

# ASSESSMENT REPORT TITLE PAGE AND SUMMARY

#### TITLE OF REPORT: Geochemical and Geophysical Report on the Island Zinc Property

TOTAL COST: \$27,274.50

AUTHOR(S): Len P. Gal SIGNATURE(S):

NOTICE OF WORK PERMIT NUMBER(S)/DATE(S): n/a STATEMENT OF WORK EVENT NUMBER(S)/DATE(S): 5665195 / 19 SEPT 2017 YEAR OF WORK: 2017

PROPERTY NAME: Island Zinc (also known as HPH)

CLAIM NAME(S) (on which work was done):

НРН	1047372
HPH EXT	1047977
HPH FAR EAST	1048488
HPH SOUTH	1048558
MOREDORLON	1049362
HPH NORTH	1051030
HPH SE	1051031

COMMODITIES SOUGHT: Zn, Ag, Pb, Cu, Au MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN: 092L069, 092L241, 092L242

**MINING DIVISION: Nanaimo** NTS / BCGS: UTM 92L/12, BCGS 92L/061, 062

LATITUDE: 50° 41' 40" LONGITUDE: 127\_° 47' \_\_45" (at centre of work) UTM Zone: EASTING: OWNER(S): Leonard Gal

NORTHING:

MAILING ADDRESS: 5977 Littlefield Road, Courtenay, BC, V9J 1T6

OPERATOR(S) [who paid for the work]: Precipitate Gold Ltd.

MAILING ADDRESS: 625 Howe Street, Suite 1020; Vancouver, BC; V6C 2T6

REPORT KEYWORDS (lithology, age, stratigraphy, structure, alteration, mineralization, size and attitude. Do not use abbreviations or codes). limestone, Quatsino Formation, Triassic, skarn, carbonate replacement, silica alteration, south-dipping mantos.

REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPORT NUMBERS: 870, 3609, 3954, 4180, 4472, 7566, 9507, 16347, 17393, 17445, 20328

PE OF WORK IN IS REPORT	EXTENT OF WORK (in metric units)	ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)
OLOGICAL (scale, a	rea)		
Ground, mapping	g		
Photo interpretat	tion		
OPHYSICAL (line-kil	ometres)		
Ground			
Magnetic			
Electroma	agnetic		
Induced			
Polarization Radiometric			
Seismic			
Gravity	\$20,639.01	total 1047372	\$1929.01
(68 readings at unique location	t 44 ns)	1047977	\$650.00
unique location	115)	1048488	\$650.00
		1048558	\$1900.00
		1049362	\$2500.00
		1051030	\$9910.00
		1051031	\$3100.00
Airborne			
OCHEMICAL			
Soil	(37 samples multi-element ICP)	1047372	\$1020.39
	\$4920.39 total	1047977	\$1000.00
		1048488	\$1000.00
		1048558	\$500.00
		1049362	\$500.00
		1051030	\$500.00
		1051031	\$400.00
Silt			
Rock	(9 samples, multi-element ICP)	1047372	\$200.00
	\$980.10 total	1047977	\$200.00
		1048488	\$200.00
		1048558	\$100.00
		1049362	\$100.00
		1051030	\$100.00
		1051031	\$80.10
Other			
	, number of holes, size, storage location)		

	TOTAL COST	\$27,274.50
Other		
Underground development (metres)		
Trench (number/metres)		
Road, local access (km)/trail		
Legal Surveys (scale, area)		
Topo/Photogrammetric (scale, area)		
PREPATORY / PHYSICAL Line/grid (km)		
	1051031	\$35.00
	1051030	\$50.00
	1049362	\$50.00
	1048558	\$150.00
\$735 total	1048488	\$150.00
PROSPECTING (scale/area) 1:10,000 / 3 km <sup>2</sup> ,	1047372 1047977	\$150.00 \$150.00
Metallurgic		
Mineralographic		
Petrographic		
	1051030	
	1049362 1051030	
geochemical costs above	1048558	
costs are included with rock and soil	1048488	
Sampling / Assaying – sampling and assaying	1047372 1047977	
RELATED TECHNICAL		
Non-core		

# ASSESSMENT REPORT Geochemical and Geophysical Report on the Island Zinc Project

NTS: 92L12 Nanaimo Mining District Nahwitti Lake area

50°41.67' N 127° 47.75' W

<u>Work Applied to Claims:</u> 1047372, 1047977, 1048488, 1048558, 1049362, 1051030, 1051031

> Work Performed: March-September 2017

Effective Date: 31 October, 2017 Revised 19 July 2018

Prepared for: **Precipitate Gold Corp.** 625 Howe Street, Suite 1020 Vancouver, BC Canada, V6C 2T6

> Prepared by: Len Gal P.Geo.

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- 5. GRAVITY SURVEY LOGISTICS REPORT, MEMO AND RAW DATA
- 6. STATEMENT OF COSTS

#### SUMMARY AND CONCLUSIONS

The Island Zinc Project (formerly HPH Property) comprises 33 grid cell claims in seven claim blocks for a total of for a total area of 675.53 ha (1669 acres). The claims are located on northern Vancouver Island, about 25 km west of Port Hardy. The project encompasses three BC MINFILE showings of Zn, Pb and Ag mineralization, hosted in Upper Triassic Quatsino Formation limestone. The showings are thought to represent carbonate replacement deposit (CRD) type mineralization, and the potential to expand the mineralization is good. There is additional Fe-Cu skarn potential in limestone and/or Triassic Karmutsen Formation volcanic rocks.

Precipitate Gold Corp. entered into an option agreement with the claims owner to acquire a 100% interest in the property over a four year term. This report summarizes exploration efforts carried out in 2017 by the owner and by the operator. These efforts included a reconnaissance soil and rock sampling program, general prospecting, and a limited gravity survey. Rock geochemistry and prospecting confirmed the mineralization at and between the three main showings, although the Main Zone surface mineralization has mostly been removed through excavations. Soil sampling reconnaissance confirmed the existence of significant Pb, Zn and Ag anomalies in the area of the showings and the ground between them, over a strike length of greater than one km. A gravity survey was attempted over the main showings area but had to be modified due to very thick forest cover interfering with the GPS signal required for accurate topographic readings. A modified gravity survey, conducted chiefly over active and disused roads and trails, did not sufficiently characterize the showings or evaluate the target areas. However, gravity anomalies were still recorded.

More work is required to sufficiently evaluate the Island Zinc Project, and to generate targets for future drill testing. Gravity and magnetic surveys are still considered a prime tool to do this. Geochemical soil surveys might also be expanded, and geological mapping is suggested to better evaluate the surface character of mineralized areas.

#### INTRODUCTION

This report summarizes exploration work carried out on the Island Zinc project in from March to September 2017. This work included: reconnaissance soil and rock samples (37 soils and nine rock samples) collected by the author and claim owner; a ground gravity survey by SJ Geophysics Ltd. consisting of readings from 44 unique stations; and a property visit by Precipitate Gold Ltd. management to examine the showings, collect samples and make a general prospecting traverse of the area. Expenditures in the amount of \$27,274.50 will be applied to assessment costs to keep the claim in good standing, as detailed in the section "CLAIM INFORMATION". A Statement of Costs is included in Appendix 6.

#### LOCATION AND ACCESS

The property is located on Vancouver Island, about 25 km west of Port Hardy. The property lies at latitude 50°41.7'N and Longitude 127°47.75'W, on NTS map sheet 92L/12 (Figure 1). From Port Hardy, the claim is accessed via the well maintained gravel Port Hardy – Holberg road, which traverses the centre of the property.



