

BC Geological Survey  
Assessment Report  
38735



TYPE OF REPORT [type of survey(s)]:	Prospecting	TOTAL COST: \$	5,583.80
AUTHOR(S):	Laurence Sookochoff, PEng	SIGNATURE(S):	<i>Laurence Sookochoff</i>
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):		YEAR OF WORK:	2019
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S):	5753732, September 2, 2019		
PROPERTY NAME:	Chalice		
CLAIM NAME(S) [on which the work was done]:	1058985, 1070669		
COMMODITIES BOUGHT:	Gold, Silver		
MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:	092GNW008, 092GNW012, 092GNW050, 092GNW061, 092GNW063		
MINING DIVISION:	Vancouver	NTS/BCGS:	092G.071
LATITUDE:	44 ° 45 ' 04 "	LONGITUDE:	123 ° 59 ' 09 " (at centre of work)
OWNER(S):	1) John Nick Bakus 2) Bill McKinney		
MAILING ADDRESS:	#3 1572 Lorne Street East Kamloops BC V2C 1X6 11751 Shell Road Richmond BC V7A 3W7		
OPERATOR(S) [who paid for the work]:	1) Bill McKinney 2)		
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PROPERTY GEOLOGY KEYWORDS [lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude]:	Jurassic, Argillite, Graywacke, Wacke, Conglomerate, Quartz Diorite		
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS:	11129, 12641A, 12641B, 14736, 14786, 17941, 22190, 22286, 24069, 29221, 30141, 32343, 33765		

TYPE OF WORK IN THIS REPORT	EXTENT OF WORK (IN METRIC UNITS)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
<b>GEOLOGICAL (scale, area)</b>			
Ground, mapping			
Photo interpretation			
<b>GEOFYSICAL (line-kilometres)</b>			
Ground			
Magnetic			
Electromagnetic			
Induced Polarization			
Radiometric			
Seismic			
Other			
Airborne			
<b>GEOCHEMICAL (number of samples analysed for...)</b>			
Soil			
Silt			
Rock			
Other			
<b>DRILLING (total metres; number of holes, size)</b>			
Core			
Non-core			
<b>RELATED TECHNICAL</b>			
Sampling/assaying	13 samples	1058985, 1070669	2,000.00
Petrographic			
Mineralographic			
Metallurgic			
<b>PROSPECTING (scale, area)</b>	1:5000 10 hectares	1058985, 1070669	3,583.80
<b>PREPARATORY / PHYSICAL</b>			
Line/grid (kilometres)			
Topographic/Photogrammetric (scale, area)			
Legal surveys (scale, area)			
Road, local access (kilometres) (final)			
Trench (metres)			
Underground dev. (metres)			
Other			
<b>TOTAL COST:</b>			<b>\$ 5,583.80</b>

**John Nick Bakus**

**Bill McKinney**

*(Owners)*

**Bill McKinney**

*(Operator)*

**Prospecting Report**

*(Event 5753732)*

*Work done on Tenures*

**1058985, 1070669**

*of the*

**Chalice Property**

*Vancouver Mining Division*

**BCGS Map 092G.071**

*Centre of Work*

**5511649N, 429223E**

*(Zone 10U NAD 83)*

*work done from*

**August 31, 2019 to September 2, 2019**

*Author &  
Consultant*

**Laurence Sookchoff, PEng  
Sookchoff Consultants Inc.**

*Report Submitted*

**December 30, 2019**

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## SUMMARY

The 164-hectare Chalice Property lies at the north end of the Sechelt Peninsula, 83 kilometers northwest of Vancouver and within two kilometres west of the village of Egmont on the west coast of British Columbia. Access to the Property from Vancouver is by paved highway combined with a ferry transport to the west portion of the Property.

The Chalice Property is a portion of a larger area that was explored since the 1913 discovery of pyritic-gold-bearing quartz veins at Earl's Cove which were explored by a 6 ft x 6 ft x 70 ft long adit-Stein Tunnel (Figure 12). Subsequent exploration of the area resulted in the discovery of at least thirty gold showings occurring with the significant grades ranging from 0.10 to 8.8 ounces per ton (3.43 to 301 gpt) gold accompanied by accessory silver/minor copper values (Jenks, 1995).

All of these gold bearing mineral deposits have been found localized within highly altered hornblende and hornblende biotite granodiorite cut by a variety of basalt, andesite, diorite and rhyolite dike.

The sulphide vein systems have been traced over a strike length of 1,450 feet while several of the veins and vein stockwork systems have been followed in trenches for 100 feet with greater lengths indicated by geophysical surveys (Grove, 1985).

Of the 30 gold showings, seven main mineral zones were documented; four (JR, 3V, NL, and TY) (on the adjacent property (Figure 8) and three (DF, Beach, and Beach Pit) on the Chalice property (Figures 9 and 12).

Gold and silver bearing mineralization is generally comprised of quartz-sulfide veins, quartz-sulfide stockwork systems, massive sulfide veins, vein stockworks, and disseminated sulfides in porphyry-like situations.

At the Chalice property, the Beach Zone, with gold values of up to 6.21 oz/t in massive sulphides, was discovered in 1952 and in 1965 a 106-ton shipment was made from this zone which reportedly returned 34 ounces of gold, 45 ounces of silver, and 170 pounds of copper (Bragg, 2013).

At the DF vein/stockwork zone, historical sampling across two meters (six feet) of the upper trench returned assays of up to 2.024 ounces' gold per ton with a later two-meter check sample across the upper trench returning 1.370 ounces' gold/ton confirming the grade of this new zone which, like others on the property, comprises quartz-sulfide veins (trend 045°/60°W) in strongly altered granodiorite (Grove, 1986).

On the adjacent properties JR Zone within 100 metres of the Chalice DF Zone (Figure 9), a drill-hole intersected a 2.7 metre mineral zone which assayed 28.04 g/t gold.

The 2019 prospecting and sampling program on the Chalice property indicated a minor degree of alteration in the samples. Sample #4 and #6 with the visual dacitic appearance, may indicate a porphyrite volcanic hosting fine disseminated gold. If carbonated, which an acid test could verify, the probability is increased for a porphyrite.

Thus, the Chalice property has considerable potential for any one of variable mineral resources ranging from a low-tonnage high-grade epithermal deposit to a large tonnage bulk-mineable porphyry deposit.

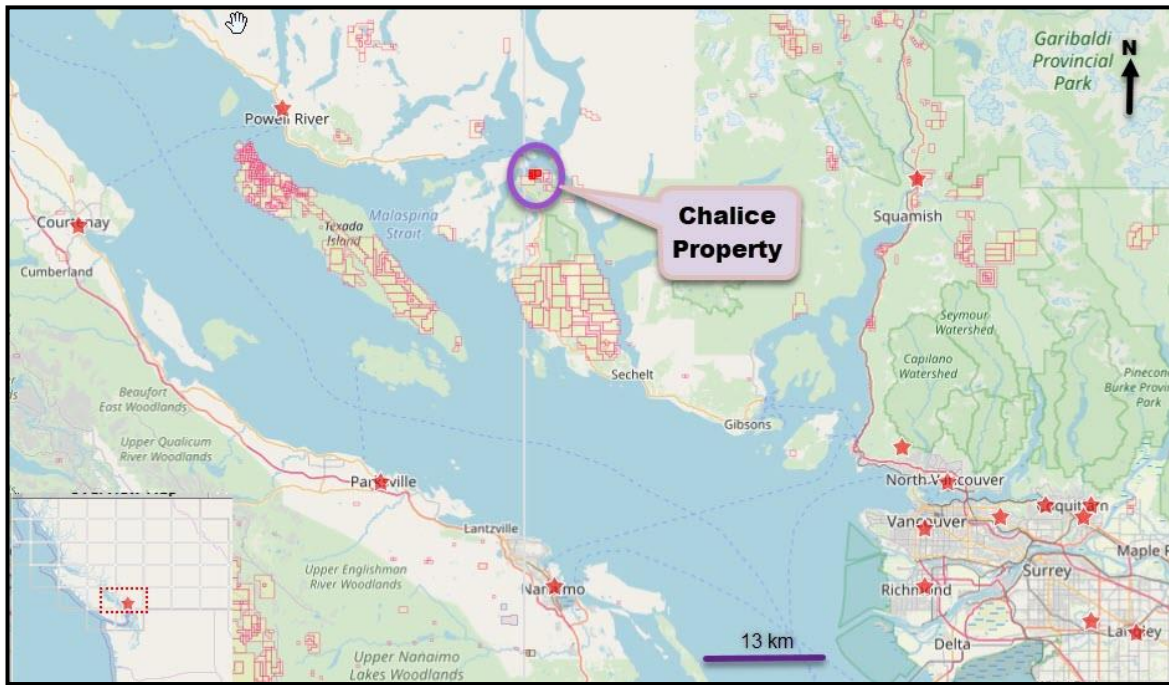
The Chalice Property needs a 500 metre drill-hole to explore this potential. From the logging and assays of the drill core, the location or the actual indication and type of a mineral deposit should be determined.

**INTRODUCTION**

The Chalice property includes a mineral zone with mineral values up to 6.21 oz/t gold from which a 106-ton shipment was made in 1965 reportedly returning 34 ounces of gold, 45 ounces of silver, and 170 pounds of copper (Bragg, 2013).

Information for this report was obtained from sources as cited under Selected References, from mineral exploration in the general Bralorne area, and from information on the procedures and results on the prospecting and sampling program given the author.

*Figure 1. Chalice Property Location  
(Base Map from MapPlace 2)*



**PROPERTY LOCATION & DESCRIPTION**

**Location**

The Chalice property is located 83 kilometres northwest of Vancouver 40 kilometres east-southeast of Powell River, and within two kilometres of the village of Egmont on the west coast of British Columbia.

**Description**

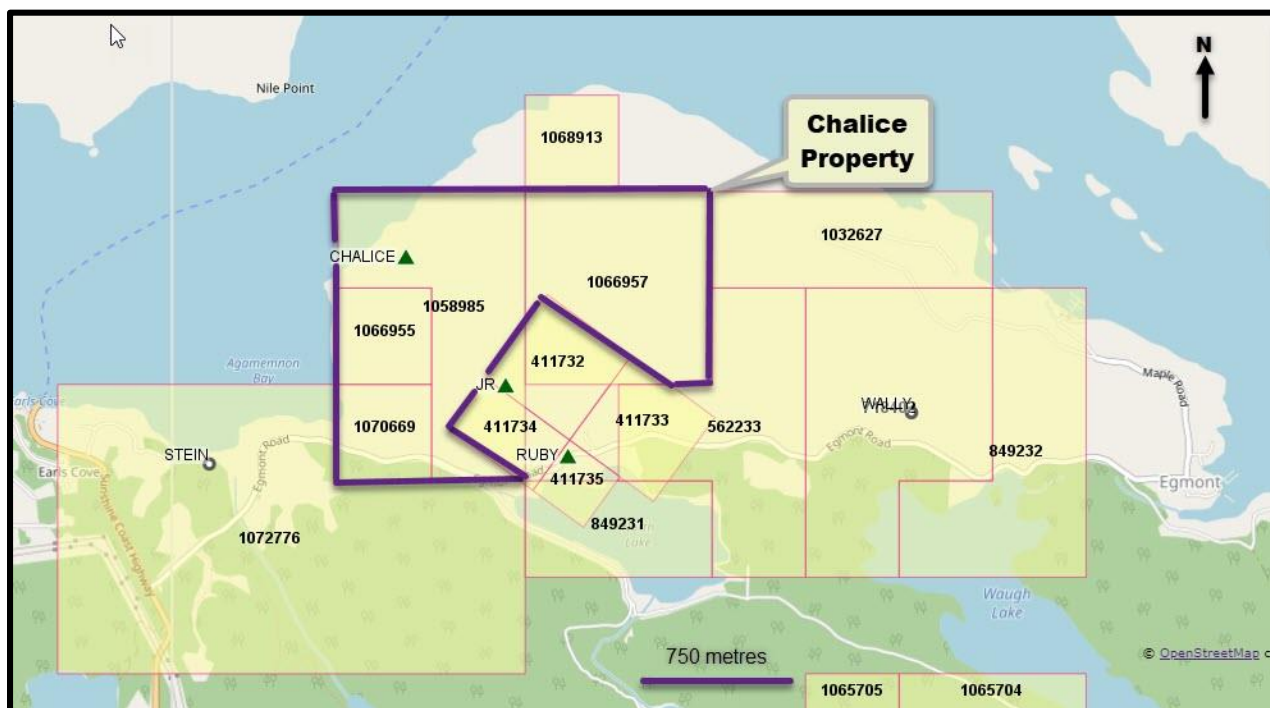
The Chalice Property is comprised of four contiguous mineral claims covering an area of 164.0334 hectares. Particulars are as follows:

*Table 1. Tenures of the Chalice Property*

Tenure number	Claim name	Expire date	Area in hectare
1058985		08/06/2024	83.4858
1066955	CHALICE SW	08/06/2024	20.8719
1066957	CHALICE EAST	08/06/2024	83.4841
1070669	CHALICE SW 2	01/06/2021	20.8738

\*Upon the approval of the assessment work filing Event Number 5753732.

