

# Ministry of Energy, Mines & Petroleum Resources Mining & Minerals Division BC Geological Survey



TYPE OF REPORT [type of survey(s)]: Geochemical/Geophysical	TOTAL COST:)\$19,800.00
AUTHOR(S): J. T. Shearer, M.Sc. P.Geo.	SIGNATURE(S):
NOTICE OF WORK PERMIT NUMBER(S)/DATE(S):	YEAR OF WORK: 2017
STATEMENT OF WORK - CASH PAYMENTS EVENT NUMBER(S)/DATE(S): 56	71933
PROPERTY NAME: LeMare	
CLAIM NAME(S) (on which the work was done):	
COMMODITIES SOUGHT: Cu/Au  MINERAL INVENTORY MINFILE NUMBER(S), IF KNOWN:	
MINING DIVISION: Nanaimo	NTS/BCGS: 92L/5 (92L.031)
DWNER(S):  1) J. T. Shearer  25 '06 " LONGITUDE: 127  20 25 '06 " LONGITUDE: 127	o 53 '10 " (at centre of work)
WAILING ADDRESS: Unit 5 - 2330 Tyner Street	
Port Coquitlam, BC V3C 2Z1	
OPERATOR(S) [who paid for the work]:  1) Same as above  2	
MAILING ADDRESS: Same as above	
PROPERTY GEOLOGY KEYWORDS (lithology, age, stratigraphy, structure, all Mafic to felsic volcanics of the Jurassic Bonanza Group rocks under	eration, mineralization, size and attitude): erlie the Property which have been altered to clay
minerals and mineralized with copper minerals over a wide are 0.2	
REFERENCES TO PREVIOUS ASSESSMENT WORK AND ASSESSMENT REPO	ORT NUMBERS:
Assessment Reports: 30608; 29686	

TYPE OF WORK IN EXTENT OF WORK (IN METRIC UNITS)		ON WHICH CLAIMS	PROJECT COSTS APPORTIONED (incl. support)	
GEOLOGICAL (scale, area)				
Ground, mapping				
Photo interpretation				
GEOPHYSICAL (line-kilometres) Ground				
Magnetic	ground	546543/697343	9,000	
Electromagnetic	V	t	- 1	
Induced Polarization				
NAME AND ADDRESS OF THE PARTY O				
44.4 may 2				
GEOCHEMICAL (number of samples analysed for)				
Soil				
Silt				
Rock	15 Rock	546543/657343	10,800	
Other		/		
DRILLING (total metres; number of holes, size)				
and the second s				
Non-core				
RELATED TECHNICAL				
Sampling/assaying				
Petrographic				
Mineralographic				
Metallurgic				
PROSPECTING (scale, area)				
PREPARATORY / PHYSICAL				
Line/grid (kilometres)				
Topographic/Photogrammetric (scale, area)				
Legal surveys (scale, area)				
Road, local access (kilometres)/tr	rail			
Trench (metres)				
Underground dev. (metres)				
Other				
		TOTAL COST:	\$19,800.00	

BC Geological Survey Assessment Report 37248

# GEOCHEMICAL and GEOPHYSICAL ASSESSMENT REPORT on the LE MARE COPPER-GOLD PROPERTY

Nanaimo Mining Division MX-8-253

N.T.S.: 92 L/5 (092L.031 and .041)

50° 25' 06"N., 127° 53' 10" W.

U.T.M.: 5585732 N., 579137 E.

**Event # 5671933** 

for

Homegold Resources Ltd.
5-2330 Tyner Street,
Port Coquitlam, British Columbia, V3C 2Z1

by

J. T. Shearer; M.Sc., P.Geo. (BC & Ontario)

November 2, 2017

Fieldwork completed between March 28, 2016 and November 2, 2017

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#### **SUMMARY**

The Le Mare property comprises 12 map-staked claims covering 2,677.24 hectares in the Nanaimo Mining Division and in the Rupert Land District of western British Columbia (Figures 1 and 3). It is located on N.T.S. map sheet 92 L/5, as well as on B.C. map sheets: 092L 031and 041. All claims comprising the property are in good standing until January 5, 2012. (Additional Assessment credits are available to extend the expiry date for several years.)

The mineral claims comprising the Le Mare property are owned by J.T. Shearer; M.Sc., P.Geo.

The Le Mare hydrothermal system is located on crown land in the southwestern part of the property area. The Mah-te-nicht No. 8 Indian Reserve is located adjacent with the northeastern property boundary, about 4.5 km (2.75 mi) north-northeast of, and in a different drainage from the Le Mare hydrothermal system. However, if ocean-going barge loading facilities were to be developed on the south shore of Quatsino Sound, the Quatsino Band would become involved in the design and construction of those facilities. J.T. Shearer has been consulting with the Quatsino Band Council since February, 2007 with regard to exploration of the Le Mare property. There is no plant or equipment, inventory, mine or mill structure on these claims. Currently, an environmental bond of \$4,000 is posted under Permit No. MX-8-253 for road renovation, the development of potential drill sites and diamond drilling.