**Figure 1.** Location of Island Zinc Project on northern Vancouver Island (figure from precipitategold.com).

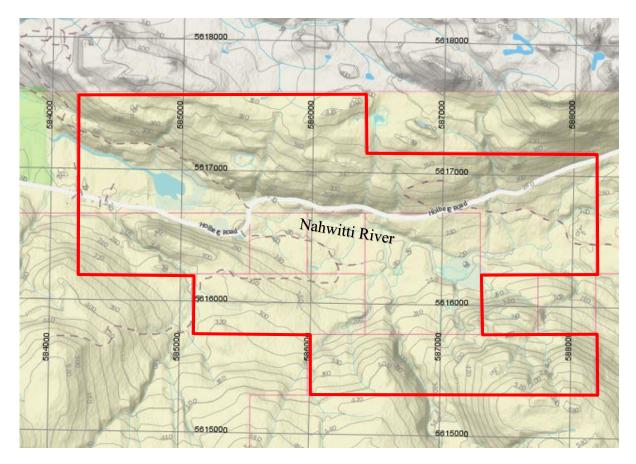
# PHYSIOGRAPHY, VEGETATION AND CLIMATE

The property is situated in northwestern Vancouver Island along the Nahwitti River valley, which flows WNW into Nahwitti Lake and thence northward to the ocean. Low rolling hills, plateaus, and steeply incised creek valleys are characteristic of this area of Vancouver Island. The Nahwhitti valley is at least 500 m across in this area, and flat bottomed. The elevations on the claim range from about 220 metres above sea level in the Nahwitti valley, to 540 metres in the extreme southeast corner of the property. Outcrop exposures are generally sparse, being limited to stream gullies, ridges and bluffs, and roadcuts or stripped areas.

Vegetation is typical of the west coast temperate rain forest, with commercial timber consisting of cedar, hemlock and douglas-fir. Logging has occurred over most of the property, and was occurring (as of April 2017) just west of Ida Creek at the western margin of the claims. The Nahwitti River valley hosts ponds and wetlands with their characteristic alders, red osier dogwoods, willows, grasses, sedges and rushes.

The climate is moderate with mild summers and cool, wet winters. The average temperatures (degrees Celsius) in July are high 14, low 11; with January highs and lows of 6 and 3, respectively. The wettest months are October to December, typically with about 100 mm of rainfall. May is usually the driest

month with an average of 28 mm precipitation. Winter snowfalls are not uncommon, but typically the snow does not last long on the ground.



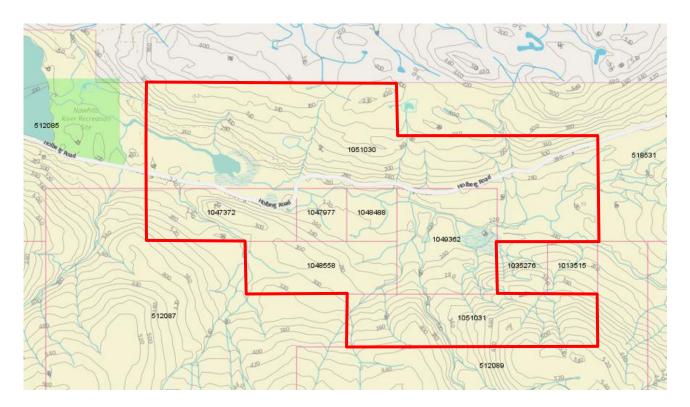
**Figure 2.** Island Zinc Project (bold red outline) with topography (contour limes labeled with m asl) and UTM grid (NAD 83 Zone 9 coordinates)

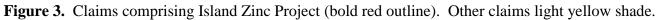
# **CLAIM INFORMATION**

The claims are in the Nanaimo Mining Division and consists of 33 grid cells in seven separate titles (Figure 2), owned 100% by L. Gal. The work described in this report, valued at \$27,274.50, is being applied as assessment expenditures on the claims. Further information is summarized below:

### Table 1. Claim information.

TENURE NUMBER	CLAIM NAME	NUMBER OF CELLS	AREA	EXPIRY DATE
				Y/M/D*
1047372	НРН	3	61.41 ha	2023/12/31
1047977	HPH EXT	1	20.47 ha	2023/12/31
1048488	HPH Far East	1	20.47 ha	2023/12/31
1048558	HPH South	3	61.42 ha	2022/07/31
1049362	Moredorlon	4	81.89 ha	2022/07/31
1051030	HPH North	16	327.5 ha	2022/07/31
1051031	HPH SE	5	102.37 ha	2022/07/31
	Total	33	675.53 ha	
	* New expiry date pend	ling approval of this	report	





# HISTORY AND PREVIOUS WORK

The HPH showings were discovered in June 1930 by Mssrs. Helper, Hicklenton and Pugh of the Port Hardy area. Up until at least 1987, the three original claims staked in 1930 (HPH 1-3) remained in good

standing. Crown Grants were never applied for to the author's knowledge. Christopher (1988) provides a thorough exploration history of the claims, through to the late 1980s.

In the 1930s, optionees performed surface trenching and stripping, sank two shallow shafts and a 33.8 m long adit (the "Lee adit") at the Main Zone. In the 1940s and 1950s, some rudimentary geophysical surveys were done, as well as some small diameter (X-ray) core drilling. At least one 1945 drillhole encountered mineralization in 3 and 5 foot intersections, although no assays or other records could be found (Sutherland, 1966). In the 1960s-1970s, optionees performed trenching, geochemical and geophysical surveys, as well as some drilling.

Christopher (1988) reported drilling by Giant Explorations Ltd. in 1966, in an uncertain location on the old HPH #3 claim, but probably at the Pit showing, yielding results of 8.84 m of 5.6% Zn, 2.8% Pb, 162.7 g/t Ag (weighted average intersection in drill hole NL-19) and 5.49 m of 7.4% Zn, 6.9% Pb and 337.5 g/t Ag (drill hole NL-20). Through the 1980s, a series of optionees explored the property and surrounding ground with geochemical, geophysical and geological surveys. A map in Christopher (1988; his Figure 4) and a tabulation of exploration costs suggests that Hisway Resources Corp. drilled two holes in 1988 (also at the Pit Showing). The probable drill logs for these two holes are found in Magrum and von Eisedel (1988) – no mineralization was encountered and no assays were done. Table 2 below summarizes recorded exploration work on the property to date.

# **GEOLOGY (from BC MINFILE)**

The area is underlain by northwest trending belts of Upper Triassic volcanic and sedimentary rocks of the Vancouver Group (Karmutsen, Quatsino, Parsons Bay and Harbledown formations; Figure 4). Some workers include bedrock of overlying, Lower to Middle Jurassic Bonanza Group volcanics and sediments. Both groups are intruded by Middle to Late Jurassic Island Plutonic Suite, and later (Tertiary?) dykes.

