 21BSG-010. This hole returned no significant intercepts, although the target was intersected as an 11 m-wide section of calc-silicate alteration with intervals of silicification and low abundances of acicular arsenopyrite. The drillhole cut a series of basalt flows with a significant fault that was logged above the target horizon.

DD22-CEN-002 returned an open 40.24 m wide moderately to strongly altered interval containing 0.73 g/t gold starting at 126.76 m downhole, including 2.49 m of 2.70 g/t gold and 5.42 m of 1.35 g/t gold. The drill hole intersected basalt flows with an interval of interflow sediment located between 105.48 m and 109.76 m. Two sections of weak, irregular calc-silicate alteration were logged, with both returning anomalous levels of gold mineralization associated with sections of stronger alteration, silicification and abundances of fine acicular arsenopyrite up to 2–3%.

DD22-CEN-003 intersected 4.24 g/t gold over 2.5 m, including 5.59 g/t over 1.59 m starting at 112.29 m downhole. The hole was drilled through basalt flows and gabbro. A 6 cm wide interval of strong fault gouge was noted in the drillhole at approximately 52 m. The targeted acicular arsenopyrite zone (107–115 m) contains two sections of strongly strained, altered, and silicified basalt hosting pyrite and pyrrhotite and 1% acicular arsenopyrite at the start of the interval and up to 7% acicular arsenopyrite in the lower portion of the interval, which returned the best gold values.

DD22-CEN-004 was drilled to test a historical drill hole (90VD83; 1.09 m of 27.49 g/t gold). The hole intersected basalt flows and two QFP dikes. Two fault gouge zones were also intersected. Two intercepts of interest, 0.39 m of 1.31 g/t gold and 0.99 m of 1.26 g/t gold, are associated with silicified sections of calc-silicate altered rock with trace to 2% pyrite and pyrrhotite and small clusters of fine acicular arsenopyrite.

10.5 Other Targets

Drilling evaluation by the Company on more regional targets is limited to date, although a pipeline of targets has been assembled. In 2020, a scout drilling program that consisted of 11 drillholes and 1,846 m was completed on targets that were considered a higher priority or had more potential for discovery but were located distal to the Flood Zone. The Contact, South Contact, and Apex showings, all along the Ulu fold axis, and the Crown and PC showings on the east side of the Ulu granite, were drill tested.

The Contact prospect has been subject to previous shallow drilling in 1990, 1997, and 2012. One 2020 drillhole was drilled oblique to the azimuth of the earlier drillholes, and one was drilled subparallel to these but stepped to the south of known drill intercepts and drilled more deeply than previous holes.

The Apex showing is developed along the inferred hinge of the Ulu fold. Historical drilling had tested perpendicular to the hinge direction. 2020 drilling did likewise but also tested down-hinge.

The Crown showing is located to the east of the Ulu granite, and it appears that historical drilling was undertaken in the main Crown zone along a section roughly 800 m in length with a mineralized trend ranging from 2–6 m wide. Up to seven historical trenches were dug across the structure. Gold is associated with narrow veins in silicified zones hosted by basalt units.

The PC showing located in the south Penthouse area is described as a stratabound auriferous massive to semi-massive sulphide zone that has been deformed (folded and boudinaged) with possible x-ray drill testing in the 1970s, indicating a 1 m wide zone of HG base metal values (Zn, Cu) with associated gold and silver values. Other narrow base metal intervals were intercepted with no significant gold values.

<u>Overall Results from 2020</u>

Two drillholes, BS2020-ULU-011 and -012, tested the Contact and South Contact showings. This area had been previously tested with two drillholes in 1990, three in 1997, and one in 2012, and three of these holes returned assays of over 4.0 g/t Au. Both 2020 drillholes returned anomalous gold up to 3.96 g/t Au over 1 m.

Three drillholes, HR20-030, -031, and -032, tested the Apex showing. The Apex area had been tested with seven drillholes in 1993. 2020 drilling saw one hole drilled subparallel to the 1993 drill tests across the hinge of the Ulu fold and two holes drilled in a scissor perpendicular to the other holes along the hinge. The scissor set of holes intersected moderate mineralization of up to 3.53 g/t Au over 2 m, with elevated arsenic values. This area requires some surface work and reinterpretation of information as the intercept in drill hole -032 is worthy of follow-up if a prospective geometry can be found.

Three drillholes, HR20-033, -034, and -035, tested the Crown showing, drilling into the surface mineralization, comprising intense gossan, scorodite, and blebby arsenopyrite, from three different directions. Historical drilling had been done on the Crown showing in the 1990s, but the logs and assays have been lost. Two of the three drillholes intersected moderate to highly anomalous mineralization between 1.15 and 3.70 g/t Au over 2 m and 1 m, respectively. Further field follow-up is required prior to an additional drill program.

Three drillholes, HR20-036, -037, and -038, tested the PC showing for the first time. The three holes intersected moderate gold mineralization over wider intervals of up to 4 m at shallow depths. The 2020 drilling requires some field follow-up to determine the potential for significant tonnage prior to undertaking additional drilling.

Two holes at the INT prospect, HR20-027 and 028, were drilled along the inferred fold axis, which resulted in the best intercept of 1.01 g/t gold over 1.0 m. Very weak elevated arsenic values were noted associated with sub-gram gold anomalism. One drill hole at the Bizen prospect (HR20-029) targeted the east limb contact and resulted in four 1.0 m intervals returning respectively, 1.37, 2.73, 1.66, and 1.05 g/t gold, none of which were associated with elevated arsenic values. There has been no previous drilling in these areas.

Overall Results from 2021

21BSG-003 tested the sediment core. The hole was collared in the basalt and drilled southwest in order to test the basalt–sedimentary rock contact. 2 m of 1.3 g/t were intersected from 191–193 m depth at the mineralized contact. The hole was terminated in a two-mica granite thought to be Ulu granite. The drillhole showed a basalt transition to a sedimentary rock at ~58 m depth and then, unexpectedly, back to basalt at ~85 m until 191 m. It was thought that the entire core of the Ulu fold was sedimentary rock, so the second basalt interval encountered in the hole, or the higher sedimentary rock, was unexpected and thought to have been structurally emplaced.

Overall Results from 2022

Two holes tested the sediment core of the Ulu fold (DD22-FLO-003 and –004). These two drillholes were intended to form a cross-sectional view of the Ulu fold core, along with hole 21BSG-003, and to examine the sedimentary rock for the southern extension of the Flood Zone mineralization. Some mineralization was intercepted, but the drilling showed that significant mineralization does not extend into the sedimentary rock core, which likely terminates at the basalt-sedimentary rock contact. Hole DD22-FLO-003 intersected 0.71 m of 3.04 g/t Au from 57.51–58.22 m. DD22-FLO-004 intersected 1.1 m of 2.61 g/t Au from 63.77–64.87 m and 1.0 m of 6.59 g/t Au from 175.14–176.14 m.

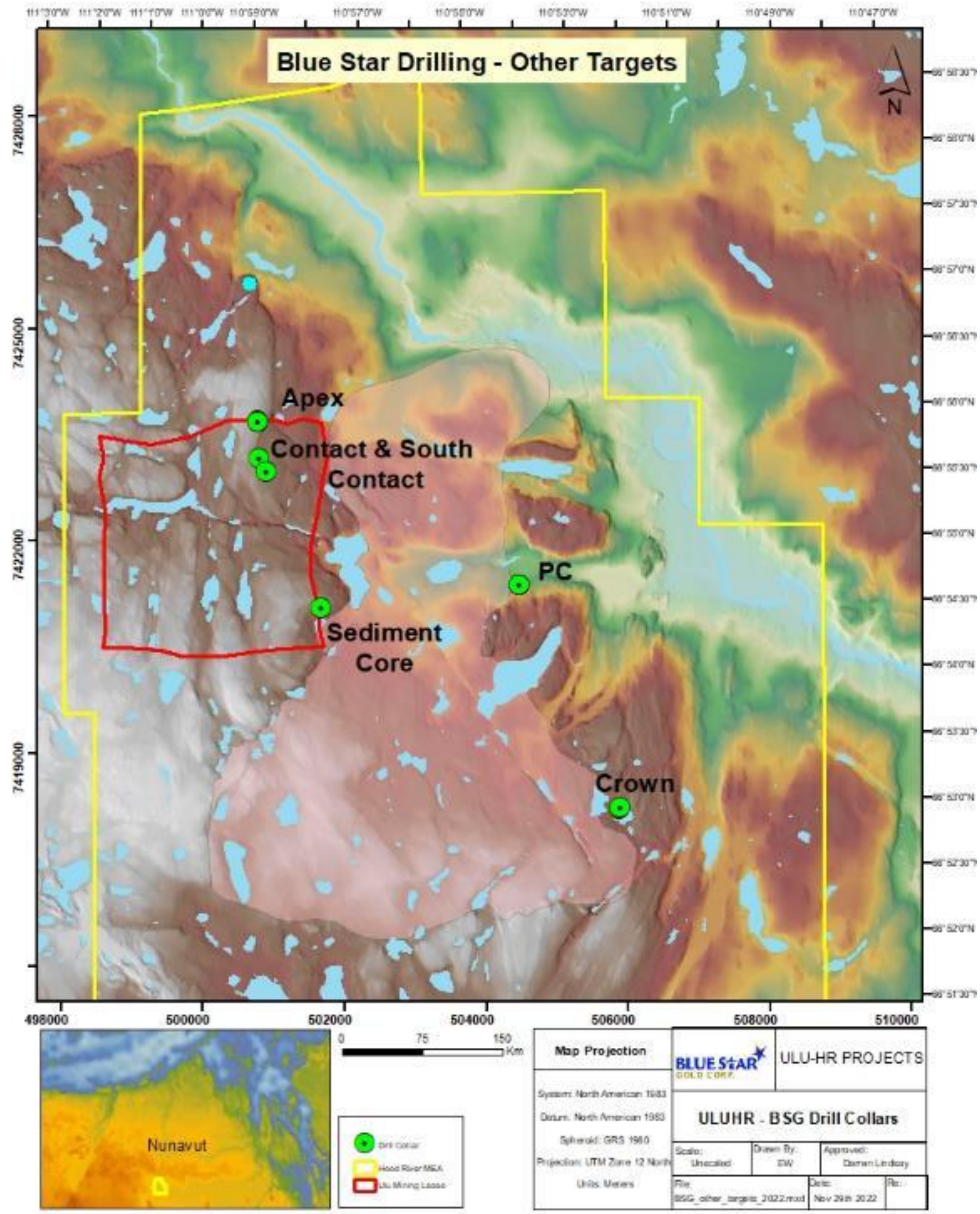

Figure 10-7: Plan Map of Drill Locations (Other Target Areas)

Table 10-8: Results from Drilling of Other Target Areas

Other Significant Intercepts - Ulu Property					
Hole	**Target**	**From (m)**	**To (m)**	**Interval (m)**	**Au (g/t)**
HR20-030	Apex	no significant results			
HR20-031	Apex	95	96	1	1.43
HR20-032	Apex	34	36	2	3.53
BS2020-ULU-011	Contact	53	54	1	3.96
BS2020-ULU-012	South Contact	211	212	1	1.35
21BSG-003	Sediment Core	191	193	2	1.3
DD22-FLO-003	Sediment Core	57.51	58.22	0.71	3.04
DD22-FLO-004	Sediment Core	175.14	176.14	1	6.59
and		63.77	64.87	1.1	2.61
Other **Significant Intercepts - Hood River Property**					
HR20-033	Crown	12	14	2	1.15
and		36	38	2	2.33
including		36	37	1	3.02
HR20-034	Crown	no significant results			
HR20-035	Crown	9	10	1	3.7
HR20-036	PC	23	24	1	1.14
HR20-037	PC	10	11	1	1.24
and		17	21	4	1.37
HR20-038	PC	16	17	1	1.23
and		20	20.95	0.95	2.53

10.5.1 Other Drilling – 2020 Drill Hole Summaries

HR20-030 tested the Apex target by drilling across the hinge of the fold parallel to the previous drilling. The hole intercepted alternating units of basalt and sediments, with pervasive calc-silicate alteration and silicification throughout. Mineralization typically consisted of background trace to 2% pyrrhotite and pyrite with rare chalcopyrite and rare trace arsenopyrite; however, no significant assays were returned.

HR20-031 tested the Apex target by drilling south along the inferred hinge. The hole was entirely basalt aside from a short interval of gabbro (74.6–77.3 m). Similar as with HR20-030, mineralization typically consisted of background trace to 2% pyrrhotite and pyrite with rare chalcopyrite and rare trace arsenopyrite. 1.43 g/t Au over 1 m was returned from the basalt from 95.00–96.00 m; however, only 2% pyrrhotite and 1% pyrite were logged here, with the typical moderate silicification and calc-silicate alteration.

HR20-032 tested the Apex target by drilling south along the inferred hinge, drilling below HR20-031 from the same pad and azimuth. The hole was collared in basalt, which continued until 73 m, where sediments were intercepted until the end of the hole. Two m of 3.53 g/t gold with elevated arsenic values was returned from 34.00–36.00 m, with disseminated trace fine-grained arsenopyrite with the typical moderate silicification and calc-silicate alteration.

HR20-033, HR20-034, and HR20-035 tested the early-stage Crown target due to its structure and stratigraphy being similar to that of the Flood Zone, following up on promising surface sample and trenching results. HR20-034 and -033 were drilled as a scissor, with -033 testing for shallower mineralization and intercepting significant grades from 12–14 m (1.15 g/t Au) and 36–38 m (2.33 g/t Au) in basalt and sedimentary rock, respectively. The mineralization in basalt consisted of up to 5% arsenopyrite within the selvedges of an extensional quartz vein with weak calc silicate alteration and moderate silicification, while the sediment-hosted mineralization was observed as trace to 1% arsenopyrite within a quartz vein with sheared and biotite altered margins. No significant grades were returned from the deeper scissor, which drilled basalt with a sediment interval from 27.5–43 m, despite trace to 3% arsenopyrite being logged throughout the entire hole.

HR20-035 drilled orthogonal to the other Crown drillholes, intercepted alternating basalt and sedimentary rock units every 40–50 m. 1 m of 1.14 g/t Au from 9.00-10.00 m was returned from an interval of trace arsenopyrite mineralization in basalt, with no significant associated alteration or veining.

HR20-036 was intended to test HG surface rock samples at the PC showing, as well as known massive sulphide mineralization. This hole formed a scissor with hold HR20-037 under a trend of anomalous historic surface samples collected by BHP and Aber Resources. HR20-036 tested at a shallower dip, returning 1.14 g/t Au from 23–24 m within a sediment unit. The zone contained massive sulphides (pyrrhotite and magnetite) with chalcopyrite stringers and sphalerite-quartz shear veins with biotite and sericite alteration.

HR20-037 was collared in basalt, with sediment units from 10.65–24.20 m and from 29.4 m until the end of the hole (46 m). The alteration was limited to moderate silicification, and the intercepts (10–11 m and 17–21 m) consisted mostly of pyrrhotite with minor chalcopyrite and trace arsenopyrite in the deeper zone. The zones returned 1.24 g/t Au (10–11 m) and 1.37 g/t Au (17–21 m).

HR20-038 was drilled from the same pad as the other PC holes at an azimuth of 001 (HR20-036 and -37 were drilled at 015). The hole was collared in basalt, with a basalt-sediment contact at 11 m and sediment until the end of the hole. The highest-grade drill intercept from the PC showing was obtained from this drill hole (2.53 g/t Au over 0.95 m) within the sedimentary rock from 20.00-20.95 m, from a zone with trace arsenopyrite, 1% chalcopyrite and 3% pyrrhotite on the upper margin of the targeted shear vein.

BS2020-ULU-011 tested the Contact Zone by drilling obliquely relative to earlier drillholes into the inferred fold hinge. Five 1.0 m samples returned values better than 1.0 g/t gold, with one returning 3.96 g/t gold. These structures may be moderately NW dipping and NE striking. This area, as with the complete Ulu fold, should be subject to a detailed mapping and prospecting effort in order to try and elucidate the local mineralization controls.

BS2020-ULU-012 tested the South Contact Zone by drilling across the east limb of the fold, effectively scissoring historical hole 12UE002. Three 1.0 m samples returned better than 1.0 g/t gold values, with the deepest intercept associated with weakly elevated arsenic values. It is thought that -012 was drilled to try and replicate the strong deep intercept in the 2012 drill hole. It is possible to interpret a very steep west-dipping structure in this area.

21BSG-003 was intended to target the basalt-sediment contact to determine the dip of the contact and test it for mineralization. A basalt-sediment contact was intercepted at approximately 58 m; however, at 85 m, the sedimentary unit ended and transitioned back to basalt. This basalt transitioned to sedimentary rock yet again around 192 m, and after 6 m, the hole intercepted granodiorite, which continued to the end of the hole. The highest grade mineralization was observed on either side of the deepest basalt-sediment contact (191–193 m), returning 1.3 g/t Au over 2 m from a fractured and intensely strained interval containing 1–2% pyrite and pyrrhotite.

DD22-FLO-003 was drilled, along with hole DD22-FLO-004, to test for the southeastern extension of the Flood Zone within the sedimentary rock core of the Ulu fold, whether hosted in sedimentary rock or unknown slivers of basalt. The hole was collared in sediments (mixed greywacke and knotted schist), transitioning to basalt at approximately 109 m with a QFP intruding around 55–58 m and a short basalt interval from approximately 33–34 m. 3.04 g/t Au was returned from 57.51–58.22 m from the relatively unaltered and sparsely mineralized QFP.

DD22-FLO-004 was drilled to test for the southeastern extension of the Flood Zone within the sedimentary rock core of the Ulu fold. Mixed quartz-rich greywacke and mica-rich knotted schist dominate until 180 m, with slivers of basalt occurring in the last few metres before a two-mica granite, which continues until the end of the hole. A potential polymetallic vein was observed within an alteration and fault zone in the last metre of the sediment unit, but this did not return significant gold grades. The best result from the hole (6.59 g/t Au over 1 m) originated from the bottom of the sediment unit above the basalt slivers and faulting. One of two quartz-feldspar porphyries (observed at 64–70 m) returned 2.61 g/t Au over 1.1 m, and the other (at 168 m) did not return any significant grades. Together these two holes showed that no significant Flood Zone mineralization is present in the sediment core of the Ulu fold.

10.6 Drill Core Geological Procedures

Geologists first completed a quick log of the geological features; once the core was ready for logging, a geo-technician captured core recovery (%) and Rock Quality Designation (RQD) data. In 2021 and 2022, magnetic susceptibility and reaction to HCl were also measured every 3 m. A geologist then logged detailed descriptions of lithology, alteration, structure, mineralization, and veins, which were recorded on Excel spreadsheets in 2019 and 2020, into MXDeposit in 2021, and into GeoSpark in 2022. In 2019 and 2022, an oriented core was drilled, and alpha and beta angles were recorded with each structural measurement using a goniometer. Core was marked for sampling and photographed wet and dry; geologists marked out samples and core cutters then sampled the drill core, which was then sent to ALS Geochemistry in Yellowknife for sample preparation and then to ALS Global in North Vancouver for multi-element ICP and fire assay Au analysis.

Specific gravity (SG) measurements were taken when a new lithology or mineralization type was encountered, or when a lithology or mineralization type which had not previously been sampled for SG was encountered. Samples of 10–20 cm lengths of core were taken from an unaltered and unmineralized section of the lithology, an altered section, and a mineralized section. The samples were chosen to be as representative of the rock unit as can be found, ideally without veining and free from surface mud, grease, cracks, or vesicles. The depth of the SG sample was recorded along with descriptors of the sample, including lithology, alteration, and mineralization. The samples were weighed dry on a tared scale capable of weighing to +/- 1 g, and the weight in the air was recorded. The sample was then gently placed in a basket hanging from the scale into a container of water. Once it was ensured that the sample was fully submerged and neither the basket nor the sample was touching any part of the container, the weight in water was recorded.

The core from 2019 is stored at the location of the (now reclaimed) Hood River camp, and the core from 2020, 2021, and 2022 is stored in the core yard at the Ulu camp.

11.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

Sample preparation, analyses, and security procedures were implemented for tills, rocks, channels, and drill core samples collected by the Company, as detailed below.

11.1 Protocols for Sampling, Sample Analysis, and Security

11.1.1 Sampling Protocol and Sample Analysis

Sample analyses were carried out by ALS Global in North Vancouver, BC. Blue Star has no relationship with ALS other than the procurement of analytical services.

Till Samples

Two types of till samples have been collected: in 2021, a basal till on outcrop test program was undertaken, and in 2022, a more substantial grid-based drift prospecting program of frost boil/till sampling was undertaken. The former involved traversing along up-ice sides of outcrops and ridges, sourcing potential basal till in depressions or frost boils, and collecting 500–1,000 g till fines in a Kraft paper bag. The latter program was more structured, using pre-set grid points for determining sample locations. At the pre-determined sample locations, samplers sourced the best possible basal till-type material from frost boils. Samples of 3 kg were finger screened into sample number-labelled plastic bags with location collected by GPS and sample descriptions recorded.

<u>2021 till sample prep and analysis</u>

2021 till material was submitted to ALS Geochemistry – Yellowknife for preparation with the Prep-41 package, which comprises drying samples to <60°C, SPL-34 (pulp splitting), PUL-QC (pulverizing QC test), SCR-51 (to 2 mm), PUL-31 (pulverizing 250 g material, so 85% is <75 µm), and SPL-21 (riffle split of the sample). The prepared samples were then forwarded internally to ALS Global in North Vancouver for analysis by AuME-ST44 (super trace gold + multi-element package). One blank control sample was inserted every 20 samples, and a low-level gold certified reference material (CRM or "standards") was inserted by the laboratory every 20 samples. Field duplicates were inconsistently collected, and lab duplicates were inserted every 20 samples.

<u>2022 till and soil sample prep and analysis</u>

2022 till samples were analyzed for gold using the PPPB DetectORE™ system. Samples were dried and then sieved using a 1 mm mesh to separate fines from organics and rocks. 500 g of sieved material was weighed and added to a pouch with 500 ml of Glix20® solution and a numbered Collector Device (CD) designed to absorb gold from the sample. The pouches were pre-mixed by hand (shaken) and then rolled in a barrel for six hours. The CDs were then removed, rinsed in clear water, and dried before being analyzed in a pXRF. The pXRF was calibrated before use, and then PPPB provided CRMs as certified collector devices (CCDs) were analyzed (one every 49 samples) prior to sample analysis. Each 90-sample batch also contained two PPPB provided reference materials (RM). Barcodes on the CDs were scanned to automatically read sample IDs and reduce transcription errors during the process. Some field duplicates were collected, but not every batch contained duplicates. Resulting analytical values are calculated as a detection unit (dU) which is equivalent to ppb and are calculated based on the pXRF spectra using proprietary cloud-based software by PPPB.