The Le Mare property is located near the northwestern end of Vancouver Island. It is bounded in part to the west by the Pacific Ocean and to the north by Quatsino Sound. A massif in the northwestern part of the property culminates in the peak of Mount Bury at an elevation of about 610 m (2,000 ft.). Another massif that hosts the Le Mare hydrothermal system occupies the property's southwestern part. Le Mare Peak is a 762-m (2,500-ft) high promontory located near the massif's centre. These steep-sided massifs are separated by the relatively flat Mahatta and Culleet creek valleys. The surface of Le Mare Lake, located in the Culleet Creek valley near the property centre, is at an elevation of about 25 m (82 ft.).

About 85% of the original west-coast rain forest in the property-area has been clear-cut during the past 40 years. Most of the slopes underlain by the Le Mare hydrothermal system are either bare, or covered with dense juvenile secondary forest growth. Little timber suitable for mining is left on the property.

The northern end of Vancouver Island is accessible by boat, barge, and by road via the Island Highway (B.C. Highway 19) which transects the town of Port McNeill on the island's northeastern coast. B.C. Highway 25, a secondary paved road, connects Port McNeill with Port Alice located near the head of Neroutsos Inlet. Access from Port Alice to the Le Mare property area is via a series of well-maintained logging roads passable by 2-wheel drive vehicles during all times of the year. Most of the property-area is covered by a system of logging roads in various states of repair. Barge and ship loading facilities to support a large scale mine could be developed on the sheltered southern shore of Quatsino Sound near the property's northern boundary.

Port McNeill and Port Alice are the nearest towns with sufficient supply and service capacity to support an exploration or drilling program. The industrialized areas of southwestern British Columbia are readily accessible via water, road, and air from Port McNeill and Port Hardy. Accommodations and basic supplies for an exploration field crew are available at Port Alice and Mahatta Camp, located 8km east of the claims.

The Quatsino Sound area experiences cool wet winters and cool, moderately wet summers. Snow falls in the property-area by December and stays on the ground very briefly at higher elevations. The current exploration target, the Le Mare hydrothermal system, is on crown land with no special restrictions on development thereon.

The Le Mare property is west of the major electrical power source at Port Alice power transmission line. Ocean-going barge transport to the property area would reduce the cost of fuel and supplies. Creeks south and east of the property area could be dammed in order to generate power for a mine-mill complex. Water for milling could be drawn from Culleet or Gooding creeks or from the outflow from a nearby generating station. An acceptable mill

site and tailings storage areas could be constructed in the floors of the Gooding Creek and upper Culleet Creek valleys.

The Port McNeill-Port Hardy area has already demonstrated that it was able to attract personnel to work at the Island Copper mine located between the two towns between 1970 and 1996. That area has sufficient amenities to attract the people needed to operate a new mine near to it.

The Le Mare property hosts mostly mafic volcanic rocks of the Early to Middle Jurassic-age Bonanza Supergroup, including auto-breccias, lahars, and minor amounts of tuff and other pyroclastic beds. Rhyolitic rocks comprise a major amount of the stratigraphy in the property-area. These volcanic rocks are intruded by felsic dykes that may be equivalent to the rhyodaciteitic porphyries that are associated with mineralization at the Island Copper Cluster deposits located about 32 km (19.3mi) east-northeast of the Le Mare hydrothermal system. The volcanic rocks at the Le Mare hydrothermal system have deformed into a series of open to close outcrop-scale drape-folds related to local intrusion. Regional and contact metamorphism do not exceed lower the greenschist facies.

The Le Mare hydrothermal system appears to have been only relatively shallow unroofing by erosion. The top of the potassic alteration zone is exposed along the crests of Le Mare and Gooding ridges, located between Le Mare Lake and Gooding Cove in the southwestern part of the property. Local magnetic field gradient indicates that this system occupies a 5 X 3 km (3.05 X 1.83 mi) or 15km2 (5.6 mi2) oval-shaped area, that may be hosted by a dilational jog in a regional right-lateral fault system. The proposed fault system is similar to the one that hosts the Island Copper Cluster deposits near Port McNeill and Port Hardy, British Columbia.

At surface, copper mineralization occurs in discrete showings-areas, located preferentially in the central parts of sub-vertical hydrothermal plumes. These plumes have core-zones of orthoclase-quartz-biotite (potassic) alteration, enveloped in siliceous exteriors. Orthoclase-quartz-biotite alteration is succeeded by quartz-jasper alteration; both phases are mineralized with chalcopyrite, and minor amounts of bornite. This potassic alteration is accompanied by co-incident soil-copper and magnetic anomalies. Discovering economically viable concentrations of copper mineralization within the Le Mare hydrothermal system depends on the successful identification of zones where these hydrothermal plumes and copper occurrences coincide.

Molybdenum enrichment occurs in areas flanking phyllic alteration in a 600-m (1,968.5-ft) diameter alteration plume, covering a 0.28 km² (0.1 mi²) area in the eastern part of system in the South Gossan zone. Another, much less extensive plume of argillic-phyllic alteration is exposed between the Culleet Creek zone and Culleet Lake in the system's northwestern part. These two plumes cover less than 2% of the total exposure area of the Le Mare hydrothermal system. Argillic-phyllic alteration post-dates and overprints potassic alteration.

Both sample results and the distribution of soil-copper and molybdenum anomalies; demonstrate that copper and molybdenum mineralization are associated with early potassic and subsequent argillic-phyllic-viialteration events respectively. They occur together in significant amounts only where molybdenum enrichment has overprinted that of copper.

