ALASKA EARTH SCIENCES, INC.

AMENDED and RESTATED NI 43-101 TECHNICAL REPORT & RESOURCE ESTIMATE FOR THE SH-1 GOLD & SILVER DEPOSIT

PART OF THE UNGA PROJECT, SOUTHWEST ALASKA, U.S.A.

Prepared for

REDSTAR GOLD CORP.

409 Granville Street, Suite 1500
Vancouver, BC Canada, V6C 1T2

Report Effective Date: September 25, 2020

Resource Effective Date: February 10, 2020

Amended and Restated: November 24, 2020

Submitted by:
William T. Ellis

NOTICE TO READERS

This National Instrument 43-101 Technical Report for the SH-1 Gold & Silver Deposit was prepared and executed by: William T. Ellis, Certified Professional Geologist # 8719 (the Author and Qualified Person) of Alaska Earth Sciences Inc.

The Report contains the expressions of professional opinions of the Author based on (1) information available at the time of preparation, (2) data supplied by Redstar Gold Corp. (Redstar), and (3) the assumptions, conditions and qualifications set forth in this report. The quality of information, conclusions, and estimates contained herein are consistent with the stated levels of accuracy as well as the circumstances and constraints under which the mandate was performed. This report is intended to be used solely by Redstar. This contract permits Redstar to file this report as a Technical Report with the Canadian security regulators pursuant to National Instrument 43-101 – Standards of Disclosure for Mineral Projects. Except for the purposes legislated under Canadian securities law, any use of this report by any third party is at that party's sole risk.

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TITLE PAGE

Title of Report
Amended and Restated NI 43-101 Technical Report & Resource Estimate for the SH-1 Gold & Silver Deposit- Part of the Unga Project, Southwest Alaska, U.S.A.

Project Location
Unga Island, Southwest Alaska, U.S.A.

Author
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Responsible for all items of this report.

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1.0 SUMMARY

Alaska Earth Sciences Inc. (AES) has prepared this technical report on the SH-1 Zone of the Unga Project in southwestern Alaska, U.S.A., at the request of Redstar Gold Corporation ("Redstar"), a Canadian company listed on the TSX Venture Exchange (TSX-V: RGC) and also over-the-counter (OTC: RGCTF). Redstar controls 100% of the Unga Project, which includes the SH-1 Zone (formerly known as the "Shumagin prospect" or "Shumagin zone") gold-silver deposit and several other gold occurrences and prospects on Unga and Popof Islands.

This report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F1. The purpose of this report is to provide a technical summary of the SH-1 Zone in accordance with the requirements of NI 43-101. The Effective date of this report is September 25, 2020.

1.1 Property Description and Ownership

The Unga gold-silver Project encompasses a combined total of 250 square kilometers over Unga and Popof Islands, near the Alaska Peninsula and approximately 900 kilometers southwest of Anchorage, Alaska. The property consists of lands owned by the State of Alaska, the Unga Corporation, the Shumagin Corporation, the Aleut Corporation, and 16 patented U.S. federal mining claims owned 100% by Redstar.

Redstar holds 6 State of Alaska mining claims that cover the only non-conveyed State of Alaska ground on Unga Island. These claims were acquired from the NGAS Production Company ("NGAS"), an indirect subsidiary of Magnum Hunter Resources, through a series of cash and share payments completed in December 2013. The six SH-1 Zone claims are subject to a 3.0% net income royalty ("NIR") held by the State of Alaska on mineral production. Redstar has surface use agreements in good standing with both native village corporations that allow for access, exploration and mining of the properties. The agreement with the Unga Corporation is through August 26, 2023. Redstar signed an updated surface use agreement with the Shumagin Corporation in September 2019 that is good through April 30, 2021 under an extension to an agreement dated September 13, 2019.

The subsurface mineral tenure for the properties on both islands are 100% controlled by Redstar as State of Alaska mining claims (for State of Alaska land), patented federal claims owned by Redstar and under an exploration agreement and lands under a mining lease option with the Aleut Corporation ("TAC"), an Alaska Native Regional Corporation. The subsurface exploration agreement has a term of 8 years starting July 1 ,2019, and thereafter converts to a 20-year Mining Lease option with the TAC, under which Redstar may enter into a Mining Lease with the TAC at any time prior to December 31, 2026. Under the Exploration Agreement, the Company will make annual Option Payments (including a sand and gravel payment) escalating from $75,000 in the first year, to $100,000 on the seventh anniversary. Under the Mining Lease, the Company will make annual advance royalty payments escalating from $100,000 in the first year, to $450,000 on the 16th anniversary and subsequent years $600,000. In the event that Redstar delivers a feasibility study, Redstar will issue 2,000,000 common shares to the TAC, subject to the approval of the TSX Venture Exchange. Upon commencement of commercial production, Redstar will pay to the TAC a sliding scale net smelter returns ("NSR") royalty of 2.0% to 4.0%, depending on the price of gold, and a 2.5% NSR royalty for all commodities except gold and other precious metals. Further, upon commencement of commercial production, Redstar will pay 5% of net proceeds after payout of all royalties.

The author is not aware of any environmental liabilities within the Shumagin property aside from the reclamation of drill pads and access roads constructed by Redstar. As of the Effective Date of this report, there are 1.24 acres of un-reclaimed surface disturbances due to drilling activities by Redstar.

1.2 Mining and Exploration History and Historical Resource Estimates

Gold was discovered on the southeast side of Unga Island in 1891. The Apollo gold mine reportedly operated between the late 1880s and the early 1920s and produced approximately 130,000 ounces of gold; the nearby Sitka mine operated between 1900 and 1922, but gold production was limited to a few thousand ounces. Both mines produced gold from the upper oxidized portions of sulfide-rich lodes. Production ceased upon depletion of the oxidized ore. During this same time period other adits and drifts were driven on multiple prospects including the SH-1 Zone (formally known as the Shumagin zone), the East Chance and the California prospects.

Modern exploration began after the passage of the Alaska Native Claims Settlement Act of 1971 ("ANCSA"). From 1974 through 1991, Quintana Minerals Corp. ("Quintana"), the Duval Corp. ("Duval"), Resource Associates of Alaska ("RAA"), UNC Teton Exploration Drilling Inc. ("UNC Teton"), Battle Mountain Gold Corporation ("BMGC"), and Ballatar Explorations Ltd. ("Ballatar") explored Unga Island and parts of Popof Island. This period of exploration consisted of extensive sampling and trenching, geophysics, shallow percussion, RC and core drilling. This work was successful at discovering more than 20 gold and/or base-metal showings, as well as a copper-gold occurrence. A small number of core holes were drilled at each of the Zachary Bay, Aquila, Pook, Pray's Vein, Orange Mountain, Junior, and Norm's Vein prospects on Unga Island and on Centennial, Red Cove and Propolof prospects on Popof Island.

Simultaneously, exploration work was conducted by Alaska Apollo Gold Mining (AAGM) from 1983 through 1989 at the SH-1 Zone and at the Apollo mine and Sitka mine. Both the SH-1 Zone and Apollo-Sitka were drilled as part of this work (in part through a joint venture with Ballatar) and the drilling began to test an epithermal gold-silver ± lead ± zinc vein target at the SH-1 Zone.

In 1990, BMGC drilled a single core hole that intersected the Shumagin vein zone down-dip from the AAGM and Ballatar intercepts; this hole remains important to this day.

From 1987 through 1996, AAGM commissioned preliminary feasibility studies of the SH-1 Zone by Kilborn Engineering (B.C.) Ltd. and resource estimates by E.O. Strandberg Jr., of Fairbanks, Alaska. In August of 1993, Daugherty Petroleum acquired all of the assets of AAGM. Daugherty Petroleum changed its name in 1998 to Daugherty Resources, Inc., which at some point became known as the NGAS Production Company, an indirect subsidiary of Magnum Hunter Resources.

In 2005 Full Metal Minerals ("FMM") began exploring the properties of both Unga and Popof Islands. Metallica Resources Inc. and FMM formed a joint venture in 2005 and carried out surface work that consisted of geophysics, sampling, a satellite remote-sensing study of alteration and core drilling.

Redstar commenced the acquisition of the SH-1 Zone and Apollo-Sitka claims from NGAS in 2011 through a series of transactions that were completed in December 2013. Redstar entered into an agreement with FMM in 2011 to acquire a 60% interest in the Unga and Popof land tracts. In early 2014 Redstar completed their acquisition of the projects and increased their position to 100%.

1.2.1 Historical Resource Estimates

There has been no NI 43-101 compliant estimate of mineral resources for the SH-1 Zone.

1.3 Geology, Mineralization, and Drilling Results

The content presented in this section is modified after the Independent NI 43-101 Technical Reporon the Unga Project filed by Redstar Gold Corp. in 2018 entitled "Technical Report on the Unga Project, Southwest Alaska, USA" (Gustin, et.al., 2018). The author has reviewed this information and believe this summary accurately represents the Unga project geology, mineralization and drilling results as it is presently understood.

1.3.1 Geological Setting

Unga Island is located between the Aleutian trench and the active Aleutian volcanic arc on the Alaska Peninsula. Volcanism on the Alaska Peninsula and Unga Island began shortly after 43 Ma. Mapping of Unga Island by the United States Geological Survey indicates four sequences of sedimentary and calc-alkaline volcanic rocks are present, from oldest to youngest: the Eocene and Oligocene Stepovak Formation, the Eocene volcanic rocks, the Unga Formation conglomeratic rocks of Oligocene and Miocene ages, and early to mid-Miocene volcanic rocks.

Several N50°E to N60°E faults and fault zones completely transect Unga Island. Numerous N10°W to N10°E faults are also present, but they are much less through going. One of the most prominent of the major northeast-trending structures is the Shumagin fault zone (referred to as the Shumagin Trend), which completely transects the southeast part of the island. The Apollo-Sitka fault zone mostly parallels this structure, forming a structural corridor 0.5 to 1.0 kilometers in width and approximately nine to ten kilometers in length. Both fault zones and associated splays are characterized by extensive areas of hydrothermally altered rocks and several exposures of epithermal quartz-carbonate veins, vein-breccias and vein stockworks and associated high-grade gold mineralization.

1.3.2 Mineralization and Drilling Results

Explorers have identified than 25 distinct showings of epithermal precious- and base-metal mineralization, porphyry copper-gold mineralization, and extensive areas of hydrothermally altered rocks on Unga Island, numerous of which occur along the Shumagin Trend which has been a focus of exploration conducted on Unga Island to date. Mineralization occurs as volcanic-hosted, low- to intermediate-sulfidation, epithermal, quartz-carbonate-adularia veins with locally high-grade gold-silver and variable lead, zinc, and copper the best examples being the SH-1 Zone and the Aquila prospect.

1.3.2.1 The SH-1 Zone

The SH-1 Zone consists of multiple, sub-parallel to anastomosing veins, stockwork, and vein-cemented breccias filled with quartz, pyrite, and calcite ± adularia ± rhodocrosite ± green clay ± sphalerite ± galena and lesser chalcopyrite. The vein/breccia zone has an over-all strike of N60°E to N70°E. True widths of the entire breccia zone can be more than thirty meters, and dips are mainly to the southeast at ~70-80^{o}.

Since drilling began in 1983, a total of 15,247 meters have been drilled in 88 diamond-core holes. Drill holes have penetrated the SH-1 vein system for approximately 1.75 kilometers along strike and as much as ~250 meters vertically. Drilling shows the vein system was emplaced along a fault contact between basaltic andesite and basalt in the footwall to the north, and mainly dacitic quartz- and biotite-phyric lithic tuff to the south, all of which are units within the Popof volcanic rock sequence. Drilling also shows that one or more tabular bodies of phreatomagmatic breccia are present within the Shumagin fault and the vein system.

Gold, silver and base-metal mineralization is not evenly distributed within the SH-1 Zone vein system (as is commonly the case in epithermal vein deposits world-wide) but areas with economic gold mineralization appear to form ore shoots that plunge to the NE. In some cases, grades in the range of 10 to 20 g/t Au and greater with widths of up to a few meters have been intercepted in drilling. These high-grade intercepts are often situated within broader intervals of lower-grade mineralization within the mineralized shoots. The highest grade drill intercepts are usually less than one meter wide (such as 192.6 g/t Au and 5,403 g/t Ag from 77.3 to 77.9 meters in hole DDH35, and 365 g/t Au and 190.6 g/t Ag from 153.6 to 154.8 meters in hole DDH46). Redstar's

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highest-grade intervals included 738 g/t Au and 408 g/t Ag over 0.5 meters in hole 11SH010, and 202 g/t Au with 82 g/t Ag over 1.9 meters in hole 15SH011. True widths are believed to be about 70% to 80% of the drill intervals depending upon the angle of drill hole intersection. High-grade gold and silver intervals can have an erratic distribution over short distances within the brecciated areas of the vein zone and are largely restricted to widths of about a meter or less. Significant zinc, lead and lesser amounts of copper may accompany high gold grades (and overall correlate reasonably well with gold) but are not always present and in some intervals such concentrations of base metals are found without significant gold.

Redstar's drilling from 2011 through 2017 tripled the known strike length of the SH-1 Zone vein system, confirmed the presence of high-grade gold-silver mineralization down dip from historical drilling and demonstrated wider zones of gold-silver mineralization exist around the central high-grade veins. The mineralization remains open at depth and along strike.

1.3.2.2 Other Shumagin Trend Prospects

To the West of the SH-1 Zone the Shumagin Trend includes the Pray's Vein, Orange Mountain, Pook, and Aquila prospects, and less than a kilometer to the south of SH-1 Zone is the sub-parallel Bloomer Ridge prospect. With the exception of Orange Mountain, all of these prospects have alteration and anomalous surface rock and soil geochemistry indicative of low- or intermediate-sulfidation epithermal gold mineralization, mainly in the form of narrow veins and vein stockworks. Of these, the Aquila prospect has seen the most exploration work, including drilling and trenching. As with SH-1 Zone, the grades of Aquila are significant with the best drill hole intercepts in hole AQAME-2-80 that intercepted an (estimated true width of 0.43 meters of 109.7 g/t Au (1.4 feet of 3.2 opt. Au), and in hole AQAME-1-80 that intercepted 5.2 meters of 5.55 g/t Au.

1.4 Mineral Processing and Metallurgical Testing

Project operators commissioned metallurgical tests in 1984, 1987 and most recently in 2017 (Redstar). The three tests were of four samples with variable oxidation, sulfides and grade. All tests included cyanidization and flotation, and two tests included gravity separation. Recoveries varied with respect to how fine the material was ground, gold grade of the samples and variable states of oxidation; however, the 1984 and 2017 tests were in reasonable agreement with recoveries from 85.4% to 87.8% for gold and a wide range of silver extractions.

More metallurgical testing is needed, however for the purposes of this report it is of the author's opinion that the 11.8 g/t sample tested in 1984 is the most representative of the average vein gold grades from drilling and trenching. Therefore, the author has used recoveries of 87.8% for gold and 52.3% for silver for the economic cut-off estimate.

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Shumagin

ALS Metallurgy completed the most recent metallurgical test work on samples from the Shumagin deposit in 2017. Three flow sheet options were explored on a single composite: (1) flotation of a bulk sulfide concentrate followed by cyanidation of the concentrate; (2) gravity concentration followed by cyanidation of the gravity tailings; and (3) whole-ore leach of the entire feed. The whole-ore cyanide leaching resulted in 84% to 86% gold extraction and 67% to 72% silver extraction over 48 hours. When preceded by a Knelson gravity concentration step, the overall leach extraction and gravity recovery for gold and silver measured about 85% and 71%, respectively. The gravity concentration step recovered about 16% of the gold and 15% of the silver. With flotation followed by cyanidation, gold and silver extractions were recorded at 76% and 63%, respectively. About 18% of the gold and silver reported to the flotation tailings, and about 6% of the feed gold and 19% of the feed silver remained in the cyanidation tailings. The representativity of the tested composite sample is not known.

1.5 Mineral Resource Estimates

The QP takes full responsibility for all Mineral Resource estimates and other information in this section.

The Mineral Resource estimates discussed in the following sections were derived from geological models and drill hole data provided by Redstar using a nearest neighbor, polygonal estimation using Vulcan software. The Mineral Resource estimate is based upon data provided from recent surface drilling completed by Redstar as well as historical drilling and trenching data from previous operators.

In the SH-1 deposit, six wireframe solids were modeled to represent and constrain the mineralization in the model.

A mean bulk density of 2.6 g/cm^3 was selected for Mineral Resource reporting.

The resource cut-off grade for this Mineral Resource is 3.5 g/t Au. Break even mining cost estimates used for calculating the cut-off considered a gold price of US$1,450, a gold recovery of 87.8% and long-hole stopping/backfill underground mining method. The QP considered the cost of environmental compliance and the extra costs associated with operating a remote mine in Alaska (requiring higher freight costs, ocean freight, on-site power generation, and a man camp).

Mineral Resources are not Mineral Reserves, and do not demonstrate economic viability. There is no certainty that all, or any part, of this Mineral Resource will be converted to Mineral Reserves. Inferred Resources are considered too speculative geologically to have economic considerations applied to them that would enable them to be categorized as Mineral Reserves.

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The Resource Estimate was unable to support a Resource category of Measured or Indicated at this time because of wide drill hole spacing, a number of historical holes lacking down-hole surveys, and because of the number of historical holes in the drill database, but the Resource Estimate supports an Inferred Mineral resource for the SH-1 Deposit as reported in Table 1.1.

Table 1.1 Inferred Mineral Resources for the SH-1 Zone

Gold Price USD	Cut-off Au (g/t)	Preliminary Inferred Resource[i], SH-1 Zone within Shumagin Trend						
		Tonnes	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)	AuEq[1]	AuEq (g/t)[1]
$ 2,600	2.0	1,534,645	9.0	442,673	25.6	1,264,364	457,424	9.3
$ 2,075	2.5	1,355,789	9.9	429,721	26.3	1,147,353	443,107	10.2
$ 1,675	3.0	993,817	12.4	397,613	32.5	1,039,231	409,737	12.8
$ 1,450	3.5	**866,015**	**13.8**	**384,318**	**35.4**	**986,321**	**395,825**	**14.2**
$ 1,290	4.0	797,237	14.7	375,940	36.9	946,724	386,985	15.1
$ 1,150	4.5	761,720	15.2	371,039	38.2	936,160	381,961	15.6
$ 1,035	5.0	724,495	15.7	365,352	39.4	917,812	376,060	16.1

i Mineral Reserve estimates follow the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") definitions standards for mineral resources and reserves and have been completed in accordance with the Standards of Disclosure for Mineral Projects as defined by National Instrument 43-101. Reported tonnage and grade figures have been rounded from raw estimates to reflect the relative accuracy of the estimate. Minor variations may occur during the addition of rounded numbers. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Resources were constrained by a Vulcan, wire frame underground model and based on a cut-off of 3.5g/t Au.

1.6 Conclusions and Recommendations

It is the QP's opinion that the information presented in this Technical Report is representative of the Project and, based on the data verification and analysis completed by the QP concludes that the sample database is of suitable quality to provide the basis for the conclusions and recommendations reached in this Technical Report.

The QP has taken all reasonable steps to verify that the resource model and Mineral Resource estimate is representative of the Redstar data.

The QP recommends that any follow-up exploration include the following programs:

- Redstar conducts infill drilling throughout the resource area to increase confidence in the estimate and convert Inferred Resources to Measured and Indicated.
- Redstar conducts further exploration drilling along strike and down dip of the presently identified plunging ore shoots to test potential expansion of the current extent of the deposit.
- Redstar does additional surface exploration over the nearby targets that look to be either subparallel or footwall veins, vein splays, or strike extensions to SH-1 Zone.

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- Redstar conducts further metallurgical testing to increase confidence in existing metallurgical test results.

2.0 INTRODUCTION AND TERMS OF REFERENCE

Alaska Earth Sciences Inc. (AES) has prepared this technical report on the Unga project, located in southwestern Alaska, U.S.A., at the request of Redstar Gold Corporation ("Redstar"), a Canadian company listed on the TSX Venture Exchange (TSX-V: RGC) and also over-the-counter (OTC: RGCTF). Redstar controls 100% of the Unga project, including the SH-1 Zone gold-silver deposit where Redstar has focused most of its exploration activities since 2011.

This report has been prepared in accordance with the disclosure and reporting requirements set forth in the Canadian Securities Administrators' National Instrument 43-101 ("NI 43-101"), Companion Policy 43-101CP, and Form 43-101F.

2.1 Project Scope and Terms of Reference

The purpose of this report is to provide a technical summary of the SH-1 Zone gold-silver deposit in accordance with the requirements of NI 43-101. This report was prepared under the supervision of William T. Ellis of Alaska Earth Sciences (AES) (the "QP"), with the supervised assistance of Christopher Valorose of Valorose Consulting Inc., an independent geologist who provided the Vulcan modelling upon which the Inferred Mineral Resource Estimate was based. Mr. Ellis, who has more than 40 years mineral exploration and mining experience, is a Qualified Person under NI 43-101.

The scope of this study included a review of pertinent technical reports and data provided to AES by Redstar relative to the general setting, geology, project history, exploration activities and results, methodology, quality assurance, interpretations, drilling programs and metallurgy. Mr. Ellis and Mr. Valorose have relied entirely on data and information derived from work done by Redstar and its predecessor operators of the Unga project. The QP has reviewed all of the available data, conducted a site visit, and has made judgments about the general reliability of the underlying data. Where deemed either inadequate or unreliable, the QP either eliminated the data from use or modified the procedures to account for any lack of confidence in that specific information. AES has made such independent investigations as deemed necessary in the professional judgment of the QP to be able to reasonably present the conclusions discussed herein.

Mr.Ellis has been involved in exploring the SH-1 Zone project and other Unga Project prospects and has spent numerous days at the project site over the past 30 years that included being project geologist for Battle Mountain Gold (1987-1992) that drilled the important high-grade BMS-01 vein intercept. The QP has visited and sampled numerous mineralized and altered exposures of the SH-1 Zone vein and outcrops of the major footwall and hanging wall rock units. The QP's visits also included re-mapping and sampling historical trenches and visiting numerous drill sites and adits. The QP has also reviewed all available archived drill core, drill logs and corresponding assay certificates, details of the geology, mineralization, alteration and mineralization models completed to date for the SH-1 Zone and surrounding prospects.

The Effective Date of this technical report is September 25th, 2020.

2.2 Frequently Used Acronyms, Abbreviations, Definitions and Units of Measure

In this report, measurements are generally reported in metric units. Where information was originally reported in imperial units conversions as shown below. In some cases, original imperial units are reported for historical assays or metallurgical test results if conversion to metric units and rounding would result in changes to the original precision. Frequently used acronyms, abbreviations, definitions and units of measure are listed on the following pages.

Currency, units of measure, and conversion factors used in this report include:

Linear Measure

1 centimeter	= 0.3937 inch	
1 meter	= 3.2808 feet	= 1.0936 yard
1 kilometer	= 0.6214 mile	

Area Measure

1 hectare	= 2.471 acres	= 0.0039 square mile

Capacity Measure (liquid)

1 liter	= 0.2642 US gallons

Weight

1 tonne	= 1.1023 short tons	= 2,205 pounds
1 kilogram	= 2.205 pounds	
1 ounce (troy)	= 31.103 grams	
1 troy ounce / short ton	=34.2857 grams / metric ton	
1 gram / metric ton	=0.0292 troy oz / short ton	

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Currency: Unless otherwise indicated, all references to dollars ($) in this report refer to currency of the United States.

Frequently used acronyms and abbreviations

AA-	atomic absorption spectrometry
Ag-	silver
Au-	gold
cm-	centimeters
Core-	diamond core-drilling method
ºC-	degrees centigrade
°F-	degrees Fahrenheit
ft	foot or feet
g/t-	grams per tonne
Ha-	hectares
Hz-	hertz
ICP-	inductively coupled plasma analytical method
In-	inch or inches
kg-	kilograms
km-	kilometers
ll-	liter
lbs-	pounds
µm-	micron
m-	meters
Ma-	million years old
mi-	mile or miles
mm-	millimeters
NSR-	net smelter return
oz-	ounce
ppm-	parts per million
ppb-	parts per billion
QA/QC-	quality assurance and quality control
RC-	reverse-circulation drilling method
RQD-	rock-quality designation
tt-	metric tonne or tonnes

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3.0 RELIANCE ON OTHER EXPERTS

The author is not an expert in legal matters, such as the assessment of the validity of mining claims, mineral rights, and property agreements in the United States or elsewhere, but has been closely involved in maintaining the validity of the claims and property agreements. The author did not conduct any investigation into the environmental, political or tax issues associated with the Unga project and is not an expert with respect to these matters. The author has therefore relied fully upon information and opinions on these matters provided by Redstar. Additionally, the author has fully relied on Redstar to provide complete information concerning the pertinent legal status of Redstar and its affiliates, as well as current legal title, material terms of all agreements, and material environmental and permitting information that pertains to the Unga project.

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4.0 PROPERTY DESCRIPTION AND LOCATION

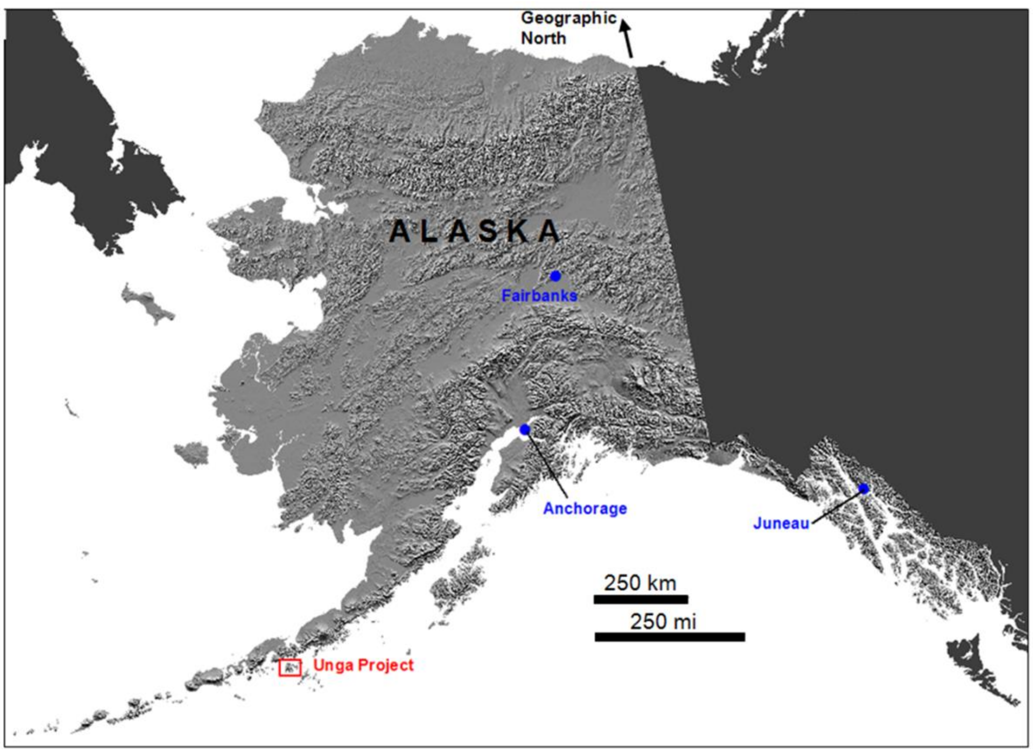
Section 4 in its entirety is based on information provided by Redstar with content modified after the Independent NI 43-101 Technical Report on the Unga Project filed by Redstar Gold Corp. in 2018 entitled "Technical Report on the Unga Project, Southwest Alaska, USA" (Gustin, et.al., 2018). The author offers no professional opinion regarding the provided information, nor does the author not know of any significant factors and risks that may affect access, title, or the right or ability to perform work on the property beyond what is described in this report.

4.1 Location

The Unga gold-silver project covers 250 square kilometers of neighboring Unga and Popof Islands, approximately 900 kilometers southwest of Anchorage, Alaska (Figure 4.1). The approximate geographic center of the property is located at latitude 55°13.50′N; longitude 160°36.0′W.

Figure 4.1 Location of the Unga Project, Alaska

Digital elevation model (DEM) of Alaska



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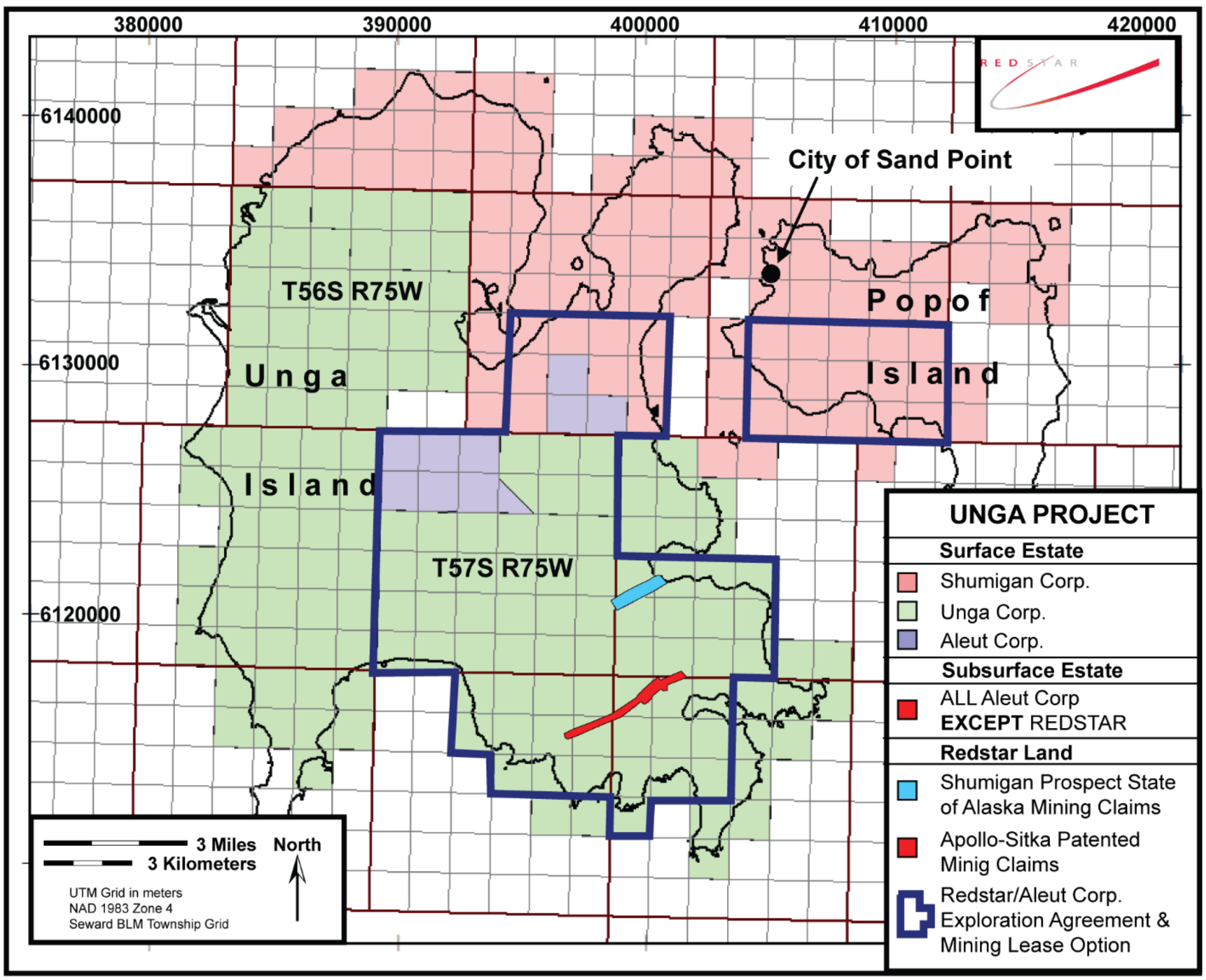
4.2 Land Area

The Unga property includes two principal tracts of subsurface mineral tenure, one on Popof Island and the other on adjacent Unga Island (Figure 4.2), 100% controlled by Redstar under an exploration agreement and Mining Lease option with the The Aleut Corporation ("TAC"), an Alaska Native Regional Corporation. The tract on Unga Island surrounds six State of Alaska mining claims (the "Shumagin claims") owned 100% by Redstar which encompass the core of the SH-1 Zone (Figure 4.2).

Figure 4.2 Unga Project property map

(Alaska Department of Natural Resources: DIVISION OF MINING, LAND AND WATER 2018)



The Unga Island tract is located in T56S, R74W, Sections 20-23 and 26-35; T57S, R75W, Sections 1-36; T57S, R74W, Sections 19-22 and 27-34; and T58S, R74W, Sections 4-9 and 16-19; all Seward Baseline and Meridian.

For the six State mining claims, Alaska mining laws and regulations provide an exclusive right to the locator to develop a discovery, and security of tenure, subject to annual rental payments and performance of annual labor requirements. Redstar represents that annual State mining claim rental fees have been paid, and performance of annual labor requirements for the six Shumagin claims have been met, through noon on September 1st, 2020. The State of Alaska retains a 3.0% Net Income Royalty ("NIR") on all minerals produced from the six Shumagin claims.

Table 4.1 and Table 4.2 are listings of Mining Claims, Subsurface Mineral Tenure, and Surface Tenure, Unga Project.

Table 4.1 Alaska State Mining Claims

Claim Name	Date of Posting (YYYY/MM/DD)	Date of Recording (YYYY/MM/DD)	Aleutian Islands Recording District Book / Page	DNR Serial Number
Hecla	1980/03/05	1980/03/11	19/443	ADL 318700
	Not posted	1983/05/11	22/242	
	1988/04/27	1988/05/17	27/886	
Sunshine	1980/03/05	1980/03/11	19/445	ADL 318701
	Not posted	1983/05/11	22/244	
	1988/04/27	1988/05/17	27/883	
Lucky Friday	1980/03/05	1980/03/11	19/447	ADL 318702
	Not posted	1983/05/11	22/246	
	1988/04/24	1988/05/17	27/889	
Galena	1980/03/05	1980/03/11	19/449	ADL 318703
	Not posted	1983/05/11	22/248	
	1988/04/27	1988/05/17	27/874	
Bunker	1980/03/05	1980/03/11	19/451	ADL 318704
	Not posted	1983/05/11	22/250	
	1988/04/24	1988/05/17	27/877	
Harbor	1980/03/05	1980/03/11	19/453	ADL 318705
	Not posted	1983/05/11	22/252	
	1988/04/24	1988/05/17	27/880	

The six State claims are located in the following land sections, Seward Meridian:

- Sections 19, 20, and 30 of Township 57 South, Range 74 West; and
- Section 25 of Township 57 South, Range 75 West

Table 4.2 Alaska Native Claims Settlement Act Land Conveyance

Part 1: The Aleut Corporation Subsurface Estate / Shumagin Corporation Surface Estate

TWP	Range	Sections	Subsurface Conveyance	Surface Conveyance
56S	73W	20-25, 26 (Lots 1-2, 27-29, 32-36	TAC (50-90-0720)	Shumagin Corp. (50-2004-0194, which corrects 50-90-0719
56S	74W	30	TAC (50-2005-0530)	Shumagin Corp. (50-2005-0529)
56S	74W	20-21, 22 (Lots 1-3), 23, 26-27, 29, 31-32, 35	TAC (50-90-0720)	Shumagin Corp. (50-2004-0194, which corrects 50-90-0719)

Part 2: The Aleut Corporation Subsurface Estate / Unga Corporation Surface Estate

TWP	Range	Sections	Subsurface Conveyance	Surface Conveyance
57S	74W	19 (Lots 1-3), 20, 21 (Lots 1-2), 27 (Lots 1-2), 28, 31, 34	TAC (50-2004-0417)	Unga Corp. (50-2004-0416)
57S	74W	22, 29, 30 (Lots 1-2)	TAC (50-90-0346)	Unga Corp. (50-90-0345)
57S	74W	32-33	TAC (50-2005-0158)	Unga Corp. (50-2005-0157)
57S	75W	1-3, 10 Lot 1), 11-12	TAC (50-2005-0158)	Unga Corp. (50-2005-0157)
57S	75W	13-30, 31 (Lots 1-2), 32, 33, (Lots 1-2), 34-36	TAC (50-90-0346)	Unga Corp. (50-90-0345)
58S	74W	4 (Lots 1-2), 7-9, 16-19	TAC (50-90-0346)	Unga Corp. (50-90-0345)
58S	74W	5 (Lots 1 & 3)	TAC (50-2004-0417)	Unga Corp. (50-2004-0416)
58S	74W	5 (Lot 2), 6 (Lots 1-2)	TAC (50-2005-0158)	Unga Corp. (50-2005-0157)
58S	75W	1-3, 4 (Lots 1-2), 9-11, 12 (Lots 1-2), 13, 14 (Lots 1-2), 15	TAC (50-90-0346)	Unga Corp. (50-90-0345)

Part 3: The Aleut Corporation Subsurface Estate / Surface Estate

TWP	Range	Sections	Subsurface Conveyance	Surface Conveyance
56S	74W	28, 33-34	TAC (50-2008-0380) [14(h)(8)]	TAC (50-2008-0380) 14(h)(8)

Part 4: The Aleut Corporation Subsurface Estate / USFWS Surface Estate

TWP	**Range**	**Sections**	**Subsurface Conveyance**	**Surface Conveyance**
57S	75W	4-9, 10 (Lot 2)	TAC (selected) [in lieu & 14(h)(8)	TAC (selected) 14 (h)(8)

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All lands are referenced to the Seward Meridian.

4.3 Agreements and Encumbrances for Mineral Tenure

Royalty payments do not start until production commences. Land holding costs for the Unga Property for 2019 totaled approximately $142,333. In 2020 land holding costs are expected to increase annually as summarized in Table 4.3:

Table 4.3 Summary of annual land holding costs and royalty obligations

Summary of Annual Land Holding Costs and Royalty Obligations	**Inception (Duration)**	**Escalating advance royalty or Annual fee**	Royalty as per cent
TAC sub surface agreement: Exploration	01 July 2019 (8 years)	US$75,000 - US$110,000	-
TAC sub surface agreement: Mining lease	(20 years from option)	(US$100,000 - US$600,000)	2-4.5% NSR depending on gold price
State of Alaska claims	-	-	3% NIR
Unga Village Corp surface access agreement	27 August 2020 (36 months)	(Proprietary Information)	-

Redstar's acquisition of the six Shumagin claims commenced in May 2011. The claims were acquired from the NGAS Production Company ("NGAS"), an indirect subsidiary of Magnum Hunter Resources, through a series of cash and share payments completed in December 2013, with Redstar owning 100% of the Shumagin claims subject to a 3% NIR royalty.

In June 2011, Redstar announced an agreement to acquire Unga Island and Popof Island tract from Full Metal Minerals Ltd ("FMM"). 100% of the mineral rights to both tracts were held by FMM under a lease agreement with the TAC. Redstar's agreement with FMM gave Redstar the right to earn a 60% interest in the property by completing $5 million in exploration expenditures across the Unga and Popof Island tracts by August 1, 2015, making cash payments of $300,000 by August 1, 2014, and issuing 1.0 million shares by August 1, 2014. Redstar had the option of earning an additional 25% interest by producing a bankable feasibility study and issuing an additional 1.0 million shares to Full Metal. The agreement obligated Redstar to issue an additional 1.0 million shares on the commencement of commercial production. In December 2011, Redstar announced that it had the option of earning an additional 15% interest from FMM by producing a bankable feasibility study and issuing an additional 1.0 million shares to FMM.

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In February 2014, Redstar announced it had signed a Letter of Intent to acquire a 100% undivided interest in the Unga and Popof tracts from FMM. Under the terms of the letter agreement, Redstar agreed to issue 3,000,000 shares and pay $125,000 cash to FMM, subject to Exchange approval and the completion of a definitive agreement with FMM. In the same announcement, Redstar also explained that FMM had an exploration agreement with option to lease with the TAC under an Amended and Restated Exploration Agreement with Option to Lease Originally Effective as of January 5, 2007, and, as Amended and Restated Effective as of June 30, 2010, between the TAC and FMM (the "Amended Agreement").

In November 2014, Redstar announced it had assumed the obligations of FMM to the TAC under the Amended Agreement, via an Assignment Agreement entered into by Redstar, FMM and the TAC. This Agreement was superseded by an eight-year exploration agreement, followed by a 20-year option for a mining lease signed on July 01, 2019. Under the new agreement, Redstar agreed to pay TAC an option amount during the eight-year exploration period according to Table 4.4:

Table 4.4 Summary of annual option payment to TAC

Pay date	Option payment
01 July, 2020	$65,000
01 July, 2021	$70,000
1 July, 2022	$75,000
1 July, 2023	$80,000
1 July, 2024	$85,000
1 July, 2025	$90,000
1 July, 2026	$100,000

In addition, an annual option to use sand and gravel is payable to TAC at $10,000 per year.

The agreement above provides that Redstar may enter into a Mining Lease with the TAC at any time prior to June 30, 2027. Upon entering into the Mining Lease, the Company will make annual advance royalty payments escalating from $100,000 in the first year, to $250,000 until the 5th anniversary; then $450,000 for the 6th anniversary through to the 15th anniversary; then $600,000 annually each succeeding year for the term of the lease. The advance royalty may be recouped and deducted from 50% of any Production Royalty payable under this lease.

Production royalties payable on precious metals under the lease are 2.0% rising to 4.0% prior to payout on a sliding scale depending on the price of gold as detailed in Table 4.5:

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Table 4.5 Summary of production royalty payable to TAC prior to payout

Price of gold	Production Royalty
$1,000 or less	2.0% of Net Smelter Returns
$1,000 to $1,300	2.5% of Net Smelter Returns
$1,300 to $1,500	3.0% of Net Smelter Returns
$1,500 to $2,000	3.5% of Net Smelter Returns
$2,000 and above	4.0% of Net Smelter Returns

Production royalties payable on precious metals under the lease are 2.5% rising to 4.5% after payout on a sliding scale depending on the price of gold as detailed in Table 4.6:

Table 4.6 Summary of production royalty payable to TAC after payout

Price of gold	Production Royalty
$1,000 or less	2.5% of Net Smelter Returns
$1,000 to $1,300	3.0% of Net Smelter Returns
$1,300 to $1,500	3.5% of Net Smelter Returns
$1,500 to $2,000	4.0% of Net Smelter Returns
$2,000 and above	4.5% of Net Smelter Returns

4.4 Surface Tenure Agreements and Encumbrances

Redstar's surface tenure for the Unga tract is held under agreement with the Unga Corporation. In 2018, Redstar entered into a surface use agreement with the Unga Corporation that granted Redstar overland access use and surface disturbances such as trenching and drilling. Redstar was obligated to make an annual payment of $33,333 to the Unga Corporation for surface access rights. The agreement is currently under negotiation and expected to result in an obligation to pay approximately $35,000 per year from April 01, 2020.

4.5 Environmental Liabilities

The author is not aware of any environmental liabilities within the Popof and Unga tracts, or within the mining claims that are the subject of this report, aside from the reclamation of drill pads and access roads constructed by Redstar (totaling 1.24 acres of disturbed ground).

4.6 Environmental Permitting

The State of Alaska requires a reclamation bond for surface disturbances created by exploration and mining activities that exceed 2.02 hectares on State lands and private property. Permitting of surface exploration activities is managed under the Alaska Department of Natural Resources ("DNR") Application for Permits to Mine in Alaska ("APMA").

In 2015 Redstar had received permits for exploration as follows:

- State of Alaska Multi-Agency Permit Application (APMA) for Hardrock Exploration #A15-3081.
- State of Alaska Temporary Water Use Authorization TWUA F2015-004, TWUA F2015-005, TWUA F2015-015.
- Alaska Dept. of Fish and Game Fish Habitat Permit 15-11-0024 and 15-11-0025.
- Alaska Department of Environmental Conservation – Small Temporary Camp Permit 777770164.
- Aleutians East Borough Mining Mineral and Coal permit for exploration and small mines ESM 2015-01.
- Department of Army US Army Engineer District Regulatory Division POA-2011-523 –work covered by nationwide permit NWP-6.

These permits are currently being revised to perform the recommended work program proposed in Section 26.0. As of the Effective Date of this report, the un-reclaimed surface disturbance totals are reported at 1.24 acres.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The information summarized in this section is derived from publicly available sources, as cited, and the author's local experience believe this summary is materially accurate.

5.1 Access to Property

Access to Unga Island is via the isolated town of Sand Point, Alaska, a small commercial fishing port located on Popof Island. Sand Point has most of the facilities and services required for exploration programs. The Sand Point airport has an all-weather paved runway and a large paved apron and aircraft parking area, all located at 21 feet above sea level. There are daily commercial flights and regularly scheduled air freight to and from Anchorage, Alaska, although currently there are COVID related disruptions. There are frequent regularly scheduled coastal barge and cargo ship services from Fife, Washington. Additionally, there is the State of Alaska Ferry System routinely operates between Homer and Sand Point during the summer months. There are service boats available, such as small landing craft and barges, to haul freight to Unga Island. Unga Island has one privately operated dock and several beaches suitable for landing crafts and small boats.

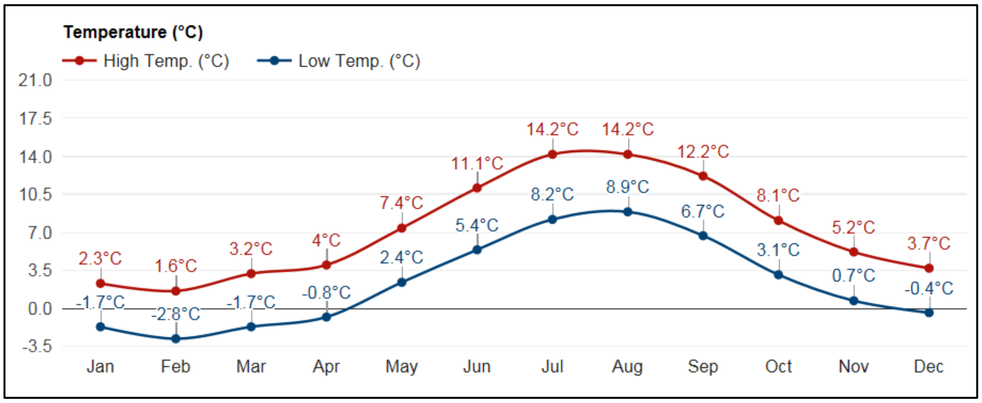
A helicopter can easily fly from Sand Point to anywhere on Unga Island if the weather permits. The over-water stretch varies from less than 1.6 kilometers to about 8.0 kilometers requiring a helicopter with pop-out floats for safety. Charter barge or landing craft service to Baralof Bay on Unga Island allows drill rigs and other heavy equipment to be transported to the project under the Unga Corporation surface use agreement.

5.2 Climate

Sand Point has a temperate, maritime climate characterized by cool summers and rainy winters. Cloud cover and strong winds are common during winter months. Average daily high and low temperatures are summarized in Figure 5.1. Precipitation averages 83.8 centimeters annually, which includes water from an average of 132 centimeters of snow. The exploration-operating season is longer than much of the rest of Alaska, depending on the tasks to be done and the mode of transportation for field work.

Figure 5.1 Sand Point, Alaska average temperatures

(from Weather Atlas: https://www.weather-us.com/en/alaska-usa/sand-point-climate?c,mm,mb,km)



Exploration programs using helicopter transportation must plan for days when poor weather precludes flying. It is expected that mining can be conducted year-round.

5.3 Physiography and Vegetation

Unga Island is a mix of rolling terrain with higher hills. Elevations range from sea level to approximately 620 meters, but the more prospective areas have rolling terrain at lower elevations. On both islands the dominant vegetation is alder brush and blackberry bushes, with open spaces covered with grasses and tundra.

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5.4 Local Resources and Infrastructure

Freight, engineering, mechanical, light vehicle, banking, and heavy equipment services are readily available from Anchorage, Alaska. The town of Sand Point on Popof Island, with a population of about 1,000 year-round inhabitants (2010 census), has facilities and services for room and board, fuels, health clinic, groceries and supplies, vehicles, cellular phone service, docks for loading and unloading barges and ships, a Post Office and courier services, passenger and air freight service, barge service, etc. During the commercial fishing season, the population grows to several thousand. Labor for construction and mining is limited locally but readily available from other parts of Alaska.

Unga Island does not have any public infrastructure such as permanent roads, power and housing but there are exploration trails which are navigable by all-terrain four-wheel drive vehicles along the Shumagin Trend, to the abandoned mine site on the Apollo-Sitka Trend and along the central part of the Apollo-Sitka Trend. The northeast portion of the island has cellular phone service. There is marine access to the area for barges and landing craft. Redstar has established a 24 person Weatherport and Conex camp on Unga Island to support its exploration work.

The property that is the subject of this report is large enough to provide sufficient surface area to install all facilities necessary for a large mining operation. Adequate and appropriate terrain is present for potential tailings storage areas, potential waste disposal areas, heap leach pad areas, and potential processing plant sites. Water resources are abundant and auxiliary wind-generated electricity is potentially feasible.

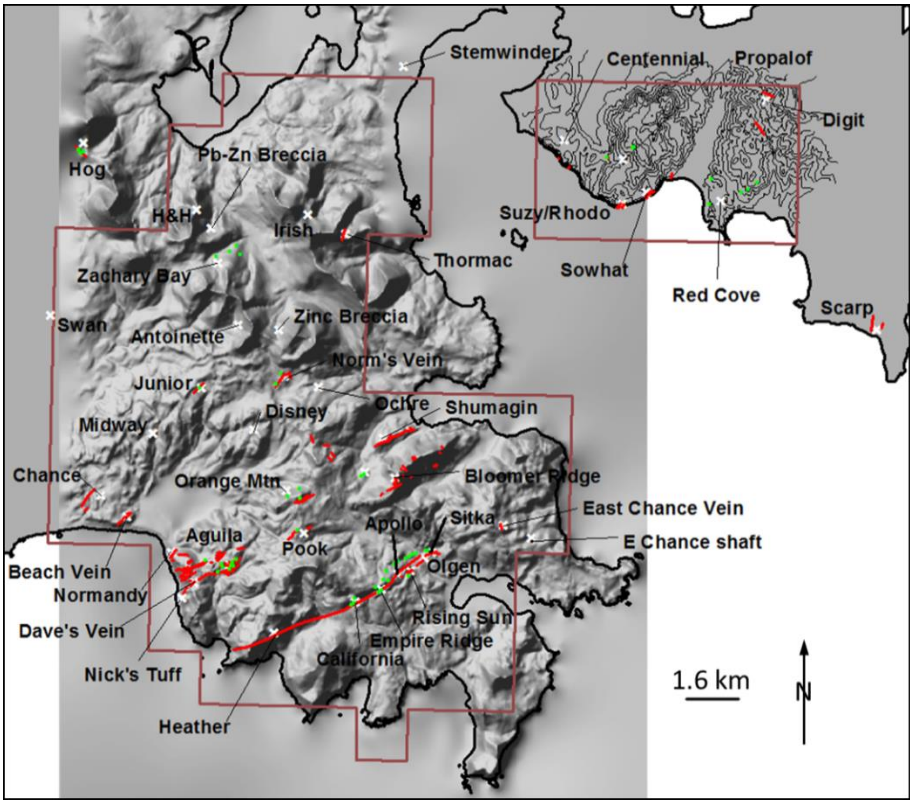
6.0 HISTORY

The information summarized in this section has been extracted and modified to a significant extent from Stevens (2012) and Gustin, et.al. (2018) and unpublished company files, as well as other sources as cited. The author has reviewed this information and believe this summary is materially accurate.

6.1 Exploration History

Gold was discovered on Unga Island in 1881 in a series of faults and veins that can be traced across the southeast side of Unga Island for about 8.0 kilometers. The Apollo gold mine (Figure 6.1) reportedly operated between the late 1880s and the early 1920s, and produced about 130,000 ounces of gold (Stevens, 2012). The Sitka mine operated between 1900 and 1922, but gold production was limited. Both mines produced gold from the upper, oxidized portions of sulfide-rich lodes. Production ceased upon depletion of the oxidized ore. The Apollo and Sitka mines attracted prospectors to the area, which resulted in numerous lode discoveries on Unga Island Adits and drifts at the Shumagin prospect date to this period.

Figure 6.1 Prospect map for the Unga Project
(from Redstar Gold Inc database, 2020)



Note: red lines are veins shown schematically. Aquila is mis-labeled as Aguila.

In June of 1964, Bob Reeve, an Alaskan icon and owner of Reeve Aleutian Airways, funded a 30-day, four-person exploration program led by Leo Mark Anthony, a renowned Alaska prospector, and included Donald Stevens. Prospecting and geochemical soil surveys were conducted on areas in and around the Apollo mine, the Sitka prospect, and elsewhere. This work was all conducted on lands comprising the current Unga project.

The modern era of exploration began after the passage of the Alaska Native Claims Settlement Act of 1971 ("ANCSA"), as amended. For-profit native corporations sought offers from exploration and mining companies to explore the mineral potential of large land areas set aside from which native corporations could select lands. These exploration programs enabled the native corporations to select those lands with the highest mineral potential.

The surface estate of Unga Island was selected by the Unga Corporation under their rights granted by ANCSA which is a village corporation within the Aleut Region. The TAC, a regional corporation, owns the rights to the subsurface estate beneath the village corporation selections as dictated in ANCSA and explained in Section 4.2. In 1974, the TAC entered into a joint venture

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agreement with Quintana Minerals Corp. ("Quintana") and Duval Corp. ("Duval") for reconnaissance exploration of Unga Island. This led to the discovery of a large color anomaly near Zachary Bay (Figure 6.1), which was found to host copper-gold occurrences and called the Zachary Bay prospect. In 1975, the program consisted of a magnetic survey and detailed geologic mapping, followed by a four-hole diamond-core drilling program at the Zachary Bay prospect, which totaled 303 meters. The results did not meet the joint venture's expectations and no further work was done there.

In 1979, Resource Associates of Alaska ("RAA") began systematic exploration of lands withdrawn for possible selection and eventual ownership by the TAC. This work was funded for 1979 and 1980 by Houston Oil and Minerals Corporation ("HOM") and included Unga and Popof Islands. In 1981, RAA conducted field work for UNC Teton Exploration Drilling, Inc. ("UNC-Teton") and the TAC. In 1982 and 1983, UNC-Teton, in a joint venture with RAA, led the exploration work. This multi-year program led to the discovery and exploration of several gold occurrences and prospects, including Aquila, Orange Mountain, Norm's Vein, and Pray's Vein, all of which are shown in Figure 6.1, except for Pray's Vein. These prospects were all explored by geologic mapping, surface geochemical sampling, and a few diamond-core drill holes.