Drill Core Samples

Drill core sample intervals were laid out and recorded by the logging geologist on site. Samples were taken as 0.5–1.5 m samples where possible without crossing lithological contacts or alteration boundaries; however, it has been noted that in 2019, 2020, and in minor cases in 2022, samples did cross lithological boundaries. Sample locations and associated sample numbers were marked on the core using a lumber marker. Pre-numbered three-part sample tags provided by ALS Global were filled out with the sample interval, drillhole, and type of standard or blank if applicable. One tag was stapled to the core box at the start of the interval, another was inserted into the sample bag along with the cut sample, and the third was left in the sample booklet as a reference. The drill core was cut using a hydraulic splitter (2019, 2020) and in 2021–22 using an electric-powered cutting saw. Sample intervals were sawn in half, with one half placed back in the core box and the other half placed in a labelled sample bag containing one of the sample tags and zip-tied.

<u>2020 and 2021 drill core sample prep and analysis</u>

In 2021 and 2022, bagged samples were packed in rice bags and transported to ALS Geochemistry – Yellowknife for sample preparation using the 31A preparation method. At the prep lab, the samples were received with a tracking system and a barcode label attached. As per the Prep-31A method, samples were dried and crushed to better than 70% passing a 2 mm (Tyler 10 mesh) screen. A split of up to 250 g was taken and pulverized to better than 85% passing a 75-µm (Tyler 200 mesh) screen. A split of the pulp was sent to ALS Global in North Vancouver for gold (Au-AA26) and a suite of 36 additional elements (ME-MS61m) analysis.

As per the Au-AA26 method, a prepared 50 g split of each sample was decomposed using Fire Assay Fusion (FA-FUS03 and FA-FUS04). Gold content (detection range 0.001–10 ppm) was determined using AAS. Herein, a prepared sample was fused with a mixture of lead oxide, sodium carbonate, borax, silica, and other reagents as required, inquarted with 6 mg of gold-free silver, and then cupelled to yield a precious metal bead. The bead was digested in 0.5 mL dilute nitric acid in a microwave oven. 0.5 mL concentrated hydrochloric acid was then added, and the bead was further digested in the microwave at a lower power setting. The digested solution was cooled, diluted to a total volume of 10 mL with demineralized water, and analyzed by AAS against matrix-matched standards.

Samples > 10 ppm gold were analyzed for over-limits by fire assay and gravimetric finish (Au-GRA21) during the 2021 and 2022 programs. Silver values that are >5 ppm from the multi-element analysis were analyzed by fire assay with a gravimetric finish (Ag-GRA21). Over-limits for copper, lead, and zinc were analyzed by four acid digestion and inductively coupled plasma-atomic emission spectrometry (ICP-AES) analysis (OG62).

As per the ME-MS61 method (ultra-trace four-acid digestion with inductively coupled plasma-mass spectrometry [ICP-MS] and ICP-AES), a prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric, and hydrochloric acids. The residue is leached with dilute hydrochloric acid and diluted to volume. The resulting solution is analyzed by a combination of ICP-AES and ICP-MS, with results corrected for spectral or isotopic interferences. Four-acid digestion is desirable as it represents near complete digestion of most elements in the analytical suite. However, not all elements are quantitatively extracted, depending on the sample matrix.

Rock and Channel Samples

Rock samples consisted primarily of grab samples from mineralized or altered bedrock or frost-heaved bedrock. Coordinates of each sample were recorded with handheld Garmin GPS units. Data were recorded regarding the type, strength, and extent of mineralization as well as host rock characteristics, including alteration and possible controlling structures.

Channel samples collected in 2019 were collected using a Husqvarna gas-powered rock saw using a pressurized spray water bottle to lubricate and clean the blade. In most cases, samples were taken parallel to the long axis of gossans and were generally 1 m long. Most of the samples were collected from outcrops except for a few samples taken from frost-heaved subcrops or from blocks within felsenmeer fields. Aluminium tags and flagging tape were left with sample number labels at each location. Channel samples were placed in clear plastic sample bags with numbered paper tags and were sealed with plastic zip ties. Samples were staged at the Hood River camp until the next shipping date. The samples were then placed in rice bags sealed with zip ties and security tags and were shipped by Matrix Aviation to ALS Geochemistry Yellowknife, NWT, for preparation. Prepared samples were then shipped by ALS to the ALS Geochemistry analytical facility in North Vancouver, BC, for gold and multi-element analysis using ME-MS41 aqua-regia with ICP-MS finish.

2021 and 2022 rock sample prep and analysis

In 2021 and 2022, rock samples were placed along with sample tags in poly bags marked with a sample number, zip-tied and packed in rice bags and transported to ALS Geochemistry-Yellowknife for sample preparation using the 31A preparation method (2022).

At the prep lab, the samples were received with a tracking system and a barcode label attached. As per the Prep-31A method, samples were dried and crushed to better than 70% passing a 2 mm (Tyler 10 mesh) screen. A split of up to 250 g was taken and pulverized to better than 85% passing a 75-µm (Tyler 200 mesh) screen. A split of the pulp was sent to ALS Global in North Vancouver for gold (Au-AA26) and a suite of 36 additional elements (ME-MS61m) analysis.

As per the Au-AA26 method, a prepared 50 g split of each sample was decomposed using Fire Assay Fusion (FA-FUS03 and FA-FUS04). Gold content (detection range 0.001 to 10 ppm) was determined using AAS. Herein, a prepared sample was fused with a mixture of lead oxide, sodium carbonate, borax, silica and other reagents as required, inquarted with 6 mg of gold-free silver and then cupelled to yield a precious metal bead. The bead was digested in 0.5 ml dilute nitric acid in a microwave oven. 0.5 ml concentrated hydrochloric acid was then added, and the bead was further digested in the microwave at a lower power setting. The digested solution was cooled, diluted to a total volume of 10 ml with demineralized water, and analyzed by AAS against matrix-matched standards.

Samples > 10 ppm gold were analyzed for over-limits by fire assay and gravimetric finish (Au-GRA21) during the 2021 and 2022 programs. Silver values that are > 5 ppm from the multi-element analysis were analyzed by fire assay with a gravimetric finish (Ag-GRA21). Over-limits for copper, lead and zinc were analyzed by four acid digestion and ICP-AES analysis (OG62).

As per the ME-MS61 method (ultra-trace four-acid digestion with ICP-MS and ICP-AES), a prepared sample (0.25 g) is digested with perchloric, nitric, hydrofluoric, and hydrochloric acids. The residue is leached with dilute hydrochloric acid and diluted to volume. The resulting solution is analyzed by a combination of ICP-AES and ICP-MS, with results corrected for spectral or isotopic interferences. Four-acid digestion is desirable as it represents near complete digestion of most elements in the analytical suite. However, not all elements are quantitatively extracted, depending on the sample matrix.

11.1.2 Sample Security

Samples were transported to the ALS prep facility in Yellowknife, NWT, in rice bags sealed with security tags by employees or contract employees to the Company using a chain of custody protocol. Complying with this protocol, geologists of the Company sealed each bag with a security tag and prepared a chain of custody form which contained a list of all security tags sent out in each shipment. Two copies of the form were taken by camp contractors, along with the samples, to the airstrip, where the pilot of the outbound aircraft signed one copy of the chain of custody form to return to the Company geologists and took one form to give to the ground transportation crew once in Yellowknife. The ground transportation crew would give the chain of custody form, along with the bagged samples, to ALS personnel. Once the samples were received at the Yellowknife lab, ALS personnel sent an email to the Company geologists to verify that the samples had arrived. All sample information was emailed to ALS personnel by Company geologists upon departure of the samples from the site to ensure tracking of all samples. Prepared samples were shipped to ALS Global in North Vancouver via the internal sample custody system of ALS.

11.2 Quality Control and Quality Assurance Protocol

The Company implemented its own internal QA/QC protocol for all the till sampling, rock and channel sampling, and drill core sampling.

Till sampling

During 2021 till sampling, field duplicates were taken at approximately 20 sample intervals at appropriate field site locations. Control samples, CRMs or “standards”, at a rate of one OREAS-908 CRM every 20 samples and one blank, a control sample provided by CDN Labs (CDN-BL-10), inserted every 20 samples.

The 2022 till sampling utilized an ‘internal’ laboratory system provided by PPPB. No field duplicates were used. One blank sample, consisting of only extraction fluid, was inserted for every drum of samples (ranged from 70–90 samples per drum). Every drum of samples also contained two RM pouches provided by PPPB; these were pulps of known gold content. Additionally, during the analysis stage, at least one CCD was required to be scanned for every 44 samples, two per drum. Five CCDs were supplied that ranged from 1 ppb gold to 10,000 ppb gold, and more than two could be scanned per drum of samples.

Rock and channel sampling

For rock and channel sampling in 2019 and 2020, field duplicates were taken at approximately 25 sample intervals. For each batch of samples submitted to the lab, two CRMs and one blank CRM were inserted at the end of each run of samples to properly ascertain the veracity of the gold analysis. All CRMs were provided by CDN Labs.

Certified reference standards were included with each batch of drill core samples sent to the laboratory. In 2019 and 2020, a standard (CDN-GS-4H and CDN-GS-3T) or blank (CDN-BL-10) was inserted approximately every 20 samples, with blanks additionally inserted immediately after samples for which high gold values were expected. No sample duplicates were taken in 2019; in 2020, coarse reject duplicates were taken every 40–50 samples. For channel samples, eight standards (a mix of blanks and CRMs) were inserted in each sample shipping batch before being sent to ALS labs.

The drill programs in 2021 and 2022 utilized a rigid system of QA/QC which was adhered to during the sampling procedure. Standards were inserted every 50 samples, rotating between the available standards from CDN Labs (CDN-GS-3U and CDN-GS-7H in 2022, CDN-GS-3U, CDN-GS-7H, CDN-GS-4H, and CDN-GS-3T in 2021). Blanks were inserted every 50 samples (CDN-BL-10), as were sample coarse reject duplicates. An additional standard followed by a blank was inserted before a sample or samples which were expected to return high grades.

The ALS-Global laboratory in North Vancouver, BC, which analyzed the Company’s samples, operates to ISO 17025 standards and is accredited by the local regulatory authority.

Quality Managers at the lab maintain the quality system, conduct internal audits, and assist in training and compliance. Staff are supported by a Quality Management System (QMS) framework, which is designed to highlight data inconsistencies sufficiently early in the process to enable corrective action to be taken in time to meet reporting deadlines. The QMS framework follows the most appropriate ISO Standard for the service at hand, i.e., ISO 17025:2005 UKAS ref 4028 for laboratory analysis.

11.2.1 Discussion

No outside laboratory checks were performed on the rock and core samples for the 2019 or 2020 programs. No outside laboratory checks were performed on the rock and core samples during the 2021 and 2022 programs; however, post-program in 2021 and 2022, approximately 10% of samples that returned better than 1 g/t gold were selected randomly from all sample shipments to undergo check assaying at SGS Canada Inc. (SGS), Burnaby, BC. Sample pulps were forwarded from ALS Global sample storage to SGS for analysis. No significant variations were observed in the check assay data.

The author recommends implementing a program of selecting a mixture of the coarse rejects and the pulps from each exploration campaign sample and submitting them as a more thorough check of and for verification of any high metal values.

The author concludes that the sampling, security, and analysis protocols employed by Blue Star appear to be consistent with industry-standard best practices and are suitable for use in a Mineral Resource Estimate.

12.0 DATA VERIFICATION

The lead author undertook a site visit to the Ulu Camp and reviewed all aspects of the exploration drilling program. The authors performed verification of exploration data relevant to the Ulu Gold Project, including all information from historical and recent exploration campaigns. The Authors are confident that the resulting data was acquired using adequate quality control procedures that generally meet industry best practices for a drilling stage exploration project, and the data are adequate for the purposes of Mineral Resource estimation.

12.1 Site Visit

In accordance with NI 43-101 guidelines, the authors visited Blue Star's Ulu Gold Project on various occasions between July 2021 and August 2022. These visits were undertaken as listed in Section 2.2, and all visitors were accompanied by Blue Star staff.

The visits by Darren Lindsay, Jaida Lamming, Chris MacInnis, and Emily Wiggins took place during active exploration and drilling programs, and they reviewed and discussed all aspects of the program that could impact the integrity of the data informing the minerals resource estimate for the Project (core logging, sampling, analytical results, surveying, and data management) with Blue Star staff.

Lead author C. MacInnis reviewed/interviewed exploration staff to confirm exploration procedures and protocols and also examined drill cores from selected holes. It was noted by Mr. MacInnis that the project and exploration programs are run professionally and safely, with great attention being paid to all aspects of data collection and handling. After reviewing the QA/QC, the drilling, core logging, core cutting, assay bagging, chain of custody, and general workflow, there are no red flags that would call into question the quality and accuracy of the currently collected non-historical data being used to support an NI 43-101-compliant resource estimation.

12.2 Drillhole Database

Mr. MacInnis performed spot checks on the database used to develop the Mineral Resource estimates by comparing the database entries against laboratory assays certificates and drill logs.

Mr. MacInnis concluded that the database used for the Mineral Resource estimate was sufficiently free of errors and adequate to support Mineral Resource Estimations.

12.2.1 Drillhole Collar Surveys

The authors reviewed the Company's collar location survey procedures, which included the use of a Trimble DGPS and antenna to survey Blue Star drill holes. The authors are confident that the Company has made best efforts to confirm all existing drill collars surveys and that the resulting data was acquired using adequate quality control procedures that generally meet industry best practices for a drilling stage exploration project, and that the data are adequate for the purpose of a Mineral Resource estimation.

12.2.2 Drillhole Downhole Surveys

The authors reviewed the Company's procedures for downhole surveys and are confident that the Company has made its best efforts to confirm all existing drill hole downhole surveys and that the resulting data was acquired using adequate quality control procedures, with the exception of the UG drilling undertaken by Echo Bay. A description of how those holes were included in the data set is summarized below. The authors believe that the downhole data is of adequate quality for the purposes of Mineral Resource estimation.

An excerpt is included below that describes how the downhole survey data was modified by the authors of the 2015 technical report (Cowley et al. 2015).

A visual inspection of downhole survey data revealed that numerous holes in the database did not contain downhole survey data in the database provided to B. Singh (they plot as straight lines). A complete review of all drilling and downhole survey data was conducted by B. Singh in February 2015. The results of this review revealed the following:

1. *26% of the drill holes in the database contain downhole azimuth data.*
2. *62% of the drill holes contain downhole dip data.*
3. *Statistical analysis by B. Singh of drill hole dip data suggested that downhole dip of holes remains consistent, but azimuths deflect with increasing depth. To demonstrate, the 2004 Wolfden drill campaign contains the most comprehensive and high frequency downhole survey data. These data indicate an average change in dip of 0 degrees with depth but azimuths of drill holes deflected at an average rate of 0.02 degrees per metre. The BHP drilling also demonstrated similar downhole deflect trajectories.*
4. *Considering that there is extensive deep drilling on the Flood Zone from both the southwest and the northeast, the numerous holes with assumed straight trajectories would not properly represent the location of their intercepts at depth relative to drill holes that have the typical arching trajectories lines and thus in the opinion of the authors should be adjusted and would have an impact of the interpretations and configuration of vein model.*

Additional downhole survey data were located for the Wolfden drilling after identifying inconsistencies in the geological model for drill holes 04UL-14 and 13. The 2004 downhole survey data were re-entered from source Maxibor datafiles.

In addition, as a result of the downhole survey analyses above, B. Singh adjusted azimuths of 74% of the drillholes which originally did not contain downhole azimuth data, by an average rate of change of 0.02 degrees per metre.

Table 12-1: Downhole Survey Spacing and Drill Direction for Surface Holes prior to 2021

No. DDHs	Drill Series	Avg. Spacing	NE Direction	SW Direction	W Direction
38	2004 DDHs	3 m	36	2 (013+014)	--
16	2004 DDHs	60 m	16	--	--
8	2012 DDHs	5 m	8	--	--
5	BS2020	50 m	1 (001)	3 (004,5+6)	1 (003)
10	90+91VD	30 m	10	--	--
1	91VD-124	12 m	1	--	--
2	91VD-126,127	15 m	2	--	--

Additional reviews of downhole survey data were completed by Blue Star contractors to confirm assumptions made by Cowley et al. (2015). Both Odyssey Geosciences and Lions Gate Geological Consultants (LGGC), in association with Bruce Davis of BD Resource Consulting Inc. (BD), reviewed the pre-2021 collar and survey data. Odyssey Geosciences indicated the assumptions made by B. Singh are adequate to represent drill hole traces of under-surveyed holes compared to the better-surveyed holes. LGGC/BD indicated that UG drill holes drilled down dip on the target zones and only had a collar survey with an acid test at the end of the drill hole; no proper survey was completed to confirm hole locations in 3-dimensional space; these UG holes could therefore affect mineral continuity interpretation.

12.2.3 Drillhole Geological Logging

The authors reviewed the Company's geological logging procedures during active drilling in 2022. This included core shack workflow, oriented structural data collection and QA/QC protocols, and geotechnical logging procedures. The authors are confident that the Company has made its best efforts to collect consistent and accurate geological and geotechnical data and implement adequate quality control procedures in the drill core logging process.

Additionally, Blue Star contracted Motherlode Consulting Ltd to review logged lithologies against scanned historical drill logs in the Flood Zone Gold Deposit. Motherlode confirmed that logged lithologies were properly captured in the dataset in both a logged_lithology category and a general_lithology category. This work allowed for improved geological modelling around the Flood Zone Gold Deposit.

12.2.4 Drillhole Assays

The authors reviewed the Company's core sampling and cutting procedures during active drilling in 2022. This included sampling procedures and standard/duplicate insertion rates, and core cutting shack workflow. The authors are confident that the Company has made its best efforts to implement adequate quality control procedures in the drill core sampling and cutting processes.

12.3 Analytical Quality Control Data

The authors reviewed the QA/QC program and results in depth for the current and previous years. The Company reviews each batch on receipt of assay results for the performance of both the laboratory QC samples and the samples inserted by the Company. At year-end, the Company generates a QA/QC document reviewing the performance of the QC program, which includes 10% of the samples returning >1 g/t gold being sent to a check lab. Blanks, standards, and duplicates are inserted at industry-standard rates. The authors are satisfied with the laboratory performance and with the Company's QA/QC protocols.

During the 2021 drill program, 2,461 core samples were sent to ALS for analysis using Au-AA26 and ME-MS61of these samples, 16% were QC samples. Standards and blanks analyzed by ALS were within expected thresholds, except for one blank, which was flagged to ALS. The independent laboratory check was within the expected thresholds. All duplicates inserted by ALS were within the expected thresholds except for one sample, on which a re-analysis was requested. The re-assay was done from newly prepared analytical splits from the coarse reject material. The re-assay showed variable Au results but similar results from ME-MS61 both between the two splits (original and duplicate). For a check against the contract laboratory, 181 ALS sample pulps were sent from ALS – Yellowknife to SGS for an independent lab check using the methods GE_FAA50V5 (50 g fire assay) with an AAS finish. The check assays were within a reasonable range of variability, with the majority of checks being within acceptable variance.

During the 2022 drill program, 1,277 core samples were sent to ALS for analysis using Au-AA26 and ME-MS61; of these samples, 12% were QC samples. For a check against the contract laboratory, 100 ALS sample pulps were sent from Yellowknife to SGS for an independent lab check using the methods GE_FAA50V5 (50 g fire assay). All check samples were within acceptable variance.

The QP considers the data supporting the Mineral Resource Estimate to be reliable, reasonably error-free, and suitable for the purposes used in the Technical Report.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

Blue Star has completed early-stage mineralogical and metallurgical evaluation on the NFN and the Gnu (Nutaaq) exploration targets. The NFN and the Gnu samples were collected from the coarse rejects of drill hole assay sample preparation.

Mineral processing and metallurgical testing activities by previous owners were comprehensive for potential feed to the now-closed Lupin Mine, later for potential co-processing if the High Lake VMS Deposit was ever exploited, and as a standalone flowsheet. This historical work is documented in Section 6.0 of this Technical Report, with current and historical work summarized in Table 13-1.

Table 13-1: Metallurgical Test Work Conducted to Date

Company	Year	Zone	Sample Type	Main evaluations
Blue Star	2022	Gnu	Coarse rejects	Grindability, mineralogy, cyanidation, flotation
Blue Star	2020	NFN	Coarse rejects	Grindability, mineralogy, cyanidation, flotation
WPC Resources	2016	Flood	From surface stockpile	Grindability, mineralogy, cyanidation, flotation
Wolfden Resources	2005	Flood	From surface stockpile	Gravity, inline pressure jig, cyanide leaching (whole ore), flotation (scavenger), cyanide detoxification
Echo Bay Mines	1997	Flood	25m level bulk sample	Gravity flotation
Echo Bay Mines	1996	Flood	25m level bulk sample	Recovery vs grind cyanidation, preliminary flotation
BHP	1990	Flood	drill coarse rejects	Cyanidation, bulk flotation, cyanidation and scavenger floatation, flotation followed by cyanidation, gravity, 200 mesh cyanidation
BHP	1989	Flood	surface rock samples	Cyanidation, flotation, gravity

13.1 Metallurgical Testing by Blue Star Gold Corp

Preliminary mineralogical and metallurgical studies were coordinated through Tetra Tech and undertaken by SGS Metallurgical Operation group for the Gnu Zone sample (Ding 2023) and by Bureau Veritas Commodities Canada Ltd. Metallurgical Division for the NFN Zone and Flood Zone samples (Grcic & Shi 2020).

13.2 Flood Zone Gold Deposit

No metallurgical or mineralogical evaluation has been undertaken by Blue Star on the Flood Zone material.

13.3 Gnu (Nutaaq) Zone

The Gnu (Nutaaq) Zone sample was a single master composite sample assembled proportionally from coarse rejects of two slightly different mineralization styles, one being a quartz-rich portion of the vein bearing sulphide minerals and local free gold, the other being a polymetallic sulphide-rich portion of the vein. As presented in subsequent sections, the results are summarized from Ding (2023). The master composite comprised half-split NQ-sized drill core sample coarse rejects from 46 individual assay samples from 10 drill holes. A composite was made by blending the coarse rejects and then rotary split into 2 kg test charges. Test charges were investigated for:

- whole-ore cyanidation,
- bulk sulphide flotation followed by cyanidation of the flotation concentrate and tailings, and
- gravity separation followed by cyanidation.

One test charge was analyzed for Au, Ag, total sulphur, and a multielement analysis, and a representative sample was examined by the Quantitative Evaluation of Mineralogy by a Scanning electron microscope / Mineral Liberation Analyzer (QEMSCAN/MLA) mineralogy analysis.

13.3.1 Master Composite

The metallurgical master composite assayed 6.69 g/t gold, 0.028% Cu, and 0.081% Zn with a sulphur content of 2.03%.

The Bond Ball Mill Work Index of 16.3 kWh/t was obtained using a closed screen size of 150 µm and is considered moderately hard with respect to grinding resistance to ball milling.

QEMSCAN/MLA mineralogy analysis indicated that silicate-rich non-sulphide minerals comprised approximately 94.9% of the sample, approximately 5.1% by weight was sulphide minerals, pyrrhotite, pyrite, and chalcopyrite and sphalerite. The Rietveld quantitative analysis x-ray diffraction result on mineral composition is shown in Table 13-2, while the mineral distributions in three different particle size fractions are presented in Figure 13-1. According to gravity separation results, some gold occurs as native gold. At a primary grind of 80% passing 42 µm, approximately 31% of the gold was recovered into a gravity concentrate with a gold grade of 447 g/t.

