# NATIONAL INSTRUMENT 43-101 F1 TECHNICAL REPORT ON

HARRY PROPERTY
LOCATED NEAR STEWART,
BRITISH COLUMBIA
SKEENA MINING DIVISION
NTS 104 B01E, BCGS MAP 104B020
LATITUDE 56 09' 52" N
LONGITUDE 130 03' 16" W

# **REPORT PREPARED FOR:**

Optimum Ventures Ltd. 611-8th Street Stewart, BC V0T 1W0

BY

ALOJZY WALUS, M. Sc., P. Geo. CONSULTING GEOLOGIST alexwalus@hotmail.com

October 15, 2021

# TABLE OF CONTENTS

1	SUMMARY	2
2	INTRODUCTION	4
	2.1 Glossary of Technical Terms	4
3	RELIANCE ON OTHER EXPERTS	6
4	PROPERTY DESCRIPTION AND LOCATION	6
	4.1 Location	6
	4.2 Property Ownership	6
	4.3 Environmental liabilities and work permits	
5	ACCESSIBILITY, CLIMATE. LOCAL RESOURCES,	
	INFRASTRUCTURE AND PHYSIOGRAPHY	10
	5.1 Accessibility and Infrastructure	10
	5.2 Climate	10
	5.3 Physiography and Topography	
6	HISTORY	
	6.1 Early Years	12
	6.2 Later Exploration	
	6.3 Exploration Summary	14
	6.3.1 Introduction	14
	6.3.2 Underground Exploration	15
	6.3.3 2004-2010 Teuton Surface Sampling	
	6.3.4 Drilling Summary	
	6.3.5 2020 Teuton Surface Sampling	22
7	GEOLOGICAL SETTING	28
	7.1 Regional Geology	28
	7.2 Local Geology	
	7.3 Structure	
	7.4 Mineralization	32
8	DEPOSIT TYPES	36
9	EXPLORATION	38
10	DRILLING	38
11	SAMPLE PREPARATION, ANALYSES AND SECURITY	38
12	DATA VERIFICATION	38
13	MINERAL PROCESSING AND METALLURGICAL TESTING	39
14	MINERAL RESOURCE ESTIMATE	39
15	MINERAL RESERVE ESTIMATES	39

16 MIN	NING METHODS	39
17 RE	COVERY METHODS	39
18. PRO	OJECT INFRASTRUCTURE	39
19. MA	RKET STUDIES AND CONTRACTS	39
20. EN	VIRONMENTAL STUDIES, PERMITTING AND SOCIAL	<u>,</u>
	COMMUNITY IMPACT	
	PITAL AND OPERATING COST	
	ONOMIC ANALYSES	
23 ADJ	ACENT PROPERTIES	39
23	3.1 Introduction, Disclaimer	39
	3.2 Scottie Property	
23	3.3 Dilworth Property	41
24 OT	HER RELEVANT DATA AND INFORMATION	41
25 INT	ERPRETATION AND CONCLUSIONS	41
26 RE	COMMENDATIONS	44
27 REF	TERENCES	45
28 DAT	TE AND SIGNATURE PAGE	47
	TEMENT OF QUALIFICATIONS	
2) SIA	TEMENT OF QUALIFICATIONS	••••••••
LIST OF F	IGURES	
		Page
Figure 1	Location Map	8
Figure 2 Figure 3	Claim Map 2010 Touton Sampling, Talus Fines and Float Samples	9
rigure 3	2010 Teuton Sampling, Talus Fines and Float Samples Location Map	23
Figure 4	2010 Teuton Drilling, Drill Plan	23
Figure 5	2010 Teuton Drilling, Holes H-10-02 and	24
1 15010 5	H-10-04 Cross Section, Gold Assays	25
Figure 6	Preliminary Geology Map of Milestone Showing Area,	-20
<i>6</i>	Milestone and S-1 Showings Location	26
Figure 7	2020 Teuton Rock Sampling, Gold Geochemistry	27
Figure 8	Geology Map	31
Figure 9	Map Showing Mineral Occurrences	34
Figure 10	Map Showing Mineral Deposits and Claim Holdings	40
Figure 11	Major Mineral Occurrences within Prospective Corridor	
	located North of Stewart	42

# LIST OF TABLES

Table 1 – 1977 Sampling on No 4 Adit Area		Page 15
Table 2 – 1977 Sampling No 1 and 10 Adits		16
Table 3 – 1977 Sampling No 8 and Various Adits		16
Table 4 – 1979 Sampling		17
Table 5 – 1980 Sampling		19
Table 6 - 2010 Drill Data for Harry Claim		22
Table 7 - Resource for Scottie Gold Property		40
Table 8 - Proposed Exploration Budget for the Harry Property		44
LIST OF PHOTOGRAPHS		
Photo No.1 – Milestone Showing, September 2021	page	35

#### 1. SUMMARY

The Harry property is located at latitude 56", 04' 52" north and longitude 130", 03' 16" west, approximately 30 kilometres north of Stewart, BC. It is situated along the east and west sides of the Salmon River Valley encompassing part of the Salmon Glacier.

Access to the area is via Granduc Road - a gravel, year-round road that connects historic Premier, Scottie and Granduc mines to Stewart, BC over a distance of 30 kilometres. Stewart is connected by a paved road (Highway 37A) to Highway 16.

The bulk of the Harry property lies within a 3 km wide and at least 15 km long prospective corridor which hosts a number of gold-silver deposits as well as numerous prospects. Deposits within this corridor include Premier, Big Missouri, Silver Coin, Martha Ellen and Mt Dilworth.

The property is located within Jurassic volcanic rocks bounded by the Summit Lake stock to the north and Texas Creek batholith to the south which are part of the Texas Creek Plutonic suite in the Stewart Area. This suite of intrusive rocks is associated with mineralization at the historic Premier mine located 15 km south of the property and the KSM copper-gold porphyries and Brucejack Lake gold deposits. The Premier mine produced 2,000,000 ounces (oz) of gold and 49,000,000 ounces of silver. The KSM and Brucejack Lake deposits contain 6.4 million ounces of gold in the proven and probable categories.

The Harry property is hosting several occurrences of significant mineralization. The Outland claim contains several mineralized quartz veins and gossans. They consist of quartz with scattered galena, sphalerite, tetrahedrite and pyrite with minor chalcopyrite. Lenses of sulphide mineralization, that may be replacement-type, occur in pyrite-rich siltstones and mudstones. These mineralized lenses contain pyrite, pyrrhotite, arsenopyrite, and scattered chalcopyrite, galena, tetrahedrite, argentite, sphalerite and an unidentified tungsten mineral. The main vein or "Johnnies" vein, on the Outland claim has been explored by three adits. The vein has a width of 1.3 metres, a mineralized length of 30 metres and occurs in brecciated altered siltstones. A historic 2.0 metre channel sample from the Johnnies vein assayed 166 grams per tonne silver, 1.4 grams per tonne gold, 2.17 per cent copper, and 2.28 per cent lead.

The only recorded production on the property was from the Outland claim where from 1926 to 1929, 4 tonnes of ore produced 3328 grams of silver, 13 kilograms of copper, and 507 kilograms of lead.

From 2004 to 2009, Teuton Resources carried out several geochemical surveys over the east side of the claims. The 2008 work established a line of anomalous gold and arsenic values near the eastern border of the property. Follow-up work including collecting talus fines and surface rock samples in 2009 was successful in defining a cluster of high gold and arsenic samples with peak values of 2.12 grams per tonne gold and 0.543 per cent arsenic.

The drilling of four holes totaling 487 metres from one pad, in the 2010 season defined a zone of mineralization consisting of fine-grained arsenopyrite, galena, and sphalerite blebs within quartz floods, hosted by sericite altered, felsic rock, resemblant of epithermal-type mineralization. In 2010, drill hole H-10-02 assayed 0.72 gram per tonne gold over 9.15 metres, H-10-03 assayed 0.34 gram

per tonne gold over 122.53 metres and H-10-04 assayed 0.27 gram per tonne gold over 26.12 metres.

During the 2020 exploration program carried out by Teuton Resources two new showings were found. One of the showings called Milestone is a 2.0 m wide quartz breccia vein which contains pyrite, minor galena and locally dendrites of native gold. A grab sample from the vein ran 1,553 g/t gold. A chip sample taken across the vein returned 269.5 g/t gold over 2.0 metres (Teuton Resources press release, December 9, 2020). The second showing called S-1 represents a 10 metres wide vein swarm comprised of numerous parallel quartz veins which contain up to 10% of combined pyrite, galena and sphalerite. Four grab samples collected from this showing returned up to 1.34 g/t gold and 32 g/t silver. In addition to these two mineral occurrences, the area also contains numerous quartz+/-carbonate veins with some of them mineralized with pyrite, galena, sphalerite chalcopyrite and tetrahedrite. Only a few of these veins were sampled as smooth rock surfaces made it impossible to sample them.

During the 2020 exploration program the author identified a large intrusive body of Premier Porphyry in the area of Milestone and S-1 showings which is in contact with a large prominent quartz-sericite-pyrite alteration zone at least 400 metres in size. The rock consists of K-feldspar phenocrysts 0.5-2.0 cm across set in a fine-grained groundmass comprised of plagioclase, K-feldspar, altered hornblende and rounded quartz grains. The rock is strongly chloritized. The presence of Premier Porphyry is very encouraging since this rock was the source of mineralization in the historic Premier Mine. Before the discovery of the Eskay Creek deposit, Premier mine was the top gold and silver producer within the Golden Triangle.

The Harry property has excellent potential for the discovery of high-grade gold-silver mineralization as well as large-scale low-grade gold-silver zones similar to those located within the mineralized corridor described above. Mineral occurrences discovered by Teuton in 2020 prove that new discoveries can still be made in this highly prospective area as rapidly receding ice and snow cover exposes more outcrops.

The property is conveniently situated near infrastructure such as a year-round road, a powerline, and a deep-water port operating year-round in Stewart. In addition, a mill is being constructed by Ascot Resources at the site of the historical Premier mine.

The main goal of the next exploration program on the Harry property is to generate drilling targets which subsequently will be drill tested. Drilling of the newly discovered Milestone and S-1 veins as well as Harry showing should be a priority. It is recommended to use a drill capable of drilling deep holes to further test the mineralization encountered in the 2010 holes.

The total cost of the recommended program is estimated at \$500,000 (assuming there is road access to the planned drillholes).

#### 2. INTRODUCTION

- a. This report was prepared on the request by Optimum Ventures Ltd. of Stewart, BC.
- b. The report summarizes all the exploration results on the Harry and Outland claims to date. It also provides a general overview of the Harry Property and its economic potential.
- c. For information about the Harry property past exploration history, the report relies extensively on reports prepared by geologists and prospectors who worked in this area, as well as various government publications. The author has the firsthand knowledge about geological field work conducted on the property in 2005 and 2020 since he directly participated in these programs.
- d. The Qualified Person for this report is Mr. Alojzy Walus of Salmon Arm, BC. Mr. Walus is responsible for all sections of this document. The author spent four days in 2005 and two days in 2020 sampling and mapping the property.

## 2.1 Glossary of Technical Terms

Unless otherwise indicated, the following terms used in this report have the meanings ascribed to them below.

**Adit** - A horizontal or nearly horizontal entrance to the underground mine.

**Anomaly** - Items, events or observations which do not conform to an expected pattern or other items in a dataset.

**Chalcopyrite** - A yellow crystalline mineral consisting of a sulfide of copper and iron. It is the principal ore of copper.

**Breccia** – Rock made up of angular or sub-angular fragments >2mm embedded in a fine-grained matrix.

**Deposit** – A mineralized body which has been physically delineated by sufficient drilling, trenching, and/or underground work, and found to contain a sufficient average grade of metal or metals to warrant further exploration and/or development expenditures; such a deposit does not qualify as a commercially mineable ore body or as containing mineral reserves, until final legal, technical and economic factors have been resolved.

**Dip** – An angle of inclination between a geological feature/rock and horizontal plane.

**Fault** – A fracture in a mass of rocks accompanied with relative movement between its two blocks. Faults are the result of the rock's mechanical response when submitted to sufficient stress as to induce permanent deformation.

Fault gouge – Unconsolidated, often soft rock formed along fault plane.

**Galena** - A bluish, gray, or black mineral of metallic appearance, consisting of lead sulfide. It is the chief ore of lead.

**Granodiorite** - An intrusive igneous rock similar to granite, but containing more plagioclase than potassium feldspar.

**Hanging wall** - Part of a fault which occurs above the fault plain

**Igneous** – A primary crystalline rock formed by the solidification of magma.

**Intrusion** – A body of igneous rock formed by the consolidation of magma intruded into other rocks, in contrast to lavas, which are extruded upon the surface.

**Mineral deposit** – A mass of naturally occurring mineral material, e.g. metal ores or nonmetallic minerals, usually of economic value, without regard to mode of origin. Accumulations of coal and petroleum may or may not be included.

**Mineralization** – A concentration of minerals within a body of rock.

**Mining claim -** Is a parcel of land for which the claimant has asserted a right of possession and the right to develop and extract a discovered, valuable, mineral deposit.

**Open-cut** - Is a surface mining technique of extracting rock or minerals from the earth by their removal from an open pit or borrow.

**Ore** – a metal or mineral or a combination of these of sufficient value as to quality and quantity to enable it to be mined at a profit.

**Ore body** – A continuous well-defined mass of material containing enough ore to make extraction economically feasible. See also: *mineral deposit*.

**Outcrop** – The part of a rock formation that is exposed at the Earth's surface.

**Portal -** Access tunnel in underground mine.

**Pluton (or Plutonic)** – A general term applied to a body of intrusive igneous rock, irrespective of its shape, size or composition.

**Sampling** – A technique for collecting representative sub-volumes from a larger volume of geological material. The particular sampling method employed depends on the nature of the material being sampled and the kind of information required.

**Sedimentary** – **P**ertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.

**Shear zone -** Deep level equivalents of faults.

**Slickensides -** Parallel striations on rock surfaces produced by relative motion across opposite sides of fault planes.

**Sphalerite** - A shiny mineral, yellow to dark brown or black in color, consisting of zinc sulfide.

**Strike** – A direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.

**Vein** - A distinct sheetlike body of crystallized minerals within a rock.

#### 3. RELIANCE ON OTHER EXPERTS

The author of this report has the firsthand knowledge of the Harry property since he participated in exploration programs conducted by Teuton Resources in 2005 and 2020. For information about the exploration conducted in other periods the author relied on reports prepared by geologists and prospectors who worked in this area, as well as various government publications. Full list of these reports is provided in References.

#### 4. PROPERTY DESCRIPTION AND LOCATION

#### 4.1 Location

The Harry property is located approximately 30 kilometres north of Stewart, BC; two kilometres east of the Alaska Canadian International Boundary and 29 kilometres north of Hyder (Figure 1). The property is centered on latitude 56", 09' 52" north and longitude 130", 03' 16" west, in the Skeena Mining Division, BC.