In 1986 through 1991, Battle Mountain Exploration Company, a division of Battle Mountain Gold ("BMGC"), conducted exploration work on Unga and Popof Islands that included exploration of the Shumagin (SH-1), Orange Mountain, Norm's Vein, Heather, Bloomer Ridge, Pray's Vein, Pook, and the East Chance prospects (Figure 6.1). Simultaneously, exploration work was conducted by Alaska Apollo Gold Mines Ltd. ("AAGM") from 1983 through 1989 at the Shumagin prospect and on the Apollo mine and Sitka mine prospect. Both the Shumagin and Apollo-Sitka prospects were drilled as part of this work. The Shumagin (SH-1) prospect is held by six State of Alaska mining claims that are in-holdings within the Native lands. From 1983 through 1990, AAGM, Ballatar Explorations Ltd. ("Ballatar") and BMGC drilled the Shumagin prospect, and in 1990 BGMC conducted an airborne magnetic-EM survey. Ballatar's drilling was part of a joint venture that Ballatar entered into with AAGM in 1989.

From 1987 through 1996, AAGM commissioned preliminary feasibility studies by Kilborn Engineering (B.C.) Ltd., and resource estimates by E.O. Strandberg Jr., of Fairbanks, Alaska. In August of 1993, Daugherty Petroleum acquired all of the assets of AAGM. Daugherty Petroleum changed its name in 1998 to Daugherty Resources, Inc., which at some point became known as the NGAS Production Company, an indirect subsidiary of Magnum Hunter Resources of Houston, Texas.

The Author has no information on work done, if any, on the State of Alaska claims at the Shumagin prospect from 1997 through 2010, with the exception of a ground magnetometer survey over the Shumagin vein system commissioned by Daugherty Resources (Magnum Hunter) in 2009. This work was completed by Alaska Earth Sciences Inc. and consisted of five lines across the vein system. A distinct magnetic low was found to correspond with the position of the Shumagin vein system.

Redstar commenced the acquisition of the Shumagin and Apollo-Sitka claims from NGAS in 2011 through a series of transactions that were completed in December 2013. Full Metal Minerals ("FMM") began exploring the Unga tract and other properties in the Port Moller region under an agreement with the TAC in 2005 after entering into an option agreement with Alaska Earth Resources Inc. ("AERI") in July of 2004. Metallica Resources Inc. ("Metallica") and FMM formed a joint venture in 2005, whereby Metallica had an option to earn an interest in FMM's Port Moller properties by investing in exploration and development over a five-year option term. Surface mapping, sampling and induced potential ("IP") geophysics were initiated by the FMM-Metallica joint venture in 2005 on Unga island. This included reprocessing of the 1990 BMGC airborne magnetic-EM survey on the southern part of Unga Island, to produce total-intensity gridded maps and analytical-signal maps of the area. This survey had nominal 152-meter (500-foot) line spacing and recorded magnetics and three frequencies of electromagnetic data at 56,000 Hz, 7,000 Hz, and 900 Hz. The joint venture also conducted an IP and ground magnetics survey at the Pook prospect in 2005.

6.2 Historical Mineral Resource Estimates

There has been no NI 43-101 compliant estimate of mineral resources for the SH-1 Zone.

6.3 Historical Production

There is no recorded historical production from the SH-1 Zone.

7.0 GEOLOGIC SETTING AND MINERALIZATION

The information presented in this section of the report is derived from multiple sources, as cited. Much of the content in this section is duplicated or modified from the independent NI 43-101 technical report on the Unga Project filed by Redstar Gold Corp. in 2018 entitled "Technical Report on the Unga Project, Southwest Alaska, USA" (Gustin, et.al., 2018). The author has reviewed this information and believe this summary accurately represents the Unga project geology as it is presently understood.

7.1 Regional Geologic Setting

Unga and Popof Island are adjacent to the southeast side of the Alaska Peninsula (Figure 7.1), inboard from the convergent boundary between the Pacific and North American lithospheric plates. The islands are located 40 to 120 kilometers toward the Aleutian trench from the active Aleutian volcanic arc on the Alaska Peninsula, and are considered part of the Aleutian forearc (e.g., Riehle et al., 1999).

As shown by Wilson et al. (1995) and summarized by Van Wyck et al. (2005), the nearby Alaska Peninsula is primarily underlain by arc-related volcanic and plutonic rocks, and shallow marine and continental sedimentary rocks that range in age from late Paleozoic to Holocene in age (Figure 7.1). Southeast of the Alaska Peninsula, upper Cretaceous turbidities of the Shumagin Formation, which are part of the Chugach terrane, are exposed in the outer Shumagin Islands. The Chugach terrane is separated from the Alaska Peninsula terrane by the Border Ranges fault ("BRF", Figure 7.1). Northwestern convergence and active plate subduction have occurred along the Aleutian trench since about 43 Ma. Volcanism on the Alaska Peninsula, Unga Island, and Popof Island began shortly thereafter.

7.2 Unga Island and Popof Island Geology

The earliest geologic map of Unga Island is that of Atwood (1911). Mapping by industry geologists and U.S. Geological Survey ("USGS") geologists during the late 1970s through the mid-1990s, together with potassium argon age-dating by the USGS, culminated in the geologic description of the islands by Riehle et al. (1999), which included the geologic map of Unga Island and the northwest part of Popof Island by Riehle et al. (1998). Broadly, four sequences of sedimentary and calc-alkaline volcanic rocks were recognized, from oldest to youngest: the Eocene and Oligocene Stepovak Formation, the Eocene and Oligocene Popof volcanic rocks, the Unga Formation conglomeratic rocks of Oligocene and Miocene ages, and early to mid-Miocene volcanic rocks. Figure7.2 shows the USGS geology taken from Riehle et al. (1998). A 1986 map by BMGC had significant differences in unit assignment and relative stratigraphic positions. The BMGC and earlier RAA geologic maps and reports included an elliptical caldera located in the northern portion of the present property, and the caldera interpretation was repeated by some subsequent workers (e.g., Bowdidge, 1993; Vann and Crowl, 2000). The main evidence for this caldera was an apparently elliptical, eight by 13 kilometer area of volcanic domes, lava flows and tuffs, and an inferred pattern of bounding faults and fractures. No voluminous out-flow facies ash-flow tuff, or other large-volume eruptive products were identified and related to caldera subsidence, and little evidence for such a depression was specified. This proposed caldera was not recognized in the later mapping of Unga Island by the USGS as portrayed by Riehle et al. (1998).

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Figure 7.1 Regional Geologic Setting
(from Van Wyck et al., 2005)

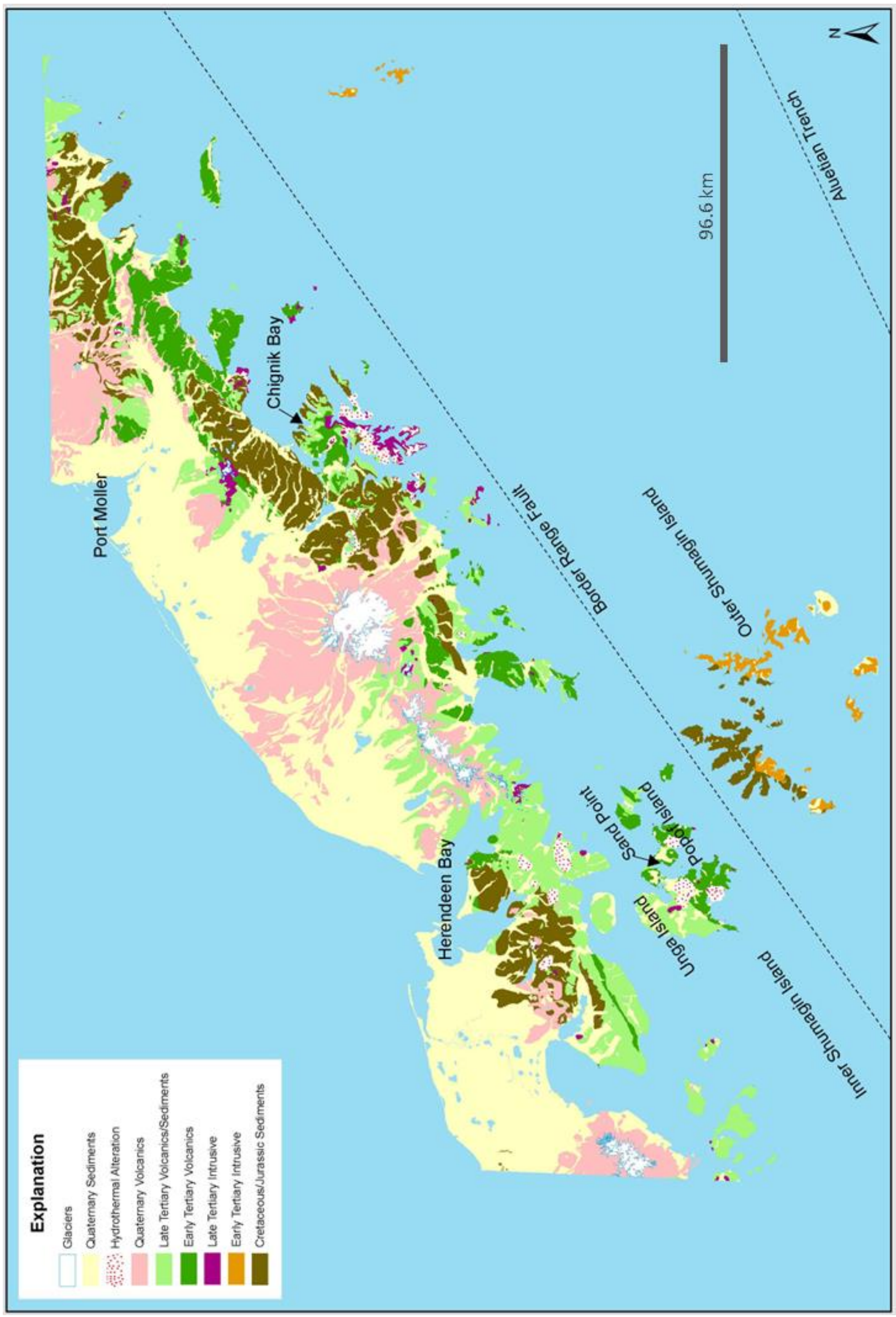
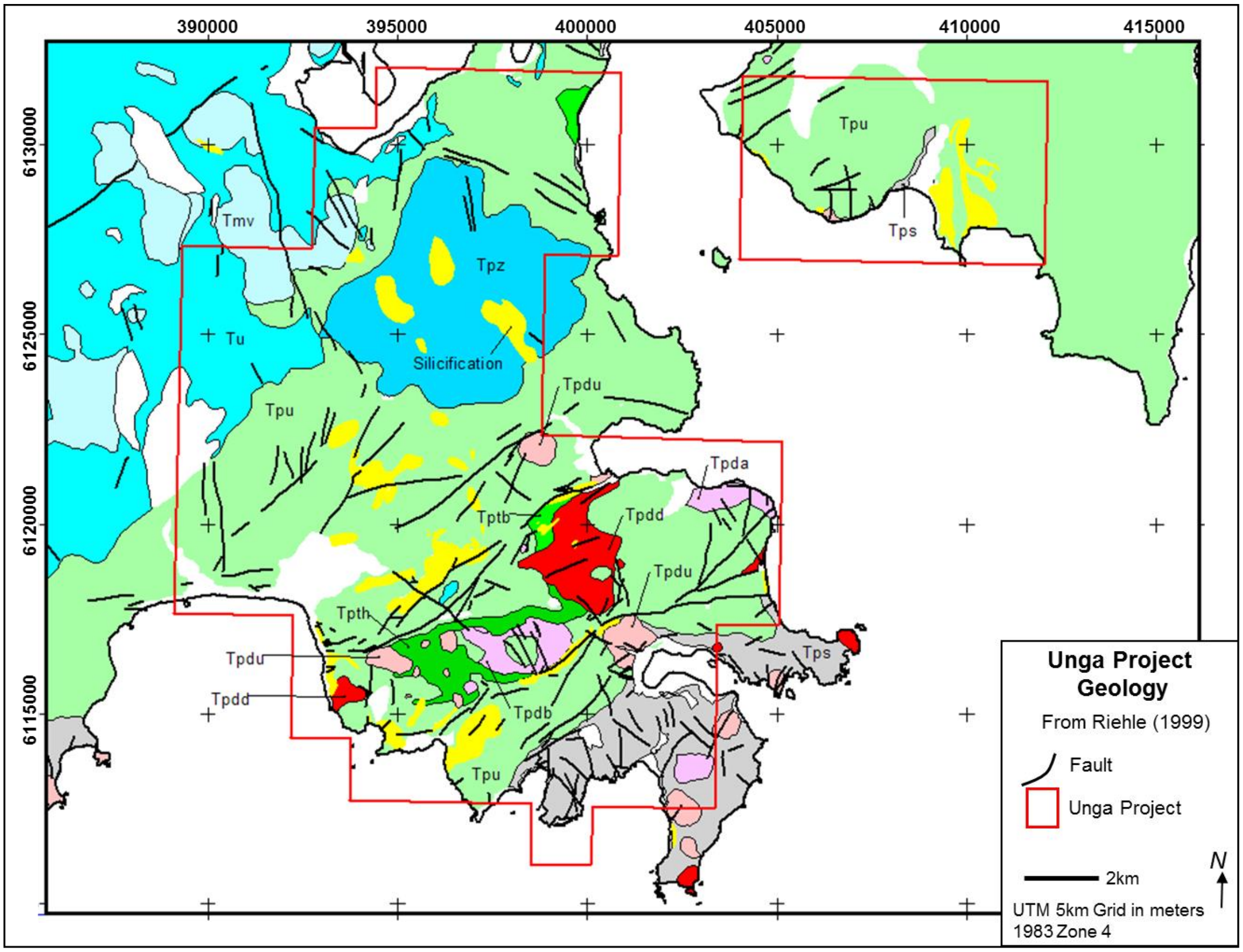


Figure 7.2 Geologic Map of Unga Island and the northwest part of Popof Island
(from Riehle et al., 1999)



Tpu – Eocene to Oligocene Popof Volcanic Rocks, undifferentiated, mostly andesitic flows; Tps – Popof Volcanic Rocks, volcaniclastic sedimentary rocks; Tpth – Popof Volcanic Rocks hornblende tuff; Tptb – Popof Volcanic Rocks, biotite tuff; Tpdd – Popof Volcanic Rocks, dacite dome; Tpda – Popof Volcanic Rocks, andesitic dome; Tpdb – Popof Volcanic Rocks, basaltic dome; Tpdu – Popof Volcanic Rocks, domes undifferentiated; Tmz – Lavas of Zachary Bay, andesitic, Miocene?; Tmv – Miocene volcanic rocks; Tu – Unga Fm sedimentary and volcaniclastic rocks of Miocene age; Yellow shows areas of silicification and strongly-argillized to strongly-silicified rocks, includes data from Riehle et al. (1999) and unpublished Redstar files.

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Stratigraphic and map units of Unga and Popof islands shown in Figure 7.2 were described by Riehle et al. (1999) from youngest to oldest as follows:

“Qs	***Unconsolidated deposits (Holocene)****--Chiefly sand and gravel on beaches and in alluvium, poorly sorted colluvium, and organic-rich swamp deposits. Local cobble- to boulder-sized talus deposits are not separately mapped. Locally, may include deposits of Qm.*
Qls	***Landslide deposits (Holocene and Pleistocene) --****Mainly large masses of rock that compose rotational block slides. Locally includes colluvium, glacial deposits, or talus not mapped separately.*
Qm	***Glacial deposits (Pleistocene)--****Poorly sorted deposits of silt, sand, cobbles, and boulders; identified as glacial in origin based on presence of striated or faceted boulders and the occurrence of striated bedrock at the site of the deposit and elsewhere on Unga Island. Irregular shape of mapped deposits suggests the deposits are ground moraine. A mapped occurrence of bedded sand and gravel up to tens of meters above sea level on the southern coast of Unga Island may be glacio-fluvial deposits. Unmapped glacial deposits may occur locally overlying any of the different types of bedrock.*
Tmb	***Basalt flows (Miocene)****--Vesicular, porphyritic lava flows of basaltic composition that cap mesas. Locally scoriaceous. Typically oxidized to reddish brown, elsewhere medium to dark gray. Two to 10 percent phenocrysts of altered olivine set in a fine-grained groundmass of plagioclase and opaque material.*
Tmv	***Volcanic rocks, undifferentiated (Miocene)****--Domes and associated tuff and carapace breccia, and lava flows. Mainly dacitic and andesitic in composition. Incipiently altered and mineralized, nearly aphyric quartz-bearing felsite 3 km SSW of the head of Zachary Bay may have initially had a rhyolitic composition. Level of dome emplacement inferred to range from shallow intrusive (within 200 m of ground surface) to extrusive, based on interfingering of carapace breccia with adjacent marine sedimentary rocks. Domes have 25-40% plagioclase, orthopyroxene, and hornblende (dacite) or clinopyroxene (andesite) phenocrysts in a groundmass that ranges from fine-grained holocrystalline to intersertal. Domes range from fresh, to incipiently replaced by calcite, chlorite, and mica or prehnite(?), to completely replaced by quartz and zeolite. Lava flows are porphyritic, having 20-30% plagioclase and two pyroxenes in a microcrystalline to intersertal groundmass.*
Tu	***Unga Formation (Miocene and Oligocene) --****Conglomerate and interbedded sandstone, siltstone, tuff, and diamicton (lahar deposits?), dominantly volcanic clasts. Planar bedded to locally cross-bedded. Bivalves, gastropods, and possible worm tubes indicate shallow marine in basal part; petrified tree trunks indicate non-marine deposits in upper part, on northernmost Unga Island. Unit was first described by Dall (1882) who used the term "Unga Conglomerate" for exposures on northern Unga Island. Atwood (1911) renamed the unit "Unga Formation"; Burk (1965) assigned the Unga Conglomerate*

Member to the Bear Lake Formation. Detterman and others (1996, p. 51) returned the unit to formational status because "...volcanic detritus constitutes only a small part of the Bear Lake Formation..." Detterman and others (1996) consider the Unga Formation to range from late Oligocene to middle Miocene in age, based on plant fossils and pollen.

Tpz **_Lavas of Zachary Bay (Tertiary)--_**_Crystal-rich, porphyritic lava flows mainly of high-silica andesitic composition. From 25% to 40% phenocrysts of plagioclase, two pyroxenes, and trace amounts of hornblende and Fe-Ti oxide. Locally intruded by hornblende-bearing dikes and sills (not mapped separately). Incipient but pervasive replacement by chlorite, calcite, and epidote (indicative of propylitic alteration) or by quartz and zeolites; locally, more intense alteration probably reflects proximity to sources of hydrothermal fluids such as the unmapped hypabyssal intrusive rocks. Color anomalies (gossans) occur throughout the unit._

Tpdu **_Domes, undifferentiated (Oligocene)_**_--Lava masses that are identified as domes based on steeply cross-cutting relations with adjacent rocks; outcrop pattern; large vertical extent; or presence of intrusive breccia at margins. Map units include aprons of non-compacted pumiceous tuff inferred to have formed in minor explosive eruptions during dome emplacement. Such carapace tuffs indicate that the domes are at least in part extrusive. Sparsely to moderately porphyritic vitrophyre, commonly devitrified._

Tpdb **_Basaltic andesite domes (Oligocene)--_**_Phenocrysts of plagioclase, clinopyroxene, and olivine range from 5% to 15%. The basaltic andesite dome at Apollo Mountain has local veinlets and amygdules of zeolite and chert._

Tpda **_Andesitic domes (Oligocene)_**_--Phenocrysts of plagioclase, hornblende, orthopyroxene, and quartz range from 10% to 25%. The quartz grains may be inclusions (xenocrysts)._

Tpdd **_Dacitic domes (Oligocene)--_**_Phenocrysts of plagioclase, hornblende, orthopyroxene, and quartz range from 10% to 20%._

Tpdr **_Rhyolitic domes (Oligocene)--_**_Phenocrysts of quartz, plagioclase, hornblende, and biotite range from 10% to 20%. Typically altered and cut by veins of quartz, calcite, and zeolite._

Tpth **_Hornblende tuff (Oligocene)--_**_Dacitic ash-flow tuff. Fine pumice lapilli and trace amounts of lithic inclusions in a vitric ash matrix. Densely compacted and strongly foliated in the vicinity of Apollo Mountain, non-compacted to partly compacted elsewhere. Such lateral variation in the degree of compaction may indicate either a source at Apollo Mountain, or that the dense compaction is due to heating and secondary deformation by dome intrusion. Phenocrysts range from 5% to 30% and consist of plagioclase, quartz, orthopyroxene, and hornblende. A single chemical analysis indicates a low-silica dacitic composition, but variable phenocryst contents suggest the bulk composition may vary slightly as well. Locally altered or silicified, especially south and west of Apollo Mountain._

Tptb **_Biotite tuff (Oligocene)_**_—Non-compacted, dacitic ash-flow tuff. Quartz, plagioclase, orthopyroxene, and biotite phenocrysts range from 5% to 20%. A single chemical analysis indicates a dacitic composition. The occurrence on Popof Strait, on northeastern Unga Island, is a bedded, pumice-clast conglomerate having abundant glass shards in a_

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fine-grained matrix that was deposited on an erosional surface of 6-8 m relief cut in marine sandstone of the Stepovak Formation. The occurrence on the west shore of Zachary Bay is reported to be 31.3 Ma by Marincovich and Wiggins (1990), who considered the deposit and an overlying marine siltstone to be the lowermost part of the overlying Unga Formation.

Tps ***Volcaniclastic rocks (late Eocene to Oligocene)*** *--Volcanic breccia and marine sandstone and siltstone, interbedded with ash-flow tuffs or submarine lava flows. Some of the clastic rocks were deformed prior to lithification by intrusion of adjacent lava masses. The volcaniclastic rocks range widely in grain size and include breccias having blocks of porphyro-aphanitic andesitic lava up to 6-8 m across. The coarse facies were deposited in proximity to submarine lava flows or domes. Unit is, in part, a peperite--mixtures of sedimentary and magmatic masses formed while each was plastic. A chemically analyzed, andesitic ash-flow tuff is included in this unit. The distinction between units Tps and Ts is the occurrence of volcanic materials--ash-flow tuff, coarse volcanic breccia, and peperite--in unit Tps.*

Tpu ***Popof volcanic rocks, undifferentiated (late Eocene to Oligocene)*** *--Mainly lava flows and flow breccias of andesitic composition and locally interbedded volcaniclastic rocks but includes some lava flows of basaltic andesite composition. The unit on northwestern Popof Island is dominantly lava flows of basaltic andesite composition. Lava flows have from 15% to 30% phenocrysts of plagioclase and two pyroxenes in a hyalopilitic to trachytic groundmass. Poorly exposed lavas of dacitic or low-silica rhyolitic composition are probably small domes of unit Tpdd or Tpdr, which are not mapped separately. Incipient but widespread replacement of mafic minerals by chlorite, epidote, and calcite indicates pervasive propylitic alteration. Mafic phenocrysts are locally replaced by a deeply pleochroic brown mineral having parallel extinction that may be biotite, which suggests potassic alteration. Includes local areas not mapped separately of more intense alteration, oxidation of pyrite (gossans), or replacement by silica (silicification).*

Ts ***Stepovak Formation (late Eocene and early Oligocene)*** *--Fine-grained marine conglomerate, sandstone, and siltstone. Beds exposed on northern Unga and Popof Islands are rich in pelecypod and gastropod shells and worm(?) tubes, indicating an inner neritic environment and late Eocene age (R.C. Allison, written commun., 1980). The overall age range of the formation throughout its occurrence on the southern Alaska Peninsula and inner Shumagin Islands is late Eocene and early Oligocene (Detterman and others, 1996). The unit grades laterally and upwards into the volcaniclastic rocks of unit Tps and the Popov volcanic rocks. Originally named by Burk (1965) for exposures on the adjacent mainland, the unit is informally subdivided into a lower siltstone and upper sandstone by Detterman and others (1996). The lower member includes laminated siltstone of a deep-water turbidites, whereas the upper unit is mainly volcaniclastics, which are inferred to have had contemporaneous sources in the Meshik Volcanics. Rhythmically bedded mudstone and siltstone exposed in a sea-cliff on the eastern headland of Delarof Harbor may be the top of the lower member or may be a local basin fill. Exposures elsewhere on northern Unga and Popof Islands, however, are clearly the upper sandstone member."*

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Stratigraphic units Tpz through Tpu constitute map units of the “Popof volcanic rocks” of Riehle et al. (1998, 1999). The Popof volcanic rocks are age-equivalent to rocks on the nearby Alaska Peninsula, where they were named the Meshik Formation by Knappen (1929) and are now formally named the Meshik Volcanics (Detterman et al., 1996). The Popof volcanic rocks on Popof and Unga islands have been subdivided by Riehle et al. (1998, 1999) into several map units shown in Figure 7.2. Popof volcanism began with the eruption of submarine lava flows in latest Eocene or earliest Oligocene time. The oldest dated lava flow from Unga Island is 37 Ma (unit Tpu) and there are four other ages of unit Tpu between 34 and 37 Ma (Riehle et al., 1998).

Riehle et al., (1998, 1999) interprets the intertidal to shallow marine, sandstone and siltstone of the Stepovak Formation (map unit Ts; Figure 7.2) to be the oldest rocks exposed on Unga Island and northwestern Popof Island. Most exposures of the Stepovak Formation on northern Unga and Popof islands consist of the upper, volcaniclastic sandstone member (Riehle et al., 1999).

Riehle et al. (1999) used potassium-argon age dates and petrographic details to interpret and describe the Popof volcanic rocks. A diagram showing the age relations of the map units and a regional, N25°W cross section taken from Riehle et al. (1999) are shown in Figure 7.3.

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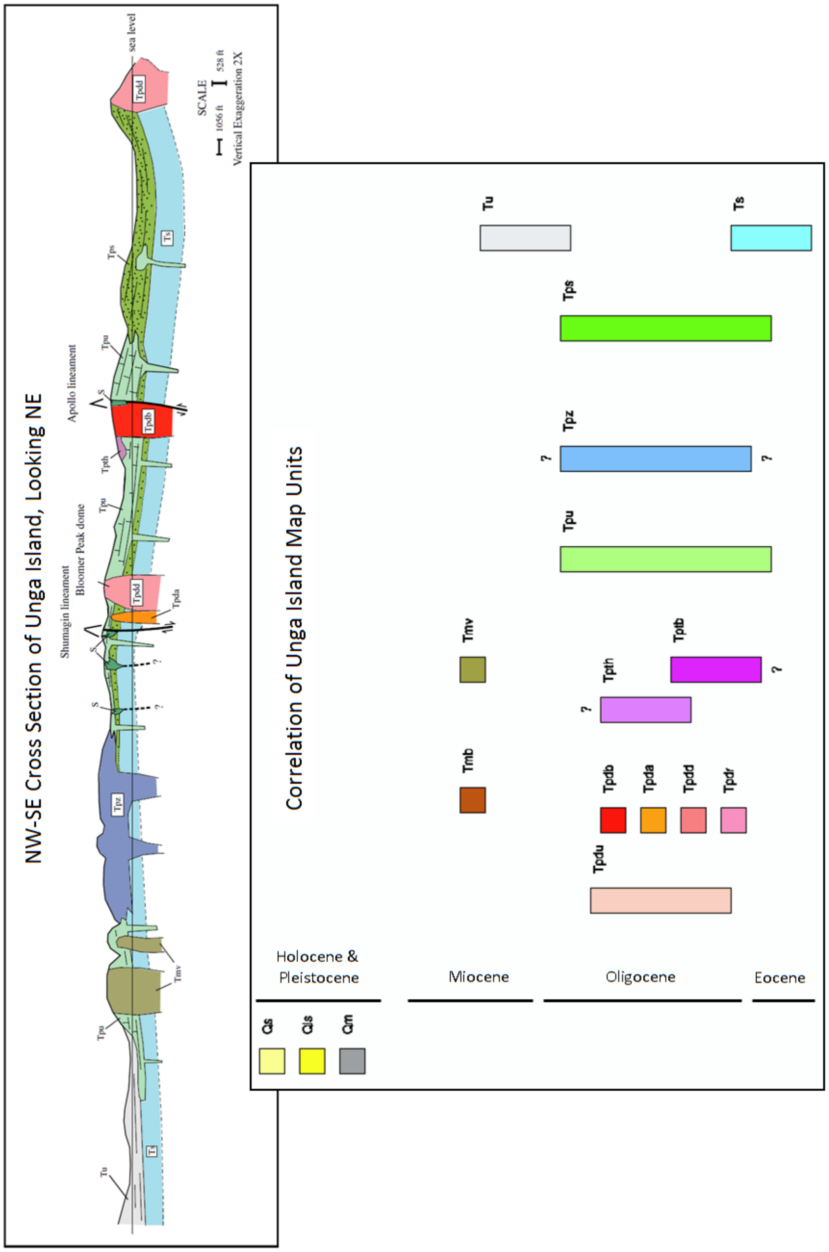
Figure 7.3 Regional Cross Section and Correlation of Map Units
(modified from Riehle et al., 1999)



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Van Wyck et al. (2005) apparently viewed the Riehle et al. (1998) map with reservations and stated:

"*There is, at present, no definitive interpretation of Unga Island stratigraphy. Regional stratigraphy: (Finzel and others, 2005) shows the Stepovak and Meshik as broadly age equivalent and it seems risky to assume all contacts of the Popof volcanics with sediments are necessarily the same age-equivalent. Furthermore, the immature shallow marine sandstones of the Stepovak Formation look similar to basal volcaniclastic sections of the Popof volcanics.*

The base of the Popof volcanics is defined by a distinctive white biotite tuff unit (Tptb) overlying the Stepovak Formation, observed in beach exposures on northwest Unga Island. This same unit has been identified in drill core from the mineralized hanging wall of the Shumagin prospect and as outcropping on the west side of Zachary Bay. Difficulties arise when K-Ar biotite dates are compared between the two exposures of biotite tuff. One date is 31.3 ± 0.3 from southeast Unga Island and the other is 33.7 ± 1.3 Ma (Revile and others, 1999) from northeast Unga Island. Furthermore, Marincovich and Wiggins (1990) consider their tuff as marking the base of the Unga Conglomerate, which all workers consider post-dating the Popof volcanics. BMG geologists considered the biotite tuff to mark the base of the Popof volcanics that sit unconformably on the Stepovak Formation (Ellis and others 1987-1991).

An additional complication with the existing geochronology data is a K-Ar date from adularia at the Apollo mine at 34 ± 0.5 Ma (Reihle and others, 1999). While the uncertainties in measurement for older tuff age and the timing of mineralization overlap, the younger tuff age is statistically distinct from the timing of mineralization. This assumes that mineralization at Apollo and Shumagin are related, but it introduces an uncertainty of whether there are several biotite tuff horizons, or whether there are several ages of mineralization."

An attempt to simplify the stratigraphy was made by the Full Metals Minerals-Metallica Resources joint venture in 2005. Van Wyck et al. (2005) concluded that:

"*The lack of outcrop exposure coupled with variation in dip direction and the presence of fault offsets in many areas of Unga and Popov Islands present challenges in interpretation of the stratigraphic sequence. These are the stratigraphic simplifications:*

1. The base of the Popof volcanics is a felsic tuffaceous unit (Tpt1). On Unga Island it is the Orange Mountain tuff and on Popof it includes felsic epiclastic and crystal tuff units. The base is exposed at approximately sea level at places on Unga and Popof and is seen in drill core at Centennial also close to sea level. At Shumagin it is encountered at an elevation of approximately 250 m below sea level. The thickness of the basal tuff ranges from 100 to 300 m, based on drill data at the Centennial and Shumagin prospects. This is a very porous and permeable unit that is highly susceptible to altering and mineralizing fluids.

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2. *Overlying the basal tuff package on both Popof and Unga Islands is a sequence of flows with mafic to intermediate composition (Tpv1). On Popof Island, these units are mapped as basalt and on Unga as andesites. This unit tends to cap less resistive felsic tuffs. Conformable contacts were mapped in outcrop both south and west of Orange Mountain towards the Pook and Aquila prospects. Alteration is not well developed in this unit, due to the lower permeability and less reactive nature of the andesite hosts. The best constraint on the approximate thickness of this unit is shown in section A-A' in the Aquila prospect area, where the base and top of the unit is exposed. In this area, the thickness is approximately 300 m. With the exception of brecciated margins of flows and intrusive margins this unit is relatively impermeable and exhibits brittle fracturing.*

3. *Tpt2 are tuffs exposed at the base of Apollo Mountain and likely extend west to the coast. It is inferred to overlie the basalts and andesites of Tpv1. The same tuff unit is seen south of the California prospect on the south side of Apollo Mine, where it contains a distinctive blue clay alteration mineral (probably a smectite). The thickness is well constrained to be range between 0 and 150 meters and the unit thins to the east. It is a porous and permeable unit that is commonly altered and mineralized.*

4. *Tpv2 overlies Tpv2 as a series of capping flows/intrusive on top of Apollo Mountain, equivalent to basalt and andesite domes mapped by the U.S.G.S. and dated at 30.9 Ma. With the exception of brecciated margins of flows and intrusive margins, this unit is relatively impermeable and exhibits brittle fracturing.*

5. *A third tuff unit (Tpt3) exposed in the western Heather area on Unga is younger than theTpt2 but its age relative to Tpv2 is not known. The thickness of this tuff unit is at least 250 m thick. This is a very porous and permeable unit that is highly susceptible to altering and mineralizing fluids."*

7.3 Structural Architecture of Unga and Popof Islands

The most visible components of the structural architecture of Unga Island are several N50°E to N60°E faults and fault zones that completely transect the island (Figure 7.2; Riehle et al., 1998). These faults are parallel to the regional Border Range Fault, sub-parallel to the Aleutian Trench (Figure 7.1), and likely the result of modest transpressional deformation inboard from the trench. Numerous N10°W to N10°E faults are also present, but they are much less through-going (Figure 7.2; Riehle et al., 1998). In addition to the faults, the rocks of Unga Island have been slightly folded, with a broad low-amplitude syncline and anticline parallel to the more through-going northeast-southwest faults (Figure 7.2).

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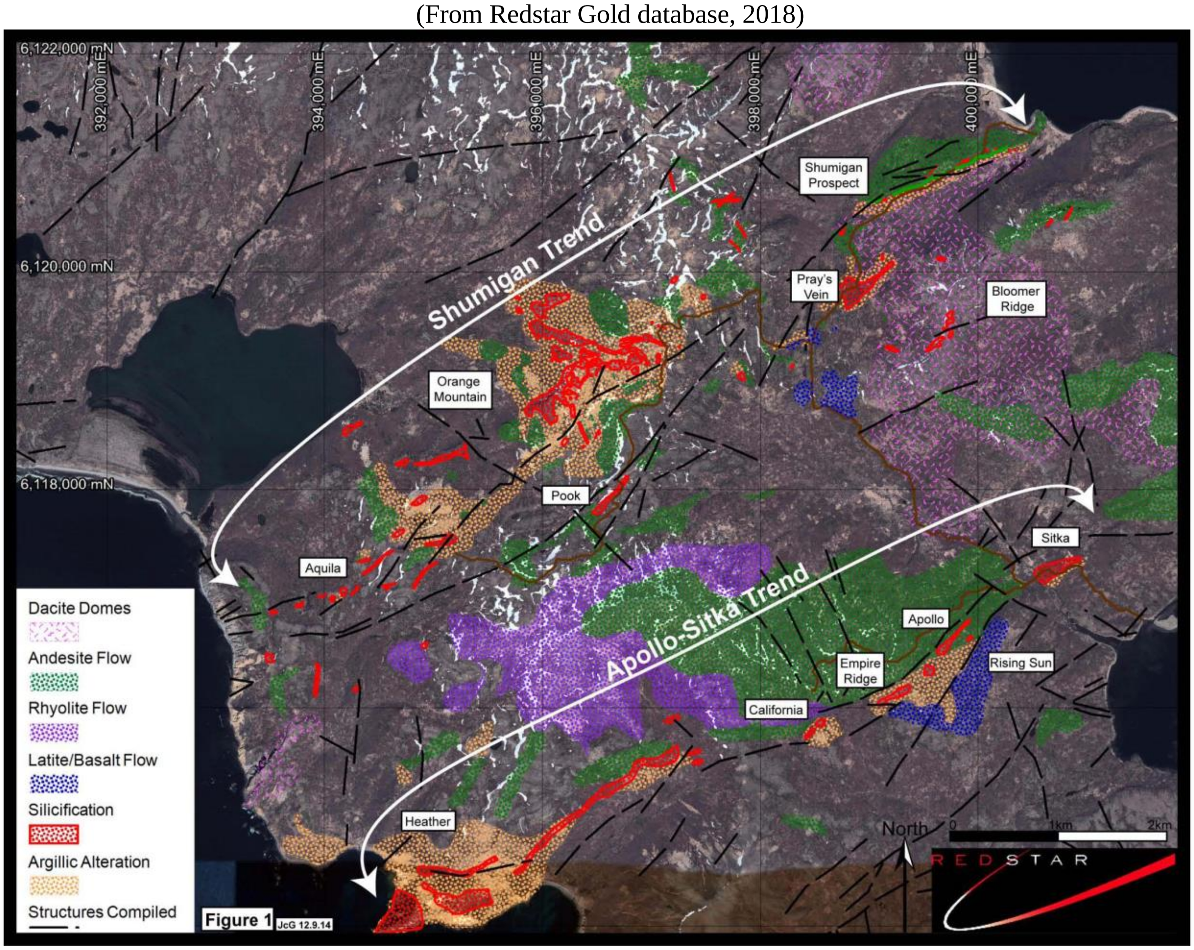
On Unga Island, the most prominent of the major northeast-trending structures are the Shumagin and Apollo-Sitka fault zones, which completely transect the southeast part of the island. Each of these structures form a structural corridor 0.5 to 1.0 kilometers in width and approximately 9 to 10 kilometers in length, respectively. These two structural corridors contain appreciable areas of hydrothermally altered rocks and several exposures of epithermal quartz-carbonate veins, vein-breccia, and vein stockworks, and are known as the Shumagin and Apollo-Sitka "trends" (Figure 7.4).

Between these two fault systems, the Popof volcanic rocks include a northeast-trending series of volcanic domes that range in texture and composition from basaltic andesite to dacite and rhyolite. Another series of smaller domes form a northeast trending belt across the very southeastern part of Unga Island.

Figure 7.4 Map of the Shumagin and Apollo – Sitka Trends, SE Unga Island

(From Redstar Gold database, 2018)



Note: silicified areas shown by red pattern at Pray's Vein, Orange Mountain and portions of the Apollo – Sitka trend represent areas of residual quartz (acid-leach) alteration.

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Workers have mapped faults of similar, mainly N50°-60°E orientations and a northeast-trending syncline have been mapped in the northwest portion of Popof Island (Riehle et al., 1998), suggesting a similar structural architecture.

7.4 Mineralization at Unga Island

The author has drawn descriptions of the prospects and mineralization in the following sub-sections of this report from historical reports as cited, and from Redstar's internal reports and public disclosures. The author has reviewed these sources of information and believe they accurately represent the Unga project mineralization as presently understood. In particular, much of the following is drawn from Margolis (2014), a three-year compilation and review of historical reports, maps, surface geochemical data, and drilling assays and drill logs. Jacob Margolis, Ph.D., (a former Redstar geologist) worked on the project during 2011 through mid-2014.

Workers have identified more than 38 showings of epithermal precious- and base-metal mineralization, porphyry copper-gold mineralization, and extensive areas of hydrothermally altered rocks on Unga Island (Figure 7.5); the focus has always been along the Shumagin and Apollo-Sitka trends (Figure 7.4). At least six similar showings, including the Centennial gold deposit, have been identified on Popof Island (Figure 7.5). Of the above, the majority of exploration conducted to date has been focused on the SH-1 Zone, Amethyst and Apollo-Sitka areas on Unga Island and at the Centennial deposit on Popof Island.

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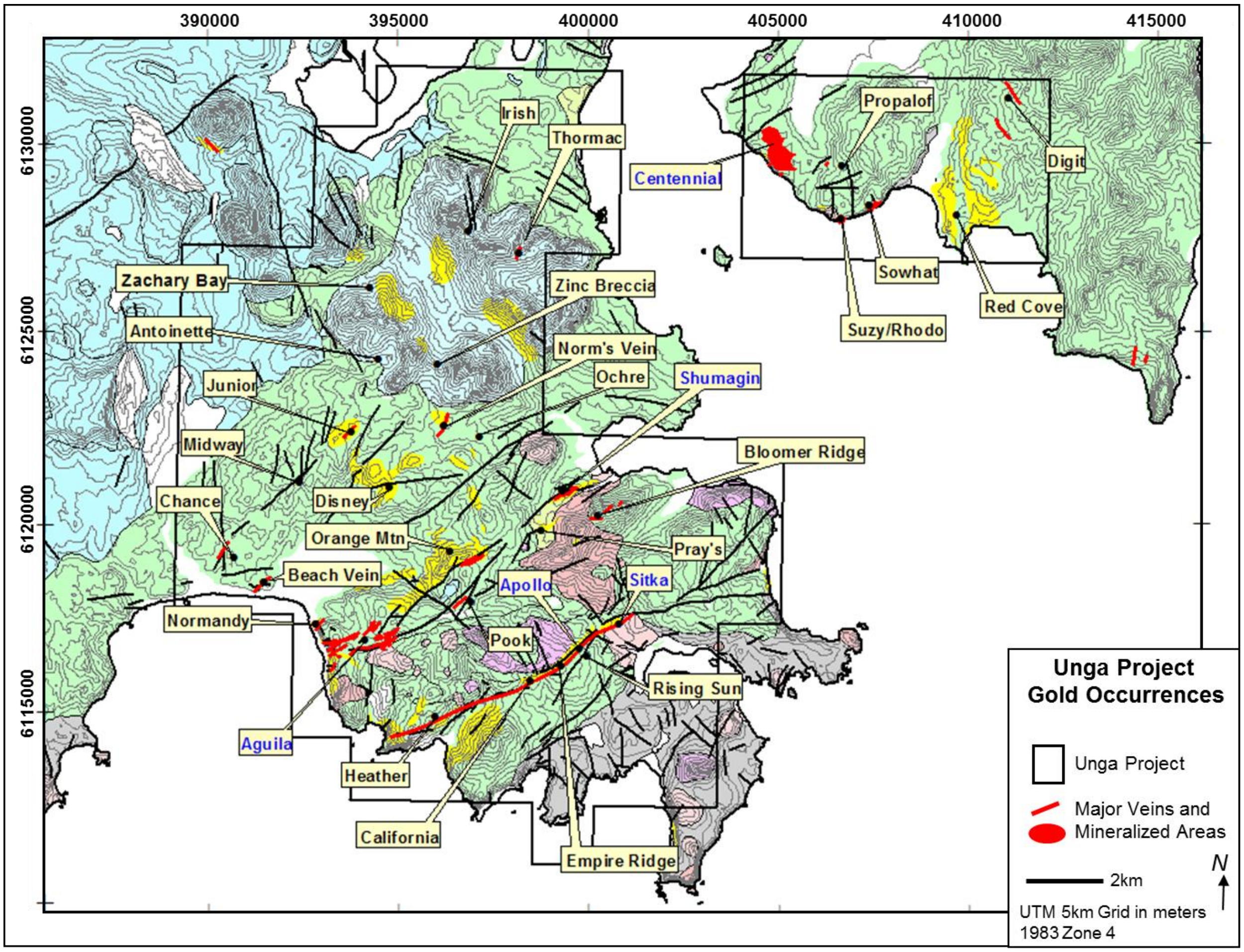
Figure 7.5 Mineralized showings and prospects, Unga and Popof Islands
(from Redstar Gold database, 2018)



Note: Geologic units shown with same colors as in Figure 7.2. Yellow shows areas of silicification and strongly argillized to strongly silicified rocks; red lines schematically indicate quartz ± carbonate veins and stockworks; red area at Centennial is mineralized area of stockwork and small veins; includes data from Riehle et al. (1999) and unpublished Redstar files. Vein shown from Heather to Sitka prospects is schematic, not demonstrated to be continuous.

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Margolis (2014) stated:

> *"Mineralization occurs as volcanic-hosted, intermediate-sulfidation, epithermal, quartz-carbonate-adularia veins with locally high-grade gold-silver and variable Pb, Zn, Cu, Mn (e.g., Shumagin (i.e. SH-1 Zone), Apollo-Sitka, Aquila); and porphyry Cu-Au (Zachary Bay prospect)disseminated, volcanic-hosted gold mineralization containing local high-grade zones (Centennial); and advanced-argillic alteration (Red Cove), which is poorly mineralized at exposed levels.*
>
> *Mineralization along the Shumagin vein stockwork (i.e. SH-1 Zone) is known for at least 1.2km and is part of a district-scale mineralized fault system, the Shumagin trend, which includes other high-grade gold vein systems (e.g., Aquila) along its 9km strike length. that lie on the Unga-Popof Property. The Apollo-Sitka vein system lies along the ~7km Apollo tend, with approximately 5km of the trend covered by patented claims of the Redstar property. The remaining portions of the trend lie on the Unga-Popof Property (e.g. Heather). Mineralization at the Apollo mine has been dated at 34 Ma (K-Ar, adularia), indicating that mineralization along the Apollo trend, and most likely the Shumagin trend, was contemporaneous with Popof volcanism. A similar age of 34.5 Ma was obtained from andesite on the south side of the Centennial deposit, indicating again, that mineralization is hosted in and probably temporally linked to Popof volcanism."*

7.4.1 Shumagin Trend Mineralization

The Shumagin trend can be described as a northeast-southwest elongated structural corridor with an array of epithermal veins and hydrothermally altered rocks centered on, and extending laterally from, a large, topographically elevated area of residual quartz and advanced-argillic alteration at Orange Mountain (Figure 7.4). As indicated by surface samples and drilling, a number of the individual veins contain elevated to potentially commercial grades of gold ± silver ± zinc and/or lead, and lesser copper. Vein textures and mineralogy, as well as minor- and trace-element geochemistry, indicate the Shumagin trend mineralization is of the low- to intermediate-sulfidation type of epithermal mineralization. The principal mineralized occurrences or prospects recognized to date along the Shumagin trend include the SH-1 Zone, Pray's Vein, Bloomer Ridge, Orange Mountain, Pook, and the Aquila veins.

7.4.1.1 SH-1 Zone

The SH-1 Zone consists of multiple, sub-parallel to anastomosing veins, stockworks and vein-cemented breccia (Shumagin breccia system). Veins and breccia are filled with quartz and calcite ± adularia ± rhodocrosite ± green clay. The vein zone has an over-all strike of N60°E to N70^{o}E and dips mainly to the southeast at ~70-80^{o}. Individual veins and vein-breccias have true widths of up to a few meters, but with adjacent and/or intervening stockwork the vein system has drill-indicated widths of as much as 30 or more meters.

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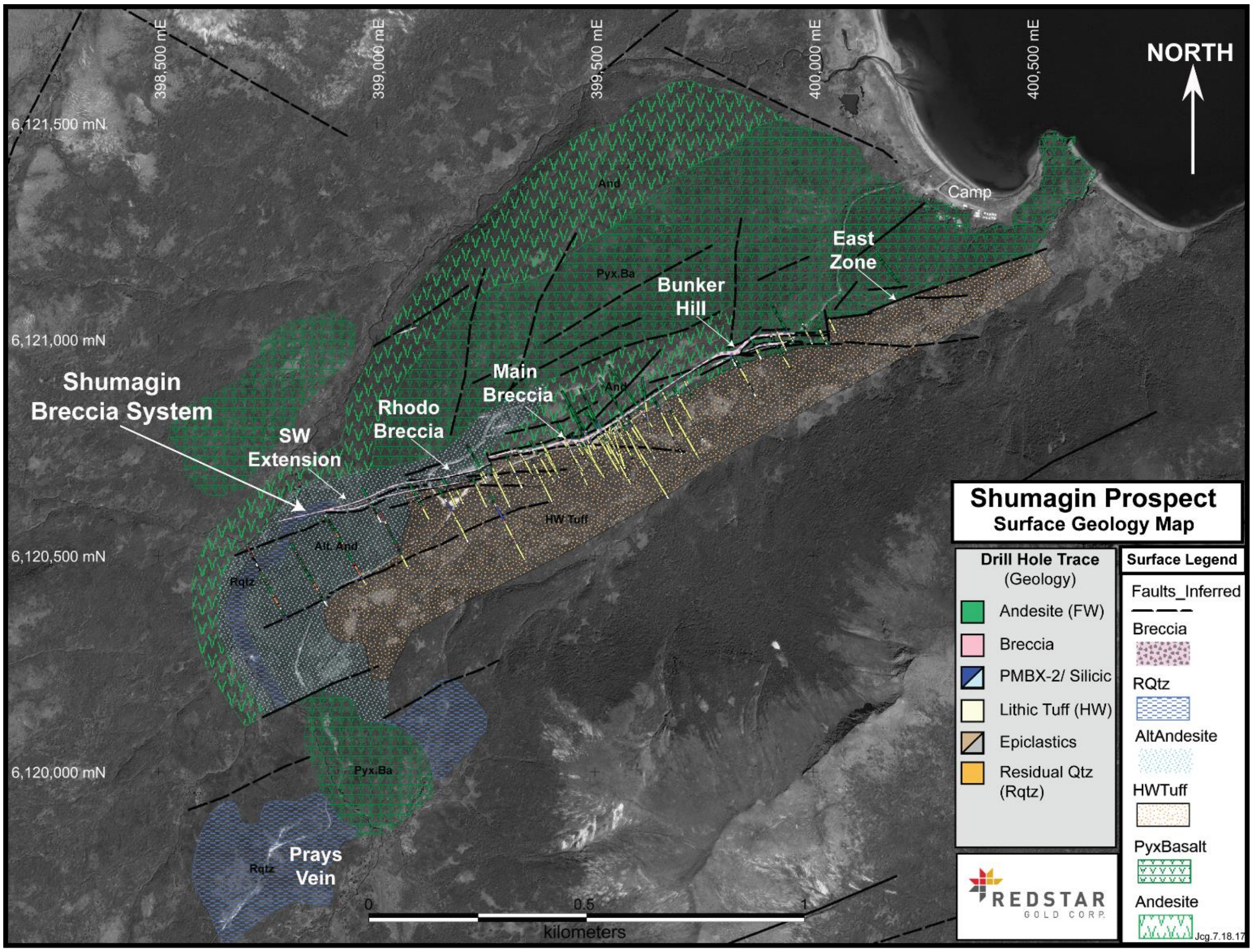
The SH-1 Zone vein/breccia system was emplaced along a fault contact between basaltic andesite and basalt in the footwall to the north, and mainly dacitic quartz- and biotite-phyric lithic tuff to the south, all of which are units within the Popof volcanic rocks (Figure 7.6). Marine tuffaceous volcaniclastic beds and laminated shale/mudstone beds that are locally carbonaceous are interbedded with the hanging-wall dacite, indicating the lithic tuff is not entirely pyroclastic in origin. Subsidiary veins are known at least 40 meters into the footwall andesite, such as the "Lucky Friday Vein", which dips steeply northwest. Drilling also shows that one or more tabular bodies of breccia of phreatomagmatic origin were emplaced within the Shumagin fault and the vein system, coeval with development of the veins and stockwork. Drill results are summarized in Section 10.3.

Figure 7.6 Geologic map of the SH-1 Zone
(From Redstar Gold database, 2017)



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Queen (1988) and White and Queen (1989) distinguished eight veins or vein stages, based on textures and mineralogy, but the lateral extent of these veins or stages is not known, because the lateral extent of the vein system has been greatly increased with later drilling. Vein textures range from strongly brecciated to finely laminated crustiform veins, with breccia-veins containing variably altered clasts of andesite or dacite (Margolis, 2014). Sulfide content within veins is largely low. There are no obvious bladed relict calcite textures indicative of boiling (Margolis, 2014), but a reconnaissance fluid-inclusion study done for Metallica indicated boiling fluids in the 250-270ºC range (Drobeck, 2005). A petrographic study of selected vein samples from the 1983 AAGM drilling found that fine-grained adularia is commonly intergrown with quartz (Margolis, 2014). According to Hedenquist (2016), in the footwall adjacent to the contact between the basaltic andesite and the dacitic tuff, there are pyrite-marcasite quartz veins with fine banding and gold grades up to 4 g/t Au, characterized by low Ag:Au ratios and relatively high arsenic and antimony. This vein stage is inferred by Redstar to be relatively early, because fragments of this vein type are found in the brecciated vein system that constitutes the main mineralization stage. The main or principal stage is restricted to the contact between the footwall and hanging wall of what has been termed the Shumagin fault and is closely associated with the location of the units of phreatomagmatic breccia (Hedenquist, 2016). This main stage consists of up to 7- to 10-meter thicknesses of brecciated vein material, with local high grades of gold, variable to high Ag:Au ratios, and up to ~1 weight percent each of lead, zinc and copper in galena, sphalerite, and chalcopyrite. Arsenic and antimony concentrations are relatively low compared to the early stage (Hedenquist, 2016); sulfosalt minerals have not been recognized, silver is believed to reside in electrum, and sphalerite, galena, and chalcopyrite contain the base metals, where present. High gold grades are related to free gold (electrum), locally dendritic, associated with colloform bands of quartz in brecciated intervals, but not all intervals with visible gold are of high grade. The brecciation was multi-episodic and cut through earlier stages of cockade- and crustiform-banded quartz-adularia-rhodocrosite-clay veins, stockwork, and vein-breccias (Hedenquist, 2016). Pervasive silicification and anomalous quartz-sericite-pyrite veins form a halo to the vein system, occurring up to 10 meters into the hanging wall.

Gold, silver, and base-metal mineralization is not evenly distributed within the vein system, as is commonly the case in epithermal vein deposits world-wide. Cross sections illustrating the better gold grades and their relations to the internal components of the SH-1 Zone vein system are shown in Figures 7.7, 7.8 and 7.9; a map showing the locations of the cross sections is shown in Figure 7.10. Summaries of the SH-1 Zone mineralized drill-hole intervals are presented in Table 10.2, Table 10.3, and Table 10.4. In some cases, grades in the range of 10 to 20 g/t Au and greater may have drilled widths of up to a few meters and are situated within broader intervals of lower-grade mineralization. Significant zinc, lead, and lesser amounts of copper may accompany high gold grades, but are not always present, and in some intervals such concentrations of base metals are found with gold grades of less than 0.1 g/t Au. In other intervals, high gold grades are restricted to widths of a meter or less. This seems to be particularly the case in the northeastern part of the

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vein system, such as at Bunker Hill (Figure 7.9), where there are two discreet splays and high grades are restricted to the northwestern splay. The lateral distribution of gold mineralization as presently known from drilling is shown in Figure 7.11.

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Figure 7.7 SH-1 Zone 2015 Cross Sections

(from Redstar Gold database, 2017. Assay intervals are core lengths, which Redstar estimates at 70% to 80% of true widths.)