Figure 2. Chalice Property Claims  
(Base map from MapPlace 2)



**ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE and PHYSIOGRAPHY**

**Access**

Access to the property from Vancouver is via Highway 1 westward to Horseshoe Bay, then on a ferry to Langdale, then on Highway 101 for approximately 80 kilometres to Egmont Road, then right for about one kilometre to the western edge of the Chalice property.

Figure 3. Chalice Property Access from West Vancouver



## *Accessibility, Climate, Local Resources, Infrastructure and Physiography (cont'd)*

### **Climate**

*(Powell River climate from Wikipedia)*

The city has an exceptional Mediterranean climate of the warm-summer type (Köppen: *Csb*), resulting in the most northerly location in the homonym hemisphere, being that in Europe it is 5° further south. Although the hot season is dry, the vegetation reflects its location west of the mid-latitudes and who can describe the climate differently being situated within a temperate rainforest, Coastal Western Hemlock biogeoclimatic zone the mild winters and high humidity (although it has a defined dry season) it owns a wide zone of growth with firs, cedars and conifers. On average, the CWH is the rainiest biogeoclimatic zone in British Columbia. The zone typically has a cool mesothermal climate: cool summers (although hot dry spells can be frequent) and mild winters.

### **Local Resources and Infrastructure**

The village of Egmont, could provide all the basic needs including accommodation and supplies for an initial exploration and development program. Any workforce or equipment necessary for an advanced development program would be available in Vancouver.

Any heavy equipment not suitable highway or ferry transport could be transported to the Chalice property by barge from Vancouver (*Figure 3*).

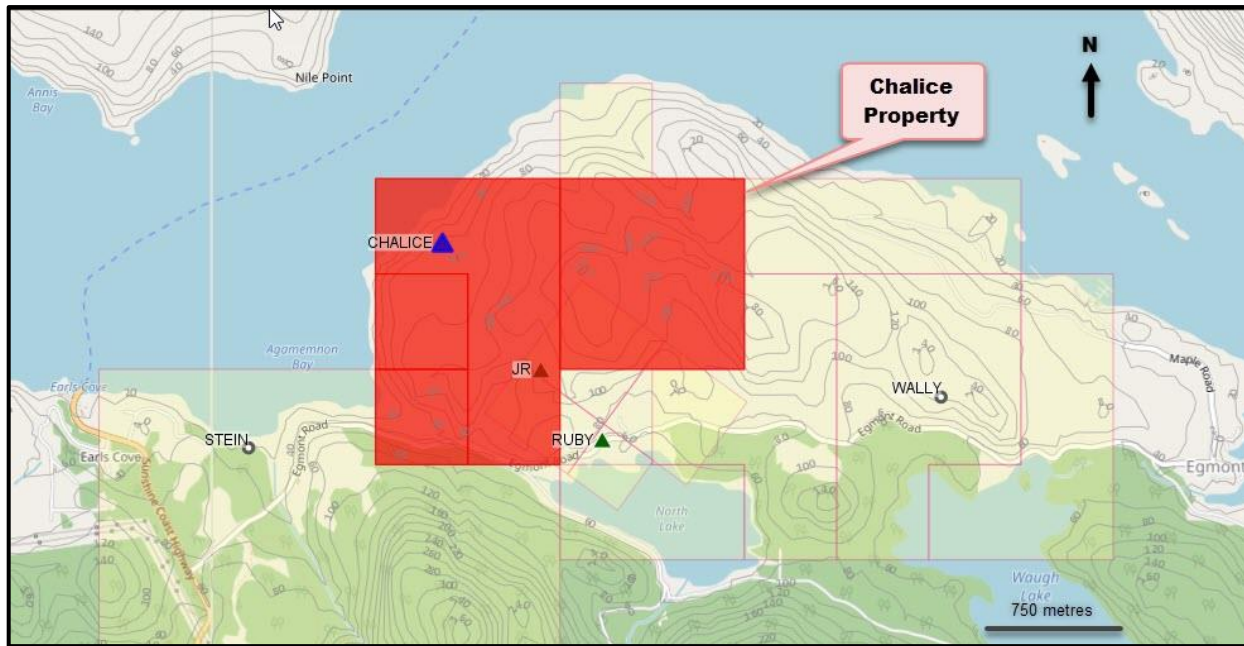
*Figure 4. Egmont Resort and Marina*



### **Physiography**

The Chalice Property covers an area of historical clear cut logging now with secondary forest growth. Elevations range from sea-level in the northwest to 180 metre amsl on a central knoll.

Figure 5. Chalice Property Physiography and Minfiles  
(Base map from MapPlace 2)



## WATER AND POWER

Sufficient water for any exploration and development program would be available on, or adjacent to, the Property.

Commercial power grids are located within one kilometre of the Property.

Diesel-electric generated power may be required during an initial development program.

## HISTORY: CHALICE PROPERTY AREA

The history of two showings and two prospects reported in the area of the Chalice Property as reported by Minfile is as follows. The descriptions are copied from Minfile.

### WALLY showing (Cu $\pm$ -Ag-quartz veins)

Minfile 092GNW012

One kilometre east

*The Wally showing occurs on the north end of Sechelt Peninsula, 500 metres northwest of the north end of Waugh Lake.*

### RUBY prospect (Au-quartz veins)

Minfile 092GNW050

400 metres east

*The NL showing outcrops along Highway 101, 300 metres northeast of the west end of North Lake on Sechelt Peninsula.*

*In 1995, a sample was taken from a shallow trench exposing the North Lake FW vein near Highway 101 where the vein splits into hangingwall (HW) and footwall (FW) portions separated by 61 centimetres of barren granodiorite. Grab sample 5WJR-1 yielded 1.41 grams per tonne gold and 15.77 grams per tonne silver (Assessment Report 24069). A grab sample (5WJR-2) of the HW vein from the same general location yielded 2.81 grams per tonne gold and 4.46 grams per tonne silver (Assessment Report 24069).*

**History: Chalice Property Area (cont'd)****STEIN** showing (Au-quartz veins)

Minfile 092GNW061

500 metres northwest

*The Stein showing is located along the shores of Agamemnon Bay of the Agamemnon Channel, at the northwestern end of the Sechelt Peninsula.*

*The earliest record of exploration in the Chalice prospect area was in 1913, when R. Durnsford Jr. drove the Stein tunnel. The showing was explored by a 21 metre long adit in 1913. In 1937, work was recorded on the Cambrian Chieftain occurrence (092GNW011). Additional mineralization was discovered at the Skookum (Chalice, 092GNW008), along the shoreline of Agamemnon Channel. Other showings, some containing massive sulphides, are reported along the shores of Agamemnon Channel. In 1982, Chalice Mining Inc. staked the ground covering the Chalice prospect. Since that time, Chalice Mining Inc. has conducted prospecting, geochemical and geophysical surveys, geological mapping, trenching and 572 metres of diamond drilling in 21 holes.*

**JR** prospect (Au-quartz veins)

Minfile 092GNW063

100 metres east

*The JR showing is located at the northern end of the Sechelt Peninsula, between Earls Cove and Egmont, British Columbia. The zone of precious metal-bearing mineralization is exposed 770 metres east of Agamemnon Bay, 500 metres north of the west end of North Lake.*

*The earliest record of exploration in the area occurred in 1913 when R. Dunsford Jr. drove a tunnel (Stein adit, 092GNW061) near Earls Cove. In 1937, the Cambrian Chieftain (092GNE011) property was discovered 7 kilometres to the south. Chalice Mining Inc. acquired the property in 1982 and since that time has conducted prospecting, geochemical and geophysical surveys, geological mapping, trenching and diamond drilling totalling 572 metres in 21 holes. In 1988, Blue Chip Resources Inc. conducted an exploration program to evaluate showings and outline potential drill targets, under an option agreement. In 1994, most of the claims covering the JR occurrence lapsed and were subsequently restaked as the Windancer claim group by Mr. and Mrs. LaRue.*

**HISTORY: CHALICE PROPERTY****CHALICE** prospect (Au-quartz veins)

Minfile 092GNW008

Within Tenure 1058985

*The Chalice prospect is exposed along the southeast side of Agamemnon Channel, 1.1 kilometres southwest of the northern tip of Sechelt Peninsula.*

*The earliest record of exploration in the Chalice prospect area was in 1913, when R. Durnsford Jr. drove the Stein tunnel (092GNW061). In 1937, work was recorded on the Cambrian Chieftain occurrence (092GNW011). Additional mineralization was discovered at the Skookum, along the shoreline of Agamemnon Channel. Other showings, some containing massive sulphides, are reported along the shores of Agamemnon Channel. In 1982, Chalice Mining Inc. staked the ground covering the Chalice prospect. Since that time, Chalice Mining Inc. has conducted prospecting, geochemical and geophysical surveys, geological mapping, trenching and 572 metres of diamond drilling in 21 holes.*

**GEOLOGY: CHALICE PROPERTY AREA**

The geology of two showings and two prospects reported in the area of the Chalice Property as reported by Minfile is as follows. The descriptions are copied from Minfile.