Table 13-2: Main Mineral Composition

Mineral/Compound	Master Composite DEC7001-01 (wt%)
Quartz	56.14
Pyrite	0.71
Pyrrhotite	3.57
Chalcopyrite	0.60
Sphalerite	0.21
Albite	7.68
Orthoclase	2.67
Magnetite	0.58
Biotite	4.76
Chlorite	3.19
Epidote	6.39
Actinolite	13.50
Total	**100.00**

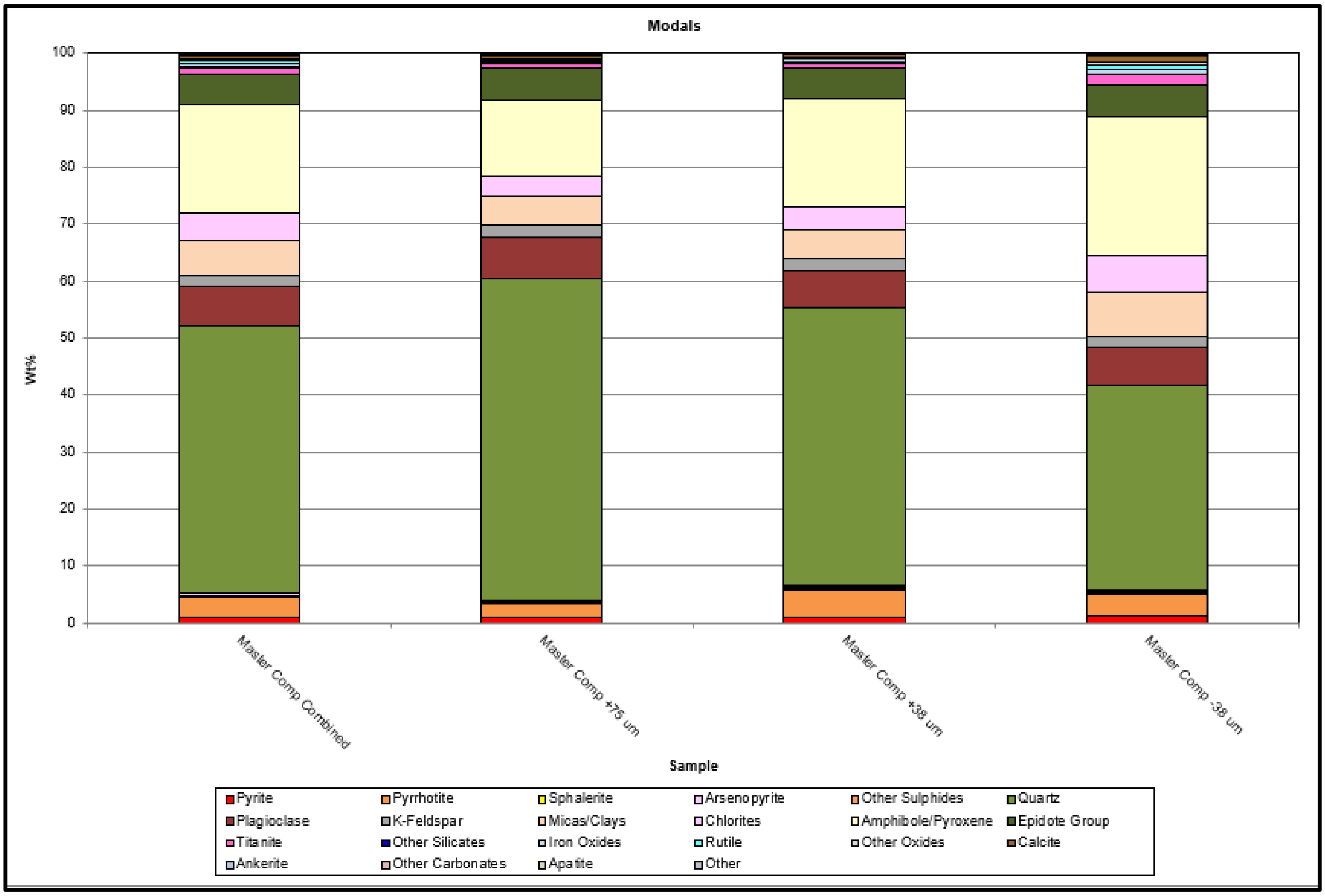

Figure 13-1: **Mineral Distribution in Various Particle Size Fractions**

13.3.2 Whole-Ore Cyanidation

Bottle roll ground whole-ore cyanidation for 48 hours at grind size at 80% passing 41 µm to 72 µm yielded encouraging gold recoveries of 91.8 to 94.0% with a NaCN strength of 1.0 g/L and at 40% solids (by wt.).

13.3.3 Flotation + Cyanidation

Average sulphide flotation recovered 88.9% gold into a flotation cleaner concentrate grading 38.2 g/t Au and representing 11.8% of feed mass. Cyanidation of reground flotation concentrates at 80% passing 24 µm and 9 µm and 2–3 g/L NaCN for 48 hours achieved a promising gold extraction of 93.9% and 96.8%, respectively. The flotation tailings responded reasonably well to the cyanidation (1 g/L NaCN). On average, approximately 72% of the gold was extracted from the low-grade flotation tailings. Overall, gold recovery from the combination of the flotation + cyanidation process route is expected to be in the range of 92.0–93.8%.

13.3.4 Gravity Separation + Cyanidation

Gravity separation resulted in recovering 31.3% of the gold at 80% passing 42 µm. After cyanidation on the gravity tailings, the gravity separation and cyanidation combined produced an overall gold recovery of 91.6%.

13.4 NFN Zone

The NFN Zone sample was a single composite sample assembled from half-split NQ-sized drill core sample rejects from 38 individual samples. As presented in subsequent subsections, the results are summarized from Grcic and Shi (2020). A composite was made by blending the rejects and then rotary split into 2 kg test charges. Test charges were investigated for whole-ore cyanidation and bulk sulphide flotation, followed by cyanidation of the flotation concentrate. One test charge was analyzed for Au, Ag, total sulphur, and a multielement analysis; a representative sample was examined by the QEMSCAN/MLA mineralogy analysis.

13.4.1 Master Composite

The metallurgical composite assayed 7.03 g/t gold and 2.8 g/t silver with a sulphur content of 1.40%.

The Bond Ball Mill Work Index of 14.5 kWh/t was obtained using a closed screen size of 106 µm, representing a moderately hard sample with respect to grinding resistance in a ball mill.

QEMSCAN/MLA mineralogy analysis indicated that 96.6% of the sample was silicate-rich non-sulphide minerals, and 3.4% by weight were sulphide minerals, pyrrhotite, pyrite, and arsenopyrite. Visible gold occurred as native gold and electrum ranging from 0.5 to 22 µm. At a primary grind of 80% passing 72 µm, approximately 15% of the gold is liberated, with the remainder associated with the non-sulphide gangue, bismuth, and bismuthinite.

13.4.2 Whole-Ore Cyanidation

Bottle roll ground whole-ore cyanidation for 48 hours at grind size varying from 26 µm to 73 µm yielded encouraging gold recoveries of 92.4–93.3% with a NaCN strength of 1.0 g/L and at 40% solids (by wt.).

13.4.3 Flotation + Cyanidation

Sulphide flotation recovered 88.7% gold in the flotation concentrate grading 55.8 g/t Au, representing 10% of feed mass. Cyanidation of 16 µm reground flotation concentrate at approximately 30% solids (by wt.) and 2 g/L NaCN for 48 hours achieved a promising gold extraction of 97.9%. An overall gold recovery of 86.8% is expected from the combination of the flotation + cyanidation process route. No cyanide leach testing on the flotation tailings was conducted; however, it is anticipated that overall gold extraction from the cyanidation of flotation tailings should be slightly lower than the results achieved from the whole-ore bottle roll cyanidation testing.

13.5 Inputs for Mineral Resource Estimate

According to the preliminary metallurgical test results, it is anticipated that approximately 92% of the gold should be recoverable from Gnu (Nutaaq) and NFN Zones after deducting gold losses from gold stripping from carbon and melting. Further test work should be conducted to optimize the processing conditions to improve overall gold recovery and determine metallurgical performance variations.

13.6 Recommendations for Further Test Work

The current test work performed on Gnu (Nutaaq) and NFN Zones is preliminary, and further test work should be conducted, including:

- Mineralogical study
- Crushability and grindability

- Verification tests on the mineralization responses to gravity separation, flotation, and cyanidation, including primary grinding and regrinding sizes
- Process flowsheet optimization using different combined process treatments, such as gravity separation + cyanidation flowsheet and gravity separation + flotation + cyanidation flowsheet. A trade-off study should be conducted to investigate the economics of these process routes
- Variability tests to investigate the metallurgical performance of various mineral samples to the developed flowsheet, including samples from different lithological zones, alteration zones, and spatial locations
- Dewatering characteristics determination on tailings/leach residue samples.

14.0 MINERAL RESOURCE ESTIMATES

In January 2022, Blue Star commissioned ALS GoldSpot Discoveries Inc (GoldSpot) to prepare an updated Mineral Resource Estimate for the Ulu Gold Project in the Nunavut Territory, Canada. This updated Mineral Resource Estimate follows a previous Mineral Resource Statement prepared by Gary Giroux, P.Eng. (Giroux Consultants Limited) on behalf of WPC Resources Inc. and dated July 10, 2015. This section summarizes the data, methodology, and parameters considered by GoldSpot to prepare the second Mineral Resource model for the Ulu Project.

The Mineral Resource estimation process, including the data review, geostatistical analysis, selection of resource estimation parameters, and grade interpolation, was completed by Chris MacInnis, P.Geo. (APGO # 2059). The updates to the geological wireframe model and the mineralized envelope wireframes internal to the geological model were completed by Peter McIntyre, P.Geo. (APGO # 2217). The open pit optimization work used in the preparation of the Mineral Resource Estimation was completed by Maureen Marks, P.Eng. of Tetra Tech.

Chris MacInnis, P.Geo, of ALS GoldSpot, conducted a site visit of the Ulu property from July 10 to 18 of 2022. ALS GoldSpot is satisfied at this point that the exploration work carried out by Blue Star was conducted in a manner consistent with industry best practices and, therefore, the exploration data and the drilling database are sufficiently reliable for the purpose of supporting a Mineral Resource evaluation. A copy of the report resides with BlueStar.

The Mineral Resource Statement for the Ulu Gold Project is presented in Table 14-1. The Mineral Resources are classified according to the NI 43-101 – Standards of Disclosure for Mineral Projects as defined on May 10, 2014, by the CIM. The effective date of the Mineral Resource Estimate is February 22, 2023.

The estimates are based on diamond drilling and some minor trench samples converted into pseudo-holes data supplied by Blue Star in November 2022. Details of this sampling and assay are described in Section 11.0 of this Technical Report.

Datamine software (Studio RM V1.6.75) was used for data compilation, domain wireframing, and all block modelling and estimation. The block model estimates were regularized and exported to Tetra Tech, who employed Deswick (StudioNPVS V1.4.26.0) for pit optimization and cut of grade selection prior to resource reporting.

ALS GoldSpot considers the gold mineralization at the Ulu Flood Zone to be amenable for open pit extraction near the surface. At depth, Flood will require the additional steps of generating UG stope designs to determine the amount of gold that can be included in the resource once it meets the definition of reasonable expectation of economic extraction. The Mineral Resources are reported at a cut-off grade (COG) of 1.5 g/t Au for all in-pit material and at a COG of 3.5 g/t Au for the UG in-situ material. The Mineral Resource Estimate table for the Ulu Gold Project can be seen in Table 14-1.

Table 14-1: Mineral Resource Estimate Table for the Ulu Gold Project, Nunavut (Effective Date: February 22, 2023)

	Zone	COG	Class	Quantity ('000 tonnes)	Grade Gold (g/t)	Contained Metal Gold (oz '000)
In Pit	Flood	1.5	Measured	678	6.05	132
			Indicated	318	5.14	53
			Inferred	40	5.35	7
	NFN	1.5	Inferred	159	12.66	65
	GNU		Inferred	41	17.85	24
UG	Flood	3.5	Measured	339	9.78	107
			Indicated	1,200	7.29	281
			Inferred	603	5.55	108
	NFN	3.5	Inferred	113	7.10	26
	GNU		Inferred	327	7.02	74
Combined	All Zones	-	Measured	1,017	7.29	238
			Indicated	1,518	6.84	334
			Inferred	1,283	7.34	303
			Total M & I	2,535	7.02	572
			All combined	**3,818**	**7.13**	**875**

Note: Figures may not add to totals shown due to rounding.

This Mineral Resource Update (Technical Report) should not be considered to be a PEA, PFS, or FS, as the economics and technical viability of the Project have not been demonstrated at this time. The information listed in this section of the Mineral Resource Update is preliminary in nature and includes Inferred Mineral Resources that are considered too speculative geologically to have the economic considerations applied to them that would enable them to be categorized as Mineral Reserves. Furthermore, there is no certainty that the conclusions or results reported in the Technical Report will be realized. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Neither ALS GoldSpot or Tetra Tech is aware of any environmental, permitting, legal, title, taxation, socio-economic, marketing, political, or other relevant issues that may materially affect the Mineral Resources.

14.1 Resource Database

The resource database was handed to GoldSpot on November 1, 2022, for final analysis. It was delivered as an Access DB and evaluated for all relevant data types. It comprises core boreholes drilled from both surface and UG and a small amount of channel samples collected in surface trenches. The database consists of 524 DDH boreholes with a total length of 112,820 m. The borehole intervals were not assayed from collar to toe, leaving many areas unsampled. Some of those areas are now believed to carry mineralization and will be re-sampled or redrilled in the future. In total, GoldSpot was provided with 24,325 sample gold assays. The QA/QC and ages of the various drill campaigns are documented in Section 10.0 of this Technical Report. All drilling and assays are relatively recent and believed to be of good quality.

All drilling and sampling data were imported into Studio RM, and the following validation steps were taken:

- Checked minimum and maximum values for each quality value field and confirmed/edited those outside of expected ranges.
- Checked for gaps, overlaps, and out of sequence intervals for both assays and lithology tables.
- Unassayed intervals or intervals with negative values were assigned ½ detection limits.
- Surveys were checked for "banana" holes and curvatures that did not make sense and corrected accordingly.
- Collars were pressed to the topography where appropriate, with care taken not to press the UG collars from previous development incorrectly.

The database descriptive statistics can be seen in Table 14-2. The amount of channel samples relative to the DDH data is nearly trivial, representing only 60 m and 64 assays (0.28% of assay and 0.06% of total assay length). Normally, these would be treated as a separate statistical population for analysis and treatment in the resource. However, the number of samples is so low and locally concentrated relative to the number of samples provided that they are not considered to me materially independent.

Table 14-2: DDH and Channel Database

Class	DDH	Channel
# BHIDs	544	13
Total Length (m)	112,820	60
# Assayed Segments	24,342	64
# Missing / -ve Segments	13,401	0
Total Segments	37,743	64

The location of the surface samples can be seen in Figure 14-1. The channel samples were converted to pseudo-holes for the estimation.

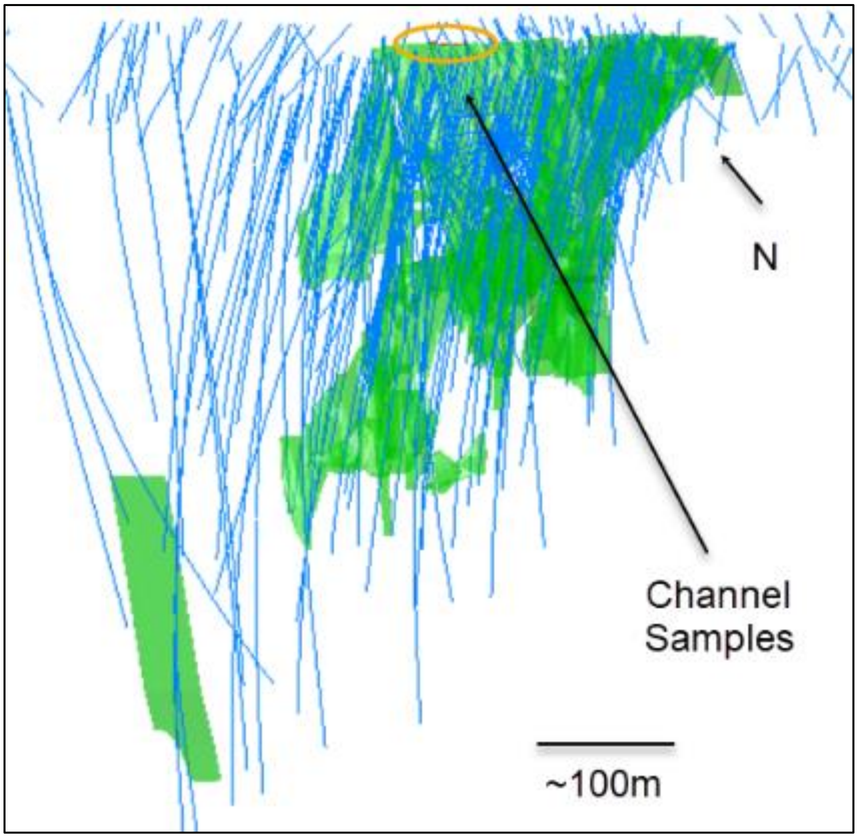

Figure 14-1: Oblique View of the DDH Information (Blue) and Channel Data (Gold) for the Flood Zone (ALS GoldSpot 2023)

The number of channel samples relative to the DDH data is nearly trivial, representing only 60 m and 64 assays (00.28% of assay and 0.06% of total assay length). Normally, these would be treated as a separate statistical population for analysis and treatment in the resource. However, the number of samples is so low and locally concentrated relative to the number of samples provided that they are not considered to be materially independent. The location and relative density of the surface samples can be seen in Figure 14-1. The channel samples were converted to pseudo-holes for the estimation and were included with the DDH data for all statistical work.

A topographical surface was created by Blue Star from publicly available data. All collar locations for surface drilling were pressed to the surface to ensure they were in the correct space. UG collars were checked relative to known workings to ensure they were in the correct space.

The SG was measured over various drill campaigns, consisting of 783 measurements relative to the 24,342 assays, with wide length variance. As well, 475 of the samples are in what is considered “waste”, leaving only 308 measurements in the mineralized zones (Table 14-4). With the various challenges relating to the density of the SG measurements relative to informing assays and the length variance, the length-weighted mean values for SG were used in the metal calculations by zone. These values, along with the raw descriptive statistics for the informing gold values, can be seen in Table 14-4 below.

14.2 The Geological and Mineral Domain Models

The updated geological model for Ulu was produced by ALS GoldSpot for Blue Star by Peter McIntyre (APGO #2217). The original model was created using drill logs as well as the surface geological map and structural interpretation. The most prominent component of the geological model is a major (originally E-W) tight fold which was dragged along the N-S shear zone with a dextral strike-slip movement.

The stratigraphy was modelled from the interior of the fold to the exterior as follows: metasedimentary, basalt, gabbro (coarse-crystal biotite-hornblende-rich basalt), metasedimentary, gabbro, basalt. Since it is not yet fully informed by the drilling, the north-west portion of the volume has been filled by metasedimentary rocks, which represent the continuity of the volcano-sedimentary sequence. The south-east portion of the geological model is occupied by an FP granitoid that intruded the folded volcano sedimentary sequence.

The final geological model and the mineral domains can be seen in Figure 14-2.

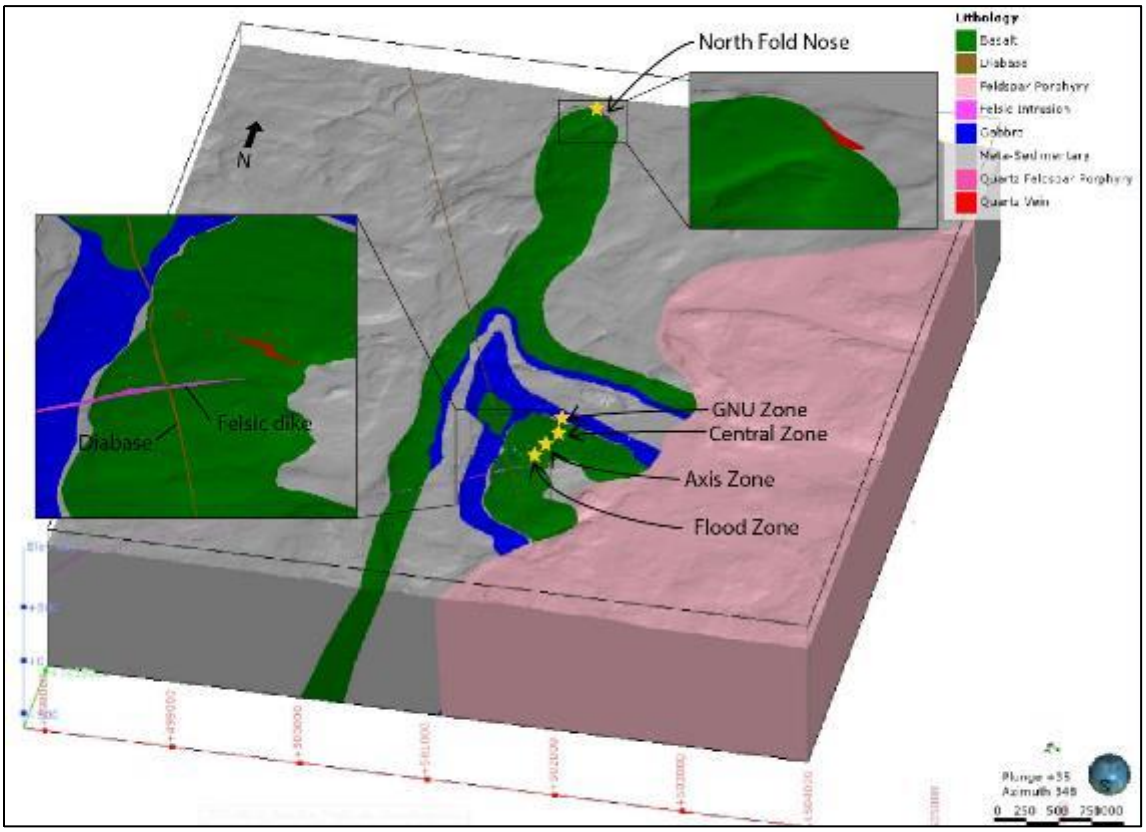

Figure 14-2: Geological Model of the Flood Zone (ALS GoldSpot 2023)

While the geological interpretation of the vertical section derived from the interpretation of drilling data is reasonable, it remains difficult to construct a robust 3-dimensional geological model for the distribution of the main rock types, structures, and alteration zones. Consequentially, the Mineral Resource modelling relies heavily on the spatial distribution of the main gold mineralization irrespective of geology modelled from the Leapfrog software and takes more of a "grade shell" approach, though the domains were produced manually on 20 m sections.

The vertical sectional interpretation to produce the mineralized domains was performed in Datamine Studio RM by Peter McIntyre (APGO # 2217). Three mineral domains in total were created and constrained for the Mineral Resource estimation – Flood, Gnu, and the NFN. There is quite a bit of spatial distance between them, with the main deposit being Flood, with Gnu lying about 600 m north and NFN approximately 4.5 km north. The relative locations of the deposits can be seen above in Figure 14-2.