Highly anomalous gold values were discovered in the central part of the Le Mare hydrothermal system mostly west and southwest of the New Destiny Showing in soil samples. Values range up to 947ppb gold on Claim 657343. The New Destiny showing was trenched with a tracked excavator and returned >0.2% copper over 200 metres.

Most aspects of the Le Mare hydrothermal system are similar with those of the Island Copper Cluster deposits. Geology, alteration, and mineralization at surface at the Le Mare hydrothermal system correspond with those attributes at the Island Copper mine above the main deposit. These similarities indicate that the Le Mare hydrothermal system may host a calc-alkalic porphyry copper-molybdenum deposit of the Island Copper Cluster type.

The Early Jurassic-age land surface above the Le Mare hydrothermal system and whatever near surface hot-spring environment that it may have hosted, has been lost to erosion. Only a few narrow fault controlled, advanced argillic alteration occur in the argillic-phyllic alteration plume in the South Gossan zone. They attest to the former existence of acid leaching with the alteration system.

Most exploration has been conducted in the northeastern part of the Le Mare hydrothermal system; its southeastern part remains sparsely explored to unexplored. Six BQ diamond drill holes penetrated the northeastern margin of the Le Mare system in 1992. One hole that penetrated the Culleet Creek potassic alteration plume intersected five 2-m (6.56-ft) and one 4.7-m (15.42-ft) long intersections containing from 500 to 959 ppm copper, which is similar to the tenor of copper mineralization in nearby trenches. Copper mineralization at surface is locally quite variable. Such variability should be expected in mineralization located near the top of the potassic alteration zone of a porphyry copper-molybdenum deposit. Less than 1% of the surface area of the Le Mare hydrothermal system has been drilled.

Trenching in 2011, followed by 3m wide chip sampling on the New Destiny Copper Showing (discovered in late 2009) returned a 180m continuous chip samples assaying copper values averaging 0.25% Copper.

The program in 2017 included a small ground magnetometer survey was completed around the New Destiny Showing (see Figure 28). A fluxgate unit was used and a loop base station during the survey was used at frequent intervals. Background levels are below 1000 gammas and the area over the New Destiny Showing is over 2000 gammas.

Proposed drill locations are plotted on Figure 13 to test the mineralized zone (New Destiny Showing) and ground magnetometer anomaly.

Respectfully submitted,

J. T. Shearer, M.Sc., P.Geo. (BC & Ontario)

## INTRODUCTION

The author, J. T. Shearer; M.Sc., P.Geo. (BC & Ontario) was commissioned by Homegold Resources Ltd. to complete an Assessment Work program on the Le Mare property.

This report is based upon published records of the results of previous exploration in the Le Mare property-area, of property examinations and regional geological mapping conducted by geologists of the British Columbia Geological Survey and of the Geological Survey of Canada, the results of the 2009, and recent exploration programs. Citations of that work are in standard format (section 10.0, this report). The 2016 exploration program of geological mapping and examination of workings was conducted or supervised by J.T. Shearer; M.Sc., P.Geo., the property owner assisted by T. Ruks, Ph.D. and his crew.

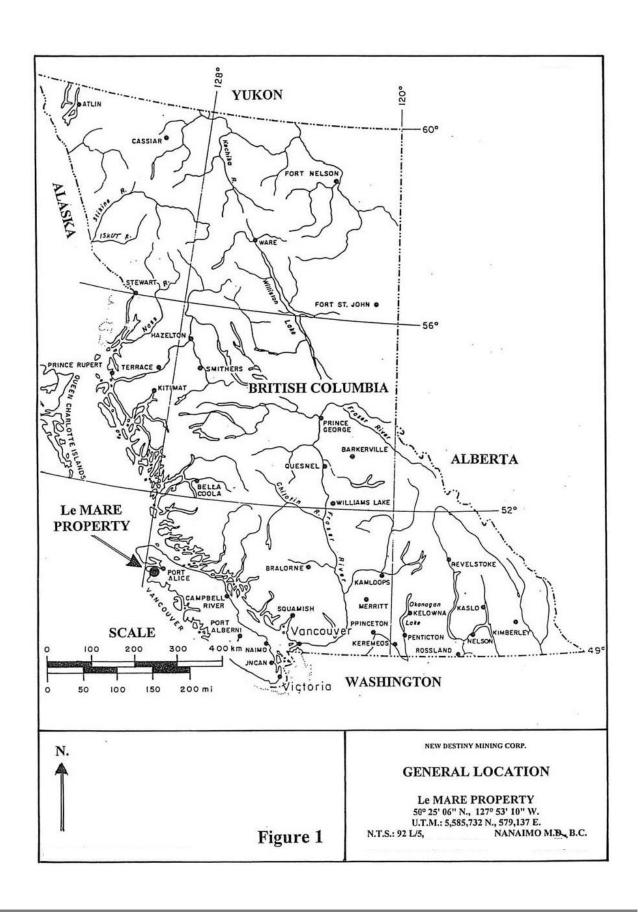
The program in 2017 included a small ground magnetometer survey was completed around the New Destiny Showing (see Figure 28). A fluxgate unit was used and a loop base station during the survey was used at frequent intervals. Background levels are below 1000 gammas and the area over the New Destiny Showing is over 2000 gammas.