**WALLY** showing (Cu+/-Ag-quartz veins)

Minfile 092GNW012

One kilometre east

*A sulphidic quartz vein (Wally 3 Vein) is developed in hornblende biotite granodiorite of Upper Jurassic age, within the western margin of the Jurassic to Tertiary Coast Plutonic Complex. The vein strikes 150 degrees for at least 12.5 metres and dips 56 degrees southwest. Widths vary from 0.65 to 1.8 metres. The vein is truncated to the northwest and possibly also to the southeast by strike-slip faults.*

**RUBY** prospect (Au-quartz veins)

Minfile 092GNW050

400 metres east

*A roadcut along the highway reveals a vein (NL zone) hosted in granodiorite within the Jurassic to Cretaceous Coast Plutonic Complex. The vein strikes 045 to 050 degrees for an exposed length of 30 metres and dips 65 degrees north. The vein varies up to 0.27 metre in width. Diamond drilling indicates the vein continues downdip for at least 55 metres. Six subsidiary tension veins ranging from 3 to 15 centimetres in width are developed in the granodiorite along the northwest side of the main vein over a distance of 20 metres. The tension veins strike 080 to 100 degrees for up to 8 metres and dip 65 degrees north.*

**STEIN** showing (Au-quartz veins)

Minfile 092GNW061

500 metres northwest

*At the Stein showing, an adit at Agamemnon Bay on the north end of Sechelt Peninsula exposes a quartz healed rhyodacitic chert breccia within a roof pendant of volcanics and sediments of the Upper Triassic Karmutsen Formation, Vancouver Group. The roof pendant is hosted in the Jurassic to Cretaceous Coast Plutonic Complex. The breccia zone trends 120 to 130 degrees, similar to the trend of the roof pendant.*

**JR** prospect (Au-quartz veins)

Minfile 092GNW063

100 metres east

*The showing is regionally hosted in the Jurassic to Cretaceous Coast Plutonic Complex. Intrusions are mainly of quartz diorite, diorite and granodiorite composition. Northwest trending roof pendants of metamorphosed intermediate volcanic and sedimentary rocks have been correlated with the Upper Triassic Karmutsen Formation. The sequence has been intruded by numerous feldspar porphyry, diorite and andesite dikes. Dike swarms are prominent in the JR showing area, along the shoreline west of Earls Cove and at the eastern end of Nelson Island.*

*Hornblende biotite quartz diorite that locally grades into gabbro, diorite and granodiorite comprises hostrocks of the JR showing. These intrusive rocks have been intruded by younger feldspar porphyry rhyodacite, diorite and andesitic to basaltic dikes. Dike widths vary from a few centimetres to several metres. The dikes are associated with strong northwest trending, moderate northeast and weak west trending fractures. Overall, dikes have a strike of 283 degrees.*

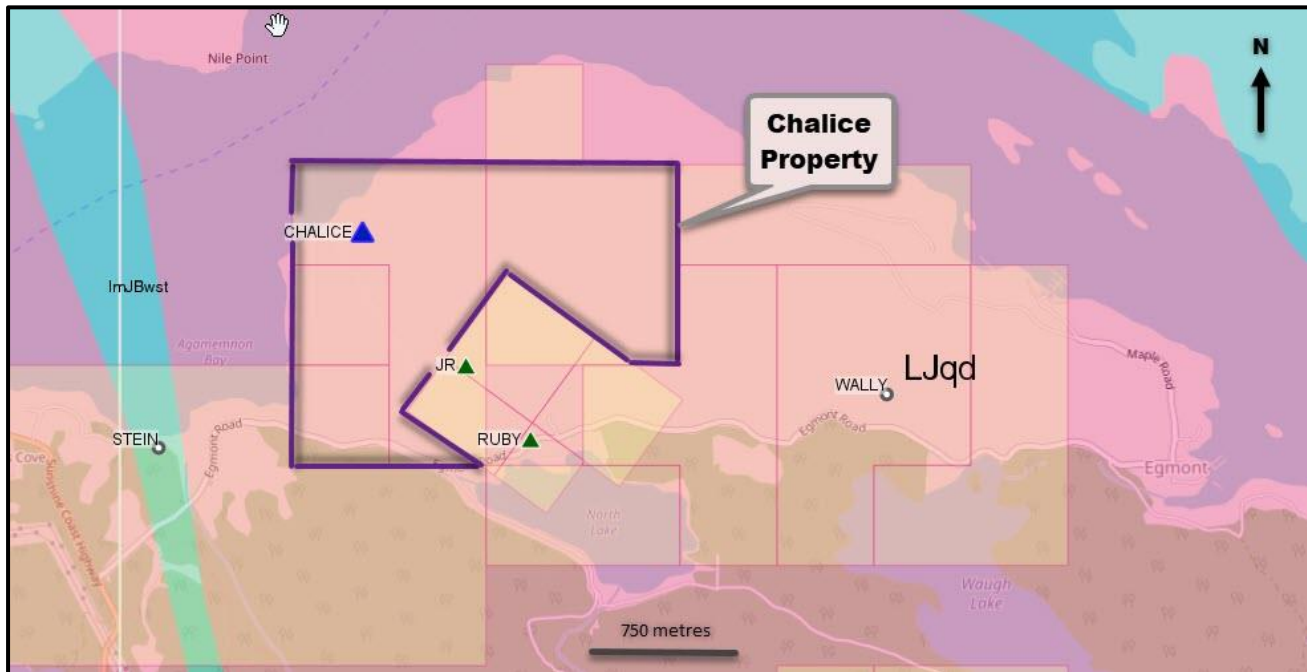
## Geology: Chalice Property Area (cont'd)

### JR prospect (cont'd)

The JR showing consists of a number of closely spaced, mineralized zones: the JR zone, 3V zone, DF zone and TY zone. The TY zone has been buried by recent road building.

The JR zone consists of a series of subparallel quartz-marcasite- epidote stringer veins in altered and sheared granodiorite. The zone strikes 065 degrees over an exposed length of 20 metres and dips nearly vertical. Exposed widths vary up to 1.5 metres. The zone is cut by several narrow andesitic dikes.

Figure 6. Chalice Property Geology  
(Base map from MapPlace 2)



### GEOLOGY LEGEND

#### Lower to Middle Jurassic

ImJBwst

argillite, greywacke, wacke, conglomerate turbidite rocks

#### Late Jurassic

LJqd

quartz dioritic intrusive rocks

## GEOLOGY

(from Groves, 1984)

### "Intrusive Geology

Medium to coarse grained biotite-hornblende granodiorite hosts all the hydrothermal auriferous-silveriferous quartz-pyrite-marcasite veins and lenses. Granodiorite underlies the central and eastern parts of Chalice mineral claim and is in contact with foliated, medium to coarse grained hornblende diorite to the west and is in apparent fault contact (?) with the diorite to the southwest on Chalice I. An estimated 5 - 10% of outcrop consists of several different types of dikes.

#### a) biotite-hornblende granodiorite (Map Unit B)

Textural and slight compositional changes are common in the granodiorite, increase in mafic mineral content occurs locally. Coarse biotites (greater than 1.0 cm.) are associated with slightly argillitized feldspars and are thought to be an alteration feature. Gray quartz up to 0.5 cm. occupy greater than 10% of the rock locally, approaching a quartz-diorite in composition. High bluffs near the beach from 800 N to 950 N and on line 1200 N near the Egmont road consist, in part, of fine grained hornblende granodiorite and aplitic phases.

Pegmatite and aplite lenses and veins are common.

Alteration consists of epidote and chlorite along vein selvages and joints and as plagioclase and biotite alteration products. Shearing in the granodiorite results locally in development of secondary K-feldspar, light green sericite and pyrite alteration envelopes, adjacent to mineralized veins and fractures, is usually associated with significant gold and silver geochemistry.

#### b) hornblende diorite (Map Unit A)

Varying textures in the hornblende diorite often occur within a single outcrop. Coarse clots and lenses of hornblende are common with apparent irregular distribution. Pyrite and magnetite are disseminated to less than 10%. Possibly, some fine grained pyrrhotite occurs as "bronzy" disseminations.

The diorite is highly foliated adjacent and parallel to the contact with the granodiorite to the east. Large bluffs in the bay, at the end of line 200 S, show silicification, pyritization and abundant slickenside surfaces striking southeast and dipping steeply to the northeast. A normal fault from the bay to North Lake is thought to have brought the two intrusive bodies into contact at this point (?).

To the west, on the Stein mineral claim, the diorite is in intrusive contact with auto-brecciated mafic volcanics, chert, pyroclastics and limestone of unknown age. At the beach, a pyrite-marcasite healed breccia occurs at the contact.

In a log dump along the Egmont Road is a 10-meter diorite outcrop, brecciated, and cut by a stockwork of aplite and felsite and by composite quartz-felsite veins that carry minor disseminated galena and pyrite.

#### c) felsite dikes (Map Unit 1)

0.5 to 10.0-meter felsite dikes represent the most compositionally felsic dikes on the property. These dikes are generally large (greater than 3.0 meters) and are restricted to the eastern part of the property (no farther west than line 1200 N). They occupy joints striking 130 140' and are near vertical, dipping steeply to the northeast.

Fine biotite is disseminated in a siliceous, light grey-green matrix that is often aplitic and harder than a knife blade. White and, quite often, pink feldspar phenocrysts vary from 0.5 mm. to 5.0 mm. These dikes weather light pink and appear similar to fine grained granodiorite on a weathered surface.

**Geology Groves, 1984(cont'd)****d) feldspar-hornblende porphyry dikes** (Map Unit 3)

These dikes are ubiquitous on the property and have been noted to closely proximal to some mineralized vein occurrences (BL - 400 N/JR, 1510 N - 1050 E, 850 N at the beach C-4 and 800 N - 775 W/C6 1. At 850 N along the beach, this porphyritic dike is greater than 8 meters in width.

The groundmass is medium to dark grey, fine grained, consisting of biotite-hornblende, feldspar and minor quartz. Some dikes are feldspar porphyries with a quartz rich groundmass. No attempt was made to distinguish these.

Southeast strikes of 130 140' and 120 - 110 were obtained.

**e) diorite dikes** (Map Unit 2)

Equigranular feldspar-hornblende-biotite dikes are ubiquitous on the Chalice I claim. Pyrite is disseminated less than 1%. Both fine to very fine grained and medium to coarse grained diorite is included in this unit.

An 8-meter coarse grained diorite dike separates; two mineralized zones on the beach at 650 to 750 N, but no direct relationship has been noted. Southeast strikes of 130° - 140 have been noted.

**f) andesite dikes** (Map Unit 4)

Fine grained, dark green felted dikes, usually less than 3.0 meters in width, are most abundant and ubiquitous. They also occupy joints striking north and northeast in exposures along Agamemnon Channel along with the regional 130- 150 and 105 - 120' joints. These dikes converge and diverge occupying both of the southeast joint sets.

Locally, they cut a medium-coarse grained diorite dike and are later than the mineralized quartz veins. They are thought to represent the later intrusive phase.

Foliated diorite along the granodiorite-diorite contact indicates that the diorite is older than the granodiorite.

Andesite dikes are the youngest. No other age relationships have been noted due to the parallel nature of the dikes.

**Roof Pendant Geology**

Extensive bleaching, silicification and shearing at the intrusive contact made identification of rock type difficult. Beach exposures on the Stein mineral claim indicate an interbedded sequence of auto brecciated mafic volcanics, pyroclastics, chert and limestone.

Bedding attitudes on the beach strike 120' but are east-west along the Egmont Road. Exposures between the beach and Egmont Road are highly contorted, consisting of mafic volcanics and sheared diorite dikes/lenses (?). Pegmatite veins and lenses are common.

A small roof pendant outcropping on the **beach** at 700 N consists of interbedded mafic volcanics and minor chert, striking 720' and dipping vertically.

A small roof pendant outcropping on the beach at 700 N consists of interbedded mafic volcanics and minor chert, striking 120' and dipping vertically.

Sheared outcrops at 1600 N - 400 W along a road appear to be brecciated mafic volcanics but close observation indicates that these are andesite dikes which have been brecciated by late shearing.

Pyritic lenses and shears at the intrusive contact on the Stein mineral claim have been sampled for gold and silver with negative results.

**STRUCTURE**

(from Groves, 1984)

“An equal area projection of poles to jointing, veining, and foliation outline the major structural trends in the granodiorite (Fig. 3 & 4)

Dikes occupy 130-150 and 105 120' striking joints on the property and locally strike northeast.