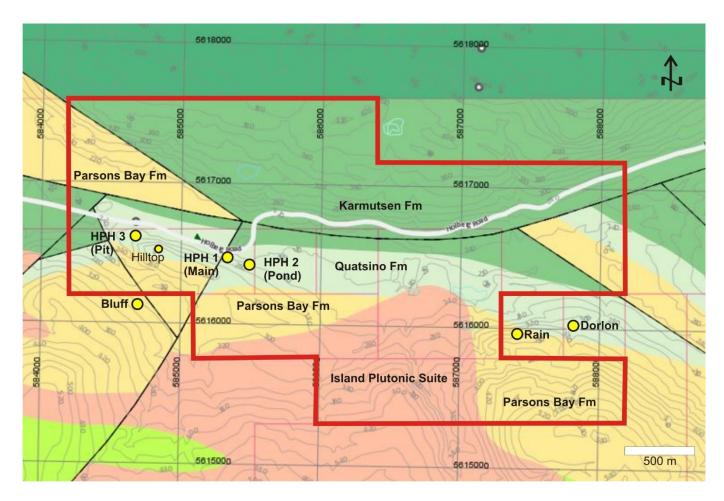
Quatsino Formation limestone is the primary unit of interest on the property. It is estimated to be 150 metres thick (Gunning, 1932), and is locally is silicified and altered to skarn. The formation outcrops in a band of grey to black fine-crystalline limestone, trending a little north of west, and dipping 35-65 degrees south. Quatsino Formation conformably overlies Karmutsen Formation intermediate volcanic flows and fragmental rocks, and is overlain by Parsons Bay Formation, or locally Harbledown Formation interbedded sediments and volcanics, including siliceous grey tuffs, felsite, hornblende andesite, and hornblende andesite porphyry.

In the southern part of the property are outcrops of granodiorite of the Island Plutonic Suite.

Crosscutting the aforementioned units are a variety of dykes and sills, including: aplite, felsite, and altered rhyolite or trachyte in the limestone, and augite andesite and augite andesite porphyry. These are thought to be largely Tertiary in age.

# Table 2. Exploration History.

Year(s)	Operator	Activity	Notes		
1930	Helper, Pugh & Hicklenton	Main zone discovery	H.P.H. 1-3 claims staked and remain in good standing until at least 1987.		
1930-31			2 shafts (8 and 12 m) 1 adit (34 m) trenches,		
1931	GSC	(Gunning, 1932).			
1932	Helper, Pugh & Hicklenton	Pit zone discovery			
1936	WG Dickinson & Assoc.	Some exploratory work	Some sources attribute the development work to Dickinson & Assoc.		
1945	Mines Ltd.Results variously described as pool interesting by later authors. Drill h Pond Zone) intersected 3 ft and 5 ft (Sutherland, 1966; Christopher and		Drilling at Main zone and Pond zone. Results variously described as poor or interesting by later authors. Drill hole 2 (near Pond Zone) intersected 3 ft and 5 ft of "ore" (Sutherland, 1966; Christopher and Magrum, 1988).		
1947	Western Mining & DevelopmentGeological mapping, radiometric and magnetic surveysAround this time BO Erickson appart drilled about 914 m of core finding g mineralization, no records survive.				
1965-74	Giant Explorations Ltd.	Geological mapping, geochemical surveys (1200+ soil samples with detailed grid over Pit Zone), magnetometer and VLF-EM survey (7.5 line km, 1972), and airborne mag and electromagnetic surveys (1969), trenching (500 feet in 1965), and 873 m diamond drilling in 21 holes (1966) 265 m of diamond drilling in 17 holes (1967).	No drill records survive except for intersections in 2 holes at Pit zone (Christopher, 1988). Geochemical sampling and trenching at TR Road and Bluff showings in 1973-74. About 50,000 t of ore (non NI 43-101 compliant) was outlined (Sutherland, 1966).		
1979-80	Loredi Resources Ltd.	Geological mapping, geochemical surveys (71 samples), and 1,143 m X-ray diamond drilling	No drill records survive. (Christopher, 1988).		
1980-81	Silver Bar Resources	Check sampling	Salaga (1981)		
1984	Darwin Engineering	Prospecting and sampling	(Christopher, 1988).		
1987-88	Hisway Mining Corp.	Check sampling, magnetometer, VLF-EM and radiometric surveys over 400 m test line. Apparently 2 drill holes completed at Pit zone (old HPH 3 claim)	Reserve of about 10,000 t of ore proven (non NI 43-101 compliant; Wilson et al., 1987; Christopher and Magrum, 1988).		
1988	QPX Minerals Inc.	? uncertain			



**Figure 4.** Bedrock geology (from BC government Map Place): greens- Karmutsen Formation, light blues- Quatsino Formation, yellow-oranges- Parsons Bay, Harbledown formations +/- Bonanza Group, pinks- Island intrusions (Island plutonic suite). Yellow circles indicate showings on or near the property (including true location of Pit, Main and Pond showings). Major faults are black lines, claims outlined in bold red line.

### MINERAL OCCURRENCES (BC MINFILE)

The main form of mineralization is irregular masses of disseminated to massive galena-sphalerite replacing fine crystalline dark limestone, suggestive of a carbonate replacement deposit (CRD) style of mineralization. Definite structural controls have not been noted but are likely to be present. Stratigraphic controls might also be present, as the mineralization is typically located within but near the upper or lower contacts of Quatsino Formation limestone. Mineralization at Island Zinc is part of an WNW trending belt associated with Quatsino limestone that stretches almost 7.5 km, south of Nahwitti Lake, from the Dorlon occurrences bordering the east side of the property, to the South Shore showings in the west.

Silver values vary considerably but average about 51 g/t Ag (1.6 oz per ton) per 1% of Pb. Zinc was reported to not correlate particularly well with lead. In fact historic references to the East shaft at the Main Zone note massive galena on the east wall of the shaft, and dominantly sphalerite on the west wall. Gold values and copper values are low, but generally higher in the zinc rich mineralization. Silicification

of the limestone is commonly associated with mineralization, and in places a crustose quartz gangue is developed. Tetrahedrite, pyrite, pyrrhotite, and chalcopyrite occur in subordinate amounts in the Pb-Zn mineralization. Where garnet-diopside skarn is developed, iron and copper sulphides are variably but commonly associated with magnetite.

Three MINFILE showings are located on the property: HPH 1 (MINFILE # 092L069), HPH 2 (MINFILE # 092L241) and HPH 3 (MINFILE # 092L242). These are referred to here as Main zone, Pond zone and Pit zone.

#### HPH 1 (Main Zone)

The Main Zone is where 1930s development was concentrated, including two shallow shafts and the 34 m long Lee adit. The shafts and a good portion of the Lee adit have been removed by excavations at the roadcut, probably to supply roadbuilding material (Figures 5, 6). Reportedly; massive to semi-massive galena-sphalerite mineralization was present in irregular bodies in silicified limestone, over an east-trending area of at least 80 m by 12 m. The main body was exposed over about 38 m length and varied in width from about 10 cm to 3.65 m. Felsite dykes crosscut the limestone in the immediate area, up to 2.5 m wide. A 1.2 m wide felsite dyke, striking N and dipping 65 degrees east, lay at the western limit of the mineralized area at surface. The dip of the sulphide bodies was apparently not parallel to the host limestone bedding, and thus they may have represented small discordant pipes.

The Lee adit was driven south to intersect the Pb-Zn mineralization seen around the East shaft. Garnetepidote-diopside-actinolite skarn with magnetite-sulphide mineralization (pyrite-pyrrhotite with minor chalcopyrite and sphalerite) was exposed near the adit portal. However, most of the adit was in limestone, with a 35 cm wide pod of massive galena-sphalerite reported near the face of the adit. This sulphide lens was followed for a short distance northwestward with a crosscut, where it plunged into the adit floor.