# 4.2 Property Ownership

The Harry property consists of 3 contiguous claims covering approximately 1333.11 hectares. The Mineral Titles Online website (https://www.mtonline.gov.bc.ca/mtov/home.do) confirms that all claims of the Harry property as described in Table 1 were in good standing at the date of this report and that no legal encumbrances were registered with the Mineral Titles Branch against the titles at that date. The author makes no further assertion with regard to the legal status of the property. The property has not been legally surveyed to date and no requirement to do so has existed. There are no other royalties, back-in rights, environmental liabilities, or other known risks to undertake exploration. Relevant claim information is presented below:

Claim Name	<u>Tenure Number</u>	Claim Area (ha)	Expiry date
	508822	588.25	November 5/2021
	508823	576.66	November 5/2021
Outlander	1062347	168.20	March 05/2023
	<u>Tota</u>	<u>1333.11</u>	

Claims location is shown in Figure 2 copied from MINFILE database. All the claims are situated in the Skeena Mining Division in the Province of British Columbia.

The claims are owned 100 % by Teuton Resources Corp. The author is aware that the 2020 assessment work was filed by Teuton on November 08, 2020.

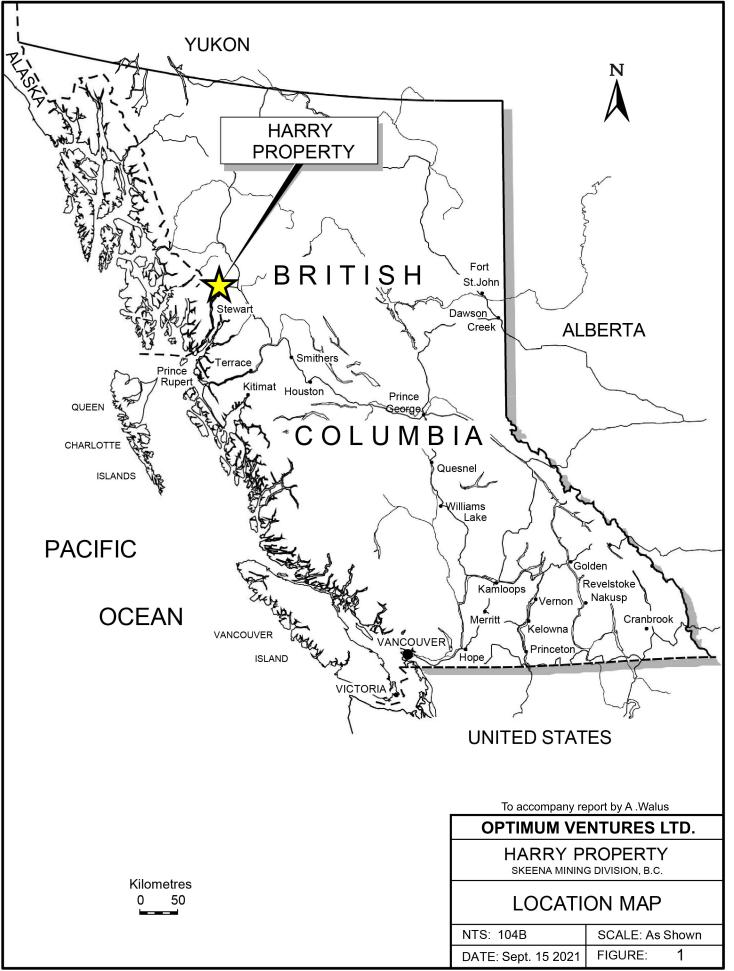
In September, 2021Teuton has agreed to grant Optimum Ventures the option to acquire an 80% interest in (the "Option") the Harry and Outland properties which are located in the Skeena Mining Division approximately 30 km northwest of Stewart, B.C. (collectively, the "Harry Property"). The total aggregate consideration payable by Optimum to Teuton for an 80% interest in the Harry Property is an aggregate of up to \$1,500,000 cash over five years from September 13, 2021 (the "Effective Date"); an aggregate of up to 4,000,000 common shares of Optimum (the "Common Shares") in installments over a five year period from the Effective Date; and incurring expenditures on the Property (or making a cash payment to the Teuton in lieu) of up to \$9,000,000 in installments over five years from the Effective Date. Upon the exercise of the Option and Optimum acquiring an 80% interest to the Harry Property, the parties will enter into a joint venture agreement for the operation of the project and Optimum will grant to Teuton a 2% Net Smelter Royalty (no buyback). The Option Agreement is subject to customary closing conditions including receipt of all required regulatory and third party consents and approvals including the approval of the TSX Venture Exchange ("TSXV"). Any securities issued in connection with the Option Agreement will be subject to applicable statutory hold periods for a period of four months from the date of issuance.

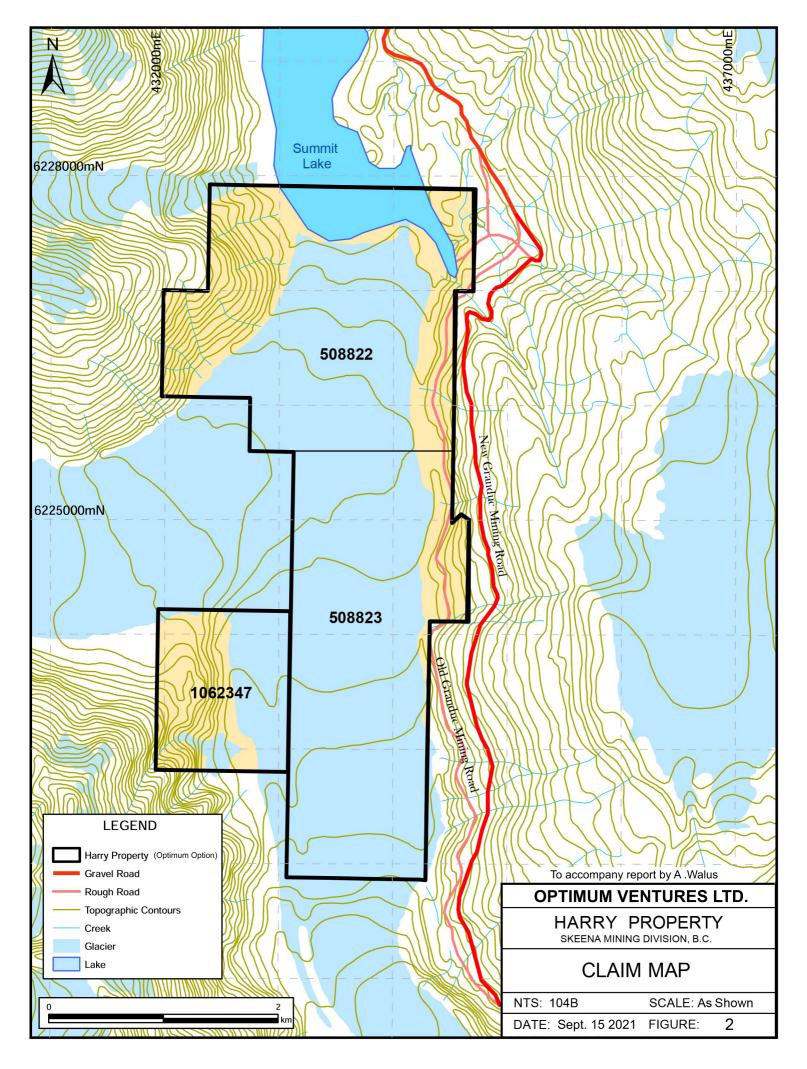
In connection with entry into the Option Agreement, Optimum entered into a quitclaim agreement with Jayden Resources Inc. ("JDN"-TSXV)("Jayden") pursuant to which Jayden has agreed to terminate its option agreement with Teuton dated September 4, 2020 in consideration of a cash payment of \$27,000 and the issuance of 750,000 common shares to Jayden. The Jayden Agreement is subject to customary closing conditions including receipt of all required regulatory and third party consents and approvals, including the approval of the TSXV.

#### 4.3 Environmental Liabilities and Work Permits

The author is not aware of any existing environmental liability from past exploration programs. The author is also not aware of any liabilities from the existing Granduc Road. There is no restriction to access the claims either via road or by helicopter. There are no surface rights associated with mineral tenures. The Harry property is on crown land with no known surface rights.

The author is also aware that necessary permits have been applied for in order to continue exploration work.





# 5. ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

# 5.1 Accessibility and Infrastructure

Access to the area is via Granduc Road - a gravel, year-round road that connects historic Premier, Scottie and Granduc mines to Stewart, BC over a distance of 30 kilometres. Stewart is connected by a paved road (Highway 37A) to Highway 16. Granduc Road commences on the American side of the border at Hyder, Alaska (about 2km from Stewart), and then proceeds north before entering Canada again just before the Premier mine site. An initial (presently abandoned) Granduc road crossing the east side of the claims lies sub-parallel to the presently used road but at lower elevation. The road is washed out in several places but can provide an alternative access road to the eastern part of the property. A helicopter is necessary to access some of the steeper portions of the property.

A deep-water port operating year-round is available at Stewart. The power line from Premier Mine to the Brucejack Gold Mine is running along the Granduc road. There are several drill trails in the NE corner of the property. No other infrastructure exists on the property. The property is currently at an early exploration stage and the requirements for water and surface rights for mining operations have not yet been determined.

#### 5.2 Climate

Climate in the area can be severe. Heavy snowfalls in the winter and rain and fog in the summer are typical of the property area. Snowfall up to 30m has been experienced at the higher elevations within the general area, which can remain in gulleys until July. Extreme -20 degree Celsius weather only occurs in a 6 week period from mid-January to late February. In general, the surface exploration in the claim area can be conducted from mid-June to late October.

# 5.3 Physiography and Topography

The Harry Property is located within the Boundary Range of the Coastal Mountains of Alaska. This is a region of sharp craggy ridges and broad U-shaped glacially carved valleys with glaciers at higher elevations. Elevation within the property area ranges from 1100 m in the eastern part of the claims down to 800 metres at Salmon Glacier. Steep cliff faces up to 20 m high are common on the property.

Tree line in the area is at approximately 1500 m. Where present, tree cover consists of stunted hemlock and alders with under-bush generally consisting of blueberry shrubs and devils club. Alpine grasses, heather and arctic willow grows in patches along the talus, moraine and outcrops in the upper regions of the property.

#### 6. HISTORY

The claim area lies at the west edge of a well mineralized area of BC that extends from Stewart and Kitsault in the south to near Telegraph Creek in the north. Within this area, which has been referred to as the Stikine Arch, mining activity goes back to the turn of the century. Due to the large size of this area, it was subdivided into Stewart, Sulphurets, Iskut River and Galore Creek camps. However, all of these individual areas are related to the Stikine Arch as a whole and are located in the area now referred to as the "Golden Triangle". The Harry Property lies at the west edge of the "Golden Triangle". The Texas Creek Plutonic suite are Jurassic age intrusions - 193-195 Ma found near Stewart and include the Mitchell intrusions at Kerr-Sulphurets-Mitchell both related to mineralizing events in the Stewart area and Sulphurets-Mitchell valleys. The suite of rocks are associated with gold mineralization at Brucejack Lake, Premier gold mine-Silver Coin deposit and the Scottie gold mine as well as numerous porphyry copper gold occurrences. The Golden Triangle of British Columbia which is among the world's most prolific mineralized districts, host to past and current mining operations including Eskay Creek, Scottie Gold, Porter – Idaho, Johnny Mountain, Red Mountain, Snip Mine, Premier Mine, Golden Bear and Valley of the Kings. The Golden Triangle has reported mineral resources (past production and current resources) in total of 67 million oz of gold, 569 million oz of silver and 27 billion pounds of copper. In the immediate area of the Harry property, the Brucejack, Eskay Creek, Premier-Big Missouri, Red Mountain and Scottie Gold mine properties are deposits that are closest to the claims. Pretium is milling in excess of 3800 tonnes per day from the Valley of Kings deposit. The gold deposits at Brucejack Lake (Valley of the Kings deposit) contain 6.4 million ounces in the proven and probable categories (Pretium Resources website). Pretium has reported production of 376,000 ounces gold for the 2018 production year. Seabridge has 460 million tonnes grading 0.68 g/t gold and 0.17 % copper in the proven category as well as 1,738 million tonnes grading 0.51 g/t gold and 0.22 % copper in the probable category. This reserve is within 4 different deposits (Seabridge website). Ascot has reported resources for the Premier, Big Missouri, Silver Coin and Martha Ellen zones as well as Red Mountain. In the Premier area, a total of 667,000 ounces gold are indicated in 2,780,000 tonnes at 7.46 g/t gold for Premier, Big Missouri, Silver Coin and Martha Ellen zones. In the Premier area, a total of 1,390,000 ounces gold are inferred in 6,030,000 tonnes at 7.18 g/t gold for Premier, Big Missouri, Silver Coin, Martha Ellen and Dilworth zones (Ascot Website). At Red Mountain, 704,600 ounces gold are present in the measured and indicated categories in 2,771,300 tonnes grading 7.91 g/t gold. A total of 61,400 ounces gold are present in 316,000 tonnes grading 6.04 g/t gold in the inferred category. At the Eskay Creek mine, production from 1995 to 2008 totaled 1.2 million tonnes of direct shipping ore and 1.05 million tonnes of milled ore. In this mining period, 3,272,628 ounces of gold and 162,016,018 ounces of silver were produced. Current underground resources include 218,000 ounces gold in 819,000 tonnes at 8.20 g/t gold equivalent in the indicated category and 78,000 ounces gold equivalent in 295,000 tonnes at 8.20 g/t gold in the inferred category. Current open pit resources include 2,455,000 ounces gold equivalent in 12,711,000 tonnes at 6.0 g/t gold equivalent in the indicated category and 1,230,000 ounces gold equivalent in 13,557,000 tonnes at 2.80 g/t gold equivalent in the inferred category. The Scottie Gold mine which operated from 1981 to 1985 milled vein material averaging 16.20 g/t gold producing 2,967,748 grams of gold (95,426 ounces gold) from 183,147 tonnes of mineralization. A total of 76,000 ounces gold are inferred in 5 different veins on the Scottie property.

The author has been unable to verify the above information and this included information is not necessarily indicative of the mineralization on the Harry property that is the subject of the technical report.

The first mineral discoveries in the Stewart area were made in 1898 by early placer miners. However, real interest in the district did not occur until the opening of the rich gold-silver Premier Mine, located 15 km to the south of the Harry property in 1918. Mineralization at the Big Missouri mine was found in 1904, above the Salmon Glacier, some 10 kilometers south of the property. The upper portions of the Salmon Glacier region were intensively prospected at the time of the Premier and Big Missouri discoveries. During the initial prospecting endeavors, much less rock exposure was available for sampling, because glaciers and permanent icefields covered far greater areas than they do today.