Quartz veins occupy three major structural trends. 050 - 070° and 030-040 striking veins are most common and, at North Lake, a second set of 100 veins form a widespread stockwork. Noted exceptions are the T and PC veins which, incidentally, have relatively low gold and silver values. Two high density stockwork zones (C-4 and C-3) show vein fracture orientations different to the major trends of most isolated mineralized veins.

Horizontal jointing on the property was observed as being later than mineralization and andesite dikes.

Major lineaments sub-parallel to lines 1200 - 1300 N and 1500 - 1680 N are localizing structures for fine grained felsic dikes. Local shearing of andesite dikes indicates that these faults are later than the dikes.

A fault from North Lake to Agamemnon Channel strikes 120' and possibly juxtaposes the granodiorite and the diorite. Slickenslides indicate normal faulting.

Exposures along Agamemnon Channel are sheared sub-parallel to the coastline from line 250 N to the northeast.”

**The following Chalice geology information is copied from a BC Government Minfile report.**

**CHALICE** prospect (Au-quartz veins)

Minfile 092GNW008

Within Tenure 1058985

*The Chalice prospect is comprised of a zone of vein and stockwork, high grade gold mineralization traced discontinuously northeastward along the shore of Sechelt Peninsula for 230 metres. The zone is hosted in hornblende-biotite quartz diorite, within the Jurassic to Cretaceous Coast Plutonic Complex. Quartz diorite locally grades into gabbro, diorite and granodiorite. Northwest trending roof pendants are composed of metasediments and metavolcanics correlated with the Upper Triassic Karmutsen Formation of the Vancouver Group. The entire sequence of rocks is intruded by numerous feldspar porphyry rhyodacite, diorite and andesitic to basaltic dikes. Dike swarms are prominent in the area.*

*Several pits excavated in beach exposures reveal numerous discontinuous veins of quartz, marcasite and pyrite up to 0.5 metres wide in granodiorite and basaltic dikes. The veins strike 045 degrees and dip 40 to 90 degrees west.*

**The following Chalice mineralization information is copied from the BC Government Aris Report file with the assessment report number referenced to the author in the Reference section of this report.**

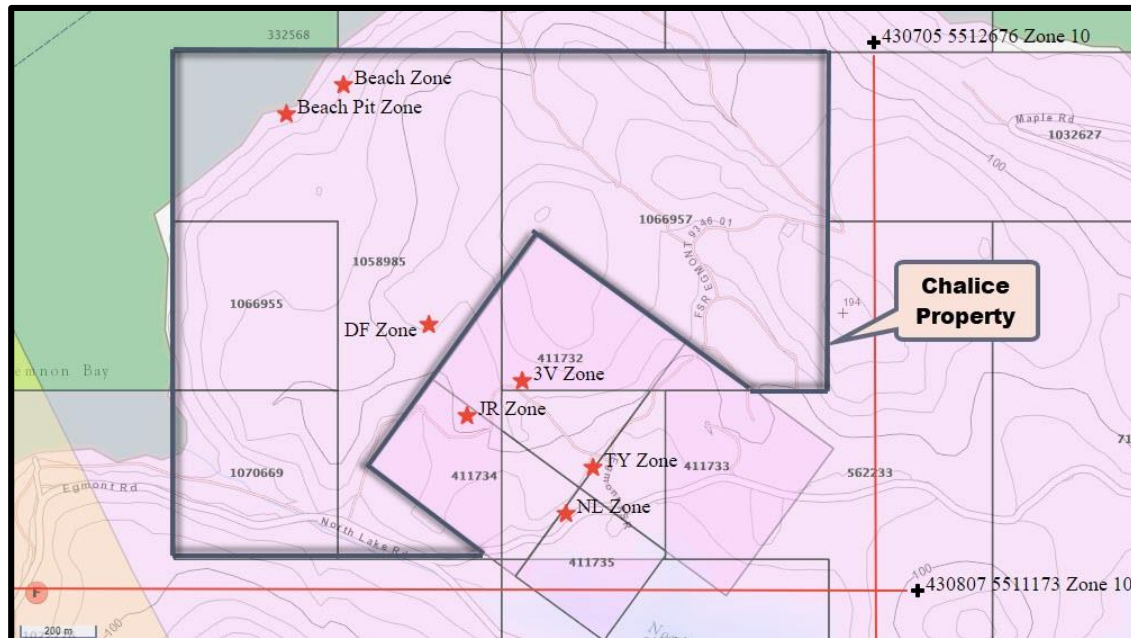
**MINERALIZATION: CHALICE PROPERTY AREA**

(from Groves, 1984)

“Hydrothermal quartz = marcasite veins range from several millimeters to 0.5 meters in width. Pits on the beach indicate possible wider structures. The veins are discontinuous on surface. Sulfide content of the veins is also irregular, ranging from 0 to 100 % across a vein width. Wallrock alteration and mineralization is most intense at North Lake, where samples over 7.0 meter of wall rock assayed .22 oz Au/ton (see Noranda sample results). Elsewhere, the wallrock is weakly mineralized.

**Mineralization: Chalice Property Area (cont'd)**

**Figure 7. Mineral Zones on and adjacent to the Chalice property**  
(base map from Grove, 1983)

**Grove 1986 (cont'd)**

The structural nature of the veins, as mentioned earlier, is of two types. Mineralization occurs most commonly as one or several. North-east striking and north westerly dipping veins. Sulfide analyzed from these veins carry significant gold and silver values. Old pits on the beach indicate that mineralization here occurs at a near massive lens of auriferous-argentiferous marcasite.

High density fracturing and veining along the shoreline has resulted in two stockwork zones carrying significant continuation on the surface. The C-3 beach showing is non traceable due to private cabins and lack of exposure inland. Minor chalcopryite has been noted at several mineral showings,"

**Grove 1983**

- Macroscopic alteration in the granodiorite includes epidote and chlorite adjacent to the veins and along joint planes. Sericite and pyrite are also common appearing to form envelopes about the vein mineralization and some fractures. This alteration appears to be coincident with the geochemical soil gold (and silver) anomalies.

**Grove 1985**

- Overall grade of the significant gold mineralization ranges from 0.10 to 8.8 ounces per ton (3.43 to 301 gpt) with accessory silver and minor copper values. The sulphide vein systems have been traced over a strike length of 1,450 feet while several of the veins and vein stockwork systems have been followed in trenches for 100 feet with greater lengths indicated by geophysical surveys. The limited drilling, while encouraging, has been relatively shallow and has not explored any of the zones to any significant depth. The best drill hole intercept encountered was on the JR zone where a gold value of 0.90 ounces per ton prevailed over 9 feet (31.3 gpt/2.7 metres).
- While the mineralization type has been classified by Grove (1985) as epithermal, gold occurs in a number of settings including massive sulphide veins, quartz/sulphide veins, quartz vein stockworks, mineralized breccia zones and disseminated porphyry-like breccia zones. In addition to the possibility of low-tonnage high-grade gold deposits the opportunity exists for larger tonnage types of deposit, as well.

**Mineralization: Chalice Property Area (cont'd)****Grove 1986**

- In addition to the high grade gold bearing massive sulfide lenses found along the beach and reported in 1952, the known auriferous mineralization now includes structurally controlled quartz-sulfide veins, disseminated quartz-sulfide zones, quartz-sulfide stockworks, and mineralized breccia found in granodiorite and volcanic rock. Material grading from 0.01 to over 6 ounces per ton gold, and from 0.1 to over 6 ounces per ton silver have been sampled from the various locations.
- The occurrence of these prospects as structurally controlled deposits, and the unique mineralogy suggests a low temperature, high level acid volcanic environment. The mineralization can be described as epithermal and has similarities to low temperature gold-silver deposits in the western United States (Groves, 1985).
- In addition to the high grade gold bearing massive sulfide lenses found along the beach and reported in 1952.
- In addition to the original high grade massive sulfide beach veins, these new discoveries include extensive sulfide bearing quartz veins, quartz vein stockwork zones, mineralized breccia zones, and disseminated porphyry-like sulfide mineralization. All of these gold bearing mineral deposits have been found localized within highly altered hornblende and hornblende biotite granodiorite cut by a variety of basalt, andesite, diorite and rhyolite dikes. Current geological mapping suggests a strong relationship between the dominantly east-west trending rhyolite/dacite dikes and the disseminated or porphyry-like gold bearing sulfidized granodiorite.
- A coarsely porphyritic rhyolite/rhyodacite (partly mineralized) found mainly as northwesterly trending zones in the eastern portion of CHALICE I suggests a late high level volcanic event with which the low temperature (epithermal) gold telluride-marcasite-quartz mineralization could be genetically related.
- Gold and silver bearing mineralization on the property generally comprises quartz-sulfide veins, quartz-sulfide stockwork systems, massive sulfide veins and vein stockworks, and disseminated sulfides in porphyry-like situations.

**Jenks, 1995**

- At least thirty gold showings occur with the significant grades ranging from 0.10 to 8.8 ounces per ton (3.43 to 301 gpt) gold (accompanied by accessory silver/minor copper values. The best drill intersection ran 0.90 opt Au/ 9 ft. (31.3 gpt/2.7 m). According to Grove (1985) gold occurs in a number of settings including: a) massive sulphide veins; b) sulphide bearing quartz veins; c) quartz vein stockwork zones; d) mineralized breccia zones, and, e) disseminated porphyry-like breccia zones. He also feels that the showings would relate to widespread, high level, epithermal (low temperature) volcanically related type of mineralization.

**The mineralization of two reported showings and two prospects in the area of the Chalice Property as reported by Minfile is as follows. The descriptions are copied from Minfile.**

**WALLY** showing (Cu+/-Ag-quartz veins)

Minfile 092GNW012

One kilometre east

*The vein is comprised of chalcopyrite, pyrite and molybdenite as disseminations, pods and bands up to 0.4-metre-thick in a gangue of vuggy, milky white quartz.*

**Mineralization: Chalice Property Area (cont'd)****Wally showing (cont'd)**

*Total sulphide content varies from 8 to 20 per cent. These sulphides also extend into the wallrock, which exhibits sericite-epidote-chlorite alteration up to 0.3 metre from the vein.*

*A grab sample of the vein assayed 6.65 grams per tonne gold, 65.5 grams per tonne silver and 2.96 per cent copper (Assessment Report 14264, Appendix, Sample 1).*

*A second quartz vein (Wally 3a Vein), striking 130 degrees for 3 metres and dipping 30 to 50 degrees southwest, outcrops 150 metres south of the previous vein, within hornblende biotite quartz diorite. The vein pinches and swells to a width of 0.3 metre. Pyrite, molybdenite and chalcopyrite occur along fractures and as disseminations in the vein.*

**RUBY prospect (Au-quartz veins)**

Minfile 092GNW050

400 metres east

*The veins are comprised of marcasite in a gangue of quartz. A chip sample of the main vein taken across a width of 0.46 metre assayed 23.6 grams per tonne gold and 40.1 grams per tonne silver, while a sample of a tension vein taken over a length of 1.8 metres assayed 50.39 grams per tonne gold and 54.5 grams per tonne silver (Assessment Report 11129, page 24; Samples R-NL-1, R-NL-X-5). An angled diamond-drillhole (DDH-10) cored a 0.91 metre section grading 37.0 grams per tonne gold and 27.5 grams per tonne silver (Assessment Report 14736, page 20).*

*A silicified shear zone (TY zone) striking 110 degrees and dipping steeply north, outcrops 240 metres northeast of the NL zone. Quartz veins ranging from 20 to 50 centimetres in width are developed in the hangingwall of the shear. The veins are mineralized with pyrite and minor chalcopyrite. Grab samples have yielded assays of up to 6.99 grams per tonne gold and 175.5 grams per tonne silver (Assessment Report 14736, page 21).*