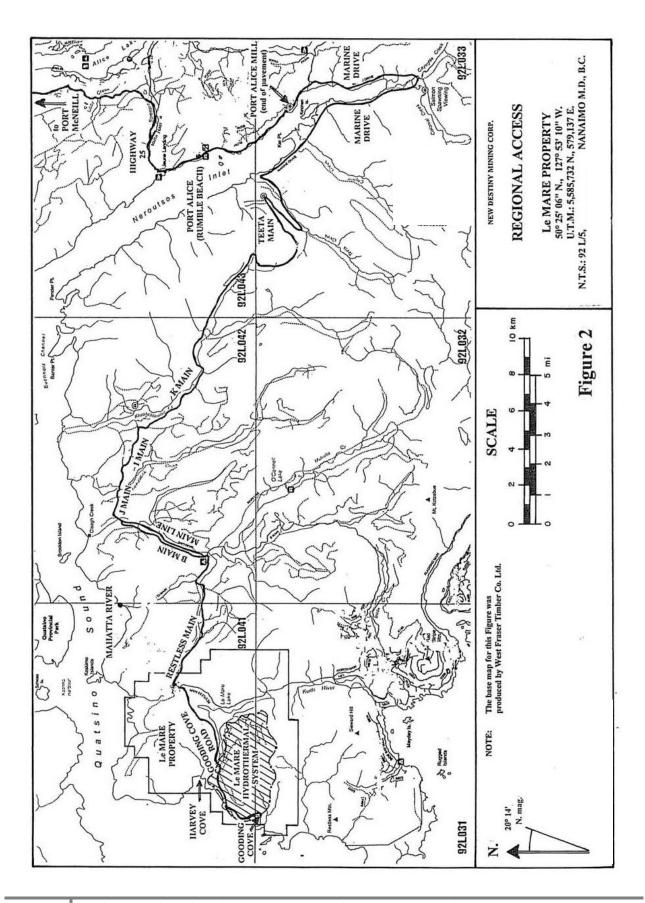
Proposed drill locations are plotted on Figure 13 to test the mineralized zone (New Destiny Showing) and ground magnetometer anomaly.

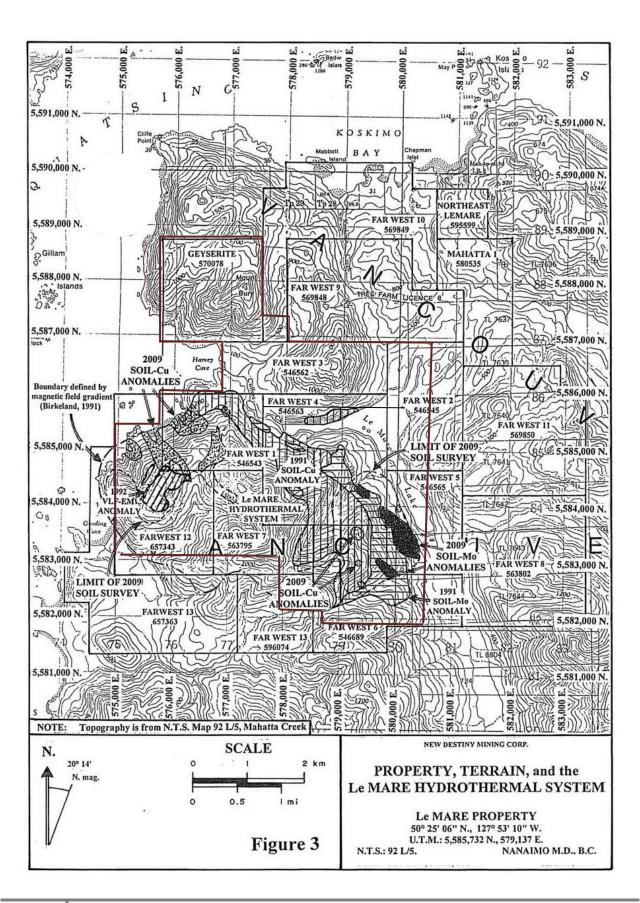
# PROPERTY DESCRIPTION AND LOCATION

The Le Mare property comprises 12 map-staked claims covering 2,677.24 hectares in the Nanaimo Mining Division and in the Rupert Land District of western British Columbia (Figures 1 and 3). It is located on N.T.S. map sheet 92 L/5 as well as on B.C. map sheets: 092L 031 and 041.

The mineral claims comprising the Le Mare property are owned by J.T. Shearer; M.Sc., P.Geo. (Table 1).







## **CLAIM STATUS**

The tenures of the twelve (12) claims comprising the Le Mare property (Figure 3) are as follow:

Table 1
Map-staked Claims Comprising the Le Mare Property

Tenure Number	Claim Name	Area: hectares	Record Date	Expiry Date	Owner
546543	Far West 1	247.09	December 4, 2006	March 6, 2019	J.T. Shearer
546545	Far West 2	205.90	December 5, 2006	March 6, 2019	J.T. Shearer
546562	Far West 3	185.29	December 4, 2006	February 6, 2019	J.T. Shearer
546563	Far West 4	514.83	December 5, 2006	February 7, 2019	J.T. Shearer
546565	Far West 5	164.78	December 5, 2006	February 7, 2019	J.T. Shearer
546689	Far West 6	391.44	December 6, 2006	February 7, 2019	J.T. Shearer
563795	Far West 7	247.18	July 29, 2007 February 8, 2019		J.T. Shearer
569849	Far West 10	20.58	November 10, 2007	February 8, 2019	J.T. Shearer
570078	Geyserite	123.50	November 14, 2007	February 8, 2019	J.T. Shearer
596074	Far West 13	41.20	December 14, 2008	February 5, 2019	J.T. Shearer
657343	Far West 12	453.10	October 22, 2009	February 5, 2019	J.T. Shearer
1043056	Bois 1	82.35	March 26, 2016	March 26, 2019	J.T. Shearer