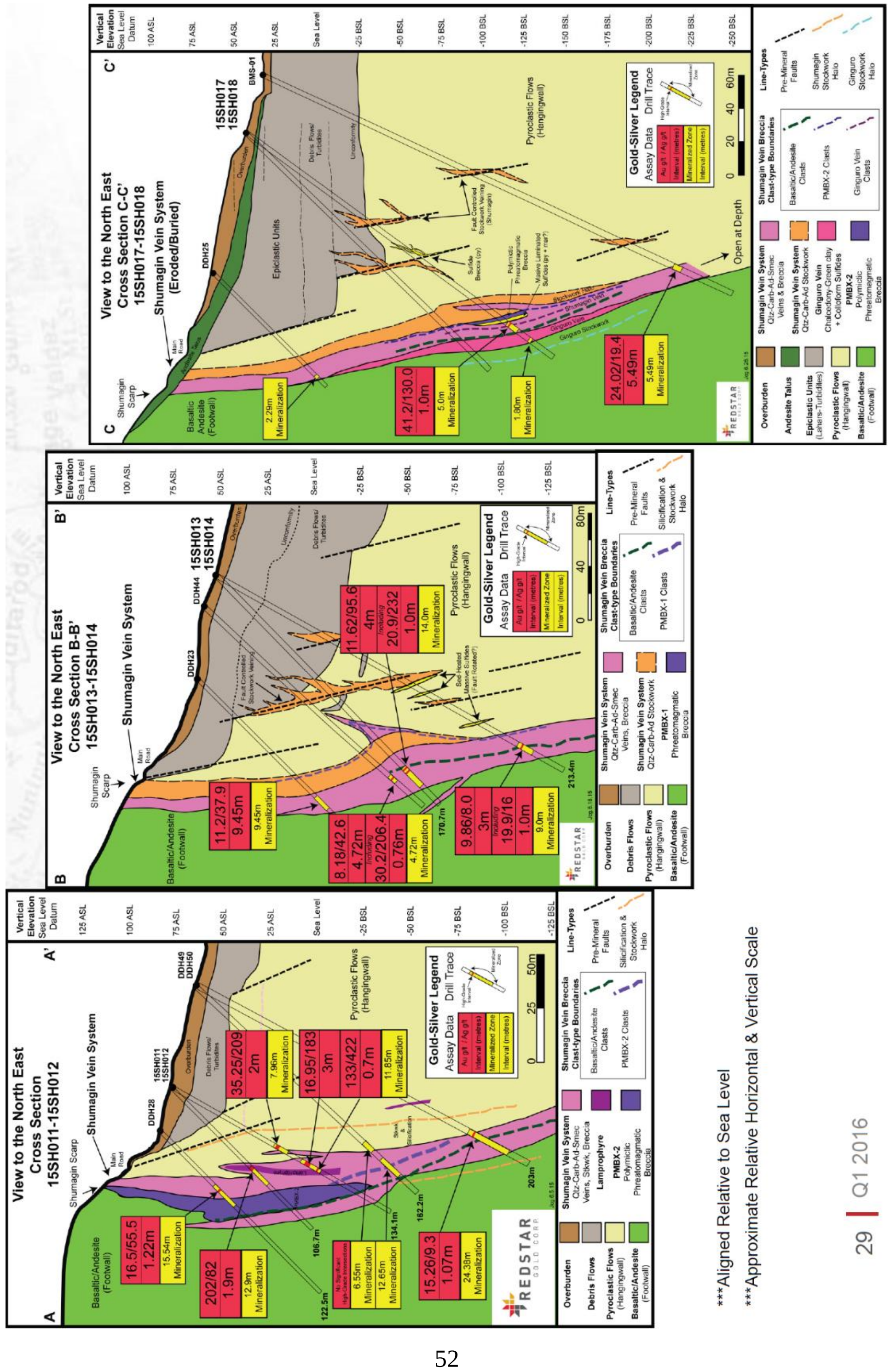

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Figure 7.8 SH-1 Zone 2016 cross sections 2300E and 2700E

(from Redstar Gold database, 2017. Assay intervals are core lengths, which Redstar estimates at 70% to 80% of true widths.)

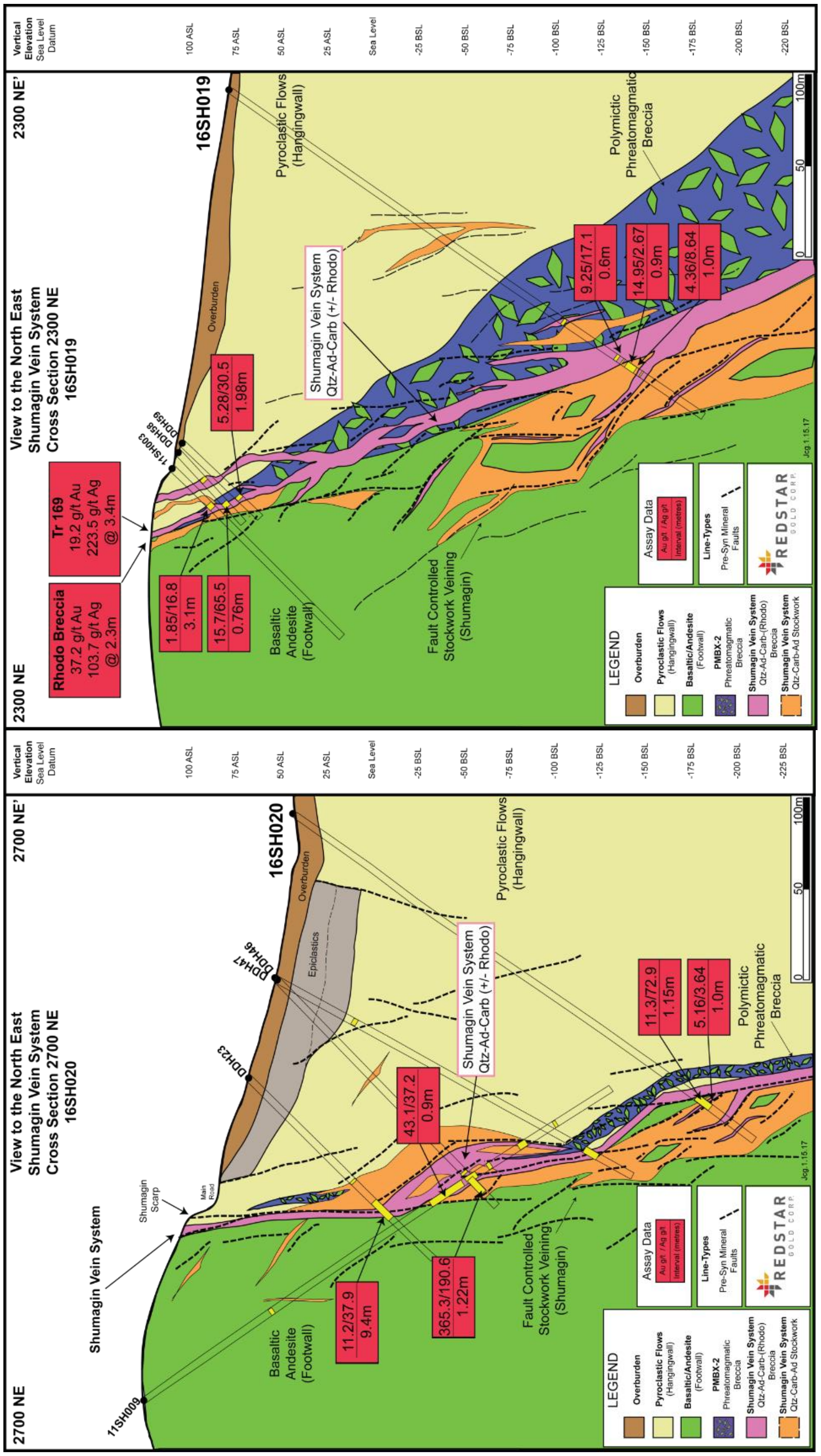

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Figure 7.9 SH-1 Zone 2016 cross section 3100E

(From Redstar Gold database, 2017. Assay intervals are core lengths, which Redstar estimates at 70% to 80% of true widths.)

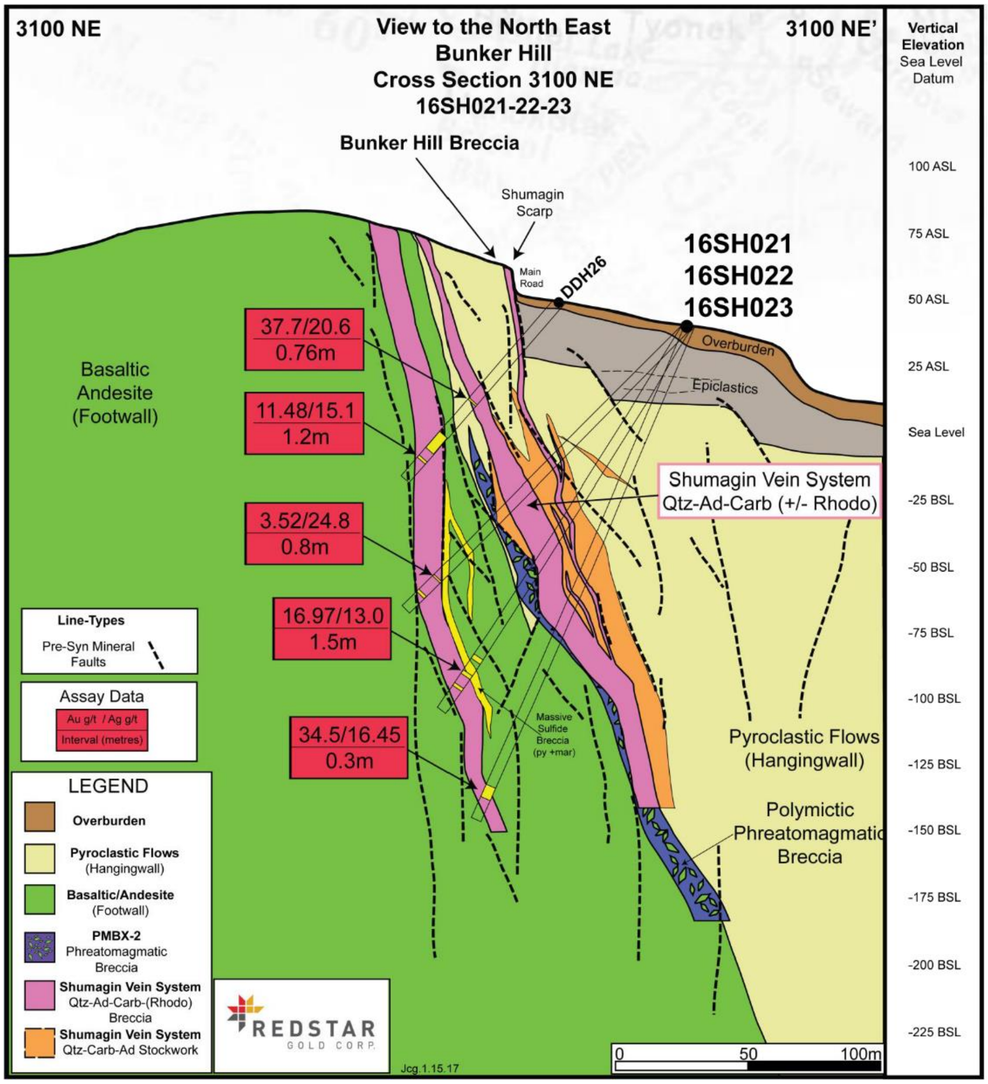

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Figure 7.10 SH-1 Zone cross section location map
(From Redstar Gold database, 2017)

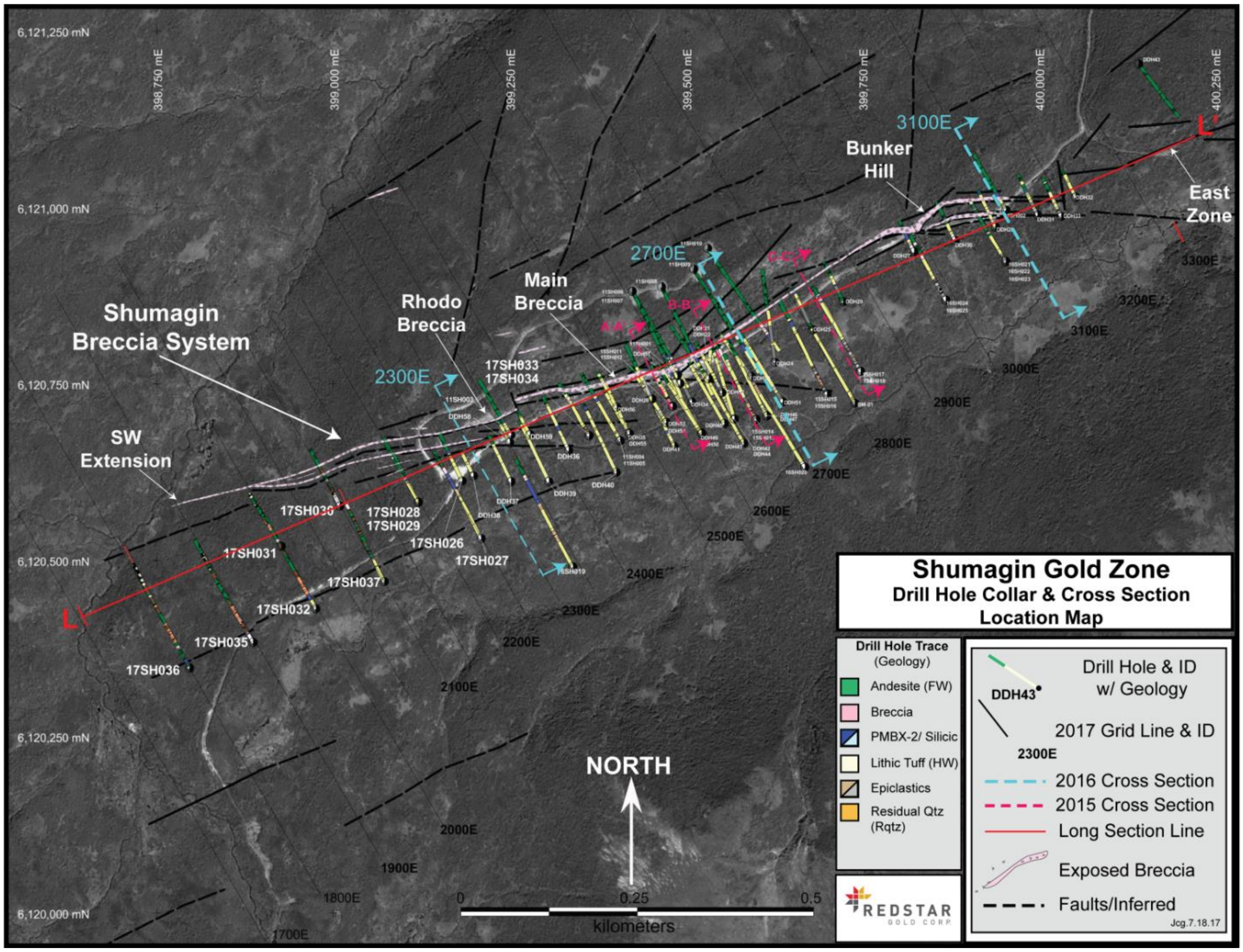

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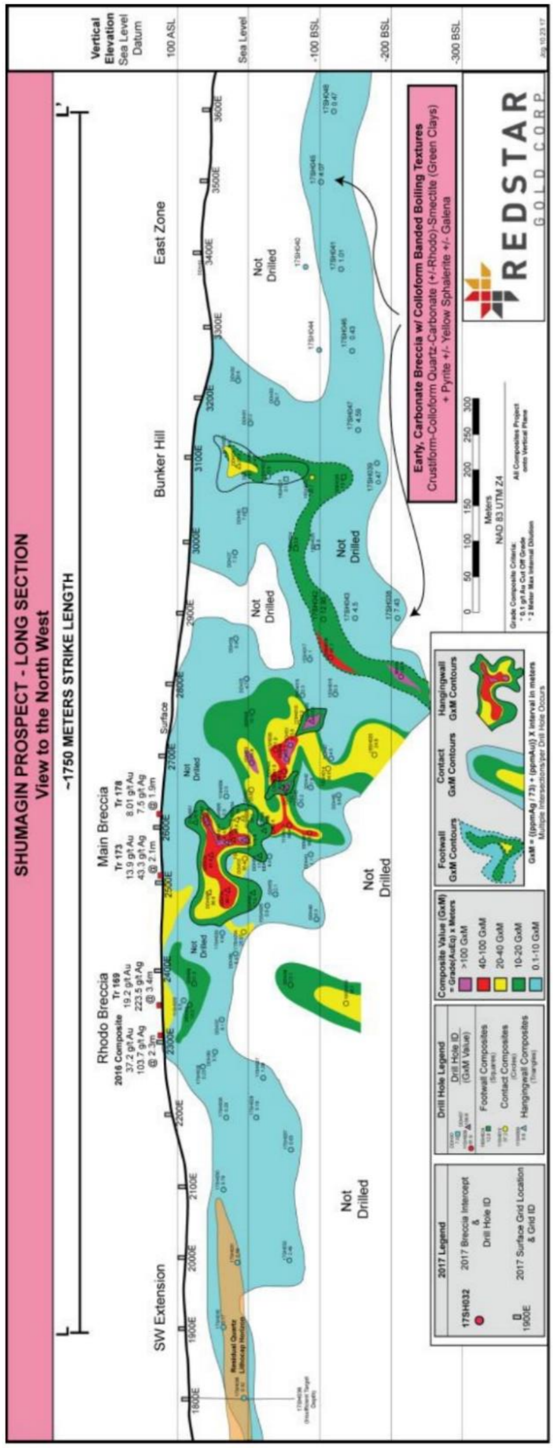
Figure 7.11 Longitudinal section of the SH-1 zone vein system, 2017

(From Redstar Gold database, 2018. Assay intervals are core lengths, which Redstar estimates at 70% to 80% of true widths.)



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7.4.1.2 Other Prospects of Unga Island

Pray's Vein Prospect

The Pray's Vein prospect is an area of strong, pervasive silicification trending parallel to the Shumagin vein system and possibly defining the south margin of the Shumagin trend (Figure 7.4). Margolis (2014) stated

"[Surface] sampling by RAA yielded gold to 11.8 ppm within quartz-barite veinlets; page 54 of the 1980 report notes this is a 6-foot sample. The name stems from geologist J. Pray, who apparently sampled the high grade.... Skeleton core…shows a very strongly silicified rock somewhat similar to that at Orange Mountain, with abundant very fine-grained disseminated pyrite, local drusy-quartz lined vugs, and multi-stage silica-pyrite veinlets.... The [Pray's Vein] area is within a strong magnetic low that broadly continues through the Shumagin area to the NE."

The silicification is now interpreted as the residual-quartz type formed by condensation of magmatic gasses below the water table, as at Orange Mountain (Hedenquist, 2017). Weak gold and silver mineralization to a maximum of 0.315 g Au/t and 2.4 g Ag/t over 1.5 meters were encountered in limited drilling, but it is not known if this is within the late quartz-barite veinlets, or in the residual quartz rock. Drilling results for the Pray's Vein prospect are summarized in Section 10.

Bloomer Ridge

Bloomer Ridge is about 900 meters southeast of the Shumagin vein system (Figure 7.4). Rock-chip samples collected by RAA show anomalous gold in numerous, apparently narrow quartz veins and vein stockworks that strike both northeast (060°) and northwest (320°) (Margolis, 2014). Cockscomb quartz veins are hosted in a felsic unit that may be a tuff or volcanic intrusive unit, with andesite hosting some veins at the northeast end of the ridge. One of the larger northeast-striking veins was termed the Jyro vein, with a width of up to 3.6 meters. Mercury and arsenic are elevated, and base metals and silver are low. Bloomer Ridge has not been drilled.

Orange Mountain

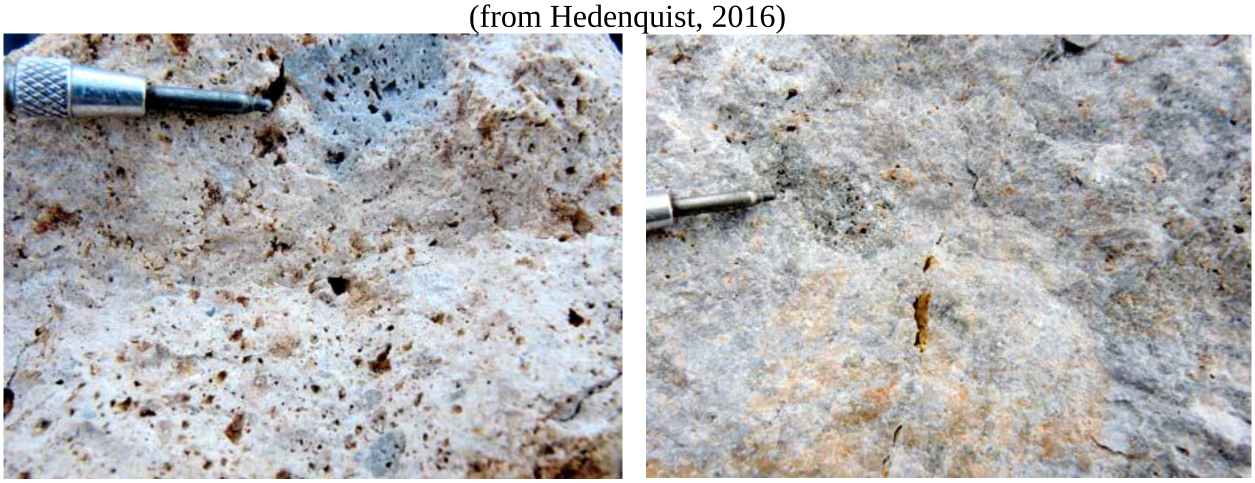
Orange Mountain is a topographically elevated, central portion of the Shumagin trend with aerially extensive quartz-alunite-clay alteration peripheral to residual quartz bodies of magmatic-hydrothermal origin (Hedenquist, 2016; 2017) that were previously referred to solely as zones of silicification (e.g., Peterson et al., 1982; Riehle, 1999). According to Hedenquist (2016):

"The main body of Orange Mountain...consists of residual quartz.... The original lithology here is difficult to discern, given the strong silicic alteration (silicification) of the rock after the leaching event that produced the residual quartz. Locally there are textures that indicate brecciation...prior to the strong silicification. Subsequently the silicic alteration was cut by veins of massive cryptocrystalline quartz... with open-space fill of barite in places. To the west and NW of the principal silicic body there are relatively thin lithocap horizons... with vuggy texture...; these horizons appear to be lithic tuff, although the texture may also in places be due to post-silicic brecciation and silicification.... These tuff horizons dip to the SW to WSW on the west side of Orange Mountain. To the east and SE of the main silicic body, the lithology appears to dip to the SE, beneath reportedly fresh basaltic andesite....

In summary, residual quartz ... alteration of tuffaceous horizons at Orange Mountain occurs over a central area of ~1 x 1 km, with more extensive silicic ribs plus quartz-alunite and alunite-clay alteration to the WSW (Fig. 7a). The hypogene advanced argillic alteration is characteristic of magmatic vapor condensates related to a shallow intrusion. A syn-hydrothermal polymict fragmental unit with juvenile clasts <1 km from the main silicic body indicates syn-hydrothermal magmatism and eruption, with a crater-lake setting indicated by the laminated water-lain sediments. Following this alteration, including in distal locations, there were cross-cutting quartz veins in this area at the surface, as well as to the NE and SW along structural trends toward the Shumagin and Aquila vein systems."

Examples of residual quartz are shown in Figure 7.12, with typical vuggy texture (left) and nearly filled in with later quartz (right).

Figure 7.12 Photographs of Residual Quartz, Orange Mountain
(from Hedenquist, 2016)



Abundant pyrite (up to 25% or more) was found in historical drill holes at Orange Mountain. Anomalous gold to about 0.35 g Au/t was intersected, with mercury elevated to >5 g Hg/t, but low arsenic silver, copper, lead, and zinc (see Section 10).

Pook Prospect

The Pook prospect is located about 0.5 kilometers south of Orange Mountain (Figure 7.4). A northeast striking, auriferous quartz-calcite vein ranging in width from three to 20 meters has been traced along strike for about 600 meters along the contact between a basalt flow and pyroclastic rocks with an andesite flow (Galey, 2005). The vein is crushed and sheared, showing multiple periods of fault movement. Galey (2005) stated:

“RAA/Teton Exploration surface sample assays indicate anomalous gold values throughout the area with the best surface values up to 0.098opt Au and 1.47opt Ag. Surface samples over the area collected by BMGC indicated that 80% of the samples contain gold values ranging from 26ppb to 100ppb. One sample contained 0.3 opt Au. The drill hole missed the intended target but, intersected a deep zone of detectible gold with values ranging from 0.005 to 0.02 opt Au over a 33 ft interval.”

Drilling results are summarized in Section 10. Margolis (2014) considered the Pook vein to possibly be the northeastern continuation of the Aquila vein array, which is located about two kilometers to the southwest.

Aquila Prospect

The Aquila area lies southwest of Orange Mountain (Figure 7.4), and includes NE-trending veins at both Aquila and at Amethyst (Figure 7.13), both of which have been tested by a total of about a dozen shallow drill holes in the 1980s (see Section 10 for results). The structural trend continues to the southwest, including the Origin vein on strike from Aquila, and extends to the coastline, a distance of over one kilometer. Gold-silver mineralization occurs in veins, which consist of crustiform-banded quartz and quartz-cemented breccia with amethyst locally in vein centers, at grades of up to ~100 g Au/t over 0.5 meters (see Section 10). The quartz veins are hosted by andesite and underlying tuffs, range up to about four meters in width, and form stockwork vein zones that are up to 15 meters wide. However, individual veins are apparently very narrow in many areas (<35 centimeters). Veins of pink stilbite to five centimeters in width are common. Margolis (2014) reported “Silver contents are low (<10:1 Ag:Au); the 3.31 opt Au sample at the base of AQAME-2-80 contains 3.2 opt Ag. Base metals are generally low, although there are galena-sphalerite-chalcopyrite veinlets noted in the drill logs.”

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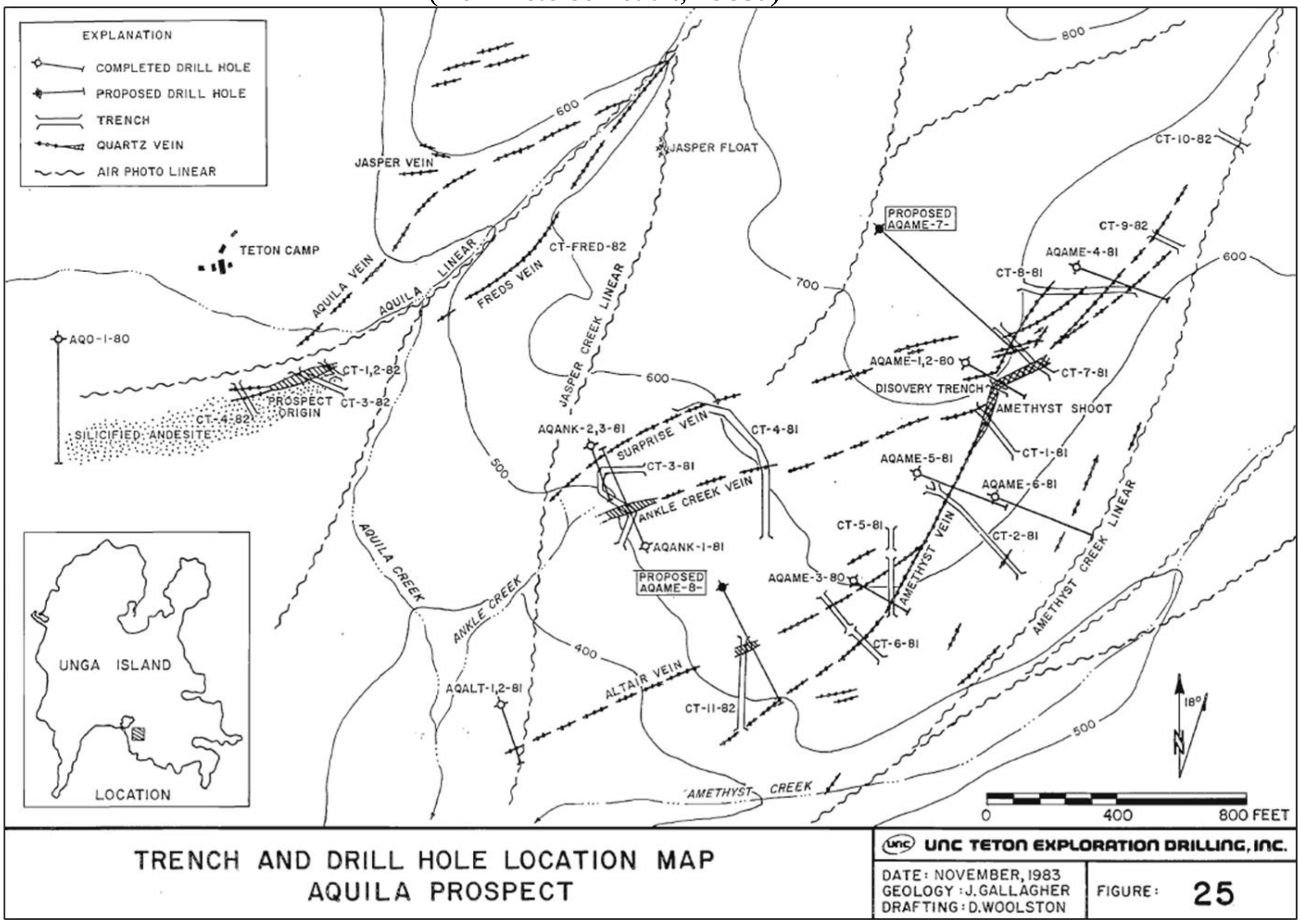
Figure 7.13 Map of the Aquila Prospect 1983
(from Peterson et al., 1983a)



Apollo – Sitka Trend

The Apollo-Sitka trend is a northeast-southwest elongate structural corridor that transects the southern portion of Unga Island about three kilometers south of, and parallel to, the Shumagin trend (Figure 7.4). Epithermal quartz-carbonate ± adularia veins are exposed discontinuously along northeast- and northwest-trending faults at the historic Sitka and Apollo mines, and the Empire Ridge and California prospects, as well as the Heather prospect near the southwest coast of the island.

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Sitka Vein Zone

The Sitka gold vein system is the most northeastern area of epithermal gold, silver, lead, zinc, and copper mineralization within the Apollo-Sitka trend, and it was the site of historical mining between the 1880s and about 1922. Historical work at Sitka included underground development to 76 meters below surface on three levels (Figure 7.16). Three core holes were drilled by AAGM at the Sitka mine in 1983 as summarized in Section 10.

Figure 7.14 Sitka Mine, Looking West, Main Shaft Headframe Now Collapsed
(from Margolis, 2014)

Descriptions of the mineralization at the Sitka mine are somewhat variable and it is uncertain whether one is more correct than the other. Redstar has reported that mineralization occurs in an east-northeast-trending quartz-vein stockwork zone containing pyrite, galena, sphalerite, and lesser quantities of chalcopyrite hosted within andesite of the Popof volcanic rocks. Exposures include the east-west shaft-zone workings (open stope for about 70 meters and that extends underground) and a series of four north-south trenches on the south side of the shaft, which expose an extensive quartz-vein stockwork zone extending at least 50 meters south of the shaft. The main shaft workings at surface are reportedly along an east-west vein zone that is steeply dipping, but the quartz veins in the trenches dip consistently south and strike more northeasterly (Margolis, 2014). Coarse cockscomb quartz occurs in the sulfidic-banded vein through which the shaft passes; adularia is locally present in vugs.

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An earlier description by Van Wyck et. al. (2005) stated that mineralization at the Sitka mine is located at the intersection of northeast- and northwest-striking quartz-sulfide veins and:

“The Sitka deposit is composed of west-northwest trending auriferous quartz–sulfide veins in propylitically altered Tertiary andesite units which cut across the dominant N 40° E Apollo Trend. The west-northwest trending vein/shear zone dips steeply south while the northeast trending veins dip 40° to 50° to the east. The open stope trending away from the shaft reflects a more east-west orientation. In the first trench to the north of the shaft, the dominant N. 40° E. vein trend is cut by a series of N 30° W trending quartz sulfide veins with visible galena, sphalerite, pyrite and rare chalcopyrite. Vein material exposed in the vicinity of the old shaft and on dumps indicates combquartz [sic] with fine and medium-grained galena, sphalerite, pyrite and rare chalcopyrite at the base of the quartz. From the Sitka to the northeast, veins in the Apollo Trend horsetail or splay into individual veins rather than continue in one dominant structure. The west-northwest Sitka shear post-dates the Apollo trend and may have been down-dropped relative to the volcanic units to the northeast”.

Apollo Vein Zone

The Popof volcanic units within the Apollo and adjacent Empire Ridge area consist of a northwest-dipping sequence of feldspar ± pyroxene-phyric basaltic andesite flows and flow breccias, with lesser dacitic lithic and airfall tuffs, interbedded with volcaniclastic and/or fluvio-lacustrine argillite, sandstone, conglomerate and lahars. Veins at the historical Apollo mine are hosted by andesite about one kilometer southwest of the Sitka mine and strike N20°E to N40°E. There are conflicting interpretations of the dip direction of the vein system. Galey (2005) reported the veins dip steeply southeast, and they were described as being vuggy and containing coarse-grained euhedral quartz crystals. According to Galey (2005):

“Gold mineralization is hosted in three, sub-parallel veins, 60 feet apart. The three veins mined were the “East”, the “Center” and the “Feeder” veins. The East vein was accessed from the upper drift where an ore shoot measuring 880 feet long, 8 to 40 feet wide (thick) and extending from 30 feet below the level of the upper drift to the surface, was mined. The vein was cut off by a west, 50° dipping fault. The “Center” vein was intersected 1,800 feet from the portal of the lower drift. An ore shoot measuring 800 feet long, 8 to 16 feet wide and 500 feet high was mined. Ore minerals include free gold, chalcopyrite, sphalerite, galena, pyrite, and native copper. Gangue minerals include calcite, chlorite and rare adularia. The oxide-sulfide boundary was encountered 200 feet below the lower drift level and undulated near sea level except at the Sitka where some “free milling” gold is indicated north of the shaft.”

The vertical range of presently known gold mineralization is about 425 meters from the surface at the main Apollo open stope to the lowest mineralization in Shaft #2 (Margolis, 2014; Figure 7.14). According to Margolis (2014), the vein system dips steeply northwest at about 70° and the "east", "center" and "feeder" veins may be more or less a continuous vein stockwork zone with minor

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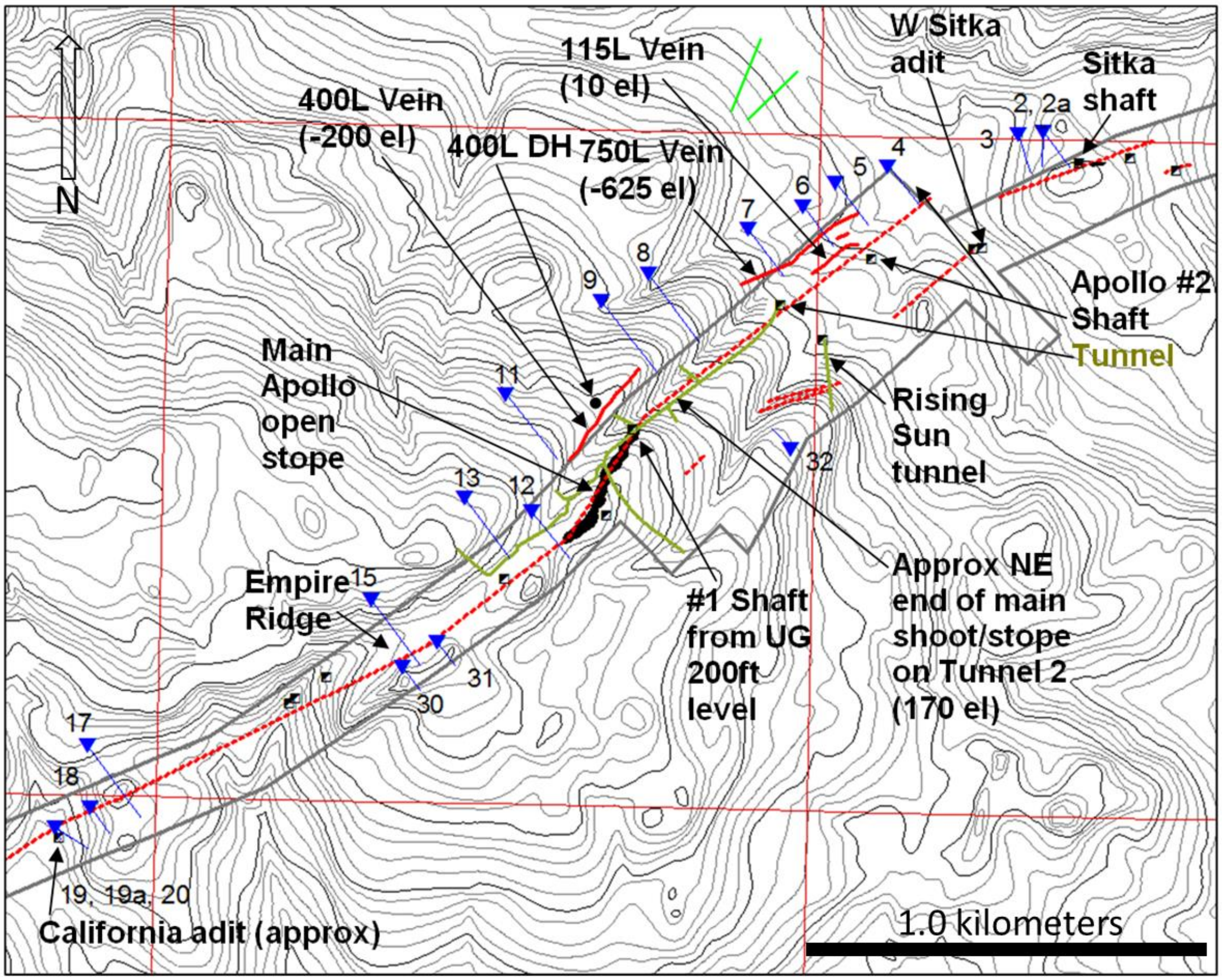
fault offsets and pinching/swelling. Historical production stopped at the base of the oxidized zone, approximately at sea level, although sulfide mineralization in the vein system continued to the deepest level of the workings.

Figure 7.15 Map of the Apollo – Sitka, Rising Sun and Empire Ridge Area
(from Margolis, 2014)



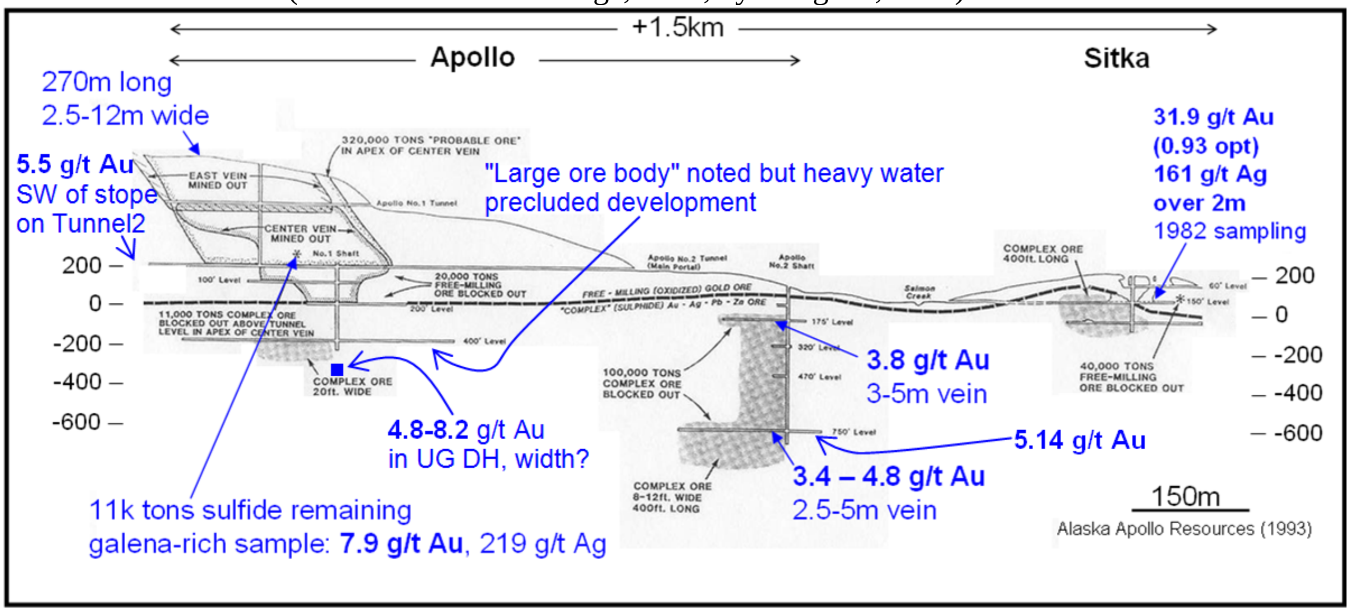
Note: heavy red solid and dashed lines show veins; light green lines show projections of underground development; bright green lines are veins shown by Riehle et al. (1999); blue inverted triangles and blue lines show historical AAGM drill collars and hole traces; red thin lines are land section lines; grey lines show outlines of patented claims; 20-foot topographic contours. "L" refers to mine level; "el" refers to elevation relative to sea level.

There are some indications that gold grades decrease rapidly below the level of oxidation, which is approximately at sea level (Drobeck, 2005; Margolis, 2014), and it has been noted that historical reports indicated gold is associated with galena in unoxidized material at the Apollo mine, which is in contrast to the Shumagin mineralization (Margolis, 2014). Drobeck (2005) interpreted the oxide-sulfide boundary at sea level to mark a vertical transition in metal zoning to base-metal rich, gold-poor mineralization below. However, Margolis (2014) reported "Below the boundary, which is described as gradational, grades in the historic records reported in $/ton indicate consistent 0.1 to 0.24 opt Au in vein zones up to 24 feet wide (Fig. 15a).".

The figure ("Fig 15a") mentioned by Margolis (2014) is shown below in Figure 7.16.

AAGM drilled 10 core holes at the Apollo mine area in 1983. The results of this drilling are summarized in Section 10.

Figure 7.16 Modified 1993 Longitudinal Section, Apollo – Sitka Mine Area
(modified from Bowdidge, 1993, by Margolis, 2014)



Empire Ridge Prospect

Empire Ridge is a narrow, northeast-trending ridge of silicified rocks extending southwest about 700 meters from the southwest end of the Apollo open stope (Margolis, 2014; Figure 7.15). A narrow (~175 m) horizon of lithic tuffs and lacustrine sediments exposed at Empire Ridge widens to the southwest and is exposed for ~5.0 kilometers to the southwest, toward the coast at Heather. This volcanic unit has been altered to ribs and lithocaps of residual vuggy silica, haloed by patches of advanced argillic alteration identical to hypogene alteration observed at the Orange Mountain zone. Redstar has reported that bodies of residual silica at Empire Ridge are cut by quartz-limonite breccias and quartz-adularia ± carbonate breccias that are structurally, texturally and geochemically similar to vein breccias at the Apollo mine area.

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Copies of assay laboratory certificates indicate AAGM excavated and sampled two trenches. Trench ERT1 was 24 meters long and had gold to 0.30 g Au/t over 1.5 meters, and trench ERT2 was 31 meters long with gold to 0.18 g Au/t over 3.05 meters. Drobeck (2005) reported one sample of gossan that assayed 0.573 g Au/t with very high mercury (10 g Hg/t) and arsenic (1,632 g As/t). RAA collected six samples in 1979, with maximum gold values of 2.0 g Au/t from gossan float, arsenic to 1,000 g As/t, and mercury to 49 g Hg/t.

AAGM drilled three core holes at Empire Ridge in 1983. Apparently only one of the three holes (hole AS15) intersected significant mineralization, as summarized in Section 10.

Rising Sun Prospect

The Rising Sun prospect, located east of the Apollo mine, has been described by Redstar as a splay off of the main Apollo structure approximately 300 meters east of the Apollo open stope and consists of an approximate 25-meter wide outcrop of multi-generational veins, vein breccias, and stockwork identical in geology and sub-parallel to the Apollo vein system. Narrow 1.5-meter to 6.2-meter wide crustifrom to cockade textured vein breccias are bordered by selvages of silicified, quartz-sericite-pyrite altered rocks within propylitic altered basalt, andesite, and hyloclasite flows.

Two core holes were drilled by Redstar in 2017 at Rising Sun, both of which penetrated modestly mineralized veins and vein breccia. The drilling results are summarized in Section 10.

California Prospect

The California prospect, located about 1.2 kilometers southwest of the Apollo open cut (Figure 7.4; Figure 7.15), is centered on a lenticular topographic high that includes a 35-meter wide zone of silicified and brecciated, iron-oxide stained rock. Little descriptive information is available, but historical records indicate that prior to 1922 a 61-meter tunnel was driven on a vein. Vein material on the dump includes abundant comb-textured quartz that has filled open spaces in brecciated and silicified andesite and tuff. Galey (2005) reported that historical assays from the first 15 meters along the vein indicate gold grades range from 9.43 to 154 g Au/t. In 1983, AAGM drilled four core holes, which were very incompletely sampled and assayed, and the results of samples that were analyzed did not replicate the earlier underground sample grades. Two of the holes returned gold grades as high as 1.7 g Au/t (see Section 10).

Heather Prospect

The Heather prospect is located within a large area of hydrothermal alteration at the west end of the Apollo-Sitka trend, about three kilometers southwest of the California prospect (Figure 7.4). The prospect includes a swarm or network of quartz veins less than 35 centimeters in width that can be traced along strike for more than 750 meters. A zone 15- to 45-meters wide, composed of

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silicified and brecciated tuff, can be traced for another 1,500 meters. Fractured wall-rocks within this altered zone are cemented with fine-grained silica, and open spaces are filled with comb quartz (Galey, 2005). Rock-chip and grab samples collected by BMGC and FMM contained up to 0.41 g Au/t, silver up to 100 g Ag/t, and elevated arsenic and mercury (Galey 2005). There has been no drilling at the Heather prospect.

Other Shumagin Island Prospects

Zachary Bay

The Zachary Bay prospect is located about seven kilometers northwest of the Shumagin area (Figure 7.5). Redstar geologists have recognized and described porphyry-style copper-gold mineralization based on examinations of archived drill core from the Duval-Quintana drilling in 1975, assay data from Duval-Quintana, and later core sampling by RAA. Margolis (2014) stated: "Hole Z1, intersected disseminated Cu-Au mineralization in intrusive rocks over its entire length, with 351.5 feet (107m) grading 0.11 % Cu and 0.280 g/t gold (the upper 31.5 feet of the hole was in overburden). These assays are from RAA's 1981 resampling and re-logging of the holes. Samples of the core in storage at the Alaska Geologic Materials Center in Eagle River show clear potassic alteration (hydrothermal biotite and magnetite) and disseminated and veinlet chalcopyrite within a dioritic(?) intrusive phase with pink potassium-feldspar phenocrysts (Fig. 4a). There is a strong correlation between Cu and Au in Z1, and Ag-As-Pb-Zn are very low, also indicative of a porphyry Cu-Au system. The other 3 holes are 1400 to 2400 feet east of Z1 and very shallow tests. Copper is anomalous in these holes, reaching a high of 1000 ppm, but there is no significant gold. Although there is little Cu in hole 2, there is definite disseminated chalcopyrite with pyrite in the skeleton core (e.g. samples 130, 135 and 150) as well as possible hydrothermal biotite in magnetic dark green fine-grained andesite. Hole 3 intersected a more felsic quartz-phyric intrusive phase than hole 1, possibly indicating a multi-phase intrusive system. Hole 3, which contains elevated Cu to 1000 ppm, also contains local zones of diffuse hydrothermal magnetite veins (e.g., 125 feet), and disseminated pyrite is common. Hole 4 is in an unusual soft, pale pinkish gray rock with moderate disseminated pyrite throughout that could be altered andesite (no? igneous quartz). Again, copper values are elevated."

The Duval-Quintana black-line magnetic contour map from their 1975 ground magnetic survey shows a strong, 500-meter long, magnetic high elongated in a north-northwest direction, with a width of about 200 meters (Margolis, 2014). Hole Z1 is within this high, but the other holes are located to the east. Margolis (2014) concluded it is possible that hole Z1 represents the uppermost parts of a potassic porphyry system, but that the geology is not well understood, and he suspected that the magnetic anomaly would be larger if the terrane were flat. Drilling results are summarized in Section 10.

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Norm's Vein Prospect

Norm's Vein is a N30°E-trending quartz-vein stockwork zone exposed on a low northwest-trending ridge about 4.8 kilometers northwest of the Shumagin area. Geologic mapping and sampling by RAA/Teton between 1979 and 1983, and by BMGC in 1990, indicate a general N30°E trending zone of quartz-barite veins in silicified rhyolite tuff and andesite that is 550 meters long, and as much as 180 meters wide. The veins dip steeply northwest, but the southeast-directed drill holes (see below) intersected veins commonly parallel to the core axis (Margolis, 2014). The felsic unit is locally very pyritic, with an area at the "NW end" containing up to 50% pyrite. Individual veins were described as up to "several feet wide". Hand samples at the Eagle River sample library examined by Redstar show a chalcedonic quartz-vein stockwork with brecciation, within a limonitic silicified volcanic rock (Margolis, 2014). The quartz veins locally contain barite, sphalerite, galena, chalcopyrite and stibnite, so base metal contents are locally high, but not consistent. Gold at surface is weakly anomalous, with RAA rock chip samples containing up to 0.585 g Au/t (Margolis, 2014). Two core holes were drilled by RAA-UNC-Teton in 1983 and the results are summarized in Section 10.

Two widely spaced occurrences of realgar in altered tuff, sampled by RAA in the 1980s, have been reported by Margolis (2014) from a northwest-trending alteration zone that extends from Norm's Vein toward the Zachary Bay prospect. Realgar is not common in volcanic-hosted epithermal deposits, but could be related to the porphyry copper-gold occurrence at the Zachary Bay prospect.

Junior Prospect

The Junior prospect is located nearly four kilometers northwest of Orange Mountain (Figure 7.5 and Figure 7.17). It has been described as a N30°E-trending quartz-zeolite-pyrite-chlorite-calcite vein zone within andesite, and chalcedonic quartz and jasper veins and replacement zones are also noted (Margolis, 2014). The zone of veins is about 370 meters long and 75 meters wide (Trujillo et al., 1981), but Peterson et al. (1982) reported a strike length of about 1.2 kilometers. A sample of chalcedonic vein float contained 2.2 g Au/t, with low base metals.

A core hole drilled by RAA-UNC-Teton in 1981 contained anomalous gold and elevated mercury and arsenic in grey andesite with disseminated and veinlet pyrite, and quartz-zeolite-calcite veinlets. Drilling results are summarized in Section 10.

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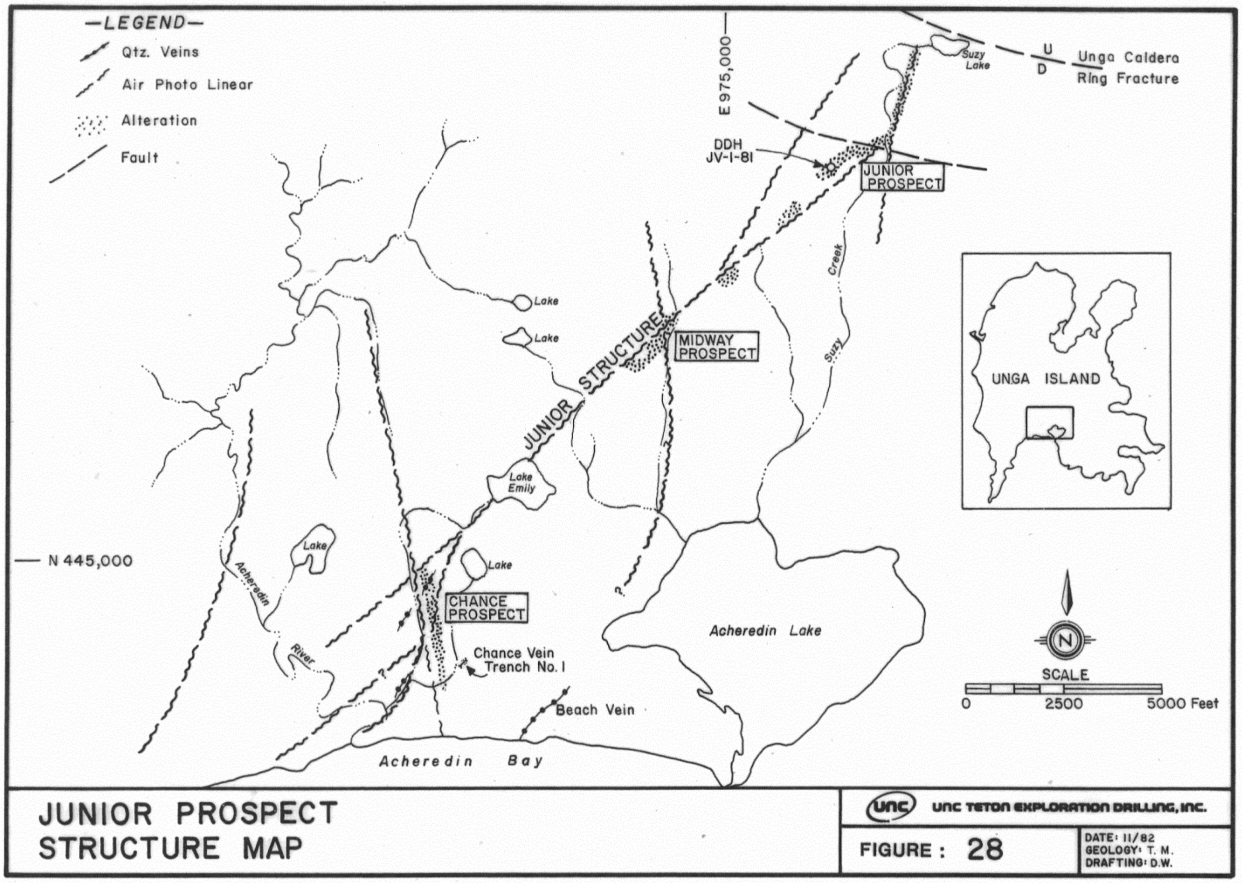
Figure 7.17 1982 Map of the Junior, Midway, Chance, and Beach Vein Area, Unga Island
(from Peterson et al., 1982)



Chance Vein and Midway Prospects

The Chance vein and Midway prospects are located about 4.5 kilometers northwest of the Aquila area in the western part of the property (Figure 7.5; Figure 7.17). RAA identified quartz veins and silicified, limonitic andesite in float. An RAA trench reportedly exposed a zone of "massive silica and highly silicified andesite" 10 meters in width, with 0.94 g Au/t over 1.2 meters within 2.4 meters that averaged 0.775 g Au/t, associated with quartz, pyrite, marcasite, sphalerite, and chalcopyrite (Margolis, 2014).