**STEIN showing (Au-quartz veins)**

Minfile 092GNW061

500 metres northwest

*The quartz is mineralized with pyrite and marcasite. A grab sample of pyritic material taken two metres from the portal of the adit assayed 40.11 grams per tonne gold and 17.8 grams per tonne silver (Assessment Report 12641, page 25, Sample Ton).*

**JR prospect (Au-quartz veins)**

Minfile 092GNW063

100 metres east

*Surface samples have yielded assays of up to 6.86 grams per tonne gold and 6.72 grams per tonne silver (Assessment Report 14736). Diamond drilling intersected a section of massive marcasite with electrum in quartz averaging 31.3 grams per tonne gold and 21.4 grams per tonne silver over a core length of 2.7 metres in drillhole 9 (Assessment Report 14736).*

*The 3V zone, consisting of a quartz vein stockwork and outcropping over a 30 by 5 metre area, lies 260 metres northeast of the JR zone. The stockwork consists of a number of subparallel anastomosing quartz-marcasite veins trending 080 to 090 degrees. Individual veins vary from 0.06 to 0.3 metre in width. A northwest trending, andesitic dike swarm offsets and complicates the mineralization trend. Samples from the showing have assayed up to 183.2 grams per tonne gold and 347.6 grams per tonne silver*

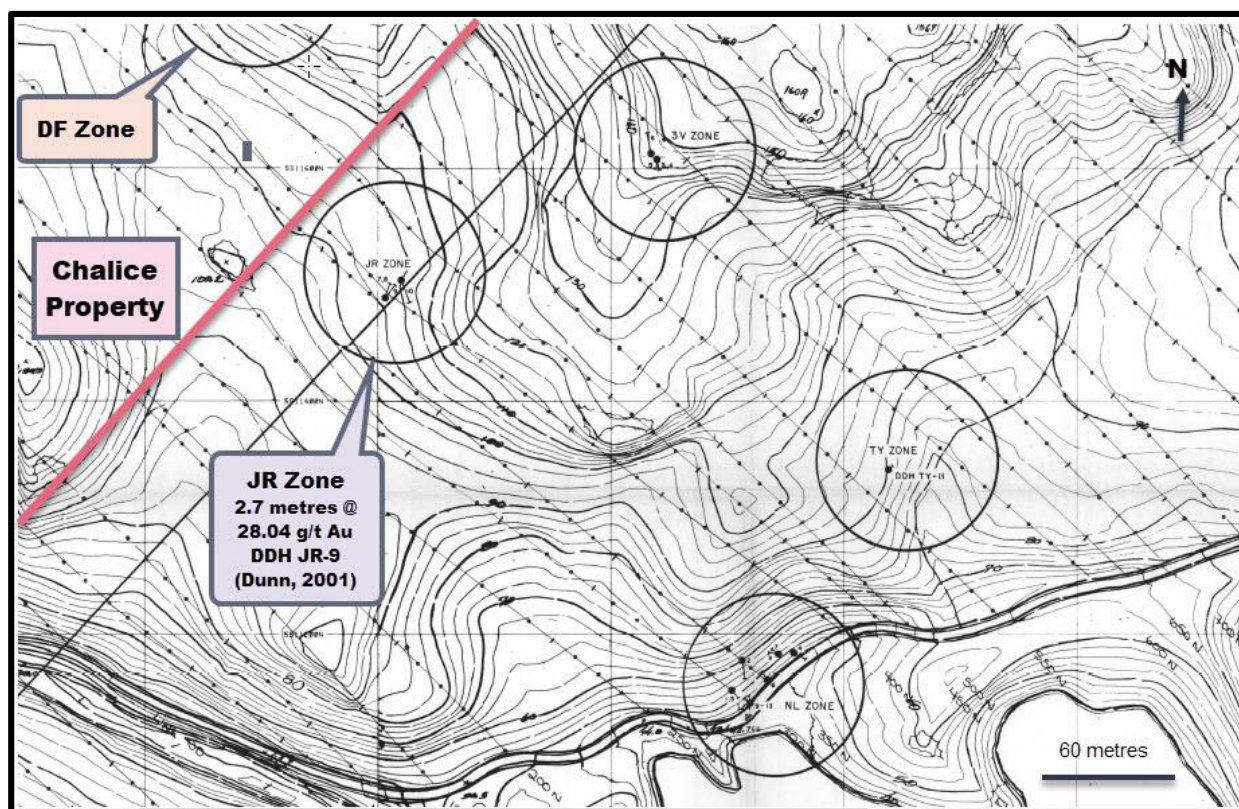
**Mineralization: Chalice Property Area (cont'd)****JR prospect (cont'd)**

A second quartz vein stockwork, the DF zone, is exposed for a length of 25 metres, 300 metres northwest of the JR zone.

The showing consists of quartz veins with sporadic to abundant pyrite and marcasite, occasional galena and chalcopyrite, and minor tetrahedrite developed in a faulted andesitic dike and altered granodiorite. A chip sample taken across 2 metres assayed 46.96 grams per tonne gold and 83.0 grams per tonne silver (Assessment Report 14736).

The now buried TY zone has been described as a quartz flooded shear zone, 2.5 metres wide, striking 290 degrees and dipping steeply north. Several 20 to 50-centimetre-wide quartz veins are reported in the hangingwall of the shear zone. The quartz veins host up to 10 per cent pyrite, chalcopyrite and other sulphides. A sample collected in 1988 from several pieces of mineralized rubble yielded 32.9 grams per tonne silver, 5.07 grams per tonne gold and 0.09 per cent copper (Assessment Report 20039)

Figure 8. Mineral Zones adjacent to the Chalice property  
(base map from Grove, 1983)

**Mineralization: Chalice Property Area (cont'd)****3V Zone**

The 3V showing has an apparent strike length of eighty metres (Groves, 1986)

The 3V zone, consisting of a quartz vein stockwork and outcropping over a 30 by 5 metre area, lies 260 metres northeast of the JR zone. The stockwork consists of a number of subparallel anastomosing quartz-marcasite veins trending 080 to 090 degrees. Individual veins vary from 0.06 to 0.3 metre in width. A northwest trending, andesitic dike swarm offsets and complicates the mineralization trend. Samples from the showing have assayed up to 183.2 grams per tonne gold and 347.6 grams per tonne silver (Minfile).

## MINERALIZATION: CHALICE PROPERTY

The following Chalice mineralization information is copied from the pertinent BC Government Minfile report.

**CHALICE** prospect (Au-quartz veins)

Minfile 092GNW008

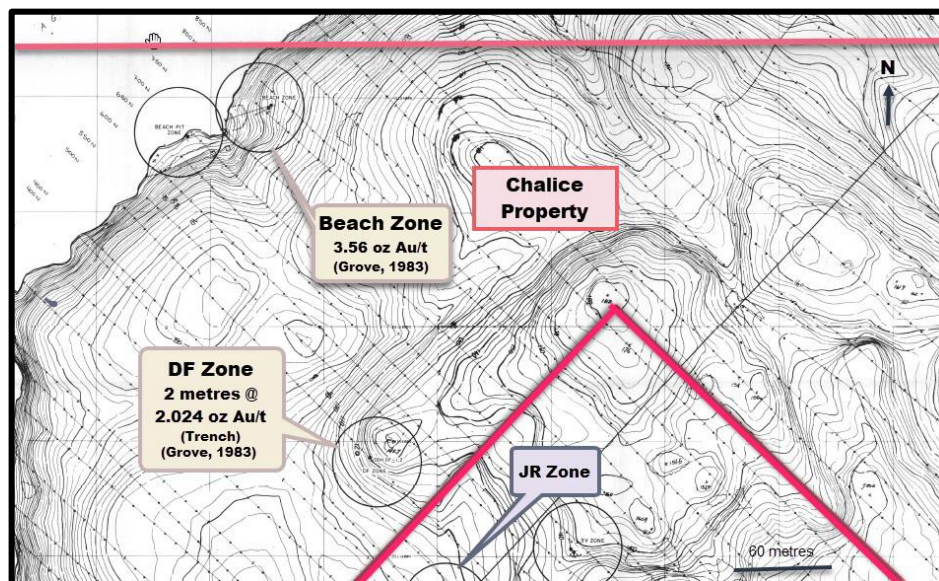
Within Tenure 1058985

*Several pits excavated in beach exposures reveal numerous discontinuous veins of quartz, marcasite and pyrite up to 0.5 metres wide in granodiorite and basaltic dikes. The veins strike 045 degrees and dip 40 to 90 degrees west.*

*A sample from one of the pits assayed 213 grams per tonne gold and 219 grams per tonne silver (Bulletin 39, page 39). A bulk sample of 96 tonnes shipped by Abacon Mineral Explorations Ltd. in 1966 averaged 11 grams per tonne gold, 14 grams per tonne silver and 0.08 per cent copper (Assessment Report 11129, page 16).*

*One hundred and fifty metres to the northeast, a 7 by 2 metre cliff exposure reveals a series of marcasite veinlets 4 to 6 centimetres wide cut by several basaltic dikes in granodiorite. The veins strike 055 degrees and dip 75 degrees west. A 20-metre-wide stockwork of quartz and marcasite veinlets outcrops between these two exposures. The stockwork zone trends 110 degrees and dips 60 degrees east to 75 degrees west.*

**Figure 9. Mineral Zones on the Chalice property**  
(base map from Grove, 1983)



The following Chalice mineralization information is copied from the BC Government Aris Report file with the assessment report number referenced to the author in the Reference section of this report.