## **6.1** Early Years

### Harry Claims

- In the Harry showing area, the first claim appears to have been the Crown Granted Dickens claim, L-4030 (subsequently reverted).
- 1919 The Troy group of 9 claims were located to the south of the Dickens claim.
- 1923 Mr. C.H. Lake purchased a 1/3 interest in the property in 1923.
- 1924 Property was bonded.
- 1925 Northland Mining Company, Limited was formed in January 1925 to develop the showings. A limited amount of work, mainly open cutting and surface exploration and about 213 metres of diamond drilling was done by the company before the option was dropped in October 1926.
- The owners resumed work on the property and by additional staking increased their holdings to 23 claims. The showings have been tested by a large number of open cuts and by two short adits, one on the Troy No. 3 claim was driven 15.2 metres, the other, on the Troy No. 2 claim, was driven 4.6 metres.
- 1937 J.A. Mitchell conducted exploration work on the property consisting of sampling previous trenches.
- 1938 Work in 1938 by a Mister McDonald and a Mister Lake was reported.

#### Outlander Claim

- 1919 The original showings were staked by prospector E.H. Bertholf.
- 1920 Outland Silver Bar Mines was formed to continue development work. Other showings to the northwest were staked by T.V. Wilson in 1920 and acquired by Eldorado Gold Mining, (later, Eldorado Gold Mines Consolidated Ltd.).

- 1924 Pitting and trenching on mineralized zones was carried out.
- 1925 A total of 2.27 tonnes were shipped to a smelter.
- 1926 Exploration including tunneling, crosscutting and trenching was continued.
- 1928 Further tunneling and trenching reported.
- 1929 Continued underground work on the property.

Exploration continued on the main showings until 1930. From 1926 to 1929, 4 tonnes of ore produced 3328 grams of silver, 13 kilograms of copper, and 507 kilograms of lead. To date fifteen tunnels, and at least two prospect pits have been completed on the Outland property in the early years.

#### 6.2 Later Exploration

In the Harry showing area, later exploration is summarized below:

- 1965 The property consisted of one located claim called the Harry Fraction held by H. Swan, of Stewart. The above claim lapsed at some time prior to the 1989.
- A new Troy claim was staked by D. Johnson in 1989 and obtained by David Javorsky in 1991. This claim was 1 kilometre long (north-south) and 500 metres wide. It extended north from the northern corner of the Dickens reverted Crown-grant claim (Lot 4030) which is immediately east of the Harry showing.
- 1993 Javorsky prospected the new claim and conducted a beep mat survey along the abandoned original Granduc Road in this area.
- Teuton Resource Corp. staked claims over the Harry showing and conducted a geochemical program consisting of rock, chip and float sampling.
- 2006 Teuton Resource Corp. conducted geochemical program consisting of rock, chip and float sampling. A total of 38 samples were collected.
- 2008 Teuton Resource Corp. conducted a geochemical program consisting of rock, chip and float sampling. A total of 42 samples were collected.
- Teuton Resource Corp. conducted a geochemical program consisting of talus fine and chip sampling. A total of 70 talus fine and 7 chip samples were collected.
- 2010 Teuton Resource Corp. conducted a geochemical program consisting of talus fine and float sampling. A total of 60 talus fine and 11 float samples were collected. In addition, the company drilled 4 holes totaling 487.07 m from 1 set-up. Drilling defined a zone of mineralization consisting of fine-grained arsenopyrite, galena, and sphalerite blebs within

quartz floods, hosted by sericite altered, felsic rock, resemblant of epithermal-type mineralization.

In the Outland showing area, later exploration is summarized below:

- The property was examined and sampled by Newmont Mining Corp. and a detailed geological map of the showings was prepared by D.A. Davidson.
  - Since 1961, nine diamond drill holes were completed in the main adit (no.6) to explore the "Johnnies" vein, but it is not in known at this time who financed or supervised the drilling.
- 1977 Petra Gem Explorations Ltd mapped and sampled the property. Chip samples taken by the company from trenches and adits of the gossan zone averaged 1.6 oz/Ton Ag, 0.53% Pb, and 0.63% Zn.
- 1979 The work completed by Tournigan Mining Explorations Ltd. on the property consisted of geological mapping and sampling: The tunnels were mapped on a scale of 1:600 and the surface on a scale of 1:3600. Twenty-seven samples were collected and sent for assay. Twenty-five samples were cut and 2 samples were grab samples. Sampling returned generally low values for silver and base metals with minor gold values.
- 1980 Trenching and sampling by Tournigan Mining Explorations Ltd. followed up the 1979 work. Two hundred and one samples were taken and five trenches completed. Lenses of sulphide mineralization, that have been referred to as being replacement-type, occur in pyrite-rich siltstones and mudstones, 500 metres east-northeast of Johnnies vein. These mineralized zones, which trend east-northeast and dip steeply north, contain pyrite, pyrrhotite, arsenopyrite, and scattered chalcopyrite, galena, tetrahedrite, argentite, sphalerite and an unidentified tungsten mineral.
- The 1981 program on the Silver Bar Property of Outland Resources Corp. consisted of geologic mapping, sampling, and diamond drilling. In this program 260 rock samples were collected and analyzed for gold, silver, copper, lead zinc and tungsten. A total of 550 metres of BQ size drilling was completed from one set-up. Results from the program indicated low metal values.

#### **6.3** Exploration Summary

#### 6.3.1 Introduction

Exploration on the property has included underground development, trenching, rock and talus fines geochemistry, and diamond drilling. The author does not have access to all exploration work results but will summarize data that is available. Work on the Outlander claim occurred in two main periods, namely 1924-1930 and 1977-1981. Exploration work on the Outlander claim included both surface and underground sampling. For this report, this sampling has not been differentiated. Work on the Harry claims occurred mainly in the period 2004-2010.

# **6.3.2 Underground Exploration**

The only underground exploration has occurred on the Outlander claim in the period 1924-1930. Fifteen tunnels and at least two prospecting pits have been reported. The drifts and crosscuts are reported as being short, generally less than 50 m. The No 6 tunnel is reported to have a length of 300 m. The main showing is called the 'Johnnies" vein that has been tested by the No1, No 6 and No 8 tunnels. In the 1929 BC Minister of Mines report, the vein is described along with some sample results. The report states that the most heavily mineralized vein is called the Johnnie vein. It is cut by the No. 6 crosscut at elevation 1174 m, at about 122 m in from the portal, and was drifted on for a short distance north and south. The vein, which strikes north-south and is nearly vertical, is well mineralized. It is about 0.36 m wide in the south drift and 0.91 m in the north. It is cut by a dyke running approximately N. 45" W, but continues on the north side with little or no displacement.

About 76 m to the north there is an outcrop of what is almost certainly the same vein, and a drift, known as Johnnie's Vein Outcrop tunnel, has been driven for a short distance at an elevation of 1241 m. There is a good showing at the face of 1.37 m of well-mineralized vein. A chip sample over 1.1 m assayed 3.4 g/t gold, 2096 g/t silver, 10.2 % lead and 14.8 % zinc.

According to the BC Minfile, the main vein or "Johnnies" vein, on the Outland claim has been explored by three adits. The vein has a reported width of 1.3 metres, a mineralized length of 30 metres and occurs in brecciated altered siltstones. A historic 2.0 metre channel sample from the Johnnies vein assayed 166 grams per tonne silver, 1.4 grams per tonne gold, 2.17 per cent copper, and 2.28 per cent lead.

According to the BC Minfile, a historic 10 metre sample from an adit over the replacement style mineralization on the Outland claim assayed 95.3 grams per tonne silver, 0.3 grams per tonne gold, 0.23 per cent lead, and 0.19 per cent zinc.

#### 1977 Sampling

Sampling results from underground workings and surface of the Outlander claim in 1977 (Assessment Report #6198) is shown below:

Table 1 – 1977 Sampling on No 4 Adit Area

No	Description	Au g/t	Ag g/t	Cu %	Pb %	Zn %
15961	4' chip, crosscut	0.34	141.38	0.09	6.70	9.8
15958	13" chip, narrow vns	0.34	200	0.60	1.55	6.75
15954	3-4" high grade, vein	0.34	110.34	0.10	4.93	8.18
15953	Selected from dump	0.34	234.48	0.06	9.45	0.60
15957	4' chip, crosscut	1.38	368.97	0.19	6.95	3.95
15960	Dump-selected	2.76	1341.38	0.87	26.85	3.83

Table 2 – 1977 Sampling No 1 and 10 Adits

			8 - 10 -			
Sample No	Au g/t	Ag g/t	Cu %	Pb %	Zn %	
0-1	1.38	420.69	.56	6.12	14.51	
0-2	6.90	1934.48	1.17	14.06	10.11	
0-3	0.69	368.97	.31	2.86	6.07	
0-4	2.07	975.86	1.01	14.26	7.60	
0-5	0.69	944.82	.96	8.93	1.77	

Table 3 – 1977 Sampling No 8 and Various Adits

C1	T distret		Impinig No				C
Sample		Au g/t	Ag g/t	Cu %	Pb %	Zn %	Comments
15951	1m	< 0.06	6.89	0.05	0.05	0.10	Breccia-face,
							Adit 12
15952	3m	< 0.34	26.2	0.10	0.21	0.36	Portal, Adit
							12
15955	2 <i>m</i>	0.17	25.17	0.08	0.39	0.90	Face, Adit 11
15956	60 ft	0.34	148.27	0.05	0.90	1.05	N.Wall, Adit
	V						10
15959	2m	0.17	25.51	0.07	0.30	0.54	Middle, Adit
							12
15962	Selected(pyritic)	0.68	162.07	0.42	1.54	1.25	Dump, Adit 8
15963	150'(chips)	0.17	31.03	0.07	0.37	1.10	Walls, Adit 9
15965	<i>33' (chips)</i>	0.34	48.27	0.06	0.25	0.37	Top and
							bottom, cut,
							Adit 10
15966	27' (chips)	0.34	120.69	0.18	2.10	1.03	S. side,
							portal-Ad 8
15967	28' (chips)	1.38	65.51	0.14	0.20	0.25	N. side
	1 /						portal-Adit 8
15968	Selected	1.72	275.86	0.43	5.45	4.25	Dump-Adit 8
15969	Grab (dump)	0.34	89.66	0.14	0.37	0.63	Dump-Adit
							14
15970	Selected	0.12	80.58	0.15	0.35	0.39	Dump +
	(trench)						trench-Adit
							10

# 1979 Sampling

In 1979, a program of sampling was undertaken on the Outlander claim. The results are excerpted from Assessment Report #7728 as follows:

Total of 27 channel and grab samples were taken from "replacement" zones, and as noted, two channel samples were taken from Johnnies Vein. Three zones of mineralization, Zone 1, Zone 2 and Pit 16 Zone were sampled. Zone 1 contains Tunnels 8, 9, 10, and 15. Zone 2 contains Tunnels 11, 12, 13 and Pit 11A. The Pit 16 Zone contains only the Pit 16 open cut. The samples of Zone 1 taken at the 1067-meter contour, at the portal of Tunnel 8, gave the following results;

Table 4 - 1979 Sampling

			1 0			
Sample	Width	Си	Pb	Zn	Ag	Au
Chip	2.0m	0.10	0.19	0.14	2.22	0.016
Sample 1						
Chip	2.0m	0.31	1.70	1.63	4.64	0.024
Sample 2						
Chip	1.5m	0.09	0.71	0.72	2.00	0.003
Sample 3						
Chip	2.6m	0.02	0.51	0.42	1.54	0.014
Sample 4						
Weighted	8.1	0.12	0.76	0.70	2.56	0.014
Average						

Two grab samples from the massive sulphide material piled up at the portal of Tunnel 8 gave the following results;

Sample	Pb	Zn	Ag	Au
Grab	1.55	1.37	3.64	0.024
Grab	1.68	0.96	3.50	0.005

A portion of the 8.1m sample can be seen in Figure 6. The portion sampled at the portal of Tunnel 8, is the southern side of the same zone sampled at the 1052 meter contour at the Number 10 Tunnel. Samples A, E, F, G, H and I, are the northern portion of the same zones. The results of the Tunnel 10 samples are as follows:

Sample	Width	Pb	Zn	Ag	Au
Chip	2.0m	0.14	0.04	1.78	0.005
Sample a					
Chip	2.0m	0.24	0.27	2.12	< 0.003
Sample b					
Chip	2.0m			3.08	0.005
Sample c					
Grab from	2.0m	0.12	0.12	0.36	0.003
muck pile d					

Samples from trench blasted to north of portal of Tunnel 10:

Sample	Width	Си	Pb	Zn	Ag	Au
Bulk	2.0m	0.05	0.41	0.17	2.20	0.012
Sample e						
Bulk	2.0m	0.03	1.10	0.04	2.90	0.022
Sample f						
Bulk	2.0m	0.04	0.64	0.05	4.80	0.024
Sample g						

Bulk	2.0m	0.04	0.61	0.04	2.26	0.022
Sample h						
Bulk	2.0m	0.08	0.25	0.39	1.00	< 0.003
Sample i						
Weighted	10m	0.05	0.60	0.14	2.63	0.016
Average						

The weighted average of the following ten samples, 1, 2, 3, 4, a, e, f, g, h, and i, gave the following results; 20.1 meters of 0.08% Cu, 0.62% Pb, 0.36 Zn%, 2.53 ppm Ag, 0.01 ppm Au.

The silver content on the mineralization on the margins of Zone 1 is unknown. The length of the Zone 1 mineralization is not known; however, judging from the extent of the old workings and the gossan zone, figure 11, it could have a length in excess of 200 meters.

Zone 2 has been sampled in Tunnels 11 to 13, and Pit 11A. The economic section of this zone occurs in Tunnel 11. The weighted average of the four samples of Tunnel 11 gave the following results; 5.6m of 0.06 Cu%, 0.13 Pb%, 0.14 Zn%, 2.82 Ag ppm, 0.035 ppmAu.

The walls of zone 2 contain low values in copper, lead, zinc, silver, and gold. Zone 2 appears to have a length of about 100 meters.

Two samples were taken at Pit 16. The Pit 16 zone appears to have the same strike and dip as Zones 1 and 2 described above. Two samples were taken in pit 16 gave the following results;

Sample	Width	Pb %	Zn %	Ag ppm	Аи ррт
Chip Sample	2.0m	0.11	1.03	0.28	< 0.003
Grab Sample		6.24	3.33	4.30	0.010
from stacked ore					

In the three zones sampled to date, the horizontal and vertical extent, and the width of the mineralization are unknown.

The Qualified Person has not completed sufficient work to verify the historic information on the Property, particularly in regards to the historical drill results and sampling. However, the Qualified Person believe that drilling and analytical results were completed to industry standard practices. The information provides an indication of the exploration potential of the Property but may not be representative of expected results.

### 1980 Sampling

Sampling of the underground workings and surface in 1980 (Assessment Report #8089) for the Outlander claim is shown below:

Table 5 – 1980 Sampling

Location	Width (m)	Pb %	Zn %	Ag g/t	Au g/t
Cut 11A - (drill cuttings)	4.8	0.01	0.06	6.16	< 0.10
Tunnel 11	18.0	0.08	0.14	31.84	< 0.10
4m section south of Tunnel 11	4.0			71.58	
Tunnel 12 –south side of tunnel	10.0	0.05	0.05	9.25	< 0.10
North side of tunnel 12 (drill cuttings) 0.21 % Cu	1.2	0.57	2.09	69.86	0.82
Tunnel 9 – Average of Back samples at 1.5 m width	1.5			14.04	<0.10
Tunnel 10- Average of Back samples at 1.2 m width	1.2			107.2	0.10
Tunnel 10 - Portal area-17.7 m long		0.18	0.34	45.15	1.03
Of which 10 m averaged		0.23	0.19	95.21	2.74
Two grab samples from a 2 m zone averaged				154.79	
Tunnel 8 Portal surface area samples along				60.62	0.82
25 m				83.56	0.10
Of which 12 m averaged					
Tunnel 15 – 6 samples representing 12 m width averaged				2.05	0.82
Tunnel 15 6 back samples averaged				5.14	0.75
Average of 5 grab samples from high grade dump in Tunnel 15 averaged				17.12	30.27

#### 6.3.3 2004-2010 Teuton Surface Sampling

From 2004 to 2009, Teuton carried out a rock sampling program over the east side of the Harry claims.