Mineral envelopes for each of the domains were produced in the same way. Boundaries for the mineralization were defined using a 1 g/t threshold to create a mineralized shell. The domaining was completed on 1 m composited drillholes with vertical sections defined at 20 m spaced intervals, with additional sections created at 5–10 m (sometimes less) where needed for more detailed interpretation. Individual zones were terminated approximately 25 m past the modelled intersections where possible (often times much shorter depending on relative drill density), which equals roughly to half drill spacing.

Where known, mineralization was projected to the surface to match mapped mineralized trends (GNU and Nose) or to match known trenching and channel sample results (Flood).

These meshes were checked by Blue Star staff to ensure contacts were accurate and validated in Datamine Studio RM to ensure the surfaces had no crossover or topology errors. Mineralized envelopes were then cut against the topography and other surfaces known to intersect the mineralization, including late-stage diabase and felsic dykes, which crosscut the Flood mineralization and are known to be barren. The resulting envelopes were used as resource domains to extract data for geostatistical analysis and for constraining grade interpolation. Further, more specific details about each of the three domains are described below.

The Flood domain occurs on the interior of the main regional fold and is hosted in the basalt unit. Flood itself does not seem related to a fault as the mineralized zone does not offset the stratigraphy but seems to occur as localized extensional quartz veins. Early in the domaining process, it was determined that due to the relative distribution of the grades in the Flood area, producing an HG zone would be beneficial to control the influence of the HG assays on the estimation. Thus, for the Flood Zone, both HG and Low Grade (LG) domains were produced, with the HG generally being internal to the LG zone. Both zones in the Flood domain can be seen in Figure 14-3.

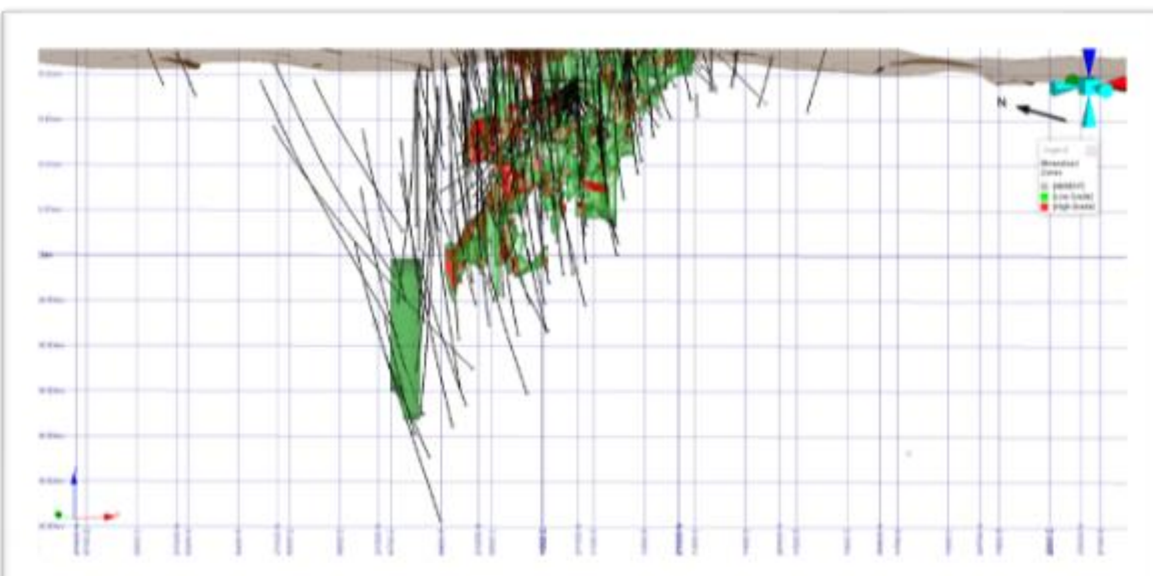

Figure 14-3: Longitudinal Section of Flood Zone's LG and HG Mineralized Envelopes (Green and Red), Drilling (Black) and Topography (Brown) (ALS GoldSpot 2023)

NFN Domain – this domain occurs as metre-scale veins in the nose of the fold at the contact between the metasediment layer and the basaltic flow. It has a well-mapped contact near the surface and occurs as a shallow "bowl" near the contact of the zones. Limited drilling has prevented a highly detailed shape from being produced, but it is considered a high-priority target for future drilling.

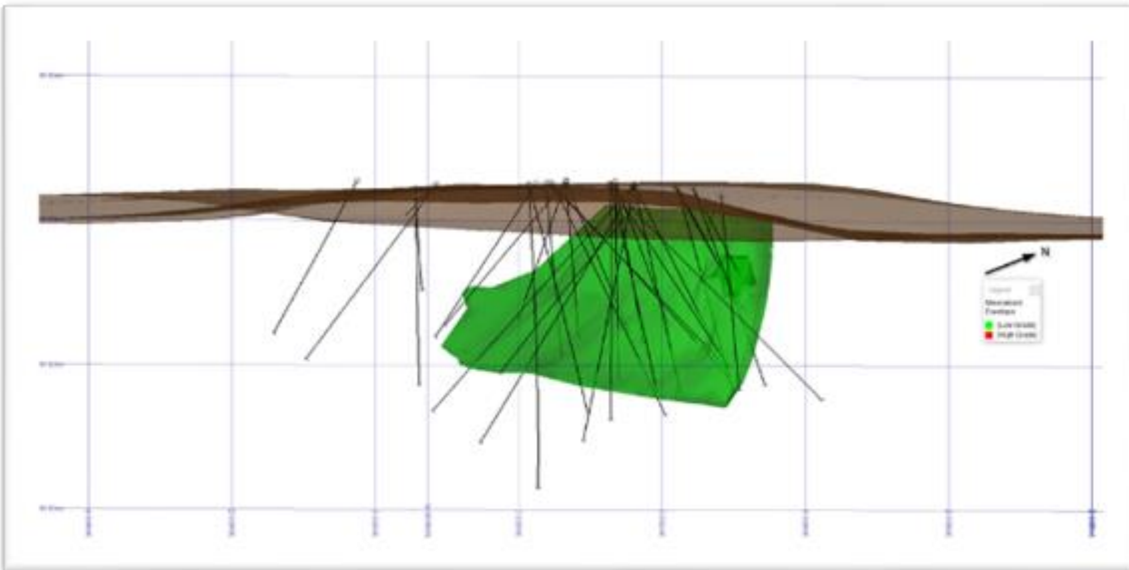

Figure 14-4: Oblique View of Nose Zone's LG Mineralized Envelope (Green), Drilling (Black) and Topography (Brown) (ALS GoldSpot 2023)

GNU Domain – this domain occurs as metre-scale structurally controlled veins in the basalts about 650 m north of the Flood Zone. It has a well-mapped contact near the surface and occurs as a series of silicious infilled, near conjugate faults. Limited drilling has prevented a highly detailed shape from being produced, but it is considered a high-priority target for future drilling.

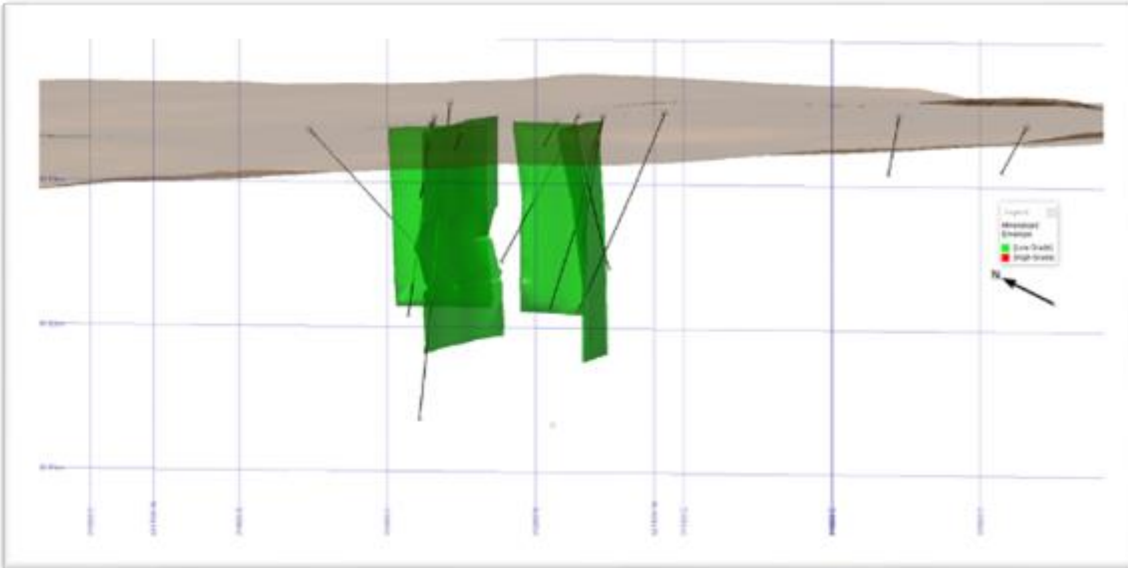

Figure 14-5: Oblique View of GNU Zone's LG Mineralized Envelopes (Green), Drilling (Black) and Topography (Brown) (ALS GoldSpot 2023)

Though there are three primary domains—Flood, Gnu, and NFN—Flood was split into two domains, as described above, with separate LG and HG zones. As well, a waste model (not reported) was produced (see below) to facilitate the building of a pit shell analysis for the Flood area. In total, the final block models were coded with five zones, four of which are reported in the resource table. The code used can be seen in Table 14-3.

Table 14-3: Domain Model Codes

Zone	Code
Flood (LG)	1
Flood (HG)	2
NFN	3
GNU	4
WASTE	5

14.3 Assay Capping and Compositing

The gold assay data within each of the four resource domains were extracted and analyzed to determine an appropriate composite length and cap value. The raw data for the informing drillhole gold and SG data can be seen in Table 14-4.

Table 14-4: Raw Statistics for the DDH Data by Domain; Upper Table Assays, Lower Table Specific Gravity

Domain		Sample Count	Minimum	Maximum	Mean	Std. Dev	COV
Flood (LG)	Au	2,670	0.0025	53.28	2.40	4.75	1.98
Flood (HG)		2,378	0.0025	69.60	10.15	9.59	0.95
NFN		109	0.0100	69.70	7.25	11.37	1.57
GNU		179	0.0025	152.00	4.95	14.53	2.94
Domain		**Sample Count**	**Minimum**	**Maximum**	**Mean**	**Std. Dev**	**COV**
Flood (LG)	SG	156	2.2700	3.97	2.95	0.17	0.06
Flood (HG)		120	2.6400	3.29	2.95	0.13	0.04
NFN		7	2.7400	2.85	2.78	0.04	0.01
GNU		16	2.6540	3.52	2.89	0.24	0.08

*All unassayed samples were assigned ½ detection for the descriptive statistics and resource estimate. All mean values are length weighted.

Composites were constructed after undertaking a sample length analysis using histograms for each resource domain. For each zone, a composite length of 1 m was chosen. An example of the histogram for the Flood LG zone can be seen in Figure 14-6, and the analysis for all domains can be seen in Appendix A.

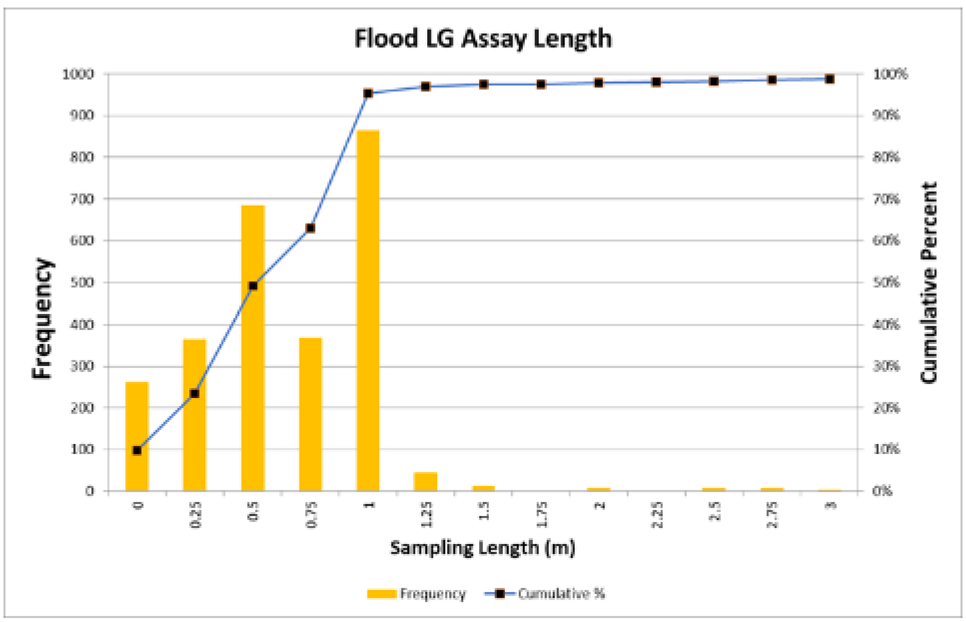

Figure 14-6: Histogram for the Flood LG Zone

A modal composite length of 1.0 m was applied to all the data in all domains (borehole and channel samples) except for Gnu, where a value of 0.75 m was used. The composites were then created using raw values contained within each domain. When there were lengths left at the end of the DDH post-compositing, the length was adjusted across the entire DDH trace to be as close to 1 m as possible and still retain all sample values.

SG values were assigned using the length-weighted mean for the SG samples and not estimated in the final run. The table for the SG weighted mean can be seen above in Table 14-4.

The resulting statistical values for the composted data can be seen in Table 14-5.

Table 14-5: Statistical Values for the Composted Data

Domain	Sample Count	Minimum	Maximum	Mean	Std. Dev	COV
Flood (LG)	2,232	0.0025	38.84	2.41	4.22	1.75
Flood (HG)	1,702	0.0025	64.98	10.12	8.50	0.84
NFN	81	0.0100	50.56	7.34	10.53	1.43
GNU	154	0.0050	118.81	5.08	12.99	2.56

*All assays were composited to 1 m length, except GNU, which was completed at 0.75 m.

The impact of HG outliers on composite data was examined using log probability plots and cumulative statistics for each resource domain. This analysis for the borehole data in the Flood LG domain can be seen in Figure 14-7.

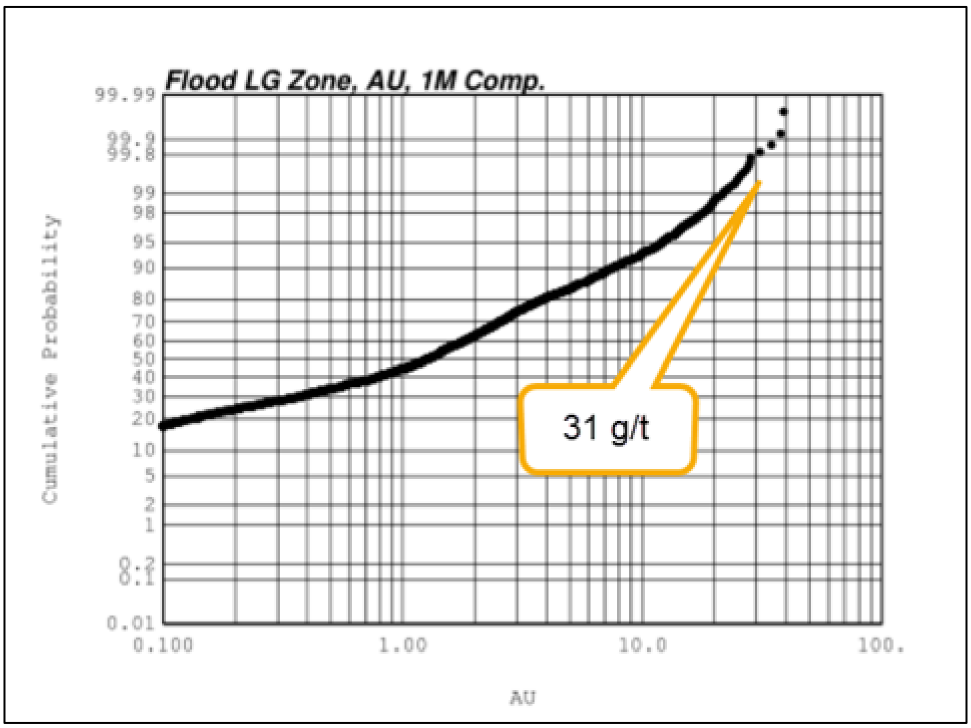

Figure 14-7: Analysis of the Borehole Data in the Flood LG domain

The capping analyses for the other domains are provided in Appendix B. The basic statistics for the composited-capped values can be seen in Table 14-6.

Table 14-6: Basic Statistics for the Composted Capped Values

Domain	Sample Count	Cap Value (g/t)	# Samples Capped	% Capped	Minimum	Maximum	Mean	Std. Dev	COV
Flood (LG)	2,232	31.00	3	0.13	0.003	31.000	2.41	4.16	1.73
Flood (HG)	1,702	41.00	6	0.35	0.003	41.000	10.07	8.23	0.82
NFN	81	48.70	1	1.23	0.010	48.700	7.32	10.44	1.43
GNU	154	52.70	2	1.30	0.003	52.700	4.53	9.23	2.04

14.4 Block Model Definition and Estimation Methodology

The criteria used in the selection of block size included the borehole spacing, composite length, as well as the geometry of the modelled auriferous zones. A block size of 5 m x 5 m x 5 m was used, which was the same as the previous estimation. Sub-cells were used, allowing a resolution of 1 m x 1 m x 1 m to better honour the geological and estimation domains. Sub-cells were assigned the same grade and specific gravity as the parent cell. No rotation was applied to the block model. The characteristics of the block model are summarized in Table 14-7.

Table 14-7: Characteristics of the Block Model

Domain	Axis	Parent Block Size (m)	Splits	Axis of Fill	Origin*	Number of Cells	Rotation
LG, HG, GNU	X	5	4	XZ	500,520	250	0
	Y	5	4	XZ	7,420,725	266	0
	Z	5	4	XZ	-565	248	0
NFN	X	5	4	XZ	500,340	128	0
	Y	5	4	XZ	7,425,375	120	0
	Z	5	4	XZ	70	109	0

*Origin is defined in Studio RM as the Deepest, Most Southern and Most Westerly Point. A buffer of 200 m was added to all protoms to include WASTE areas for Pit Shell analysis.

The parent cell sub-celling and efficiency were checked to ensure a good fill relative to the domain wireframes. To check this, a volume analysis was undertaken to compare the volumes of the block models to the domains. The fill was efficient, and the results can be seen in Table 14-8.

Table 14-8: Volume Comparison of Block Models to the Domains

Object	Volume (m^3)
LG Wireframe	1339858
LG Block Model	1339803
Difference*	-0.0041%
HG Wireframe	241044
HG Block Model	241040
Difference*	-0.0017%
NFN Wireframe	108789
NFN Block Model	108823
Difference*	0.0312%
GNU Wireframe	619325
GNU Block Model	619226
Difference*	0.0160%
All WFs	2504494
All BMs	2504419
Difference*	0.00%

*<1% difference (+ve or -ve) is acceptable. Note that the WASTE Zone does not have a wireframe.

14.5 Grade Interpolation

For interpolation, the geological wireframes were treated as separate hard boundary domains. Using a semi-hard boundary was investigated but abandoned for two reasons:

1. With a composite length of 1 m and having very narrow resource domains, there was no appropriate length to select for a semi-hard boundary;
2. The COV value for the informing Au values in the capped-composite HG zone—which in conjunction with the LG area, was the only region being considered for a semi-hard boundary—was low at 0.79. This strongly indicates the domaining of the HG was accurate and did not warrant a semi-hard approach.

Separate block models were created for each domain. For the Flood zone, the LG and HG zones were added together for final delivery, with the HG overprinting the LG areas. None of the data in the LG area informed the HG estimation, though, and vice versa.

A series of estimation parameter sensitivity runs were undertaken by GoldSpot prior to the final estimation run. Gold grades were estimated using Ordinary Kriging (OK) in the Flood zones and inverse power of distance cubed (IPD3) as a primary estimator, applying capped composite data in each domain. SG was not estimated for the reasons described above, and instead, the length-weighted mean of SG was applied separately by zone for the final tonnage and in-situ metal calculations.

Variograms were produced using "Varify" from Sequent in the Flood domain only. The variogram results can be seen in Table 14-10, the parameters used in this Mineral Resource Estimate are similar to those used in the previous 2015 Mineral Resource Estimate.

Four estimation passes were used to inform the Flood Zone blocks, using increasing search neighbourhood sizes and decreasing controls on the informing data. The first pass was the most restrictive, with the fourth being the most lenient. The first pass was used to inform the Measured category (along with an approximate distance to existing UG workings and channel samples of 30 m), and the second was used for the Indicated. Passes 3 and 4 were both used for the Inferred, though pass 4 had minimal contributions due to the tight explicit domaining. Measured and Indicated were only considered for the Flood Zone, as the other zones did not have enough sampling to move above the Inferred classification. The complete list of all the interpolation parameters can be found in Table 14-10.

Table 14-9: List of Variogram Parameters

		Angle of Rotation			
	Nugget	Z	Y	Z	
	0.3	120	105	50	
		Axis			
	Shape	Mid (m)	Long (m)	Short (m)	Influence
Structure 1	Exponential	15	15	10	0.4
Structure 2	Spherical	50	80	30	0.3

Table 14-10: List of All Interpolation Parameters

Zone	Pass	Method	Search Ellipse Parameters									Informing Capped Composites		Octants			MAXKEY
			Axis of Rotation			Angle (°)			Range (m)			Min. Comp	Max. Comp	Number	Min. per Oct	Max. per Oct	
Flood (LG)	1	OK	Z	Y	Z	120	105	50	20	35	10	7	12	3	1	4	3
	2		Z	Y	Z	120	105	50	30	60	15	5	12	3	1	4	3
	3		Z	Y	Z	120	105	50	50	80	30	3	8	0	0	0	0
	4		Z	Y	Z	120	105	50	70	120	45	1	8	0	0	0	0
Flood (HG)	1		Z	Y	Z	120	105	50	20	35	10	7	12	3	1	4	3
	2		Z	Y	Z	120	105	50	30	60	15	7	12	3	1	4	3
	3		Z	Y	Z	120	105	50	50	80	30	3	8	0	0	0	0
	4		Z	Y	Z	120	105	50	70	120	45	1	8	0	0	0	0
NFN	1	IPD3	Z	Y	Z	0	0	0	40	40	40	3	8	0	0	0	3
	2		Z	Y	Z	0	0	0	80	80	80	1	8	0	0	0	0
GNU	1		Z	Y	Z	0	0	0	40	40	40	3	8	0	0	0	3
	2		Z	Y	Z	0	0	0	80	80	80	1	8	0	0	0	0

The search ellipse (SE) was oriented relative to the strike/dip/plunge of the HG mineralization, and a short search ellipse was used on the first and second passes. The orientation of the SE relative to the wireframe can be seen in Figure 14-8.