Total 2,677.24ha

Cash may be paid in lieu if no work is performed. Following revisions to the Mineral Tenures Act on July 1, 2012, claims bear the burden of \$5 per hectare for the initial two years, \$10 per hectare for year three and four, \$15 per hectare for year five and six and \$20 per hectare each year thereafter.

These are map-staked claims that are located on the computer-generated provincial mineral tenure grid (www.mtonline.bc.ca).

Exploration damage bonds are required if exploration programs such as, line cutting for grid establishment, road building, trenching, and drilling that result in significant surficial disturbance are conducted. Currently, a bond of \$4,000 is posted under Permit No. MX-8-253 for road renovation and the development of potential drill sites. It is anticipated that the cost of bonds for the second phases of the recommended program will be about \$10,000 respectively. Applications for revisions to permit No. MX-8-253 for these potential phases of work have not been made yet.

## **ACCESSIBILITY**

The Le Mare property is located near the northwestern end of Vancouver Island. It is bounded in part to the west by the Pacific Ocean and to the north by Quatsino Sound. A massif in the northwestern part of the property culminates in the peak of Mount Bury at an elevation of about 610 m (2,000 ft.). Another massif that hosts the Le Mare hydrothermal system occupies the property's southwestern part. Le Mare Peak is a 762-m (2,500-ft) high promontory located near the massif's centre. These steep-sided massifs are separated by the relatively flat Mahatta and Culleet Creek valleys. The surface of Le Mare Lake, located in the Culleet Creek valley near the property centre, is at an elevation of about 25 m (82 ft.) (Figure 3).

About 70% of the original west-coast rain forest in the property-area has been clear-cut during the past 20 years. Most of the slopes underlain by the Le Mare hydrothermal system are either bare or covered with dense juvenile secondary forest growth. Little timber suitable for mining is left on the property.

The northern end of Vancouver Island is accessible by boat, barge, and by road via the Island Highway (B.C. Highway 19) which transects the town of Port McNeill on the island's northeastern coast. B.C. Highway 25, a secondary paved road, connects Port McNeill with Port Alice located near the head of Neroutsos Inlet (Figure 2). Access from Port Alice to the Le Mare property area is via: Marine Drive, Teeta Main, K Main, I Main, J Main, B Main, and Restless Main roads. These logging roads are well-maintained and passable by 2-wheel drive vehicles during drier times during the year. The trip takes from 1.5 to 2 hours depending on road conditions. Most of the property-area is covered by a system of logging roads in various states of repair. Barge loading facilities to support an open-pit mine could be developed on the sheltered southern shore of Quatsino Sound near the property's northern boundary.

Port McNeill is the nearest town with sufficient supply and service capacity to support an exploration or drilling program. Accommodations and basic supplies to support an exploration field crew are available at Port Alice and Winter Harbour, located northwest of Quatsino Sound. During the 2009 exploration program, the crew stayed in the camp at Mahatta River (Figure 2).

The Quatsino Sound area experiences cool wet winters and cool, moderately wet summers. Snow falls in the property-area by December and stays on the ground very briefly at higher elevations.

The current exploration target, the Le Mare hydrothermal system, is on crown land with no special restrictions on development thereon (Figure 3). Upon development permitting, one normally is able to secure surface rights necessary to conduct a permitted mining operation. The writer knows of no legal impediment to New Destiny Mining Corp. being able to secure such surface rights as part of the permitting process.

Creeks south and east of the property area could be dammed in order to generate power for a mine-mill complex. Water for milling could be drawn from Culleet or Gooding creeks or from the outflow from a nearby generating station. An acceptable mill site and tailings storage areas could be constructed in the floors of the Gooding Creek and upper Culleet Creek valleys (Figure 3).

Both the mining business and the pool of professionals and skilled tradesmen who serve it are international and mobile. The Port McNeill-Port Hardy area has already demonstrated that it was able to attract personnel to work at the Island Copper mine located between the two towns. That area has sufficient amenities to attract the people needed to operate a new mine near to it.

#### HISTORY

Chronology of Exploration of Claims in the Le Mare Property-area from 1979 to Present

A.O. Birkeland (1991) briefly described the pre-1979 exploration throughout the area covered by the current Le Mare property as follows:

During the late 1960s and early 1970s, exploration for porphyry Cu-Mo-Au deposits similar to the Island Copper Mine operated by BHP Utah was conducted by several companies on the western portion of Vancouver Island. The earliest reference to claim staking activity in the LeMare area was during 1970 when the Cam claims were recorded along the north shore of LeMare Lake. No assessment work was filed at that time.

Birkeland, A.O.; 1991: p. 4.