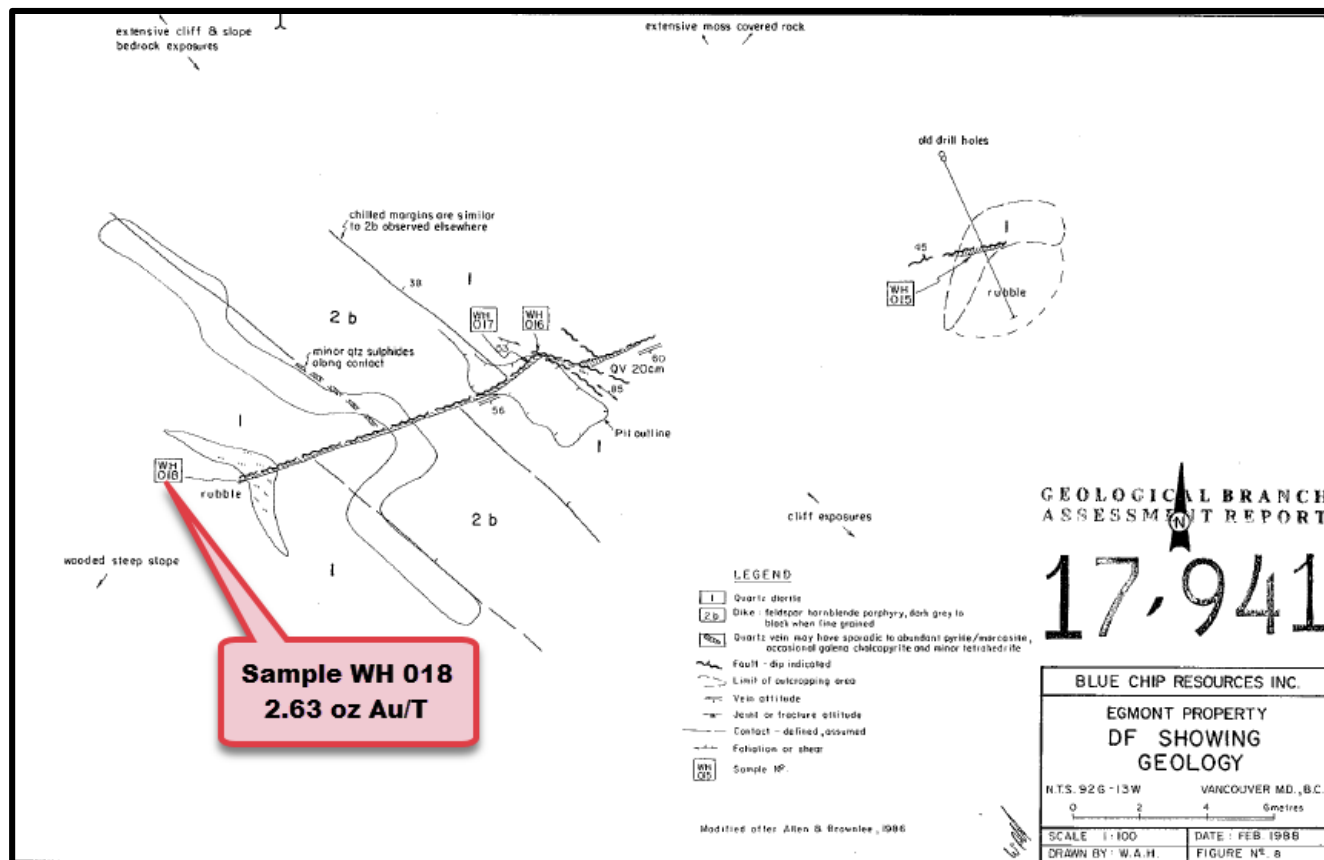
- quartz-sulfide stockwork systems, massive sulfide veins and vein stockworks, and disseminated Gold and silver bearing mineralization on the property generally comprises quartz-sulfide veins, sulfides in porphyry-like situations (Bragg, 1992).
- Brownlee and Allen (1986) observe that sulphides also occur as fracture coatings and disseminations throughout the alteration envelope adjacent to quartz veins. Sulphide mineralization is closely associated with silicification. Grove (1985) has described the presence of native gold, electrum, and some gold-silver-lead bismuth tellurides which occur as disseminations throughout the pyrite-marcasite (Howell, 1988).

**Mineralization: Chalice Property (cont'd)**

**DF Zone**

- Two short trenches have cut across the main exposure of the new DF vein/stockwork zone. Sampling across 2 meters (6 feet) of the upper trench returned assays of up to 2.42 ounces Ag and 2.024 ounces' gold per ton. A check 2-meter sample across the upper trench by a Canamax geologist gave 2.42 oz. Ag and 1.370 ounces' gold/ton confirming the grade of this new zone which, like others on the property, comprises quartz-sulfide veins (trend 045°/60°W) in strongly altered granodiorite (Groves, 1986).
- It would appear that the DF Vein may be offset by a northwesterly structure that may also be mineralized with gold and silver. Sample 2012-19 ran 1.22 gm Au; Sample 2012-21 ran 5.8 gm Au, and Sample 2012 30 ran 2.66 gm Au (Bragg, 1992)
- A second quartz vein stockwork, the DF zone, is exposed for a length of 25 metres, 300 metres northwest of the JR zone (Minfile).
- The 'DF' showing (fig. 8) exposes a quartz-pyrite zone complicated by faults and dikes. The structure continues downslope beneath boulder overburden with the last visible part of the structure containing good high-grade mineralization (Sample WH-018; 170.2 ppm Ag, 2.630 oz Au/T. (Howell, 1988).

**Figure 10. DF Zone geology, sample locations, and sample WH018 assay**  
(Base map and assay from Howell, 1988)



Mineralization: Chalice Property (cont'd)

Figure 11. DF Vein and sample results (from Bragg, 2013)

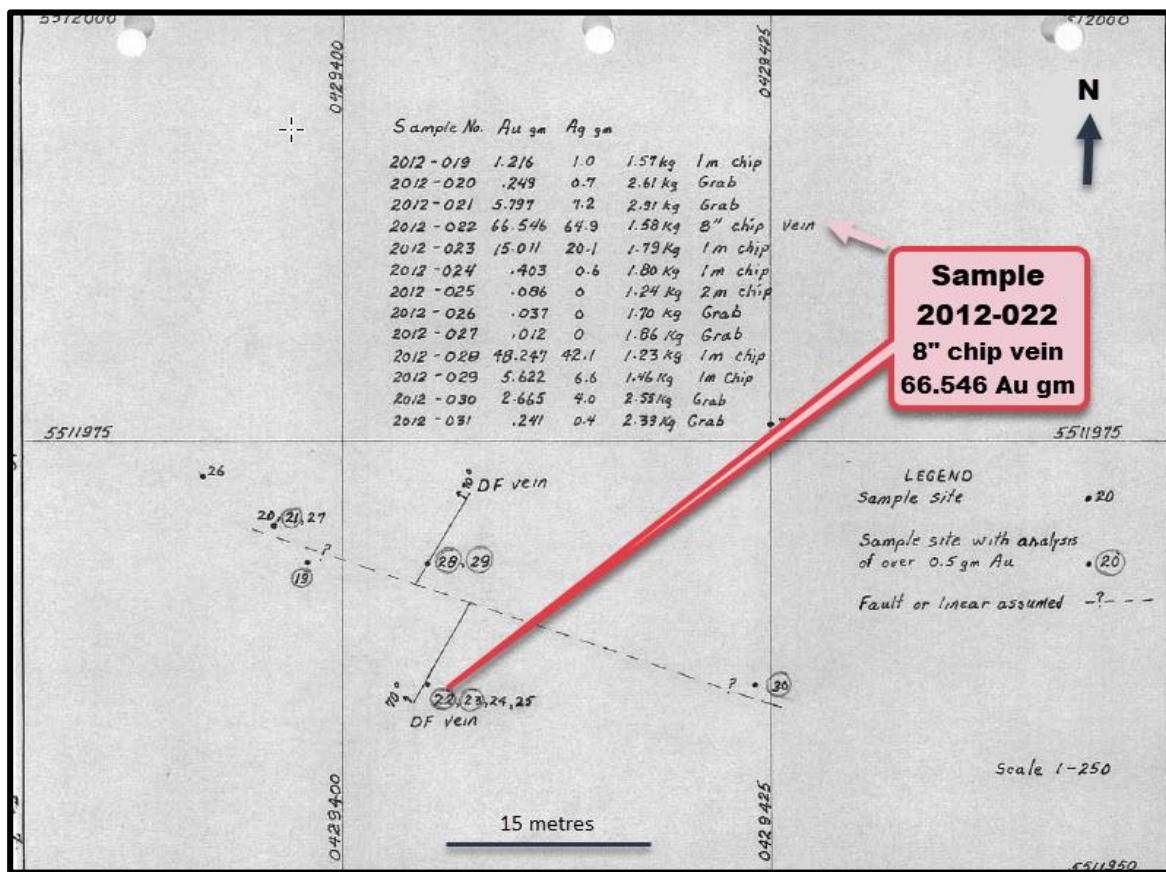
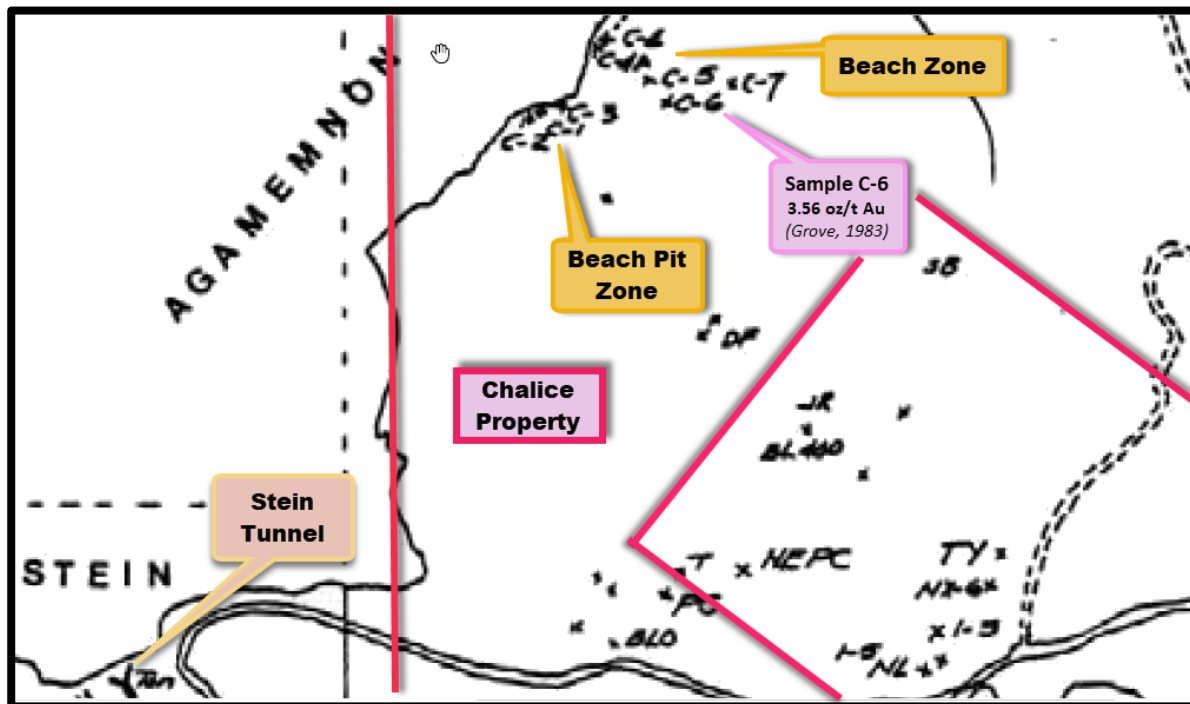


Figure 12. Beach Zones sample locations and sample references (Base map and assays from Bragg, 2013)



**Mineralization: Chalice Property (cont'd)****Beach Showings**

- Bacon (1957) reported that a gold showing, at sea level near the northern end of Agamemnon Channel, was discovered in 1952. Two pits, excavated along weak northeasterly trending fractures, exposed quartz and pyrite which assayed 6.21 ounces per ton gold and 6.4 ounces per ton silver. (Howell, 1988).
- In 19165, Abacon Minerals Exploration shipped 106 tons of massive sulphide from the Beach Showing, and the Tacoma smelter reported the shipment contained 34 ounces of gold, 45 ounces of silver, and 170 pounds of copper (Bragg, 2013).

*Table 2. Beach Zones sample results from Figure 12 sample references  
(from Bragg, 2013)*

Sample No.	Location	Material	Au oz/ton	Ag oz/ton
Ton	Stein Tunnel (2m)	Breccia	1.170	0.52
Ton 2	Road	Gossan	0.001	0.01
C-4A	Shore	Granodiorite, qtz, marcasite	1.240	1.53
C-5	Above C-4	Grd, qtz, marc.	0.489	0.61
C-6	Shear	Quartz, marcasite	3.560	5.50
C-7	Fracture	Grd, qtz, marc.	0.01	0.016
BL-400	Fracture	Quartz, marcasite	0.150	0.07
TY-2E	Alteration zone	Quartz, marcasite	0.094	2.16
TY-3E	Alteration zone	Quartz, marcasite	0.060	0.86

*Figure 13. Chalice property gossan at a mineral zone  
(Photo from Jenks, 1995)*



## **2019 EXPLORATION PROGRAM**

### **Prospecting and Rock Sampling**

#### **Purpose**

As the Chalice property is reported as a potential geological host to variable mineral deposits, including epithermal and porphyry, the purpose of the prospecting and rock sampling program was to take samples any site that has a surficial geological or mineralogical indication to the potential of an economic mineral resource.