In 2004 Teuton Resource Corp. conducted a geochemical program consisting of rock, chip and float sampling over the east side of the Harry claim. A total of 53 samples were collected with 1-860 ppb gold, 0.3 - 50.7 ppm silver, 4 - 1661 ppm copper, 6 - >10,000 ppm lead and 4 - >10,000 ppm zinc. Assessment Report #28014 stated: "Of the 53 samples taken, 24 reported anomalous values greater than 100 ppb gold. Of these, 15 were >200 ppb, a level which can be considered highly anomalous and worthy of further follow-up. In general, one sees a good correlation between anomalous gold values and anomalous silvers. The anomalous gold samples can be roughly divided into two classes: those accompanied by anomalous levels in base metals lead and zinc, and those accompanied by anomalous levels in arsenic (with low Ph-Zn)."

Teuton Resource Corp. conducted a further geochemical program in 2006 consisting of rock sampling. A total of 38 samples were collected with 1 - 90 ppb gold, 0.3 – 3.2 ppm silver, 4 – 361 ppm copper, 3 - 285 ppm lead and 4 - 365 ppm zinc. Sampling was done along several short traverses of exposed outcrops lying just east and west of the Granduc mining road on the Harry property. Assessment Report #28689 stated: "In general the geochemical samples reported low

results in both precious and base metals. Best gold of all 38 samples was 90 ppb, not a very distinguished result considering the degree of alteration in the area and the suite of prospective rocks that were sampled. A couple of samples registered a little better than 3.0 ppm silver, one of which also carried 361 ppm copper. These are marginally interesting and may deserve some local follow-up."

In 2008 Teuton Resource Corp. continued rock geochemical sampling. Altogether 42 samples were taken; 31 grab and 11 float. Float samples were taken where heavy overburden along the road obscured rock outcrop. Reconnaissance rock geochemical samples were taken along a southerly trending traverse parallel to the Salmon River Glacier along a stretch of the old Granduc road. Assays ranged from 2 to 5450 ppb gold, 0.1 to 30.4 ppm silver, 6 to 1213 ppm arsenic, 17 to >3000 ppm lead and 7 to 1634 ppm zinc. Assessment Report 30770 discusses the results as follows: "The section of the road southwards from H-9 onwards was mostly gold anomalous, with peak values in float at the end of the line of 2,670 and 5,450 ppb. In general, one sees a good correlation between anomalous gold values and anomalous silvers. The anomalous gold samples can be roughly divided into two classes: those accompanied by anomalous levels in base metals lead and zinc (with some elevated arsenic), and those accompanied by anomalous levels in arsenic (with low Pb-Zn). Of the former type the two most notable are H-ll which returned 765 ppb gold with 855 ppm arsenic and low lead-zinc values, and H-36 which returned 5,450 ppb gold with 371 ppb arsenic and modestly elevated values in lead and zinc. Of the latter type, the most anomalous is float sample H-41. This ran 2,670 ppm gold with >10,000 ppb lead."

In 2009, Teuton collected 7 chip samples each 1 m long in the north-central portion of the Harry claims. Two of the chip samples taken during the programs showed modestly anomalous gold and arsenic values. Chip samples results ranged from 21 to 320 ppb gold, 0.7 to 7.8 ppm silver, 64 to 471 ppm arsenic, 26 to 169 ppm lead and 48 to 297 ppm zinc.

In 2009 Teuton Resource Corp. conducted a geochemical program consisting of talus fines sampling. A total of 70 talus fine samples were collected. Values ranged from 1 to 2120 ppb gold, 0.1 to 8.3 ppm silver, 8 to 5403 ppm arsenic, 7 to 1147 ppm lead and 14 to 1266 ppm zinc. Assessment Report # 31328 discusses the results of this sampling as follows: "A surprising number of the talus fines samples were gold and arsenic anomalous. Most of these were concentrated in the southern part of the traverse in an area which had not been previously explored. The largest cluster of high golds occurred at R-17, R-19 and R-22 which reported 1,490, 2,120 and 1,680 ppb gold respectively. Of these, R-22 reported the peak value of 5,403 ppm arsenic. At the very beginning of the line, the furthest south, R-1 registered 840 ppb gold and 3344 ppm arsenic along with a lead value of 798 ppm. Up until R-12 the leads are generally anomalous, with a peak value of 1147 ppm at R-6. Samples R-28 and R-31 reported highly anomalous arsenic values of 3,460 and 1,033 ppm. Toward the north, gold values appear to drop off (as do the other elements) with sporadic highs in between (e.g., Sample R-59 which reported 1090 ppb gold)."

In 2010 Teuton Resource Corp. continued the talus fines sampling. A total of 60 samples were collected along a southerly trending line parallel to the east side of the Salmon River Glacier. The talus fines values ranged from 4 to 965 ppb gold, <5 to 817 ppm arsenic, 7 to 223 ppm lead and 21 to 1004 ppm zinc. Assessment Report # 321083 discusses the results as follows: "Sixty talus fine samples taken roughly every 10 meters return sporadic gold and arsenic results up to 965ppb

gold and 817ppm arsenic. The anomalous gold samples (> 100 ppb) are commonly accompanied by elevated levels in arsenic (> 140ppm) and low lead-zinc. The two most notable samples of this characterization are H-9 which returned 725 ppb gold with 600 ppm arsenic and modestly elevated values in lead and zinc, and H-38 which returned 965 Au and 551 ppm arsenic and low lead-zinc values."

The Qualified Person has not completed sufficient work to verify the sampling information on the Property by Teuton, particularly in regard to the historical drill results and surface sampling. However, the Qualified Persons believe that drilling and analytical results were completed to industry standard practices as he has worked with the Teuton consultants in past programs and their work was always reliable and of good quality. The information provides an indication of the exploration potential of the Property but may not be representative of expected results.

Figure 3 shows location of the 2010 talus fines and float sampling conducted by Teuton in 2010.

# **6.3.4 Drilling Summary**

### Outlander claim drilling

Assessment Report 7728 mentions that nine diamond drill holes were completed in the main adit (no.6) to explore the "Johnnies" vein on the Outlander claim in the period from 1961 to 1977. It is not known who financed or supervised the drilling. This report mentions that 2 drill holes were located near the No 6 tunnel on the "Johnnies" vein.

In the 1981 program Outland Resources Corp. completed a total of 550 metres of BQ size drilling from one set-up. Results from the program indicated low metal values. Diamond drill holes SB-81-1 and 2 were located so as to undercut the surface mineralization sampled in 1980 in the area of tunnels 8, 9, and 10. SB-81-1 intersected 7.15 meters which grades 66.98 g/t silver approximately 5 meters below tunnel 9. Gold values were negligible. This intersection apparently coincides with the tunnel zones tested in past exploration and the grade was reportedly disappointing. Hole SB-81-2 which tested below SB-81-3 did not intersect significant silver grades.

Hole SB-81-3 was drilled from the same set-up to evaluate the potential for strike continuity to the west along the mineralized vein. The hole tested the west side of the ridge where an old cut exposes sulphides with visible amounts of chalcopyrite and galena. This exposed zone is associated with the same dike sets running through the tunnel zone and would appear to be within the same broad zone of fracturing and mineralization. SB-81-4 was located to undercut this possible western extension. Neither hole 3 or 4 intersected significant silver values.

#### 2010 Teuton Drilling

In 2010, Teuton Resources Corp. drilled 4 holes totaling 487 m from one set-up on the Harry claim (508823). Data for this drilling is shown below:

Table 6 - 2010 Drill Data for Harry Claim

Hole	Azimuth (degrees)	Dip (degrees)	Total Depth (m)
H–10- 01	270	-70	151.49
H-10- 02	360	-45	66.14
H-10- 03	90	-50	209.40
H-10- 04	185	-50	60.05

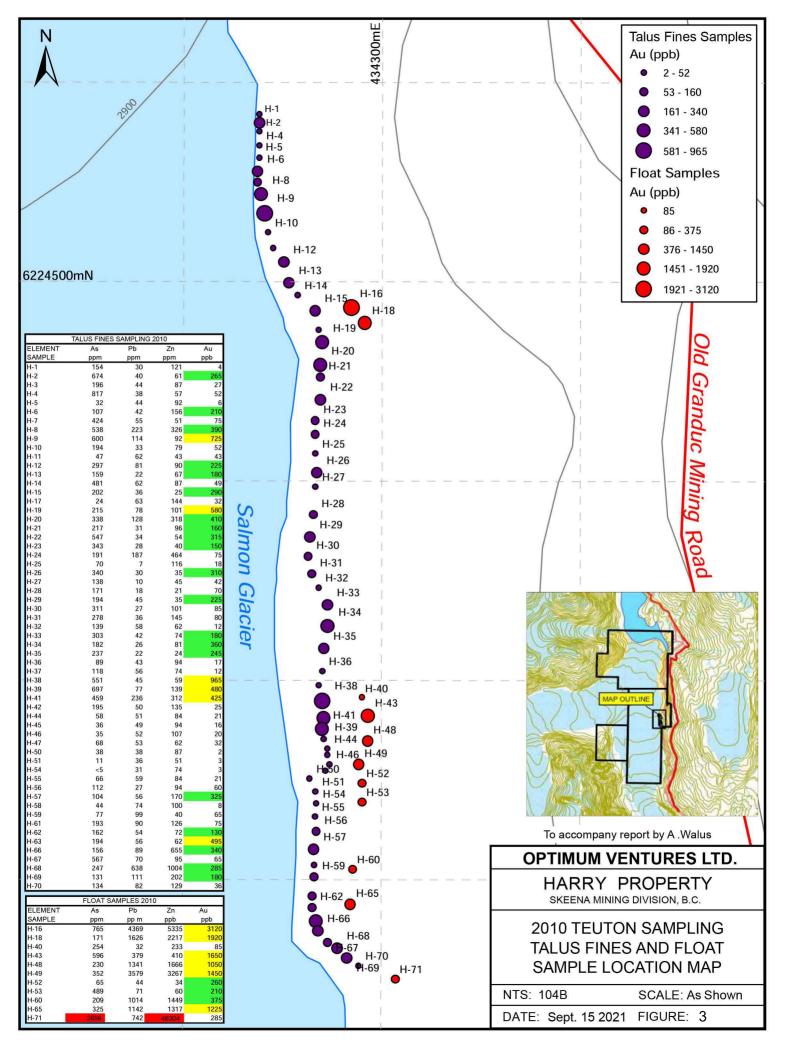
Figure 4 shows the drill plan of the 2010 drilling. Figure 5 shows gold assays and geology for holes H-10-02 and H-10-04.

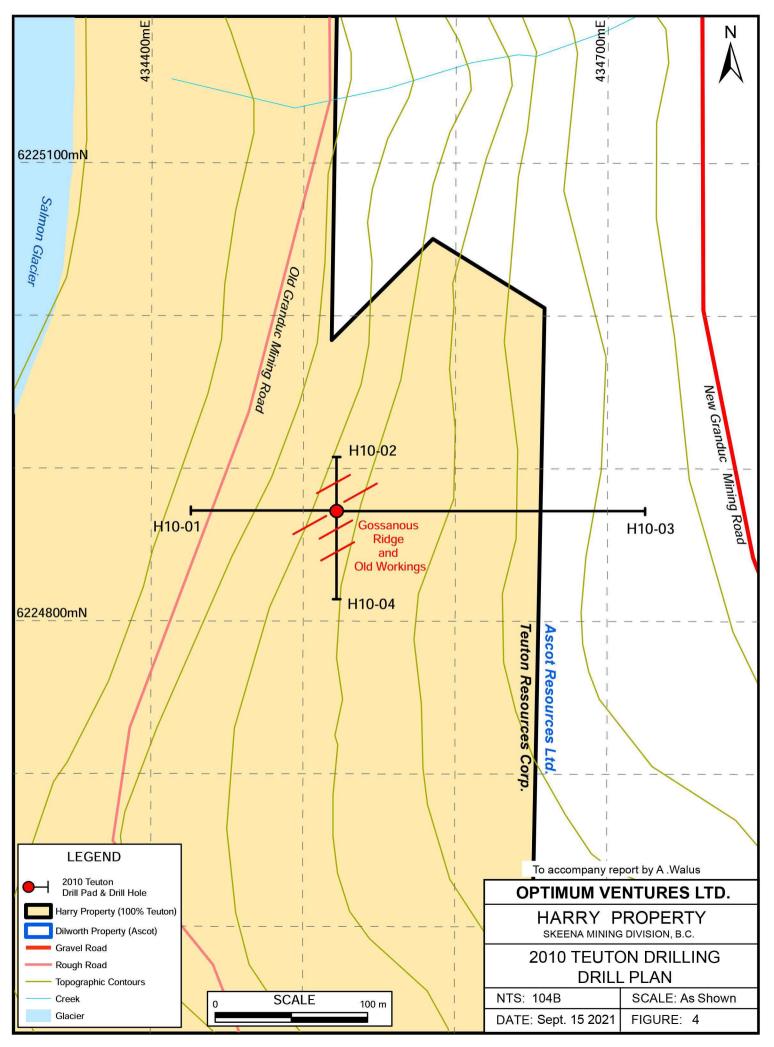
Core from the holes was logged with assay intervals ranging from 0.5m to 3m depending on observed mineralization, lithology, and structure. The entire core of all four holes was diamond sawed and each sample run for gold content (ppb tolerance) and 30 element ICP.