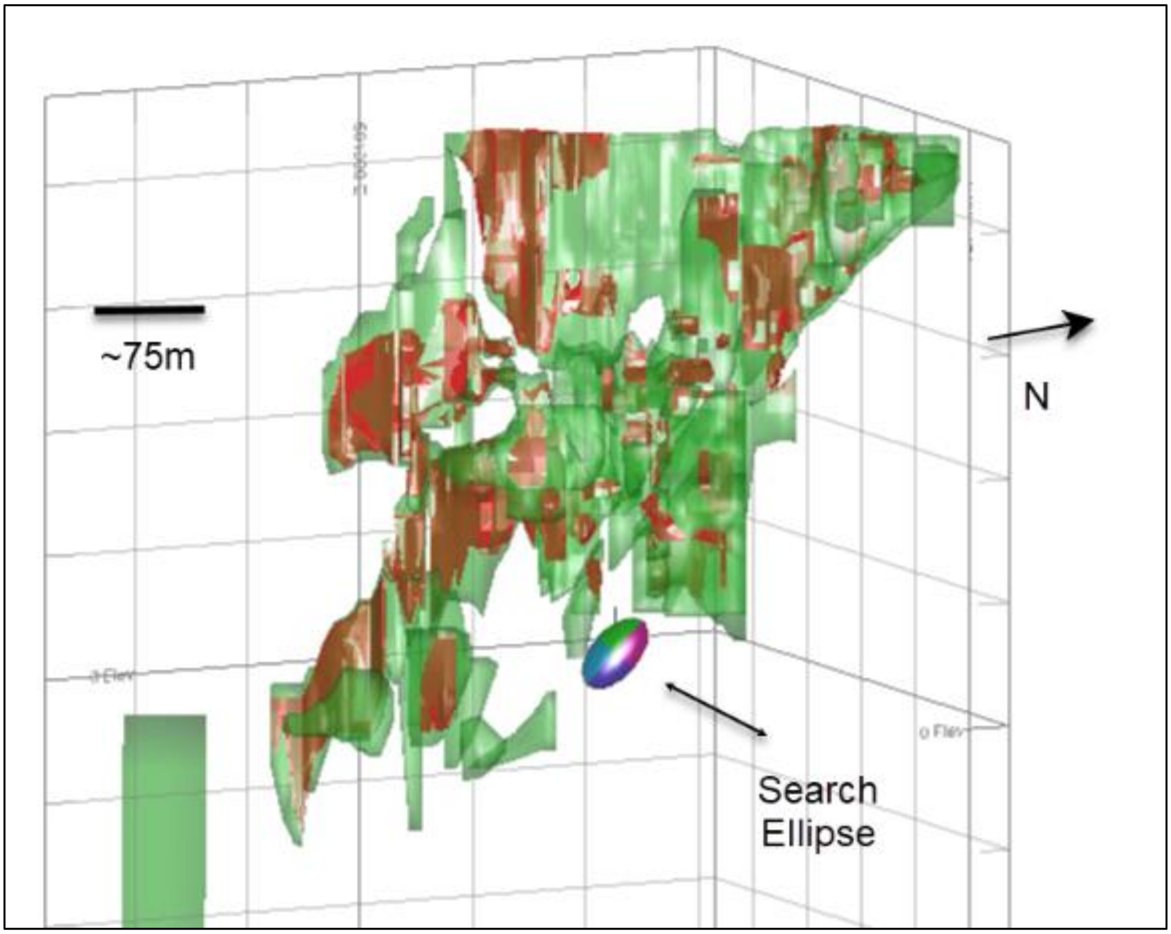

Figure 14-8: Oblique View (NNW) of the LG (Green) and HG (Red) Zones for Flood and the Search Ellipse Size and Orientation (ALS GoldSpot 2023)

14.6 Model Validation

Upon completion, the models were checked both visually and statistically to ensure that the estimation was robust and did not over-represent grade, tonnage, or over-smear grade into areas where interpolation would not be appropriate. Visual checks were done for all four models and compared against the informing capped and composited data to make sure that, sectionally and globally, the interpolated values were reflective of the informing data. As well, an IPD3 model and a Nearest Neighbour model were generated and checked against the kriged model for Flood, and a Nearest Neighbour was generated for the other models to compare to the IPD3 values. The results were all reasonable and within expected ranges. A typical section can be seen in Figure 14-9.

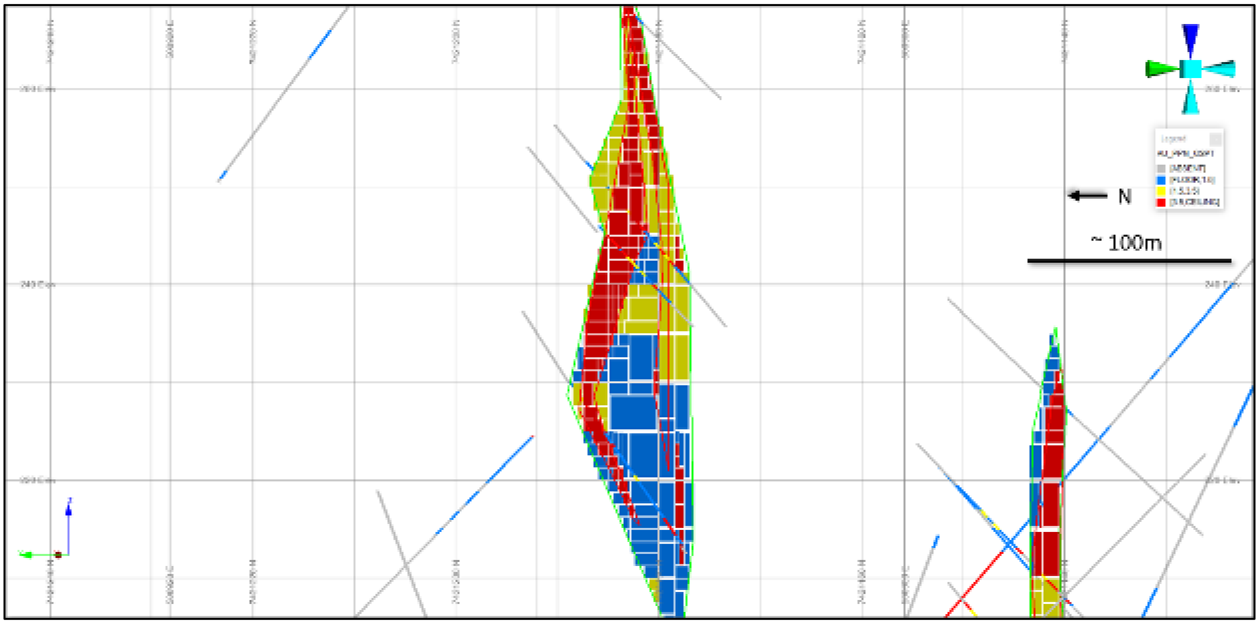

Figure 14-9: Oblique View of Flood Zone Mineralized Envelopes (Green+Red), Drilling (Grey), Topography (Brown), and the Coloured Block Model (< 1.5 g/t Au Blue, 1.5-3.5 g/t Au Yellow, >3.5 g/t Au Red). Section width is 20 m (ALS GoldSpot 2023)

Further, as the Flood Zone was going to potentially contain both Indicated and Measured levels of resources, an analysis of the informing declustered data was done against the final block values and collocated in space. For this, a series of charts were produced to compare the informing vs estimated values. Figure 14-10 shows the tables for the Flood LG Zone.

The checks show:

1. Globally, the grade is not significantly over- or underestimated. The declustered mean of the estimated grade vs the declustered mean of the informing data only differs by 0.08 g/t.

2. The collocated correlation value (0.69) between the two shows that there is a good correlation between the closest informing data and the estimated value, considering the 0.3 normalized nugget modelled in the variogram. This indicates there was no material over or under-smoothing of the interpolants during the estimation via the selection of interpolant criteria, though due to many null values having to be included from continuity, some skewing of the grade in the sub 0.1 g/t values may have occurred.

With both the visual and statistical checks indicating the estimation was done appropriately, the classification of the deposit was next considered.

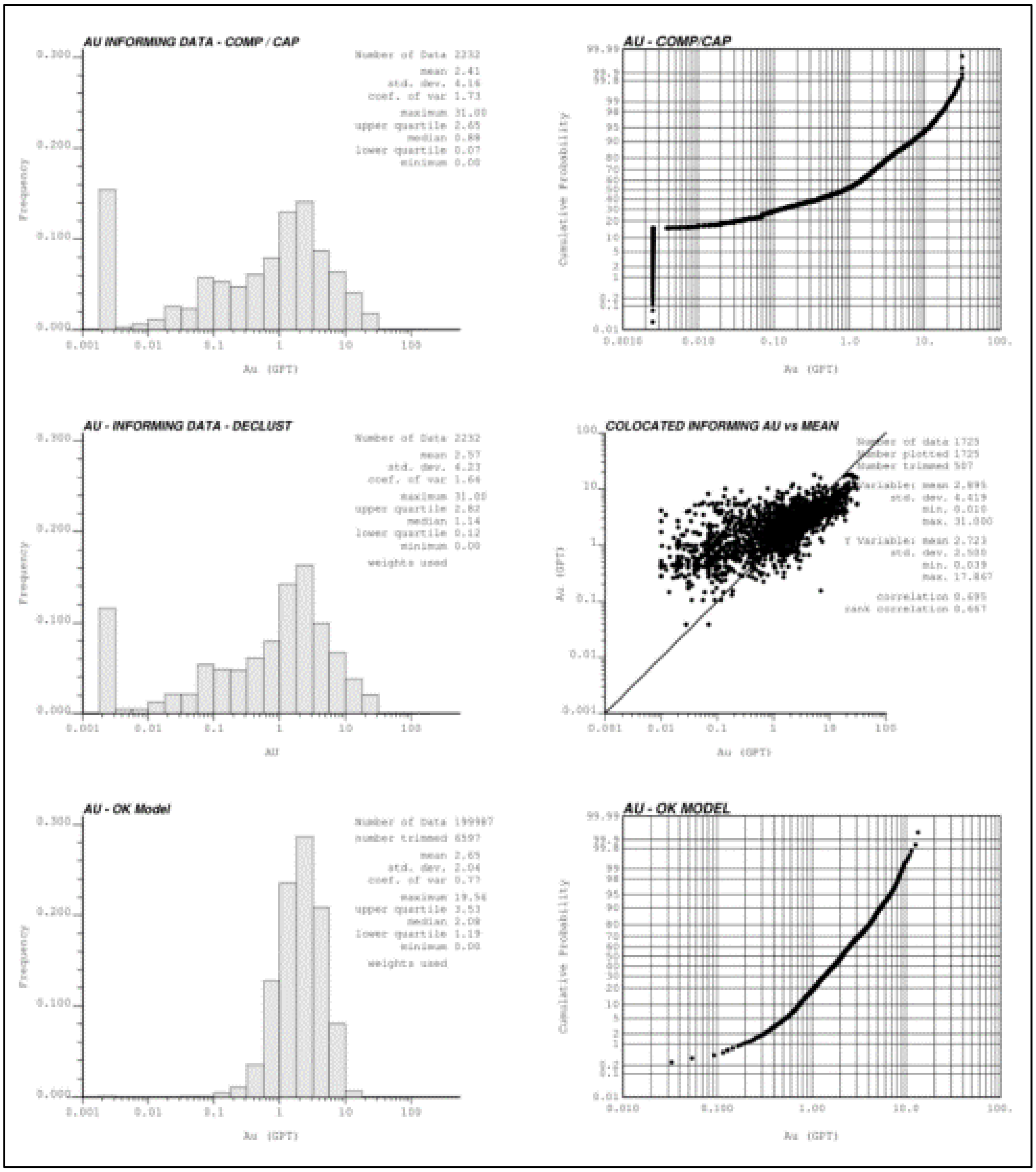

Figure 14-10: LG Flood Declustered Informing Data vs BM Value Checks

14.7 Resource Classification and Tabulation

The model was classified in accordance with the "CIM Definition Standards for Mineral Resources and Mineral Reserves", as published in 2014.

Measure Resources – The CIM defines measured resources as:

"A Measured Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit.

Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation.

A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

Mineralization or other natural material of economic interest may be classified as a Measured Mineral Resource by the Qualified Person when the nature, quality, quantity, and distribution of data are such that the tonnage and grade or quality of the mineralization can be estimated to within close limits and that variation from the estimate would not significantly affect potential economic viability of the deposit. This category requires a high level of confidence in, and understanding of, the geology and controls of the mineral deposit."

For the Ulu Deposit, the Measured classification was applied to only the Flood region. As Flood was previously mined, has the UG infrastructure, and continues tens of thousands of metres of drilling, it is thought that applying this level of confidence to some areas is appropriate. This was done in two stages:

1. An "estimation pass" system, with only the first of the four passes being used in the interpolation, to tentatively classify areas that met the criterion as Measured (See Table 14-11). This was highly restrictive, in the size of the search ellipse used, in the number of drillholes needed, the number of samples and in the application of an octant search to perform a pseudo-delustering on the fly during the estimation.
2. A secondary WF was constructed sectionally through the data in 20 m sections to group large groups of contiguous blocks together, smoothing out any blocks that had a different classification to make a continuous measured class. This was also done while considering UG exposures within 30 m of blocks and within exposures to trenched channel assays.

Once the author was confident in the WF outline, the classification of Measured was applied to the blocks within it for reporting.

Indicated Resources – The CIM defines indicated resources (in part) as:

"An Indicated Mineral Resource is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit.

Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation.

An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

Mineralization may be classified as an Indicated Mineral Resource by the Qualified Person when the nature, quality, quantity and distribution of data are such as to allow confident interpretation of the geological framework and to reasonably assume the continuity of mineralization. The Qualified Person must recognize the importance of the Indicated Mineral Resource category to the advancement of the feasibility of the project. An Indicated Mineral Resource estimate is of sufficient quality to support a Pre-Feasibility Study which can serve as the basis for major development decisions."

For the Ulu Deposit, the Indicated classification was applied to only the Flood domain. As Flood was previously mined, has the UG infrastructure, and continues tens of thousands of metres of drilling, it is thought that applying this level of confidence to some areas is appropriate. This was done in two stages:

1. An "estimation pass" system, with only the second of the four passes being used in the interpolation, to tentatively classify areas that met the criterion as Indicated (See Table 14-11). This was moderately restrictive, in the size of the search ellipse used, in the number of drillholes needed, the number of samples, and in the application of an octant search to perform a pseudo-delustering on the fly during the estimation.

2. A secondary WF was constructed sectionally through the data in 20 m sections to group large groups of contiguous blocks together, smoothing out any blocks that had a different classification to make a continuous indicated class.

Once the author was confident in the WF outline, the classification of indicated was applied to the blocks within it for reporting.

Inferred Resources – The CIM defines inferred resources (in part) as:

"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.

An 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 5 CIM Definition Standards for Mineral Resources & Mineral Reserves May 10, 2014 developed mines. Inferred Mineral Resources can only be used in economic studies as provided under NI 43- 101.

There may be circumstances, where appropriate sampling, testing, and other measurements are sufficient to demonstrate data integrity, geological and grade/quality continuity of a measured or Indicated Mineral Resource, however, quality assurance and quality control, or other information may not meet all industry norms for the disclosure of an indicated or Measured Mineral Resource. Under these circumstances, it may be reasonable for the Qualified Person to report an Inferred Mineral Resource if the Qualified Person has taken steps to verify the information meets the requirements of an Inferred Mineral Resource.

For the Ulu Deposit, the Inferred classification was applied to Flood, NFN, and Gnu. This was done in two stages:

1. An “estimation pass” system, with the third and four passes being used in the interpolation to tentatively classify areas that met the criterion as Inferred (See Table 14-11). This search was the least restrictive in the size of the search ellipse used, the number of drillholes needed, and the number of samples needed to inform the estimation.
2. All interpolated blocks that were internal to the domained WFs and not included in the wireframes representing Measured and Indicated were classified as Inferred.

The fully classified Flood Zone can be seen below in Figure 14-11.

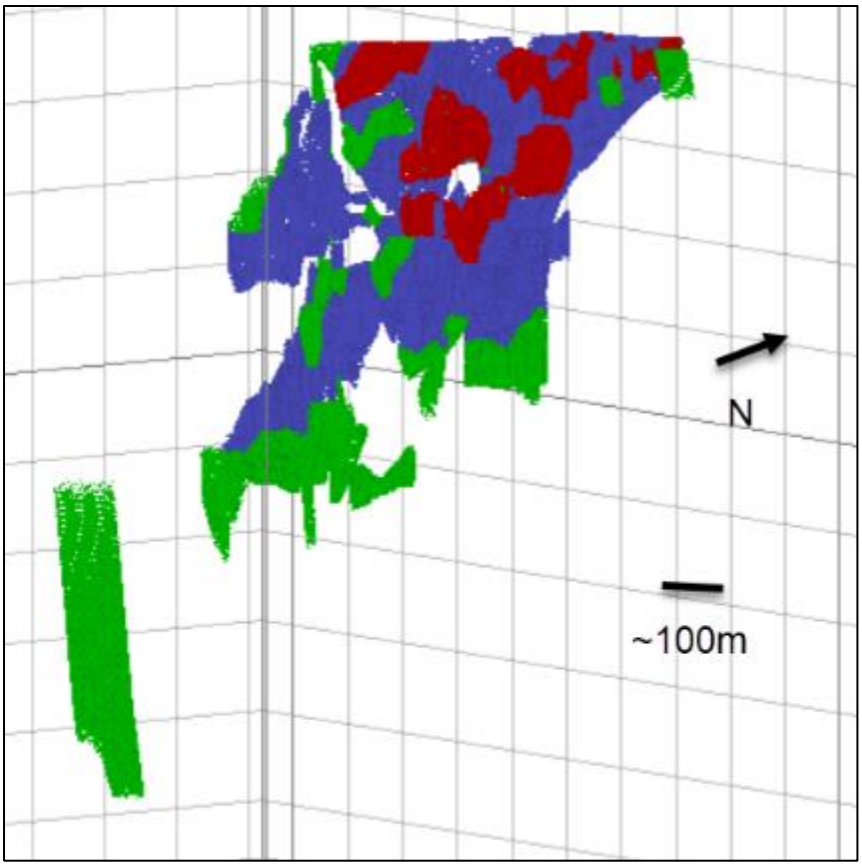

Figure 14-11: Oblique view of Flood looking NW. Measured =Red, Indicated = Blue and Inferred = Green (ALS GoldSpot 2023)

With the zones all appropriately classified, the final resource table was created at a COG of 1.5 g/t for the Open Pit section and 3.5 g/t for the conceptual UG portions across all deposits. The final resource table can be seen in Table 14-11.

Table 14-11: Mineral Resource Table for the Ulu Deposit, Nunavut (Effective Date: February 22, 2023)

	Zone	COG	Class	Quantity ('000 t)	Grade Gold (g/t)	Contained Metal Gold (oz '000)
In Pit	Flood	1.5	Measured	678	6.05	132
			Indicated	318	5.14	53
			Inferred	40	5.35	7
	NFN	1.5	Inferred	159	12.66	65
	GNU		Inferred	41	17.85	24
UG	Flood	3.5	Measured	339	9.78	107
			Indicated	1,200	7.29	281
			Inferred	603	5.55	108
	NFN	3.5	Inferred	113	7.10	26
	GNU		Inferred	327	7.02	74
Combined	All Zones	-	Measured	1,017	7.29	238
			Indicated	1,518	6.84	334
			Inferred	1,283	7.34	303
			Total M & I	2,535	7.02	572
			All combined	**3,818**	**7.13**	**875**

1. Mineral Resources, which are not Mineral Reserves do not have demonstrated economic viability. The estimate of Mineral Resources may be materially affected by environmental, permitting, legal, the taxation, socio-political, marketing, or other relevant tales. Confidence in the estimate of Inferred Mineral Resources is insufficient to allow the meaningful application of technical and economic parameters. There is no guarantee that all or any part of a Mineral Resource Estimate can or will be converted into a Mineral Reserve. The Mineral Resources in this estimate were calculated using the CIM, CIM Standards on Mineral Resources and Reserves, Definitions and Guidelines prepared by the CIM Standing Committee on Reserve Definitions and adopted by CIM Council. All figures are rounded to reflect the relative accuracy of the estimates.
2. Figures may not add to totals shown due to rounding.

As the CIM code states, resources must meet a "reasonable expectation of economic extraction" to be considered a true resource. The case for economic extraction relies on the net value of resources being sent to the plant to be positive; the average feed grades must be greater than the breakeven grade (cost equivalent) of 1.5 g/t Au. The mineral resources were pit constrained using a metal price of US$1,750/oz. Table 14-12 below shows the pit optimization parameters that were used.

Table 14-12: Pit Optimization Parameters

Parameters	Unit	Values
Pit Slope Angle	Degrees	45.0
Mining Operating Cost	$/t	4.13
Process Operating Cost*	$/t	59.70
Gold Recovery	%	92

table continues…

Parameters	Unit	Values
Mining Recovery / Mining Dilution	%	95 / 5
Gold Price	US$/oz	1,750

*Includes processing cost, transportation cost, refining cost and general & administration cost

Figure 14-12 and Figure 14-13 show the Flood zone mineralization that is constrained by the pit shell and a plan view of the Flood, Gnu, Axis, and Central zones pit shells.