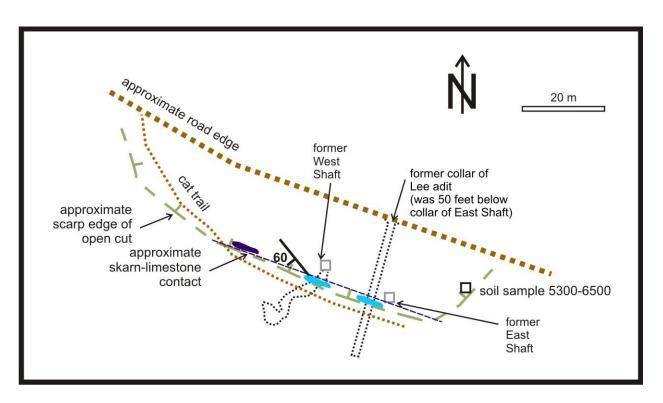
Shafts were sunk east and west of the adit portal. The East shaft was 10 m deep, and exposed galena rich mineralization on its east wall, and sphalerite rich mineralization on its west wall. Sulphides were reported to be present to the bottom of the shaft, where they were truncated by opposing dipping hairline fractures, to a width of 15 cm.

The west shaft was 12 m deep, vertical at the top, then inclined after about 5 m. At the bottom it intersected a 9 m long natural cave at its base. This natural cavity exposed some mineralization.

Reported surface sampling from the Main zone included 2.0 m chip samples assaying 3743.4 g/t Ag, 38.1% Pb and 10.6% Zn from East shaft (Wilson et al., 1987), 1.8 m chip of 1206.7 g/t Ag, 41% Pb and 25.7% Zn (East shaft; BC Minister of Mines Annual Report 1936) and 1.0 m chip of 1065.4 g/t Ag, 39.4% Pb and 12.12% Zn (Christopher, 1988).

#### HPH 2 (Pond Zone)

At least four showings of galena-sphalerite mineralization are present at the Pond Zone. Character of the mineralization is similar to the Main zone. Reported samples include 1.5 m chip sample of 267.4 g/t Ag, 3.99% Pb and 9.24% Zn (Christopher, 1988).



**Figure 5.** Sketch map of original workings at the Main zone, the present scarp edge and cat trail from excavations, the Holberg Road, and approximate contact of limestone with underlying skarn. Modified from Gunning (1932).



Figure 6. Main Zone looking south from Holberg Road. The Lee adit is to the right of the person.

#### HPH 3 (Pit Zone)

Galena-sphalerite mineralization occurs as fracture- fillings and disseminations in sheared and/or silicified Quatsino Formation limestone near a contact with Karmutsen Formation andesite. Some of the limestone is altered to skarn, and some magnetite is present. Mineralization is exposed in outcrops and trenches over a distance of 135 metres. The main mineralized zone can be traced for 76 m, while geochemical

anomalies suggest an extent over 300 m (Sutherland, 1966). Reported samples include 2.1 m chip assaying 743.9 g/t Ag, 2.55% Pb and 3.92 % Zn (Christopher, 1988).

Christopher and Magrum (1988) tabulated summary results of two 1966 drill holes by Giant Explorations Ltd. at the Pit Zone (HPH 3).

Drill hole number; from-to (feet); interval (m)	Ag g/t	Au g/t	Pb %	Zn %	Cu %		
NL-19; 38-67 feet; 8.84 m	162.7		2.8	5.6			
including 38-44 feet; 1.83 m	187.5		1.91	8.66			
and 44-67 feet; 7.01 m	156.3		3.05	4.83	0.14		
NL-20; 57-75 feet; 5.49 m	337.5	0.31	6.91	7.38			

Apparently Hisway Resources Ltd. drilled two holes at the Pit Zone in 1988 (Magrum and von Eisendel, 1988). There are drill logs for two holes testing the Pit Zone in this reference, although the collar locations are not given. However, drill hole locations (presumably for these two holes) are shown in Christopher (1988; his Figure 4). No assays were taken and no mineralization was reported.

#### Hilltop zone

The Hilltop zone (or "HPH Hilltop") is not listed on BC MINFILE, and may be related to the Pit zone (Sutherland, 1966). The showing was described as being just below the crest of the ridge on the north-facing side. Massive galena and sphalerite were sampled across a true width of 1.5 m and yielded 237.5 g/t Ag, 0.2% Pb and 14.45% Zn (Sutherland, 1966). The zone dipped west.

#### Nearby showings

The HPH-Bluff showing (MINFILE # 092L243) is located a short distance south of the property. At the Bluff zone; galena, sphalerite, pyrite and sparse chalcopyrite occur in two small lenticular areas up to 1.4 m by 15 m, exposed in trenches and pits. The zone trends S78W and dips 70 degrees S. The mineralization is present in silicified limestone of the Quatsino Formation, close to its upper contact with interbedded argillaceous limestone and rhyodacite of the Harbledown Formation. The St. Clair Fe-Cu skarn showing (MINFILE # 092L075) lies 630 m to the west-southwest of the property in Meade Creek. The Dorlon Zn-Au-Ag showing (MINFILE # 092L075) lies 470 m to the east. The Rain showing (Zn-Cu-Ag; MINFILE # 092L253) is located just east of the property boundary.

The developed Hushamu porphyry Cu-Mo-Au deposit of Northisle Copper and Gold Inc. lies four km southwest of the property.

#### 2017 EXPLORATION PROGRAM

Soil geochemistry

In March-April 2017, 37 soil samples were collected by the author and an assistant, on five short northtrending lines in the vicinity, and south of the known showings. These samples were collected as a reconnaissance, to test the viability of soil sampling here and to check for anomalies associated with the known mineralization. To the author's knowledge, no modern soil sampling had been conducted in the immediate area of the showings.

Samples sites were pre-determined, and handheld GPS units and compasses were used to navigate to selected sampling locations. Samples were collected from as close to the planned locations as possible. Soil samples were collected using tree-planting shovels or geotools. The forest duff and A horizon were dug through to access the B horizon where possible. Some contamination from overlying organic-rich A horizon occurred, particularly where this layer was thick. In some areas, a light brown to tan sandy soil lay below B horizon brown clayey soil, or locally below organic rich A horizon. This was interpreted to represent a glacio-fluvial horizon. It was sampled where no B horizon could be collected. In several areas of limestone subcrop, talus or outcrop, soil development was poor, with a thin layer of A-B organic rich soil lying directly on angular rock boulders or fragments. At other sample sites, soil development occurred adjacent outcrop, and could reasonably be interpreted as having been derived directly from the bedrock. Sample notes are presented in Appendix 3.

Samples were collected in labelled kraft paper bags, packed and shipped to Bureau Veritas Labs in Vancouver BC. Soil samples were dried at 60°C, and a 100 g split was screened to pass an 80 mesh screen (0.18 mm). From these fines, a 15 g split was dissolved in aqua regia, and the solution was analysed by Inductively Coupled Plasma (ICP) Mass Spectrometer (MS) or Atomic Absorption (AA) for a suite of 36 elements. Bureau Veritas Labs codes SS80 and AQ201 were employed. More details on laboratory methods can be found by consulting Bureau Veritas Labs website.

Two sample pulp duplicates were re-analyzed with good reproducibility. The lab employed two different internal standards, each analysed twice; and lab internal blanks were also analysed twice. Analytical results are presented in Appendix 4.