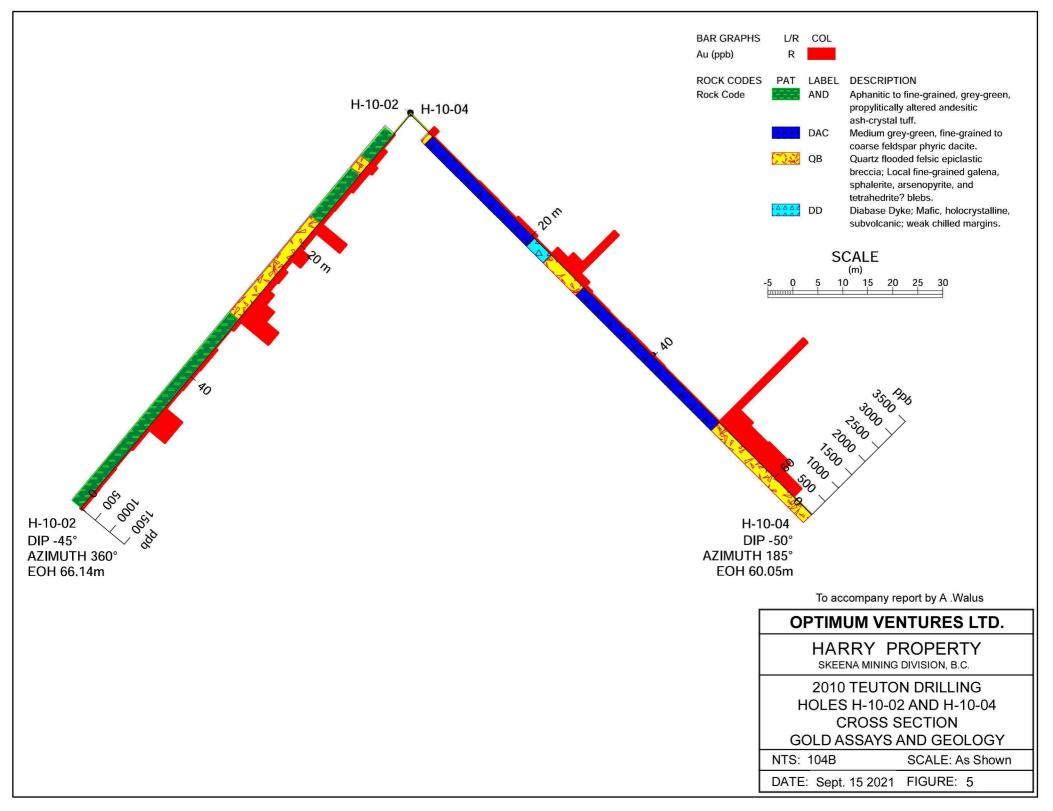
Drilling defined a zone of mineralization consisting of fine-grained arsenopyrite, galena, and sphalerite blebs within quartz floods, hosted by sericite altered, felsic rock, resemblant of epithermal-type mineralization. Hole H-10-02 assayed 0.72 gram per tonne gold over 9.15 metres, Hole H-10-03 assayed 0.34 gram per tonne gold over 122.53 metres and hole H-10-04 assayed 0.27 gram per tonne gold over 26.12 metres. Hole H-10-01 returned a few sporadic anomalous gold values up to 1130 ppb gold but nothing of significant width. Hole H -10-02 had to be terminated in mineralization when it encountered large voids and lost drill circulation.

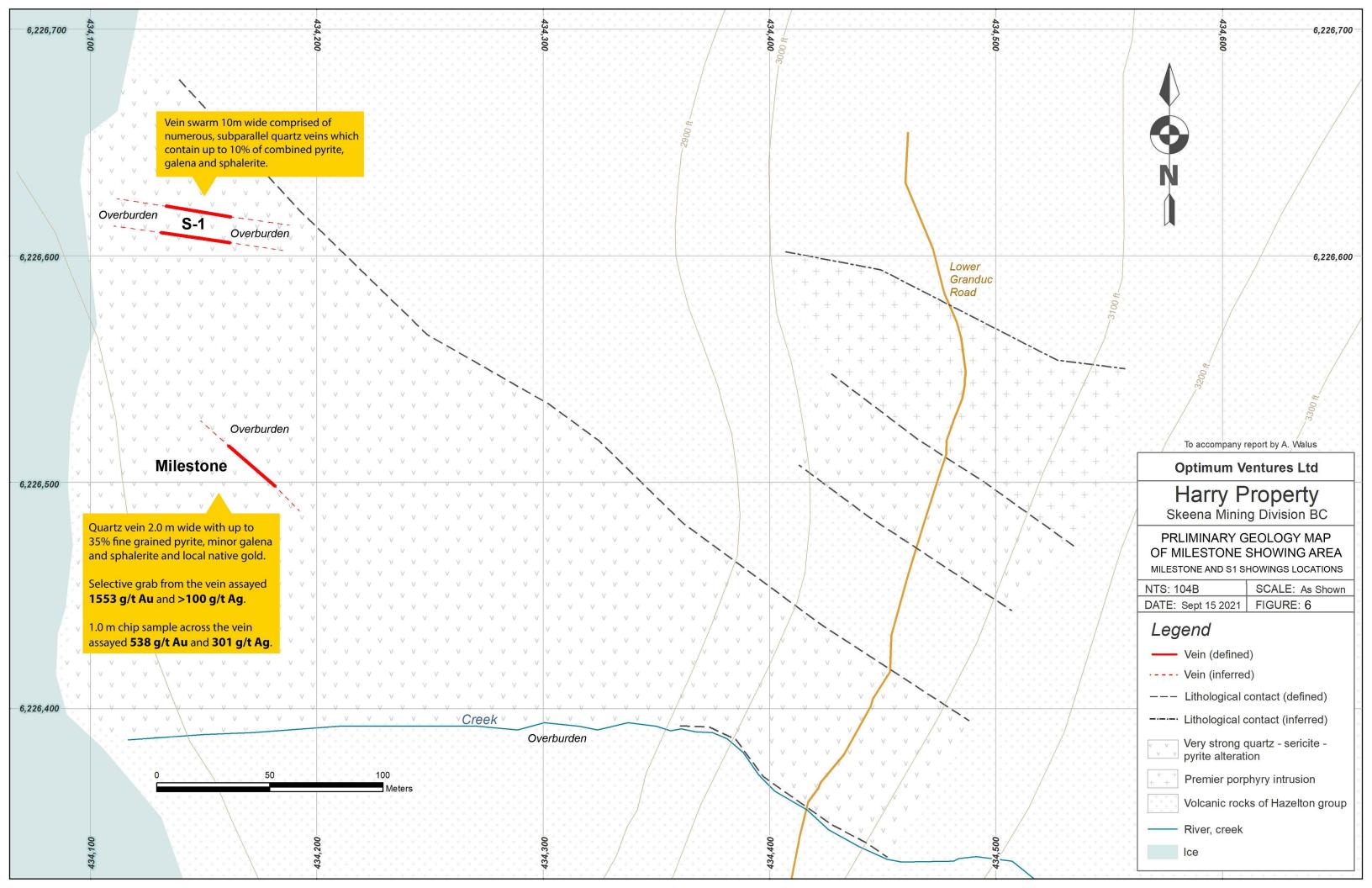
# 6.3.5 2020 Teuton Surface Sampling and Mapping

That year, the Teuton crew comprised of the author and geologist Jeff Auston collected a total of 49 rock samples. During the two days program two new showings were found. One of the showings named Milestone represents a 2.0 m wide quartz breccia vein comprised of pyrite, minor galena and locally dendrites of native gold. A grab sample from the vein ran 1,553 g/t gold. A chip sample taken across the vein returned 269.5 g/t gold over 2.0 metres (Teuton Resources press release, December 9, 2020). The second showing called S-1 represents a 10 metres wide vein swarm comprised of numerous parallel quartz veins which contain up to 10 % of combined pyrite, galena and sphalerite. Four grab samples collected from this showing returned up to 1.34 g/t gold and 32 g/t silver. Figure 6 shows preliminary geological map of this area along with the location of Milestone and S-1 showings. Figure 7 shows the location of all samples taken during the 2020 program along with their gold and silver assays.

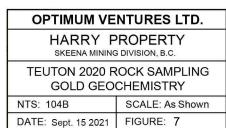




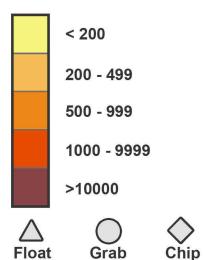




434000 **TUT-35 TUT-31 TUT-34 TUT-33 TUT-18**~ **TUT-19** HYJTA072 **TUT-32** -HYJTA071 HYJTA066 HYJTA069 TUT-67, TUT-68 TUT-64 HYJTA070 HYJTA062, HYJTA063 HYJTA065 TUT-17~ **TUT-23** HYJTA061-TUT-20-**TUT-22 TUT-21 TUT-29** HYJTA060-**-TUT-28 TUT-16** HYJTA057, HYJTA058 **TUT-27 TUT-30** HYJTA059 **TUT-26 TUT-15 TUT-14 TUT-13 HYJTA056 HYJTA055 TUT-12 TUT-10 TUT-11 TUT-09** HYJTA054 HYJTA052, HYJTA053 434000



# Au Concentration (ppb)



Sample ID	Sample Type	Au Concentration (ppb)	Ag Concentration (ppm)
HYJTA052	Grab	80	3.3
HYJTA053	Grab	91	5.8
HYJTA054	Grab	817	2.6
HYJTA055	Grab	602	1.6
HYJTA056 HYJTA057	Grab Grab	148 104	1.5 3.6
HYJTA057	Grab	70	11.7
HYJTA059	Grab	36	1.1
HYJTA060	Grab	115	7.2
HYJTA061	Grab	205	2.8
HYJTA062	Grab	21,600	33.1
HYJTA063	Grab	1,553,400	642
HYJTA064	0-1 m Chip	1014	12.8
HYJTA065	1-2 m Chip	537,900	301
HYJTA066	Grab	348	99.9
HYJTA067	0-1 m Chip	2080	6.4
HYJTA068 HYJTA069	2-3 m Chip 2-3 m Chip	4812 107	63 4.1
HYJTA009	Grab	54	16.8
HYJTA070	Grab	182	1.8
HYJTA072	Grab	199	1.7
TUT-08	Float	6	<0.2
TUT-09	Grab	283	2.6
TUT-10	Grab	358	1.8
TUT-11	Grab	36	0.9
TUT-12	Grab	201	4.2
TUT-13	Grab	6	0.3
TUT-14	Grab	2418	2.4
TUT-15 TUT-16	Grab Grab	30 12	16.8 1
TUT-17	Grab	47	4.3
TUT-18	Float	332	5.9
TUT-19	Grab	158	3.7
TUT-20	15 cm Chip	2981	11
TUT-21	Grab	275	6.7
TUT-22	Grab	67	4
TUT-23	Grab	199	1.9
TUT-24	Grab	89	6.7
TUT-25	Grab	30	1.1
TUT-26	Grab	447 347	193
TUT-27 TUT-28	Float Float	21	19.1 49.5
TUT-29	Grab	1482	5.8
TUT-30	Float	22	1.6
TUT-31	Grab	7	2.4
TUT-32	Grab	1342	4.9
TUT-33	Grab	151	1.3
TUT-34	Grab	228	32.3
TUT-35	Grab	163	8.1



Ice

TEU-2021-Harry-Assessment-Samplemap 02
NAD 83
Feb 13 2021
Last updated: Feb 22 2021
Created by: NB
0 30 60 120
Meters

#### 7.0 GEOLOGICAL SETTING

#### 7.1 Regional Geology

The property lies at the west edge of one of the most important mineral trends of northwestern British Columbia extending from near the town of Stewart north to the Treaty Glacier, in the western part of the Stikine arc terrane. According to Nelson and Kyba (2013), the stratigraphy and plutonic framework within this trend are most simply described in terms of four tectonostratigraphic elements: Paleozoic Stikine Assemblage, Triassic and Jurassic Stikinian strata and plutons, Middle and Upper Jurassic Bowser Lake Group and Tertiary Coast Plutonic Complex. Cretaceous fold-and-thrust belt deformation resulted in, the formation of a major northnorthwest trending structural culmination (elongated dome) in the western part of Stikinia (the 'Stewart-Iskut' culmination). This resulted in the older, mineralized volcano-sedimentary rocks being brought close to surface in this region.

The Harry Property lies along the eastern edge of the Coast Crystalline Complex within the western boundary of the Bowser Basin. Rocks in the area belong to the Mesozoic Stuhini Group, Hazelton Group and Bowser Lake Group that have been intruded by plugs of both Cenozoic and Mesozoic age. Portions of the Stewart area are underlain by Triassic age Stuhini Group (Greig, C.F, 1994). The Stuhini Group rocks are either underlying or in fault contact with the Hazelton Group. These Triassic age rocks consist of dark gray, laminated to thickly bedded silty mudstone, and fine to medium grained and locally coarse-grained sandstone. Local heterolitic pebble to cobble conglomerate, massive tuffaceous mudstone and thick-bedded sedimentary breccia and conglomerate also form part of the Stuhini Group.

At the base of the Hazelton Group, in the lower part of Lower Jurassic Marine rocks, there is volcaniclastic Unuk River Formation. This is overlain at steep discordant angles by a second, lithologically similar, middle Lower Jurassic volcanic cycle (Betty Creek Formation), in turn overlain by an upper Lower Jurassic tuff horizon (Mt. Dilworth Formation). Middle Jurassic nonmarine sediments with minor volcanics of the Salmon River Formation unconformably overlie the above sequence.

The lower Lower Jurassic Unuk River Formation forms a north-northwesterly trending belt extending from Alice Arm to the Iskut River, BC. It consists of green, red and purple volcanic breccia, volcanic conglomerate, sandstone and siltstone with minor crystal and lithic tuff, limestone, chert and minor coal. Also included in the sequence are pillow lavas and volcanic flows.

In the Harry Property area, the Unuk River Formation is unconformably overlain by middle Lower Jurassic rocks from the Betty Creek Formation. The Betty Creek Formation is another cycle of trough filling sub-marine pillow lavas, broken pillow breccias, andesitic and basaltic flows, green, red, purple and black volcanic breccia, with self erosional conglomerate, sandstone and siltstone and minor crystal and lithic tuffs, chert, limestone and lava.

The upper Lower Jurassic Mt. Dilworth Formation consists of a thin sequence varying from black carbonaceous tuffs to siliceous massive tuffs and felsic ash flows. Minor sediments and limestone are present in the sequence. Locally, pyritic varieties form strong gossans.

The Middle Jurassic Salmon River Formation is a late to post volcanic episode of banded, predominantly dark colored siltstone, greywacke, sandstone, intercalated calcarenite rocks, minor limestone, argillite, conglomerate, littoral deposits, volcanic sediments and minor flows. Overlying the above sequences are the Upper Jurassic Bowser Lake Group rocks. These rocks mark the western edge of the Bowser Basin and are also located as remnants on mountaintops in the Stewart area. These rocks consist of dark gray to black clastic rocks including silty mudstone and thick beds of massive, dark green to dark gray, fine to medium grained arkosic litharenite.

According to E.W. Grove, the majority of the rocks from the Hazelton Group were derived from the erosion of andesitic volcanoes subsequently deposited as overlapping lenticular beds varying laterally in grain size from breccia to siltstone. Alldrick's work to the north of Stewart has shown several volcanic centers in the surveyed area. Lower Jurassic volcanic centers in the Unuk River Formation are located in the Big Missouri Premier area and in the Brucejack Lake area. Volcanic centers within the Lower Jurassic Betty Creek Formation are located in the Mitchell Glacier and Knipple Glacier areas.