#### **Prospecting**

In the prospecting of the area, orange flagging and marking of sample sites were completed, photos were taken on site, GPS coordinates were taken, and all samples were recorded and mapped.

#### **Sampling**

Bag size samples were taken between one and ten pounds.

Thirteen samples were taken; the types of samples were float/dump (FB) samples, in-situ (IS) samples, and heavy metal (HM) samples.

The three types of samples are described as follows.

A float (FB) sample is a loose piece of rock that is not connected to an outcrop. This type of a sample was selected for the contained minerals, alteration, and/or any other geological feature to serve as a guide in future sampling or exploratory work.

An in-situ (IS) sample is a sample taken from its natural or original place. The methodology of sample retrieval was to select a geologically featured site and take a hand-sized rock sample.

A heavy metal (HM) refers to any metallic chemical element that has a relatively high density and is toxic or poisonous at low concentrations. In the taking of a heavy metal sample, a soil or stream sediment sample is panned in order to concentrate the high density minerals, which may include gold, and could reveal potential pathfinder minerals that would not be revealed if an unpanned sample were to be assayed.

The samples were described by Stewart Jackson, PhD, PGeo who also was a consultant to the project.

The sample descriptions are shown in Appendix 1.

#### **Results**

The results are addressed in the Interpretation and Conclusions section of this report.

2019 Exploration Program (cont'd)

Figure 14. 2019 Sample Location Index Map  
(base map from MapPlace 2)

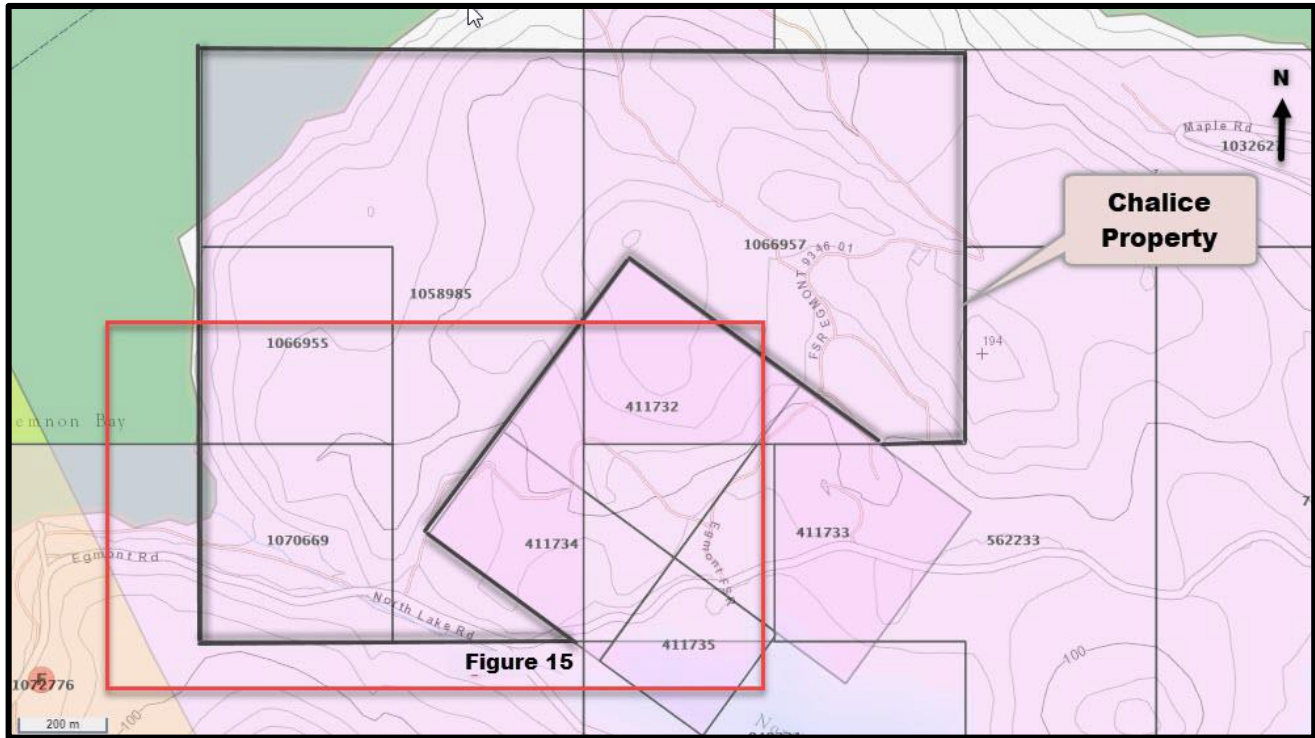
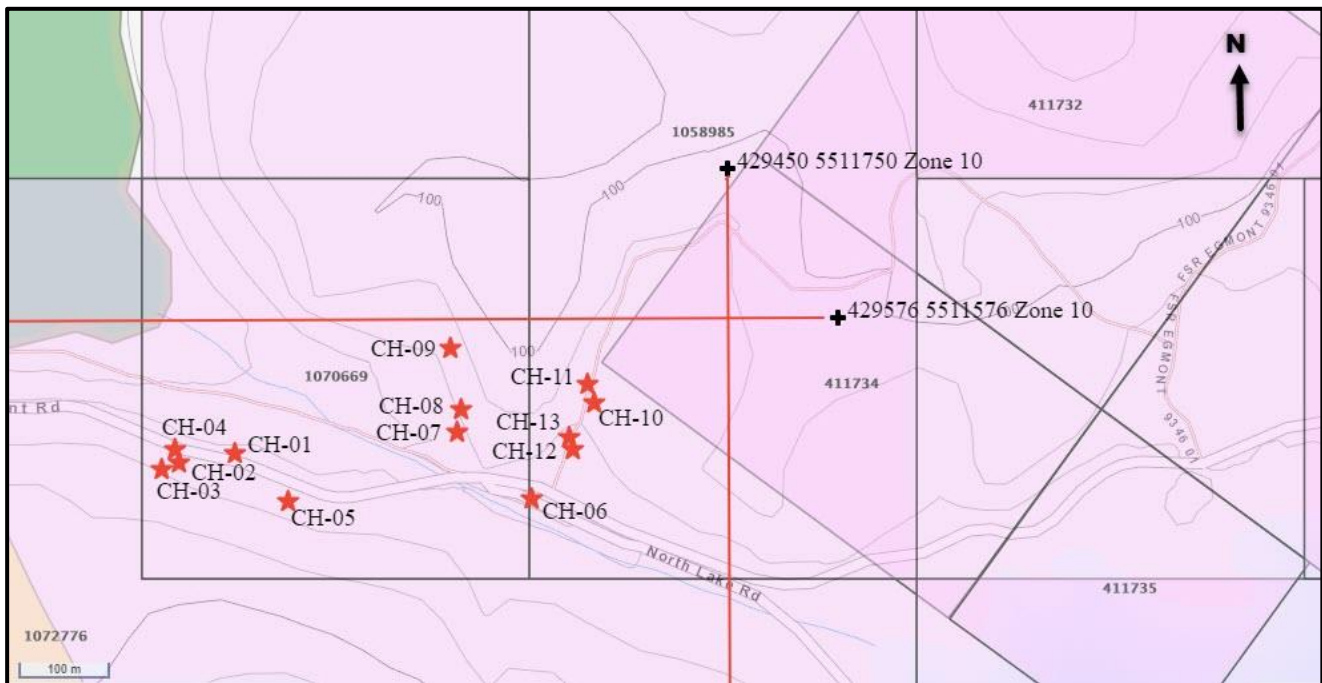


Figure 15. 2019 Sample locations\*  
(base map from MapPlace 2)



see Figure 14 for location on the Chalice Property.

## INTERPRETATION & CONCLUSIONS

The Chalice property covers an area of geological potential for the inclusion of any one of a variable gold-bearing mineral deposit including epithermal, massive sulphide veins, quartz/sulphide veins, quartz vein stockworks, mineralized breccia zones and disseminated porphyry, in addition to a potential gold-bearing dacite porphyry mineral resource as indicated from the results of the 2019 prospecting and sampling program.

The potential deposits can range from a low-tonnage high-grade gold deposit as an epithermal type, to a high-tonnage bulk-mineable deposit as a porphyry type. The indication for these deposits are in the thirty gold -bearing prospects that occur on and in the area of the Chalice property, the major faults with the sulphide vein systems having been traced for over a strike length of 1,450 feet (441.9 metres), massive sulphide veins, sulphide-bearing quartz veins, quartz vein stockwork zones, mineralized breccia zones, and disseminated porphyry-like breccia zones (Grove, 1985).

A porphyrite dacitic flow mineral deposit is general indicated in two rock samples collected in the 2019 program. Sample #4, a rhyodacite, was perhaps the most interesting in that with the minor pyrite and chocolate-brown weathering it may be a porphyrite volcanic hosting fine disseminated gold. The same for sample #6, a medium to light grey dacite. If carbonated, which an acid test could verify, the probability is increased for a gold-bearing porphyrite flow.

Bragg, 1992 also reports that gold and silver bearing mineralization on the property generally comprises quartz-sulfide veins, quartz-sulfide stockwork systems, massive sulfide veins and vein stockworks, and disseminated sulfides in porphyry-like situations.

Thus, the Chalice property has considerable potential for any one of variable mineral resources ranging from a low-tonnage high-grade epithermal deposit to a large tonnage bulk-mineable porphyry deposit.

The Chalice Property needs a 500 metre drill-hole to explore this potential. From the logging and assays of the drill core, the location or the actual indication and type of a potential mineral deposit should be determined.

Respectfully submitted  
Sookochoff Consultants Inc.



Laurence Sookochoff, PEng

Figure 16. Types of mineral deposits that can occur on the Chalice property  
(Base map from sec. gov.com)