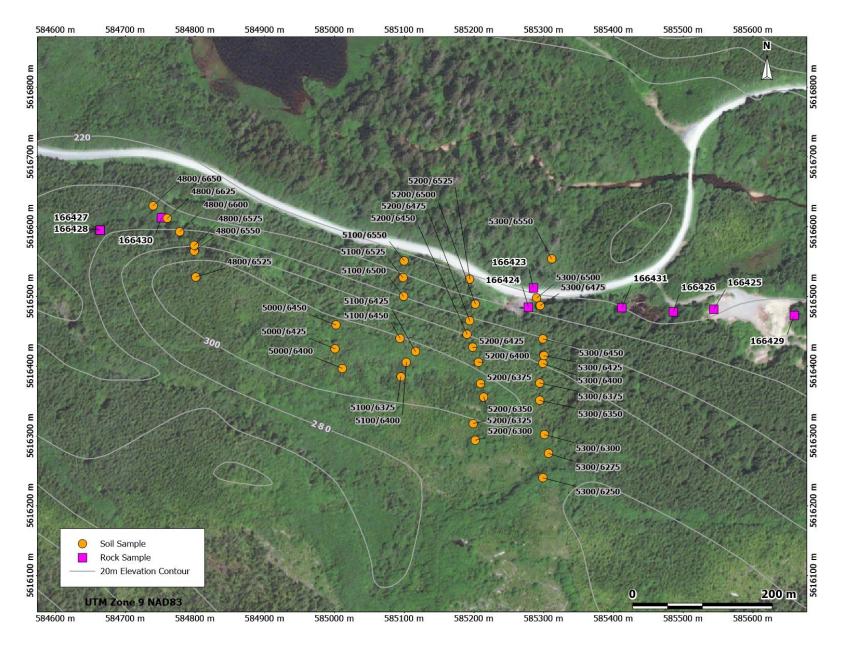
Sample location maps, and plotted results for zinc, lead, and silver are presented in Figures 7-10. A table of statistical results for a number of elements of interest is presented below. For statistical calculations, all analytical results determined to be below detection limit are considered to be half the detection limit.

	Zn	Pb	Ag	Cu	Au
Mean	1235.1 ppm	587.1 ppm	4.95 ppm	51.4 ppm	6.50 ppb
Maximum	10,000+ ppm	10,000+ ppm	73.4 ppm	282.6 ppm	45.5 ppb
Minimum	27 ppm	6 ppm	0.2 ppm	4.8 ppm	0.9 ppb
Median	645 ppm	70.5 ppm	1.2 ppm	33.5 ppm	4.4 ppb

#### Table 4. Soil analyses statistics.

The geochemical reconnaissance was successful in demonstrating that anomalous soil samples (in zinc, lead, and silver) were associated with known mineralization and also outlined possible expanded zones of mineralization.

As might be expected (and despite historic contentions), zinc and lead values showed very good correlation (correlation coefficient 0.9169). Silver values correlated somewhat better with zinc (0.7428) than lead (0.5746). Gold did not show a good correlation with silver (0.2651) or arsenic (0.1139) but rather better with copper (0.5152), perhaps reflecting porphyry copper mineralization in the Island Intrusions. Copper and iron did not correlate particularly well (0.3504) despite the Cu-Fe skarn associations in the area. Arsenic correlated well with cobalt (0.7439) and nickel (0.6168), the latter which were found tom be anomalous in some skarn rock samples collected.



**Figure 7.** Soil and rock sample locations, on Google Earth background image. The main road visible is the Port Hardy-Holberg road. UTM coordinates are NAD 83 Zone 9.

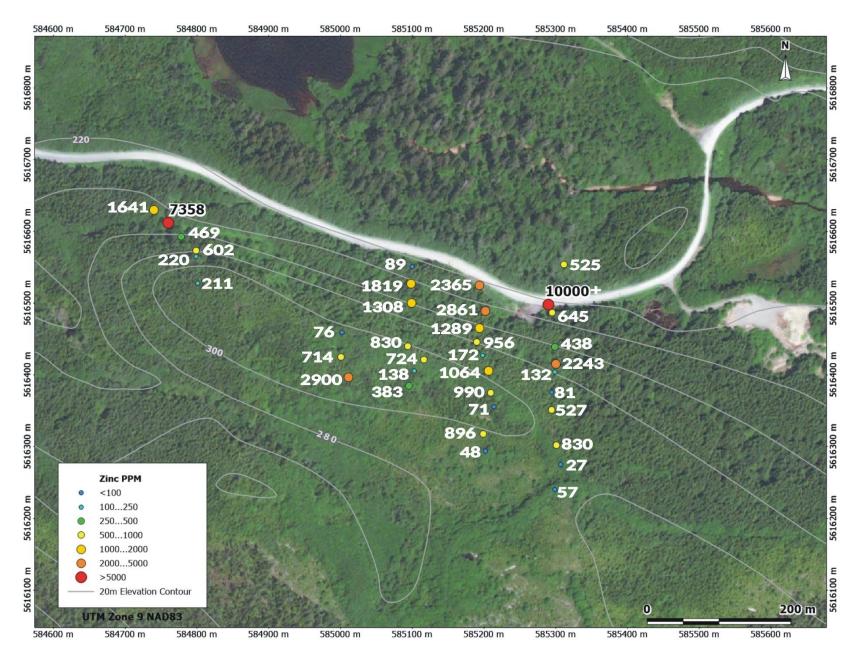


Figure 8. Zinc in soil values (ppm). High values occur at the Pit and Main zones.

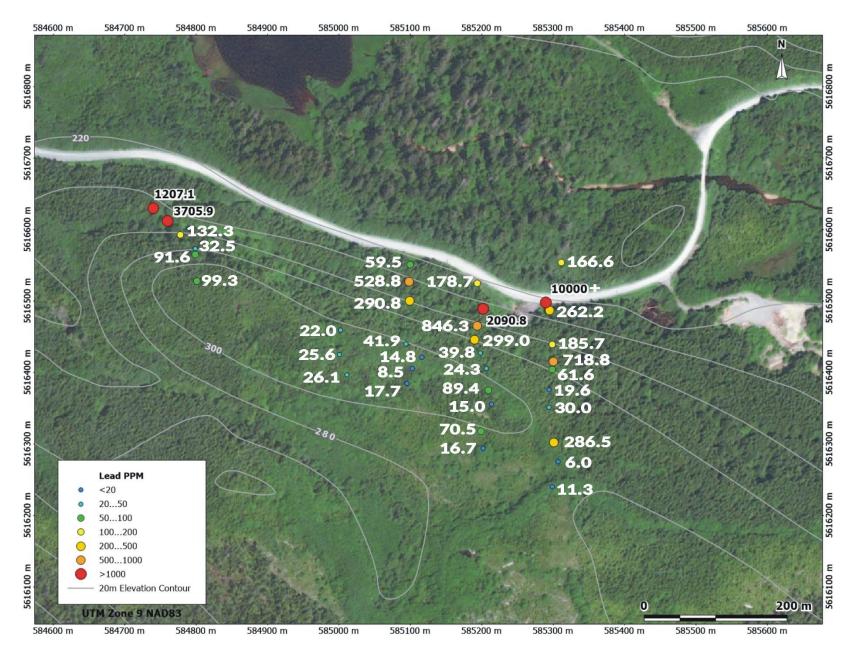


Figure 9. Lead in soil values (ppm). High values occur at the Pit and Main zones, as well as upslope and west of Main Zone.