There is scarce information on the Midway prospect (Figure 7.17), other than it is described as an area of northeast-trending, pyritic and chalcedonic silicification with zeolite veins along the "Junior trend" (Margolis, 2014).

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Beach Vein

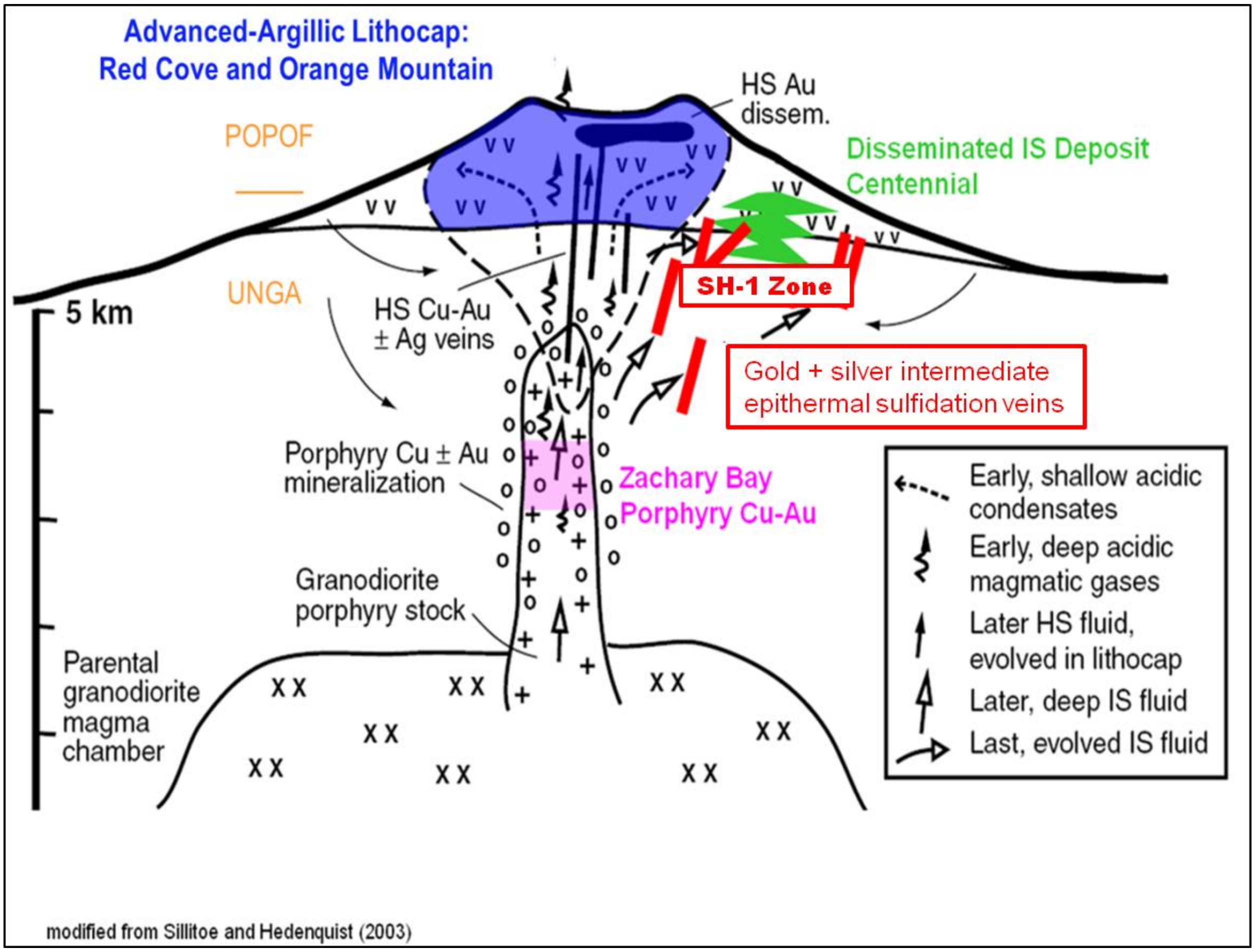
The northeast-trending Beach vein was explored by RAA with 10 short trenches, and it is well exposed at the sea cliffs about 2.5 kilometers northwest of the Aquila area (Figure 7.5 and Figure 7.17). In the sea-cliff exposure, the vein is 1.2- to 1.8-meters wide with a series of 0.75- to 35-centimeter wide sub-parallel veins that form a zone about 18-meters wide (Drobeck, 2005; Galey, 2005). The core of the vein zone is composed of brecciated andesite fragments cemented with drusy quartz and comb-textured quartz with minor amounts of galena, sphalerite, and pyrite. To the north, the vein was traced for about 550 meters within andesite and is reportedly up to three meters in width. The exposure at the beach contains elevated base metals, but low gold, and the highest gold sample was 4.94 g Au/t over 0.6 meters in trench BV-4, with elevated copper, lead, and zinc (Margolis, 2014).

8.0 DEPOSIT TYPES

With three exceptions, nearly all of the prospects and gold ± silver, ± lead-zinc-copper deposits within the Unga project have geological, textural, and mineralogical characteristics typical of the low- and intermediate-sulfidation classes of volcanic-rock hosted, epithermal deposits. These vary from fault-controlled fissure veins, vein-breccias, sheeted veins, and stockworks, such as at the Shumagin deposit and the Apollo-Sitka mines, to disseminated gold mineralization at the Centennial deposit. Their relation to the broadly accepted conceptual model for volcanic-rock hosted epithermal deposits world-wide is shown in Figure 8.1. Two of the exceptions are Orange Mountain and Red Cove, which have alteration mineral assemblages and textures indicative of the upper parts of high-sulfidation magmatic-hydrothermal systems. The third exception is the Zachary Bay copper-gold showing. Although this prospect is not well defined by mapping or drilling, hydrothermal alteration minerals and textures in historical core, together with assay data, fit well with a porphyry copper-gold style of mineralization. The conceptual deposit model of Sillitoe and Hedenquist (2003) modified below is approximate, and the authors suspect that the Zachary Bay porphyry intrusion may have been emplaced at a higher level than shown. Similarly, the Apollo-Sitka veins may have formed at shallower depths as well. These epithermal and porphyry models have been applied by Redstar to advance exploration at the Unga project.

Figure 8.1 Conceptual deposit model for the SH-1 Zone, Unga Project, Alaska

(Modified from Sillitoe & Hedenquist, 2003: Linkages between volcanotectonic settings, ore-fluid compositions, and epithermal precious metal deposits.)



9.0 EXPLORATION

Redstar 2011

Redstar commenced exploration of the Unga project in 2011 with work focused on the gold-silver vein system at the Shumagin prospect (Figure 7.4), in the southeast part of Unga Island. This involved a compilation of historical drilling and surface geological and geochemical data, aimed at understanding the historical estimated resources, and was followed by drilling 10 core holes in an effort to expand the historical resources. Redstar's drilling in 2011, along with historical drilling data, demonstrated the continuity of the vein system over at least 800 meters of strike and

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the existence of higher-grade gold-silver mineralization down dip, as well as the presence of wide zones of lower-grade gold-silver mineralization around the core veins. Mineralization was confirmed to occur as a network of multiple, closely-spaced, steeply-dipping veins and breccias, within a northeast-trending fault zone in strongly-altered volcanic rocks. Specific results from the 2011 drilling are discussed in Section 10.

Also in 2011, Redstar conducted surface sampling of other areas, including the historic Sitka mine (Figure 7.4) and the Zachary Bay prospect several kilometers to the northwest of the Shumagin vein system. The highest-grade surface sample results were reported by Redstar at the Sitka mine, with channel samples that included 13.2 g Au/t and 398 g Ag/t over 2.0 meters. A select sample of a vein within that zone assayed 94.7 g Au/t and 1,840 g Ag/t (Redstar news releases, January 18, 2012 and February 19, 2014; https://www.sedar.com).

Redstar 2014

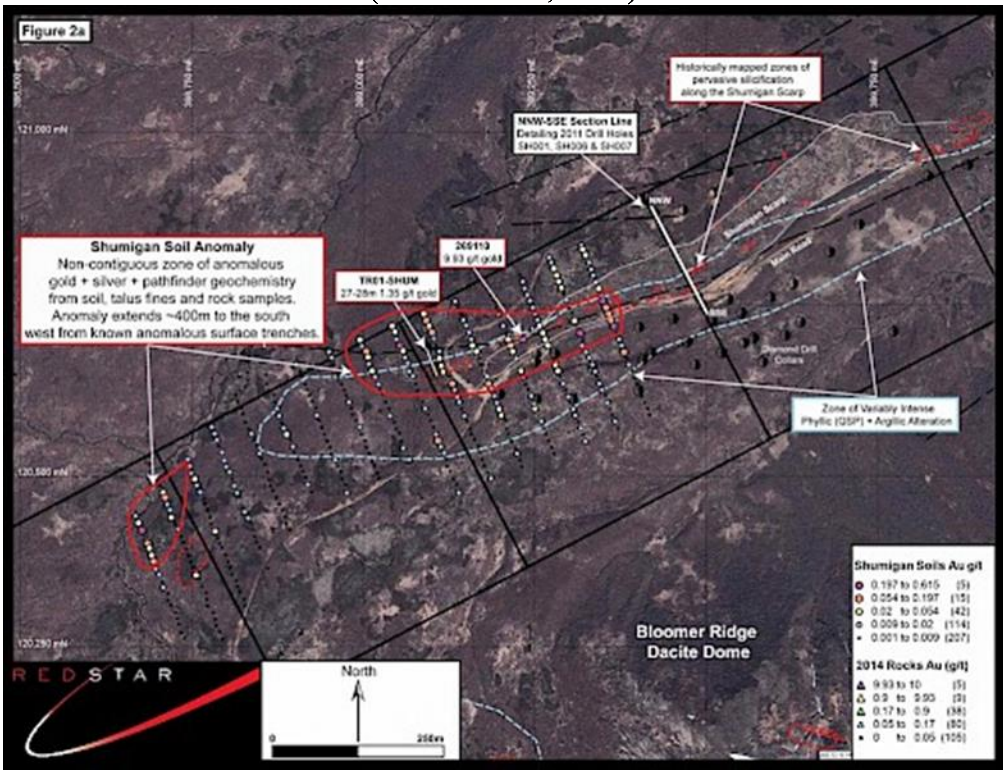
Redstar resumed work on the property during the summer of 2014. The field surface program involved three areas: the Apollo-Sitka trend, the Shumagin prospect, and the Aquila prospect. Detailed survey work, geochemical sampling, re-mapping of historical trenches, and the re-logging of over 600 meters of historical drill core were accomplished. The geochemical sampling was conducted by Redstar geologists and personnel from Northern Associates Inc. ("NAI"), of Fairbanks, Alaska, and Yukuskokon Professional Services ("YPS"), of Wasilla, Alaska.

Shumagin 2014

A detailed differential global positioning system ("GPS") survey was performed to accurately locate all existing surface features including drill roads, trenches, and historical drill collars. Redstar personnel salvaged and re-logged approximately 610 meters of drill core from the BMGC and AAGM drilling in the 1980s. A total of 43 "continuous-chip" trench samples and 12 rock samples were collected and analyzed. In addition, 383 samples soil samples were collected on a grid area of approximately 750 meters x 200 meters located to the southwest of the Shumagin prospect.

The soil samples showed a gold and silver geochemical signature of 0.020 to 0.050 g Au/t (up to 0.615 g Au/t) and >0.5 g Ag/t (up to 6.8 g Ag/t) that extended to the southwest approximately 400 meters. The 2014 rock-chip samples taken from quartz vein breccias and stockwork that occur in surface outcrops assayed up to 9.93 g Au/t and 74.4 g Ag/t (Figure 9.1). Redstar interpreted the 2014 soil, talus fines, and surface rock sample geochemistry to suggest a combination of hydrothermal and magmatic-related geochemical signatures.

Figure 9.1 2014 Soil and Rock-Chip Gold Results, Shumagin Prospect
(from Redstar, 2014)



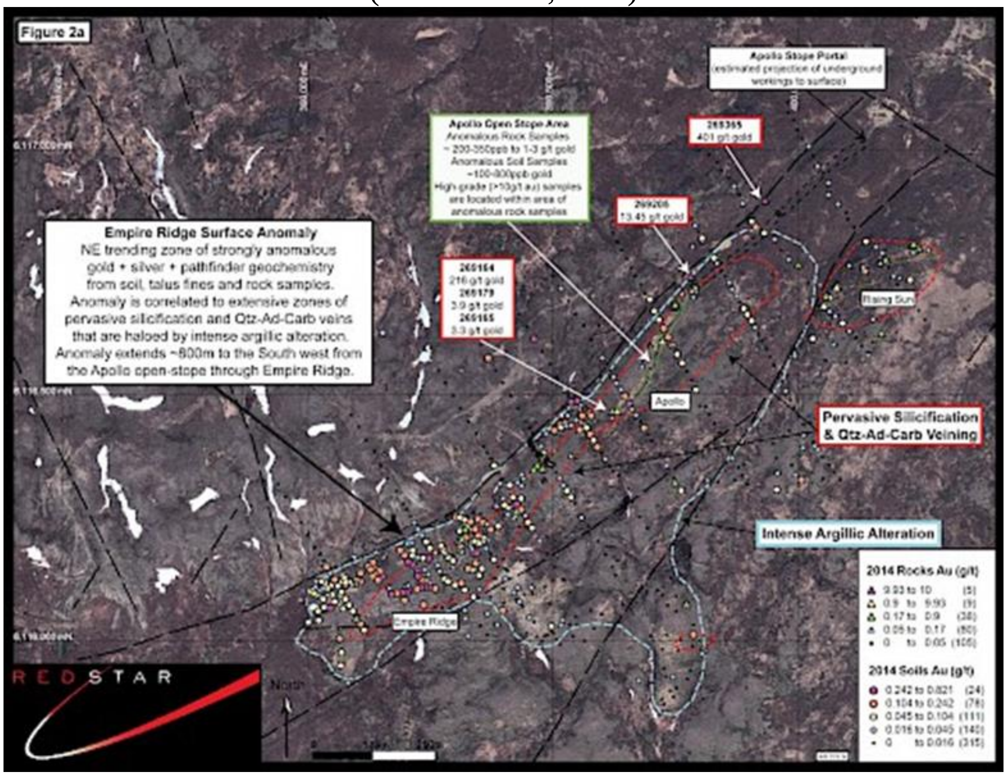
Based on an in-depth review of Shumagin data, including historical drill core, Redstar geologists concluded that at depth, hanging-wall dacite gradually changes into a 5-meter to 40+ meter-wide zone of steeply-standing, multi-phase breccia bodies that are localized along the Shumagin scarp. The Shumagin scarp was interpreted to mark a pre-existing structure along which phreatomagmatic and hydrothermal breccias were emplaced, as well as a buttress to reworked volcanic rocks, mudstone, shale, carbonaceous beds and volcanic tuffs and flows, that were deposited on the southeast side within a valley separating the Shumagin scarp from Bloomer Ridge. It was observed that matrix material within the breccia phases varies from hydrothermal to intrusive (phreatomagmatic), but most matrix phases contain euhedral biotite and fine-grained black-gray hydrothermal quartz ± adularia.

Apollo – Sitka 2014

A total of 225 rock samples, 224 trench samples, and 669 soil and talus-fines samples were collected and analyzed from the Apollo-Sitka area in 2014, and historical trenches were re-mapped. The results showed a continuous gold and silver geochemical soil anomaly of >0.1 g Au/t and >1.3 g Ag/t, covering the Sitka and Apollo mine areas and extending for approximately

1,300 meters to the southwest from the Apollo open stope, through Empire Ridge. Figure 9.2 shows the gold in soil, talus fines and rock samples.

Figure 9.2 Gold in Soil, Talus Fines and Rock Samples, Apollo - Empire Ridge Area
(from Redstar, 2014)



The anomalous gold + silver geochemical signature was correlated to zones of silicification and quartz-adularia ± carbonate veins within an envelope of intense argillic alteration. The silicification and argillic alteration were recognized to continue intermittently for approximately 4,500 m to the southwest, from Empire Ridge to the west coast of Unga Island (Figure 7.4).

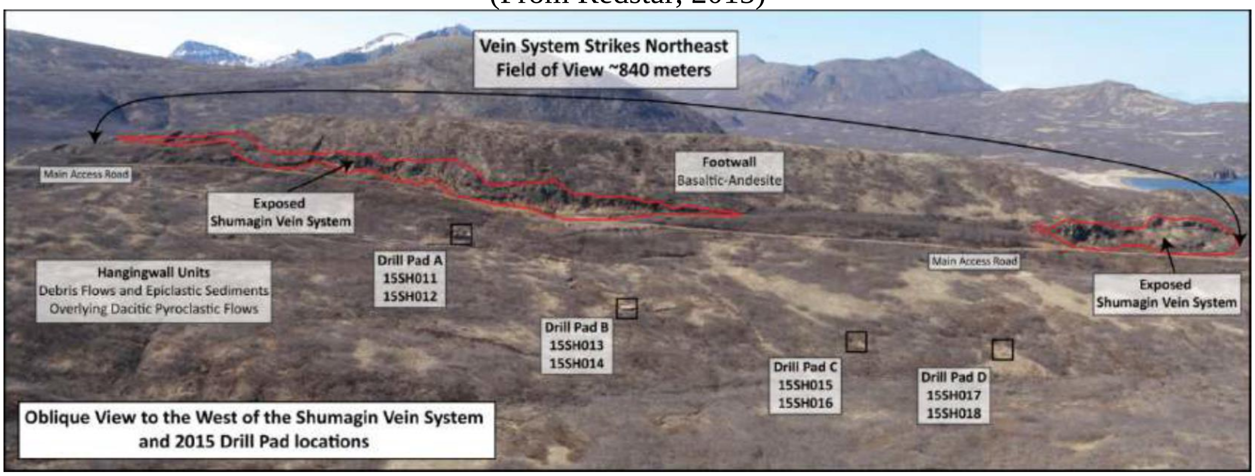
Aquila 2014

At Aquila, reconnaissance soil lines totaling 155 soil and talus-fines samples were collected along a widely spaced grid covering 1,700 m of strike length, where zones of argillic alteration define the Shumagin trend.

Redstar 2015

During 2015, Redstar drilled a total of 1,498 meters in eight core holes at the Shumagin prospect (see Section 10 for details). An aerial view of the 2015 drill collars relative to the Shumagin vein system is shown in Figure 9.3. All of the holes penetrated cockade- and colloform-textured quartz-adularia-carbonate veins and breccia with disseminated sulfides of the Shumagin vein system at depths expected by Redstar. Significant gold-silver intervals are summarized in Section 10.

Figure 9.3 Aerial view of the Shumagin Prospect and 2015 Drilling Locations
(From Redstar, 2015)



Redstar 2016

The focus of the 2016 exploration work was to 1) expand known mineralization previously drilled at the Shumagin prospect and along Empire Ridge, the southwestern extension of the historic Apollo-Sitka mine, and 2) complete surface sampling and mapping along the ~9 kilometer Shumagin trend, including Orange Mountain to the southwest of the Shumagin prospect. As part of this work, Dr. Jeffrey Hedenquist, an independent expert on epithermal gold systems, undertook a six-day field review of the Shumagin and Apollo-Sitka trends.

Shumagin and Orange Mountain 2016

During 2016, Redstar geologists and personnel from NAI and YPS conducted geological mapping and collected 325 rock samples and 272 soil and talus-fines samples from Orange Mountain, from mineralized structures located between Orange Mountain and Shumagin, and from exposures of multi-phase breccias and additional structures at the Shumagin prospect. Forty-four rock-chip samples were taken along steep exposures covering ~325 meters of strike along the "Main Breccia" at Shumagin. These returned variably anomalous gold values ranging from less than 1 g Au/t to 54.4 g Au/t, and silver from less than 1 g Ag/t to 137 g Ag/t. These included a weighted average

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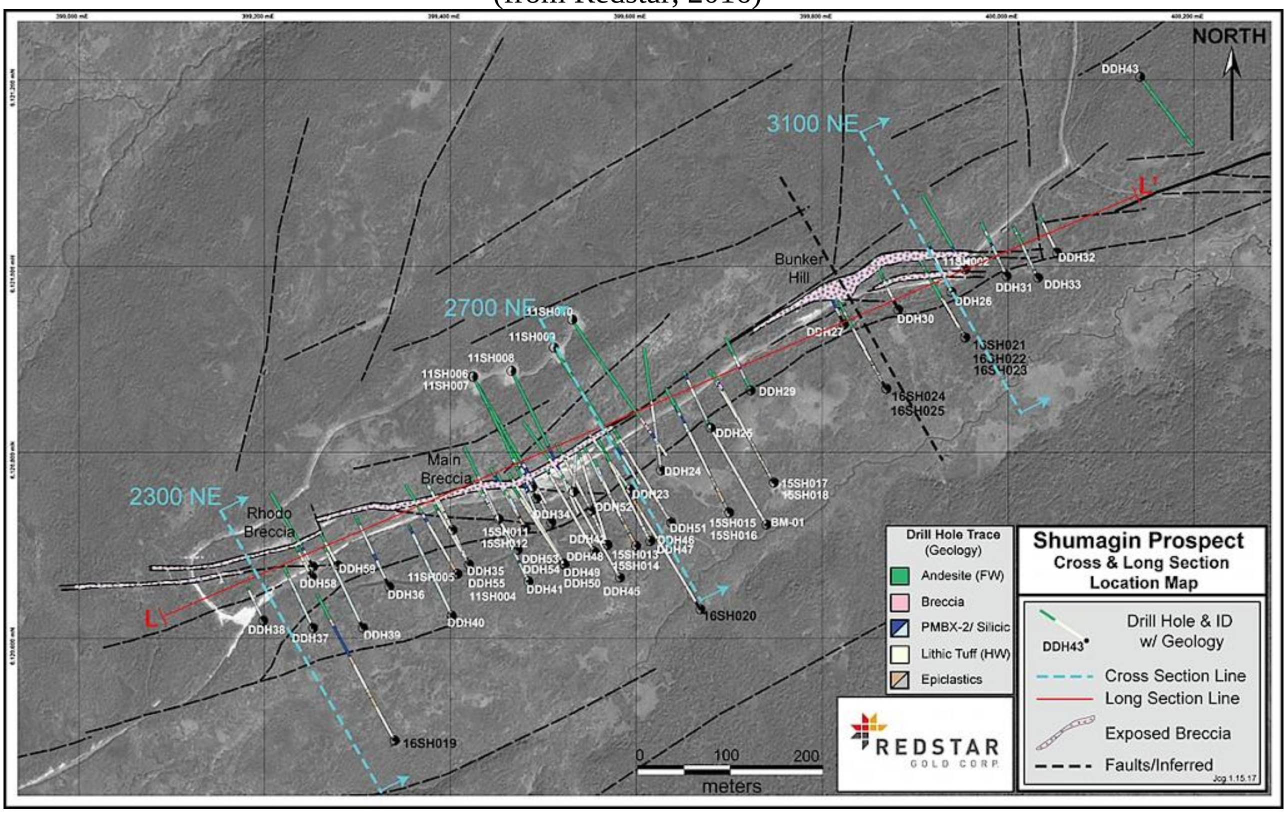
of 37.26 g Au/t and 103.7 g Ag/t over a true width of 2.3 meters of weathered quartz-adularia-rhodochrosite breccia. Fifteen rock-chip samples were also taken along exposed breccias at Bunker Hill (Figure 9.3) along ~10-meter- to 20-meter-wide, east-west-trending exposures of oxidized and manganese oxide-stained quartz-adularia breccias. These samples returned anomalous values of gold (up to 0.453 g Au/t) and silver (up to 26.4 g Ag/t) and were enriched in tellurium (up to 20.4 g/t) and manganese (up to 0.82%).

A total of 1,505 meters were drilled by Redstar in seven core holes at Shumagin in 2016. As shown in Figure 9.4, five were drilled in the Bunker Hill portion, one hole was drilled in the Main Breccia, and one hole was drilled at the "Rhodo Breccia". Details and significant intervals are summarized in Section 10.

Figure 9.4 Map of the Shumagin Prospect with Drill-hole Traces Through 2016
(from Redstar, 2016)



At Orange Mountain and vicinity, Redstar completed detailed geological mapping, and rock-chip and talus-fines sampling that included a total of 183 rock-chip samples, 95 talus-fines samples, and ~200 soil samples on a grid along a ~4.5 kilometer-long segment of the Shumagin trend, centered along Orange Mountain and extending from the Aquila prospect to Shumagin. Inspection of the Orange Mountain area by Dr. Hedenquist, together with the geologic mapping and surface sampling, lead to the interpretation that Orange Mountain is a large high-level hydrothermal "lithocap" with advanced argillic alteration that is central to and genetically related to the adjacent vein systems at Shumagin and Aquila. Composite rock-chip samples from oxidized fault breccias near the crest of Orange Mountain were found to be anomalous in gold (0.025 to 0.278 g Au/t) and are highly anomalous in arsenic, antimony, mercury, silver, and lead. Composite rock-chip samples taken from outcrops of the vuggy sulfide-bearing residual-silica bodies were typically barren, with scattered results of less than <0.025 g Au/t. Silver, arsenic, antimony, mercury, lead, zinc, and copper were weakly elevated. Erosion of the numerous oxidized quartz-limonite and polymictic breccias along the crest of Orange Mountain has produced a widespread gold anomaly of ~0.040 to 0.193 g Au/t in talus-fines samples.

In the Red Mountain area located between Orange Mountain and the Shumagin prospect, Redstar conducted geological mapping and collected ~200 soil samples from a 600 meter by 150 meter grid. Rock-chip and soil samples taken from areas of advanced argillic alteration northeast of Orange Mountain were found to contain elevated gold, silver, arsenic, antimony, mercury, and lead relative to soil samples taken from areas overlying basalt flows further along strike to the northeast.

Aquila 2016

Rock-chip sampling by Redstar in 2016 in the "Aquila Moat" area southwest of Orange Mountain, returned values up to 0.050 g Au/t, 427 g As/t, and 0.41% Ba from polymictic fragmental units that contain rounded clasts of vuggy residual silica, lacustrine sedimentary fragments, and clay-altered clasts that were likely of juvenile magmatic origin. These fragmental rocks were interpreted by Redstar to be syn-hydrothermal in origin and deposited in a phreatomagmatic eruption crater that was water-filled at times.

Empire Ridge (Apollo – Sitka Trend) 2016

Detailed geological mapping by Redstar geologists and consultants was completed during the summer of 2016. This mapping, in combination with an evaluation of historic mine maps, drill results, and the 2014 surface geochemical data, allowed Redstar to better outline the structural nature of the historically-mined vein system at the Apollo mine.

Redstar 2017

Redstar's 2017 exploration work was focused on the Shumagin trend. Ground magnetic and IP surveys were completed, soil and rock sampling was conducted, and a campaign of core drilling was completed.

Shumagin Geophysical and Geochemical Exploration 2017

At the Shumagin prospect, Redstar commissioned a ground magnetic survey on northwest-southeast lines that totaled 15.5 line-kilometers and extended for about 0.5 kilometers southwest of the Rhodo Breccia. The ground magnetic survey was conducted by RDF Consulting Ltd. ("RDF"), of Larder Lake, Ontario. Magnetic data were collected along 21 lines spaced 50 to 100 meters apart using a high resolution GEM GSMP-35 potassium magnetometer equipped with an integrated precision GPS unit. All data were corrected for the diurnal variation in the earth's magnetic field utilizing a GEM GSM-19 Overhauser magnetometer set to a three-second sampling rate. Ground magnetic results and an interpretation by Redstar are shown in Figure 9.5.

Nearly all of the area of the 2017 ground magnetic survey was also covered by an 8.75 line-kilometer IP and resistivity survey carried out by RDF. IP-resistivity data were collected utilizing a pole-dipole array on 11 of the ground magnetic grid lines. A Scintrex IPR-12 time-domain digital receiver and GDD5000 square-wave transmitter were used with a two second on/off time, six dipoles (n=6), and an "a"-spacing of 25 meters. This setup allowed for a maximum penetration depth of about 75 meters. The 2017 IP and resistivity results are shown with Redstar's interpretation in Figure 9.6.

Figure 9.5 2017 Ground Magnetic Survey of the Shumagin Prospect and Vicinity
(from Redstar, 2017; north is up)

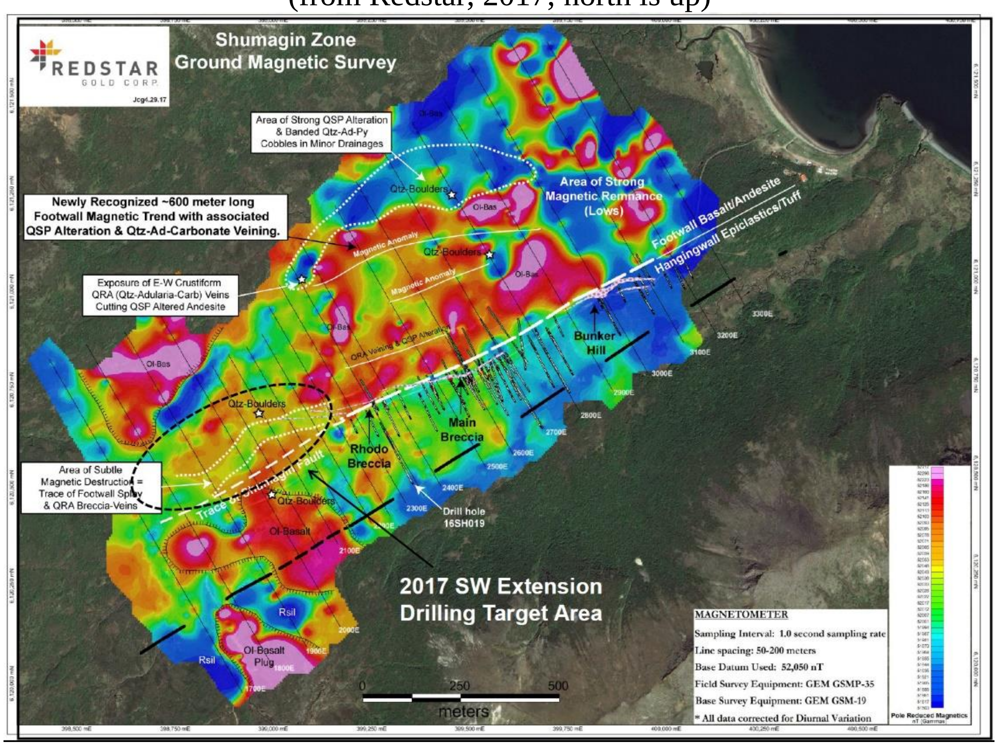


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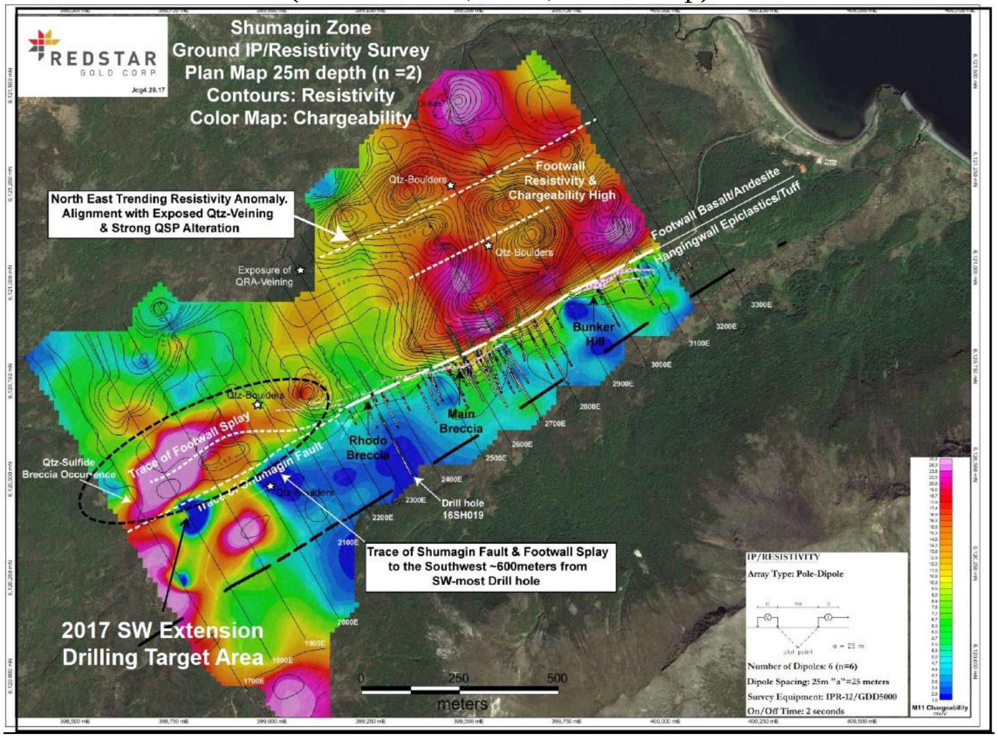
Figure 9.6 2017 IP-Resistivity Survey of the Shumagin Prospect and Vicinity
(from Redstar, 2017; north is up)



Both the ground magnetic and IP-resistivity data were processed by RDF using GeoSoft Oasis Montaj software. Subsequent to the data collection and preliminary processing, 2D and 3D inversion modeling was performed by RDF on the magnetic and IP data. The 3D modeling was performed using the GeoSoft Voxi inversion software and then exported as 3D DXF files and brought into FracSys and Adobe Illustrator for final output.

Shumagin – Red Creek – Saddle Area 2017 Soil Sampling

During 2017, Redstar and personnel from NAI and YPS collected approximately 600 soil and talus-fines samples taken on a grid that covered the area between the southwest edge of the 2014 Shumagin soil grid and the northeast edge of the 2016 soil grid northeast of Orange Mountain. The 2017 samples were collected at 25-meter spacing on the northwest-southeast ground-magnetics lines that were 50- to 100-meters apart. The results were merged with the 2014 and 2016 soil data and are shown in Figure 9.7 and 9.8. Redstar used the soil data to define new anomalies and interpret extensions of fault zones that could be mineralized at depth. These are shown as Red Creek, Saddle Creek, and Northern Footwall anomalies which also contain northeast-trending zones with elevated copper, lead, mercury, and zinc.

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Figure 9.7 Merged 2017 Shumagin Soil Geochemistry Maps I
(from Redstar, 2018; north is up; IS = intermediate sulfidation; AA = advanced argillic)

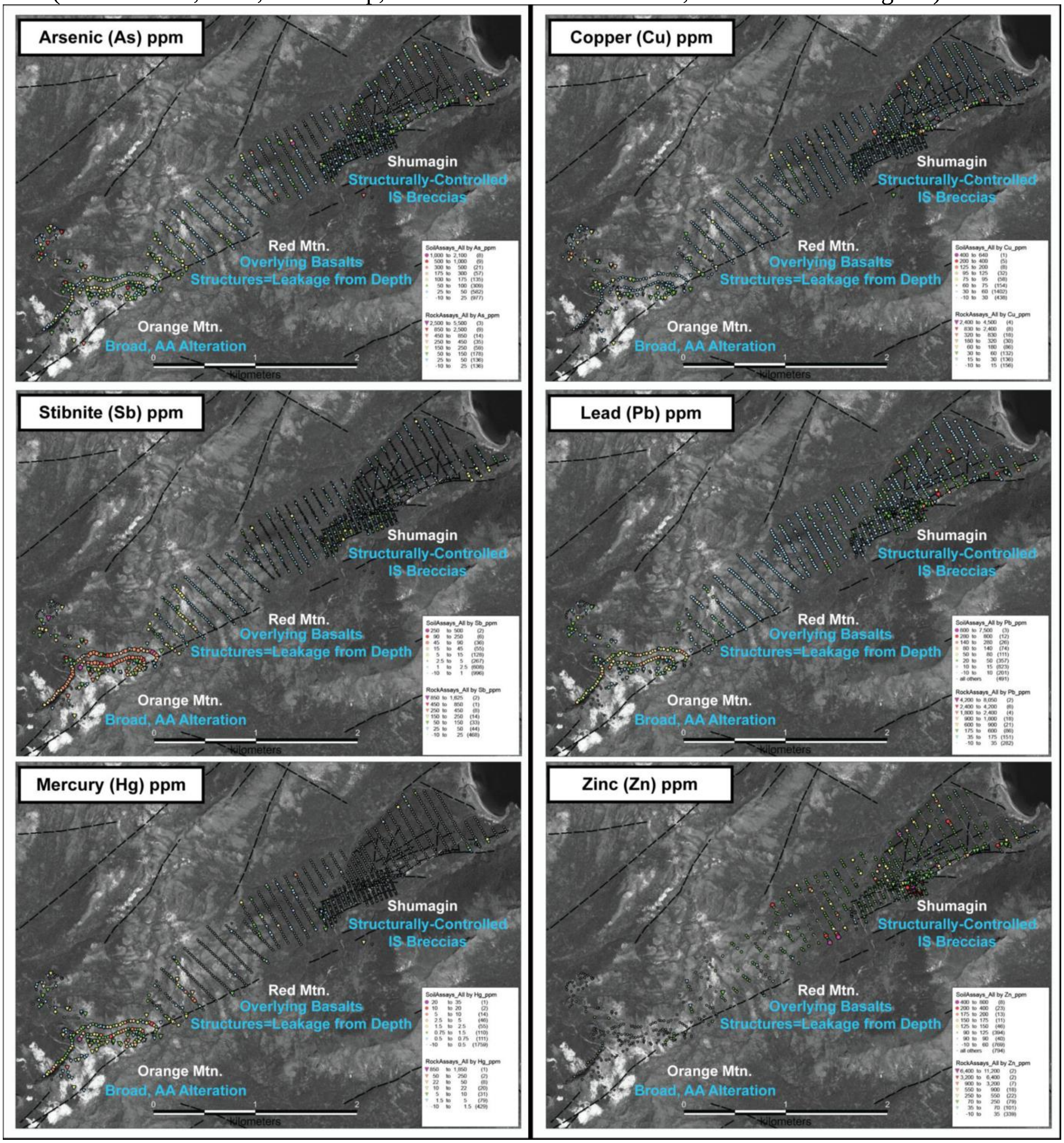

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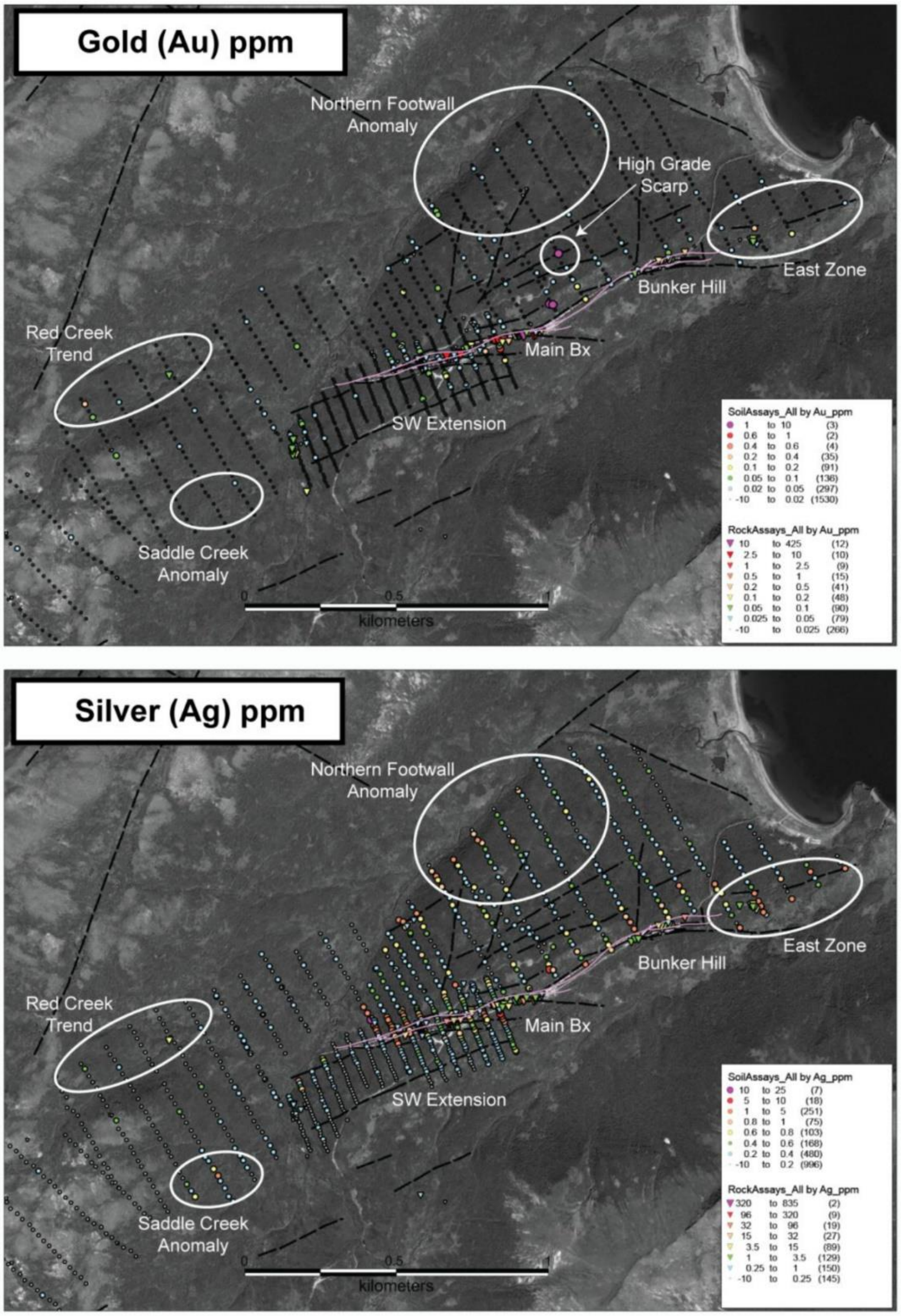
Figure 9.8 Merged 2017 Shumagin Soil Geochemistry Maps II
(from Redstar, 2018; north is up)



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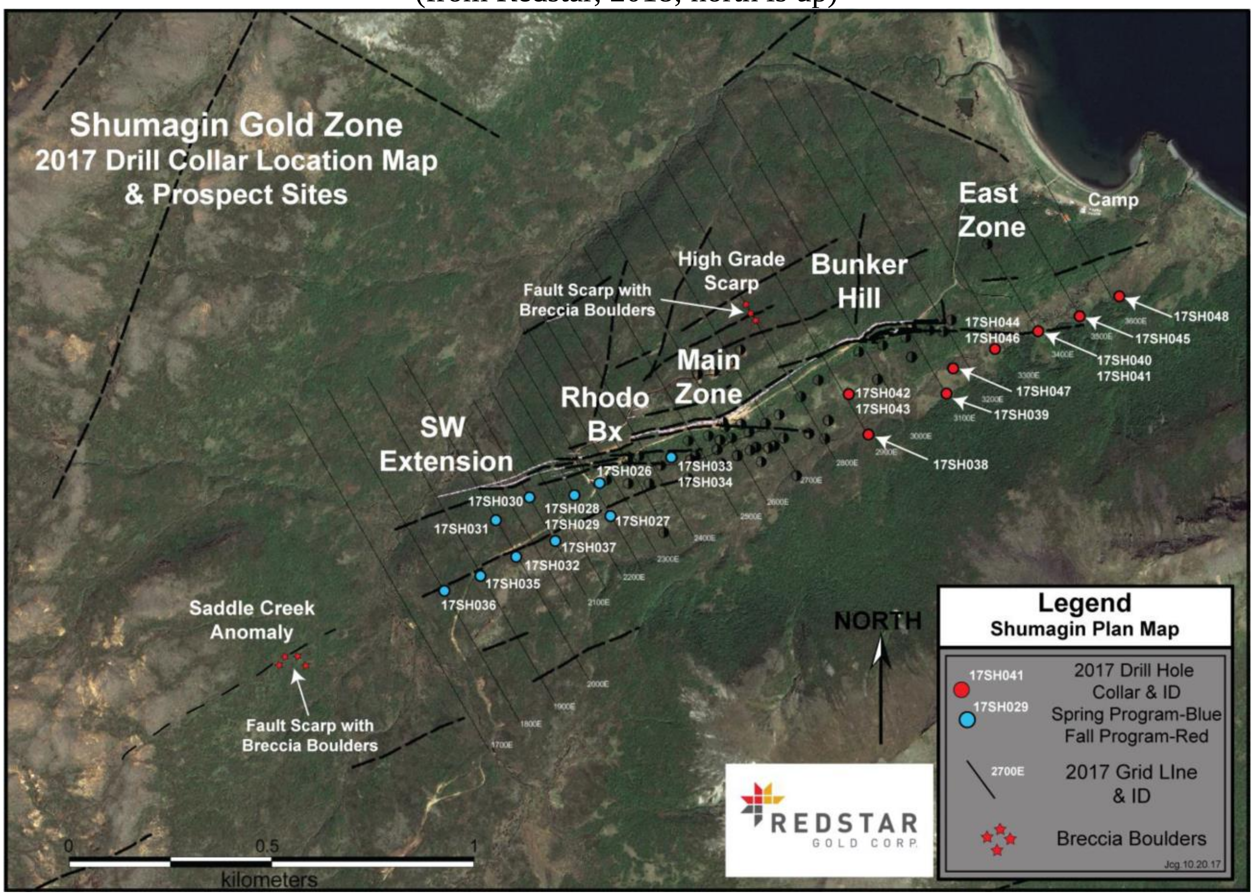
2017 Shumagin Core Drilling

Redstar drilled a total of 4,695 meters in 23 core holes in two stages at the Shumagin prospect in 2017. Drill collar locations for the 2017 drilling are shown in Figure 9.9. Details and significant intervals from the 2017 Shumagin drilling are summarized in Section 10.

Figure 9.9 2017 Shumagin Drill-Hole Locations
(from Redstar, 2018; north is up)



2016 - 2018 Short-Wave Infrared Reflectance Study, Shumagin Drill Samples

During 2016, Redstar initiated a short-wave infrared-reflectance ("SWIR") study of Shumagin drill core and coarse-reject samples by Kim Heberlein of Maple Ridge, British Columbia. The study was continued in early 2018. Altogether, approximately 1,700 chips of drill core and rejects from 2011 through 2017 drilling were analyzed to gain information on mineral assemblages present in the various geological units, breccias, faults, and gold-bearing zones penetrated by the drilling. The majority of the samples were analyzed by Ms. Heberlein at the project site with a portable ASD TerraSpec™ Halo spectrometer. A portion of the work was done using a desktop ASD TerraSpec 4 spectrometer at the University of British Columbia in Vancouver. In general, reflectance spectra were collected at 5-meter intervals down the lengths of the drill holes. Additional spectra were collected to investigate mineralogical questions at specific points in the drill core. The study also included analyses of soil samples.

The SWIR data were processed to correct for differences between the two spectrometers and then a combination of TSG™ and SPECMIN™ software and visual inspection of the reflectance spectra were used by Ms. Heberlein to determine the SWIR-readable mineral species in each sample. Redstar concluded that complex, but mappable, mineralogical patterns are present, and that these patterns relate to the evolution and distribution of hydrothermal fluids that interacted with the host rocks. In particular, paragenetically early colloform carbonate-sulfide breccias contain lower temperature, low-aluminum phengitic illite-smectite and higher chlorite contents, compared to later, Shumagin-style breccias. These later breccias contain higher temperature, phengitic illite-smectite with paragonitic illite halos and higher white-mica contents. Redstar noted that the highest gold and silver grades (>10 g Au/t) are associated with cooler-temperature, less crystalline white mica, FeMg chlorite, and montmorillonite.

Orange Mountain 2017

A ground magnetic survey of 54.4 line-kilometers was conducted by RDF at Orange Mountain during 2017. The lines were oriented XXX-YYY and run using the same equipment and methods as those used for the 2017 Shumagin survey. Redstar concluded that the magnetic survey at Orange Mountain was not useful for detecting and defining faults that could be mineralized.

Rising Sun (Apollo – Sitka Trend) 2017 Drilling

During 2017, Redstar drilled two shallow core holes at the Rising Sun portion of the Apollo-Sitka prospect, for a total of 234 meters. Details are summarized in Section 10.

Redstar 2019

Most of the exploration program in 2019 was carried out at Aquila. A structural study was also carried out to establish a structural framework for mineralization at SH-1 and at other prospects on the Unga Project. The objective of the program at Aquila was to extend the footprint of a 500-meter-long, approximately 040° striking gold anomaly on the Aquila-Amethyst vein which was tested with five diamond drill holes in the 1980s. The strike direction is essentially the same as the SH-1 Zone at the east end of the Shumagin Trend.

The late season 2019 geochemical and geophysical surveys were conducted across a grid of 1000m-long lines striking 155°, 200m apart which overlapped the 1980s anomaly by five hundred meters on either side to the WSW and ENE. The grid also straddled a 050° striking drainage which is interpreted to be part of the fault system that makes up the Shumagin Trend. A total of 515 samples soil samples were taken at 25m intervals. In addition, a structural study was carried out.

The results of the soil sampling program showed the following features:

1. Confirmation of the 1980s anomaly with 425m of strike of anomalous gold in soil;
2. A gold in soil anomaly 350m southeast of the 1980s discovery south of the 050° striking Shumagin Trend fault;
3. A further 500m strike of the gold in soil anomaly identified in the 1980s along an interpreted west-northwest conjugate fault (F1);
4. Another 400m long gold in soil anomaly 250m south of F1, extending along a parallel fault (F2); and
5. An isolated gold anomaly in the northwest of the gridded area.

The geochemistry results are significant as they confirm that the Aquila Zone has a similar orientation as that of the SH-1 Zone located at the other end of the Shumagin Trend (Figure 9.10).

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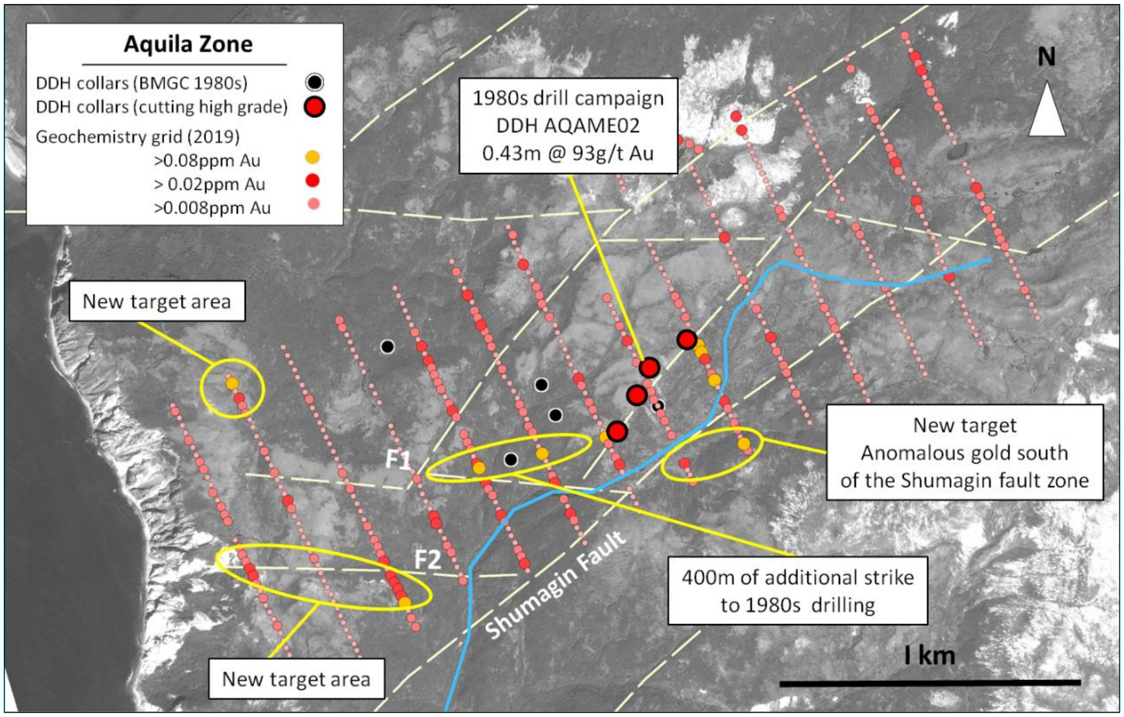
Figure 9.10 Geochemistry Results from the Aquila Zone, Shumagin Trend, Unga Island



The results of the ground magnetics survey reveal contrasts that are likely to be the product of lithological differences between hanging wall and footwall and/or hydrothermal alteration which is on the same structural trend as the SH-1 Zone. Also, of importance is an approximately 800m long magnetic low parallel to, and south of the Shumagin Fault which is coincident with a geochemical anomaly described above (Figure 9.10).