The granodiorites of the Coast Plutonic Complex largely engulf the Mesozoic volcanic terrain to the west. East of these (in the property area); smaller intrusive plugs range from quartz monzonite in the Hyder intrusive to granite to highly felsic in other areas. Some are likely related to the late phase offshoots of the Coast plutonism, other is synvolcanic and Tertiary. Double plunging, northwesterly - trending synclinal folds of the Salmon River and underlying Betty Creek Formations dominate the structural setting of the area. These folds are locally disrupted by small east-over thrusts on strikes parallel to the major fold axis, cross-axis steep angled faults which locally turn beds, selective tectonization of tuff units and major northwest faults which turn beds.

# 7.2 Local Geology

The local geology section for the Harry claims is quoted from the 2006 assessment report filed with the BC Department of Mines by Cremonese and Mastalerz. The report # 28689 states the following: "The Harry property is underlain by a succession of lower to upper Jurassic sedimentary and volcanogenic rocks of the Hazelton Group. The strata strike from NNW to SSE and dip at variable angles eastward. The area of the property is located entirely on the western limb of the narrow (ca. 5-7 km), NNW-SSE trending synclinorial feature which parallels the prominent Unuk River anticlinorium located ca. 10 km westward. The western limb of the synclinorium forms a regional zone of intense tectonic deformation with numerous faults of various origin, and hosts several important mineral occurrences starting from the Premier (south) through Scottie Gold, East Gold and Sulphurets, up to the Treaty Creek showings. Most of the faults are parallel or sub-parallel to the main structural trend in the area, however, there are also a few steep, perpendicular faults just west of the Harry property.

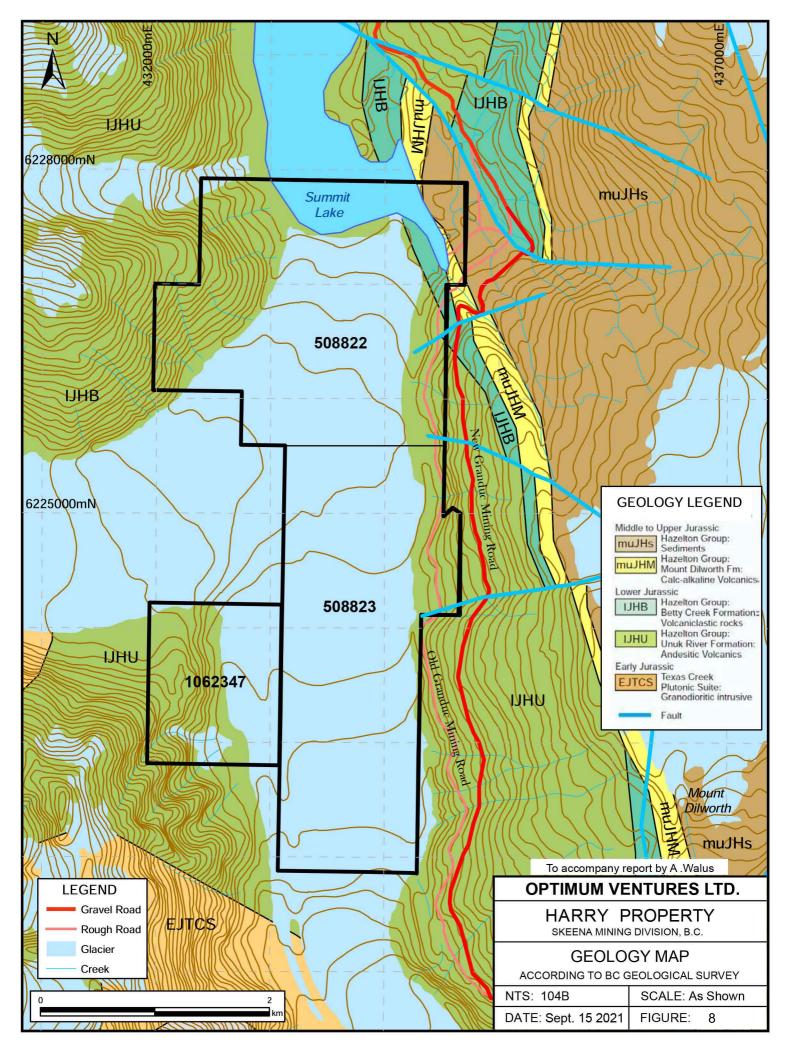
According to the BCGS geological map (Fig. 3), the predominant part of the Harry property is underlain by volcanic/volcaniclastic rocks of various composition and siliciclastic sediments of mixed composition belonging to the Unuk River Formation (Jl-HU; Fig. 3; comp. also Alldrick 1984). Eastward, these strata are in contact concordantly with a younger succession of a mixed, volcanogenic and sedimentary provenance of the Betty Creek Formation (J2/3-HB). A narrow belt of these rocks is exposed in the northeastern comer of the property (Fig. 3). The fine-grained sedimentary rocks which interfinger with and envelope some lensoidal bodies of felsic to intermediate volcanogenic rocks are assigned to the successor Mount Dilworth Formation (J2/3-HD). The lithostratigraphic position of the youngest strata exposed at the NE tip of the property (turbiditic sediments J2/3-Hs) has not been yet defined precisely, but they apparently correspond to the Salmon River Formation. The strata of the Jurassic volcanogenic-sedimentary assemblage of the Hazelton Group is cut by a diversified suite of granitoid intrusives (EJ-TC and E-Bo, Fig. 3) just to the south of the Harry property. The intrusive rocks, most probably of Eocene age, belong to the Coast Plutonic Complex."

The local geology section for the Outland is quoted from a 1977 assessment report filed with the BC Department of Mines by Price. The report # 6198 states the following: "The property is underlain by fine-grained grey, banded, hornfelsed rocks of indeterminate origin, and in the northern area, by black limy siltstone. The rocks are described as siltstones and volcanic sandstones by Grove (Bull.58, BCDM.) but lenses of tuff may be interbedded. These sediments are strongly banded (trend 265 to 290 degrees), but the banding could be a result of cataclasis. The Portland Canal dyke swarm cuts the sediments; the dykes are of widely varying composition and several distinct ages, and trend approximately 290 degrees, parallel to banding in the sediments. Some varieties of dykes (diorite, altered quartz diorite) are pre-mineralization, other (rhyolite quartz eye porphyry, dark green diorite,) are post mineralization."

The preliminary geological mapping done by the author during the 2020 program in the vicinity of Milestone and S-1 new showings revealed the area is underlined by volcanic rocks of the Hazelton Group. These rocks are hosting a very intense quartz-sericite-pyrite alteration zone at least 400 metres in size (see Figure 7). Shearing within the zone is oriented east-west with vertical dip. To the northeast, this prominent alteration zone is in contact with intrusion of Premier Porphyry which consists of 1-2 % K-feldspar phenocrysts 0.5-2.0 cm across set in a fine-grained groundmass comprised of plagioclase, K-feldspar, altered hornblende and rounded quartz grains. The rock is strongly chloritized.

#### 7.3 Structure

Although up to four periods of folding and five episodes of faulting have been identified in the Stewart Area, the overall structure of the property appears relatively simple. The area of the property is located entirely on the western limb of a narrow NW-SSE trending synclinorial feature. A major north-south fault zone runs along the Salmon River valley, through the middle of the claims. The overall orientation of the geology on the property area is NW, the prevailing structural orientation in the Stewart area. Faults in the property area are parallel or sub-parallel to the main NW structural trend in the area with some steep, east-west perpendicular faults extending from the Mt Dilworth area.



Based on structural observations made by the author during the 2020 program the area of Milestone and S-1 showings hosts two sets of mineralized veins. One set is striking NW-SE and dipping steeply to NW. The second set is striking 80 to 100 degrees and has vertical dip.

#### 7.4 Mineralization

The Harry property contains four mineralized zones listed in MINFILE. These are Harry, Outland Silver Bar, Summit Gossan and Troy 6. In addition, two new mineralized zones called Milestone and S-1 were found during the 2020 Teuton exploration program. Location of these zones is shown on Figures 6 and 9. Their brief description is presented below:

#### Outland Silver Bar – Past Producer, Minfile No. 104 B 030

The minerals noted in the gossan zones at the Outlander claim are pyrite, pyrrhotite, sphalerite, galena, chalcopyrite, tetrahedrite, and an unidentified tungsten mineral. The mineralization occurs in veins and in zones of massive sulphides within some of the units of the sedimentary series.

Several mineralized quartz veins occur on the Outland claim of which, the "Johnnies" is the most explored. The veins consist of quartz with scattered galena, sphalerite, tetrahedrite and pyrite with minor chalcopyrite. The main vein or "Johnnies" vein, that trends north- northeast, dips 70 degrees east, and has been explored by two adits. The vein has a width of 1.3 metres, a mineralized length of 30 metres and occurs in brecciated altered siltstones. It has been cut by small dioritic dykes. Other smaller veins are found in the older dykes but generally show little extension into the siltstones.

About 100 metres to the southeast of the 'Johnnies' vein, another east-northeast trending vein cuts silicified argillite. It is less than 50 centimetres wide.

The 1981 BC assessment report #9736 describes the veins as follows: "The vein deposits generally are found to cut the sediments and oldest dykes. The strongest vein is Johnnies Vein, which is exposed in Tunnel 1 at an elevation of 1230 meters and in Tunnel 6, at an elevation of 1183 meters. Johnnies Vein has a north-northwest strike, and dips to the east at 70 degrees. The vein in the No. 6 tunnel has a width of about 60 centimeters on the north face, and about 2 meters on the south face. No assays were obtained from the No. 1 tunnel as the portal was still covered by snow at the time of the examination."

Lenses of sulphide mineralization, that may be replacement-type, occur in pyrite-rich siltstones and mudstones, on the Outlander claim. These mineralized lenses contain pyrite, pyrrhotite, arsenopyrite, and scattered chalcopyrite, galena, tetrahedrite, argentite, sphalerite and an unidentified tungsten mineral.

These mineralized lenses are described by Vincent in the 1981 assessment report #9736 as follows: "In keeping with the various reports completed on this property, the writer has kept the term "replacement" for the lenses of sulphide mineralization that have the same strike and dip as the bedding. These deposits appear to be of volcanogenic origin, and would be classified as stratabound" deposits. The minerals of the ore zones are pyrite, pyrrhotite, chalcopyrite, arsenopyrite, tetrahedrite, argentite and an unidentified tungsten mineral. Twenty-nine samples were assayed for W03 and these samples contained 0.01 to 0.06% T'703 (Appendix B). The mineral zones were reported to be located within the dyke rocks and not in the siltstones. However, a close

examination of the "replacement" deposits shows that they are located in pyrite-rich siltstones and mudstones and bear a close spatial relation to the dykes. "

# Harry showing, Minfile No. 104B 434

Drilling in the 2010 season defined a zone of mineralization consisting of fine-grained arsenopyrite, galena, and sphalerite blebs within quartz floods, hosted by sericitized felsic rock, resemblant of. Mineralization in this showing is similar to epithermal-type mineralization observed in the Big Missouri and Dilworth deposits.

#### Summit Gossan showing, Minfile No. 104B 648

At this location, potassium feldspar porphyry intrusive rocks cut the Unuk River Formation and appear as a 250-metre-wide stock situated on a relatively flat bench at 1275 to 1350 metres elevation. Northeast trending quartz veins occur immediately north of this alkaline stock and contain sphalerite, galena, and tetrahedrite mineralization. Northwest trending fault zones with associated pyrite-chalcopyrite-arsenopyrite-sphalerite-galena and related chlorite-carbonate alteration occur several hundred metres east of the potassium feldspar porphyry.

A 1 metre sample with 3 per cent galena, 3 to 5 per cent sphalerite, 2 per cent tetrahedrite in quartz calcite gangue assayed 1 per cent copper, 1.24 per cent lead, 4.33 per cent zinc, 400.8 grams per tonne silver and 1.01 grams per tonne gold (Assessment Report 25677).

### Troy 6 showing, Minfile No. 104B 651

Prior to 1937 a zone consisting of seven parallel leads striking east-west was found on the Troy 6 claim. The No. 1 lead occurs along the contact of red feldspar porphyries and altered tuffaceous rocks and consists of a large quartz vein striking 110 degrees and dipping 65 degrees north into or under the porphyries. One cut revealed a small amount of pyrite and galena mineralization.

In 1993, Dave Javorsky reports "The Old Troy #6 pit was cleared out and enlarged by drilling and blasting. The exposure shows a quartz-sericite structure with banding in the quartz. Zones of massive pyrite lie between the quartz bands. A band of darkish quartz has a blackish look to it from disseminated dark sulphides, mainly galena and sphalerite. The gold and silver values appear to be directly related to the dark sulphide bearing quartz. The main gold values lie from the quartz-sericite contact into the quartz." A composite sample over 1 metre assayed 15.63 grams per tonne gold, 44.0 grams per tonne silver, 0.05 per cent copper, 0.24 per cent lead and 0.58 per cent zinc (Assessment Report 23220).

In the NW corner of the property, strong pyrrhotite mineralization occurs in altered andesitic volcanics giving rise to strongly limonitic outcrops. The rocks are hornfelsed with disseminated pyrrhotite forming up to 10 % of the rock. This is similar to geology at Scottie gold where andesites have been highly altered up to 250 m away from contact with Summit Lake stock.

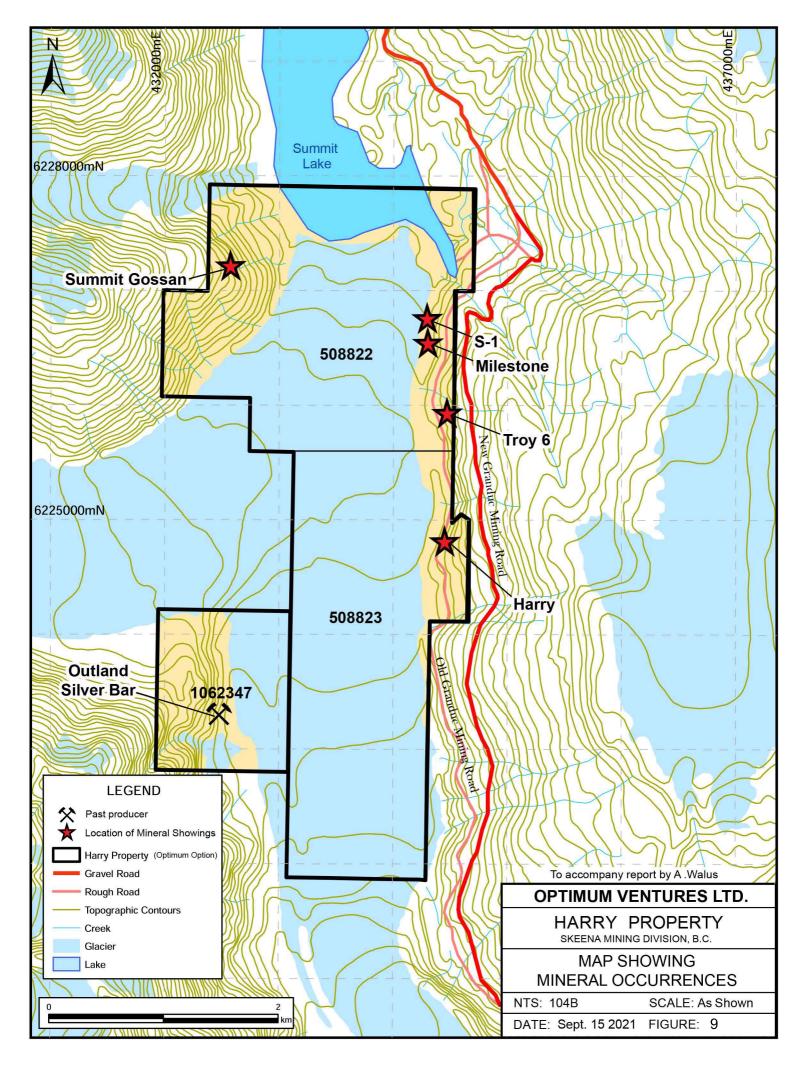




Photo No. 1

# Milestone Vein

This new showing represents a 2.0 m wide quartz breccia vein which contains pyrite, minor galena and locally dendrites of native gold. A grab sample from the vein ran 1,553 g/t gold. A chip sample taken across the vein returned 269.5 g/t gold over 2.0 metres (Teuton Resources press release, December 9, 2020). Photo No. 1 (above) taken in September 2020 shows Millstone vein and its discoverer Jeff Auston.