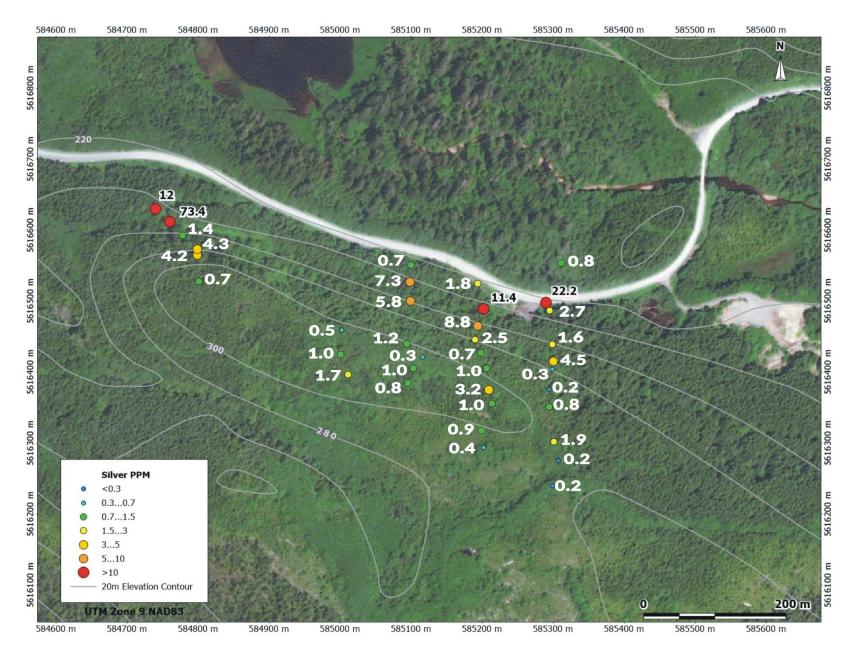


Figure 10. Silver in soil values (ppm). High values occur at the Pit and Main zones, as well as upslope and west of Main Zone.

#### Gravity Survey

SJ Geophysics Ltd. of Delta, BC, was contracted to perform a ground gravity survey over the main showing areas, and projected down-dip extensions within Quatsino limestone. The July 2017 survey included a total of sixty-eight (68) gravity readings (including duplicates, repeats and tie line loops) recorded at 44 unique survey locations.

Heavy forest cover in the area of interest inhibited GPS signals which were needed for accurate and precise topographic measurements. Also thick undergrowth hampered line of sight measurements between survey stations, which were spaced at approximate 100 m intervals. Therefore, a modified survey along roads and trails was substituted for the originally planned grid survey. This arrangement was not ideal for testing the gravity response of the known showings (Figure 11).

However, the gravity technique was shown to be appropriate for testing for relatively massive sphaleritegalena mineralization within a limestone host. The main survey line, along the Holberg Road and extending eastward along the road accessing the Ministry of Transportation gravel pits, did outline some anomalies. Although the survey line did not pass directly over known mineralized areas, gravity highs could be potentially associated with at least the Pit and Pond showings, and it was thought (quite reasonably) that the main part of the anomaly could lie south of the line and under the main ridge. Figure 12 illustrate the survey area and the gravity anomalies obtained. A logistical report and memorandum detailing with the survey (Rastad, 2017; Pezzot, 2017) are included in Appendix 5.

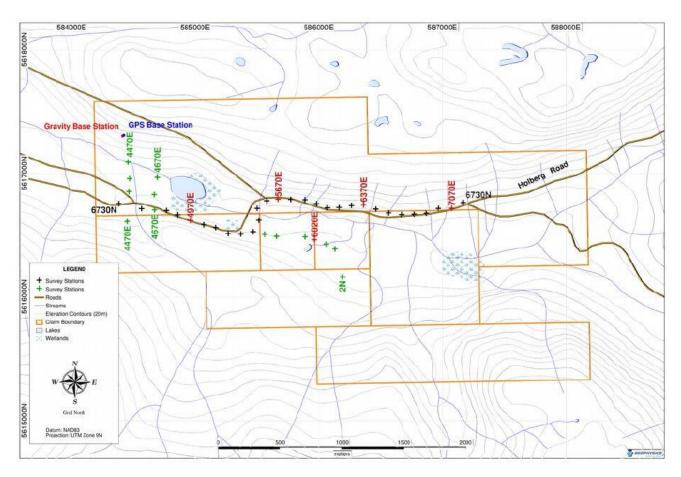
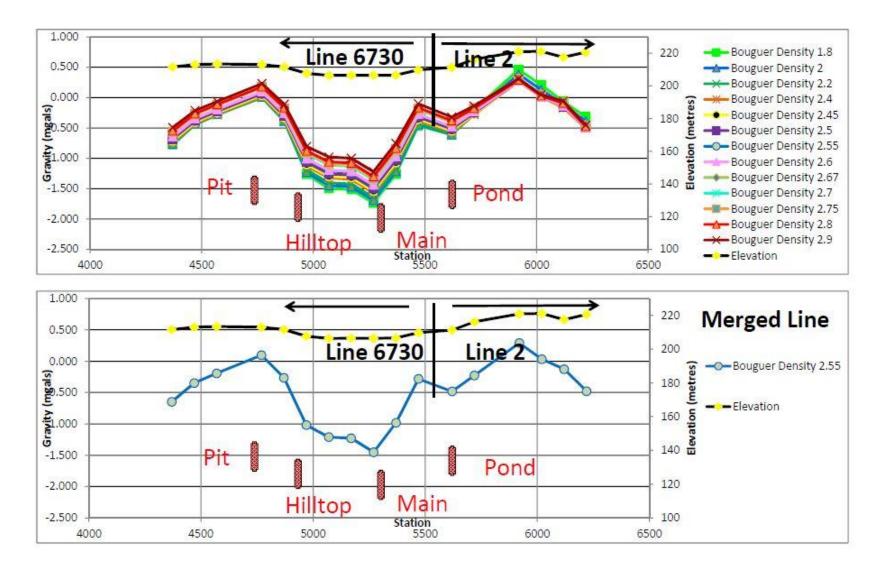


Figure 11. Gravity survey measured stations (crosses). From Rastad (2017).



**Figure 12.** Calculated Bouguer Gravity profile for merged Lines 6730 and Line 2 (from Pezzot, 2017). Line 6730 follows the Holberg Road from the west side of the claims to where the road bends north toward the Nahwitti River at station 5500 (see Figure 10). Line 2 follows a gated dirt road accessing Ministry of Transportation gravel pits east of station 5500. The top panel shows calculated Bouguer Gravity profiles for a suite of densities from 1.8 to 2.9 g/cm<sup>3</sup>, with topography and project location of main showings. Bottom panel highlights Bouguer Gravity profile calculated with preferred density of 2.55 g/cm<sup>3</sup>. Positive gravity anomalies are associated with the Pit and Pond showings.

Pezzot (2017) considered the test successful but incomplete in that it appears to show the gravity technique is applicable for this prospect. There was insufficient data to properly delineate the anomalies. Parallel survey lines will be needed to determine whether the survey line crossed over the high density source or passed nearby. Pezzot (2017) recommended proper survey grid preparation to access the dense forest and vegetation conditions across the area in order to complete the test.