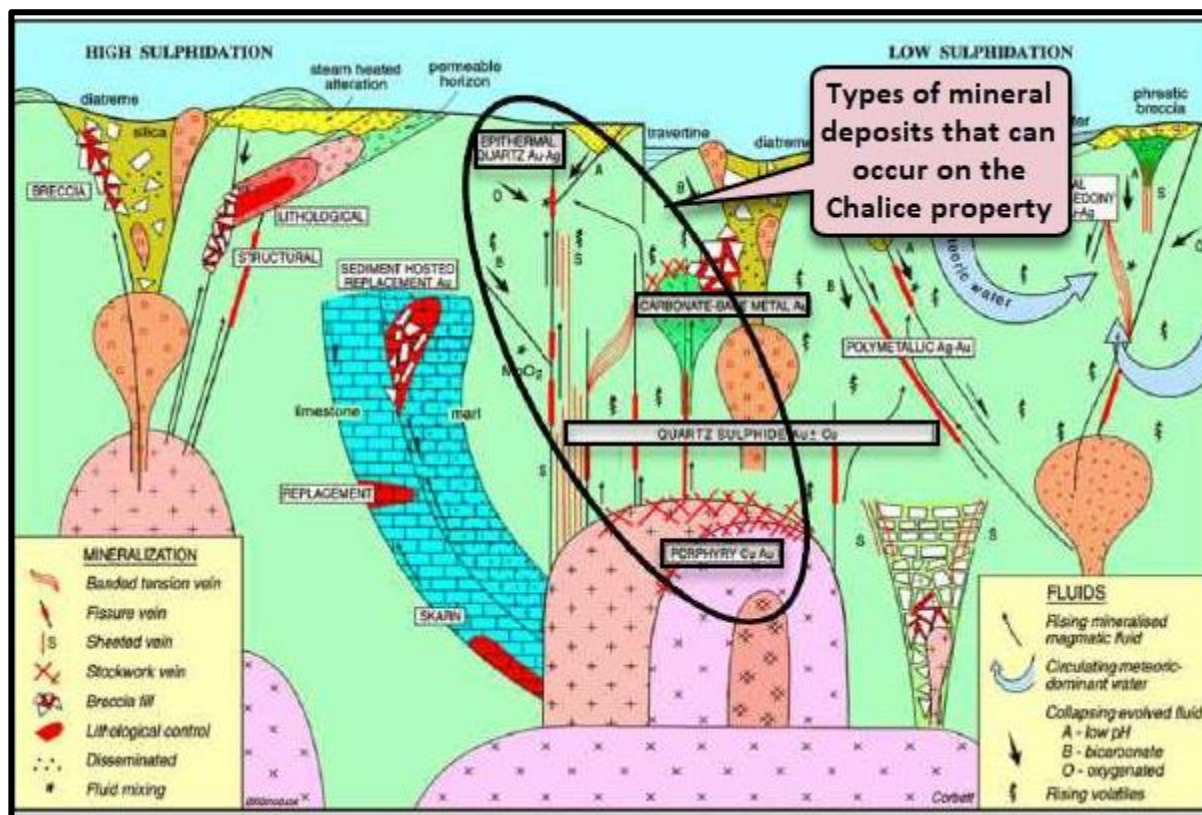
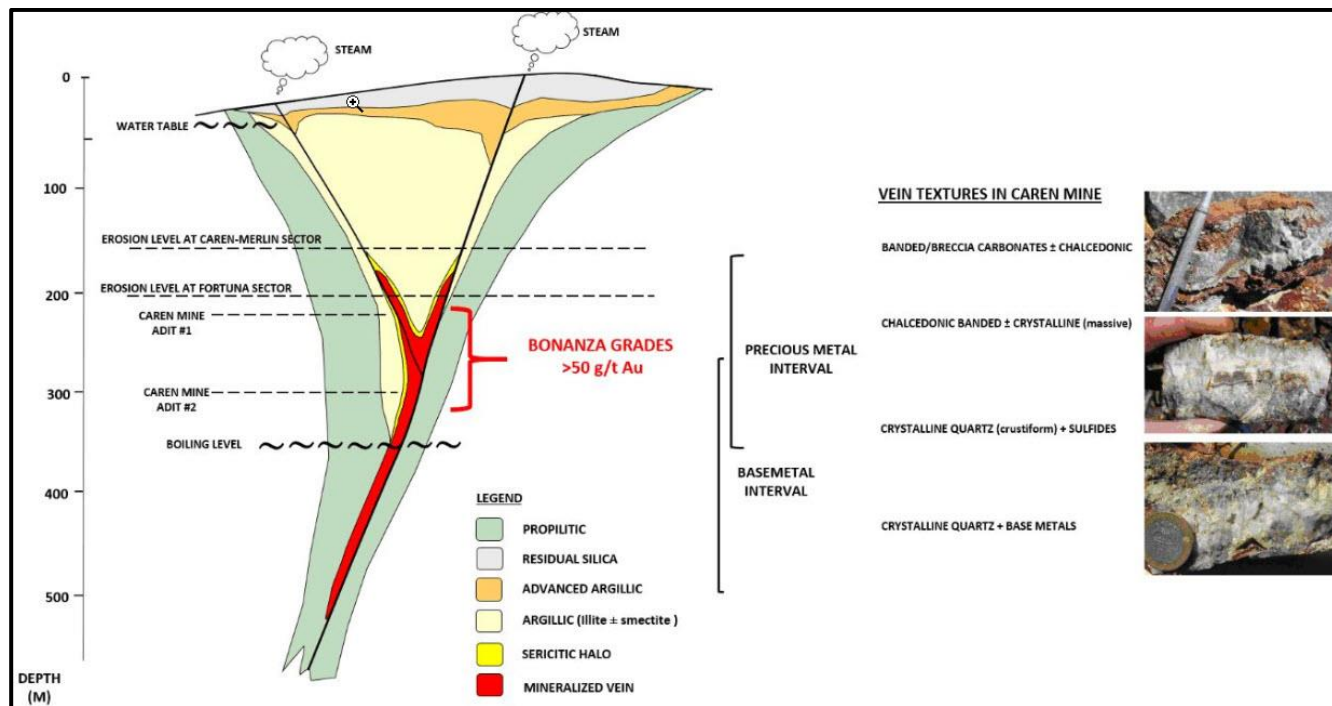


Figure 17. Epithermal Model showing the location of Bonanza gold grades  
(from sec. gov.com)



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- Bragg, D.K.** (2013) Topographical, Geological Mapping, Prospecting & Sampling Report on the Jay 1 to Jay 7 Claims & Jay 1, Jay 8, 9, 10 & 11 Claims March 18, 2013. AR 33765.
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- LaRue, J.P.** (2007) Assessment Report on Survey Grid Preparation and Geophysical Work Performed on the Dancer 1-4 Mineral Claims May 26, 2007. AR 29221.
- MapPlace** – Map downloads.
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- MtOnline** - MINFILE downloads.
- 092GNW012 – WALLY
  - 092GNW050 – RUBY
  - 092GNW061 – STEIN
  - 092GNW063 – JR
  - 092GNW008 – CHALICE

**STATEMENT OF COSTS**

Field work was performed on the Chalice Property between August 31, 2019 and September 2, 2019 to the value as follows:

**Prospecting and Sampling****Labour**

Bill McKinney:

August 31, 2019, September 1-2, 2019

2 days @ \$450.00/day ----- 900.00

Lance Bradshaw: September 1, 2019

1 day @ \$300.00/day ----- 300.00

Stewart Jackson: September 2, 2019

0.5 days @ \$750.00/day ----- 375.00 1,575.00

**Travel/Transportation**

Richmond to property return

650 km @ \$0.68----- 448.80

**Exploration Equipment**

GPS, Computer, Clinometer, Electronics radios, etc 20.00

Spot Locator's safety equipment and supplies - 20.00

Bear spray, axes, mallets, pry bars, etc 20.00

Chainsaw ----- 20.00 80.00

**Food/Lodging**

2 man days @ \$ 125.00 ----- 250 .00

**Report**

Laurence Sookochoff, PEng ----- 3,000.00

**Maps** ----- 500.00

\$ 5,853.80

=====

**CERTIFICATE**

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:  
That I am a Consulting Geologist and principal of Sookochoff Consultants Inc. with an address at 120 125A-1030 Denman Street, Vancouver, BC V6G 2M6.

I, Laurence Sookochoff, further certify that:

- 1) I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.
- 2) I have been practicing my profession for the past fifty-four years.
- 3) I am registered and in good standing with the Engineers and Geoscientists BC.
- 4) The information for this report is based on information as itemized in the Selected Reference section of this report, from exploration work done in the general Chalice area, and from information given me on the Chalice property prospecting program.
- 5) I have no interest in the Chalice property as described herein.



Laurence Sookochoff, P. Eng.

**FIELD CREW QUALIFICATIONS**

Bill McKinney; 20 years' field experience

Lance Bradshaw; five years' field experience

Bill Jorgenson; President of Hi Ho Silver Mines


Appendix 1

**Sample Descriptions**

Samples 1-14 Lithologic descriptions.

## SAMPLE DESCRIPTIONS - CHALICE CLAIMS.

- #1 MED COARSE CRYSTALLINE DARK GRAY GRANODIORITE - STRONGLY FOLIATED, 25% MAFICS BIOTITE + HORNBLLENDE PINK WEATHERING ON ~~FELD~~ FELDSPAR 1 CM DEEP
- #2. GRANODIORITE, MED CRYSTALLINE, LIGHT GREY W. 5% MAFICS - PYROXENE & HORNBLLENDE, PLAGIOCLASE LATHS UP TO 3mm. length
- #3. RHYOLITE, LIGHT GREY, CRYSTALLINE, MASSIVE, CHALKY WHITE WEATHERING
- #4 Rhyodacite, light gray, feldspar crystals to 1m., greenish gray from minor mafics, minor pyrite crystals, MED CHOCOLATE BROWN WEATHERING
- #5 POLKA DOT PORPHYRY - 1-3mm WHITE FELDSPARS IN BLACK FINE GRAINED MATRIX, OVERALL GREENISH CAT ON FELDSPARS.
- #6 GRANODIORITE FLOAT, BRIGHT L. GREY TO WHITE FELDSPARS AND QUARTZ 2-5% MAFICS, mostly BIOTITE, SLIGHT FOLIATION.
- #7 HORNBLLENDE TRACHYTE. 5-10% NEEDLES OF HORNBLLENDE, PINK CHALKY RHYOLITE MATRIX, V. FINE GRAINED, 1mm QUARTZ CRYSTALS IN FOLIATED MATRIX
- #8 DACITE) F. GRAINED, MED TO L. GREY, MED BROWN WEATHERING SURFACE, POSSIBLE SULPHIDE WHEN STRUCK
- #9. GRANODIORITE, L. GREY, MED CRYSTALLINE, BRIGHT WHITES, 5% biotite + horn blende
- #10. BLACK VOLCANIC ROCK - BLACK W. SOME WITE FELDSPAR PATITES, 1mm fine grained blin-like shear, dark mafics fine grained.
- #11 HORNBLLENDE, FINE GRAINED, BLACK W. 1cm BAND OF WHITE FELDSPARS WEATHERED OUT ON SURFACE, RETICULATE WHITE LINES, CRISS CROSSING SURFACE, REMOBLIZED QUARTZ + FELSPAR.
- #12 <sup>PORPHYRY</sup> ANDESITE) DARK GREEN-GREY, WITE FELDSPAR CRYSTALS UP TO 3cm. FLOATING IN FINE GRAINED MATRIX.
13. GRANODIORITE, PORPHYRITIC WITH 0.5cm BLACK BIOTITE CRYSTALS + 2cm HORNBLLENDE NEEDLES. BIOTITES UP TO 2cm SIZE.

  
STEWART JACKSON  
Ph.D. P. Geo

Appendix 2

**Sample Locations**

Chalice 2019			Sample	IS In Situ, HM Heavy Mineral/Dump
Event 5753732			Types	FB Float, POI Point of interest/Access
Sample	UTM 10U	UTM 10U	Type	Notes
CH-01	428874	5511429	FB	See Jackson Lithologies
CH-02	428808	5511418	FB	See Jackson Lithologies
CH-03	428789	5511410	FB	See Jackson Lithologies
CH-04	428802	5511433	IS	See Jackson Lithologies
CH-05	429035	5511372	FB	See Jackson Lithologies
CH-06	429217	5511373	FB	See Jackson Lithologies
CH-07	429131	5511453	IS	See Jackson Lithologies
CH-08	429132	5511475	FB	See Jackson Lithologies
CH-09	429125	5511547	FB	See Jackson Lithologies
CH-10	429291	5511483	FB	See Jackson Lithologies
CH-11	429288	5511503	FB	See Jackson Lithologies
CH-12	429266	5511428	FB	See Jackson Lithologies
CH-13	429262	5511430	FB	See Jackson Lithologies
POI-01	429156	5511416	POI	Trail off Egmount Rd. To samples 7-9
POI-02	429243	5511397	POI	FSR Off Egmount Rd. to samples 10-13
POI-03	429481	5511653	POI	Exploration Site Off FSR

Appendix 3

Photos

5753732 Chalice Pictures 2019

Road to North Lake Camp Ground

Trail to samples CH--7-9



FSR to samples CH-10-13

CH-07



CH-08

CH-13