1979: The Le Mare 1 (477) and Le Mare 2 (496) claims comprising 4 units each were staked along the northwestern shore of Le Mare Lake and along the shore road southwest of Harvey cove respectively (Figure 4). The claims were recorded on November 9 and 13, 1979.

D.G. Leighton and Associates Ltd. conducted a prospecting program on the Le Mare claims for British Newfoundland Exploration Ltd. (BRINCO) (Bilquist, 1980) (Figure 4). A two-man crew spent four days prospecting road exposures, taking a total of 28 rock samples. Finely disseminated vein pyrite with sporadic chalcopyrite, bornite, and malachite were found in roadside exposures of felsic volcanic rocks along the northwestern shore of Le Mare Lake (Figure 4) on the Le Mare 1 (477) claim. Chip samples from the Le Mare Lake section contained from 0.13 to 0.14% copper. Grab samples contained up to 0.49% copper. Secondary potassium feldspar was noted. On the Le Mare 2 (496) claim, andesitic flows and dacitic pyroclastic rocks along the road southwest of Harvey Cove was found to contain fracture-related pyrite, chalcopyrite, azurite, and sphalerite. Samples from there contained from 0.2 to 1.4% copper (Figures 4 and 18). BRINCO was unimpressed with the find and financed no further work on it.

# 1981 to 1990:

No exploration work from the Le Mare property-area has been recorded.

Research by Keewatin Engineering Inc. during March, 1991, revealed that a belt similar to the Island Copper Belt was located between Kyuquot Sound and Quatsino Sound. It was named the Mahatta-Kashutl belt. Upon findings from re-manipulation of regional aeromagnetic data (section 3.2.2, this report), and a field examination of the Le Mare Lake area, the 216-unit LeMare property was staked by Keewatin (Birkeland, 1991). The May, 1991 LeMare property was owned by Stow Resources Ltd. of Vancouver, B.C. It covered an area similar to that covered by the current Le Mare property. Moss-mat and stream-sediment sampling conducted over the whole current Le Mare property-area resulted in definition of a primary target that extended for 6 km (3.7 mi) southeastward from Harvey Cove to east of Le Mare Lake (Figure 4). Subsequently, geological mapping, and soil sampling was conducted along the logging roads on the slopes southwest of Le Mare Lake. Geological and alteration mapping was conducted over a total area of 2.44 km2 (0.91 mi2) (sections 3.4, 4.2, and 5.3.2, this report).

Soil samples were collected at mostly 25-m (82-ft) intervals along the roads. A total of: 136 moss mat and silt, 855 soil, and 316 rock samples were collected during the 1991 program. Birkeland (1991) defined anomalous thresholds from the second positive standard deviation levels in the distributions of 1991 soil-metal concentrations and lowered them somewhat to make them more representative of hypothetical regional sampling as follows:

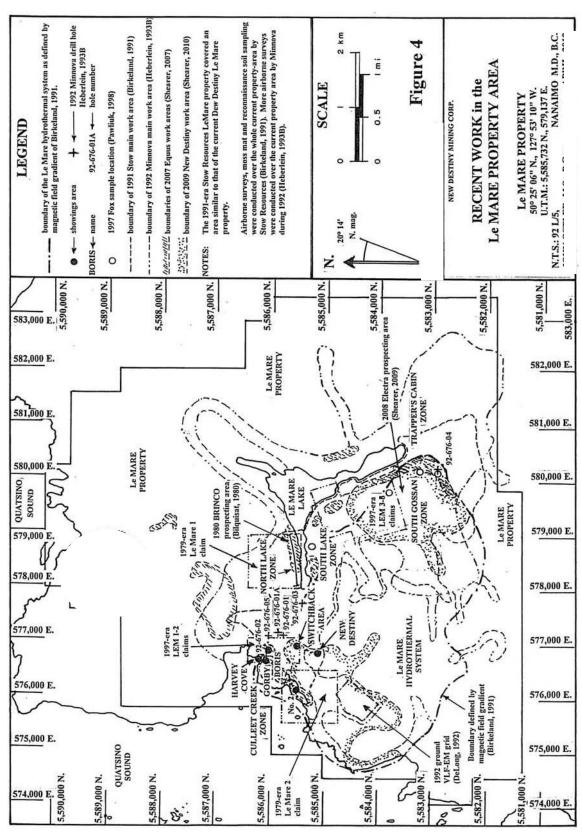


FIGURE 4

Table 2
Birkeland's 1991 Soil-metal Threshold Concentrations

Soil-metal	Copper	Molybdenum	Gold	Silver	Zinc
Anomalous threshold	138.6 ppm	4.56 ppm	17 ppb	200 ppb	190.6 ppm
2nd. Positive Standard. D.					
Selected threshold	90 ppm	4 ppm	20 ppb	200 ppb	250 ppm

The 1991 Stow soil survey resulted in the identification of 4.5-km (2.75-mi) long anomalous area along the slopes southwest of Le Mare Lake (Figures 3 and 5). Birkeland (1991) concluded that alteration and mineralization was exposed as a 6-km (3.66-mi) long linear belt of copper enrichment flanked to the northeast by belts of gold, molybdenum, and zinc enrichment, and to the southwest by a belt of zinc enrichment. That belt was postulated to have extended from Harvey Cove in the northwest to southeast of the southeastern shore of Le Mare Lake. Upon examining the property, the writer disagreed with that interpretation (sections 3.2.2, 4.2, and 5.3.2, this report).