### Rock sampling and Prospecting

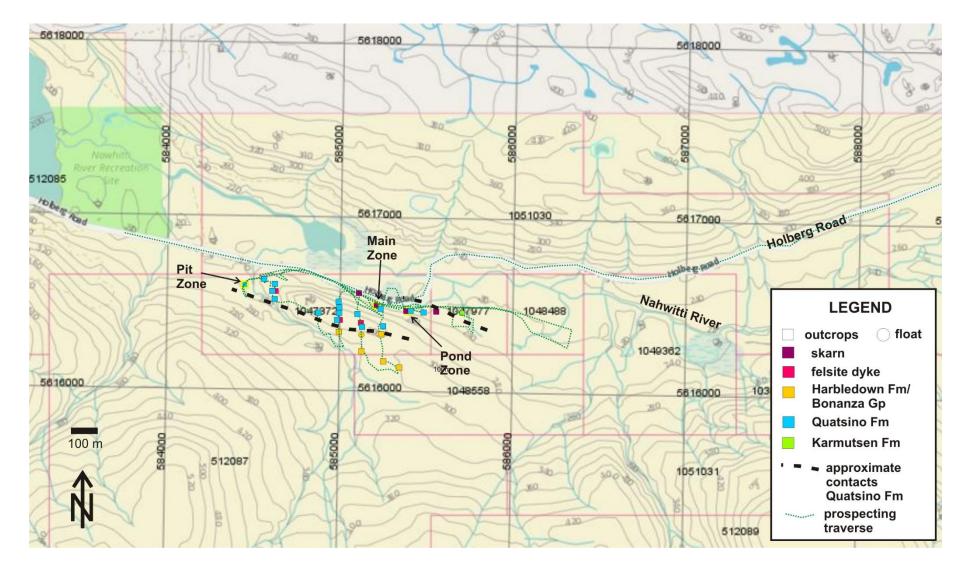
The author (and property owner) visited the property in 2017 to locate and examine the known showings. Nine rock samples were collected from float and outcrop and analysed. In addition, M. Moore P.Geo. of Precipitate Gold Corp. (the property optioner) spent one half day on the claims in general prospecting, focusing on the main showings. Moore collected several samples for possible future analysis. The author's rock sample locations are shown in Figure 6. Figure 13 shows general traverse paths for the author and M. Moore, with notes on geology encountered. Appendix 1 contains rock sample descriptions and Appendix 2 contains the assay certificates. Figure 14 shows rock locations with plotted geochemical values of lead, zinc and silver.

Significant samples from the author's collection are also tabulated below:

Sample number	Sample type	Zn	Pb	Ag (g/t)	notes
166424	Select float	20.63%	976.3 ppm	9 ppm	Main Zone near supposed location of
					East shaft
166426	20 cm chip	9.27%	6.71%	79 ppm	Pond Zone
166428	Select float	12.27%	9.40%	932 ppm	Pit Zone
166430	Select outcrop	5.32%	3.47%	296 ppm	South of Pit Zone, from 10-20 cm wide
					fracture-controlled zone

**Table 5.** Significant rock sample assays from the current program.

The rock samples collected in 2017 confirm the mineralization at the Main, Pond, and Pit zones. The highest gold value obtained was 189.9 ppb Au in sample 166424. The maximum Cu value was 2296 ppm in sample 166430. Further sampling and mapping is needed to understand the character, thickness, and extent of the mineralized areas. Three samples were collected from skarn rock in float or outcrop and these assayed from 0.13-0.18% Cu and 12-46% Fe, and interestingly, up to 1216 ppm Ni and 1703 ppm Co. Gold grades were only as high as 17.9 ppb.



**Figure 13.** Prospecting traverse map with outcrop locations and lithologies noted, along with approximate extent of Quatsino Formation outcrop. Staked areas are in light yellow shade

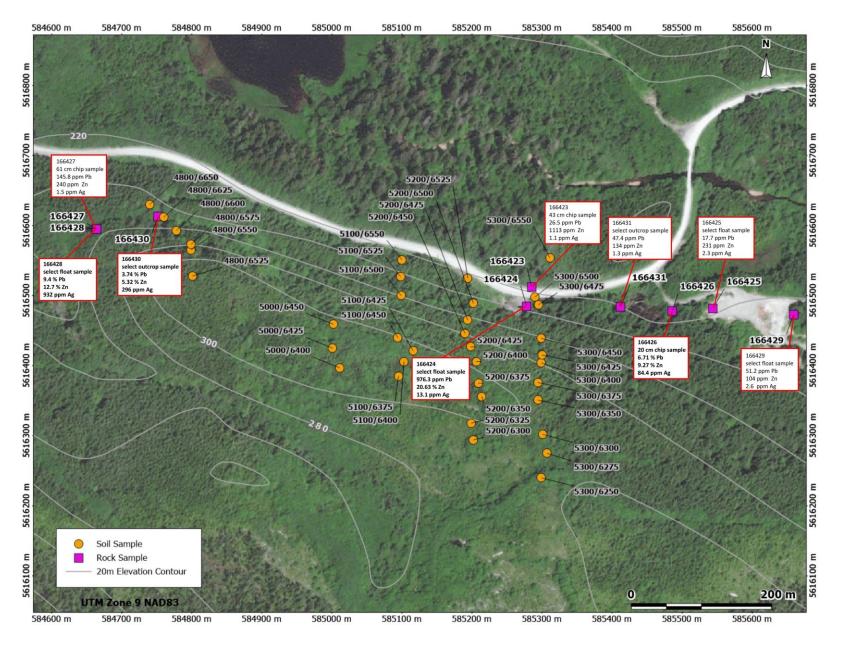


Figure 14. Rock sample locations with lead, zinc, and silver assay values.

### WRITER'S CERTIFICATE

I, Leonard (Len) Gal hereby certify that:

I am a Professional Geoscientist residing at Courtenay, BC.

I am a graduate of the University of British Columbia, B.Sc. (1986), and the University of Calgary, M.Sc. (1990);

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

I am the author of this report, which is based on a review of private and published reports, and on work on the property in March-April 2017;

I am the owner of the claims that are the subject of this report;

Dated, October 31, 2017 at Courtenay, British Columbia Revised September 26, 2018

"signed" Leonard Gal, P.Geo.

### **REFERENCES CITED**

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Magrum, M. and von Eisedel, C. (1988). Summary Report and Proposed Exploration Program; Dorlon Project. BC Assessment Report #17445B.

**Pezzot, T. (2017).** Gravity Test survey, Island Zinc Project, Vancouver Island, B.C. Unpublished memorandum to Precipitate Gold Corp. included in Appendix 5.

**Rastad, S. (2017).** Logistics report prepared for Precipitate Gold Corp. Gravity survey on the Island Zinc Project. Unpublished Report included in Appendix 5.

Salaga, S.A. (1981). Report on the Investigation of Mineral Claims HPH 1-3 and Norman 1-2, Nahwitti Lake area near Port Hardy, B.C. BC Assessment Report #9507.

**Sutherland, R. (1966).** Report on the Reconnaissance Exploration Program of Giant Explorations Ltd NPL in the Nahwitti Lake Area, Vancouver Island. BC Assessment Report #870.

**Wilson, E.M., Harrington, J. and Zimmerman, R.D. (1987).** Report on the HPH 1, 2 and 3 Mineral Claims. BC Assessment Report #16347.

## **APPENDIX 1** ROCK SAMPLE LOCATIONS and DESCRIPTIONS

Sample Number	UTM E NAD 83 Zone 9	UTM N NAD 83 Zone 9	Mineralized Zone	Sample Notes
166423	585285	5616512	Main	Representative chip across 43 cm rusty zone, fractured and broken, with at least trace pyrite and galena. East of Lee adit; rusty zone cross cuts bedding and trends about 120 degrees. Limestone in immediate HW looks rotten and possibly silicified.
166424	585278	5616485	Main	Select chip off the corner of a large silicified limestone in a 15 cm seam of massive sphalerite, irregular to vein-like. Sulphide seam is cross-cut by a calcite-filled fracture. Boulder probably from former East shaft. <b>20.63% Zn</b>
166425	585544	5616482	Pond	Float of skarn mineralized boulder at the west side of the westernmost gravel pit
166426	585486	5616478	Pond	Representative chip across 20 cm mineralized band in limestone with some fine-grained galena. At the SE side of small pond at end of an old cat road from a 4 x 12m outcrop of limestone. Orientation of mineralization difficult to determine, but seems more widespread than the 20 cm sample width. 9.27% Zn, 6.71% Pb, 84.4 ppm Ag
166427	584664	5616595	Pit	Representative chip across 60 cm of slightly rusty limestone associated with calcite-filled fractures. Bedding in limestone here is about 112/70S. Outcrop in a 4x15 m open cut along old road. Possible skarn development (with epidote) on footwall.
166428	584664	5616595	Pit	Select sample from blasted boulder of rusty, massive to semi- massive galena-sphalerite. Came from nearby but not obviously from the adjacent outcrop. 12.7% Zn, 9.4% Pb, 932 ppm Ag
166429	585659	5616473		Select from several pieces of angular float of pyrrhotite-rich (+ pyrite, sphalerite?) skarn, pushed up by dozer or excavator at the east side of the westernmost gravel pit. Probable Karmutsen volcanics.
166430	584752	5616613	South of Pit Zone	Select sample from a 10-20 cm slightly rusty, fractured zone, at the west side of a cliffy outcrop in limestone, near an adjacent felsite dyke. Pyrite, sphalerite, possibly Cu sulphides and malachite; possibly fracture-controlled mineralization. <b>5.32%</b> <b>Zn, 3.74% Pb, 296 ppm Ag</b>
166431	585412	5616484	West of Pond Zone	Representative sample from 20-30 cm band of magnetite- sulphide skarn at the west end of a limestone outcrop, with a small spring issuing from its base.