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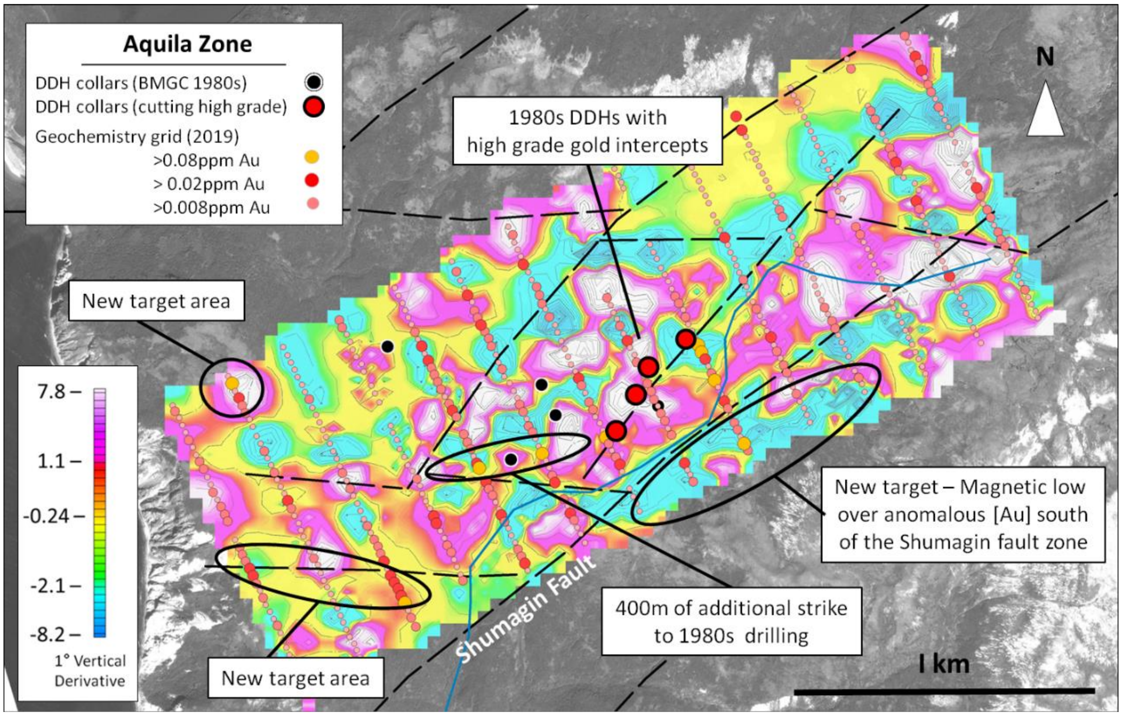
Figure 9.11 Magnetometry Results from the Aquila Zone, Shumagin Trend, Unga Island



Sitka 2019

The fieldwork undertaken in late 2019 tested for a possible easterly, on-strike extension of the previously mined Sitka vein using ionic leach geochemical and radiometric surveys across the projected structure. The surveys were conducted on a grid of four, 500m long, 340° oriented lines spaced 200m apart that straddle the known termination of the Sitka vein as projected to surface. The geochemical survey yielded assay results containing anomalous gold assay results that trace an east-west striking structure for 640m from the known vein at the Sitka mine (Figure 9.12). The radiometric survey results located south of this geochemical anomaly, parallel to the east-west strike, may confirm the south dipping attitude of the buried structure (Figure 9.13). In addition, the structural study noted that the overall strike of the NE striking Apollo-Sitka Trend deviates southwards at the Sitka mine site towards ENE which has been interpreted to have developed a dilatant flexure that was necessary to create the Sitka vein mineralization.

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Figure 9.12 Location of the historic Sitka mine, Apollo Sitka Trend, Unga Island

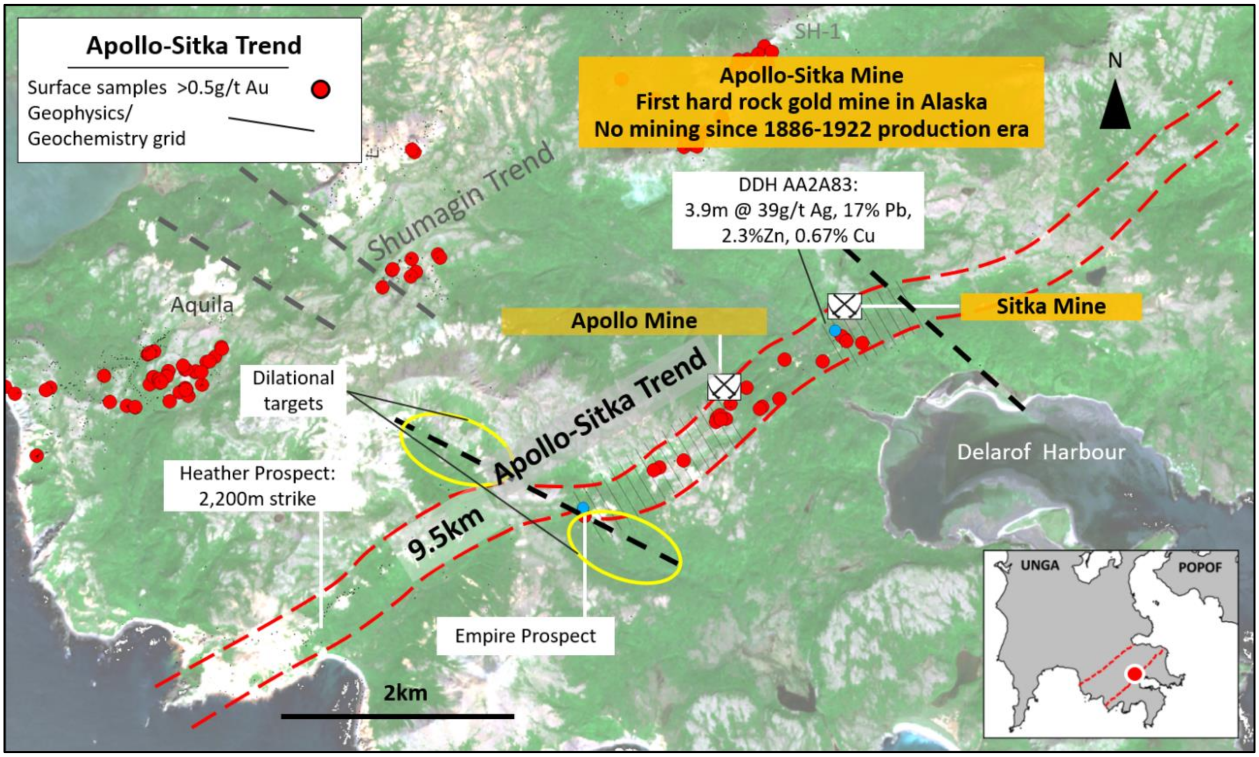

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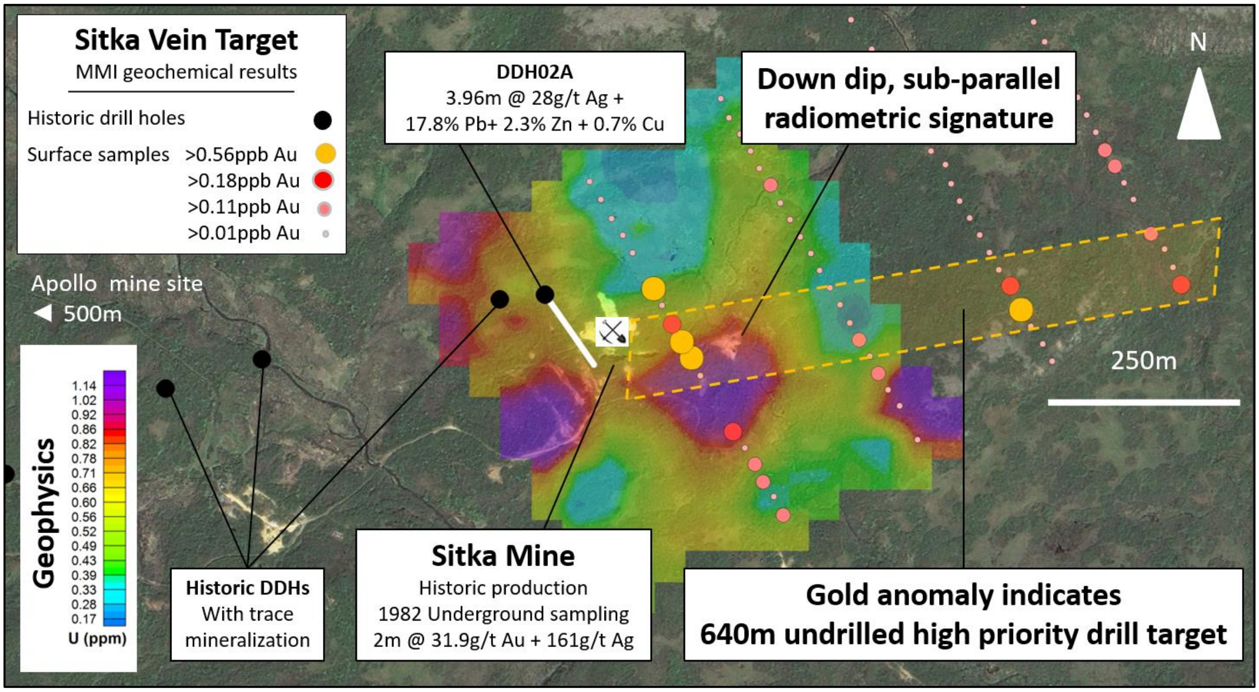
Figure 9.13 2019 Gold Geochemistry and Radiometrics of the Sitka vein



Sampling Methods and Sample Quality 2011 - 2017

The author has not reviewed the sampling methods, quality, and representativity of most of the surface sampling by Redstar at the Unga property because the authors were not able to witness any of the sampling, and the drilling that has been completed at most target areas is more relevant than the surface results to the conclusions summarized in this report. Also, the surface sampling results include numerous unmineralized samples that have not been discussed in the preceding sections of this report.

It is the authors' opinion that the surface samples collected by Redstar are adequate for designing further geochemical sampling, and for use in generating and evaluating potential targets for follow-up exploratory drilling.

10.0 DRILLING

Drilling at the Unga project has taken place from 1975 through 2017 and has been conducted by five historical operators and Redstar. As summarized in Table 10.1, a total of 30,344 meters have been drilled in 205 holes. All of the drilling has been done using diamond coring with wireline methods. Of the total, 72% of the holes and 69% of the meters were drilled at the Shumagin and

Centennial deposits. Except for two holes drilled in the Apollo-Sitka area, Redstar's drilling has been limited to the Shumagin deposit, accounting for 54% of the holes and 64% of the meters drilled at Shumagin.

Figure 10.1 shows the locations of drilling throughout the Unga project, on both Popof and Unga Islands. More detailed maps showing the locations of drill holes in the Apollo-Sitka and Shumagin areas are shown in Figure 10.2 and Figures 9.3, 9.4, 9.9, 10.3 and 10.4, respectively.

Historical Drilling

This section summarizes drilling carried out within the Unga project area by operators prior to the acquisition of the property by Redstar. Collar data for all of the historical drilling is summarized in Appendix B.

Peripheral Prospects 1975 - 1989

Zachary Bay 1975: The earliest drilling within the property was carried out by the Duval-Quintana joint venture in 1975 at the Zachary Bay prospect (Figure 6.1 and 10.1). Four vertical core holes were drilled for a total of 291 meters. Canadian Longyear was the drilling contractor and a Boyles Brothers S-1 core drill with helicopter support was used to recover AQ-size core. The best interval was found in hole DDH Z-1, which contained 100.3 meters mineralized with disseminated and veinlet chalcopyrite, and an average of 0.13% copper (Dirks and Richards, 1976). Two other holes contained as much as 3.05 meters at 0.102% copper, and the fourth hole was barren. In 1981, all of the Zachary Bay drill core was salvaged by RAA, re-logged, split and re-assayed on 3.05 meter intervals. All holes penetrated intrusive and/or extrusive rocks of intermediate composition with varying degrees of propylitic alteration (Trujillo et al., 1981). Based on the 1981 sampling and assays, hole DDH Z-1 was reported to average 0.110% copper and 0.28 g Au/t from the collar to the end of hole at 116.7 meters (Trujillo et al., 1981). A gold assay of 1.010 oz/ton at 140-150 feet in DDH Z-1, reported in Dirks and Richards (1976), was found to be a typographical error by Trujillo et al. (1981), based on RAA's assay of 0.01 oz Au/ton for the same interval. In 2011 or 2012, Redstar geologists re-examined the drill core and observed distinctive porphyry-style copper mineralization and potassic alteration in core from hole Z-1, including secondary biotite and magnetite.

Table10.1 Unga Project Drilling Summary

Year	Company	Area	Core Holes	Core (m)
		Peripheral Prospects		
1975	Duval - Quintana	Zachary Bay	4	291.0
1980 - 1981	RAA-UNC-Teton	Aquila	12	1,356.7
1981	RAA-UNC-Teton	Junior, Pook, Pray's vein	3	285.3
1983	RAA-UNC-Teton	Norm's vein	2	236.5
1983	RAA-UNC-Teton	Orange Mountain	3	747.7
1983	RAA-UNC-Teton	Pray's vein	2	103.3
1988	BMGC	Red Cove	1	207.3
1989	BMGC	Propalof	3	369.1
1989	BMGC	Red Cove	4	614.2
		Peripheral Prospects Totals	***34***	***4,211***
1988 - 1989	BMGC	***Centennial***	***60***	***5,739***
		Apollo - Sitka		
1983	AAGM	Apollo - Sitka	21	4,913
2017	Redstar	Apollo - Sitka	2	234
		Apollo - Sitka Totals	***23***	***5,147***
		Shumagin		
1983 - 1987	AAGM	Shumagin	23	2,825.2
1989	Ballatar	Shumagin	16	2,338.4
1990	BMGC	Shumagin	1	311.5
2011	Redstar	Shumagin	10	2,074.5
2015	Redstar	Shumagin	8	1,497.6
2016	Redstar	Shumagin	7	1,505.0
2017	Redstar	Shumagin	23	4,694.8
		Shumagin Totals	***88***	***15,247***
		All Areas	**205**	**30,344**

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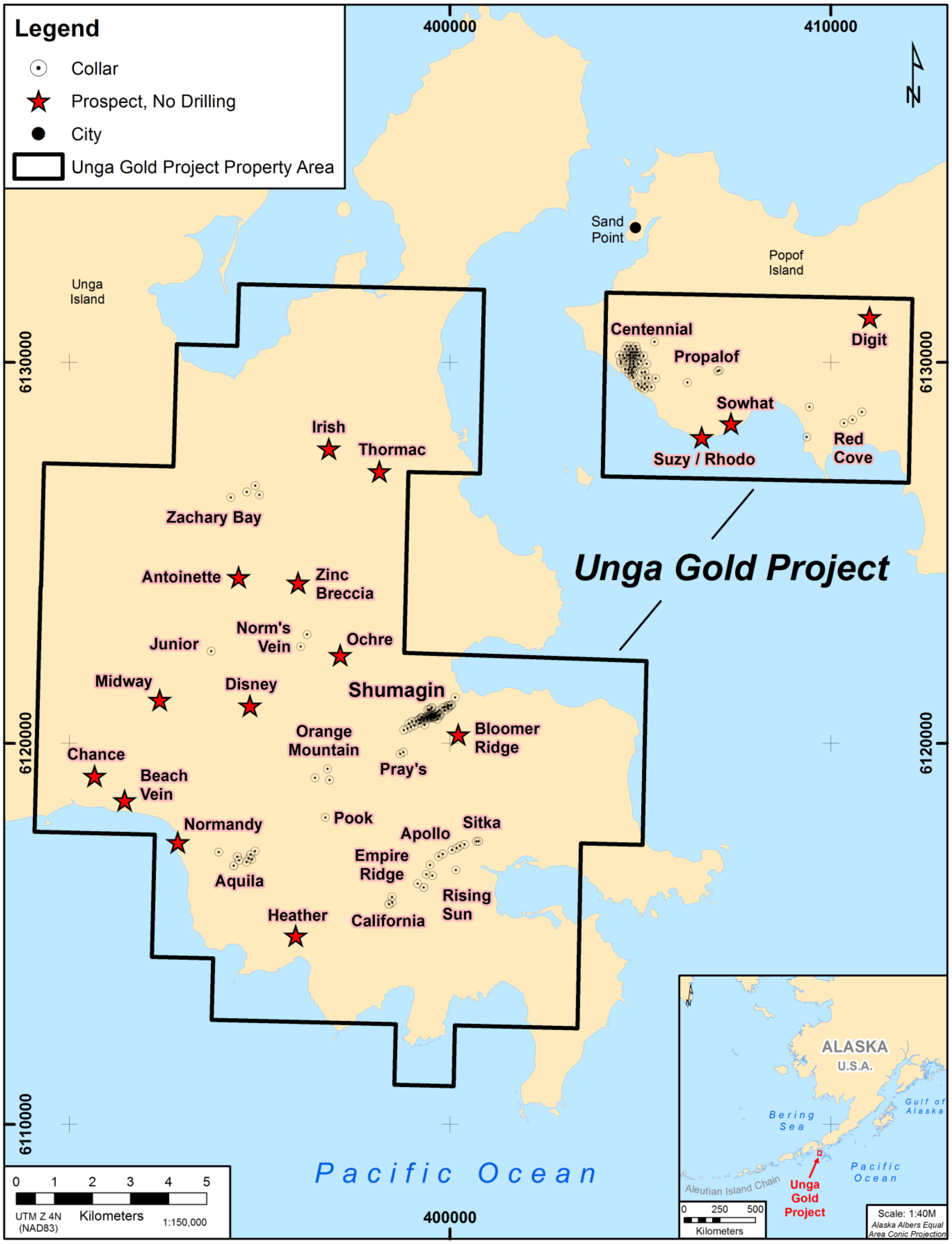
Figure 10.1 Summary Location Map for Unga Project Drilling



Aquila 1980 – 1981

A total of 12 core holes were drilled with helicopter support in various parts of the Aquila prospect, located approximately 6 kilometers southwest of the Shumagin area (Figure 6.1; Figure 7.4; Figure 7.13), by the joint venture of RAA and UNC-Teton ("RAA-UNC-Teton") in 1980 and 1981. The drilling totaled 1,356.7 meters. In 1980, three holes were drilled in the "Amethyst" zone and one hole was drilled in the "Origin" zone. The 1980 drilling was conducted by Wink Brothers Drilling of Juneau, Alaska, using a Super-Hydrawink drill to recover NQ-diameter core. A Longyear 38 drill was used to drill nine NQ-diameter core holes in 1981, but the author has no information on the drilling contractor. Three of the 1981 holes were drilled on the Amethyst vein, three were drilled on the Altair vein, and three holes were drilled on the Ankle Creek vein (Figure 7.13). All of the Aquila area holes were angled from -45° to -73° in dip. Reports by Andersen et al. (1980) and Trujillo et al. (1981) indicate that core recovery was poor in certain fault and fracture zones, and especially poor (<10%) in some gold-bearing intervals drilled in 1980.

The highest-grade interval at the Aquila prospect was an estimated true width of 0.43 meters of 109.7 g Au/t (1.4 feet of 3.2 oz Au/ton) in hole AQAME-2-80 from 48.3 to 48.8 meters (see Trujillo et al., 1981). The next highest-grade interval was in hole AQAME-1-80, with 5.2 meters of 5.55 g Au/t from 38.7 to 43.9 meters (Stevens, 2012; based on Trujillo et al., 1981). Several holes penetrated intervals of low-grade gold-silver mineralization.

Detailed descriptions of the down-hole geology and mineralization were given in the 1981 RAA project report (Trujillo et al., 1981). The 1980-1981 drilling and trenching tested a strike length of only about 425 meters of the quartz veins, within a total Aquila vein system strike length of about 4.8 kilometers, and most of the holes were designed to test the veins at only 30.5 to 61 meters below the surface. RAA recognized that the best results (the "Amethyst shoot") occurred at the intersection of the Amethyst and Ankle Creek veins, concluded that there was potential for the discovery of a commercial gold-silver deposit, and recommended that significant follow-up drilling and bull-dozer trenching be done.

Pook Prospect 1981

The Pook vein prospect, located on the Shumagin trend south of Orange Mountain and between the Aquila and Shumagin areas (Figure 6.1 and Figure 10.1), was drilled by the RAA-UNC-Teton joint venture in 1981. A single angled core hole with a total depth of 111.3 meters (Pook-1) was drilled using a helicopter-supported Longyear 38 core drill. NQ-size core was recovered, but MDA has no information on the drilling contractor.

Descriptions of the geology and mineralization at Pook were summarized in the RAA report by Trujillo et al. (1981). The 1981 drill hole showed the Pook vein zone dips steeply south, or is sub-vertical, and has been strongly sheared and brecciated by post-mineral fault displacement. Although core recovery was poor, the vein was found to consist of multiple individual quartz veins,

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or vein groups, as much as 2.1 meters in width. The best intervals consisted of 0.69 g Au/t from 80.8 to 83.2 meters, and 0.41 g Au/t from 83.8 to 85.3 meters. A silver grade of about 1.54 g Ag/t was reported for these intervals by Trujillo et al. (1981), who stated:

"This anomalous zone is not spread evenly along the full width of the wide vein zone, but rather is located near the footwall."

It is not clear if the reported vein and assay widths were true widths, or core lengths.

Junior Prospect 1981

A single angled core hole (JV-1-81) was drilled to a depth of 159.1 meters at the Junior prospect (Figure 6.1, Figure 7.16 and Figure 10.1), about 4.5 kilometers northwest of Orange Mountain, by the RAA-UNC-Teton joint venture in 1981. MDA assumes the hole was drilled with a helicopter-supported Longyear 38 core drill, as used elsewhere on Unga Island by the joint venture in 1981. Trujillo et al. (1981) reported:

"Drilling revealed a zone of locally silica flooded pyritic andesite with a core thickness of at least 200 feet. The zone contains numerous quartz-pyrite-zeolite veins and stringers, locally in stockwork proportions. Geochemical data from drill core shows only weakly detectable gold to 0.03 ppm and silver from weakly detectable to 2.7 ppm. ...Although results for gold and silver are not very encouraging, the Junior system on geological and mineralogical grounds has the potential to contain significant gold mineralization at depth."

Pray's Vein 1981 and 1983

The Pray's Vein prospect is located on the southern margin of the Shumagin trend between Orange Mountain and the Shumagin area (Figure 10.1). An attempt was made by the RAA-UNC-Teton joint venture in 1981 to drill an inclined core hole in a siliceous hill, but the hole was stopped at a depth of 14.9 meters due to slow penetration through a zone of what Trujillo et al. (1981) interpreted as hot-spring silica replacement. It is assumed the hole was drilled with a helicopter-supported Longyear 38 core drill, as used elsewhere on Unga Island by the joint venture in 1981.

The joint venture drilled a second inclined core hole in 1983 to a depth of 88.4 meters. Although records are incomplete, Boyles Brothers Drilling was the contractor for the 1983 drilling, which was done with a helicopter-supported Boyles 25 core rig. HC and NC core was recovered using wireline methods.

The best interval of the two holes was 1.5 meters at 0.315 g/ Au/t and 2.4 g Ag/t in hole PV-2-83, begining at 25.9 meters down the hole (Petersen et al., 1983a, 1983b). The relationship of interval length to true thickness of the mineralization is not known. No veins of significant width were penetrated, although both holes encountered silicified rocks with fractures filled with chalcedony and barite (Peterson et al., 1983a).

Norm’s Vein 1983

The RAA-UNC-Teton joint venture drilled two southeast-directed core holes at the Norm’s Vein prospect in 1983, approximately 4.0 kilometers northwest of the Shumagin deposit (Figure 6.1 and Figure 10.1). Boyles Brothers Drilling was the contractor. The holes were drilled with a helicopter-supported Boyles 25 core rig. HC and NC core was recovered using wireline methods.

Both holes penetrated a vein at approximately 50 to 60 meters down-dip from surface exposures of the vein (Peterson et al., 1983a). In the first hole, the vein interval returned 1.4 meters true width with an average of 0.37 g Au/t and 11 g Ag/t, beginning at 63.4 meters down the hole, accompanied by small amounts of sphalerite, galena, chalcopyrite and barite (Peterson et al., 1983b; corrected to drill log entries). In the second hole, silicified andesite tuff adjacent to the hanging wall margin of the vein assayed 0.31 g Au/t and 27.8 g Ag/t over 3.05 meters. The vein contained visible sphalerite, galena, chalcopyrite, pyrite and barite, but assayed only 0.155 g Au/t and 31.0 g Ag/t over 3.05 meters (Peterson et al., 1983b). The best gold assay from the second hole was from a silicified zone a few meters into the hanging wall of the vein, with 1.41 g Au/t and 4.5 g Ag/t over 0.6 meters, beginning at 62.8 meters down the hole. It is not clear if the reported vein and assay widths were true widths or core lengths.

Orange Mountain 1983

In 1983 the RAA-UNC-Teton joint venture drilled three core holes along the crest of Orange Mountain for a total of about 748 meters. Boyles Brothers Drilling was the contractor. The holes were drilled with a helicopter-supported Boyles 25 core rig. NC and BC diameter core was recovered using wireline methods.

Anomalous gold was intersected in holes OM-2-83 and OM-3-83. In hole OM-2-83, "gossanous" silica breccia from 238.7 meters to 240.2 meters averaged 0.405 g Au/t, with mercury elevated to >5 g Hg/t, low arsenic and low silver, copper, lead, and zinc (Peterson et al., 1983a; 1983b; corrected to drill log entries). Hole OM-3-83 intersected 0.34 g Au/t over 1.7 meters, accompanied by elevated mercury and arsenic (Peterson et al., 1983a; 1983b; corrected to drill log entries). There were four other narrow anomalous zones in the hole, with a high of 0.355 g Au/t over 1.5 meters. Hole OM-1-83 had no significant gold, but elevated mercury was present to 75 meters.

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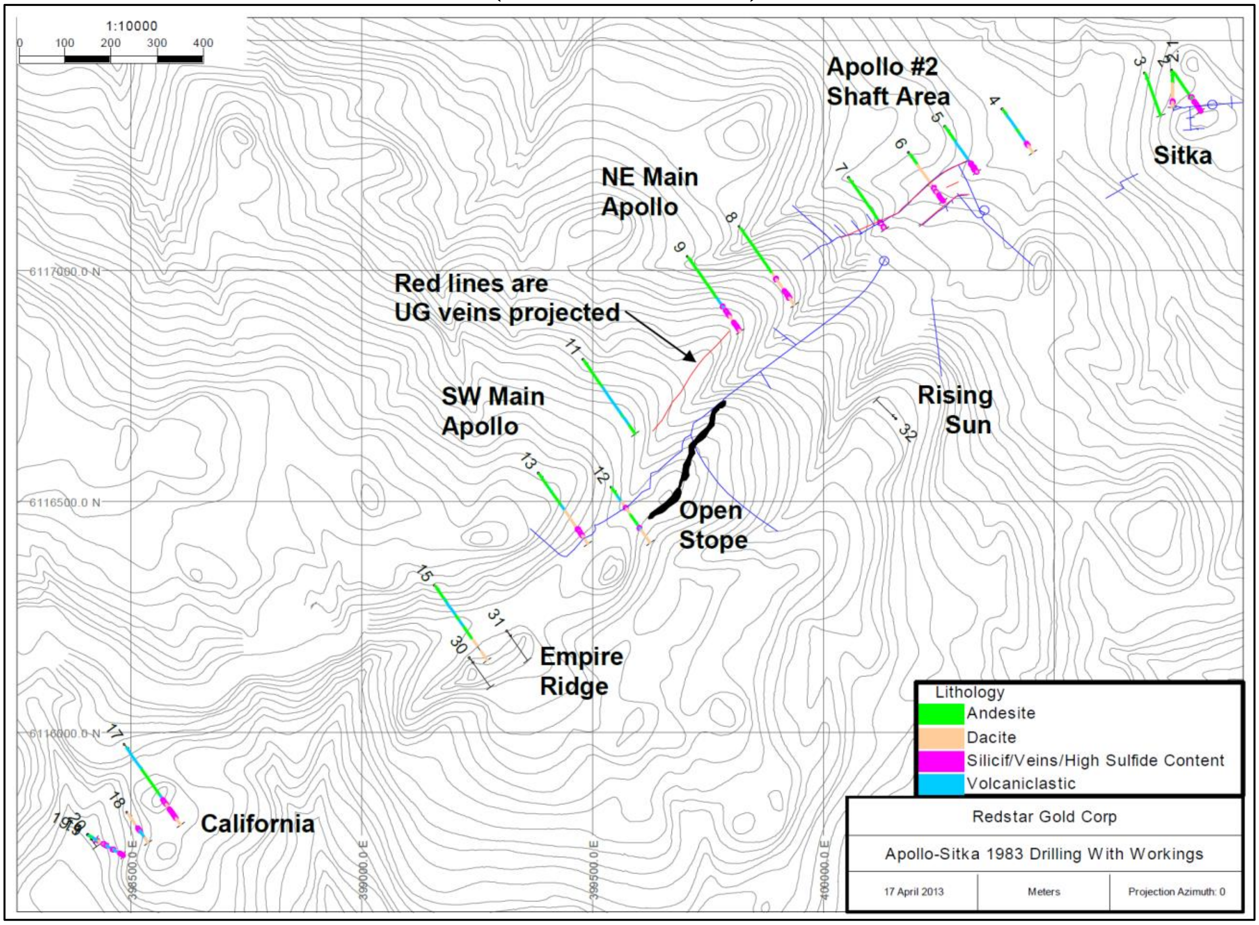
Apollo – Sitka 1983

Redstar's data files indicate that AAGM drilled a total of 4,913 meters in 21 inclined core holes spread out over a lateral distance of approximately 3.2 kilometers in the Apollo-Sitka trend in 1983. This differs slightly from the total of 20 holes reported by Bowdidge (1993). Apollo and Sitka area hole locations are shown in Figure 10.2. The author has no information on the drilling contractor, the type of core drill, the size(s) of core recovered, and the methods and procedures used for this drilling.

At the Apollo and Sitka mines, AAGM's drilling attempted to identify mineralization down-dip from the historic underground workings. Based on assay records, it appears that five of the holes were not sampled and assayed. Sixteen holes were only partially assayed, with sampling apparently focused on larger veins containing sulfides.

The best gold interval was from 14.0 to 14.9 meters in hole AS20, which assayed 1.7 g Au/t. Silver values of 17 to 93 g Ag/t were found in five holes over intervals of 0.3 to 1.2 meters, accompanied by copper, lead, and zinc in the range of 0.3 to 23.6%. The intervals stated above are drill intervals. True widths are estimated to be approximately 70 to 80% of the drill intervals. Intervals relevant for further exploration of the Apollo-Sitka trend are listed in Table 10.2.

Figure 10.2 Historical Drill-Hole Map for the Apollo – Sitka Area
(from Redstar, 2013)



Note: hole numbers shown at collars; 500 meter grid for scale; north is up.

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Table 10.2 Apollo – Sitka Area Historical Drill Intervals of Interest
(nd = no data; lead, zinc and copper listed only where their sum is ≥0.25%)

DH ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Pb %	Zn %	Cu %
AS02	131.4	133.2	1.8	0.010	7.31	0.95	1.93	0.39
AS02A	104.9	108.8	4.0	0.018	31.21	12.53	1.83	0.56
AS04	197.8	198.1	0.3	0.010	n.a.	0.44	0.63	n.a.
AS06	226.5	230.7	4.3	0.034	n.a.	0.34	0.16	n.a.
AS07	232.4	233.2	0.8	0.010	n.a.	0.26	0.11	0.24
and	234.7	238.4	3.7	0.010	n.a.	0.28	0.49	0.14
and	257.0	261.8	4.9	0.012	2.89	1.25	1.20	0.13
including	257.6	257.9	0.3	0.100	46.97	17.60	14.00	0.74
AS08	274.6	275.2	0.6	0.034	n.a.	0.96	0.86	n.a.
and	356.3	357.5	1.2	0.069	13.03	n.a.	n.a.	n.a.
and	358.8	360.7	2.0	0.034	0.99	0.28	0.13	0.07
and	362.0	362.4	0.5	0.240	45.94	0.30	0.30	0.05
and	363.6	364.9	1.2	0.034	n.a.	0.08	0.14	n.a.
and	367.3	372.2	4.9	0.051	n.a.	0.30	0.41	0.06
and	373.1	375.8	2.7	0.019	n.a.	0.16	0.28	n.a.
AS09	262.0	262.3	0.3	0.034	10.29	0.70	1.36	0.84
and	364.7	367.9	3.2	0.034	n.a.	0.28	0.19	0.08
and	368.2	376.7	8.5	0.047	n.a.	0.26	0.19	0.07
and	382.5	383.7	1.2	0.034	n.a.	0.16	0.18	n.a.
and	386.2	389.8	3.7	0.069	n.a.	0.19	0.23	n.a.
AS12	84.1	85.3	1.2	0.343	92.57	0.40	0.32	n.a.
and	85.7	86.9	1.2	0.137	40.46	0.22	0.14	n.a.
AS15	324.0	324.6	0.6	0.034	20.57	4.00	3.10	0.70
and	330.1	331.6	1.5	0.034	n.a.	0.10	0.30	n.a.
and	332.8	333.8	0.9	0.034	n.a.	n.a.	0.44	n.a.
AS19	34.8	35.7	0.9	0.230	n.a.	n.a.	n.a.	n.a.
AS20	11.3	14.9	3.7	0.555	n.a.	n.a.	n.a.	n.a.
including	14.0	14.9	0.9	1.700	n.a.	n.a.	n.a.	n.a.
and	25.9	27.4	1.5	0.380	n.a.	n.a.	n.a.	n.a.
and	32.0	33.8	1.8	0.120	n.a.	n.a.	n.a.	n.a.
and	42.4	43.9	1.5	0.240	n.a.	n.a.	n.a.	n.a.

Note: Relation of reported intervals to true thickness not known. n.a. = no assays. Some gold assays were originally reported to AAGM in ounces per ton and were later converted to grams per tonne. It is unclear if gold assays of 0.034 g/t were originally reported as 0.001 oz. Au/ton, or <0.001 oz. Au/ton.

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Shumagin 1983 - 1990

Alaska Apollo Gold Mines: The first holes at the Shumagin vein prospect were drilled by AAGM in 1983. During 1983 and 1987, AAGM drilled a total of 2,825 meters in 23 core holes at the Shumagin prospect as shown in Figure 10.3. All of the drill holes were inclined. MDA has no information on the drilling contractor, the type of core drill utilized, and the methods and procedures used for this drilling. During the 1987 phase of drilling, all core was NX diameter except for the bottom 41 meters of DDH42, which was reduced to BX diameter.

According to Schippers (1985), in 1985 AAGM also drilled 44 shallow air-track percussion holes at Shumagin for a total of 557 meters. A Joy ECM-350 air-track drill was used, but the author has no information on the diameter and type of bits used, the drilling contractor, or the methods and procedures used for drilling and sampling. The author is also unaware of any documentation of assays from the 1985 air-track holes.

All but one of the AAGM core holes penetrated the composite Shumagin vein and breccia, which occupy the Shumagin fault, down-dip from mineralized surface outcrops. In addition to major vein and breccia intercepts, some highly mineralized and others barren or nearly barren, the 1983 drilling began to elucidate the stratigraphy of the hanging wall sequence southeast of the Shumagin fault. The third hole (DDH23) can be considered a discovery hole with 19.54 g Au/t and 64.8 g Ag/t over 5.2 meters, including 61.7 g Au/t and 192 g Ag/t over 1.5 meters from 95.7 to 97.2 meters down hole. The highest grade interval was in in hole DDH35 with 192.62 g Au/t and 5,403 g Ag/t from 77.3 to 77.9 meters down hole. Significant drilling intercepts and intervals of interest for further exploration are listed in Table 10.3.

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Figure 10.3 Map of Historical Shumagin Drilling 1983 - 1990

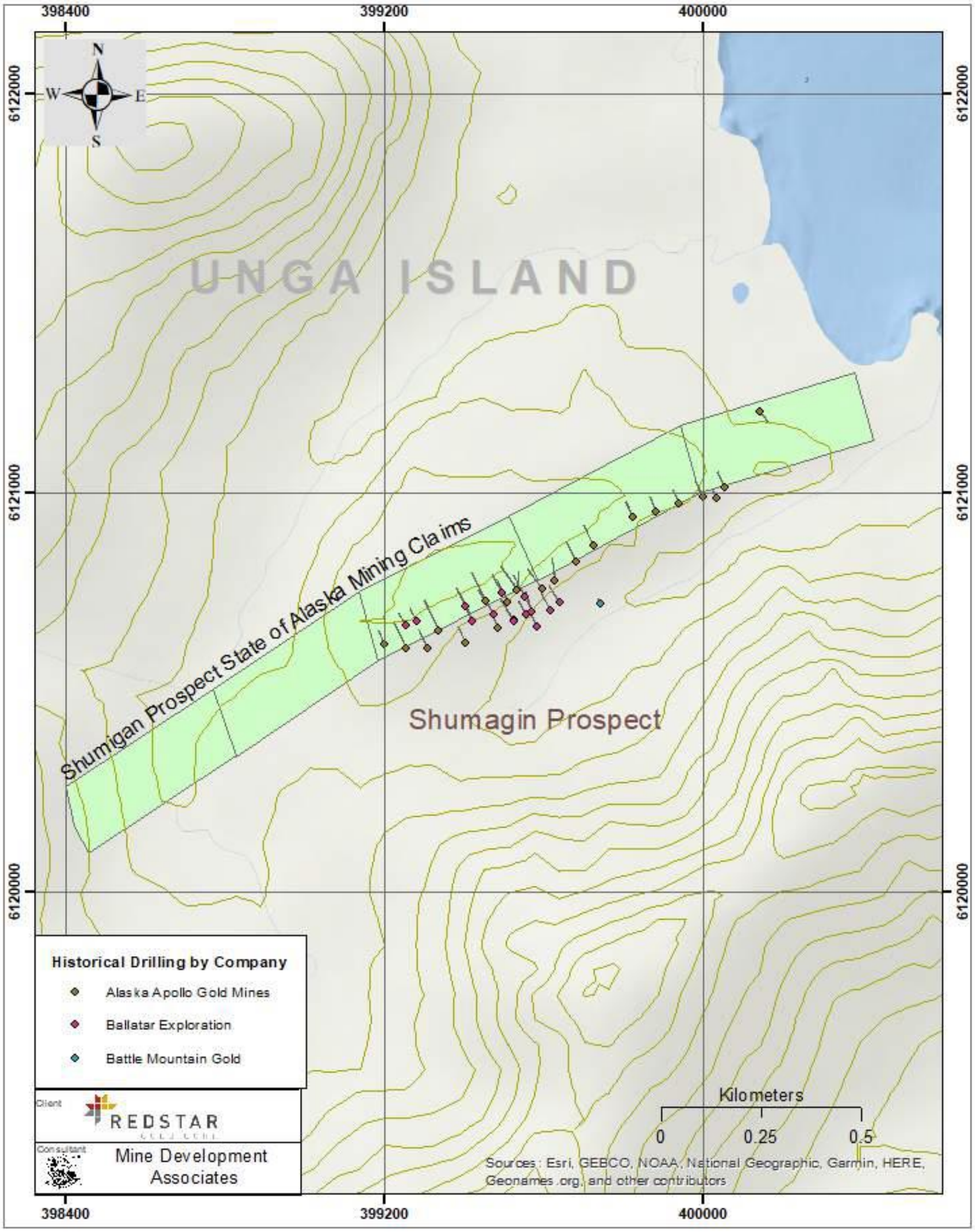

Table 10.3 Alaska Apollo Gold Mines 1983 and 1987 Shumagin Drill Intervals of Interest

(n.a. = no assay; lead, zinc and copper listed only where their sum is ≥0.25%)

Alaska Apollo Gold Mines 1983, 1987								
Hole ID	From_m	To_m	Int. (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
DDH21	29.0	30.5	1.5	0.03	5.5	0.11	0.10	0.28
and	38.1	39.6	1.5	0.75	5.5	0.01	0.12	0.12
DDH22	45.1	47.2	2.1	0.75	16.5	0.05	0.20	0.14
DDH23	71.5	75.9	4.4	0.52	12.0	0.15	0.46	0.37
and	78.9	82.0	3.0	0.03	7.9	0.04	0.62	0.62
and	89.3	91.4	2.1	1.87	6.3	n.a.	n.a.	n.a.
and	93.6	98.8	5.2	19.54	64.8	n.a.	n.a.	n.a.
including	95.7	97.2	1.5	61.71	192.0	n.a.	n.a.	n.a.
DDH24	73.8	76.8	3.0	0.10	4.5	0.08	0.15	0.20
and	83.2	86.6	3.3	0.20	9.8	0.05	0.17	0.23
and	87.8	89.0	1.2	0.75	3.4	0.01	0.10	0.18
and	94.5	106.1	11.6	0.83	7.3	n.a.	n.a.	n.a.
DDH25	72.2	75.1	2.9	0.03	3.2	0.07	0.10	0.26
and	86.4	88.7	2.3	1.59	4.8	n.a.	n.a.	n.a.
DDH26	49.1	49.8	0.8	37.71	20.6	n.a.	n.a.	n.a.
and	65.8	66.3	0.5	4.73	3.4	n.a.	n.a.	n.a.
and	67.2	68.6	1.4	1.16	2.7	n.a.	n.a.	n.a.
and	69.5	71.9	2.4	0.43	3.1	n.a.	n.a.	n.a.
and	72.8	74.1	1.2	0.82	3.4	n.a.	n.a.	n.a.
and	77.7	78.9	1.2	11.49	15.1	n.a.	n.a.	n.a.
and	80.2	84.0	3.8	0.04	6.4	0.11	0.16	0.29
DDH27	24.1	25.6	1.5	0.03	26.1	2.04	0.62	1.66
and	26.4	27.0	0.6	0.07	11.7	0.32	0.36	0.82
and	29.9	32.9	3.0	0.09	10.8	0.76	0.44	0.35
and	39.9	41.8	1.8	3.91	7.3	0.03	0.09	0.20
DDH28	38.1	38.5	0.4	0.55	9.6	0.02	0.08	0.24
and	40.5	40.9	0.4	0.51	2.1	0.06	0.14	1.00
and	41.5	42.4	0.9	5.14	15.8	0.05	0.10	0.16
and	42.4	50.0	7.6	5.24	26.6	n.a.	n.a.	n.a.
including	44.8	48.2	3.3	10.30	44.0	n.a.	n.a.	n.a.
and	50.0	51.2	1.2	2.67	17.1	0.04	0.12	0.12
and	52.4	57.0	4.6	3.45	34.6	0.04	0.12	0.15
including	53.3	54.6	1.2	1.65	68.6	0.07	0.14	0.22
also	55.9	56.7	0.8	10.97	29.5	0.04	0.18	0.20

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Alaska Apollo Gold Mines 1983, 1987								
Hole ID	From_m	To_m	Int. (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
DDH30	54.9	57.9	3.0	2.02	4.7	n.a.	n.a.	n.a.
and	58.4	60.7	2.3	0.46	4.3	n.a.	n.a.	n.a.
DDH31	73.8	74.7	0.9	1.65	5.8	n.a.	n.a.	n.a.
DDH32	35.2	35.7	0.5	0.03	1,446.9	n.a.	n.a.	n.a.
DDH34	59.1	60.3	1.2	10.63	163.2	n.a.	n.a.	n.a.
and	78.8	81.7	2.9	9.42	19.1	n.a.	n.a.	n.a.
including	80.8	81.7	0.9	17.66	25.4	n.a.	n.a.	n.a.
and	83.2	84.6	1.4	3.77	9.6	n.a.	n.a.	n.a.
DDH35	77.3	78.2	0.9	129.41	3,628.2	n.a.	n.a.	n.a.
including	77.3	77.9	0.6	192.62	5,403.4	n.a.	n.a.	n.a.
and	87.9	88.7	0.8	3.60	72.7	n.a.	n.a.	n.a.
and	106.8	110.3	3.5	1.04	9.1	n.a.	n.a.	n.a.
DDH37	85.3	89.9	4.6	1.48	21.6	n.a.	n.a.	n.a.
DDH38	69.9	72.2	2.3	1.39	4.1	n.a.	n.a.	n.a.
DDH39	175.7	178.3	2.6	3.29	5.2	n.a.	n.a.	n.a.
and	179.4	182.6	3.2	0.57	13.4	n.a.	n.a.	n.a.
DDH41	184.4	185.0	0.6	1.30	2.1	n.a.	n.a.	n.a.
DDH42	124.2	126.2	2.0	5.97	65.2	n.a.	n.a.	n.a.
and	128.6	136.9	8.2	15.80	18.8	n.a.	n.a.	n.a.
including	135.6	136.9	1.2	22.32	22.6	n.a.	n.a.	n.a.
and	145.7	146.9	1.2	1.05	1.4	n.a.	n.a.	n.a.
and	168.3	175.6	7.3	0.95	2.0	n.a.	n.a.	n.a.
including	169.6	170.1	0.5	6.27	2.1	n.a.	n.a.	n.a.

Note: Some gold assays were originally reported to AAGM in ounces per ton and were later converted to grams per tonne. Relation of reported intervals to true thickness not known.

Taken together, the 1983 and 1987 drilling indicated the presence of a multi-stage, epithermal gold-silver vein and stockwork-breccia system of potential economic interest with extents of at least 400 meters laterally, 200 meters down dip, and up to several meters in true thickness. Variable amounts of base metals were found as well, in many cases in the range of 0.1 to 2% combined copper, lead, and zinc, but intervals with high-grade gold-silver mineralization are generally low in base metals.

Ballatar: During 1989, Ballatar drilled a total of 2,338 meters in 16 core holes at the Shumagin prospect in efforts to expand the higher-grade portions of the vein system. The author has no information on the drilling contractor, type of drill, or core size recovered.

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Ballatar's drilling infilled the AAGM drilling and expanded the Shumagin vein system laterally. Significant drilling intercepts and intervals of interest for further exploration are listed in Table 10.4. The best intervals were in hole DDH46 with 43.58 g Au/t and 25.8 g Ag/t over 10.4 meters, including 1.2 meters with 365.35 g Au/t and 190.6 g Ag/t. It is not known if the reported intervals are for true widths, or for sampled core lengths. Most of Ballatar's core was not assayed for copper, lead, and zinc.

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Table 10.4 Ballatar 1989 Drill Intervals of Interest

Ballatar 1989								
Hole ID	From_m	To_m	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %
DDH44	134.7	140.5	5.8	6.75	35.4	n.a.	n.a.	n.a.
including	137.5	138.2	0.8	30.27	206.4	n.a.	n.a.	n.a.
and	147.4	148.4	1.1	4.01	12.0	n.a.	n.a.	n.a.
DDH46	145.7	147.7	2.0	1.37	4.1	n.a.	n.a.	n.a.
and	151.5	161.9	10.4	43.58	25.8	n.a.	n.a.	n.a.
including	153.6	154.8	1.2	365.35	190.6	n.a.	n.a.	n.a.
DDH47	46.5	48.3	1.8	5.62	4.1	n.a.	n.a.	n.a.
and	191.4	197.2	5.8	0.63	2.6	n.a.	n.a.	n.a.
DDH48	130.1	131.5	1.4	0.89	4.5	n.a.	n.a.	n.a.
and	164.6	169.5	4.9	0.55	6.5	n.a.	n.a.	n.a.
and	170.2	171.1	0.9	2.37	3.8	n.a.	n.a.	n.a.
DDH49	123.4	130.0	6.6	2.23	29.3	n.a.	n.a.	n.a.
including	126.9	128.2	1.2	2.09	17.1	n.a.	2.26	0.64
and	135.9	148.6	12.6	3.81	5.7	n.a.	n.a.	n.a.
including	140.5	142.0	1.5	16.70	13.7	n.a.	n.a.	n.a.
DDH50	162.6	164.9	2.3	0.51	6.5	n.a.	n.a.	n.a.
and	166.1	173.6	7.5	2.91	2.0	n.a.	n.a.	n.a.
including	168.9	169.9	1.1	15.26	9.3	n.a.	0.27	0.60
and	175.0	187.0	12.0	1.33	1.7	n.a.	n.a.	n.a.
including	184.4	187.0	2.6	4.46	2.1	n.a.	n.a.	n.a.
and	188.4	190.5	2.1	8.23	8.2	n.a.	n.a.	n.a.
DDH51	132.7	134.6	1.8	0.69	3.8	n.a.	n.a.	n.a.
and	135.9	138.4	2.4	0.55	2.1	n.a.	n.a.	n.a.
and	148.1	153.2	5.0	0.79	2.6	n.a.	n.a.	n.a.
and	156.1	156.7	0.6	182.02	88.5	n.a.	n.a.	n.a.
DDH52	78.8	84.6	5.8	0.41	3.3	n.a.	n.a.	n.a.
and	97.1	99.2	2.1	0.62	3.1	n.a.	n.a.	n.a.
and	99.2	103.2	4.0	6.03	22.7	n.a.	n.a.	n.a.
DDH53	69.2	69.5	0.3	3.57	9.9	n.a.	n.a.	n.a.
and	77.4	77.9	0.5	3.43	4.8	n.a.	n.a.	n.a.
and	79.3	82.0	2.7	1.51	5.8	n.a.	n.a.	n.a.
and	88.7	91.6	2.9	1.90	6.5	n.a.	n.a.	n.a.
and	92.7	115.1	22.4	1.38	9.9	n.a.	n.a.	n.a.
DDH54	101.3	104.4	3.0	2.10	10.7	n.a.	n.a.	n.a.
and	106.4	109.7	3.4	4.44	17.9	n.a.	n.a.	n.a.
and	113.7	121.9	8.2	0.56	7.0	n.a.	n.a.	n.a.
and	132.6	136.9	4.3	0.40	2.3	n.a.	n.a.	n.a.
DDH55	96.8	99.1	2.3	1.54	1.7	n.a.	n.a.	n.a.
and	100.1	100.7	0.6	0.55	1.7	n.a.	n.a.	n.a.
and	101.8	109.1	7.3	2.24	2.3	n.a.	n.a.	n.a.
and	111.3	120.7	9.4	0.78	4.7	n.a.	n.a.	n.a.
and	138.8	141.6	2.7	0.45	3.8	n.a.	n.a.	n.a.
DDH56	38.7	66.0	27.3	1.27	6.1	n.a.	n.a.	n.a.
including	41.2	42.7	1.5	4.11	63.8	n.a.	n.a.	n.a.
DDH57	36.0	41.3	5.3	20.10	20.8	n.a.	n.a.	n.a.
including	38.1	39.6	1.5	59.59	50.1	n.a.	n.a.	n.a.
DDH58	37.6	38.4	0.8	15.77	65.5	n.a.	n.a.	n.a.
DDH59	40.4	42.4	2.0	5.28	30.5	n.a.	n.a.	n.a.

Note: n.a. = no assay; lead, zinc and copper listed only where their sum is ≥0.25%. Relation of reported intervals to true thickness is not known.

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Battle Mountain Gold: BMGC drilled a single core hole at the Shumagin prospect in 1990. The author has no information on the drilling contractor, the type of core drill, the size(s) of core recovered, and the methods and procedures used for this drilling.

Hole BM-01 penetrated the Shumagin vein system 250 meters below the surface, at an elevation of approximately 220 meters below sea level. This intercept was located 100 meters down-dip from the deepest previous drilling of the vein system, and more than 150 meters down-dip from the rest of the prior drilling. Drill intervals of interest are listed in Table 10.5.

Table 10.5 Battle Mountain Gold 1990 Drill Intervals of Interest

Battle Mountain Gold 1990								
Hole ID	**From_m**	**To_m**	**Int (m)**	**Au g/t**	**Ag g/t**	**Cu %**	**Pb %**	**Zn %**
BM-01	272.8	278.3	5.5	23.99	19.3	n.a.	n.a.	n.a.
including	272.8	275.8	3.0	41.04	31.5	n.a.	n.a.	n.a.

Note: n.a. = no assay; lead, zinc and copper listed only where their sum is ≥0.25%. Relation of reported intervals to true thickness is not known.

Drilling by Redstar

Redstar carried out drilling at the Shumagin prospect in 2011, 2015, 2016, and 2017 for a total of 9,772 meters drilled in 48 core holes. Locations of the Redstar drill holes during this period are shown in Figure 10.4 and the collar information is summarized in Appendix C.

Peak Drilling Ltd. ("Peak") of Courtenay, British Columbia performed the drilling in 2011, 2015, and 2016. MDA has not reviewed records of what type of drill was used by Peak, or the exact drilling methods and procedures used, other than Peak recovered NQ-diameter core in 2016. The 2017 drilling was performed by Yukuskokon Professional Services ("YPS"). HQ- and NQ-diameter core was recovered, but the author has no information on the type of core drill used by YPS.

2011 Drilling, Shumagin Prospect

Ten angled core holes were drilled by Redstar in 2011. The 2011 drilling confirmed the continuity of high-grade gold-silver mineralization down dip from historical drilling, indicated the presence of wider zones of gold-silver mineralization around the core high-grade veins, and expanded the lateral extent of strong gold-silver vein mineralization to at least 800 meters in strike length. Drill hole 11SH010 contained one of the highest gold grades intersected on the property, with an interval of 0.55 meters that assayed 738 g Au/t and 408 g Ag/t. The epithermal gold-silver vein mineralization was found within steeply-dipping quartz-carbonate veins and breccias at the faulted contact between andesite flows and hanging-wall crystal-lithic tuff. A list of other Redstar mineralized intervals is presented in Table 10.6.