Mineralization of several showings areas near Le Mare Lake were examined, including: the South Gossan zone, Trapper's Cabin area, Culleet Creek zone, South Lake zone, Le Mare No. 2 showing, and the North and South Lake zones (Figures 4 and 6). Roadside grab and chip samples were taken throughout the 1991 study area where disseminated and vein-hosted copper and molybdenum mineralization were encountered (Birkeland, 1991). Trenching and composite chip sampling was conducted at the Culleet Creek zone (Figures 4, 6, and 17). There, disseminated and vein-hosted copper mineralization, mostly chalcopyrite and bornite, was found to be associated with silicification and "apple green" alteration. Weighted averages of the results of the 1991 chip sampling of those trench-areas were tabulated by the writer (section 4.2.2, this report) (Table 8).

An "orientation" ground magnetometer survey comprising one line of unspecified length and location was conducted in the South Gossan zone. Readings were taken at 25-m (82-ft) intervals along the line. The results of that survey were reported as follow:

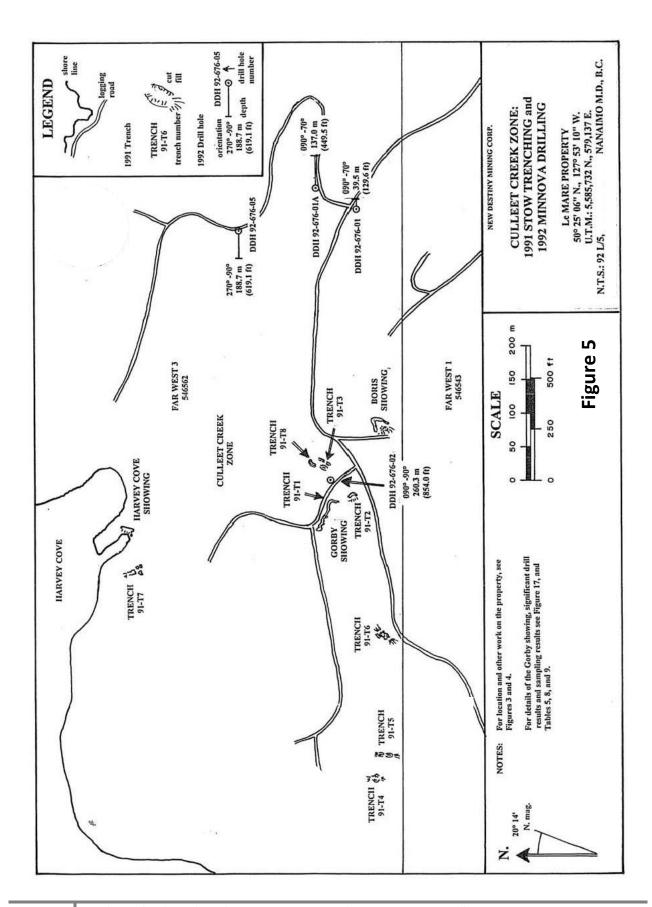
Results indicated that values within the South Gossan alteration zone were relatively constant with values ranging between 56,150 and 56,250 gammas (nanoteslas). At the alteration contact, a 7 station high to 56,650 followed by a 7 station low to 55,800 gammas encountered a magnetic cross-over of approximately 850 gammas. Within the wallrock volcanics, spiky readings fluctuating 600 to 700 gammas with means at approximately 56,200 gammas occurred.

Birkeland, A.O.; 1991: p. 20.

The writer assumes that this line was run east-west into the argillic-phyllic alteration plume and the coincident aeromagnetic low south of Dumortiorite Creek (Figures 4, 9, and 15) in the South Gossan zone.

Craig Leitch (1991) (Appendix VIII in Birkeland, 1991) conducted a petrographic study of 26 rock specimens from southwest of Le Mare Lake. Alteration types found included: potassic, propylitic, argillic, phyllic, and silicic (section 4.2.1, this report).

1992: Stow Resources's LeMare property was enlarged by staking from September, 1991 to January, 1992 when Minnova Inc. optioned it from Stow. Immediately upon securing its option, Minnova commissioned Aerodat to fly airborne: magnetic, electromagnetic and gamma-ray spectrometer surveys along a total of 435 km (265.4 mi) of flight line according to Dave Heberlein (1993B). D. J. Pawliuk (1998) mentioned that a report of the survey was written by ?.?. Woolham in 1992. That report was unavailable to the writer.



Normally, results from airborne radiometric surveys are most definitive from surveys that are conducted during warm, dry weather during the late summer months. Minnova's 1992 gamma-ray survey was conducted during a period of heavy rains and possible snow during late winter over British Columbia's westcoast rain forest. The writer suspects that the results of that survey were not very useful.

#### 1992 Continued

The summer, 1992 program comprised at least 5 km2 (1.9 mi2) of geological mapping at 1:5,000 and 1:10,000 scales (not all was reported) (section 3.4, this report) and geochemical sampling: 1,154 rock, 39 soil, 72 moss mat and 55 silt samples were collected (Heberlein, 1993A). Moss-mat samples were collected from all of the significant drainages in the current Le Mare property-area. The focus of the 1992 soil and rock sampling program was in the northwestern part of the Le Mare hydrothermal system. Anne Thompson (1992) examined alteration and conducted an x-ray diffraction study on 9 clay samples from the South Gossan zone (section 4.2.1, this report).