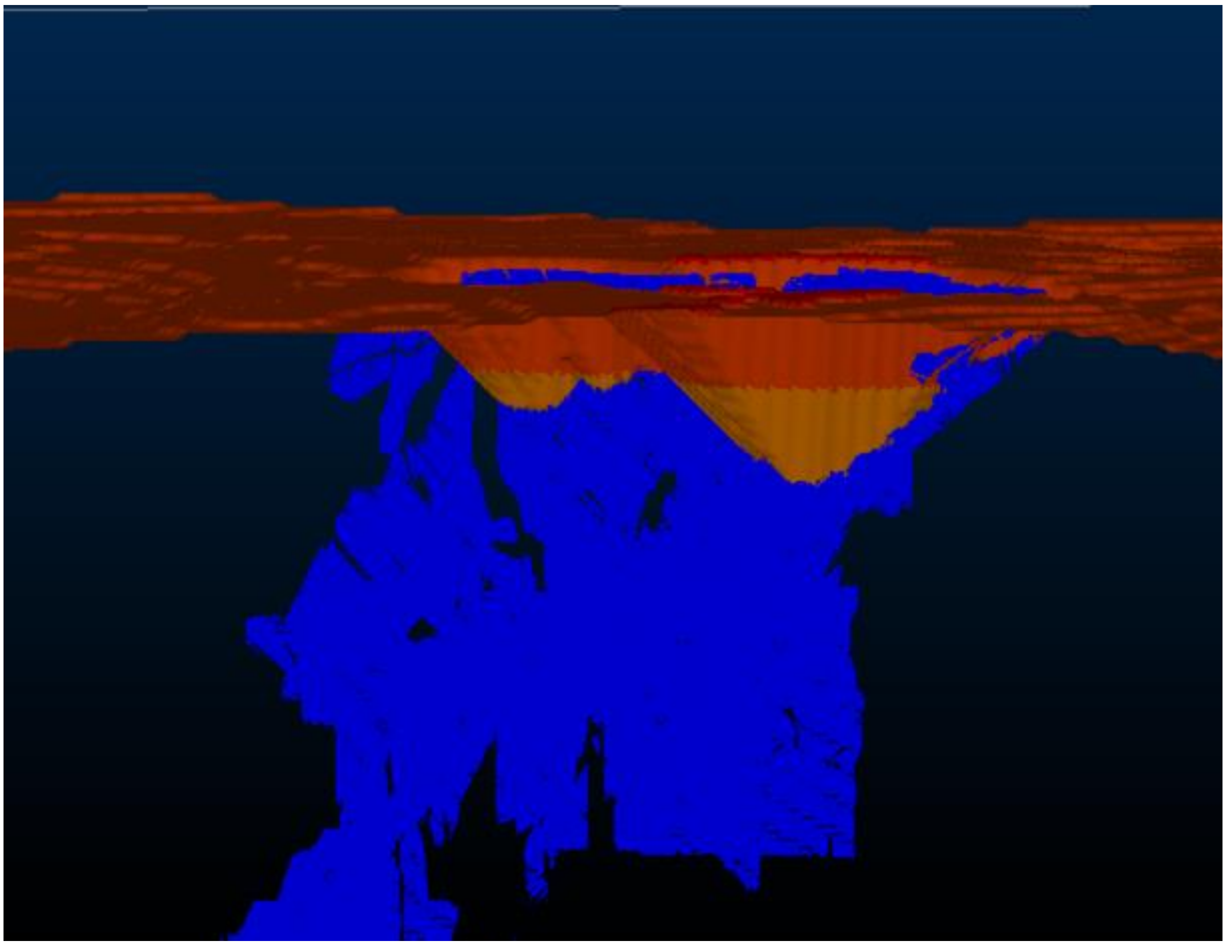

Figure 14-12: Flood Zone Mineralization Constrained by the Pit Shell (Tetra Tech 2023)

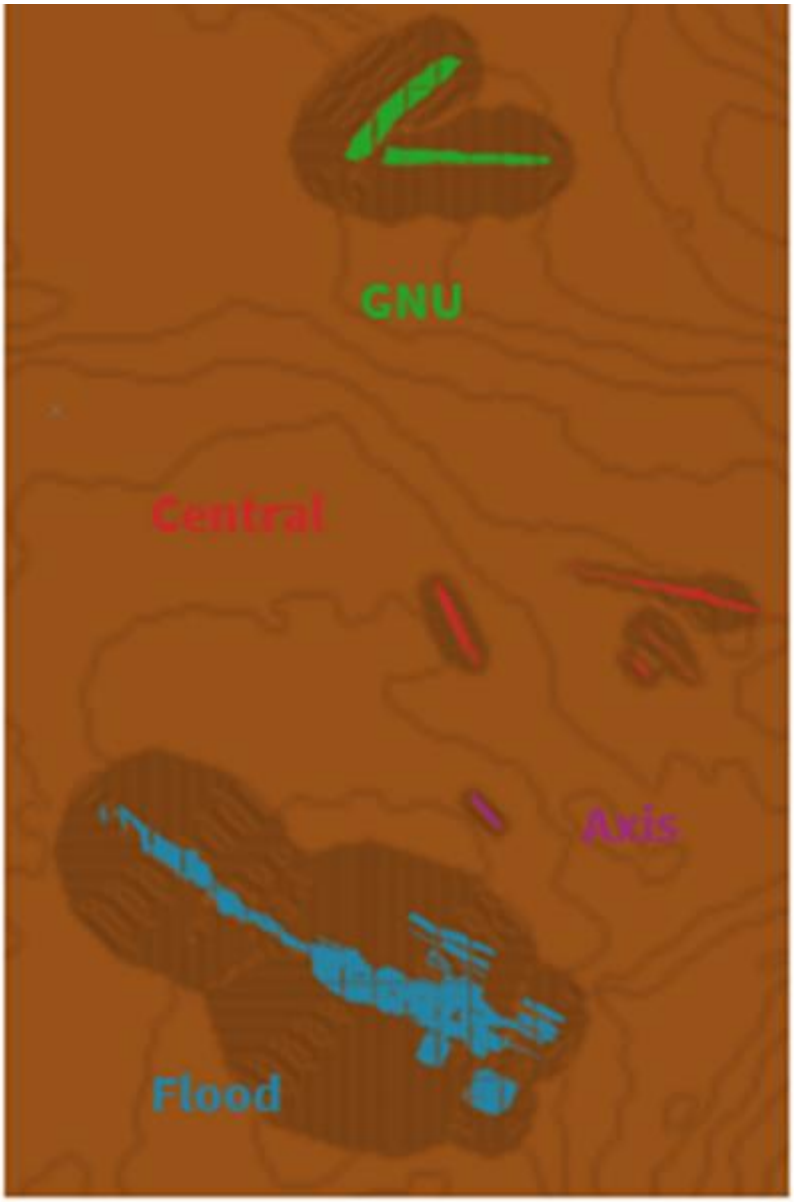

Figure 14-13: Plan View of the Flood, Gnu, Axis, and Central Zones Pit Shells (Tetra Tech 2023)

Grade-tonnage (GT) sensitivity tables were produced in both Datamine Studio RM and Excel for all reported zones. The GT Tables for the Flood Zone LG can be seen below, with the other eight listed in Appendix C.

Table 14-13: GT Table for Flood - HG Measured In-Pit

COG	Quantity	Grade	Contained Metal
	('000 t)	Gold (g/t)	Gold (oz '000)
0.00	1,068	4.18	143
0.50	995	4.46	143
1.00	875	4.97	140
1.50	678	6.05	132
2.00	554	7.01	125
2.50	483	7.71	120
3.00	423	8.42	114
3.50	380	9.01	110
4.00	350	9.46	106
4.50	330	9.77	104
5.00	307	10.15	100
5.50	296	10.32	98
6.00	279	10.61	95
6.50	262	10.90	92
7.00	248	11.12	89
7.50	222	11.58	83
8.00	192	12.18	75
8.50	176	12.54	71
9.00	153	13.11	65
9.50	138	13.55	60
10.00	127	13.87	57
10.50	114	14.28	52
11.00	101	14.73	48
11.50	91	15.14	44
12.00	83	15.45	41

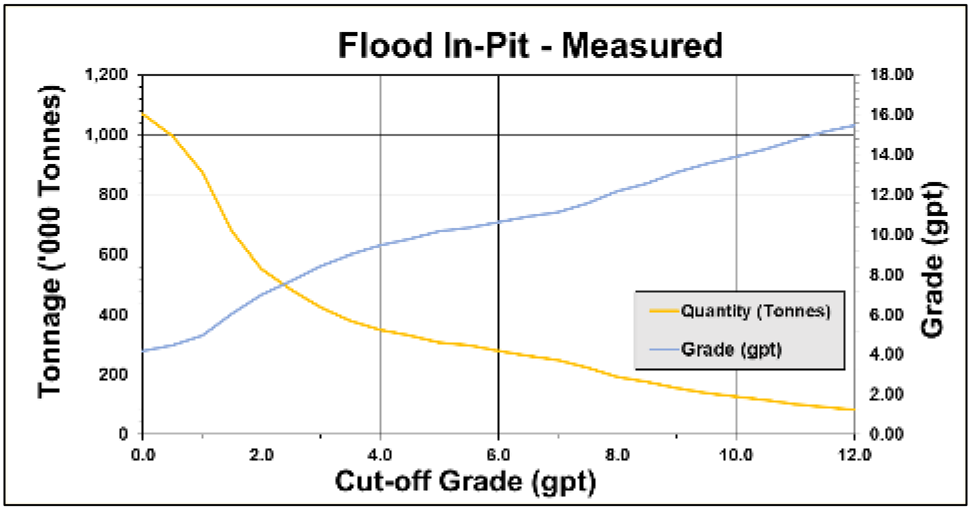

Figure 14-14: GT Sensitivities for Flood – HG Zone in the Measured In-Pit

This Technical Report also benefited from an independent review of the final resource table documentation by Peter McIntyre, P.Geo.

15.0 MINERAL RESERVE ESTIMATES

No NI 43-101 compliant reserve estimate currently exists for the Ulu Gold Project.

16.0 MINING METHODS

No mining methods were designed for the Technical Report.

Historic reports have referred to various mining methods; however, a QP has not done sufficient work to classify this work as current; these reports are listed in Section 6.0.

17.0 RECOVERY METHODS

No recovery methods were designed for the Technical Report.

Historic reports have referred to various recovery methods; however, a QP has not done sufficient work to classify this work as current; these reports are listed in Section 6.0.

18.0 PROJECT INFRASTRUCTURE

Due to the historically advanced project nature of the Ulu Gold Project, the currently designed infrastructure is restricted to the design of facilities to manage waste materials left by previous operators. These designs include a partially completed landfill and a not yet constructed STF.

The designed landfill was initiated in 2021, placing 8,729 m^3 of historically accumulated non-hazardous waste such as used vehicles, camp units, drill parts, sea containers and various garbage, and covering the landfill with an interim cover, 3,752 m^3 of esker sand, until the remainder of the historical materials is ready for placement.

Although an STF has been designed, no action has been taken with this design until the materials that potentially will be placed in the STF are better understood.

Additional infrastructure at the site includes a 1,300 m gravel airstrip, a basic road network from the airstrip to the quarry site and the camp, the historical portal and ramp, and laydown areas for waste. The existing camp can temporarily accommodate up to 40 people for a short period.

19.0 MARKET STUDIES AND CONTRACTS

No market studies or contracts were conducted for the Project.

20.0 ENVIRONMENTAL STUDIES, PERMITTING AND SOCIAL COMMUNITY IMPACT

Disclosure under Section 20.0 applies to advanced-stage projects. The Ulu Gold Project is currently not an advanced project.

Historic reports have referenced various studies; however, for this Technical Report, these studies are not considered current but are listed in Section 6.0.

21.0 CAPITAL AND OPERATING COST

No capital and operating costs were estimated for the Project.

Historic reports have referred to various cost reviews and assessments; however, a QP has not done sufficient work to classify this work as current; these analyses are listed in Section 6.0.

22.0 ECONOMIC ANALYSIS

No economic analysis was conducted for the Project.

Historic reports have referred to various cost reviews and assessments; however, a QP has not done sufficient work to classify this work as current; these analyses are listed in Section 6.0.

23.0 ADJACENT PROPERTIES

There are no adjacent properties whose boundaries are in reasonable proximity to the Project and have geological characteristics similar to those of the Project.

The Roma Project

The Roma Project is 100% owned by Blue Star and is located approximately 40 km north of the Ulu Gold Project in the High Lake Greenstone Belt. The Project comprises Crown claims and a Mineral Exploration Agreement with NTI, which covers approximately 14,000 ha. The Project is considered early stage with two known historical showings from the 1990s, Roma Fold and Roma Main. The original showing, Roma Main, is a 0.30–3.0 m wide quartz vein exposed in outcrop and boulders for 2.0 km. In 1991, BHP drilled 10 shallow holes, totalling 465 m, to test 1.72 km of strike of the vein. All drill holes intersected quartz veins from 15–37 m vertically below the surface. Visible gold was noted in three of the drillholes, and the best results were 12.38 g/t Au over 2.31 m (including 64.0 g/t Au over 0.37 m) from DDH MD-01 and 8.69 g/t Au over 1.87 m from MD-03. No drilling was conducted downdip of the HG intersection in DDH MD-01, and no step-out drilling to the north from this intercept was conducted (Anonby & Jopson 1992).

The High Lake VMS deposit is summarized below as it is located approximately 50 km north of the Ulu Gold Project and has been mentioned earlier in the Technical Report as having the potential to process Ulu mineralized material if both areas are eventually developed.

High Lake Deposit

The HLVB has been characterized as a “Hacket River”-type volcanic belt (Padgham 1985) due to the predominance of felsic volcanic rocks. Early exploration activity in the HLVB focussed on the potential for syn-volcanic massive sulphides in intermediate to felsic volcanic rocks. Kennarctic discovered the High Lake Cu-base metals deposit (50 km north of what became the Hood River property) in 1955 by airborne reconnaissance prospecting. 7,149 m of drilling in 52 drill holes in 1956 and 1957 led to a historic resource estimate of 3.57 Mt at 4.02% Cu in addition to significant gold, silver, and zinc credits. Further drilling done by Aber Resources Ltd. in the early 1990s increased the historic resource to 5.37 Mt at 4.05% Cu, 2.36% Zn, 1.76 g/t Au, and 31.73 g/t Ag. Wolfden acquired the High Lake deposit in 2003 and conducted extensive drilling and geophysics. In January 2005, Wolfden reported a NI 43-101-compliant resource estimate of the High Lake deposit with an Indicated Resource of 14.3 Mt grading 2.34% Cu, 3.53% Zn, 1.01 g/t Au, and 75.69 g/t Ag, and an Inferred Resource of 1.3 Mt grading 1.17% Cu, 3.35% Zn, 0.78% g/t Au, and 764.52 g/t Ag, both based on a 2% Cu equivalent lower cut-off and performed by G.H. Wahl, P.Geo. (Marchbank 2005).

24.0 OTHER RELEVANT DATA AND INFORMATION

The authors are unaware of any further data or relevant information that could be considered a material fact or material change with respect to the subject matter of this Technical Report, the omission to disclose which makes the Technical Report misleading.

25.0 INTERPRETATION AND CONCLUSIONS

25.1 Geology

The Property has been shown to host numerous Flood Zone mineralization-style targets and several occurrences of vein-style mineralization. The main Flood Zone style areas on the Property include the Flood Zone, the Axis, the Central, the East Limb, and the Gnu Zones. Many of these targets have not been tested below 100 m vertical depth. Knowing that the Flood Zone is open below 600 m, there is ample space for additional resources in these other target areas. These targets occur within or immediately adjacent to the core of the Ulu Fold at a number of different stratigraphic levels indicating that a mineralization system was responsible for the development of the Flood Zone and other zones and that a comprehensive mineral systems approach can be taken in exploration.

The compilation and interpretation of historical data and the substantial effort is taken to integrate new and old data and to re-interpret the geological framework of the area has resulted in a significant revision of the geological and mineralization models of the Project. Results from detailed core logging of historic and recent drill cores and limited lithogeochemical analysis on the Property have informed these revisions. The recognition that the under-explored Hood River property east of the Ulu Granite encompasses bedrock with a similar structural history and mineralization style to that on the Ulu property is significant in that it recognizes that there exists a high potential for the discovery of new gold resources here.

New targets were defined, and historical showings were prioritized using signatures of known resources. Structural corridors of interest were resolved using geophysical, mapping, and topography data, and anomalous regions were defined using geochemical data, which lends additional understanding and confidence to target evaluation. These new target zones carry significant discovery risks; however, the revised exploration model provides a high degree of confidence when assessing and interpreting these zones. Interpretation of the geological settings of the known prospects is consistent with the revised geological model.

The author concludes that by rebuilding the understanding of the geology and controls on mineralization using basic geological principles informed by high-quality and consistent data, the Blue Star team has created an opportunity for additional discoveries in the belt. High-quality geological work has reduced geological risk, leaving the Project with only discovery risk and development risk due to its remote location. The author concludes that the Ulu Gold Project is a property of merit.

The potential to expand the resource base is excellent within the Flood Zone itself and within the 15+ peripheral gold zones/showings. The potential exists to discover additional mineralization in the Flood Zone where drill density is low. In-fill drilling with attention to targeting locally thickened mineralized shoots could strengthen the resource. Additional resources could be found at depth, as the deposit is open at a depth where drill spacing is broad. These deep intercepts, albeit thin, demonstrate the continuity of the main structure, which could re-open into wider zones at depth. For example, DDH 90VD-75 (14.9 g/t Au across 7.7 m) at the 600 m level may represent a second dilation jog.

The strike length of the Flood Zone is assumed to be restricted by the overlying and underlying gabbro and sedimentary rock units. These restrictions bear re-evaluating and testing with an understanding of rock mechanics in mind. Gold mineralization has been intersected in the sedimentary rock; it is the brittle host structure which is less well-developed in this rheology than in the competent basalt, but the gold mineralization can be found in any lithology.

For the first time, the Gnu Zone has demonstrated a resource. The potential to expand the known mineralization within the current resource (using in-fill drilling), along strike and at depth, is high, as the zone shows good widths and reasonable grades.

The Dagg Zone, drill tested with only one hole, shows strong grades and widths and, for this reason, has excellent potential. A number of other showings and targets continue to hold promise, including Zebra and several zones within the same basalt unit hosting the Flood Zone. Several of these zones have only been tested with broad-spaced drilling and have not been tested at depth.

25.2 Resource Estimates

The Mineral Resources of the Property are summarized in Table 14-1.

25.3 Mineral Processing

The mineralization responds well to conventional cyanidation and combined flotation and cyanidation processes, although the materials also respond reasonably well to the concentration by conventional flotation. According to the preliminary metallurgical test results, it is anticipated that approximately 92% of the gold should be recoverable to gold doré from Gnu (Nutaaq) and NFN Zones after deducting gold losses from gold stripping from carbon and melting. Further test work should be conducted to optimize the processing conditions to improve overall gold recovery and determine metallurgical performance variations.

26.0 RECOMMENDATIONS

26.1 Geology

It is recommended that Blue Star take a balanced risk approach to resource expansion: 1) focus on further delineating the known resource centres, specifically the Flood Zone along strike and down the fold plunge, 2) evaluate showings within 1,000 m of the known resources, particularly the Axis, Central, East Limb, and Gnu areas, and 3) review and prioritize more distal showings on the Hood River and Ulu properties, focusing on targets with geological and grade continuity that have enough scale to impact the Project.

An internal study should be undertaken in order to better understand the scale of the resource base required for a standalone development project keeping in mind that deposit consolidation in the Belt may also be an option to achieve critical mass.

Two stages of exploration are recommended; both are multi-faceted approaches to exploration, with Phase 2 partially dependent on the results of Phase 1.

Phase 1, In addition to undertaking a scoping study:

- High-value infill drilling to 20 m centres in the upper 350 m of the Flood Zone deposit 8 holes,1,800 m.
- Shallow on-strike evaluation of the Flood Zone 5 holes 1,000 m.
- Infill and expansion drilling of NFN and Gnu (Nutaaq) 10 holes, 2,500 m.
- Target evaluation drilling at the top five targets (Central C, East Limb, Bouncer, Alone, Zebra) 15 holes for 2,500 m.
- Detailed mapping of the Ulu Fold corridor from Flood to NFN.
- Field evaluation (mapping, prospecting, geophysics) of up to 10 to 15 new target areas from the pipeline to promote or drop from the targeting list.
- Detailed mapping and structural study of Ulu and Hood River properties to understand the regional scale controls on mineralization and geological history and setting of the properties.

Phase 2, based on positive outcomes of Phase 1:

- High-value infill drilling of the Flood Zone between 350 and 700 m depth and infill drilling where positive results are obtained from on-strike testing during Phase 1B.
- Continued infill (20 m centres) and expansion (50 m step-outs) drilling at NFN, Nutaaq (Gnu), and where positive results from Phase 1D are obtained (relies on the outcome of Phase 1 scoping study).
- Detailed mapping of the Crown-Pro corridor.
- Target evaluation drilling following results from Phase 1F, 15 holes, 2,000 m.
- Field evaluation (mapping, prospecting, geophysics) of up to 10 to 15 new target areas from the pipeline to promote or drop from the targeting list.

Table 26-1: Phase 1 Cost Estimate

Item	Units	Unit Cost ($)	Total Cost (000'$)
Drilling [per m]	7,800	258	2,012
Sampling [per sample]	3,150	68	214
Helicopter [hours]	200	2,200	440
Field Labour [person day]	927	300	278
Camp Support [days]	92	15,000	1,379
Travel (commercial) [person trip]	196	750	147
		Sub-total	**4,470**
		Contingency (15%)	671
		Total	**5,141**

Note: Figures may not add to totals shown due to rounding.

Table 26-2: Phase 2 Cost Estimate

Item	Units	Unit Cost ($)	Total Cost (000'$)
Drilling [per m]	5,000	301	1,505
Sampling [per sample]	2,450	82	200
Metallurgy [sample]	4	50,000	200
PEA Study with revised MRE	1	250,000	250
Helicopter [hours]	150	2,420	363
Field labour [person day]	724	350	253
Camp Support [days]	96	15,000	1,447
Travel (commercial) [person trip]	215	750	161
		Sub-total	**4,379**
		Contingency (15%)	657
		Total	**5,036**

Note: Figures may not add to totals shown due to rounding.

The proposed Phase 1 and 2 programs and their budgets over two years are reasonable and warranted.

26.2 Mineral Processing

The current test work performed on Gnu (Nutaaq) and NFN Zones is preliminary, and further test work should be conducted, including:

- Mineralogical study.
- Crushability and grindability.

- Verification tests on the mineralization responses to gravity separation, flotation, and cyanidation, including primary grinding and regrinding sizes.
- Process flowsheet optimization using different combined process treatments, such as gravity separation + cyanidation flowsheet and gravity separation + flotation + cyanidation flowsheet. A trade-off study should be conducted to investigate the economics of these process routes.
- Variability tests to investigate the metallurgical performance of various mineral samples to the developed flowsheet, including samples from different lithological zones, alteration zones, and spatial locations.
- Dewatering characteristics determination on tailings/leach residue samples.

The estimated cost for the test work, excluding sampling, is approximately $200,000.

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28.0 CERTIFICATES OF QUALIFIED PERSONS

Certificate of Qualified Person

I, Chris MacInnis, B.Sc. Geology, P.Geo (APGO # 2059), do hereby certify that:

- I am the Head of Mineral Resource Estimation of ALS GoldSpot Inc., 2103 Dollarton Hwy. North Vancouver, BC Canada, V7H 0A7. This certificate applies to the technical report entitled "Mineral Resource Estimate Update for the Ulu Gold Project, Nunavut, Canada", with an effective date of February 22, 2023 (the "Technical Report").
- I graduated with a Bachelor of Science in from Saint Mary's University in 2001.
- I am a current member of the Association of Professional Geologists of Ontario (APGO # 2059).
- I have worked as a Geologist for over 15 years since my graduation from university. My relevant experience includes minerals exploration, geological modeling, geostatistics and resource estimation. I have conducted resource estimations since 2010 with both SRK Consulting and ALS GoldSpot Inc. and have been involved in technical reports since 2011.
- I am a "Qualified Person" for the purposes of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) for those sections of the Technical Report that I am responsible for preparing.
- I conducted a personal inspection of the Ulu property on July 12th – 16th, 2022 and lived onsite the entire time.
- I am responsible for Sections 1.0, 2.0, 3.0, 4.0, 5.0, 6.0, 7.0, 8.0, 9.0, 10.0, 11.0, 12.0, 14.0, 23.0, 25.0, 26.0 (for matters related to geology and resource estimate) and 27.0 (only references from sections for which I am responsible) of the Technical Report.
- I am independent of Bluestar Gold Corp. as Independence is defined by Section 1.5 of NI 43-101.
- I have not had involvement with the Ulu property that is the subject of the Technical Report.
- I have read NI 43-101, and the sections of the Technical Report I am responsible for have been prepared in compliance with NI 43-101.
- As of the date of this certificate, to the best of my knowledge, information and belief, the section of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed and sealed on this 1st day of March 2023

"Signed and sealed"

Chris MacInnis, P.Geo.
Head – Mineral Resource Estimation
ALS GoldSpot Inc.