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Figure 10.4 Map of Redstar Drill Holes 2011 - 2017, Shumagin Prospect

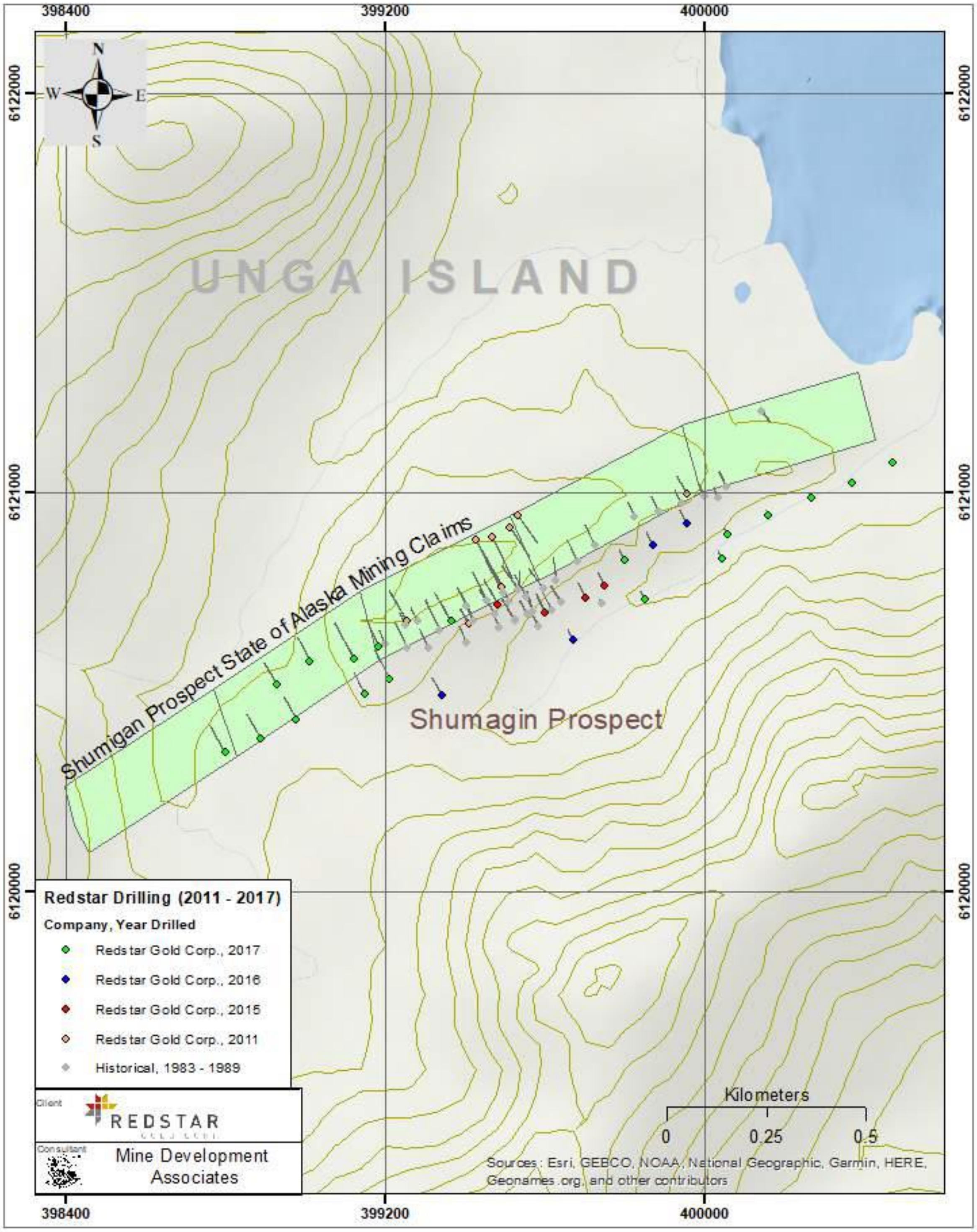

Table 10.6 Shumagin Mineralized Drill Intervals from 2011 – 2017 Redstar Drilling

(True widths estimated at 70-80% of reported core lengths)

Hole ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	CuPbZn%
11SH001	9.0	14.0	5.0	0.02	5.5	0.12	0.16	0.03	0.31
and	21.3	25.0	3.7	4.14	9.4				
including	22.4	23.0	0.6	16.75	20.2				
and	69.1	69.8	0.7	1.50	4.8				
and	91.2	93.0	1.8	0.04	2.9	0.01	0.09	0.20	0.30
11SH002	32.0	35.6	3.5	0.45	2.9				
and	38.0	40.8	2.8	0.64	3.1				
11SH003	28.0	31.1	3.1	1.85	16.8	0.06	0.13	0.23	0.41
11SH005	115.1	116.5	1.4	0.89	2.3				
and	129.6	130.6	1.0	0.90	3.2				
and	179.4	180.4	1.0	0.05	3.9	0.03	0.21	0.47	0.71
and	187.3	187.9	0.6	0.02	1.6	0.02	0.19	0.64	0.84
11SH006	122.7	123.4	0.7	1.30	6.3				
and	171.5	193.6	22.1	1.42	9.3	0.08	0.12	0.22	0.42
including	173.7	175.1	1.3	5.38	9.8				
also including	179.6	180.0	0.4	9.56	9.2				
and	207.1	207.5	0.4	0.01	26.8	1.97	0.06	0.07	2.10
11SH007	132.3	133.0	0.7	0.77	3.6	0.03	0.21	0.36	0.60
and	139.4	140.4	1.0	0.12	3.8	0.03	0.09	0.26	0.39
and	223.0	244.0	21.0	4.02	5.4				
including	223.0	224.0	1.0	43.90	18.5				
also including	239.5	239.9	0.4	15.35	20.0				
also including	240.4	240.9	0.5	16.60	13.5				
and	250.8	253.0	2.2	0.62	2.8				
and	264.0	271.3	7.3	0.52	4.1				
and	275.6	278.0	2.4	0.15	3.1	0.01	0.14	0.18	0.34
11SH008	139.2	140.5	1.3	1.78	12.1				
and	174.9	177.0	2.1	0.31	7.7	0.03	0.39	0.48	0.91
and	180.3	182.2	1.9	1.30	6.8	0.02	0.13	0.19	0.34
including	180.3	180.8	0.5	4.26	4.8	0.03	0.21	0.24	0.47
11SH009	88.1	90.0	1.9	1.87	0.8				
and	194.0	199.4	5.4	0.99	4.5				

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Hole ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	CuPbZn%
and	202.0	215.0	13.0	4.19	6.1				
including	210.1	211.0	0.9	43.10	37.2				
and	217.6	224.0	6.4	0.57	8.6				
and	231.0	233.0	2.0	1.26	4.4				
and	251.0	255.9	4.9	1.72	2.5				
including	254.0	255.0	1.0	6.67	5.5				
and	274.0	275.4	1.4	2.85	3.6				
11SH010	137.0	138.1	1.1	0.03	2.8	0.03	0.10	0.21	0.34
and	231.3	249.0	17.8	2.02	4.8				
including	237.0	238.0	1.0	5.28	9.1				
and	259.3	260.9	1.6	246.41	136.8				
including	259.3	259.8	0.5	738.00	408.0				
15SH011	50.0	52.0	2.0	1.15	44.7	0.06	0.21	0.31	0.58
and	58.0	75.0	17.0	23.90	14.1				
including	60.1	62.0	1.9	202.00	82.0				
also including	69.0	75.0	6.0	1.34	7.6	0.09	0.11	0.14	0.34
and	77.0	81.7	4.7	1.03	4.0				
and	95.3	100.2	4.9	0.35	12.4				
15SH012	58.0	73.2	15.2	5.93	40.3				
including	64.0	65.0	1.0	59.10	300.0				
also including	65.0	66.0	1.0	11.40	118.0				
and	78.3	91.5	13.2	12.08	77.3				
including	82.0	91.5	9.5	16.14	101.2	0.22	0.33	0.32	0.87
which includes	82.0	83.0	1.0	23.40	195.0	0.09	0.42	0.23	0.73
and	84.0	85.0	1.0	24.30	313.0	0.11	0.61	0.33	1.05
and	89.0	89.7	0.7	133.00	422.0	0.08	0.32	0.45	0.85
also	96.0	100.3	4.3	0.56	3.3				
and	104.3	112.1	7.8	0.63	3.8				
including	107.0	107.6	0.6	4.68	6.9				
15SH013	125.0	127.0	2.0	0.03	1.9	0.00	0.07	0.35	0.42
and	143.0	154.0	11.0	4.89	37.2				
including	144.0	147.0	3.0	14.69	120.7				
and	156.0	157.0	1.0	0.94	5.8				
15SH014	185.0	194.0	9.0	3.72	4.5				

Hole ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	CuPbZn%
including	187.0	188.0	1.0	19.90	16.0				
15SH015	172.0	173.0	1.0	1.50	1.8				
and	181.7	185.9	4.2	0.74	3.6				
15SH016	203.0	206.0	3.0	0.71	6.4				
and	207.0	208.7	1.7	0.50	2.0				
and	216.3	219.7	3.4	1.28	3.8				
including	216.3	216.9	0.6	4.04	5.0				
15SH017	182.0	183.0	1.0	1.13	1.9				
and	194.0	195.1	1.1	0.95	0.3				
15SH018	195.0	197.0	2.0	21.27	66.3				
including	196.0	197.0	1.0	41.20	130.0				
and	199.0	202.0	3.0	2.18	3.9				
and	210.0	212.8	2.8	1.78	4.8				
including	211.8	212.8	1.0	2.43	9.3	0.11	0.31	0.80	1.22
16SH019	221.8	222.2	0.4	1.01	1.2				
and	256.0	257.6	1.6	3.76	7.8				
including	256.0	256.6	0.6	9.25	17.1				
and	260.6	261.2	0.6	1.55	3.2				
and	263.3	265.5	2.2	6.34	1.9				
including	264.6	265.5	0.9	14.95	2.7				
and	267.1	269.1	2.0	2.97	5.9				
and	307.8	308.1	0.3	0.09	20.4	0.09	0.99	1.30	2.38
16SH020	268.4	277.9	9.5	2.45	12.5				
including	270.5	271.6	1.1	11.30	72.9				
and	283.0	286.5	3.5	0.75	2.7				
16SH021	135.2	136.0	0.8	3.52	24.8				
and	142.0	144.8	2.8	0.57	4.1				
and	144.8	145.9	1.1	0.06	6.1	0.12	0.57	1.34	2.03
16SH022	149.1	151.1	2.0	1.76	3.3				
and	156.5	158.0	1.5	16.98	13.1	0.13	0.48	0.47	1.08
and	160.0	163.5	3.5	0.94	2.6	0.02	0.07	0.17	0.26
and	165.7	169.7	4.0	0.14	3.4	0.03	0.18	0.35	0.56
16SH023	132.5	136.3	3.8	0.48	7.5				
and	190.2	195.6	5.4	2.48	4.2				
including	192.4	192.7	0.3	34.50	16.5	0.03	0.08	0.17	0.28
and	195.6	197.0	1.4	0.05	3.9	0.04	0.30	0.63	0.98

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Hole ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	CuPbZn%
16SH024	147.4	150.9	3.5	3.36	6.3				
including	149.1	150.0	0.9	11.65	16.3				
16SH025	127.5	131.5	4.0	0.03	2.0	0.04	0.08	0.16	0.27
and	136.4	137.4	1.0	0.24	12.1	0.11	0.16	0.29	0.56
and	163.1	164.0	0.9	0.58	4.6	0.03	0.24	0.41	0.68
17SH027	142.3	143.3	1.0	0.43	28.5	0.03	0.31	0.26	0.59
17SH028	84.0	85.3	1.3	0.88	1.8				
17SH032	92.2	94.5	2.3	0.04	0.4	0.57	0.00	0.01	0.58
and	200.1	202.2	2.1	1.07	26.8				
17SH033	78.3	79.0	0.7	5.69	30.0	0.07	0.02	0.22	0.31
and	82.0	82.7	0.7	0.97	1.8				
and	92.6	95.5	2.9	0.46	3.2				
and	100.6	102.4	1.8	1.15	13.2				
17SH034	105.0	108.0	3.0	1.07	0.5				
and	120.0	125.4	5.4	4.43	14.9				
including	120.8	123.0	2.2	9.90	29.3				
and	150.8	151.8	1.0	0.10	11.7	0.05	0.76	0.50	1.30
17SH035	228.8	229.8	1.0	0.02	9.3	0.47	0.68	0.82	1.97
17SH036	156.4	159.2	2.8	0.06	0.3	0.27	0.01	0.00	0.28
17SH038	268.55	269.75	1.2	0.04	14.3	0.46	0.05	0.01	0.52
and	275.8	277	1.2	0.80	0.5				
and	278	279.2	1.2	0.50	3.6				
and	282.5	284	1.5	0.12	5.9	0.10	0.07	0.20	0.36
and	287.1	287.6	0.5	2.96	3.9				
and	292.7	293.3	0.6	1.06	1.5				
and	298.6	307.3	8.7	0.83	1.6				
including	305.5	307.3	1.8	2.27	2.0				
and	317.5	322	4.5	0.81	3.0				
17SH039	264.2	265.6	1.4	0.05	2.3	0.03	0.34	0.21	0.58
17SH040	108.5	109.5	1.0	0.05	11.2	0.09	0.35	0.49	0.92
and	129	132.1	3.1	0.04	3.5	0.07	0.15	0.22	0.44
and	143.6	144.7	1.1	0.09	3.2	0.06	0.17	0.39	0.62
17SH041	146.4	147.4	1.0	0.21	23.6				
17SH042	157.5	168.3	10.8	1.17	2.2				
including	164.3	165.8	1.5	3.68	2.4	0.01	0.16	0.24	0.41
and	178	180.7	2.7	0.94	2.3				

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Hole ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	CuPbZn%
17SH043	186.2	187.2	1.0	1.77	2.8	0.02	0.10	0.17	0.29
and	203	205.5	2.5	0.48	1.6				
and	215.5	221.6	6.1	0.70	2.5				
17SH044	123.9	125.7	1.8	0.01	1.0	0.02	0.17	0.23	0.42
17SH045	110.9	114.2	3.3	0.16	25.2	0.09	1.87	2.19	4.15
and	115.2	120.1	4.9	0.15	13.5	0.05	0.26	0.26	0.57
including	118.3	119.1	0.8	0.54	62.5	0.17	0.84	0.60	1.61
and	120.9	122.4	1.5	1.66	4.4	0.04	0.26	0.28	0.59
and	126.7	133.7	7.0	0.05	4.4	0.01	0.16	0.27	0.45
and	133.7	134.8	1.1	0.26	39.4				
and	136.3	137.7	1.4	0.15	26.3				
and	140	141	1.0	0.49	35.4	0.18	0.30	0.84	1.31
17SH046	208.5	211.4	2.9	0.04	1.9	0.03	0.17	0.35	0.55
17SH047	191.4	194.8	3.4	1.05	4.0				
and	196.3	197.7	1.4	0.52	3.1	0.05	0.13	0.46	0.64
and	200	201	1.0	0.19	14.9	0.04	0.13	0.37	0.53
17SH048	132.5	136.5	4.0	0.02	1.5	0.02	0.42	0.63	1.06

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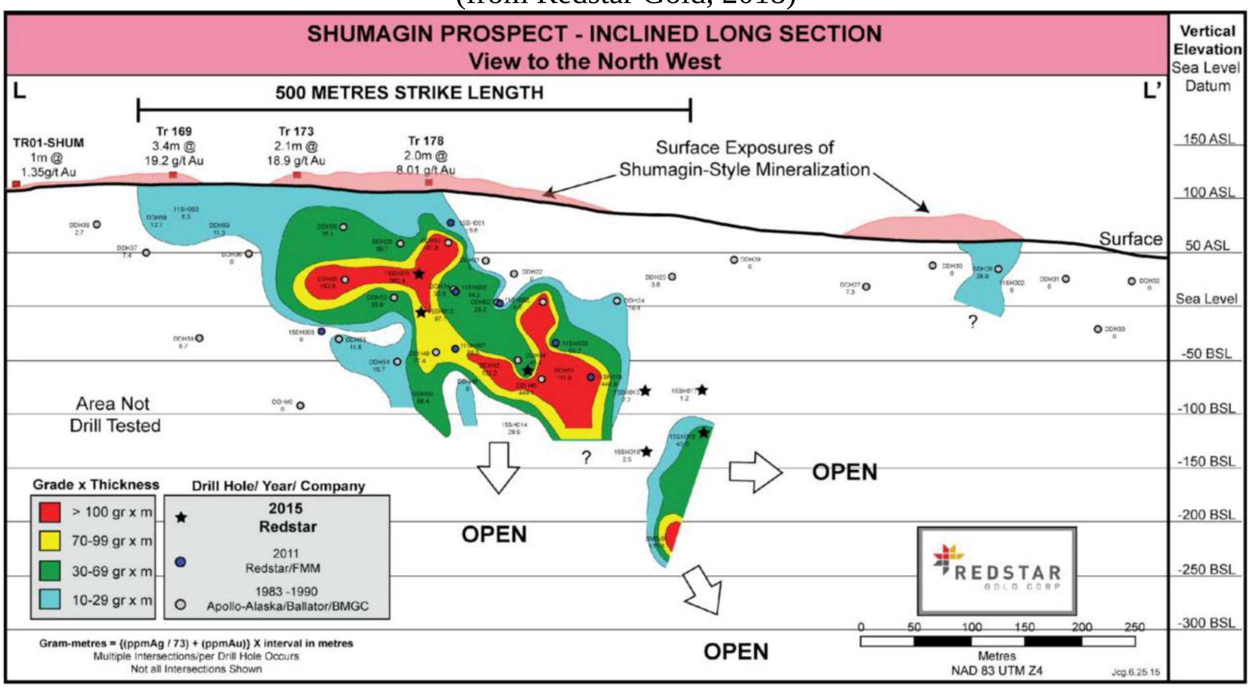
2015 Drilling, Shumagin Prospect

In 2015, Redstar drilled eight angled core holes to intersect the Shumagin vein system between and down dip from previous drill holes, but up dip from the BMGC hole BMG-01. The first hole intersected 1.9 meters containing 202 g Au/t and 82 g Ag/t within a wider zone of 12.9 meters of gold-silver mineralization (15SH011). The last hole (15SH018) intersected 5.0 meters with average grades of 9.35 g Au/t and 27.6 g Ag/t, including 1.0 meter that assayed 41.2 g Au/t and 130 g Ag/t. These results are summarized Figure 10.5, a longitudinal view of the Shumagin prospect drilling, as of mid-2015.

Figure 10.5 Longitudinal Projection of Shumagin Drill Results through 2015
(from Redstar Gold, 2018)



2016 Drilling, Shumagin Prospect

Seven angled core holes were drilled by Redstar at the Shumagin prospect in 2016 (Figure 10.4). The drill holes were spaced over approximately 750 meters of strike length along the Shumagin vein zone and were designed to test potential for high-grade vein and breccia mineralization at various elevations. All drill holes intersected multi-generational phreatomagmatic breccias, hydrothermal breccias, and late Shumagin-style breccias and veins with colloform-crustiform to cockade textured quartz-adularia-carbonate (+/-rhodochrosite) +/- green clay. Five of the seven holes intersected gold grades greater than 10 g Au/t, with the highest grade of 34.5 g Au/t and 16.45 g Ag/t found in hole 16SH023 over 0.3 meters. Mineralized intervals from the 2016 drilling

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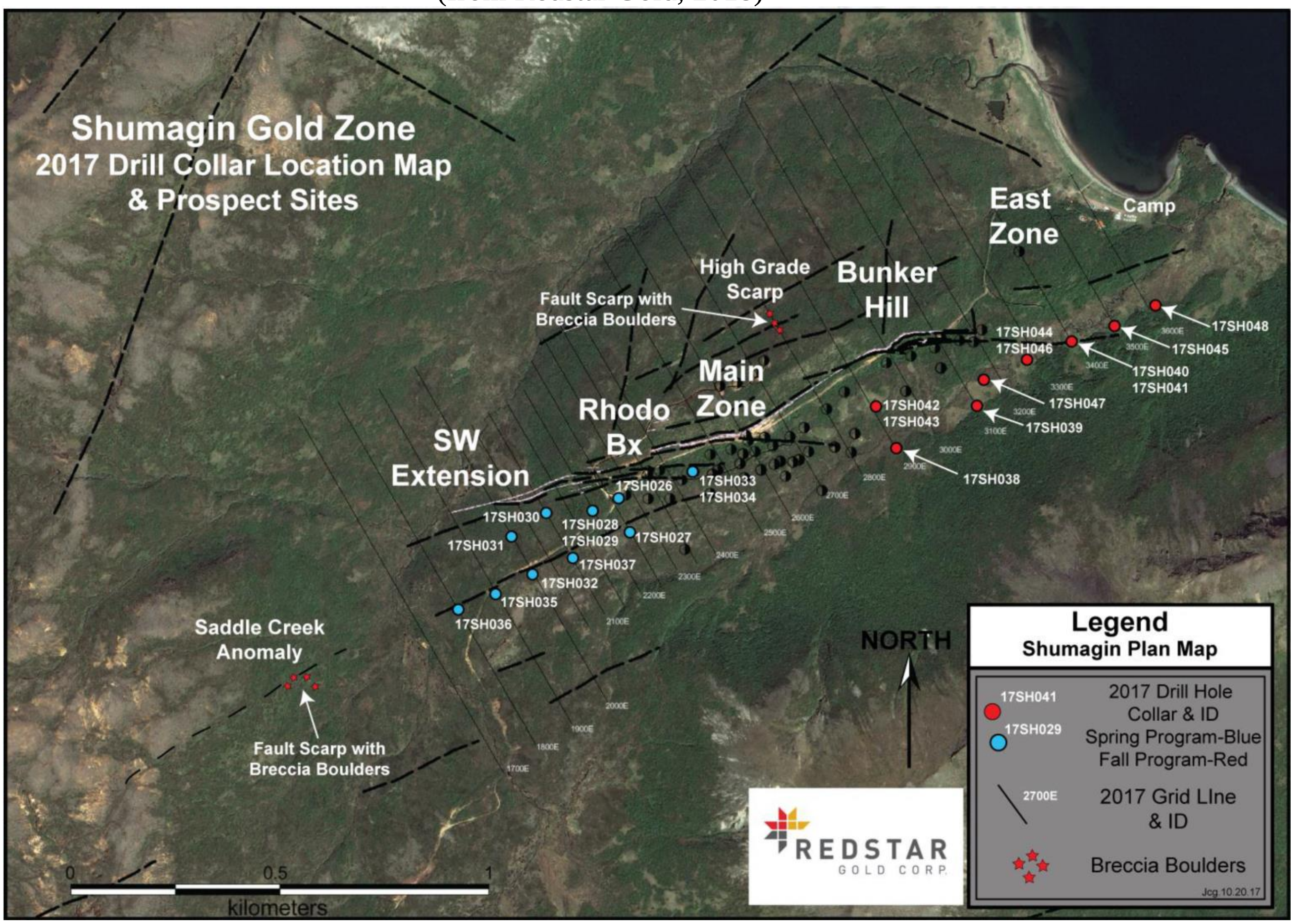
are summarized in Table 10.6. The 2016 drilling indicated a lateral extent of at least 950 meters for significant gold-silver mineralization within the Shumagin vein system.

2017 Drilling, SH-1 (previously “Shumagin”) Prospect

A total of 23 angled core holes were drilled by Redstar during 2017 in two phases. The first phase consisted of 12 holes drilled in an effort to expand the Shumagin vein system to the southwest (Figure 10.6). Eleven holes were drilled during the second phase to expand the vein system down dip and to the northeast of prior drilling in the Bunker Hill area (Figure 10.7).

Figure 10.6 Redstar 2017 Drilling Locations at the Shumagin Prospect
(from Redstar Gold, 2018)



The first phase of 12 holes extended the Shumagin vein and breccia system approximately 400 meters along strike to the southwest and encountered visible gold in hole 17SH032,but encountered lower grade mineralization throughout a number of other drilled holes. Although

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lower in grade, the vein, breccia, and stockwork zones were found to increase to as much as 10 meters in width down dip and to the southwest.

The second phase consisted of 11 holes. Some of these were drilled between the Main and Bunker Hill zones and the rest were drilled along strike to the northeast of the previously drilled Bunker Hill portion of the Shumagin vein system (Figure 10.6).

Redstar's 2017 drilling increased the drill-indicated strike length of the Shumagin vein and breccia mineralization to approximately 1.75 kilometers. The mineralization remains open at depth and along strike.

Mineralized intervals from the 2017 drilling are summarized in Table 10.7. The best results were in hole 17SH034, which penetrated 5.4 meters containing 4.43 g Au/t and 14.9 g Ag/t from 120.0 to 125.4 meters down hole. This included 2.2 meters with 9.9 g Au/t and 29.3 g Ag/t. Continuity of mineralization between the Main and Bunker Hill portions of the system was indicated by drill hole 17SH042, which intercepted an approximate 8.3 meter interval of mineralization that included 4.33 g Au/t and 2.13 g Ag/t over 0.7 meters. Drill Hole 17SH047 intercepted an approximate 16.3 meter interval that included 3.62 g Au/t and 10.2 g Ag/t over 0.5 meters. The true width of mineralization is estimated to be 70% to 80% of the interval lengths reported. A longitudinal assay section with results through the end of the 2017 drilling is shown in Figure 7.10.

2017 Drilling, Rising Sun Prospect, Apollo – Sitka Area

Rising Sun is a splay off of the main Apollo structure approximately 300 meters east of the Apollo open stope and consists of an approximately 25-meter wide outcropping of veins, vein breccias, and stockwork. Two core holes totaling 233.9 meters were drilled at the Rising Sun portion of the Apollo-Sitka prospect (Figure 10.1 and Figure 10.7) to test breccias and stockwork at 60 to 80 meter depths below surface exposures, constrain the dip of the mineralized structure, and define textures of the vein breccias and stockwork system. The drilling was conducted by YPS. The author has no information on type of drill used nor core sizes, but the 2017 Rising Sun collar information is summarized in Appendix C.

Both holes penetrated Shumagin-style quartz-adularia-carbonate breccias and stockwork approximately 20 meters down hole that are considered by Redstar to be identical to those previously sampled in and around the Sitka prospect. Narrow, 1.5-meter to 6.2-meter wide, crustiform- to cockade-textured breccias haloed by narrow quartz-sericite-pyrite alteration and strong silicification were found within propylitic altered basalt, andesite, and hyaloclasite flows. Drill hole 17RS01 intercepted 0.06 g Au/t and 17.3 g Ag/t over 1.0 meter. Drill hole 17RS02 returned values up to 0.29 g Au/t and 18.1 g Ag/t over 1.4 meters. Mineralized intervals from Redstar's 2017 drilling are listed in Table 10.7.

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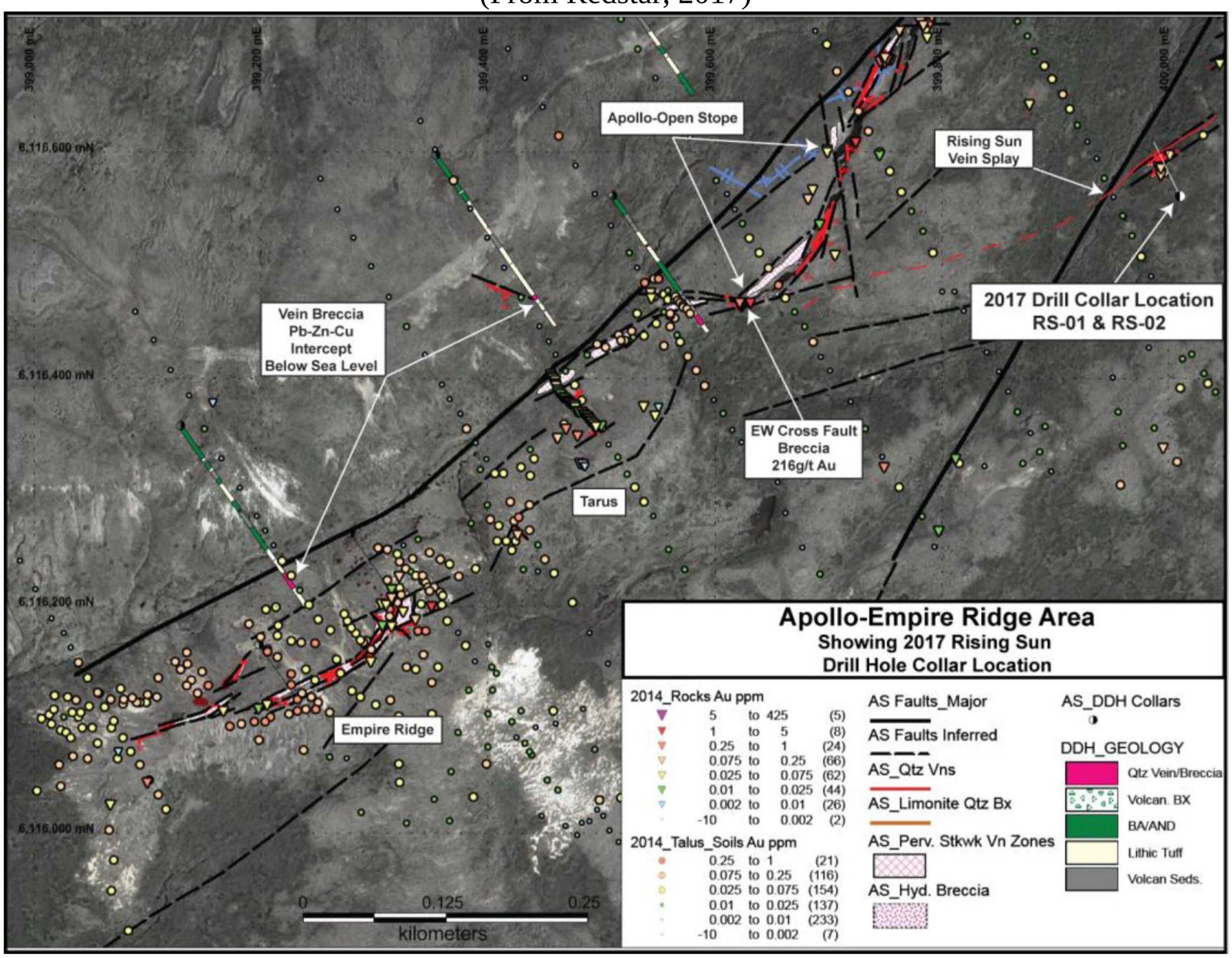
Table 10.7 Apollo – Sitka Mineralized Intervals 2017 Redstar Drilling

Hole ID	From (m)	To (m)	Int (m)	Au g/t	Ag g/t	Cu %	Pb %	Zn %	Cu-Pb-Zn %
17RS01	22	23	1	0.07	17.3				
and	58.6	59.2	0.6	0.03	2.6	0.01	0.06	0.03	0.10
and	69.8	70.2	0.4	0.02	3.7	0.04	0.10	0.14	0.28
17RS02	23.8	25.2	1.4	0.29	18.1				
and	31	31.8	0.8	0.07	12.8				
and	77.9	80	2.1	0.02	4.0	0.03	0.02	0.06	0.11

Note: Relation of reported intervals to true thickness not known; copper, lead and zinc listed only where their sum is ≥0.1%.

Figure 10.7 Location of 2017 Drilling at Rising Sun, Apollo – Sitka Area
(From Redstar, 2017)



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2020 Drilling, SH-1 (previously "Shumagin"), Aquila and Apollo

A diamond drill program was initiated at the SH-1 area on September 14th, 2020 and is being extended to the Aquila prospect and the Apollo mine area. At time of issue of this report, no assay results from this drill program has yet been received.

Drill-Hole Collar Surveys

The author is not aware of the methods, procedures and equipment used by any of the historical operators to survey the locations of historical drill holes within the Unga project. Margolis (2014) reported that survey data are available for 16 of the historical Shumagin core holes. MDA recommends that Redstar obtain and compile information on historical collar surveys, if it exists.

Files provided by Redstar suggest that commencing in 2005, FMM and Metallica personnel began to search for historical drill collars in the field and determine their geographic coordinates using hand-held GPS receivers. Redstar personnel continued to locate historical drill pads and collars during 2011 through 2013 or 2014 using hand-held GPS receivers. The coordinates and notes regarding the evidence for the collar locations were compiled in electronic spreadsheets using the UTM NAD83 Zone 4 projection. As of 2014, a total of 47 of the 87 historical collar locations at the Aquila, Orange Mountain, Pook, Pray's Vein, Norm's Vein, Zachary Bay, and Apollo-Sitka prospects had been identified in the field and their coordinates determined by hand-held GPS. In 2014, Redstar used a differential GPS survey to accurately locate historical Shumagin drill collars. The balance of the historical collar locations may have been derived by Redstar personnel from historical maps and transformed to the UTM NAD83 projection, but MDA and Redstar are not aware of the methods and procedures used to determine those collar locations. Collar locations for historical drilling by BMGC at the Centennial, Red Cove and Propalof prospects were also transformed to the UTM NAD83 projection. It is reasonable to assume that FMM or Redstar personnel used historical reports and maps as the primary source of the BMGC collar information, but MDA has no information on how the original historical locations were converted to the UTM NAD83 projection. To increase confidence in the historical drilling data, MDA recommends that Redstar compile and document the original sources of the historical collar locations, and document the personnel and methods used to convert the locations to the UTM NAD83 projection coordinates listed in Redstar's electronic files.

For drilling in 2011 through 2017, Redstar has provided no information on the procedures and equipment used to survey the locations of Redstar's drill hole collars.

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Down-Hole Surveys

Historical Down-Hole Surveys

Very little is known about down-hole deviation surveys that may have been conducted during historical drilling at the Unga project. Available records indicate that no down-hole surveys were done during drilling at the Shumagin prospect by BMGC or AAGM. Ballatar apparently had their 1989 core holes surveyed at one point near the bottom of each hole, but the survey method and instrument type are not known. As far as can be determined, no down-hole surveys were conducted by AAGM during their core drilling at the Apollo-Sitka area. Likewise, MDA has found no records of down-hole surveys conducted during the Duval-Quintana and RAA-UNC Teton drilling at the Zachary Bay, Aquila, Junior, Pook, Pray’s Vein, Norm’s Vein, and Orange Mountain prospects. The author recommends that Redstar obtain and compile down-hole survey data from the above historical drilling, if it is available.

Available records suggest that down-hole surveys were not conducted during BMGC’s core drilling at the Centennial, Red Cove, and Propalof prospects on Popof Island. The author recommends that Redstar obtain and compile down-hole survey data from the Popof Island drilling, if it is available.

Redstar Down-Hole Surveys

During Redstar’s 2011 through 2016 core drilling at the Shumagin prospect, down-hole surveys were conducted by Peak using a Reflex down-hole multi-shot survey tool. In 2017, YPS used an Inertial Sensing Compass tool for down-hole surveys. For all years, measurements of dip, azimuth, magnetic field strength, and temperature were recorded mainly every 15 meters, but in some holes these were done every 30.5 meters or at 6.1-meter intervals in others.

Summary Statement

The author is unaware of any drilling, sampling, or recovery factors that could materially impact the accuracy and reliability of the results discussed in this report.

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11.0 SAMPLE PREPARATION, ANALYSIS AND SECURITY

This section summarizes all information known to the author relating to sample preparation, analysis, and security, as well as quality assurance/quality control ("QA/QC") procedures and results, which pertain to the SH-1 Zone. The information has either been reviewed and compiled by the author from historical records as cited, or provided by Redstar from company files, or modified after Gustin, et.al., (2018).

11.1 Sample Preparation and Analysis

All laboratories discussed in this section were independent of the operators at the time of their use.

11.1.1 Historical Operators

1983 and 1987 AAGM Drill Samples: SH-1 Zone

The methods and procedures used by AAGM to log and sample the 1983 and 1987 drill core at the SH-1 prospect are not known to the author, except that the 1987 core was sawn in half and the half-core samples were crushed on-site in their entirety to -1/4 inch prior to shipment to the assay laboratory (Queen, 1988). The 1983 drill core samples were analyzed for gold, silver, copper, lead, zinc, arsenic, antimony, and mercury at Rossbacher using the same methods and procedures used for the 1983 samples from the Apollo-Sitka drilling (summarized above). In 1987, AAGM's core samples from the SH-1 prospect were analyzed for gold and silver at Rossbacher. It is not known if Rossbacher was certified to any standards at this time. Available copies of the 1987 assay certificates do not indicate the sample preparation and analytical methods used for the 1987 assays at Rossbacher.

1989 Ballatar Drill Samples: SH-1 Zone

The methods and procedures used by Ballatar to log and sample the 1989 drill core at the SH-1 Zone are not known to the author. Gold and silver were assayed by a metallic-screen fire-assay procedure (also referred to as a screen-fire assay) at Bondar Clegg in North Vancouver laboratory, and subsequently in the Bondar Clegg laboratory in Sparks, Nevada. Bondar Clegg was independent of Ballatar, but it is not known what type(s) of certifications may have been held by Bondar Clegg at that time. The author is unaware of the exact methods of sample preparation and fire-assay analysis that were used.

1990 BMGC Drill Samples: SH-1 Zone

The author is aware of the methods and procedures used by BMGC for logging and sampling the 1990 core. The core was logged and sawn in half and sampled on geologic breaks with a nominal 5 foot sample length. The samples were analyzed at the independent Bondar Clegg Lab in North

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Vancouver where they were crushed, split and pulverized, but further details of the preparation methods are not known. Gold was analyzed using a 30-gram fire-assay fusion with AA finish, and mercury was analyzed by cold-vapor AA. Silver, arsenic, copper, molybdenum, lead, antimony, and zinc were analyzed by ICPAES following a hot two-acid digestion.

In 1991, BMGC sent 16 of the 1990 pulps to Acme Analytical Laboratories Ltd. ("Acme"), in Vancouver, British Columbia. Acme was independent of BMGC, but it is not known what certifications were held by the laboratory at that time. Each pulp was analyzed for gold by fire-assay fusion of a 30-gram aliquot. Each pulp was also analyzed for gold by acid leach and MIBK extraction from a 30-gram aliquot.

Storage of Historical Drill Core

A skeleton drill core for hole BMS01 drilled by BMGC is stored in the Geological Materials Center at the Alaska Department of Natural Resources, Division of Geological and Geophysical Surveys, in Anchorage, Alaska. The remainder of the core is stored either at the Redstar Camp on Unga Island or in a rented warehouse next to the Sand Point airstrip on Popof Island. Table 11.1 details the location of the SH-1 Zone core and core from other prospects on the Unga property.

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Table 11.1 Drill core locations for the Unga property.

Hole ID	Year Drilled	Company	Location	Hole ID	Year Drilled	Company	Location
BMS-01	1990	BMGC	Geologic Materials Center Anchorage	17SH033	2017	RSG	Unga Island Camp
11SH001	2011	RSG	Sand Point warehouse	17SH034	2017	RSG	Unga Island Camp
11SH002	2011	RSG	Sand Point warehouse	17SH035	2017	RSG	Unga Island Camp
11SH003	2011	RSG	Sand Point warehouse	17SH036	2017	RSG	Unga Island Camp
11SH004	2011	RSG	Sand Point warehouse	17SH037	2017	RSG	Unga Island Camp
11SH005	2011	RSG	Sand Point warehouse	17SH038	2017	RSG	Unga Island Camp
11SH006	2011	RSG	Sand Point warehouse	17SH039	2017	RSG	Unga Island Camp
11SH007	2011	RSG	Sand Point warehouse	17SH040	2017	RSG	Unga Island Camp
11SH008	2011	RSG	Sand Point warehouse	17SH041	2017	RSG	Unga Island Camp
11SH009	2011	RSG	Sand Point warehouse	17SH042	2017	RSG	Unga Island Camp
11SH010	2011	RSG	Sand Point warehouse	17SH043	2017	RSG	Unga Island Camp
15SH011	2015	RSG	Unga Island Camp	17SH044	2017	RSG	Unga Island Camp
15SH012	2015	RSG	Unga Island Camp	17SH045	2017	RSG	Unga Island Camp
15SH013	2015	RSG	Unga Island Camp	17SH046	2017	RSG	Unga Island Camp
15SH014	2015	RSG	Unga Island Camp	17SH047	2017	RSG	Unga Island Camp
15SH015	2015	RSG	Unga Island Camp	17SH048	2017	RSG	Unga Island Camp
15SH016	2015	RSG	Unga Island Camp	17RS01	2017	RSG	Unga Island Camp
15SH017	2015	RSG	Unga Island Camp	17RS02	2017	RSG	Unga Island Camp
15SH018	2015	RSG	Unga Island Camp				
16SH019	2016	RSG	Unga Island Camp				
16SH020	2016	RSG	Unga Island Camp				
16SH021	2016	RSG	Unga Island Camp				
16SH022	2016	RSG	Unga Island Camp				
16SH023	2016	RSG	Unga Island Camp				
16SH024	2016	RSG	Unga Island Camp				
16SH025	2016	RSG	Unga Island Camp				
17SH026	2017	RSG	Unga Island Camp				
17SH027	2017	RSG	Unga Island Camp				
17SH028	2017	RSG	Unga Island Camp				
17SH029	2017	RSG	Unga Island Camp				
17SH030	2017	RSG	Unga Island Camp				
17SH031	2017	RSG	Unga Island Camp				
17SH032	2017	RSG	Unga Island Camp				

11.1.2 Redstar Gold Surface Samples

Soil, talus fines, and rock samples from 2011 through 2017 were collected by Redstar geologists and by exploration contractors from Yukuskokon Professional Services ("YPS") and Northern Associates Inc. ("NAI") under the direction of Redstar. The exact methods and procedures used for Redstar's surface sampling are not known to the author for sampling prior to 2014, but a detailed sampling and sample weighing, tracking, chain of custody and analyzing protocol was written by YPS and followed from 2014-2017. Surface samples were shipped to the ALS Minerals ("ALS") sample preparation facility in Fairbanks, Alaska, and to the ALS laboratory in North

Vancouver. ALS was independent of Redstar and held ISO 17025:2005 and ISO 9001:2008 laboratory accreditations in Canada and the USA.

Soil and talus-fines samples in 2014, 2016, and 2017, the only years for which Redstar has certificates of assay, were dried at <60°C and sieved to -180µm. The fine fraction of each sample was shipped by ALS to the ALS laboratory in North Vancouver, where they were analyzed for gold by fire-assay fusion of 30-gram aliquots with an ICPAES finish (ALS method Au-ICP21). Silver and 50 major, minor, and trace elements were assayed by a combination of ICPAES and mass spectrometry ("ICP-MS") on a 1-gram aliquot following digestion by aqua regia (ALS method code ME-MS41). Soil and talus-fines samples collected in 2017 were prepared with the same procedures, but they were analyzed using a 50-gram fire assay with ICP finish (method code Au-ICP22). Silver and 49 major, minor, and trace elements were analyzed by ICPAES-MS (method code ME-MS61) using a 1.0-gram aliquot and a four-acid digestion. Mercury was analyzed by ICP.

In 2014, 2015, 2016, and 2017, rock and trench samples were crushed to >70% at -19 millimeters, followed by crushing to >70% at -2 millimeters, and rotary splitting of a 1.0-kilogram subsample. The subsample was then pulverized in its entirety to >85% at <75 µm. Four different methods were used to analyze gold in various samples: (1) gold by fire-assay fusion of a 30-gram aliquot with ICPAES finish (Au-ICP21); (2) gold by fire-assay fusion of a 50-gram aliquot with AA finish (Au-AA24); (3) gold by fire-assay fusion of a 30-gram aliquot with gravimetric finish (Au-GRA21); and (4) gold by fire-assay fusion of a 50-gram aliquot with gravimetric finish. Silver and 50 major, minor, and trace elements were assayed by a combination of ICPAES and mass spectrometry ("ICP-MS") on a 1-gram aliquot following digestion by aqua regia (ALS method code ME-MS41). For some samples, silver and 33 major, minor, and trace elements were assayed by a combination of ICPAES and mass spectrometry ("ICP-MS") on a 1-gram aliquot following four-acid digestion (ME-MS61m), with mercury determined by cold-vapor AA. Samples assayed with >100 g/t Ag or >1.0% Cu, Pb or Zn were re-analyzed by ICPAES using method code OG46.

Redstar Drilling Samples 2011 – 2017 at SH-1 Zone

Drill core was placed in core boxes at the drill sites by Peak and YPS drilling staff. The core boxes were transported by the drillers and by Redstar personnel to the Redstar camp and logging facility at Baralof Bay. All of Redstar's drill core was cleaned, logged, and photographed by Redstar personnel and YPS geologists and geotechnicians under the supervision of Redstar. The intervals to be sampled were selected and marked by the geologists. Sample intervals were sawn in half lengthwise by YPS, with one half of the core placed in numbered sample bags, which were then closed with ties, and the other half returned to the core boxes for future reference.

In 2011, drill-core samples were transported by commercial air freight from Sand Point to Anchorage, and then by truck to the ALS preparation facility in Anchorage, Alaska. The core was crushed to 70% at <2 millimeters and rotary split to obtain a 1.0-kilogram subsample. The

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subsamples were pulverized to 85% at <75 μm, and the pulps were shipped by air to the ALS laboratory in Vancouver for assays. Gold was analyzed by fire-assay fusion of a 50-gram aliquot with an AA finish (method code Au-AA24). Samples with >10.0 g/t Au were re-analyzed by fire-assay fusion of a 50-gram aliquot with a gravimetric finish (method code Au-GRA22). Silver and 33 major, minor, and trace elements were analyzed by ICPAES using a 1-gram aliquot and a four-acid digestion (method code ME-ICP61). Samples with original assays >100 g/t Ag or >1.0% Cu, Pb, or Zn were re-analyzed by ICPAES after a four-acid digestion using method code OG62. Mercury was analyzed separately using cold-vapor AA.

Drill samples in 2015 were transported by commercial air freight from Sand Point to Anchorage, and then by truck to the ALS preparation facility in Anchorage. The samples were prepared with the same procedures as in 2011, except that in 2015 the core was first crushed to <19 millimeters before being crushed to 70% at <2 millimeters and rotary split to obtain a 1.0-kilogram subsample. Analytical methods in 2015 were the same as those summarized above for 2011.

Coarse rejects and portions of the remaining pulps from 162 of the 2015 core samples were later used in a 2016 study of the possible effects of coarse gold on assay results (Schaefer, 2017). A metallic-screen fire-assay procedure (method code SCR-21) was carried out by ALS on these samples.

In 2016 and 2017, Redstar's core samples were transported by commercial air freight from Sand Point to Anchorage, and then by truck to the ALS preparation facility in Fairbanks. The crushing and pulverizing procedures used in 2016 and 2017 were the same as those described for the 2015 samples, with the exception that a barren, silica "wash" material was run through the crusher and pulverizer before each crushed and pulverized core sample. In 2016, the sample pulps were shipped by air to the ALS laboratory in North Vancouver. In 2017, pulps were shipped the ALS laboratory in Vancouver and to the ALS laboratory in Reno, Nevada for assays. Analytical methods in 2016 were the same as those summarized above for 2011 and 2015. In 2017, the fire-assay method for gold analyses (method code Au-AA24) was the same as that used in 2011 and 2015. However, in 2017, a combination of ICPAES and mass spectrometry ("ICP-MS", method code ME-MS61) were used for analyses of silver and 49 major, minor, and trace elements after a four-acid digestion of 1-gram aliquots. Mercury was analyzed by ICP-MS.

11.2 Sample Security

The author has no information on the methods of sample security used by historical operators, which is not unusual for projects drilled in the 1970s through the early 1990s. However, Unga Island has been mostly uninhabited during the 1970s to the present and sample security at the site would not have been an issue.

Redstar's surface samples and drilling samples from 2011 through 2017 were periodically transported from the camp at Baralof Bay by boat, in the custody of Redstar personnel, to Redstar's secure warehouse at Sand Point. From the warehouse in Sand Point, the samples were transported by a commercial air freight service (Ace Air Cargo) to Anchorage where they were picked up by YPS and delivered to a commercial trucking service who trucked them to the ALS sample preparation facilities in Fairbanks or Anchorage. From there, sample pulps were shipped by ALS using air freight from Fairbanks and Anchorage to the North Vancouver and Reno laboratories.

Storage of Redstar Drill Core

Redstar's remaining drill core from 2011 through 2017 is stored in Sand Point at the Redstar's warehouse and at Unga Camp.

11.3 Quality Assurance/Quality Control

The author has found no information on QA/QC procedures and data that may have been used by historical operators to monitor assay quality, subsampling, and potential contamination during sample preparation and analysis. This is not unusual for properties drilled prior to the late 1990s. To increase confidence in the historical drilling assays, it is recommended that Redstar obtain, compile and evaluate any historical QA/QC information, if it exists.

The QA/QC programs and procedures of the various operators, if known to the author, are summarized below. A discussion of the results of these programs is found in Section 12.4.1.

11.3.1 Redstar QA/QC Procedures, Shumagin Drilling Samples 2011 - 2017

Commencing in 2011, Redstar implemented a QA/QC program to monitor assay quality and the potential for sample contamination during preparation and analysis at ALS. This program primarily involved the insertion of coarse blanks and certified reference materials ("CRMs"), or standards, into the sample stream sent to ALS. All samples were weighed prior to shipping.

Blanks: In 2011 and 2015 barren basalt from the airport rock quarry in Sand Point, Alaska (Popof Island) was used as blank material for drilling samples. In 2016 and 2017, unmineralized basalt procured for Redstar by NAI from a quarry in Fairbanks was used as blanks. NAI has extensive assay data showing this basalt works well as a blank and provides consistent multi-element assays useful for monitoring laboratory multi-element analyses. All analysis for the basalt used from Sand Point indicates it was unmineralized and suitable for use as blanks.

Standards: A total of four different commercial gold CRMs were inserted by Redstar to monitor the quality of gold assays at ALS. These CRMs are summarized in Table 11.2.

During 2011, 2016, and 2017, Redstar inserted one QA/QC control sample per ten (10) core samples, starting with a blank as the first sample in each shipment and then alternating CRMs and blanks at a frequency of every ten (10) samples throughout the shipment. During 2015, blanks

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were inserted mainly every 14 to 30 samples, alternating with CRMs, such that one QA/QC control sample was inserted generally every seven to 15 core samples. The overall insertion rate of control samples for the 2011-2017 drilling was 10.5%.

Table 11.2 2011 – 2017 SH-1 Zone QA/QC CRMs and blanks

Year	Type	Name	Frequency	Insertions	Cert Au g/t	+/- 2 SD g/t
2011	Blank		every 20	92		
2011	CRM	CDN-GS-P5B	every 20	57	0.44	0.04
2011	CRM	CDN-GS-5E	every 20	31	4.83	0.37
2015	Blank		7 to 30	27		
2015	CRM	CDN-GS-12A	7 to 30	8	12.31	0.54
2015	CRM	CDN-GS-P7K	7 to 30	8	0.694	0.066
2016	Blank	BHQB-CHIP	every 20	26		
2016	CRM	CDN-GS-12A	every 20	12	12.31	0.54
2016	CRM	CDN-GS-P7K	every 20	10	0.694	0.066
2017	Blank	BHQB-CHIP	every 20	70		
2017	CRM	CDN-GS-12A	every 20	27	12.31	0.54
2017	CRM	CDN-GS-P7K	every 20	32	0.694	0.066

In addition, in 2015, 2016 and 2017, Redstar selected samples that ALS prepared as laboratory duplicates, with instructions for the laboratory to split the selected sample in half after crushing and place the material in an already labeled, empty sample bag for continued preparation and analysis. A total of 76 laboratory duplicates were prepared and analyzed from the 2015 through 2017 drilling.

Further to the use of blanks and CRMs, in 2016 and 2017 Redstar also weighed all samples prior to shipment to ALS. This allowed Redstar to compare the laboratory's reported weights received to the shipped sample weights. Any inconsistencies could identify sample numbering and sequence errors, which could lead to miss-matched sample numbers and assays.

An evaluation and discussion of the Redstar QA/QC sample results is presented in Section 12.4.1.

11.4 Summary Statement

To the extent that the historical information is available, the QP believes that the sample preparation, security, and analytical procedures employed by the historical operators and Redstar meet industry standards and that the data is sufficient for the use in mineral resource estimation.

12.0 DATA VERIFICATION

12.1 Assay Database Audit

The author has conducted an audit of the drill hole database and found the project data to be sufficient quality to support an Inferred Mineral Resource estimation.

12.1.1 SH-1 Zone Drill Assays

The SH-1 Zone drilling assays have been verified by the author

Of the 4,812 drill samples examined, four were found to have significant errors in either "depth to" or "depth from" in the compiled database. Screen fire assays from Redstar Gold's drilling were appropriately assigned as the "gold-plotted" value for use in the mineral resource estimate. A total of 11 gold values and seven silver values in the compiled database, representing about 1.5% of the assays examined, were found to differ from those recorded on laboratory assay reports or drill logs. Some of the discrepancies were due to incorrect conversions from original Imperial units of measure to metric units, some are likely transcription errors, and the rest were related to averaging of multiple assays for the same sample. Irrespective of the nature of the discrepancies, the error rate is well within acceptable limits, but the possible conversion error should be investigated carefully. The database errors were corrected accordingly.

The author found the assay database to be reasonable for inclusion in a mineral resource estimate for Inferred Mineral Resources.

12.2 Drill-Collar Audit

The author found no documentation of original survey data for the drill-hole collar coordinates of any of the historical holes drilled on the SH-1 deposit, however location data for the historical drill holes (pre-2011) are recorded on the drill logs local grids and on maps and were re-established by Redstar using a hand-held GPS unit or from a survey program for verification purposes and for establishing UTM coordinates.

Collar locations were surveyed in 2014 for historical drill holes using a professional surveyor and an RTK instrument. Of this survey there were twelve (12) holes where the drill pad was found and in all but four locations, rotten or broken off wooden drill hole markers were found and surveyed. Of these four questionable drill hole locations only two (2) holes are within the resource area. Based upon the agreement between mapped coordinates, recorded coordinates and surveyed coordinates the author believes that the uncertainty of the collar survey data of these four holes is likely within a few meters of their exact location and does not have a significant impact on the volumes or grades of the resource model.

The author checked the UTM coordinates in the database against Redstar survey data to ensure they match. With the exception of minor decimal retention issues, no errors were found in the transfer of the data. The author accepts the collar data for inclusion in a mineral resource estimate classified in the Inferred category.

12.3 Down-Hole Survey Audit

Downhole survey data consisted of a single point at the collar for 49 of the 88 core holes in the drill database (Table 12.1). It should be noted that the 16 holes drilled by Ballatar Exploration have previously been described as having downhole survey information at the collar and bottom of the holes. However, the data provided included survey information only at the collar for those 16 holes. Interval downhole survey data was captured for 39 of the drill holes at SH-1 from drilling conducted by Redstar (2011-2017).

Deviation is limited in shallow holes. Of the 49 holes without downhole survey information, 34 are over 100 meters in length (Table 14.2). Deviation in the longest holes can significantly alter the final location of samples (up to 20 meters). The author concluded that any uncertainty with respect to the location of the drill holes as a function of down-hole deviation is within acceptable tolerances for mineral resource estimation in the Inferred category. No additional significant issues were observed when comparing drill traces to previous field program reports, internal documents and published materials.

Table 12.1 Diamond drill holes with survey data by company

No. of DDHs	Company (years)	No. with DH-survey
23	Alaska Apollo (1983 - 1987)	0
16	Ballatar Exploration (1989)	0
1	Battle Mountain Gold (1990)	0
48	Redstar Gold Corp. (2011 - 2017)	39
88		39

12.4 Quality Assurance/Quality Control

No QA/QC data supports the analytical results from the historical drilling completed prior to Redstar's ownership of the property. In 2017 the historical assay dataset was compared to the assays from Redstar drilling using global mean comparisons, spatial distributions and block model iterations. No bias was found between the historical assay results and the Redstar dataset. There were some anomalies, but they were minimal as expected in a vein with nugget effect.

For drilling competed since 2011, Redstar inserted a total of 221 blanks and 169 CRMs, a quantity equal to 10.5% of the drill-core intervals assayed in those years. In addition, Redstar instructed

ALS to create and analyze preparation duplicates from 76 of the core samples from the 2015 and 2016-2017 drilling campaigns. The results of these QAQC programs are presented below.

The author believes the overall performance of the QA/QC programs from 2011-2017 has acceptable results for inclusion in a mineral resource estimate with Inferred Mineral Resources. More duplicate data should be captured in the future to assess the current sampling, sample preparation and assaying protocols.

12.4.1 SH-1 Zone Drilling QA/QC 2011 – 2017

Blanks (*from* Gustin, et.al, 2018): A total of 92 blanks were inserted into the drill-sample stream during 2011, 27 in 2015, and 96 in the 2016-2017 drilling campaign. In consideration of the 0.005 g/t Au detection limit of the assays and a greater-than-five-times-detection-limit threshold for the definition of "failures", two failures were generated from the 2011 blank analyses (0.031 and 0.052 g/t Au). These failures are not at a level that is considered to be material, however. Seven failures occurred in 2015, six of which assayed in the range of 0.030 to 0.049 g/t Au, which are not material, while the other failure returned a value of .098 g/t Au, indicating the potential for material contamination during sample preparation within the laboratory. This blank (sample number M229015; drill hole M229015) was preceded by a 2.3 g/t Au sample and followed by a sample that assayed 3.91 g/t Au. It is noteworthy that two of the seven blank failures in 2015 contained elevated arsenic (82 and 320 ppm As), which is not expected in unmineralized rocks. It is possible the 2015 blank material was slightly mineralized. No failures were generated during the 2016-2017 drilling program.