# APPENDIX 2 ROCK ASSAY CERTIFICATE:

# APPENDIX 3 SOIL SAMPLE LOCATIONS AND DESCRIPTIONS

Sample Number	UTM E NAD 83	UTM N NAD 83	Horizon, Depth	Colour	Sample Notes	
Tumber	Zone 9	Zone 9	(cm)			
5300-	585311	5616554	Ah?, 20	black	saturated, high organics, flat slope	
6550	505511	5010554	7111., 20	black	saturated, ingli organies, nat stope	
5300-	585290	5616498	B-C, 10	brown	angular rock fragments, steep slope	
6500	505270	5010190	D C, 10	biown	ungului rock nuginentis, steep stope	
5300-	585295	5616487	B, 25	dark brown	high organics with angular rock fragments, steep slope	
6475	000270	0010107	2, 20		ingi organies with angular room magnetics, seeep stope	
5300-	585200	5616439	B, 35	brown	slightly clayey, saturated with some rounded pebbles,	
6450			,		steep slope	
5300-	585300	5616415	A-B, 25	black	pretty high organics, lying above limestone subcrop, steep	
6425			,		slope	
5300-	585299	5616404	B, 35	dark brown	moderate-high organics but also angular limestone	
6400					fragments, steep slope	
5300-	585294	5616376	B-C, 35	light orange -	angular light coloured sedimentary or tuff fragments,	
6375				tan	steep slope	
5300-	585294	5616351	B, 30	light brown	clayey sand but some contamination from overlying	
6350					organics, steep slope	
5300-	585301	5616302	B?, 30	dark brown	wet to saturated organic rich mineral soil, flat slope	
6300						
5300-	585307	5616275	B, 20	light orange -	high organics, sandy with rounded glacial? Boulders,	
6275				tan	moderate slope	
5300-	585299	5616240	B, 50	orange-brown	moderate organics, fine sandy with coarse angular	
6250					fragments, moderate slope	
5200-	585194	5616525	B?, 45	dark brown	clayey, high organics, underlying C horizon (? or glacial	
6525					seds) are light brown-tan, flat slope	
5200-	585202	5616489	B, 30	dark brown	clayey, high organics, steep slope	
6500						
5200-	585194	5616465	B, 20	dark brown	silty-sand with some rock fragments, steep slope	
6475	595100	5616446	D.C. 25	daula anaza	alarara anna an anlar na al-fra annanta, ataon, alara	
5200- 6450	585190	5616446	B-C, 25	dark grey - black	clayey, some angular rock fragments, steep slope	
5200-	585198	5616427	B, 30		clayey, moderate organics, steep slope	
5200- 6425	303190	5010427	в, 50	brown	clayey, moderate organics, steep slope	
5200-	585206	5616406	B, 20	orange	fine sandy, moderate organics, steep slope	
6400	365200	5010400	<b>D</b> , 20	orange	The sandy, moderate organics, steep slope	
5200-	585209	5616375	B, 30	dark brown –	clayey, high organics, flat slope	
6375	505207	5010575	<b>D</b> , 50	slight orange	encycy, mgn organies, nat stope	
5200-	585214	5616356	B?, 40	light tan	possibly glaciofluvial, moderate slope	
6350	000211	0010000	2.,	ingine can		
5200-	585199	5616318	B, 15	red-orange		
6325			_,	8-		
5200-	585202	5616294	B, 20	brown	clayey above C horizon, flat slope	
6300						
5100-	585100	5616551	B, 55	dark brown	clayey, high organics, flat slope	
6550						
5100-	585098	5616527	B, 20	dark brown –	slightly clayey, high organics with angular rock	
6525				black	fragments, moderate slope	
5100-	585099	5616500	B, 20	dark brown	clayey, high organics with angular rock fragments,	
6500					moderate slope	

Sample Number	UTM E NAD 83 Zone 9	UTM N NAD 83 Zone 9	Horizon, Depth (cm)	Colour	Sample Notes	
5100- 6450	585094	5616440	B, 30	dark brown	high organics with angular limestone and felsite, steep slope	
5100- 6425	585116	5616421	B, 30	dark brown – black	saturated, high organics, some contamination from underlying ?glaciofluvial material, steep slope	
5100- 6400	585103	5616406	B?, 40	dark brown	high organics, flat slope	
5100- 6375	585095	5616385	B-C, 15	orange-red	sandy	
5000- 6450	585002	5616459	B-C, 60	brown-black	clayey, flat slope	
5000- 6425	585001	5616425	B-C, 20	orange-red	fine sandy with angular rock fragments, flat slope	
5000- 6400	585011	5616397	B-C, 45	brown-black	clayey, some rock fragments and some ?glaciofluvial tan- brown sediment contamination	
4800- 6650	584740	5616630	B, 30	dark brown	clayey, high organics, flat slope	
4800- 6625	584760	5616612	B, 10	brown-grey	clayey, moderate slope	
4800- 6600	584778	5616593	A-B, 15	grey-black	meagre soil development adjacent limestone outcrop, steep slope	
4800- 6575	584799	5616573	C, 15	reddish	probably derived from adjacent outcrop, steep slope	
4800- 6550	584799	5616565	A-B, 20	brown-grey	high organics on talus, subcrop with poor soil development, steep slope	
4800- 6425	584801	5616528	B, 40	brown-grey	clayey, some organics and some angular rock fragments, nearby outcrop limestone, moderate slope	

### APPENDIX 4 SOIL ASSAY CERTIFICATE

## APPENDIX 5 GRAVITY SURVEY LOGISTICS REPORT, MEMO AND DATA

### APPENDIX 6 STATEMENT OF COSTS With Personnel Involved

Item	Provider	Particulars	Dates	Cost (\$)
Gravity Survey	SJ Geophysics Ltd.,	A. Tryon	23-26 July 2017	20,639.01
	Delta BC	A. Visser		
Soil and Rock	Len Gal P.Geo.	3.5 days @ 550.00	31 Mar- 4 Apr	2,975.00
Collections	A. Korpach B.Sc.	3.5 days @ 300.00		
	various	accommodation, food,		983.61
		vehicle costs,		
		shipping, etc.		
Assays	Bureau Veritas,	37 soils		678.32
	Vancouver BC			
		9 rocks (including overlimit assays)		263.56
Prospecting, site	M. Moore P.Geo.	0.5 day @ 550.00	24 July 2017	275.00
visit	various	accommodation, food,		460.00
		vehicle costs, etc.		
Report	Len Gal P.Geo.	fixed cost	Sept-Oct 2017	1,000
TOTAL				27,274.50