Certificate of Qualified Person

I, Hassan Ghaffari, P.Eng., M.A.Sc. do hereby certify:

- I am a Director of Metallurgy with Tetra Tech Canada Inc. with a business address at Suite 1000, 10th Floor, 885 Dunsmuir Street, Vancouver, BC, V6C 1N5.
- This certificate applies to the technical report entitled "Mineral Resource Estimate Update for the Ulu Gold Project, Nunavut, Canada", with an effective date of February 22, 2023 (the "Technical Report").
- I am a graduate of the University of Tehran (M.A.Sc., Mining Engineering, 1990) and the University of British Columbia (M.A.Sc., Mineral Process Engineering, 2004).
- I am a member in good standing of the Engineers and Geoscientists British Columbia (#30408).
- My relevant experience includes 30 years of experience in mining and mineral processing plant operation, engineering, project studies and management of various types of mineral processing, including hydrometallurgical mineral processing for porphyry mineral deposits.
- I am a "Qualified Person" for the purposes of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) for those sections of the Technical Report that I am responsible for preparing.
- I conducted a personal inspection of the Ulu property on October 15, 2015.
- I am responsible for Sections 1.0, 2.0, 18.0, 25.0, 26.0 and 27.0 (only references from sections for which I am responsible) of the Technical Report.
- I am independent of Blue Star Gold Corp. as Independence is defined by Section 1.5 of NI 43-101.
- I have not had involvement with the Ulu property that is the subject of the Technical Report.
- I have read NI 43-101, and the sections of the Technical Report I am responsible for have been prepared in compliance with NI 43-101.
- As of the date of this certificate, to the best of my knowledge, information and belief, the section of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Signed and sealed on this 14th day of March 2023

"Signed and sealed"

Hassan Ghaffari, P.Eng., M.A.Sc.
Director of Metallurgy
Tetra Tech Canada Inc.

Certificate of Qualified Person

I, Jianhui (John) Huang, Ph.D., P.Eng., do hereby certify:

- I am a Senior Metallurgist with Tetra Tech Canada Inc. with a business address at Suite 1000, 10th Floor, 885 Dunsmuir Street, Vancouver, British Columbia, V6C 1N5.
- This certificate applies to the technical report entitled "Mineral Resource Estimate Update for the Ulu Gold Project, Nunavut, Canada", with an effective date of February 22, 2023 (the "Technical Report").
- I am a graduate of North-East University, China (B.Eng., 1982), Beijing General Research Institute for Non-ferrous Metals, China (M.Eng., 1988), and Birmingham University, United Kingdom (Ph.D., 2000).
- I am a member in good standing of the Engineers and Geoscientists British Columbia (#30898).
- My relevant experience includes over 34 years involvement in mineral processing for base metal ores, gold and silver ores, and rare metal ores, and mineral processing plant operation and engineering, including hydrometallurgical mineral processing for porphyry mineral deposits.
- I am a "Qualified Person" for purposes of National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) for those sections of the Technical Report that I am responsible for preparing.
- I conducted a personal inspection of the Ulu property on October 15, 2015.
- I am responsible for Sections 1.0, 13.0, 25.0, 26.0 and 27.0 (only references from sections for which I am responsible) of the Technical Report.
- I am independent of Blue Star Gold Corp. as Independence is defined by Section 1.5 of NI 43-101.
- I have not had involvement with the Ulu property that is the subject of the Technical Report.
- I have read NI 43-101, and the sections of the Technical Report that I am responsible for have been prepared in compliance with NI 43-101.
- As of the date of this certificate, to the best of my knowledge, information and belief, the section of the Technical Report that I am responsible for contain all scientific and technical information that is required to be disclosed to make the technical report not misleading.

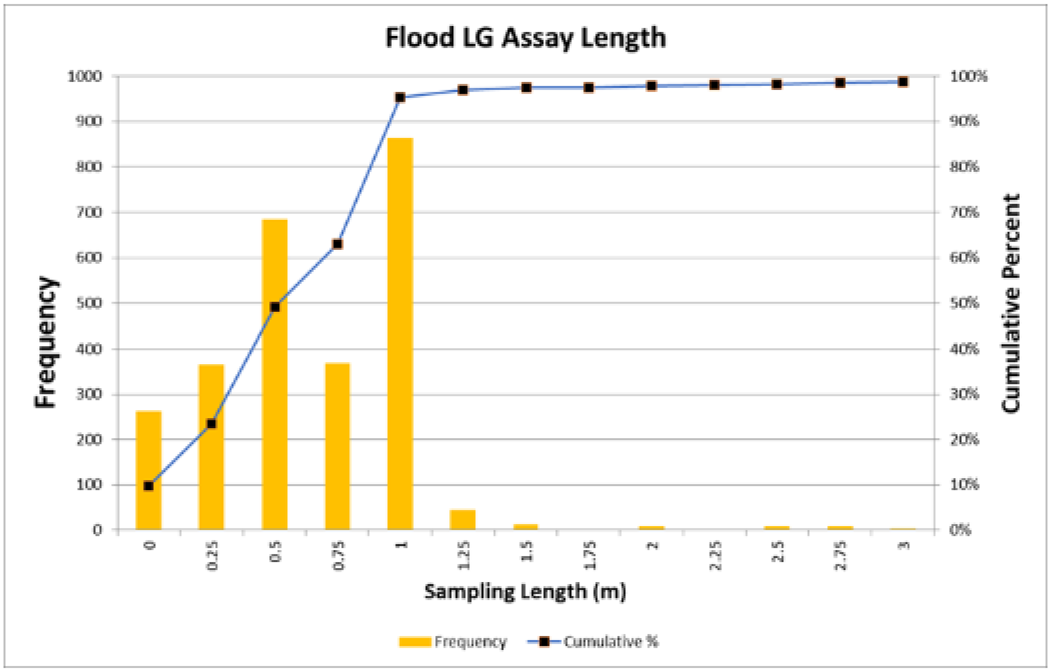
Signed and sealed on this 14th day of March 2023

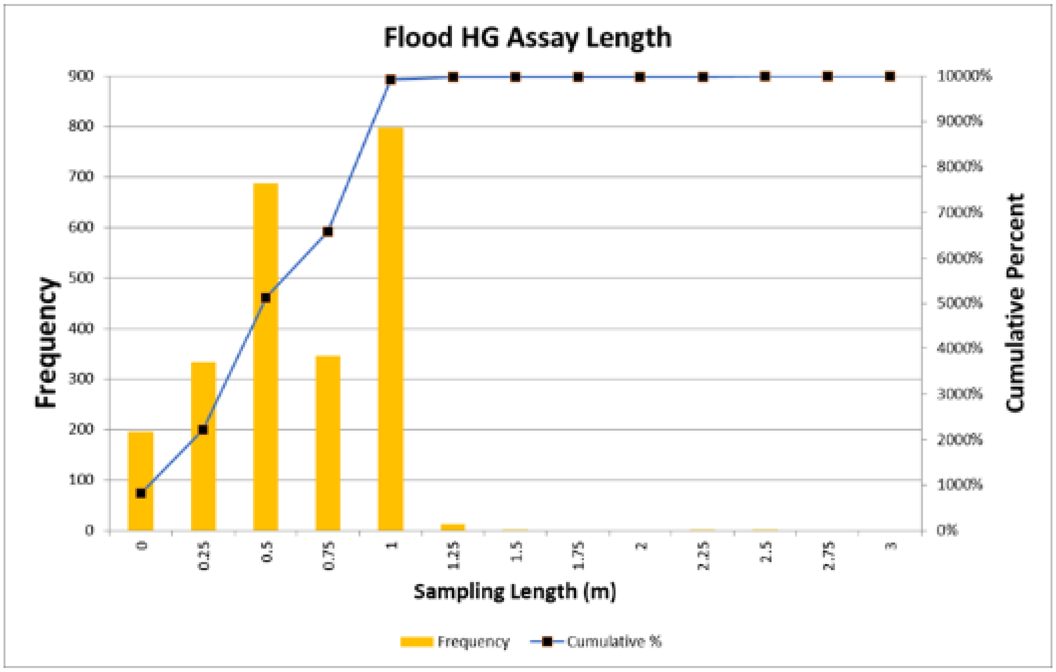
"Signed and sealed"

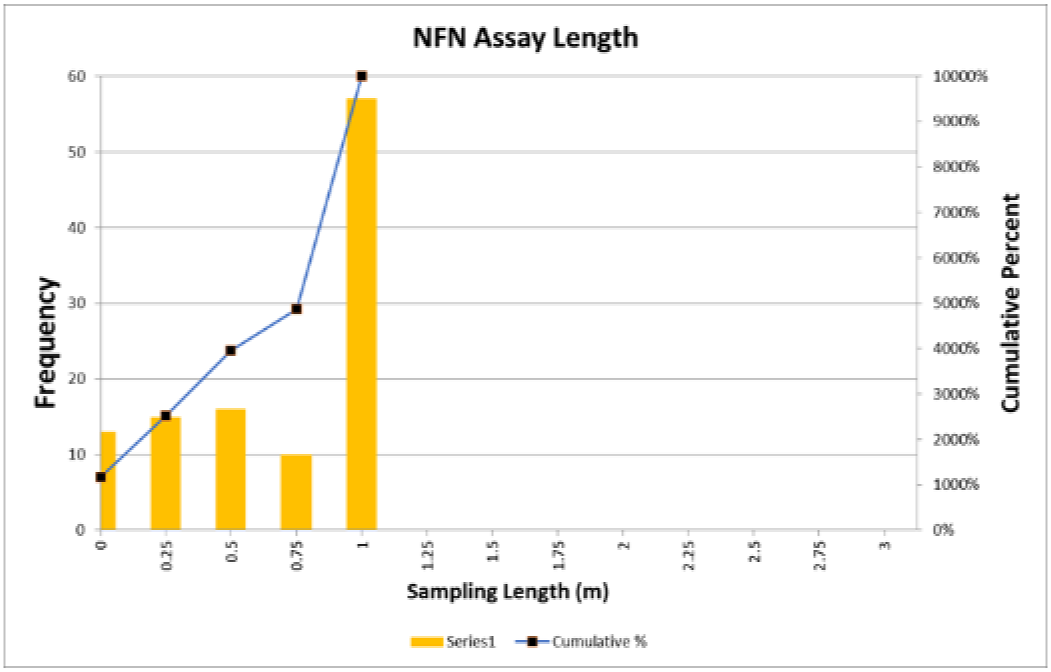
Jianhui (John) Huang, Ph.D., P.Eng.
Senior Metallurgist
Tetra Tech Canada Inc.

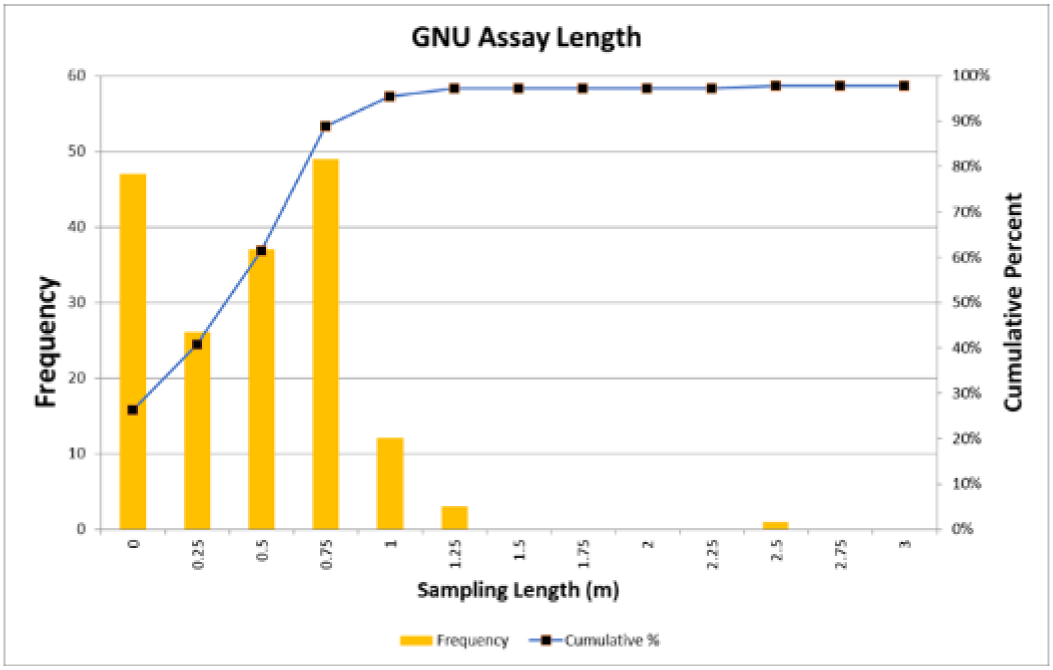
APPENDIX

APPENDIX A: COMPOSITE LENGTH ANALYSIS BY ZONE

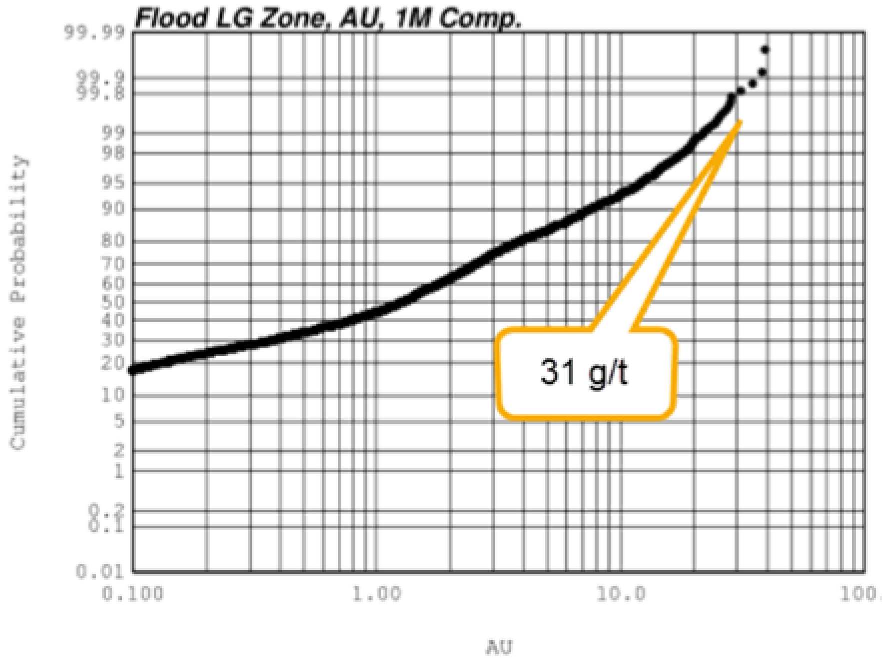


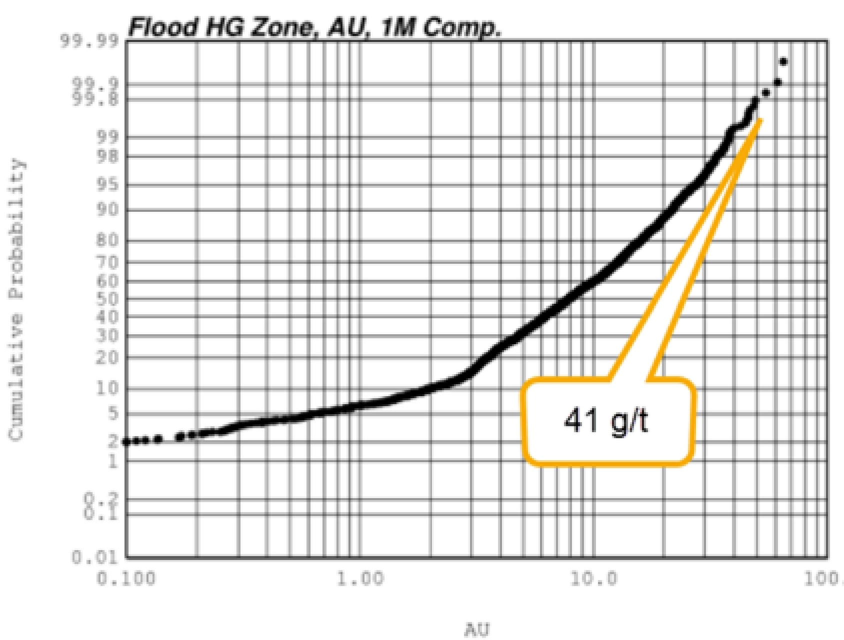


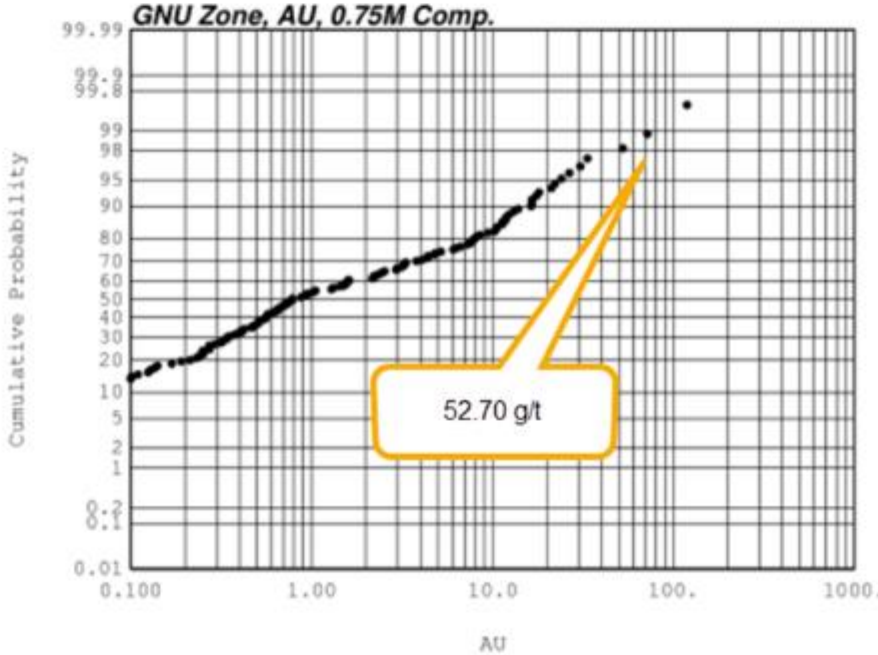

NFN Assay Length
Frequency
Cumulative Percent
Sampling Length (m)
0
10
20
30
40
50
60
0%
1000%
2000%
3000%
4000%
5000%
6000%
7000%
8000%
9000%
10000%
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
2.75
3
Series1
Cumulative %

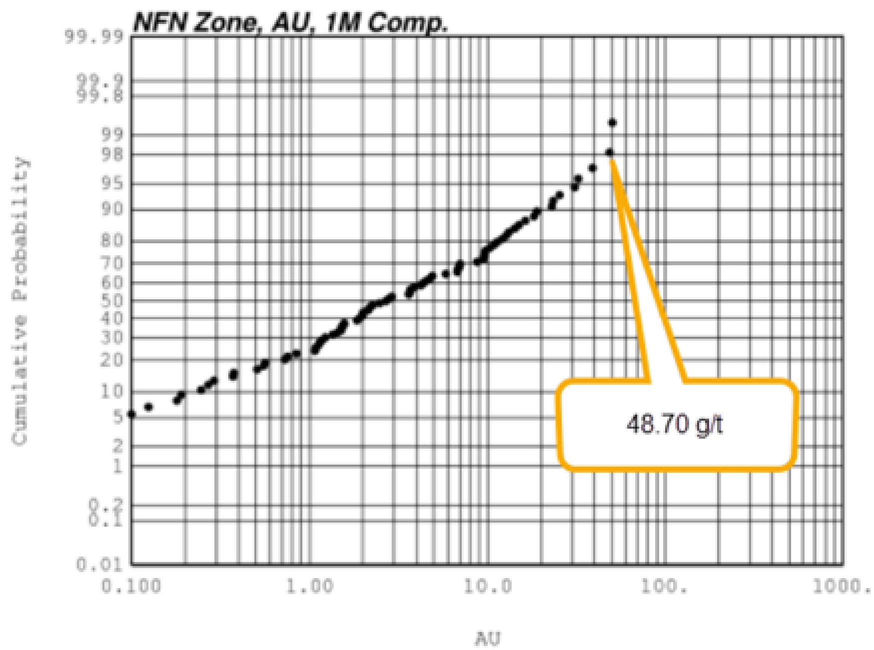

GNU Assay Length
Frequency
Cumulative Percent
Sampling Length (m)
0
10
20
30
40
50
60
0%
10%
20%
30%
40%
50%
60%
70%
80%
90%
100%
0
0.25
0.5
0.75
1
1.25
1.5
1.75
2
2.25
2.5
2.75
3
Frequency
Cumulative %

APPENDIX B: CAPPING ANALYSIS OF THE COMPOSITE DATA





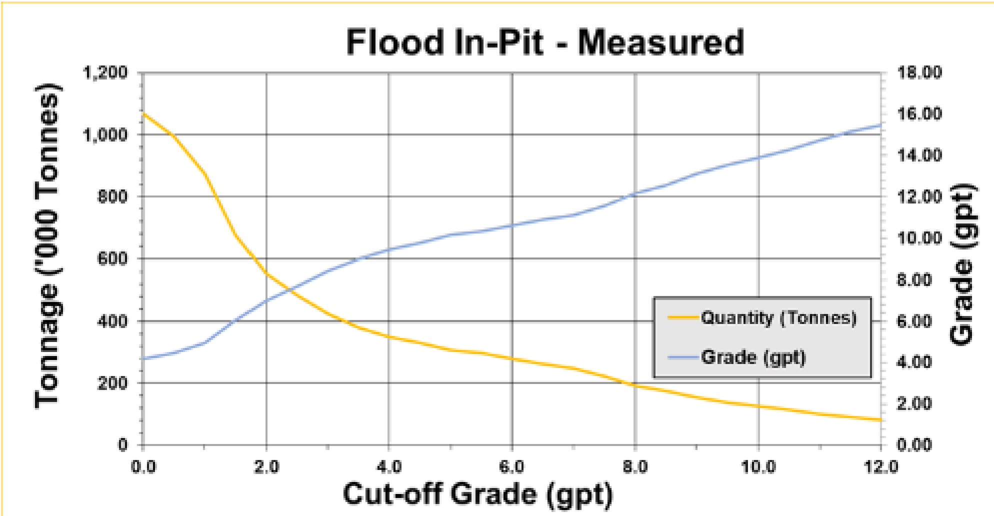

GNU Zone, AU, 0.75M Comp.
Cumulative Probability
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.2
0.1
0.01
0.100
1.00
10.0
100.
1000.
AU
52.70 g/t


NFN Zone, AU, 1M Comp.
Cumulative Probability
99.99
99.9
99.8
99
98
95
90
80
70
60
50
40
30
20
10
5
2
1
0.2
0.1
0.01
0.100
1.00
10.0
100.
1000.
AU
48.70 g/t