# S-1

The second new showing called S-1 represents a 10 metres wide vein swarm comprised of numerous parallel quartz veins which contain up to 10 % of combined pyrite, galena and sphalerite. Locally the veins have dark gray to black colour from dispersed carbonaceous mater and/or very fine grained galena and sphalerite. Similar occurrences of dark quartz were reported by Dave Javorsky from gold-silver bearing veins within Troy 6 showings (Assessment Report # 23220). Four grab samples collected from S-1 showing returned up to 1.34 g/t gold and 32 g/t silver (Cremonese, D., 2021, Assessment Report #39,322 – confidential until November 08, 2021).

The Milestone and S-1 mineral occurrences are hosted within a large zone of intense quartz-sericite-pyrite alteration at least 400 metres across. In addition to these two mineral showings, the area also contains numerous quartz+/-carbonate veins with some of them mineralized with pyrite, galena, sphalerite chalcopyrite and tetrahedrite. Only a few of these veins were sampled as smooth rock surfaces made it impossible to sample them.

#### 8. **DEPOSIT TYPES**

Deposit types which best describe the mineralization present on the Harry Property is gold-quartz veins and silver-base metal epithermal veins. A capsule description of these types of deposits is extracted from Selected British Columbia Mineral Deposit Profiles by David V. Lefebure and B. Neil Church ,Volume 2; Lefebure, D.V. Hoy T., Editors, B. C. Ministry of Energy, Mines and Petroleum Resources. For the Au-quartz veins, the description is as follows:

	IDENTIFICATION
Synonyms	Mother Lode veins, greenstone gold, Archean lode gold, mesothermal gold-quartz veins, shear-hosted lode gold, low-sulphide gold-quartz veins, lode gold.
Commodities	Au (Ag, Cu, Sb).
Examples	Carson Hill, Jackson-Plymouth, Mother Lode district; Empire Star and Idaho-Maryland, Grass Valley district (California, USA); Alaska-Juneau, Jualin, Kensington (Alaska, USA), Ural Mountains (Russia).
	GEOLOGICAL CHARACTERISTICS
Description	Gold-bearing quartz veins and veinlets with minor sulphides crosscut a wide variety of Hostrocks and are localized along major regional faults and related splays.
Tectonic Setting	Contained in moderate to gently dipping fault/suture zones related to continental margin collisional tectonism.
Geological Setting	Veins form within fault and joint systems produced by regional compression or transpression (terrane collision)
Age of Mineralization	In British Columbia deposits are mainly Middle Jurassic (~ 165-170 Ma) and Late Cretaceous (~ 95 Ma)
Host/Associated bock Types	Lithologically highly varied, usually of greenschist metamorphic grade, ranging from virtually undeformed to totally schistose.
Deposit Form	Tabular fissure veins in more competent host lithologies
Texture/Structure	Veins usually have sharp contacts with wallrocks and exhibit a variety of textures, including massive, ribboned or banded and stockworks with anastamosing gashes and dilations.
Ore Mineralogy	Native gold, pyrite, arsenopyrite, galena, sphalerite, chalcopyrite, pyrrhotite, tellurides, scheelite, bismuth, cosalite, tetrahedrite, stibnite, molybdenite, gersdorffite (NiAsS), bismuthimite (Bi2S2), tetradymite (Bi2Te2S).
Gangue minerals	Quartz, carbonates (ferroan-dolomite, ankerite ferroan-magnesite, calcite, siderite), albite, mariposite (fuchsite), sericite, muscovite, chlorite, tourmaline, graphite
Alteration mineralogy	Silicification, pyritization and potassium metasomatism generally occur adjacent to veins (usually within a metre) within broader zones of carbonate alteration, with or without ferroan dolomite veinlets, extending up to tens of metres from the veins.
Ore Controls	Gold-quartz veins are found within zones of intense and pervasive carbonate alteration along second order or later faults marginal to transcrustal breaks

Genetic Model	Gold quartz veins form in lithologically heterogeneous, deep transcrustal fault zones that develop in response to terrane collision
	EXPLORATION GUIDES
Geochemical	Elevated values of Au, Ag, As, Sb, K, Li, Bi, W, Te and B ± (Cd, Cu, Pb, Zn and Hg) in rock and soil, Au in
signature	stream sediments
Geophysical	Faults indicated by linear magnetic anomalies
Signature	
Other Exploration	Placer gold or elevated gold in stream sediment samples is an excellent regional and property-scale guide to
Guides	gold-quartz veins.

# For the silver-base metal epithermal veins, the description is as follows:

IDENTIFICATION				
Synonyms	Polymetallic veins Ag-Pb-Zn+/-Au, Clastic metasediment-hosted silver-lead-zinc veins veins.			
Commodities	Ag, Pb, Zn (Cu, Au)			
Examples	Mayo district (Yukon), Porter-Idaho (Stewart area)			
	GEOLOGICAL CHARACTERISTICS			
Description	Sulphide rich veins containing sphalerite, galena silver and sulphosult minerals in carbonate and quartz gangue. These veins can be subdivided into those hosted by metasediments and another group hosted by volcanic or intrusive rocks.			
Tectonic Setting	These veins occur in virtually all tectonic settings except oceanic, including continental margins, island arcs, continental volcanics and cratonic sequences.			
Geological Setting	Veins are emplaces along faults and fractures in sedimentary basins dominated by clastic rocks that have been deformed, metamorphosed and intruded by igneous rocks.			
Age of Mineralization	Most deposits located in British Columbia are Cretaceous to Tertiary.			
Host/Associated bock Types	Most commonly the veins are hosted by thick sequences of clastic sediments or by intermediate to felsic volcanic rocks.			
Deposit Form	At various deposits the form has been described as: planar, en echelon vein sets, shear veins, cymoid veins, cymoid loops, sigmoidal loops, extension veins, tension gashes, ladder veins, and synthetic Reidel shear veins. Veins vary in width from centimetres to several metres and can be traced up to hundreds of metres.			
Texture/Structure	Compound veins with a complex paragenetic sequence are common. A wide variety of textures, including cockade texture, colloform banding and crustification and locally drusy. Veins may grade into broad zones of stockwork or breccia. Coarse-grained sulphides as patches and pods, and fine grained disseminations are confined to veins.			
Ore Mineralogy	Galena, sphalerite, tetrahedrite-tennantite and other sulphosults, native silver, chalcopyrite, pyrite, arsenopyrite, stibnite. Some veins contain more chalcopyrite and gold at depth and Au grades are normally low for the amount of sulphides present.			
Gangue minerals	Principal: quartz, calcite, ankerite, chlorite, <i>subordinate</i> : sericite, rhodochrosite, barite, fluorite.			
Alteration mineralogy	Wall rock alteration is typically limited in extent (measured in metres or less). The metasediments typically display sericitization, silicification and pyritization. Thin veining of siderite or ankerite may be locally developed adjacent to veins. In volcanic and intrusive rocks, the alteration is argillic, sericitic or chloritic and may by quite extensive.			

Ore Controls	Regional faults, fault sets and fractures are an important ore control; however, vein typically associated with second order structures.				
Genetic Model	Historically these veins have been considered to result from differentiation of magma with the development of a volatile fluid phase that escaped along faults to form the veins. Mire recently researchers have preferred to invoke mixing of cooler upper crustal hydrothermal or meteoric waters with rising fluids that could be meteoric.  EXPLORATION GUIDES				
Geochemical signature	Elevated values of Zn, Pb, Ag, Mn, Cu (As, Ba)				
Geophysical Signature	Electromagnetic and magnetic (low) anomalies				
Other Exploration Guides	Strong structural control on veins and common occurrence of deposits in clusters can be used to locate new veins.				

#### 9. EXPLORATION

The author is not aware of any exploration completed by Optimum Ventures on the Harry property.

#### 10. DRILLING

Optimum Ventures did not conduct any drilling on this property.

# 11. SAMPLE PREPARATION, ANALYSES AND SECURITY

The author is not aware of any sampling completed on the Harry property by Optimum Ventures. The author has no knowledge of the security measures utilized by companies which conducted exploration on the property during programs other than during the 2005 and 2020. It is assumed that the sampling procedure applied by these companies was according to standard industry practices.

Companies which conducted exploration work on the property used the following analytical laboratories: Eco Tech Lab of Kamloops, Pioneer Lab of Richmond and ALS Chemex of North Vancouver. These laboratories used standard, proven methods of assaying. ALS Chemex has ISO 9001 certification. Eco-Tech lab was sold (currently it is a part of ALS Chemex) and the author was not able to obtain information about its certification.

#### 12. DATA VERIFICATION

The author personally collected many samples during the 2005 and 2020 exploration programs. The author had access to reports, maps and other data including those that are present on BC government sites while preparing this report. The author has no knowledge of the accuracy and validity of the work done by geological consultants working for previous operators on the

Outlander claim. The author is certain of the accuracy of the work done by geological consultants who worked for Teuton on the Harry claims. The author has worked with all the Teuton consultants that worked on the Harry claim in the past and was always satisfied with the quality and accuracy of their work.

The authors consider data from the previous exploration campaigns adequate for the purpose of this report.

#### **ITEMS 13 TO 22**

These items are not applicable

#### 23. ADJACENT PROPERTIES

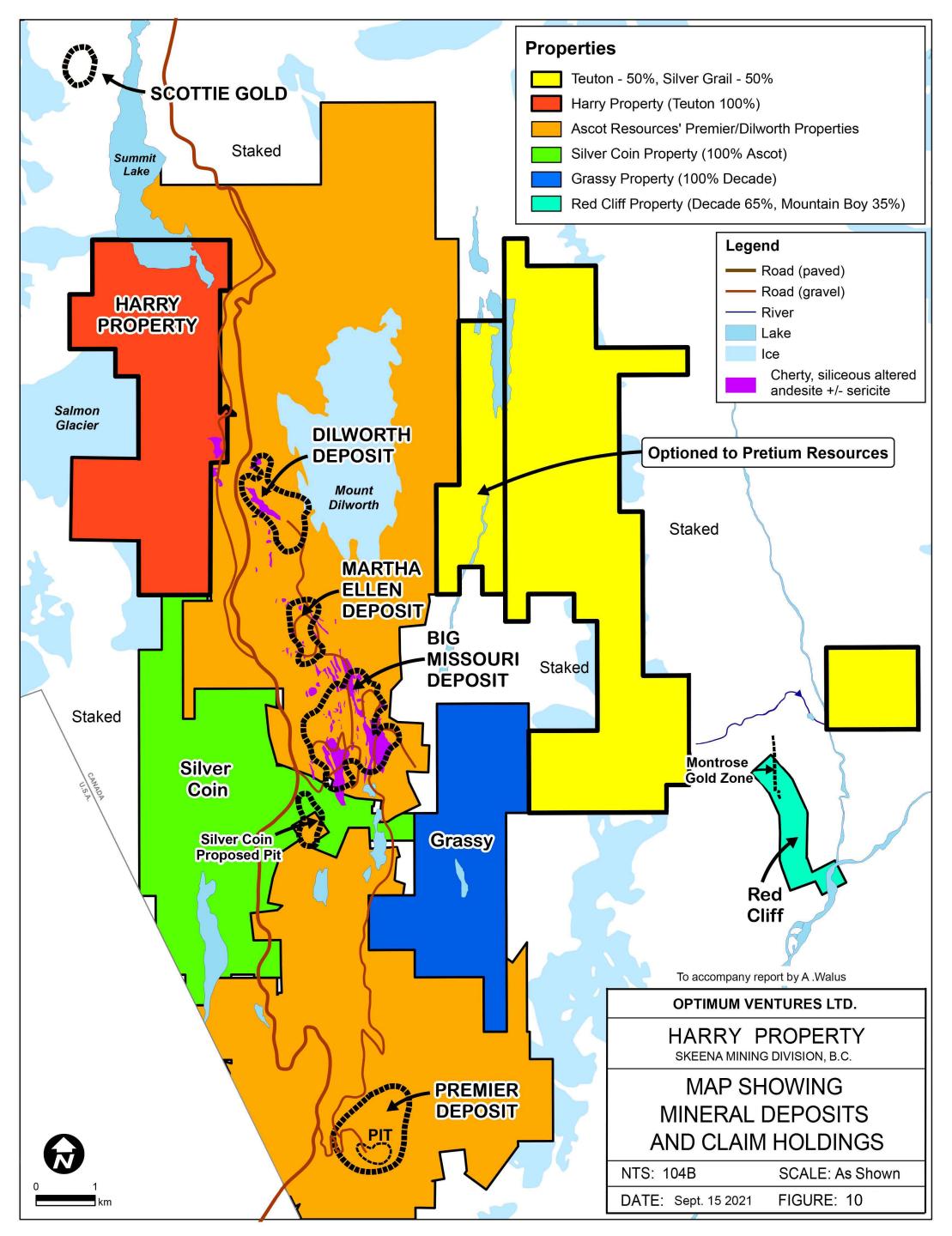
# 23.1 Introduction, Disclaimer

A historical underground mine and a developed prospects located on the adjacent properties to the north and south (see Fig 10) are described here to give an account of exploration activity in the surrounding areas as well as for the reason of better understanding the mineral potential of the property. The mineral occurrences described below do not reflect in any manner on mineralization on the Harry property. The legal status – current ownership of these properties has not been searched and has no bearing on this technical disclosure by Optimum Ventures.

The author was unable to verify all the information pertaining to the adjacent properties.

# 23.2 Scottie Property

This property hosts the former Scottie Gold mine located 50 kilometres north of Stewart (see Figure 4). The mine which operated from 1981 to 1985 milled vein material averaging 16.20 g/t gold, producing 2,967,748 grams of gold (95,426 ounces) from 183,147 tonnes of ore. Previous work has indicated the presence of more than 13 quartz-carbonate veins in the Bow claim-Scottie Gold mine area. They are mineralized with pyrrhotite, pyrite, chalcopyrite, galena and sphalerite. The veins occur as en echelon fracture fillings oriented in an east-west direction and appear to be localized along complex, shear or fracture zones related to the emplacement of the Summit Lake Pluton.