Two different CRMs were inserted for a total of 88 analyses of CRMs in 2011. One of the insertions assayed less than three standard deviations ("3SD") below the certified value of CRM GS-P5B, which is therefore considered a failure. One analysis of CRM GS-5E was also below the lower control limit.

Each of two different CRMs were inserted eight times, for a total of 16 CRM insertions into the 2015 drill-sample stream. There was one high failure. While one ALS analysis (10.0 g/t Au) of CRM GS-12A is below the lower 3SD control limit, this value equals the upper reporting limit of the assay. No over-limit analysis of the CRM was completed or, if it was, the over-limit analysis was not included in the assay data provided.

A total of 59 CRM sample pulps were inserted into the sample stream during Redstar's 2016 and 2017 drilling program. This included 27 insertions of CRM GS-12A and 32 insertions of GS-P7K. Four of the GS-12A samples returned results less than the 11.5 g/t Au lower control limit, but three of these apparent failures assayed 10.0 g/t Au and are therefore unlikely to be actual failures. The fourth apparent failure assayed 7.87 g/t Au, which is significantly below the lower control limit. There were no low failures for CRM GS-P7K. In one case, GS-P7K assayed 0.797 g/t Au, which is slightly higher than the upper control limit of 0.793 g/t Au for this CRM. The CRMs used by

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Redstar were certified only for their gold concentrations. MDA recommended the use of CRMs certified for silver in addition to gold in future drilling programs.

Preparation Duplicate: No pulp duplicates were systematically collected during the 2011 drill program. The duplicate assay data available on the SA assay certificate AC11217121 was reviewed. There were replicates for 39 samples using FAA/AA methods. Though this is a small dataset, the results show the samples had excellent reproducibility. For the subsequent drill samples, Redstar instructed ALS to prepare preparation duplicates as two 1-kilogram rotary splits of the coarsely crushed sample, one split being the primary sample and the second split the preparation duplicate. Each of these samples was then pulverized and analyzed with the same procedures used for all other Redstar drill samples.

The preparation-duplicate data can be used to evaluate the representativity of ALS subsampling of the coarsely crushed drill core, as well as the gold and silver grade variability inherent in the subsampling of SH-1 Zone core in the laboratory. These duplicate data should be evaluated as part of any future resource study.

12.5 Site Inspection

The author (QP), Mr. William T. Ellis, visited the project between September 10 and September 14, 2020. The author traversed the hanging wall and footwall units of the Shumagin fault at the SH-1 Zone, inspected mineralized and altered exposures of the SH-1 Zone vein along the fault, and visited a number of historical and Redstar drill pads. The author has reviewed selected, critical drill core intervals and reviewed details of the geology, mineralization, and exploration data for the SH-1 Zone. The author has a good understanding of the SH-1 Zone specifically and the Unga project generally.

Redstar completed the 2016 and 2017 drilling programs under Mr. Jesse Grady’s supervision (Redstar’s then Vice President of Exploration). These programs focused on the SH-1 Zone. During this time period, Mr. Grady regularly discussed results and interpretations with Redstar management, and sent updated maps, cross sections, and select core photos for review and collaboration.

Historically, the author and QP, W. T. Ellis has visited the project area and the SH-1 property a number of times as a geologist with Alaska Earth Sciences (AES). He visited SH-1 in August 2005 and again in August 2011. Mr Ellis was the project geologist for Battle Mountain Gold (BMG) and visited the Popof and Unga Island prospects including SH-1 Zone extensively in the 1987-1991 period. BMG discovered the Centennial disseminated gold deposit and drilled the deep high-grade vein intercept in BM-01 in the SH-1 Zone.

12.6 Summary Statement on Data Verification

In consideration of the information summarized in this and other sections of this report, the author (QP) has verified that the SH-1 Zone data are acceptable as used in this report, most significantly to support the disclosure of a mineral resource estimate for the Inferred Mineral Resource category. While Redstar was not able to provide the author with original drill-hole collar surveys or original records of down-hole deviation surveys for historical drilling which to verify their digital drill-hole data files, the historical hole locations are referenced in historical reports by geologists who worked at the project and all of the SH-1 Zone drill pads are consistent with Redstar's data.

13.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The information presented in this Section is considered to be a reasonable summary of the metallurgical test work completed on the SH-1 Zone to date.

Files available show preliminary cyanidation tests were carried out for AAGM on drill core from the SH-1 Zone vein system in 1984. Since then Redstar commissioned a preliminary mineralogical and metallurgical study of mineralized material from the SH-1 Zone. Available information from these studies is summarized below in the units of measure originally reported. Use of the original reported units is retained for historical clarity and to avoid confusion. In some cases, metric units were mixed with Imperial units in the metallurgical documentation. The reader is referred to Section 2.2 for the appropriate conversion factors.

The term "ore" in this section replicates its use in the historical documentation; it refers only to mineralized material that was tested and therefore does not have economic implications. The available data are not sufficient for the QP to determine if any of the metallurgical samples described in this section are representative of the deposits from which they are derived.

13.1 SH-1 Zone

13.1.1 AAGM Test work 1984

In 1984, two composite samples from the SH-1 Zone vein system were prepared from 19 samples of six of the AAGM core holes. These composites, one considered high grade and one low grade, were tested by Bacon, Donaldson & Associates ("BDA") of Vancouver, British Columbia, as documented in the report of Vreugde (1984). All of the information summarized in this sub-section has been extracted from Vreugde (1984), unless cited otherwise.

The state of oxidation and sulfide mineral contents of the individual drill intervals and the two composites are not known. The higher-grade composite reportedly weighed about 18 kilograms and assayed 0.378 oz. Au/ton and 1.038 oz. Ag/ton. The lower-grade composite reportedly

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weighed about 10 kilograms and assayed 0.032 oz. Au/ton and 0.147 oz. Ag/ton. Two cyanidation tests were carried out on subsamples of each of the two composites, and a flotation test was performed on a subsample of the higher-grade composite.

For the cyanidation tests, the materials were ground to 37.5% and 57.8% respectively, passing -200 mesh particle size and leached for 48 hours. Gold extractions from the higher-grade composite were reported to be 85.4% and 87.8% respectively, with silver extractions of 52.3% and 47.2% respectively. For the lower-grade composite, gold extractions of 40.6% and 46.9% and silver extractions of 33.3% and 37.4% were reported.

For the flotation test, the subsample was reportedly ground to about 47% passing -200 mesh; extractions for gold and silver were 85.2% and 77.7%, respectively.

13.1.2 Coastech Research Test Work 1987

In 1987 Alaska Apollo followed up on the 1984 test work by submitting another sample to Coastech Research Inc of Vancouver, B.C., Canada. This test work included gravity, cyanidation and flotation analysis. The sample assayed 1.5 ounces per ton, significantly higher grade than the previous sample tested by Bacon, Donaldson and Associates (0.378 opt). The sample was also highly oxidized, negatively effecting the flotation recovery. This test resulted in direct cyanidation recoveries of 89.1%--95.5% for gold and 32.9%--70.7% for silver. Flotation recoveries were low at 43.7% for gold and 20.2% for silver. Tests indicated that a combined gravity and flotation circuit improved recovery with overall recoveries for gold and silver increasing to 75.3% and 36.4% respectively. Gravity tests indicated this was effective at recovering up to 46.6% of the gold, suggesting that any mill circuit would benefit to having a gravity circuit prior to cyanidation. Coastech described the discrepancies between the 1984 and 1987 tests as a factor of the variability of gold grade and oxidation in the deposits and recommended further metallurgical testing of more representative material.

13.1.3 Redstar 2012 Compilation of Native Gold

In 2012, Redstar compiled available information from drill logs and historical petrographic studies to obtain an initial perspective on the size and character of observed gold particles in drill core from the SH-1 Zone. This compilation is a list of macroscopic and microscopic observations of gold by hole number and depth, with gold particle sizes estimated visually as shown in Table 13.1.

Table 13.1 Observations of native gold in the SH-1 Zone vein system, after Margolis (2014).

Hole / Depth (ft.)	Gold (opt)	Gold Residence	Source
DH23 / 317	1.800	0.02-0.03mm inclusions in marcasite, which locally occurs in chalcopyrite	Vancouver Petrographics (1984)
DH23 / 318.5	1.800	0.03-0.1mm inclusions in pyrite, one grain between quartz grains	Vancouver Petrographics (1984)
DH21 / 124.5	0.001	≤0.05mm grains in galena	Vancouver Petrographics (1984)
DH21 / 127	0.022	0.05mm grain between quartz grains	Vancouver Petrographics (1984)
DH22 / 201	0.001	0.03mm grains between marcasite grains	Vancouver Petrographics (1984)
DH46 / 504-508	10.656	No details	Lalonde (1989)
DH50 / 554-557.5	0.445	No details	Lalonde (1989)
DH51 / 512-514	5.309	No details	Lalonde (1989)
BMS-1 / 904.5	0.377 - 1.197	1.5cm clot of fine-grained gold with fine galena in quartz vein	Margolis (2012 observation); not noted in BMGC log
11SH010 / 259.25-259.8m	21.525	2cm clot of fine-grained gold with fine-grained galena in quartz vein in altered andesite	Redstar Gold logging
11SH07 / 239.5-239.9m	0.448	~3mm clot within quartz vein	Redstar Gold logging
11SH09 / 224-225.1m	152 ppb	Small specs with minor galena-sphalerite in quartz vein	Redstar Gold logging

13.1.4 Redstar Test Work 2017

Redstar commissioned a preliminary study of mineralogy and a suite of metallurgical tests by ALS Metallurgy in 2017 that were documented in the report of Roulston and Mehrfert (2017). The mineralogy study and test work were performed at the ALS Metallurgy laboratory in Kamloops, British Columbia, with some supporting assays done at the ALS laboratory in North Vancouver. All of the information summarized in this sub-section has been extracted from Roulston and Mehrfert (2017), unless cited otherwise.

A single composite was prepared from assay coarse rejects of 29 samples from six SH-1 Zone drill holes, for a total of about 25 kilograms of material that had been crushed to < 6 mesh particle size. The objectives were to:

- Determine the mineralogical content of the composite using QEMSCAN Bulk Mineral Analysis (BMA) protocols.
- Investigate the gold within the composite through a QEMSCAN Trace Mineral Search, assessing the nature and association of gold grains in the composite; and

- Assess the amenability of the composite to gravity, cyanidation, and flotation flowsheets through Knelson gravity, whole-ore bottle-roll cyanidation, and froth flotation testing, respectively.

The composite head assay data are summarized in Table 13.2. Duplicate head assays and complete metallic screen results are available in Appendix IV of Roulston and Mehrfert (2017).

Table 13.2 2017 SH-1 Zone drill core composite head assay summary

Sample	Assay - percent or g/tonne				
	S	C	Ag	Au	$Au_{(SM)}$
Composite 1	2.38	1.60	6	1.94	2.42

Notes: a) Silver and gold assays are displayed in g/tonne, other assays are displayed in percent.
b) $Au_{(SM)}$ - Gold content determined through a screened metallic assay method.

Sulfur ("S" in Table 13.2) was reportedly primarily contained in pyrite, which was about 4% of the sample; traces of galena, sphalerite, and chalcopyrite were also detected. Most of the measured carbon ("C") was inferred to reside in calcite, which comprised approximately 9.4% of the composite.

A portion of the composite was ground to <122 µm and processed through a Knelson Concentrator. A subsample of the gravity tails was screened at 53 µm. All three products were analyzed with a QEMSCAN trace mineral search ("TMS") procedure. Forty-four gold grains were detected. The gold grains observed were approximately eight µm in effective diameter on average. The largest grain observed was 38 µm in effective diameter. Effective diameter was calculated from the area of each grain.

Most of the TMS-detected gold grains occurred as liberated gold/electrum particles. Liberated gold in the gravity concentrate was found to be notably coarser than liberated gold in the gravity tailings. About 22% of the detected gold/electrum by measured surface area was observed as inclusions within sulfide minerals or sulfide-bearing, multiphase particles. About 23% of the located gold/electrum by measured surface area was found as inclusions within non-sulfide gangue particles, primarily quartz. Several back-scattered scanning-electron microscopy ("SEM") images presented in Roulston and Mehrfert (2017) clearly document the TMS-detected gold grains.

Three flow sheet options were explored in the ALS Metallurgy tests on the 2017 composite. One involved flotation of a bulk sulfide concentrate followed by cyanidation of the concentrate, the second involved a gravity concentration step followed by cyanidation of the gravity tailings, and

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the third was a whole-ore leach of the entire feed. Details on the specific grind sizes and other test parameters are given by Roulston and Mehrfert (2017).

In summary, whole-ore cyanide leaching resulted in 84% to 86% gold extraction and 67% to 72% silver extraction over 48 hours. When preceded by a Knelson gravity concentration step, the overall leach extraction and gravity recovery for gold and silver measured about 85% and 71%, respectively; the gravity concentration step recovered about 16% of the gold and 15% of the silver. With flotation followed by cyanidation, gold and silver extractions were recorded at 76% and 63%, respectively. About 18% of the gold and silver reported to the flotation tailings, and about 6% of the feed gold and 19% of the feed silver remained in the cyanidation tailings.

13.2 Author's Summary Comments

Having reviewed these reports, the QP considers the high-grade 1984 sample of 0.378 opt (11.8 g/t) the most reasonable sample for representation of SH-1 Zone as it is closest to the average vein gold grades from drilling and trenching. Therefore, the QP has applied the recoveries obtained from this sample of 87.8% for gold and 52.3% for silver to the economic cut-off estimate. The author recommends that Redstar conduct further metallurgical testing of the SH-1 Zone from a representative composite of the entire deposit from future infill drilling to verify the processing recoveries and develop a metallurgical flowsheet.

14.0 MINERAL RESOURCE ESTIMATES

14.1 Introduction

Resource geological modeling, resource estimations and statistics for SH-1 Zone were reviewed by the QP William Ellis The Inferred SH-1 Zone resource estimate is reported in accordance with the Canadian Securities Administrators National Instrument 43-101 and has been estimated using the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29th, 2019 and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10th, 2014. Mineral resources are not mineral reserves and do not have demonstrated economic viability. There is no guarantee that all or any part of the mineral resource will be converted into a mineral reserve.

The project area is based on Unga Island in Southwest Alaska. The mineral resource estimate relates only to the SH-1 Zone of mineralization. Multiple drill programs have been completed in the project area since the mid-1980's with the most recent drilling occurred in 2017. Drill data was provided in multiple Excel spreadsheets. Drill data was verified against previous technical reports (Technical Report on the Unga Project, Southwest Alaska, USA), and verified by the QP. Additional verification was done by comparing against previous reports. Redstar also provided trench and blasthole data in the form of Excel spreadsheets and verified in similar manner.

Historical estimates of SH-1 Zone pre-date and is not in accordance with NI 43-101 guidelines and was provided for general comparison purposes only. Previous interpretations of the orebody were provided and used as a basis for geologic modeling. The mineral resource modeling, estimation and statistics were conducted using commercial mine planning software Vulcan (Version 12.02).

14.2 Data Summary

14.2.1 Drillhole Database

A full description of drilling programs and the drill data can be reviewed in Section 10 of this report and this section relates to the use of the drill data in a resource estimate. Drilling data was provided in the form of multiple Excel spreadsheets, encompassing the drill programs through 2017. Collar coordinates, downhole survey measurements, and assay data were included in the provided drill data. Geologic data in the form of logged lithologic units and logged mineralization and/or hydrothermal events was included in the database. Assay data included multi-element results, however, only Au (g/t) and Ag (g/t) were estimated for the Mineral Resource estimate.

Collar coordinates were visually compared to the known topography and compared to previous field reports, maps and published data. There is some uncertainty in the collar location data of holes drilled before 2000 due to rotten or broken off hole markers; however, the uncertainty is likely within a few meters and would have limited impact on a resource estimate.

Downhole survey data consisted of a single point at the collar for 49 of the 88 core holes in the drill database (Table 12.1). It should be noted that the 16 holes drilled by Ballatar Exploration have previously been described as having downhole survey information at the top and bottom of the holes, however, the data provided included survey information only at the collar for those 16 holes. Deviation is limited in shallow holes. Of the 49 holes without downhole survey information, 34 are over 100 meters in length (Table 14.1). Deviation in the longest holes can potentially alter the final location of samples (up to 20 meters) but it was determined the deviation is acceptable for a resource estimate in the Inferred category. No additional significant issues were observed when comparing to drill traces to previous field program reports, internal documents and published materials.

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The author compared assay data to previously published reports and no discrepancies between provided data and previously disclosed data were observed.

The QP compared the geology data to drill hole logs, previously published cross-sections and reports found no significant discrepancies.

The author deems that, given the drill hole distribution and the parameters used in calculating the resource, the data is acceptable for a mineral resource estimate in the Inferred category.

Table 14.1 Drill holes longer than 100 m with no downhole survey data

HoleID	Length (m)	Company
DDH37	103.6	Alaska Apollo
DDH23	108.2	Alaska Apollo
11SH001	110	Redstar Gold Corp.
DDH52	115.8	Ballatar Exploration
DDH35	118.3	Alaska Apollo
DDH28	122.5	Alaska Apollo
DDH33	122.8	Alaska Apollo
DDH36	125.9	Alaska Apollo
11SH003	130.45	Redstar Gold Corp.
11SH002	131.1	Redstar Gold Corp.
DDH21	131.4	Alaska Apollo
DDH53	134.1	Ballatar Exploration
17SH048	142.6	Redstar Gold Corp.
DDH55	158.5	Ballatar Exploration
DDH44	160.3	Ballatar Exploration
17SH044	161.2	Redstar Gold Corp.
DDH49	162.2	Ballatar Exploration
DDH54	163.4	Ballatar Exploration
DDH51	169.5	Ballatar Exploration
DDH46	171.9	Ballatar Exploration
DDH42	177.7	Alaska Apollo
DDH48	180.1	Ballatar Exploration
DDH43	186.8	Alaska Apollo
DDH41	189	Alaska Apollo
DDH24	189.6	Alaska Apollo
DDH39	195.7	Alaska Apollo
DDH50	203	Ballatar Exploration
DDH40	217.6	Alaska Apollo
DDH47	221.3	Ballatar Exploration
11SH005	222.5	Redstar Gold Corp.
11SH006	222.5	Redstar Gold Corp.
DDH45	236.5	Ballatar Exploration
BM-01	311.5	Battle Mountain Gold
17SH038	352.6	Redstar Gold Corp.

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14.2.2 Data Summary and Analysis

The final database is composed of core drill holes, blastholes, and trenches. A total of 118 drill holes are in the database, of which 94 are within the modelled mineralized zone. A full breakdown of drill hole type is in Table 14.2. A summary of the final assay data available is provided in Table 14.3. A comparison of the Au (g/t) values between the core holes, blastholes and trenches show similar trends, especially when comparing at a 1 g/t cutoff grade (Figure 14.1). A lower cutoff grade of 0.1 g/t shows significantly higher values in the blastholes and trenches (Figure 14.2). However, the large difference in number of samples between the drill types is a likely cause and no additional modification or weighting of blasthole or trench data is required at this time.

Table 14.2 Drill hole number and meterage by type

Type	N	Meters	# within orebody solid
Core	88	15247	72
Blasthole	18	296	14
Trench	12	195	8
Total	118	15738	94

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Table 14.3 General statistics of unconstrained Au and Ag assay values

	Au (g/t) - 0 cutoff	Ag (g/t) - 0 cutoff	Au (g/t) - 0.1 g/t cutoff	Ag (g/t) - 2.5 g/t cutoff
Count	5561	5561	1362	1453
Mean	0.786	4.632	3.108	15.096
Standard deviation	12.355	76.424	24.822	149.01
Variance	152.655	5840.598	616.143	22204.058
Coeff. Of Variation	15.712	16.5	7.986	9.871
Maximum	738	5403.43	738	5403.43
Upper quartile	0.097	2.6	1.088	7.6
Median	0.034	1.2	0.309	4.42
Lower quartile	0.021	0.54	0.149	3.2
Minimum	0	0	0.1	2.5
Percentile 10	0.010	0.250	0.111	2.740
Percentile 20	0.017	0.430	0.137	3.000
Percentile 90	0.471	5.490	3.566	16.000
Percentile 99	10.420	39.169	41.101	147.058

Figure 14.1 Log normal probability plot by drill hole type at 0.1 g/t cutoff.

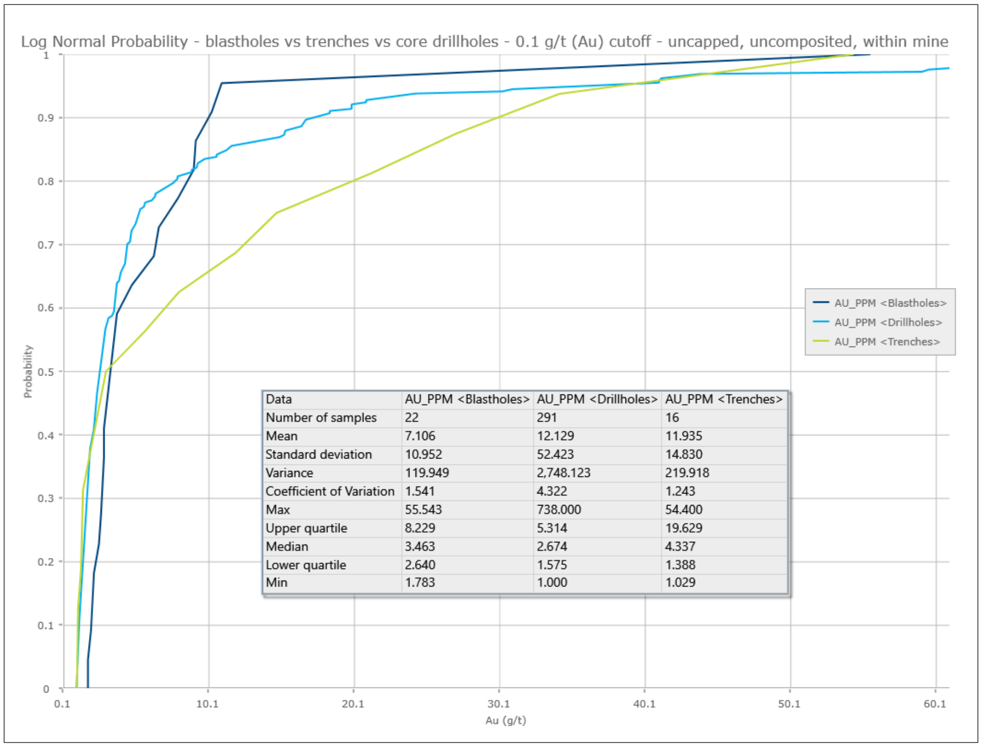

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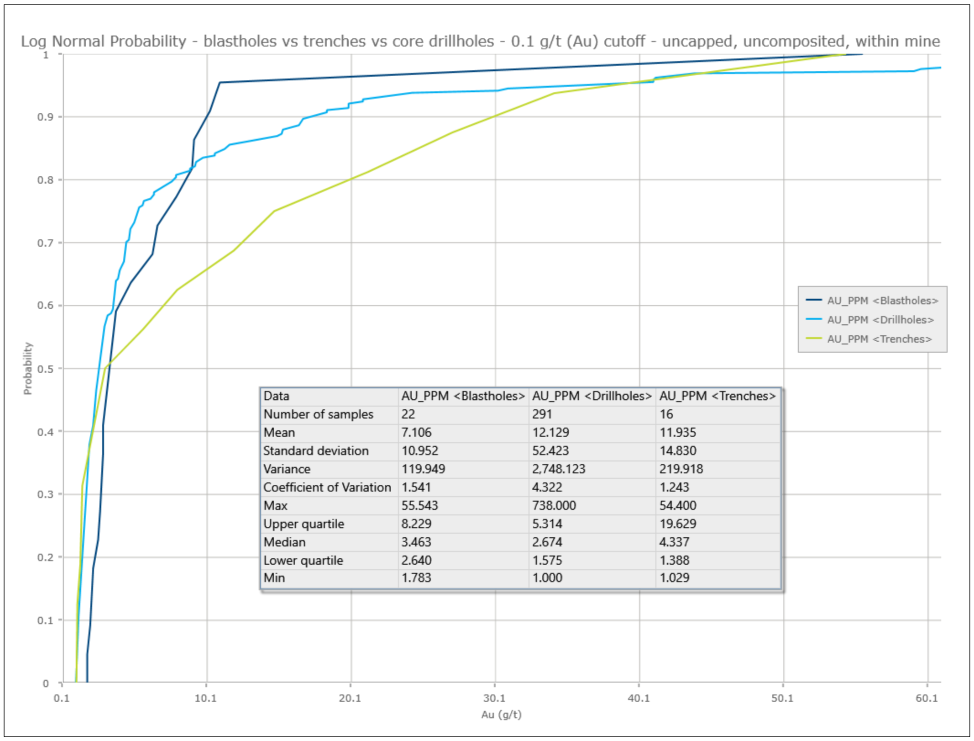
Figure 14.2 Log normal probability plot by drill hole type at 1 g/t cutoff.



The author calculated a resource estimate for gold (Au) and silver (Ag) utilizing the values in the provided data. A combination of Au grade, lithologic units and mineralization events were used to create a 3D wireframe that represents the mineralized zone and acts as a constraining grade shell in the resource estimate (see Section 14.3.2, Mineralized Zone). Summary statistics, and log normal curves of the drill data is provided in Figures 14.3 and 14.4.

The statistics and log normal probability plots indicate multiple populations of Au (g/t) values within the mineralized solid. The change in slope of the probability curve indicates a high-grade population above approximately 4.5 g/t. A low-grade population occurs below approximately 4.5 g/t.

Gold and silver values show good correlation within the mineralized solid (Figure 14.5). The overall Ag:Au ratio is dependent on a chosen cutoff grade for Au (Table 14.4). However, at a 0.1 g/t Au cutoff, the Ag:Au ratio is approximately 11:1.

Figure 14.3 Probability plot of raw Au (g/t) values constrained within mineralized solid.

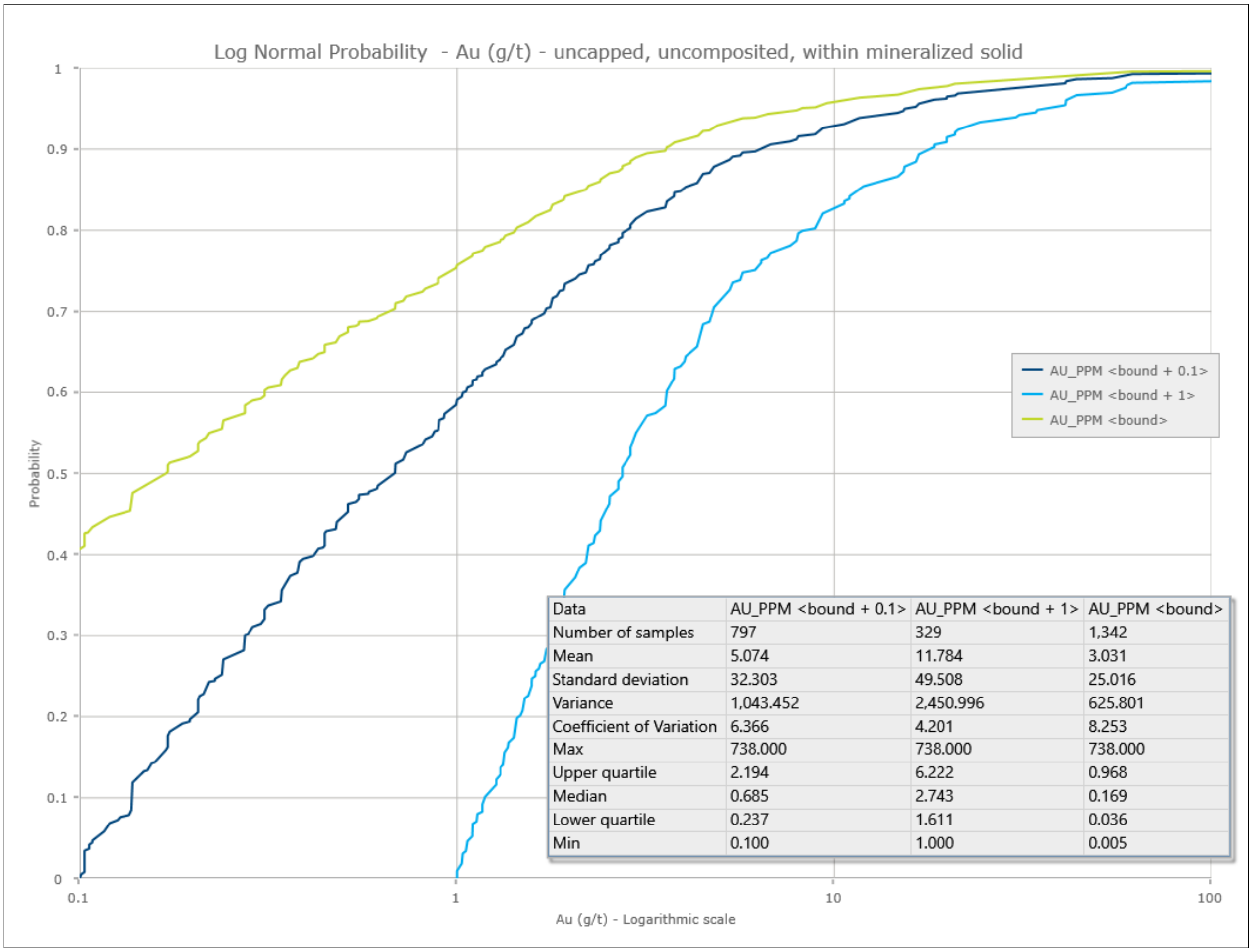


Table 14.4 Ag:Au ratio at various Au (g/t) cutoffs.

Au (g/t) cutoff	Ag:Au ratio
0.1	11.1
0.5	5.6
1	4.6
3	4.0
5	3.6

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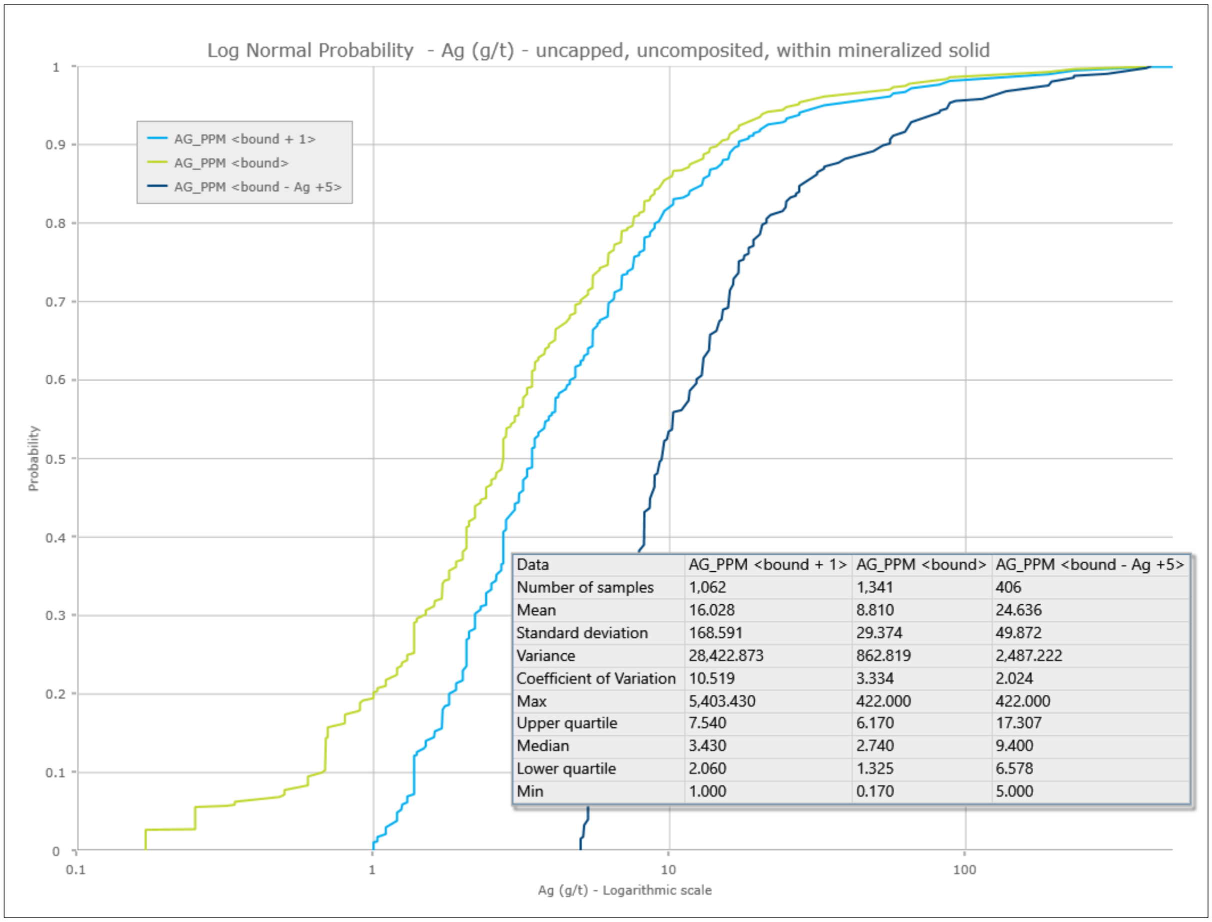
Figure 14.4 Probability plot of raw Ag (g/t) values constrained within mineralized solid



Data	AG_PPM <bound + 1>	AG_PPM <bound>	AG_PPM <bound - Ag +5>
Number of samples	1,062	1,341	406
Mean	16.028	8.810	24.636
Standard deviation	168.591	29.374	49.872
Variance	28,422.873	862.819	2,487.222
Coefficient of Variation	10.519	3.334	2.024
Max	5,403.430	422.000	422.000
Upper quartile	7.540	6.170	17.307
Median	3.430	2.740	9.400
Lower quartile	2.060	1.325	6.578
Min	1.000	0.170	5.000

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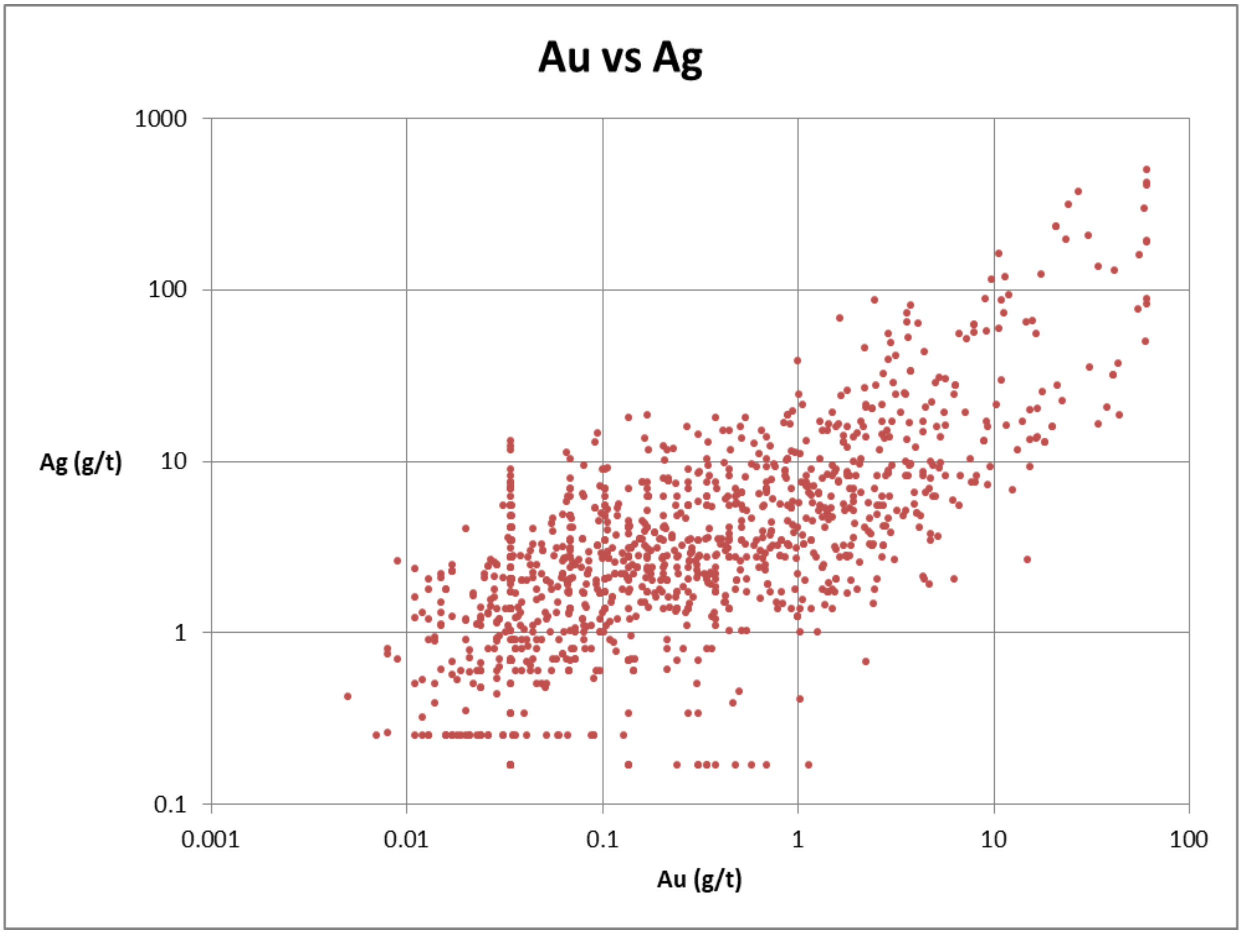
Figure 14.5 Au (g/t) and Ag (g/t) scatter plot comparison.



14.3 Geological Models

14.3.1 Topography

Redstar gold provided a 3D topography wireframe with no corresponding explanation of its generation. Upon examination it appears to be created from thirty (30) meter contour lines with certain intervals of five (5) meter contours. A visual comparison was made to the collar points of drill holes and the surface trace of published cross-sections. No significant deviation of collar points to the topography was observed and it was deemed acceptable to use in the resource estimation as a limiting wireframe.

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14.3.2 Grade Shell

Redstar provided a wireframe solid that predated the latest drilling so an updated constraining wireframe solid was needed for the resource estimation to act as a grade shell and prevent blowouts of grade into un-likely areas and to prevent low or no grade from adversely affecting high-grade zones. A review of the geology logging indicated the best correlation with gold grade is the 'hydrothermal vein and mineralization type' logged intervals (Table 14.5). Thus, a wireframe solid was created using the gold grade and the mineralization logging data and can be considered a representation of the main vein system.

The wireframe solid was created using the following process:

- The interpretative cross-sections from Figures 7.6, 7.7, and 7.8 of this report were georeferenced and loaded into Vulcan. (Figure 14.6)

- Polygons were created on sections spaced twenty-five meters using the cross-sections, gold grade, and mineralization log as a guide. Polygon points were snapped to drill holes at appropriate points trying to keep low-grade outside and high-grade inside the shell while still incorporating the logged mineralization and cross-section interpretation.

- A total of six wireframe solids were created from the polygons. The solids were then filtered and smoothed using standard Vulcan processes, while still honoring the points snapped to drill holes.

- The six smoothed solids were merged into a single solid representing the total vein system.

The final result was compared against the existing cross-sections and compared against previous descriptions of the vein system and determined to be a valid solid for grade estimation. In the more sparsely drilled areas of the deposit the solid can range up to 250 meters from a drill hole. However, in the more heavily drilled area the solid is more typically about 50 meters from a drill hole. Figures 14.6-14.8 are representative views of the wireframe solid.

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Figure 14.6 Isometric view of drilling showing cross-sections from Figures 7.7-7.9
(from independent resource modelling commissioned by Redstar Gold, 2020)

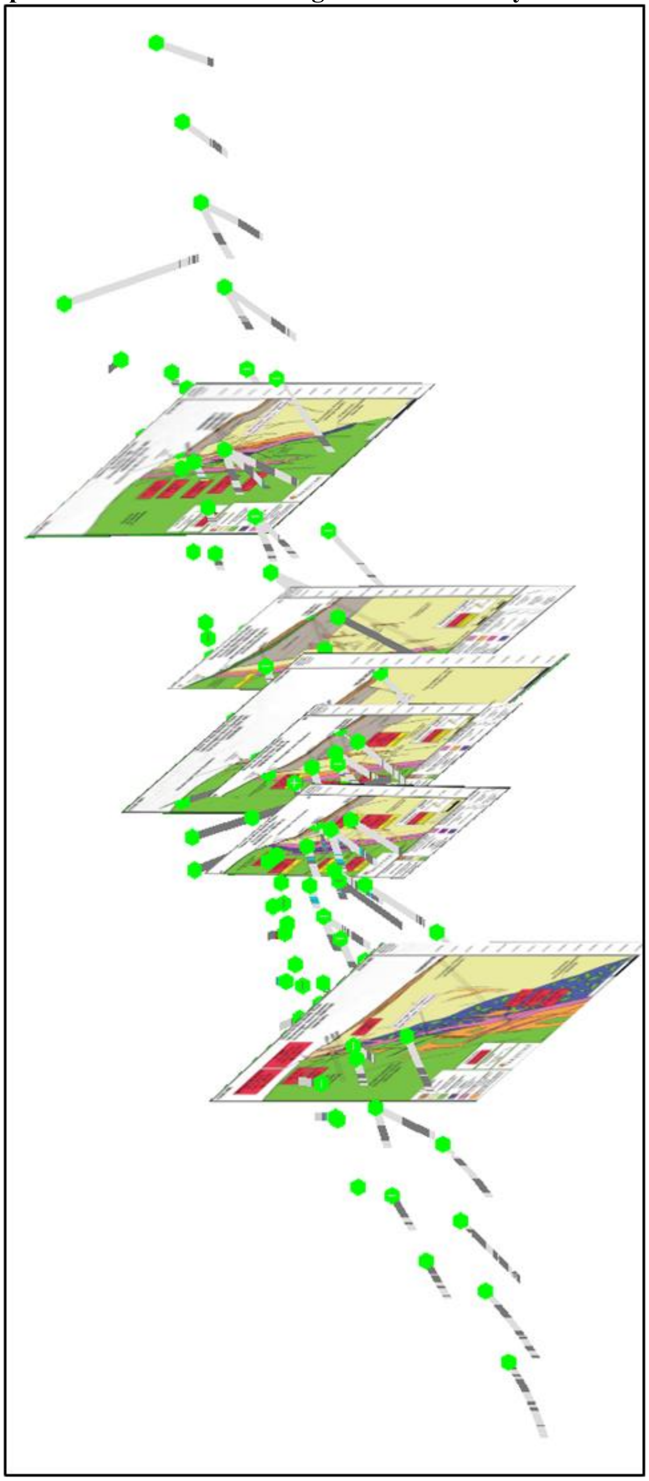

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Figure 14.7 Isometric view of drilling showing cross-sections and final wireframe solid
(from independent resource modelling commissioned by Redstar Gold, 2020).

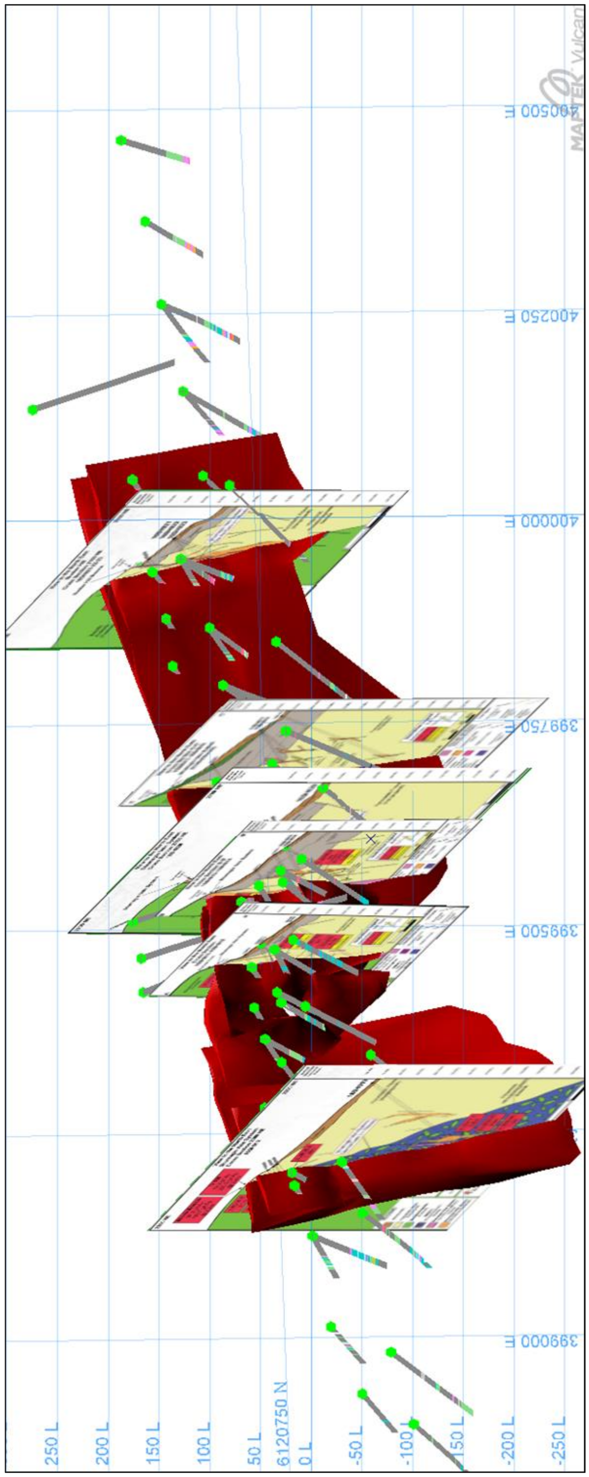

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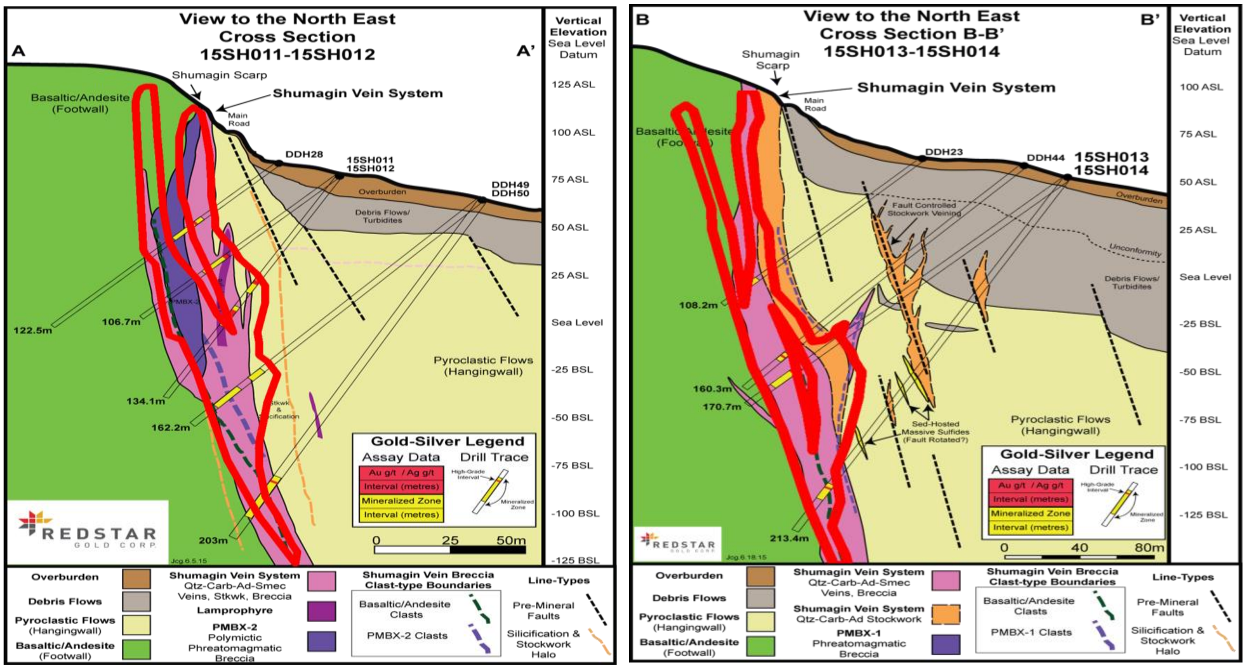
Table 14.5 Length weighted average Au (g/t) based on mineralization event logging code.

Logging Code	Number of Samples	Length Weighted Average
QAC.GB.bx	4	3.128
HYD.qtz.carb.bx.vein	87	2.100
QRA.bx	38	2.068
HYD.qtz.bx.vn	335	1.819
HYD.crackle	160	1.684
HYD.bx	61	1.473
Q.vn	1	1.420
HYD.bx.rep	50	1.170
QAC.vn	33	1.119
Ginguro.bx	20	0.879
QAC.bx	522	0.826
C.Sulfide.bx	20	0.688
HYD.Carb.bx	72	0.627
HYD.Tec.bx	75	0.529
Sulf.bx	37	0.425
HYD.stkwk	774	0.303
C.Sulfide.stkwk	32	0.207
HYD.Carb.crackle	3	0.129
HYD.Carb.stkwk	13	0.111
Carb.vn	6	0.108
Q.cly.vn	3	0.085
HYD.weak	430	0.076
Sed.sulf.bx	3	0.072
QRA.vn	4	0.057
Silicification	16	0.039
Q.cly.bx	12	0.029
Sulf.Sz	22	0.028
NONE	2434	0.013

Figure 14.8 Sections A-A' and B-B' showing slice of wireframe solid and drill holes (Au grade on drill trace, wireframe later clipped to topography)
(from Redstar Gold database, 2020).



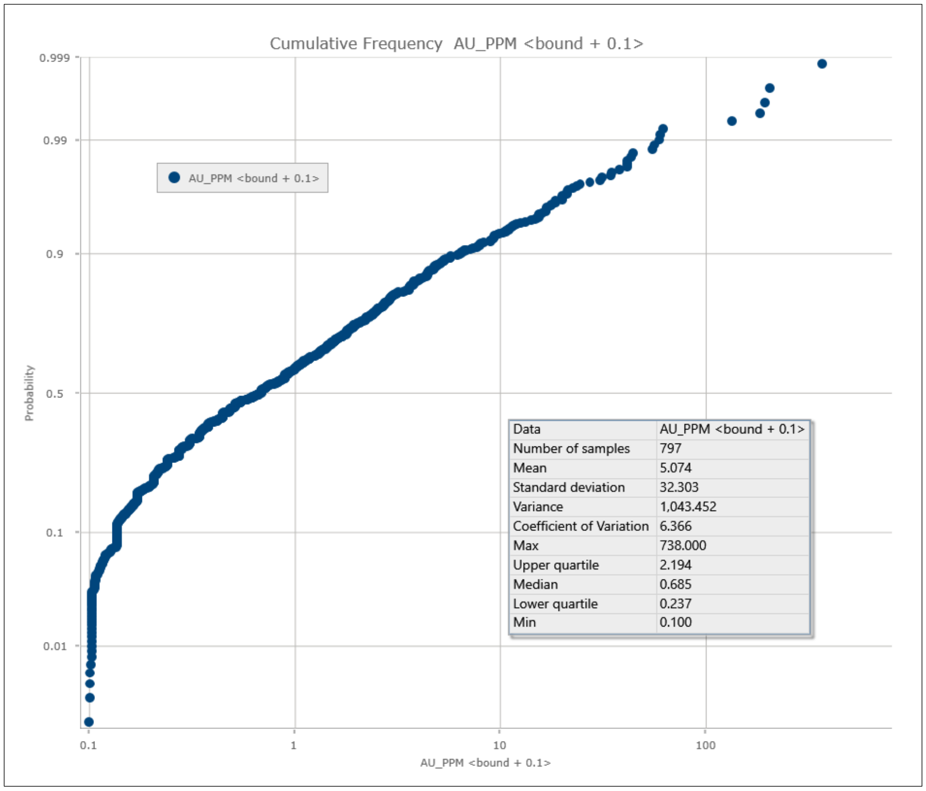
14.4 Grade Capping

A review of the gold and silver grades strongly indicated both elements needed to be capped. The basic statistics and probability plots were reviewed for gold values (Figure 14.9). A capping threshold was set to 61 g/t Au as the outlier data is above that threshold. This threshold represents 28% of the total grade-thickness and is above the 99th percentile (Table 14.6). A review of the silver data shows two obvious outlier samples in holes DDH32 and DDH35. Both samples were capped at 500 g/t Ag, representing a 14% loss in grade-thickness.

Table 14.6 Capping threshold and resulting GT lose.

	Capping Threshold (g/t)	Samples Capped	Percentile	Total GT - Uncapped	Total GT - Capped	Total GT Lost
Au	61	7	99	4309	3092	28%
Ag	500	2	99	23992	20565	14%

Figure 14.9 Cumulative Frequency of raw Au values above 0.1 g/t within mineralized solid. Data begins to lose trend at about 61 g/t.



14.5 Drillhole Flagging and Compositing

The sample lengths appear to be a nominal 1 meter in length but are widely variable indicating compositing is necessary. Based on the block size and likely smaller scale mining widths, a two (2) meter composite was chosen for the gold and silver data. Composites were broken at the mineralization wireframe boundary, and the composite lengths were evenly distributed within the wireframe. Unsampled intervals, and samples below detection were given a value of zero prior to compositing. Both raw and capped gold and silver grades were composited. The composites within the mineralization solid were flagged. Basic statistics and a log probability plot of composited values are shown in Table 14.7 and Figure 14.10.

Table 14.7 General statistics for capped two-meter composites within wireframe.