APPENDIX D: GRADE-TONNAGE TABLES AND SENSITIVITIES

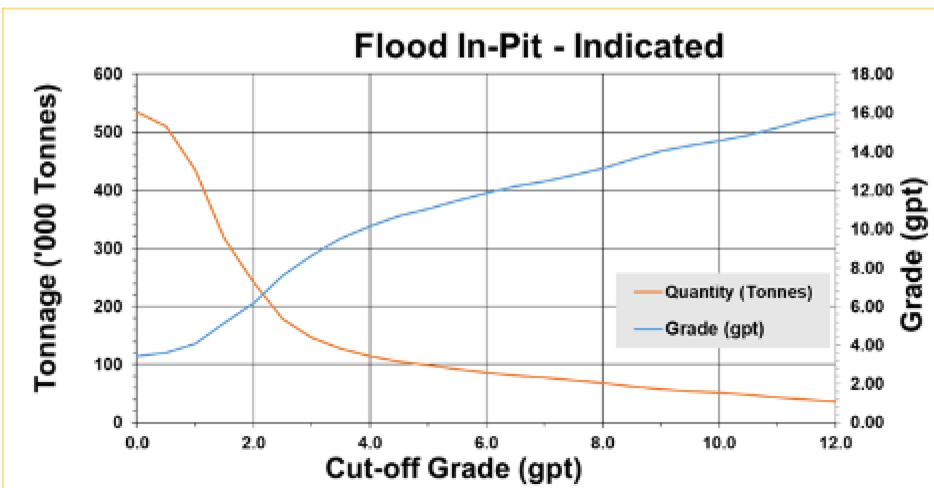
Flood In-Pit - Measured

COG	Quantity ('000 tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz '000)
0.00	1,068	4.18	143
0.50	995	4.46	143
1.00	875	4.97	140
1.50	678	6.05	132
2.00	554	7.01	125
2.50	483	7.71	120
3.00	423	8.42	114
3.50	380	9.01	110
4.00	350	9.46	106
4.50	330	9.77	104
5.00	307	10.15	100
5.50	296	10.32	98
6.00	279	10.61	95
6.50	262	10.90	92
7.00	248	11.12	89
7.50	222	11.58	83
8.00	192	12.18	75
8.50	176	12.54	71
9.00	153	13.11	65
9.50	138	13.55	60
10.00	127	13.87	57
10.50	114	14.28	52
11.00	101	14.73	48
11.50	91	15.14	44
12.00	83	15.45	41



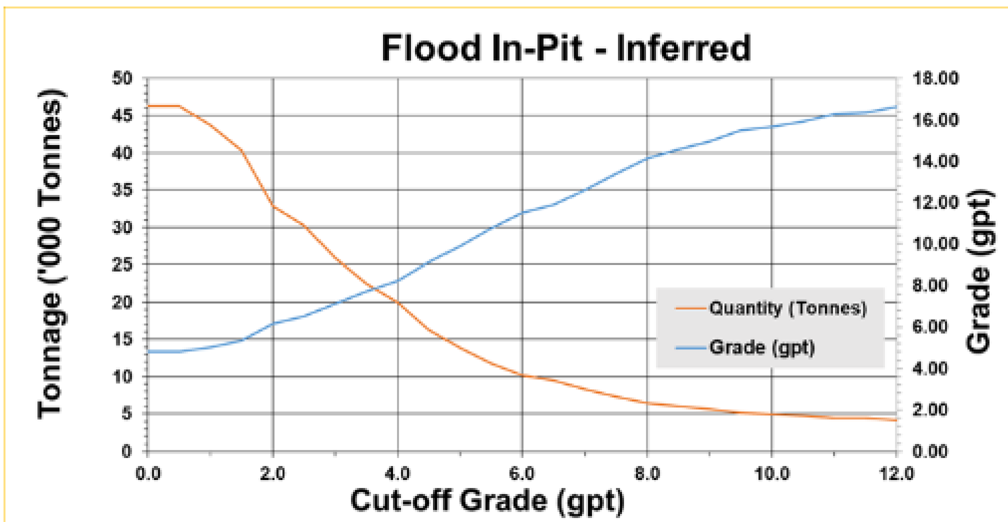
Flood In-Pit - Indicated

COG	Quantity ('000 tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz '000)
0.00	536	3.45	59
0.50	510	3.61	59
1.00	435	4.09	57
1.50	318	5.14	53
2.00	242	6.20	48
2.50	179	7.60	44
3.00	147	8.66	41
3.50	128	9.49	39
4.00	114	10.14	37
4.50	105	10.69	36
5.00	99	11.03	35
5.50	92	11.47	34
6.00	86	11.87	33
6.50	81	12.20	32
7.00	78	12.45	31
7.50	73	12.77	30
8.00	68	13.15	29
8.50	62	13.61	27
9.00	57	14.01	26
9.50	54	14.33	25
10.00	51	14.56	24
10.50	48	14.84	23
11.00	44	15.23	22
11.50	40	15.65	20
12.00	37	16.00	19



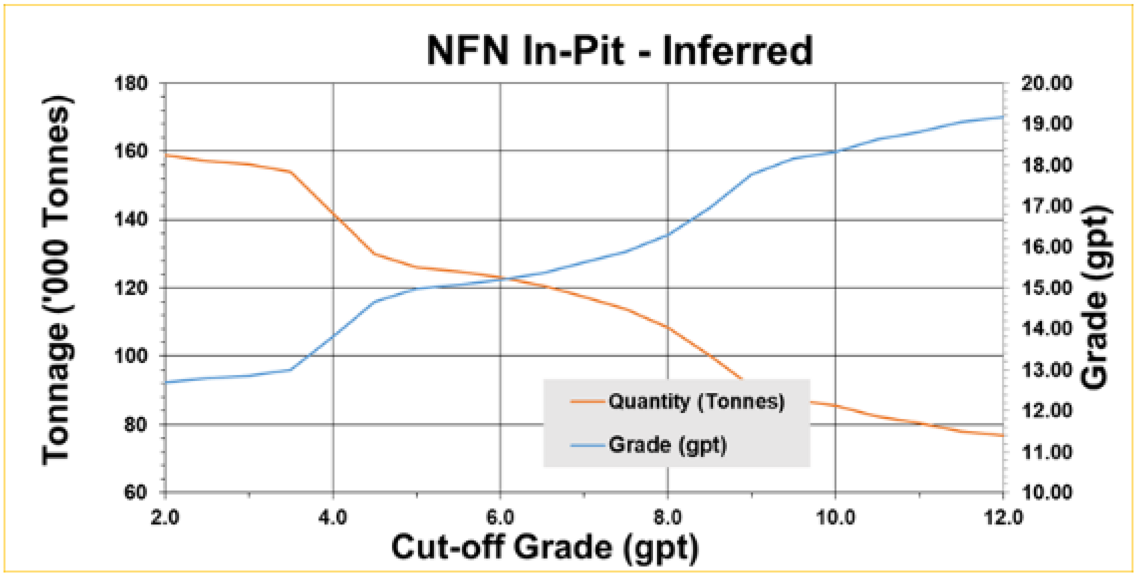
Flood in-Pit – Inferred

COG	Quantity ('000 tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz '000)
0.00	46	4.80	7
0.50	46	4.80	7
1.00	44	5.04	7
1.50	40	5.35	7
2.00	33	6.17	7
2.50	30	6.50	6
3.00	26	7.13	6
3.50	22	7.74	6
4.00	20	8.23	5
4.50	16	9.12	5
5.00	14	9.89	4
5.50	12	10.74	4
6.00	10	11.50	4
6.50	9	11.90	4
7.00	8	12.61	3
7.50	7	13.39	3
8.00	6	14.13	3
8.50	6	14.57	3
9.00	6	14.98	3
9.50	5	15.50	3
10.00	5	15.68	3
10.50	5	15.92	2
11.00	4	16.28	2
11.50	4	16.34	2
12.00	4	16.63	2



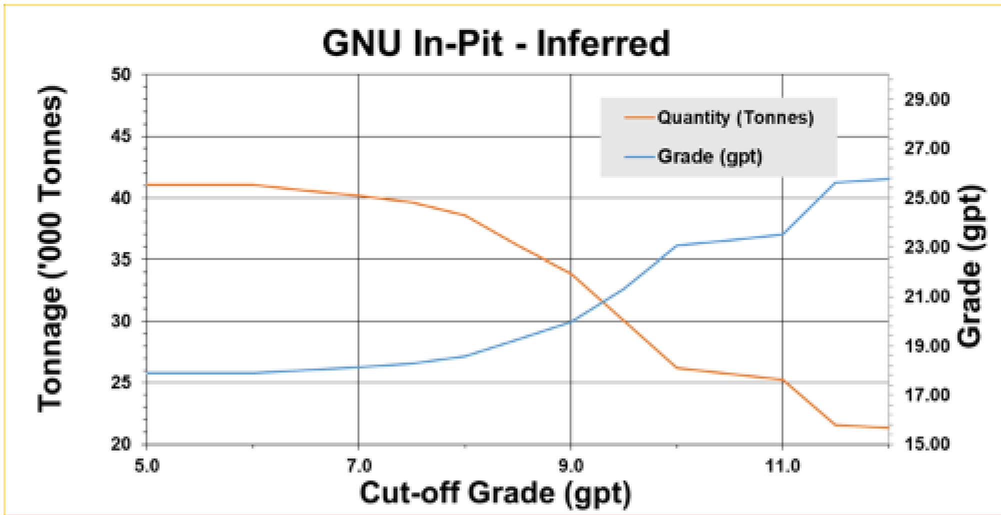
NFN In-Pit - Inferred

COG	Quantity (000' tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz)
0.00	159	12.65	65
0.50	159	12.65	65
1.00	159	12.65	65
1.50	159	12.66	65
2.00	159	12.70	65
2.50	157	12.80	65
3.00	156	12.86	65
3.50	154	13.00	64
4.00	142	13.80	63
4.50	130	14.66	61
5.00	126	14.98	61
5.50	125	15.07	60
6.00	123	15.20	60
6.50	121	15.37	60
7.00	117	15.62	59
7.50	114	15.89	58
8.00	108	16.29	57
8.50	100	16.96	55
9.00	91	17.77	52
9.50	87	18.15	51
10.00	85	18.32	50
10.50	82	18.62	49
11.00	80	18.81	49
11.50	78	19.04	48
12.00	77	19.17	47



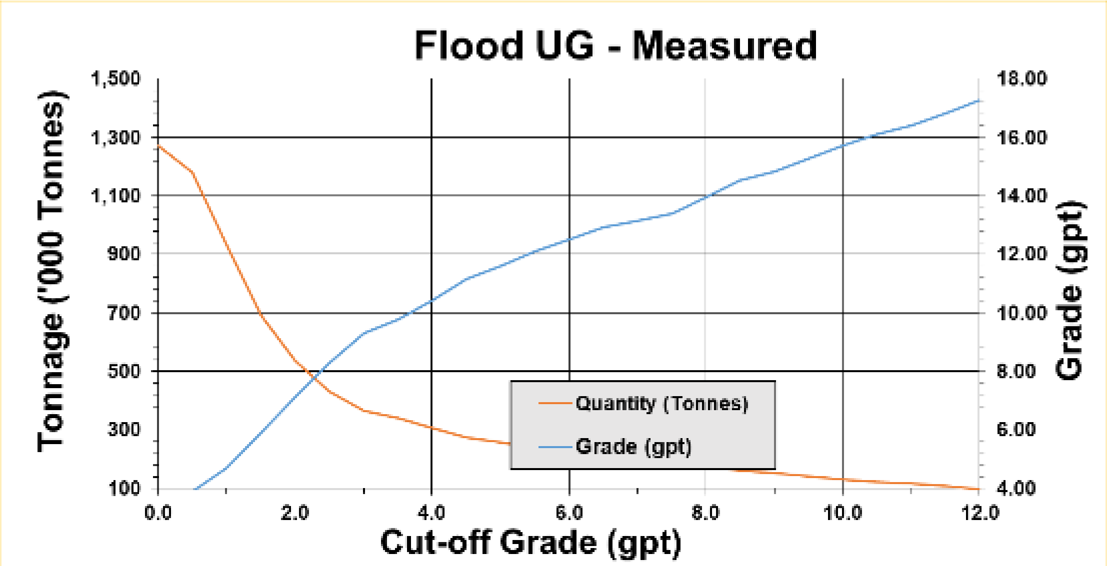
GNU In-Pit - Inferred

COG	Quantity (000' tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz)
0.00	42	17.85	24
0.50	41	17.85	24
1.00	41	17.85	24
1.50	41	17.85	24
2.00	41	17.85	24
2.50	41	17.87	24
3.00	41	17.87	24
3.50	41	17.87	24
4.00	41	17.87	24
4.50	41	17.87	24
5.00	41	17.88	24
5.50	41	17.88	24
6.00	41	17.88	24
6.50	41	18.02	24
7.00	40	18.13	23
7.50	40	18.28	23
8.00	39	18.57	23
8.50	36	19.28	22
9.00	34	19.97	22
9.50	30	21.33	21
10.00	26	23.05	19
10.50	26	23.28	19
11.00	25	23.51	19
11.50	22	25.62	18
12.00	21	25.77	18



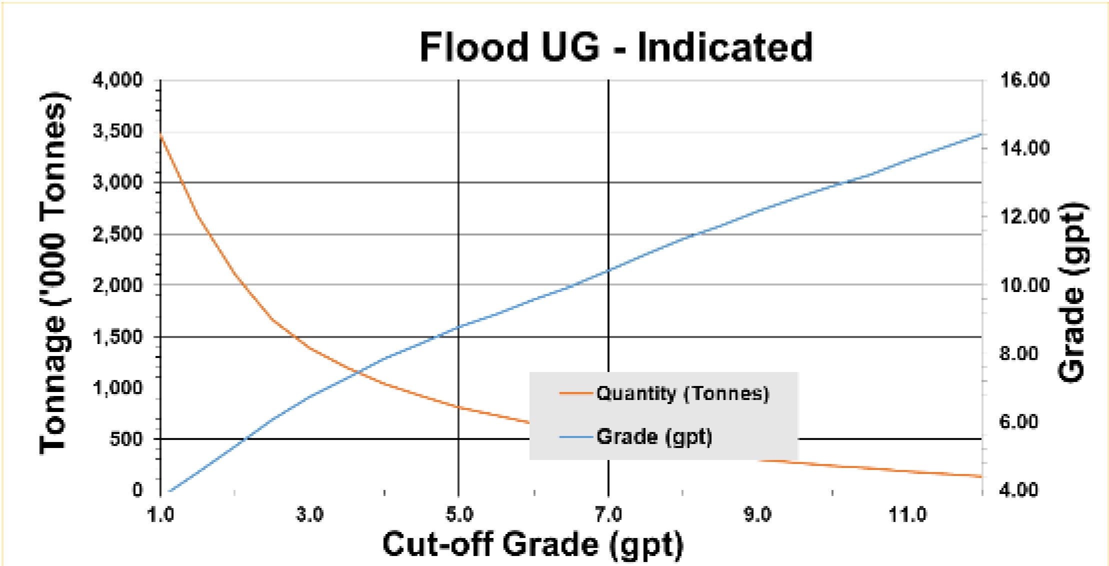
Flood UG - Measured

COG	Quantity ('000 tonnes)	Grade Gold (gpt)	Contained Metal Gold ('000 oz)
0.00	1,271	3.63	148
0.50	1,180	3.88	147
1.00	935	4.70	141
1.50	693	5.91	132
2.00	536	7.12	123
2.50	432	8.29	115
3.00	366	9.30	109
3.50	339	9.78	107
4.00	307	10.41	103
4.50	274	11.16	98
5.00	256	11.60	96
5.50	238	12.11	92
6.00	224	12.51	90
6.50	210	12.92	87
7.00	202	13.15	85
7.50	194	13.39	84
8.00	177	13.94	79
8.50	160	14.52	75
9.00	152	14.83	73
9.50	141	15.27	69
10.00	131	15.73	66
10.50	122	16.10	63
11.00	116	16.39	61
11.50	107	16.82	58
12.00	98	17.26	55



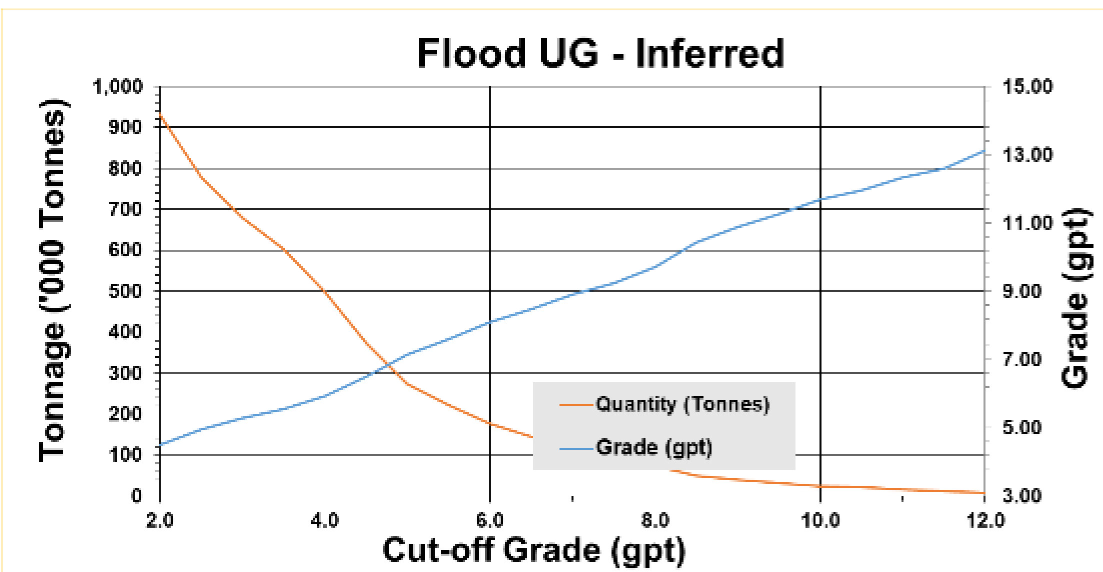
Flood UG - Indicated

COG	Quantity (000' tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz)
0.00	4,419	3.11	441
0.50	4,235	3.22	439
1.00	3,454	3.78	420
1.50	2,670	4.52	388
2.00	2,099	5.28	356
2.50	1,664	6.08	325
3.00	1,388	6.74	301
3.50	1,200	7.29	281
4.00	1,036	7.85	262
4.50	919	8.31	245
5.00	811	8.78	229
5.50	730	9.17	215
6.00	652	9.58	201
6.50	583	9.98	187
7.00	511	10.43	171
7.50	446	10.90	156
8.00	390	11.34	142
8.50	348	11.72	131
9.00	304	12.16	119
9.50	268	12.54	108
10.00	237	12.91	98
10.50	211	13.23	90
11.00	181	13.65	79
11.50	156	14.04	70
12.00	133	14.43	62



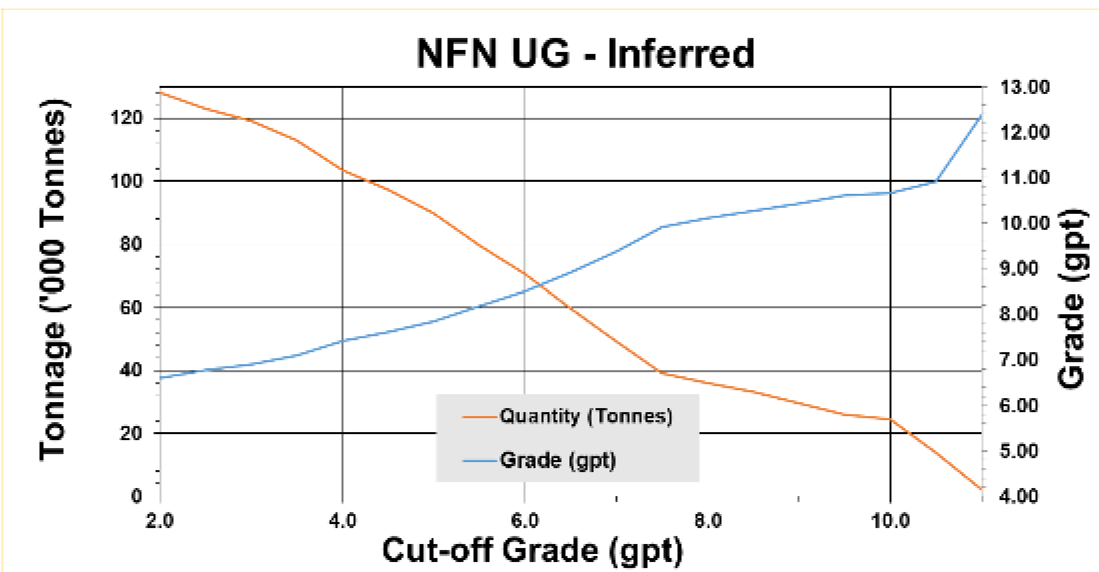
Flood UG - Inferred

COG	Quantity (000' tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz)
0.00	1,377	3.56	158
0.50	1,274	3.64	149
1.00	1,170	3.90	147
1.50	1,055	4.19	142
2.00	931	4.51	135
2.50	778	4.96	124
3.00	678	5.30	116
3.50	603	5.55	108
4.00	498	5.94	95
4.50	372	6.51	78
5.00	275	7.15	63
5.50	222	7.60	54
6.00	176	8.10	46
6.50	146	8.48	40
7.00	117	8.90	34
7.50	98	9.23	29
8.00	74	9.71	23
8.50	50	10.42	17
9.00	39	10.88	14
9.50	32	11.25	12
10.00	25	11.70	9
10.50	21	11.95	8
11.00	16	12.33	6
11.50	13	12.59	5
12.00	8	13.11	3



NFN UG – Inferred

COG	Quantity (000' tonnes)	Grade Gold (gpt)	Contained Metal Gold (oz)
0.00	162	5.50	29
0.50	160	5.55	29
1.00	155	5.71	28
1.50	141	6.13	28
2.00	128	6.60	27
2.50	123	6.77	27
3.00	119	6.91	26
3.50	113	7.10	26
4.00	103	7.41	25
4.50	97	7.61	24
5.00	90	7.84	23
5.50	80	8.18	21
6.00	70	8.50	19
6.50	60	8.91	17
7.00	49	9.37	15
7.50	39	9.92	12
8.00	36	10.12	12
8.50	33	10.26	11
9.00	30	10.44	10
9.50	26	10.61	9
10.00	24	10.67	8
10.50	14	10.92	5
11.00	2	12.39	1
11.50	1	12.84	1
12.00	1	13.03	1



GNU Inferred – UG

COG	Quantity	Grade	Contained Metal
	(000' tonnes)	Gold (gpt)	Gold (oz)
0.00	1,785	2.69	154
0.50	818	3.52	93
1.00	475	5.56	85
1.50	448	5.83	84
2.00	432	5.98	83
2.50	391	6.36	80
3.00	361	6.67	77
3.50	327	7.02	74
4.00	302	7.29	71
4.50	279	7.53	68
5.00	253	7.83	64
5.50	231	8.08	60
6.00	210	8.30	56
6.50	190	8.52	52
7.00	170	8.74	48
7.50	157	8.86	45
8.00	123	9.18	36
8.50	108	9.31	32
9.00	23	11.13	8
9.50	16	12.08	6
10.00	13	12.53	5
10.50	11	12.95	5
11.00	9	13.37	4
11.50	8	13.78	3
12.00	8	13.81	3