Giroux Consultants Ltd. calculated a resource for the Scottie Gold Mine as outlined below:

**Table 7 - Resource for Scottie Gold Property** 

Veins	Category	Tonnes	Grade Au g/t	Grade Ag g/t	Ounces Gold	Ounces Silver
L,M,N and O	Indicated	20,100	9.91	4.32	6,400	2,800
L,M,N and O	Inferred	203,000	8.40	4.25	54,800	27,800
Bend	Inferred	18,500	10.87	29.25	6,470	17,400

The above data is extracted from the 2005 technical report filed on the Scottie property on the SEDAR website for Tenajon Resources ltd by D. Visagie and D. Gunning.

# 23.3 Dilworth Property

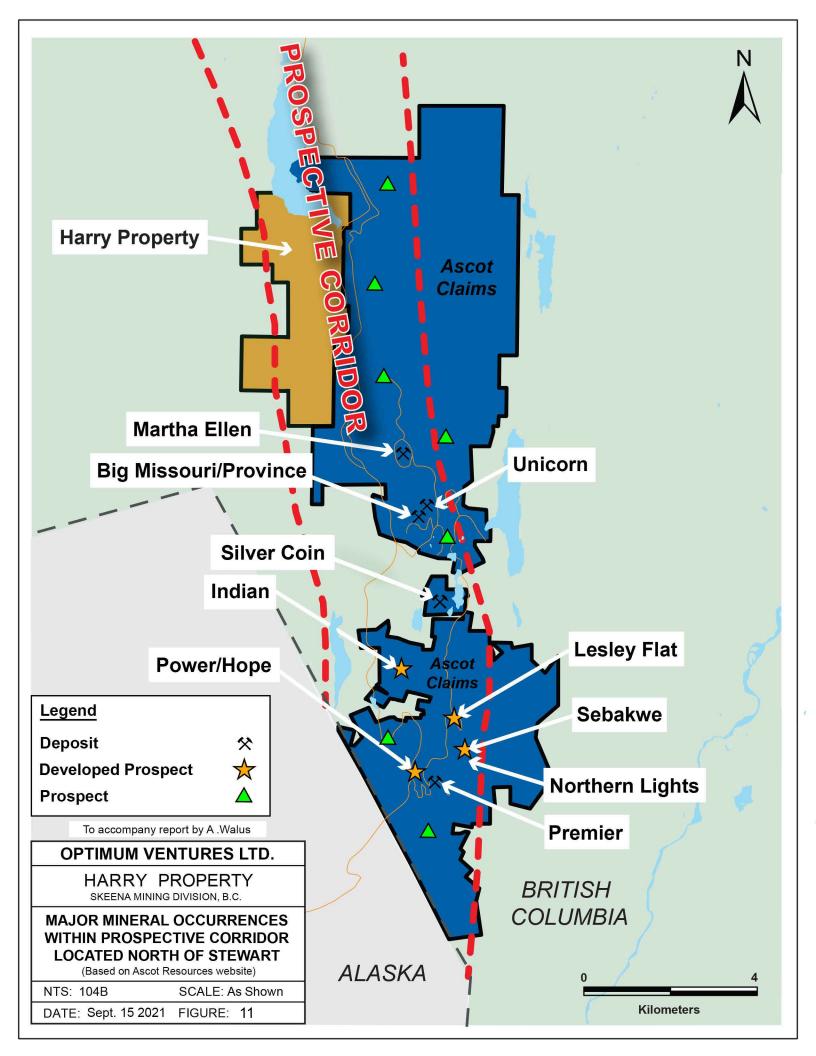
Dilworth property located east of Harry claims contains Dilworth or Big K mineral occurrence (see Figure 4 for location) which recently has been explored by Ascot Resources. In the latest 43-101 report on the Dilworth project filed by Ascot Resources the Dilworth project is shown to contain 357,000 ounces of gold in 23,300,000 tonnes grading 0.63 g/t AuEq. In the Premier area, a total of 667,000 ounces of gold are in indicated category in 2,780,000 tonnes grading 7.46 g/t gold for combined Premier, Big Missouri, Silver Coin and Martha Ellen zones. The same area contains a total of 1,390,000 ounces of gold as inferred category in 6,030,000 tonnes at 7.18 g/t gold for combined Premier, Big Missouri, Silver Coin, Martha Ellen and Dilworth zones (Ascot Resources website). For location of these zones see Figures 4 and 5.

#### 24. OTHER RELEVANT DATA AND INFORMATION

The author is not aware of any other relevant data or information on the Harry Property.

# 25 INTERPRETATION AND CONCLUSIONS

The bulk of the Harry property lies within a 3 km wide and at least 15 km long prospective corridor which hosts a number of gold-silver deposits as well as numerous prospects. Deposits within this corridor include Premier, Big Missouri, Silver Coin, Martha Ellen and Mt Dilworth. Figure 11 below shows mineral deposits and prospects located within this corridor (based on the map from Ascot Resources website).



The property is located within Jurassic volcanic rocks bounded by the Summit Lake stock to the north and Texas Creek batholith to the south which are part of the Texas Creek Plutonic suite in the Stewart Area. This suite of intrusive rocks is associated with mineralization at the historic Premier mine located 15 km south of the property and the KSM copper-gold porphyries and Brucejack Lake gold deposits. The Premier mine produced 2,000,000 oz of gold and 49,000,000 oz of silver (Alldrick D.,1993), the KSM and Brucejack Lake deposits contain 6.4 million ounces of gold in the proven and probable categories (Pretium Resources website).

During the 2020 exploration program carried out by Teuton Resources two new showings were found. One of the showings called Milestone represents a 2 .0 m wide quartz breccia vein which contains pyrite, minor galena and locally dendrites of native gold. A grab sample from this vein ran 1,553 g/t gold. A chip sample taken across the vein returned 269.5 g/t gold over 2.0 metres (Teuton Resources press release, December 9, 2020).

The second showing called S-1 represents a 10 metres wide vein swarm comprised of numerous parallel quartz veins which contain up to 10 % of combined pyrite, galena and sphalerite. Locally, the veins have dark gray to black colour from dispersed carbonaceous mater and/or very fine grained galena and sphalerite. Four grab samples collected from this showing returned up to 1.34 g/t gold and 32 g/t silver (Cremonese, D., 2021, Assessment Report #39,322 – confidential until November 08, 2021).

In addition to these two mineral occurrences, the area also contains numerous quartz+/-carbonate veins with some of them mineralized with pyrite, galena, sphalerite chalcopyrite and tetrahedrite. Only a few of these veins were sampled as smooth rock surfaces made it impossible to sample them.

During the 2020 exploration program the author identified a large intrusive body of Premier Porphyry in the area of Milestone and S-1 showings which is in contact with a large prominent quartz-sericite-pyrite alteration zone at least 400 metres in size. The rock consists of K-feldspar phenocrysts 0.5-2.0 cm across set in a fine-grained groundmass comprised of plagioclase, K-feldspar, altered hornblende and rounded quartz grains. The rock is strongly chloritized. The presence of Premier Porphyry is very encouraging since this rock was the source of mineralization in the historic Premier Mine. Before the discovery of Eskay Creek deposit, Premier mine was the top gold and silver producer within the Golden Triangle.

The Harry Property has an excellent potential for the discovery of high-grade gold-silver mineralization as well as large-scale low-grade gold-silver zones similar to those located within the mineralized corridor described above. Mineral occurrences discovered by Teuton in 2020 prove that new discoveries can still be made in this highly prospective area as rapidly receding ice and snow cover exposes more outcrops.

The property is conveniently situated near infrastructures such as a year-round road, a powerline, and an ice-free port in Stewart. In addition, a mill is being constructed by Ascot Resources at the site of the historical Premier Mine.

#### 18. **RECOMMENDATIONS**

The main goal of the next exploration program on the Harry property is to generate drilling targets which subsequently will be drill tested. Drilling of the newly discovered Milestone and S-1 veins as well as Harry showing should be a priority. It is recommended to use a drill capable of drilling deep holes to further test the mineralization encountered in the 2010 holes. The cost of the recommended program is estimated at \$500,000 (assuming there is road access to the planned drillholes). Details of the program are shown in the table below:

Table 8 - Proposed Exploration Budget for the Harry Property

Activity	Units	Unit cost	Estimated cost
Rock sampling-2 persons	20 days	\$1300/day	26,000
Geological mapping	10 days	\$1000/day	10,000
Excavator work			20,000
Truck rental-2 trucks	50 days	\$240/day	12,000
Trenching			20,000
IP geophysical survey	10 km	\$4000/km	40,000
Drilling (all inclusive)	1,750m	150/m	262,500
Core cutting			5,000
Accommodation and food			25,000
Assaying	500 samples	\$35/sample	17,500
Fright			1,000
Report			7,000
		Subtotal - Phase 1	\$446,000
Contingency			\$54,000
		Total Cost	\$500,000

#### 19 REFERENCES

ALLDRICK, D.J. (1984); "Geological Setting of the Precious Metals Deposits in the Stewart Area", Paper 84-1, Geological Fieldwork 1983, B.C.M.E.M.P.R.

ALLDRICK, D.J. (1985); "Stratigraphy and Petrology of the Steward Mining Camp (104B/1E)", p. 316, Paper 85-1, Geological Fieldwork 1984, B.C.M.E.M.P.R.

ALLDRICK, D.J. (1993); "Geology and Metallogeny of the Steward Mining Camp, Northwestern British Columbia, Bulletin 85, B.C.M.E.M.P.R.

CREMONESE, D. AND MASTALERZ, K (2005): Assessment Report on Geochemical Work on Tenure #s 508822 and 508823, on file with BCEMPR, Report #28014.

CREMONESE, D. AND MASTALERZ, K (2006): Assessment Report on Geological and Geochemical Work on Tenure #s 508822 and 508823, on file with BCEMPR, Report #28689.

CREMONESE, D. (2009): Assessment Report on Geochemical Work on Tenure #s 508822 and 508823, on file with BCEMPR. Report #30770.

CREMONESE, D. (2010): Assessment Report on Geochemical Work on Tenure #s 508822 and 508823, on file with BCEMPR. Report #31328.

CREMONESE, D. (2011): Assessment Report on Geochemical Work and Drilling on Tenure #s 508822 and 508823, on file with BCEMPR. Report #32083

CREMONESE, D. (2021): Assessment Report on Geochemical Work on the Harry Property, Assessment Report #39,322 – confidential until November 08, 2021.

DeLEEN, J, P.Eng. (1979): ASSESSMENT REPORT; Geology and Sampling of the OUTLAND SILVER BAR CLAIMS Located in the Skeena Mining Division. Report # 7728.

DeLEEN, J, P.Eng. (1980): Assessment Report on 1980 Trenching and Sampling Undertaken on the SILVER BAR PROPERTY STEWART. BRITISH COLUMBIA MINING DIVISION: Skeena. Report #8909.

EMPR MAPPLACE; <a href="http://webmap.em.gov.bc.ca/mapplace/minpot/new\_xmap.cfm">http://webmap.em.gov.bc.ca/mapplace/minpot/new\_xmap.cfm</a>

EMPR MINFELE MASTER REPORT: 104B30 Outland Silver Bar; 104B34 Scottie Gold, 104B434 Harry, 104B35 Troy, 104B654 Dilworth.,

GREIG, C.J., ET AL (1994); "Geology of the Cambria Icefield: Regional Setting for Red Mountain Gold Deport, Northwestern British Columbia", p. 45, Current Research 1994-A, Cordillera and Pacific Margin, Geological Survey of Canada.

GROVE, E.W. (1971); Bulletin 58, Geology and Mineral Deposits of the Stewart Area.

B.C.M.E.M.P.R.

GROVE, E.W. (1982); "Unuk River, Salmon River, Anyox Map Areas. Ministry of Energy, Mines and Petroleum Resources, B.C.

GROVE, E.W. (1987); Geology and Mineral Deposits of the Unuk, River-Salmon, River-Anyox, Bulletin 63, B.C.M.E.M.P.R.

GROVE, E.W. (1971): Geology and Mineral Deposits of the Stewart Area, north-western British Columbia; B.C Energy Mines & Petroleum Resources, Bull.58.

GROVE, E.W. (1986): Geology and Mineral Deposits of Unuk River-Salmon River-Anyox Area; B.C Energy Mines & Petroleum Resources, Bull.63.

JAVORSKY, D. (1993): Prospecting Assessment Report on the Troy Mineral Claim Tenure Number 253479 Skeena Mining Division Report #23220.

NELSON, J., KYBA, J. (2013) Structural and Stratigraphic Controls of Porphyry and Related Mineralization in the Treaty Glacier-KSM-Brucejack-Stewart Trend of western Stikinia.British Columbia Ministry of Energy and Mines-Geological Fieldwork 2013.

NORMAN, G.W.H. (1961): Report of Geological Study of the Outland Silver Bar Property, Skeena Mining District. Report #375.

PRETIUM RESOURCES website

PRICE, B.J. (1977): Outland Silver Bar Stewart. B.C. Skeena Mining District. Report #6198.

SEDAR: 43-101 report filed in 2005 by D. Visagie and D. Gunning for Tenajon Resources

SEDAR; Filings for Ascot Resources and Rotation Minerals.

VINCENT, J. S., P.Eng. (1981): Outland Resources Corp. Geological Report on the Sampling and Diamond Drilling Program Silver Bar Claim Group Skeena Mining Division. Report #9,736.

WALUS A., Field Notes (2020)

# 28. DATE AND SIGNATURE PAGE

This report titled "43-101 F1 Technical Report on the Harry Property" and dated October 15, 2021, was prepared and signed by the following author:

Signed "Alojzy Walus"

Alojzy Walus, Qualified Person 6360 37 Street NE, Salmon Arm, BC 29. CERTIFICATE OF QUALIFIED PERSON

I, Alojzy Walus, of 6360 – 37 Street NE, Salmon Arm, in the Province of British Columbia, do

hereby certify that:

I am a member in good standing of the Association of Professional Engineers and Geoscientists

of the Province of British Columbia (License # 24404). I am a graduate (1984) of the University

of Wroclaw, Poland and hold M.Sc. Degree in Geology.

I have been practicing my profession continuously since graduation. I have worked in British

Columbia from 1988 to 2021 as a geologist with several exploration companies.

This certificate relates to National Instrument 43-101 F-1 Technical Report on the Harry Property

dated October 15, 2021. I am responsible for all items of this report. I worked on the project

during the summers of 2005 and 2020.

I am a "qualified person" for the purpose of National Instrument 43-101.

I have read National Instrument 43-101 and the report for which I am responsible have been

prepared in compliance with that instrument.

I am independent of the issuer, Optimum Ventures as described in Section 1.5 of the National

Instrument 43-101.

As of the effective date of the technical report, to the best of my knowledge, information and

belief, the sections of the technical report for which I am responsible contain all scientific and

technical information that is required to be disclosed to make those sections of the technical report

not misleading.

Submitted this 15 day of October 2021

Signed "Alojzy Walus"

Alojzy Walus, Qualified Person

6360 37 Street NE

Salmon Arm, BC

48