	Au (g/t) - 2m comps, within wireframe, capped, 0 cutoff	Au (g/t) - 2m comps, within wireframe, capped, 0.1 cutoff	Ag (g/t) - 2m comps, within wireframe, capped, 0 cutoff	Ag (g/t) - 2m comps, within wireframe, capped, 2.5 cutoff
Count	744	480	744	393
Mean	1.923	2.96	8.829	15.67
Standard deviation	5.477	6.593	23.22	30.347
Variance	30.003	43.471	539.173	920.961
Coeff. Of Variation	2.849	2.227	2.63	1.937
Maximum	59.034	59.034	370.286	370.286
Upper quartile	1.277	2.499	6.679	11.735
Median	0.237	0.809	2.745	6.242
Lower quartile	0.046	0.261	1.234	3.887
Minimum	0	0.101	0	2.537
Percentile 10	0.023	0.145	0.355	2.999
Percentile 20	0.034	0.215	0.916	3.554
Percentile 90	4.786	7.628	16.869	33.287
Percentile 99	29.139	37.318	105.213	130.628

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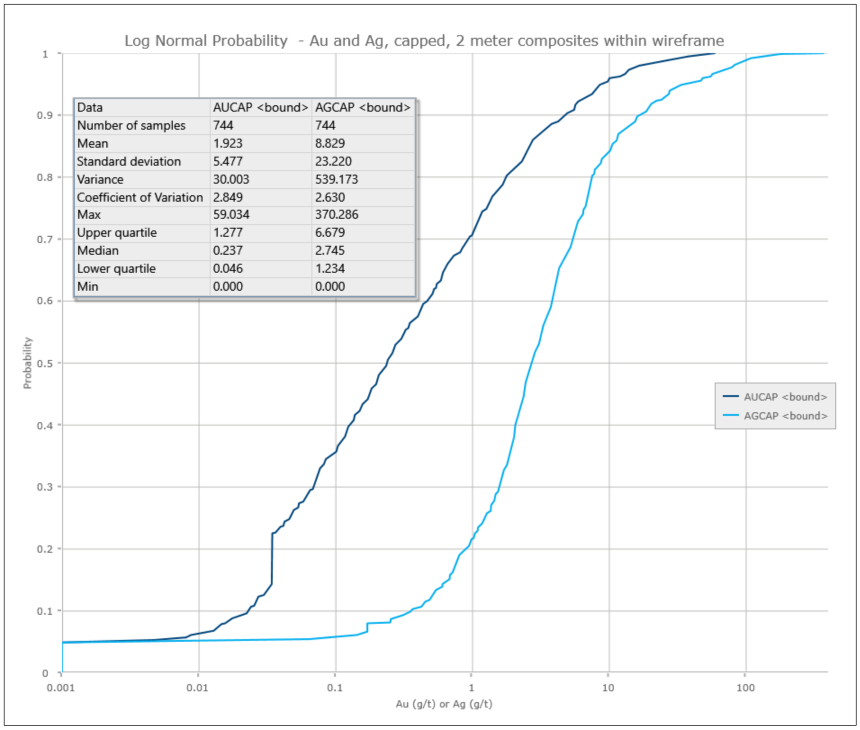
Figure 14.10 Log probability plot of Au and Ag two-meter, capped composites within wireframe.



14.6 Grade Continuity

Variography on the composited data was used to produce spherical correlograms. Only data within the mineralized wireframe was used, with a cutoff of 0.1 g/t Au. Only data from core drilling was used in the variography as the core drilling covers the largest extent of the deposit, particularly at depth. Orthogonal variograms were created to determine appropriate ranges for estimation along the major, semi-major, and minor directions. The major orientation was chosen to be 070 degrees with a -20-degree plunge, which represents the general strike of mineralization.

The maximum range was determined to be approximately 60 meters in the major direction (Figure 14.11), approximately 60 meters in the semi-major direction (Figure 14.12), and 15 meters in the minor direction (Figure 14.13).

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Figure 14.11 Major direction correlogram

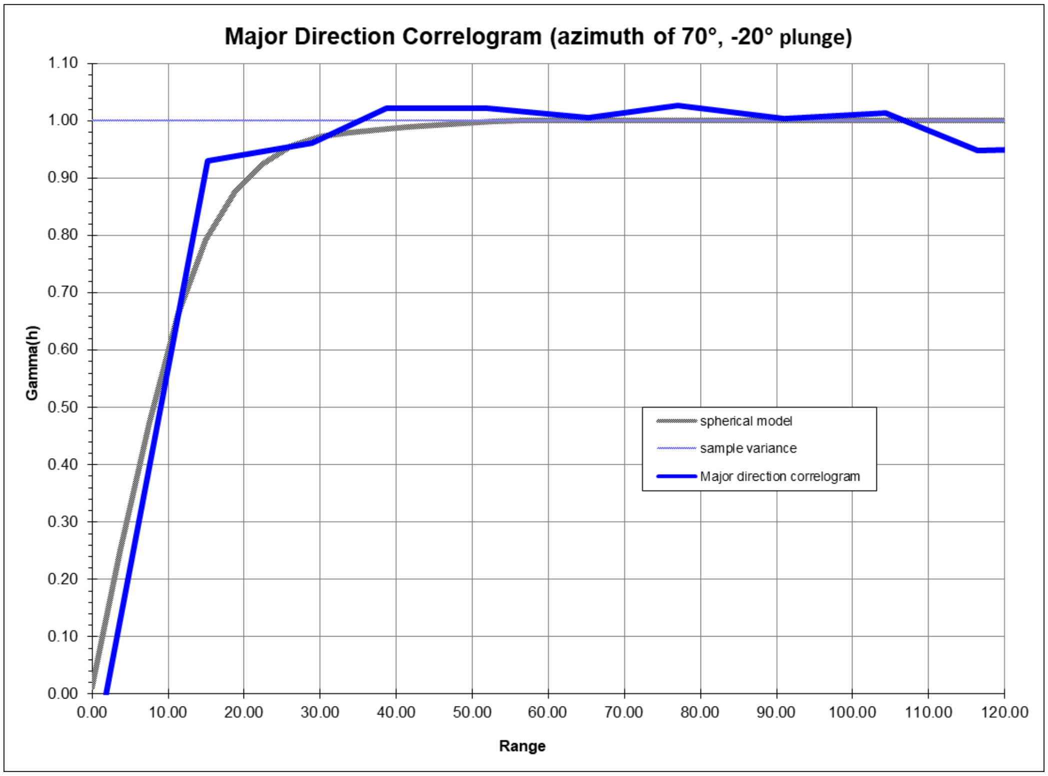

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Figure 14.12 Semi-major direction correlogram

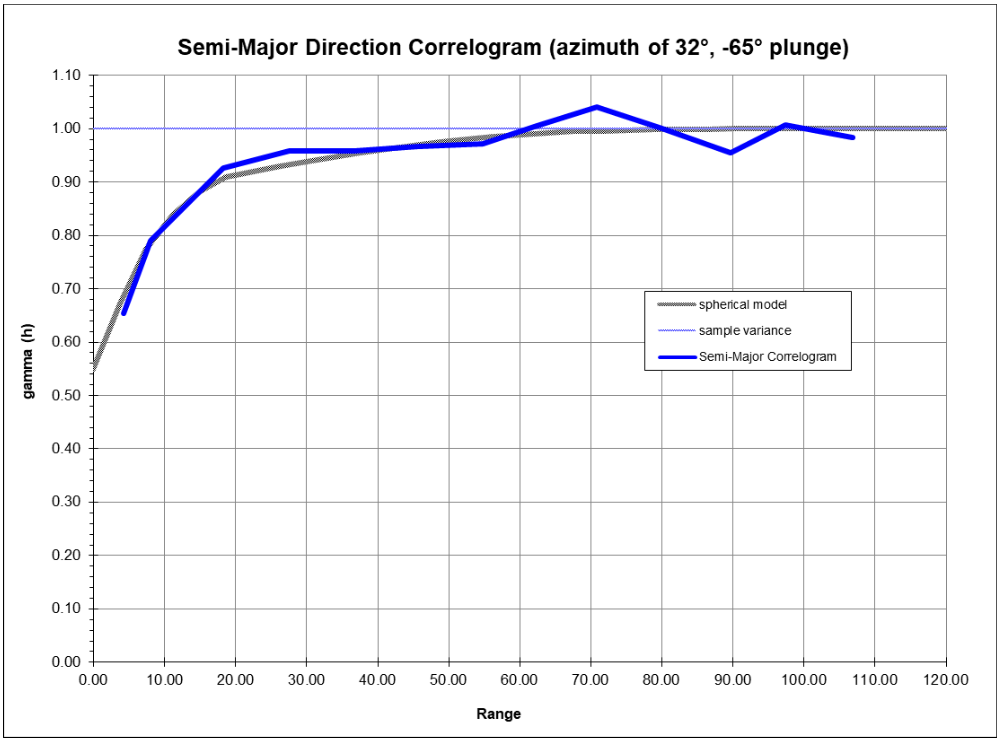

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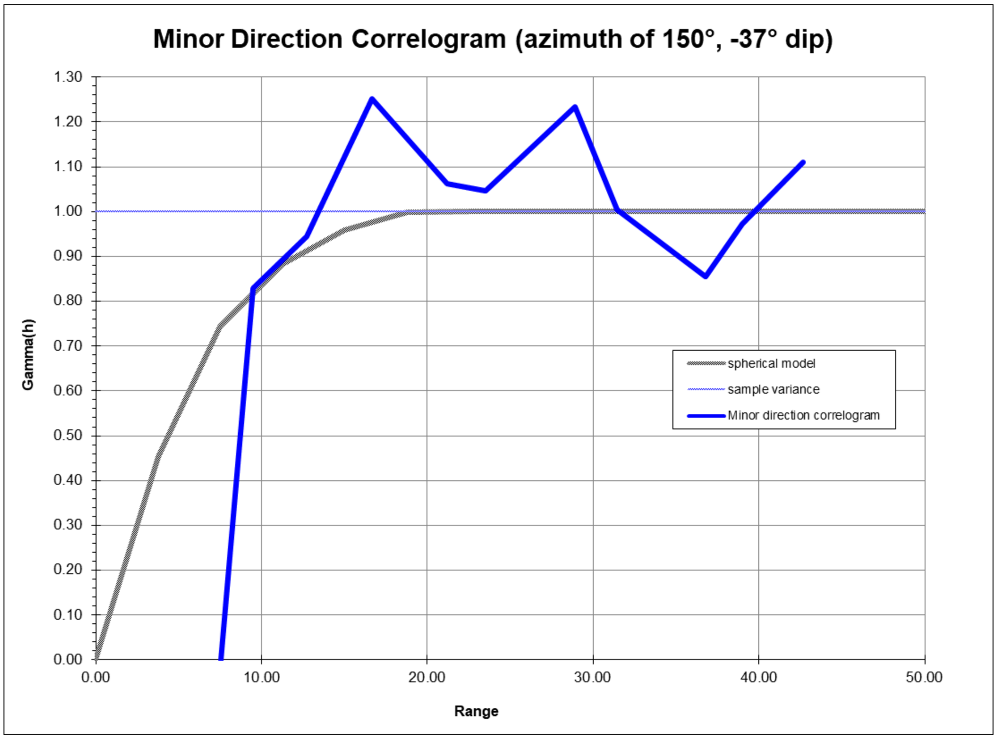
Figure 14.13 Minor direction correlogram



14.7 Block Model

A parent block size of 20 m (X) x 20 m (Y) x 20 m (Z) was chosen for the resource estimate. Sub-blocks of 2 m (X) x 2 m (Y) x 2 m (Z) were created around and within the modeled solid of the mineralized zone, effectively creating a block model of 2 m x 2 m x 2 m. The block model was rotated to an absolute bearing of 090 degrees. The block model extents were extended past mineralized wireframes.

Table 14.8 presents the coordinate ranges and block size dimensions that were used to build the 3D block model from the mineralized wireframe. Each block within the modeled mineralized wireframe was given a value of 1 to ensure only blocks within the wireframe were estimated.

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Table 14.8 Block model extents and offset. Offsets are distance from origin.

	Easting	Northing	Elevation
Minimum	398600	6410200	-1000
Offset	2000	1100	2000
Cell Size	20	20	20
Subblock Minimum	2	2	2
Subblock Maximum	2	2	2
Rotation (Absolute Bearing)	90	90	90

14.8 Grade Estimation

14.8.1 Estimation methods

The resource estimate of gold (Au) and silver (Ag) was calculated using a nearest neighbor estimation, also known as a polygonal estimation. The nearest neighbor approach was chosen in order to best represent the narrow high-grade intercepts without causing unnecessary dilution from nearby low-grade intercepts. This was accomplished by using inverse-distance squared but selecting only one sample for each block estimate. The mineralization wireframe was used as a hard boundary, so only samples within the wireframe were selected for estimation. Blocks not within the mineralized solid were not estimated, and blocks above the topography surface were given a value of zero.

14.8.2 Sample Selection

A multi-pass approach was used in grade estimation (Table 14.9). All passes used only one sample and only samples within the wireframe solid were selected. Two estimations scenarios were run based on sample selection by cartesian or anisotropic distances with no noticeable difference in results, so in the final estimation, samples were selected by cartesian distances. All passes used capped Au and Ag composites, except for the first pass of the Au estimation used uncapped Au values.

14.8.3 Search Ellipsoid

The directions of the search ellipse were defined by the overall trend of mineralization. The multi-pass approach used increasing sizes of search ellipsoids based on the variogram ranges in the major direction (see Section 14.6). The ellipse size in the semi-major direction was chosen as half of the major direction search distance. The minor direction search distance was chosen as twice the block size, or four (4) meters (see Tables 14.9, 14.10).

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The multi-pass approach was chosen in order to better accommodate validation of resources after estimation. Four total passes were run, however, only passes 1-3 were appropriate for Inferred resource category. The maximum ellipse search range for the Inferred passes (pass #3) was 120 meters (major) by 60 meters (semi-major) by 4 meters (minor).

Table 14.9 Summary of estimation criteria for Au and Ag estimation.

Pass	Notes	Approximate factor of max. sill variance range	Min. # of Samples	Max. # of Samples	Max. # per Drillhole	Ellipse Range			Category
						Major	Semi-Major	Minor	
1	Au uncapped, Ag capped	N/A	1	1	1	4	8	2	Inferred
2	Au and Ag capped	100%	1	1	1	60	30	4	Inferred
3	Au and Ag capped	200%	1	1	1	120	60	4	Inferred
4	Au and Ag capped	N/A	1	1	1	400	100	4	N/A

Table 14.10 Summary of search ellipses for Au and Ag estimation

Pass	Notes	Ellipse Range			Ellipse Direction			Category
		Major	Semi-Major	Minor	Bearing	Plunge	Dip	
1	Au uncapped, Ag capped	4	8	2	70	-20	-75	Inferred
2	Au and Ag capped	60	30	4	70	-20	-75	Inferred
3	Au and Ag capped	120	60	4	70	-20	-75	Inferred
4	Au and Ag capped	400	100	4	70	-20	-75	N/A

14.9 Bulk Density

There are twenty-seven (27) bulk density measurements in the project database and are all from the 2011 and 2015 drilling campaigns. Only eight (8) fall within the grade shell. These indicate a mean density of approximately 2.6 g/cm^3. This value is appropriate to the rock type and thus the density field was set to 2.6 g/cm^3.

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14.10 Model Validation

14.10.1 Visual Validation

The blocks were visually validated on cross-sections and plan view comparing block grades versus composite sample grades (Figures 14.14, 14.15 and 14.16). The estimated Au and Ag showed good correlation to the composite values, especially in the more densely drilled areas of the deposit. Areas with less dense drilling show individual drill holes with a large influence.

14.10.2 Statistical Validation

A statistical comparison of the two (2) meter composite data and the resulting block data for Au and Ag is provided in Table 14.11. The general statistics show good comparison to the two (2) meter composite data. The most significant differences occur at the highest percentile of data. This is likely due to a relatively few holes with high-grades that are isolated in deeper parts of the deposit

Table 14.11 Comparison statistics of blocks vs two-meter composites.

	Au (g/t) - 2m comps, within wireframe, capped, 0 cutoff	Blocks - Au - 0-61 g/t cutoff	Au (g/t) - 2m comps, within wireframe, capped, 0.1 cutoff	Blocks - Au - 0.1-61 g/t cutoff
Count	744	364358	480	222160
Mean	1.923	2.082	2.96	3.389
Standard deviation	5.477	5.934	6.593	7.306
Variance	30.003	35.213	43.471	53.377
Coeff. Of Variation	2.849	2.849	2.227	2.156
Maximum	59.034	59.034	59.034	59.034
Upper quartile	1.277	1.371	2.499	2.743
Median	0.237	0.252	0.809	1.014
Lower quartile	0.046	0.042	0.261	0.345
Minimum	0.000	0.000	0.101	0.110
Percentile 10	0.023	0.024	0.145	0.179
Percentile 20	0.034	0.034	0.215	0.266
Percentile 90	4.786	4.681	7.628	7.639
Percentile 99	29.139	41.040	37.318	41.040

To get an idea of the effect of certain holes in the resource estimate, each hole was given an integer value. The integer value was then estimated into the block model during the estimation. Thus, the number of ounces attributable to each hole was calculated (Table 14.12). The result shows up to 26% of the resource is attributable to a single hole (BM-01). BM-01 has a high-grade intercept below the main cluster of drilling and has little to no drilling nearby, thus the high-grade values are allowed to extend a significant distance. However, the grade in BM-01 is high, but still below the capping threshold and not unreasonable. In addition, upon review, there are other holes along trend of BM-01 with significant grade (16SH019, 16SH020, and 17SH038) at similar depths, indicating the mineralized interval is not an outlier. Thus, while contributing a significant percentage of the resource, the result is still reasonable for an Inferred resource.

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Table 14.12 Summary of individual hole contributions to total resource.

DHID	Cutoff	Tonnage (tonnes)	Au (g/t)	Au (oz)	% of Total Au (oz)	Ag (g/t)	Ag (oz)	% of Total Ag (oz)
BM-01	3.5	85,114	37.25	101,936	26.5%	28.80	78,808	8.0%
11SH010	3.5	36,774	15.74	18,604	4.8%	73.26	86,614	8.8%
DDH57	3.5	18,325	28.90	17,025	4.4%	29.23	17,222	1.7%
DDH26	3.5	58,822	8.70	16,459	4.3%	11.37	21,512	2.2%
DDH23	3.5	19,406	26.06	16,260	4.2%	84.60	52,784	5.4%
15SH018	3.5	34,798	14.48	16,200	4.2%	45.28	50,658	5.1%
DDH58	3.5	28,517	15.76	14,453	3.8%	65.46	60,021	6.1%
15SH011	3.5	6,344	69.29	14,132	3.7%	78.79	16,071	1.6%
DDH46	3.5	9,110	33.53	9,822	2.6%	77.62	22,734	2.3%
16SH022	3.5	21,154	13.98	9,510	2.5%	11.34	7,714	0.8%
TR169	3.5	15,156	18.70	9,113	2.4%	158.39	77,182	7.8%
DDH35	3.5	16,203	15.17	7,903	2.1%	120.29	62,667	6.4%
15SH012	3.5	17,285	13.48	7,490	1.9%	106.78	59,343	6.0%
17SH034	3.5	28,184	7.64	6,922	1.8%	25.53	23,137	2.3%
DDH42	3.5	16,702	12.54	6,734	1.8%	23.73	12,741	1.3%
DDH28	3.5	27,539	6.73	5,955	1.5%	27.34	24,208	2.5%
11SH001	3.5	22,287	8.30	5,945	1.5%	13.51	9,680	1.0%
16SH019	3.5	28,683	6.37	5,877	1.5%	1.87	1,724	0.2%
16SH023	3.5	30,118	5.75	5,570	1.4%	5.96	5,767	0.6%
DDH51	3.5	8,528	20.22	5,543	1.4%	31.17	8,546	0.9%
TR176	3.5	29,110	5.66	5,297	1.4%	16.10	15,070	1.5%
DH176+00	3.5	20,018	7.96	5,120	1.3%	36.96	23,786	2.4%
DDH59	3.5	24,419	6.05	4,749	1.2%	36.26	28,468	2.9%
DDH52	3.5	22,110	6.11	4,341	1.1%	22.63	16,084	1.6%
DDH44	3.5	13,686	9.30	4,092	1.1%	50.34	22,151	2.2%
WB2016	3.5	3,383	35.87	3,901	1.0%	110.51	12,019	1.2%
DDH39	3.5	32,157	3.75	3,878	1.0%	5.94	6,146	0.6%
TR173	3.5	9,959	11.96	3,828	1.0%	19.39	6,207	0.6%
DH176+90	3.5	5,920	19.59	3,728	1.0%	77.31	14,714	1.5%
REMAINING	3.5	176,200	7.76	43,941	11.4%	25.15	142,501	14.4%

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Figure 14.14 Representative cross-section screenshot demonstrating excellent comparison between drill hole assays and block grade estimates looking ENE
(from independent resource modelling commissioned by Redstar Gold, 2020).

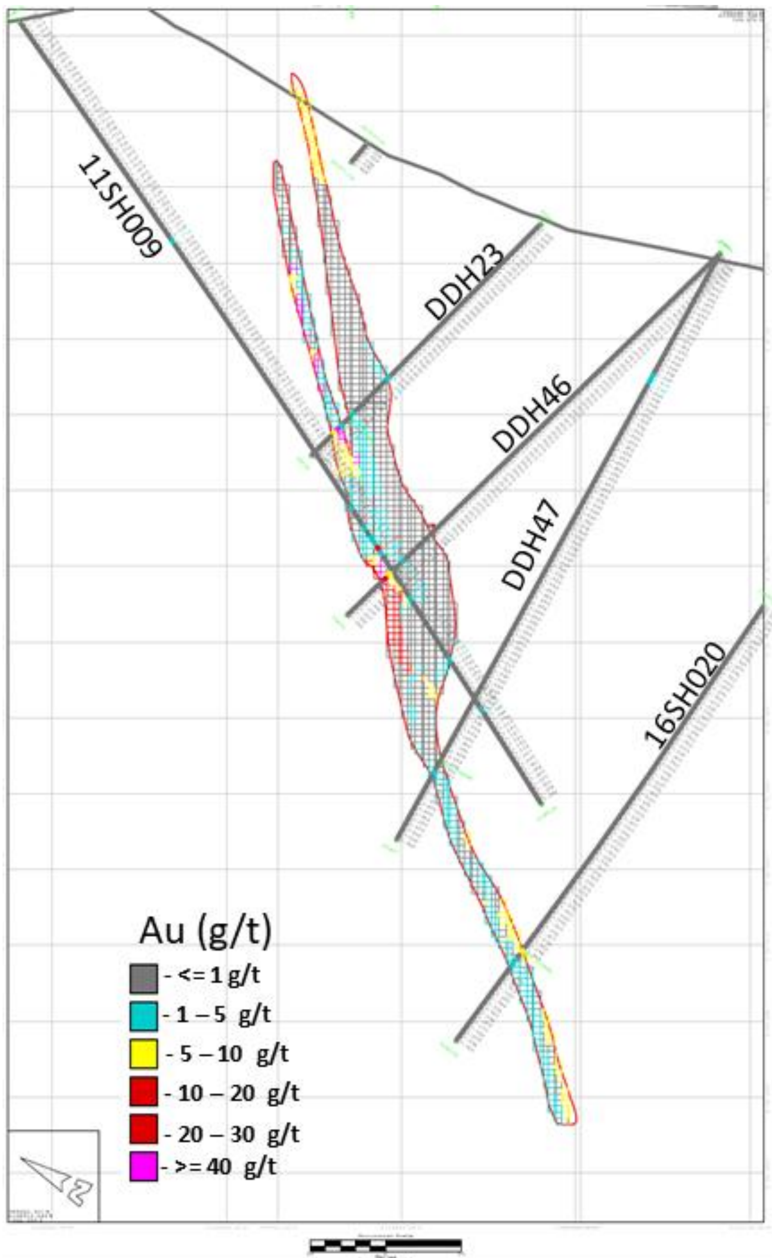

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Figure 14.15 Representative cross-section screenshot demonstrating excellent comparison between drill hole assays and block grade estimates looking ENE

(from independent resource modelling commissioned by Redstar Gold, 2020).

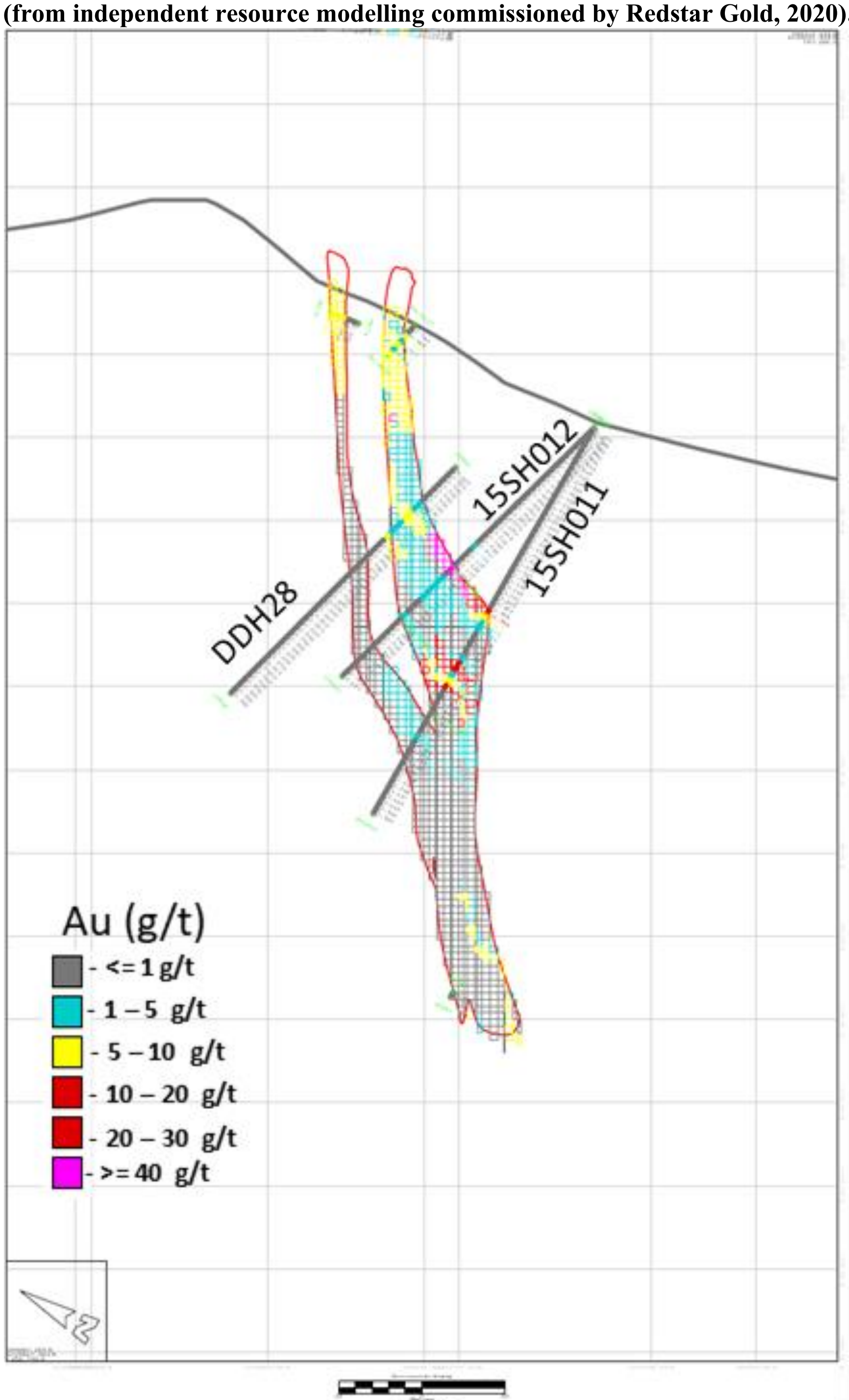

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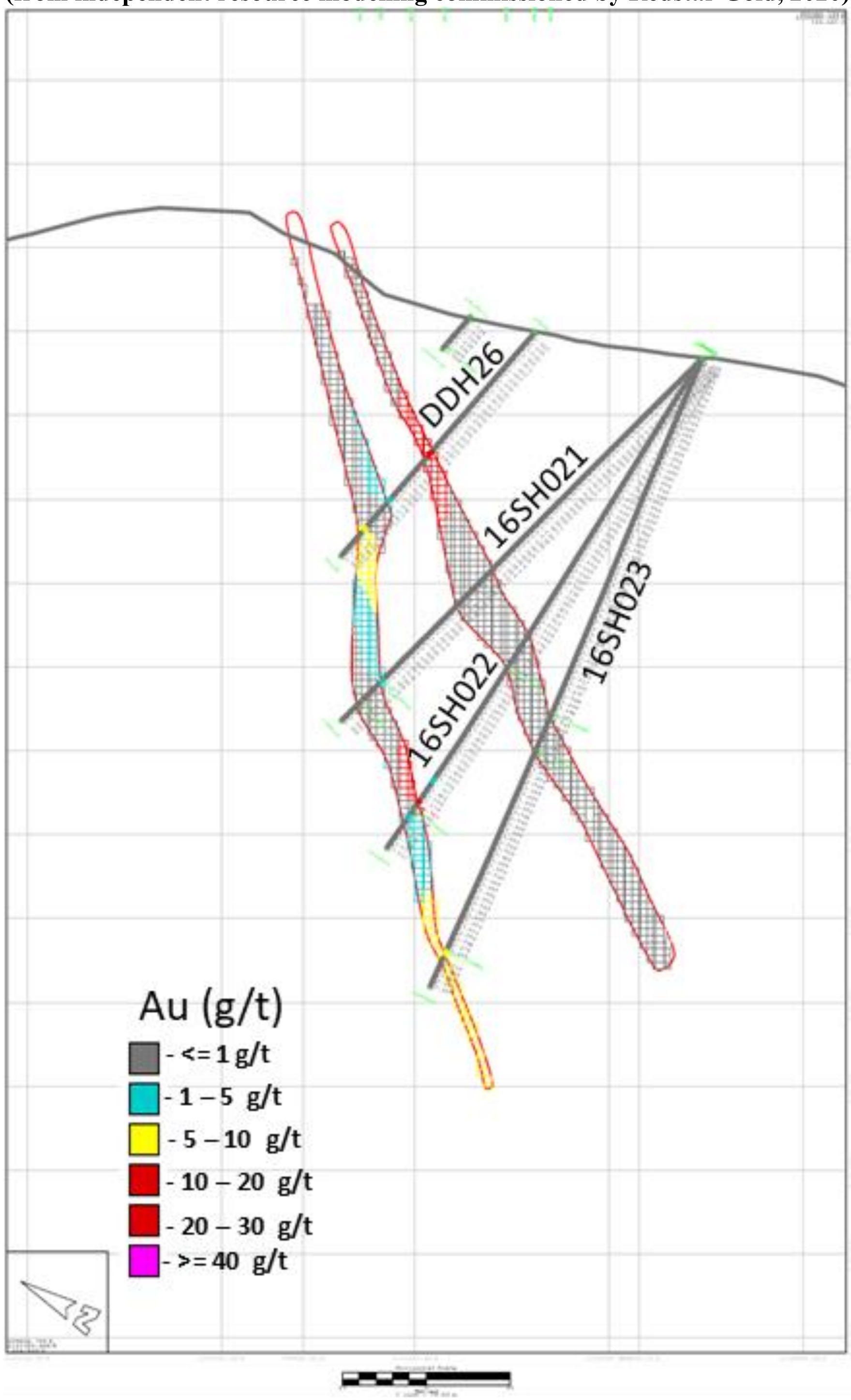
Figure 14.16 Representative cross-section screenshot demonstrating excellent comparison between drill hole assays and block grade estimates looking ENE
(from independent resource modelling commissioned by Redstar Gold, 2020).



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14.11 Mineral Resource

14.11.1 Resource Classification

The author has classified this Resource Estimate in accordance with guidelines established by the CIM "Estimation of Mineral Resources and Mineral Reserves Best Practice Guidelines" dated November 29th, 2019 and CIM "Definition Standards for Mineral Resources and Mineral Reserves" dated May 10th, 2014.

This Resource Estimate is unable to support a resource category of Measured or Indicated at this time, thus a classification of Inferred has been used. This is due to multiple factors, including:

1) Use of only one sample and/or drill hole per individual block within the estimate.

2) A large number of holes, including all holes drilled prior to 2011, are lacking downhole survey measurements.

3) A significant amount of drilling was completed prior to 2011 by previous owners.

The Inferred resource consists of passes 1-3 of the resource estimate only. Pass 4 was considered beyond a reasonable range of search ellipse. The Inferred Resource continues to be based on geologic confidence of the mineralized orebody, the data quality, and grade continuity. The constraining wireframe solid prevents significant extension of grade while still honoring drill data. The trend of mineralization is represented in the estimate, and the grade continuity is represented in the maximum ellipse distances used, which is up to 200% of the variography range.

14.11.2 Cut-off Grade

The QP has selected a 3.5 g/t Au break-even cut-off grade for the reporting of Mineral Resource Estimates for SH-1 Zone, based on economic factors derived from comparisons to a similar small remote underground mine in Alaska, and adjusted the factors for inflation and location. The economic factors take into account a remote underground mining operation, mining by long-hole stoping methods, at a mine that will be serviced in part by aircraft but mostly by sea, and must generate its own power and operate a man-camp for the crews. The factors also considered in the economic evaluation are shown in Table 14.13.

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Table 14.13 Key economic assumptions for SH-1 Zone cut-off grade.

	Underground
G&A	$ 18.00/t
Power	$ 12.00/t
Camp	$ 13.00/t
Mining	$ 48.00/t
Processing	$ 40.00/t
Environmental Compliance	$ 1.75/t
Maintenance	$ 11.00/t
Total Mining Cost/Tonne	$ 146.00/t
Gold Price	$ 1,450/oz Au
Recovery	87.8%
$/Gram	$ 41.64
Calculated Cut-Off	3.50 g/t

14.11.3 Mineral Resource Statement

Mineral resources are not mineral reserves and do not necessarily demonstrate economic viability. There is no certainty that all or any part of this mineral resource will be converted into mineral reserve.

Inferred Mineral Resources are too speculative geologically to have economic considerations applied to them to enable them to be categorized as mineral reserves.

This Mineral Resource Estimate is reported at a cut-off of 3.5 g/t Au. Table 14.14 summarizes the Inferred Mineral Resources for the SH-1 Zone and demonstrates the tonnage and grade sensitivity relative to other potential mining cut-offs at different gold prices. A Silver/Gold conversion factor of 0.011864 has been used to convert ounces of silver to gold equivalent ounces in this table.

It should be noted that a significant amount of the resource is based on limited drill holes (see Section 14.10.2 and Table 14.12). In addition, the overall tonnage can be highly dependent on the interpretation of the wireframe solid. Further drilling and/or an updated interpretation can have significant effect on the resulting resource. However, the mineralization trend has been confirmed between numerous deep drill holes (e.g. 16SH019, 16SH020, BM-01, and 17SH038) and thus provides confidence in the estimate.

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Table 14.14 Mineral Resource Estimate Summary SH-1 Zone (formerly the Shumagin Zone)
February 7, 2020

Gold Price USD	Cut-off Au (g/t)	Preliminary Inferred Resource[ii], SH-1 Zone within Shumagin Trend						
		Tonnes	Au (g/t)	Au (oz)	Ag (g/t)	Ag (oz)	AuEq[iii]	AuEq (g/t) [iii]
$ 2,600	2.0	1,534,645	9.0	442,673	25.6	1,264,364	457,424	9.3
$ 2,075	2.5	1,355,789	9.9	429,721	26.3	1,147,353	443,107	10.2
$ 1,675	3.0	993,817	12.4	397,613	32.5	1,039,231	409,737	12.8
$ 1,450	3.5	**866,015**	**13.8**	**384,318**	**35.4**	**986,321**	**395,825**	**14.2**
$ 1,290	4.0	797,237	14.7	375,940	36.9	946,724	386,985	15.1
$ 1,150	4.5	761,720	15.2	371,039	38.2	936,160	381,961	15.6
$ 1,035	5.0	724,495	15.7	365,352	39.4	917,812	376,060	16.1

ii Mineral Reserve estimates follow the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") definitions standards for mineral resources and reserves and have been completed in accordance with the Standards of Disclosure for Mineral Projects as defined by National Instrument 43-101. Reported tonnage and grade figures have been rounded from raw estimates to reflect the relative accuracy of the estimate. Minor variations may occur during the addition of rounded numbers. Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability. Resources were constrained by a Vulcan, wire frame underground model and based on a cut-off of 3.5g/t Au.

iii A Silver/Gold conversion factor of 0.011864 has been used to convert ounces of silver to gold equivalent ounces.

14.11.4 Author's Summary Comments

Having reviewed and supervised this resource estimate and having reviewed the data that supports this Inferred Resource Estimate the QP has determined that the data and methodology are acceptable for categorizing these results as an Inferred Resource.

Items 15 through 22 are not required because the Unga project is not an advanced property.

23.0 ADJACENT PROPERTIES

The author is not aware of any information regarding properties adjacent to the Unga project that is relevant to the technical information summarized in this report.

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24.0 OTHER RELEVANT DATA AND INFORMATION

All known relevant data and information has been incorporated into this report.

25.0 INTERPRETATION AND CONCLUSIONS

The QP has reviewed the project data, examined the drill-hole database compiled by Mine Development Associates in their June 2018 report and has visited the project site. The QP believes that the data provided by Redstar, as well as the geological interpretations Redstar has derived from the data, are generally an accurate and reasonable representation of the SH-1 Zone and are acceptable for the calculation of an Inferred Resource described in Section 14.

A significant quantity of diverse mineralized showings has been identified to date within the large land position of the Unga project (Figure 7.5). Many of the prospective areas on Unga Island are related to northeast-trending structural zones, most notably the Shumagin Trend which hosts the SH-1 Zone.

It is likely that groups of Unga project mineralized showings are genetically related to magmatic and intrusive activity of the Popof volcanics and discrete magmatic-hydrothermal centers, with the most obvious being Orange Mountain, which appears to be a high-level high-sulfidation alteration zone that can reasonably be inferred to be underlain by an intrusion. The Shumagin Trend intermediate-sulfidation gold-silver occurrences lie on either side of, and appear to emanate from, Orange Mountain as the SH-1 Zone approximately 3.5 km to the northeast and the Aquila Zone approximately 3.5 km to the southwest. As such, the Unga project appears to offer the full vertical and lateral spectrum of high-sulfidation to intermediate-sulfidation and possibly low-sulfidation targets.

Intermediate-sulfidation targets are the most abundant of the presently known mineralized areas at the Unga property, and of these, the SH-1 Zone vein-breccia is the most advanced target. The SH-1 Zone vein system has a drilled strike extent of 1.75 kilometers and remains open in both directions. The central portion of the drilled strike length has returned significant gold + silver intercepts, including a number of intersections in excess of 10 g Au/t, and a few in excess of 100 g Au/t. Hole-to-hole continuity of Au grade is interpreted using the Vulcan program and extrapolated for a maximum width of 120 meters along strike of mineralization (major direction), 60 meters down dip (semi-major), 4 meters perpendicular to strike (minor). However, in addition to the vein system being open along strike, with the potential of hosting a separate mineralized segment along the vein zone, the presently defined mineralized portion of the vein zone is open at depth. Of the four deepest intersections of the Shumagin vein system, three of the holes returned single-sample values in excess of 10 g Au/t, along with lower-grade but still significant results (>3 g Au/t). These three intersections lie along a 450-meter strike extent of the vein zone, below the central portion of the presently drilled vein zone; the fourth deep hole lies outside of this strike length. The SH-1 Zone vein-breccia remains strong in these holes, and base-metal values are

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lower, both of which support the concept that the mineralized core of the SH-1 Zone has not yet been fully defined.

The SH-1 Zone has received the bulk of exploration work to-date among the prospects on Unga Island and warrants further exploration. It is noteworthy that all known prospects on Unga Island were identified by a first-pass level of surface exploration and significant portions of the Unga Project property have experienced only cursory field review. Recently developed concepts of potentially mineralized high-sulfidation and porphyry intrusive centers such as Orange Mountain and laterally associated epithermal systems such as the SH-1 Zone should be used to develop exploration strategies that can be applied to other areas of the Unga Island project, including areas of limited exposure. Consideration should also be given to the variable levels of erosion that are likely present on the property.

26.0 RECOMMENDATIONS

The QP believes that the SH-1 Zone is an Inferred Mineral Resource as defined under NI-43 101 classification and warrants considerable exploration investment. Other prospects of the Unga Island project have undergone various stages of exploration, and essentially all of them warrant some level of additional work.

The SH-1 Zone is the most advanced prospect at Unga and remains open for expansion. Most significantly, the handful of holes that intersect the deepest portion of the presently defined core of the mineralized zone demonstrate that the vein zone remains strong and highly mineralized. The challenge at the SH-1 Zone has been to identify mineralization of sufficient grade, continuity, and size to warrant the estimation of resources and a related preliminary economic assessment. However, this report confirms that grade, continuity and size have been established under NI 43-101 classification rules and as such permit the reporting of an Inferred Mineral Resource of 395,825 ounces of gold equivalent as detailed in Table 14.14.

Drilling is recommended to test on-strike and down-dip projections of the SH-1 Zone system so far defined. Based upon low level sulfide base metal mineral content the hypothesis that the vein system of the historical Apollo-Sitka gold mines (located on the Apollo-Sitka Trend to the south) represents the roots of an SH-1 type vein system lends credence to the idea that the vertical extent of the SH-1 Zone vein could extend significantly deeper than indicated by present drilling levels.

As discussed in Section 25.0 the comprehensive review of all Unga Island prospects, including field reviews, should be undertaken within the geologic framework of mineralized high to intermediate sulfidation and porphyry intrusive centers and their laterally associated epithermal systems. The goal of these reviews is to prioritize the prospect areas and define the work needed to advance them, if warranted.

As pointed out in Gustin, et.al. (2018) a single, project-wide digital database should be compiled that incorporates all data associated with every drilling campaign completed at the project. All relevant data should be included, such as the exploration company that executed the drilling program, dates of holes drilled, the target areas of the holes, analytical laboratories and assay methods used, etc. Logged data should be captured in individual tables such as mineralization, alteration, oxidation, vein types, and structure. The creation of this database will bring issues to light that will need to be resolved. As part of this compilation, the method used to transform the historical drill-hole collar coordinates into UTM NAD83 coordinates needs to be determined and properly documented.

Following the creation of the project drill-hole database, all other project information for each prospect area needs to be organized on a prospect-by-prospect basis, including the available paper records that serve as the backup to the information in the drill-hole database. When this work is completed, a desk-top review of each prospect area can be followed by field work.

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Based on the information available, a program of exploration work to accomplish the above is recommended with an estimated cost of approximately $2 million as summarized in Table 26.1

Table 26.1 Cost estimate for the recommended program

Exploration Item	Estimated $ Cost
Project Database Compilation and Validation	$ 50,000
Surface Geochemical Sampling, Assays	$ 100,000
Camps, Logistics	$ 300,000
Drilling at Shumagin	$ 1,100,000
Shumagin Drill Support - Geology	$ 100,000
Drill Assays	$ 150,000
Travel	$ 100,000
Database Maintenance and Reporting	$ 30,000
Total	$ 1,930,000

27.0 REFERENCES

Andersen, G.D., Butherus, D.L., Frankhauser, R.E., Pray, J.C., Lindberg, P.A., and Hoffman, B.L., 1980, Volume III Book 1 Exploration and evaluation of lands leased from Aleut Native Corporation 1980: unpublished report by Research Associates of Alaska prepared for Houston Oil and Minerals Corporation, 68 p.

Atwood, W.W., 1911, Geology and mineral resources of parts of the Alaska Peninsula: U.S. Geological Survey Bulletin 467, 137 p., 14 pl.

Bowdidge, C.R., 1993, Summary report on the Apollo and Shumagin gold mining projects, Unga Island, Alaska: unpublished report prepared for Alaska Apollo Resources, Inc.

Burk, C.A., 1965, Geology of the Alaska Peninsula: Geol. Soc. of America Memoir 99, p. 250.

Burtherus, D.L., Gressitt, E.E., Pray, J., Corner, N.G., Lindberg, P.A., and Frankhauser, R.E., 1979, Exploration and evaluation of the Aleut Native Corporation lands: unpublished report prepared by Resource Associates of Alaska, Inc., v. III, 71p.

Detterman et al 1996 Detterman, R.L., Case, J.E., Miller, J.W., Wilson, F.H., and Yount, M.E., 1996, Stratigraphic framework of the Alaska Peninsula: U.S. Geological Survey Bulletin 1969-A, 74 p.

Dirks, N.J., and Richards, G.G., 1976, (January), Final report on Zachary Bay Project Unga Island, Alaska Port Moller B-2 Quadrangle: unpublished in-house report to Quintana Minerals Corporation, 17 p.

Drobeck, P.A., 2005 (October), Shumagin Islands evaluation, Aleutians East Borough, Alaska, project review and exploration plan: unpublished report prepared for Metallica Resources Inc., 52 p.

Ellis, W.T., and Apel, R.A., 1989 (December), Unga / Alaska Peninsula project 1989 final report: unpublished internal report for Battle Mountain Exploration Company, 48 p.

Ellis, W.T., and Harris, D.E., 1989, Centennial prospect final report 1989: unpublished internal report for Battle Mountain Exploration Company, 91 p.

Ellis, W.T., and Apel, R.A., 1991, Unga/Alaska Peninsula Project 1990 final report: Unpublished internal report for Battle Mountain Exploration Company, 49p.

Finzel and others, 2005, Preliminary interpretative report 2005-4, Bristol Bay Basin and Alaska Peninsula: State of Alaska Division of Geological & Geophysical Surveys, 67 p.

Galey, J., 2005 (October), Memorandum to Bill Ellis regarding Unga Island 2005, 42 p.

Gustin, M.M., and Weiss, S.I., 2018, Technical Report on the Unga Project, Southwest Alaska, USA, 151p.

Knappen, R.S., 1929, Geology and mineral resources of the Aniakchak district, Alaska: U.S. Geological Survey Bulletin, v. 797-F, p. 161-227.

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Lalonde, C.M., 1989, 1989 Diamond Drilling Program at the Shumagin Property, Ungal Island, Alaska, 26p.

Margolis, J., 2014 (June), Unga project review of priority targets and exploration program recommendations: internal company report, Redstar Gold Corp., 161 p.

Marincovich, L., Jr., and Wiggins, V.D., 1990, Oligocene age of strata on Unga Island, Shumagin Islands, southwestern Alaska: *in* Dover, J.H., and Galloway, J.P., eds., Geologic studies in Alaska by the U.S. Geological Survey, 1989: U.S. Geological Survey Bulletin 1946, p. 39-43.

Mining Journal, 1987, Shumagin results evaluation: Mining Journal, v. 309, no. 7940, p. 328.

Peterson, R.J., Lemmers, J., Handverger, P., Gallagher, J., Pilcher, R., East, J., Macleod, A., and Bartels, E., 1982, Geology and precious metals potential Unga, Popof, and Korovin Islands Shumagin Group Aleutian Chain, Alaska 1982: unpublished internal report by UNC Teton Drilling Inc., 144 p.

Peterson, R.J., Handverger, P., Rosenkrans, D., Bartels, E., and Woolston, D., 1983a, Shumagin Islands precious metals exploration program southwest Alaska 1983: unpublished internal report by UNC Teton Drilling Inc., 107 p. plus appendices.

Peterson, R.J., Handverger, P., Rosenkrans, D., Bartels, E., and Woolston, D., 1983b, Shumagin Islands precious metals exploration program southwest Alaska 1983 Appendix: unpublished report by UNC Teton Drilling Inc., 291 p.

Pilcher, R.C., 1983, Report on the geology of the Apollo and Shumagin vein systems and results of the 1983 exploration program Unga Island, Alaska: unpublished report prepared for Alaska Apollo Gold Mines, Ltd., 95 p.

Queen, L.D., 1988, Geologic report on the Shumagin Claims, Unga Ilsand, Alaska: Unpublished report prepared for Alaska Apolo Gold Mines, Ltd., 7p.

Redstar News Release dated January 18, 2012; https://www.sedar.com.

Redstar News Release dated February 19, 2014; https://www.sedar.com.

Roulston, D., and Mehrfert, P., 2017 (April); Metallurgical test work on the Unga Project Alaska KM5292: unpublished report to Redstar Gold Corp. by ALS Metallurgy, Kamloops, 79 p.

Riehle, J.R., Wilson, F.H., Shew, N.B. and White, W.H., 1998, Geologic map of Unga Island and the northwestern part of Popof Island, Alaska: 1:63,360 scale, *in* Riehle, J.R., (ed.). Geological and geophysical setting of the gold-silver vein systems of Unga Island, southwestern Alaska: USGS Open-File Report 99-136.

Riehle, J.R., Wilson, F.H., Shew, N.B. and White, W.H., 1999, Geology of Unga Island and the northwestern part of Popof Island: *in* Riehle, J.R., (ed.). Geological and geophysical setting of the gold-silver vein systems of Unga Island, southwestern Alaska, USGS Open-File Report 99-136, Chapter 2.

Schaefer, C., 2017 (January), Review of 2016 screen fire gold assays, Shumagin project: unpublished report to Redstar Gold Corp., 9 p.

Shahkar, A., 2017 (December), Shumagin Deposit Review: Unpublished report to Redstar Gold Corp., 43p.

SRK Consulting (US), 2000, Unga Island project resource and reserve review for Daugherty Resources Inc., 27 p.

Stevens, D.L., 2012 (February), Unga project Popof and Unga Islands Southwest Alaska: NI 43-101 technical report prepared for Redstar Gold Corp., 83 p.

Strandberg, E.O., Jr., 1996, Unga Islan project, Unga Island, Alaska: Ore reserves (preliminary): unpublished report prepared for Alaska Apollo Resources, Inc.

Trujillo, R., Andersen, G., Macleod, A., Hendrick, K., Farnham, S., and Peterson, J., 1981, Exploration and evaluation of the Unga-Popof-Korovin Islands portion of lands leased from Aleut Native Corporation: unpublished report by Research Associates of Alaska prepared for UNC Teton Exploration Drilling, Inc., and the Aleut Corporation, 79 p.

Van Wyck, N., Ellis, W.T., Petersen, M.A., and McLeod, R., 2005 (December), Southwest Alaska Peninsula-Shumagin Islands project 2005 technical report Port Moller Region: unpublished report to the Full Metal Minerals – Metallica Resources Joint Venture, 54 p.

Vann, J., and Crowl, W., 2000 (March), Daugherty Resources, Inc. Unga Island project resource and reserve review SRK project 130701: unpublished report by Steffen Robertson and Kirsten (U.S.), Inc., for Daugherty Resources Inc., 27 p.

Vreugde, M.J.A., 1984 (February), Preliminary beneficiation tests on gold ore, file number 4917: unpublished report to Alaska Apollo Gold Mines by Bacon, Donaldson & Associates, 14 p.

White, W.H., and Queen, L.D., 1989, Preliminary geologic and rock-chip geochemical data from drill core and trenches at the Shumagin gold deposit, Unga Island, Alaska: USGS Open-file Report 89-361, 38 p.

Wilson, F.H., Detterman, R.L., Miller, J.W. and Case, J.E., 1995, Geologic map of the Port Moller, Stepovak Bay, and Simeonof Island quadrangles, Alaska Peninsula, Alaska: U.S.G.S. Map I-2272, 1:250,000 scale.

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28.0 DATE AND SIGNATURE PAGE

Effective Date of report: 25 September, 2020

The data on which the contained resource estimates are based is current as of the Effective Date.

Completion Date of report: 24 November, 2020

Date Signed:

William T. Ellis CPG #8719

I, William T. Ellis, state that I am responsible for preparing and supervising the preparation of the Technical Report titled "Amended and Restated NI 43-101 Technical Report & Resource Estimate for the SH-1 Gold & Silver Deposit, Part of Unga Project, Southwest Alaska, U.S.A." with an effective date of September 25th, 2020, as signed and certified by me (the "Technical Report").

Furthermore, I state that:

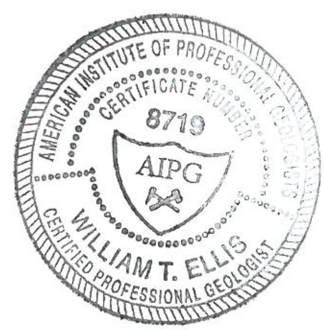
1) I consent to the public filing of the Technical Report by Redstar Gold Corp. (Redstar);

2) The document that the Technical Report supports is the press release titled "Redstar Gold Announces 395,825 Gold Eq. Ounce Resource grading 14.2 g/t Gold Equivalent on Part of the SH-1 Gold Zone at the Unga Project, Alaska" (the "Document") dated February 10, 2020;

3) I consent to the use of extracts from, or a summary of, the Technical Report in the Document disclosed by Redstar;

4) I confirm that I have read the Document being filed by Redstar and that it fairly and accurately represents the information in the Technical Report for which I am responsible.

Dated at Anchorage Alaska, USA on this 24th day of November, 2020.



Signature of
William Ellis, Certified Professional Geologist, #8719
Alaska Earth Sciences Inc.

29.0 CERTIFICATE OF QUALIFIED PERSON

I, William T. Ellis, do hereby certify that:

1. This certificate applies to the Technical Report entitled "Amended and Restated NI 43-101 Technical Report & Resource Estimate for the SH-1 Gold & Silver Deposit, Part of Unga Project, Southwest Alaska, U.S.A.", with an Effective Date of, September 25, 2020 prepared for Redstar Gold Corp.

2. I am currently employed as a Senior Geologist at Alaska Earth Sciences Inc. 11401 Olive Lane Anchorage Alaska.

3. I am a graduate of University of Nevada with a B.Sc in Geology in 1972.

4. I have practiced my profession in the mineral exploration and mining since 1972 and have been involved in exploration and/or mining and/or evaluation on a variety of mineral deposit types, including epithermal gold deposits. I have been doing geological modeling and calculating reserves and resources since1992.

5. I am a Licensed Professional Geologist in the State of Alaska (No. 8719) and have worked in North America since 1972.

6. I am a *Certified Professional Geologist, CPG-8719, and a member in good standing of the American Institute of Professional Geologists*.

7. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101) and I certify that by reason of my experience, education, affiliation with certified professional associations, and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.

8. I certify that I am independent of the issuer applying all of the tests in Section 1.5 of the NI 43-101.

9. I am independent of the property and the property vendor in accordance with Section 3.2 of the TSX Venture Appendix 3F, Mining Standard Guidelines.

10. I visited the Unga project site most recently between September 10th and 14th 2020 and on numerous other occasions for the last 30 years.

11. I am responsible for all Sections of this report titled, "Amended and Restated NI 43-101 Technical Report & Resource Estimate for the SH-1 Gold & Silver Deposit, Part of Unga Project, Southwest Alaska, U.S.A.", with an Effective Date of, September 25, 2020 (the "Technical Report").

William Ellis – Certificate of Qualified Person (Page 2)

12. As of the effective date of this Technical Report, to the best of my knowledge, information, and belief, this Technical Report contains all the scientific and technical information that is required to be disclosed to make those parts of this Technical Report for which I am responsible for not misleading.

13. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

14. As of the effective date of this Technical Report, to the best of my knowledge, information and belief, the Technical Report contains all scientific and technical information that is required to make the technical report not misleading.

Dated this 24th day of November, 2020

Signature of Qualified Person
William Ellis, #8719