During October 1 to 18, 1992, 900.5 m (2,954.4 ft.) of BQ core was drilled in six holes: one hole was drilled into the Culleet Creek zone. Three holes were drilled into a geophysical anomaly just east of it (Figures 4 and 5), and one hole was drilled in each of the South Lake and South Gossan zones (Figure 4).

Dave Heberlein (1993B) reported that, "the best targets generated by the field program were drill tested". It is assumed that Heberlein was referring to both the airborne surveys and follow-up ground work. The only hole that intersected sections containing significant copper concentrations was DDH 92-676-2:

Table 3
Significant Intersections in 1992 Minnova Diamond Drill Holes

Significant intersections in 1992 Minimova Diamond Dinimoles							
Drill Hole	Location	Interval		Length		Copper > 500 ppm	Molybdenum
		m.	ft.				> 50 ppm
92-676-2	Culleet Creek	11.1-13.1	36.4-43.0	2.0	6.56	684	
	zone	13.1-15.1	43.0-49.5	2.0	6.56	719	
		19.0-21.0	62.3-68.9	2.0	6.56	746	
		21.0-23.0	68.9-75.5	2.0	6.56	863	
		23.0-25.0	75.5-82.0	2.0	6.56	959	
		58.0-62.7	190.3-205.7	4.7	15.42	529	

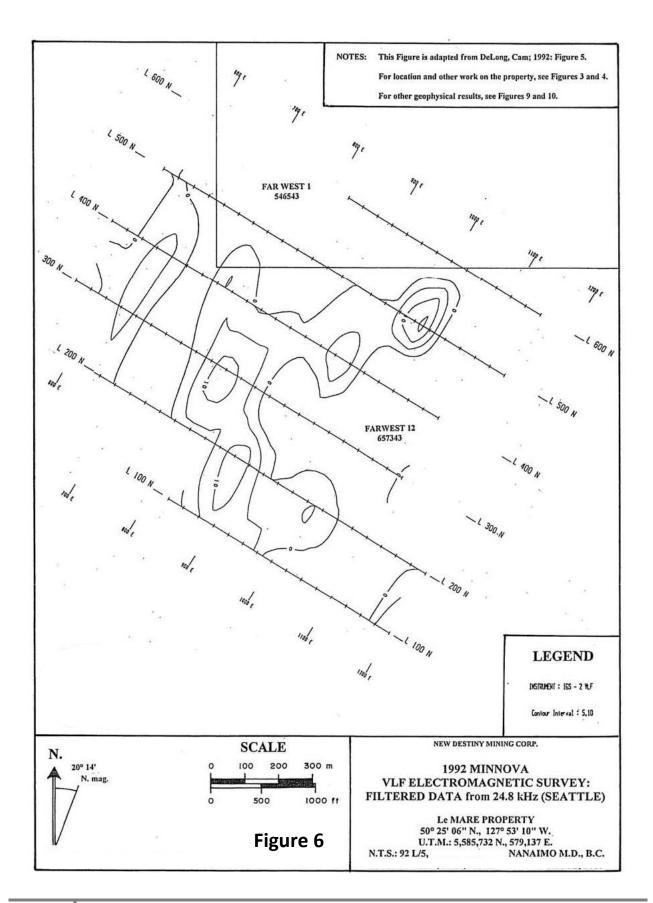
NOTES: This table is produced by the writer from the certificates of analysis attached to the report of Heberlein, Dave; 1993B.

For locations of 1992 drill holes, see Figures 4 and 5.

Diamond drill holes 92-676-1 (lost in poor ground), 92-676-1A, 92-676-3, and 92-676-5 were drilled into a geophysical anomaly located southeast of Harvey Cove and south of Culleet Creek (Heberlein, 1993B) about 150 m (492.I ft.) east of the Culleet Creek hydrothermal plume's margin. This could account for Heberlein's (1993B) report of weak potassic alteration and copper mineralization encountered in these holes.

Drill hole 92-676-2 was drilled on the access road about 50 m (164 ft.) east of the Gorby showing, well within the Culleet Creek plume. The results from that drill hole were summarized as follows:

92-676-2 ... was drilled to test the depth extent of disseminated chalcopyrite mineralization at the Gorby Zone. The hole penetrated a sequence of potassic to chlorite altered flow banded rhyolites, rhyolite breccias and felsic tuffs with rare intervals of basalt. Consistent fracture controlled chalcopyrite mineralization (to 3%) (qualitative visual estimate) occurs in the upper 26 m (85.3 ft.) of the hole.



Quartz stockworking is well developed in the mineralized section. Wall rocks are pervasively silicified and potassium feldspar alteration envelopes occur. Up to 3% (qualitative visual estimate) chalcopyrite is present throughout this interval and Cu grades (concentrations) range up to 959 ppm.

Lower in the hole chlorite-calcite-hematite alteration is prevalent. Traces of chalcopyrite occur to a depth of 252.1 m (827.1 ft.), but copper grades (concentrations) do not exceed 124 ppm.

Heberlein, Dave; 1993B: p. 13.

Drill hole 92-676-4 penetrated the South Gossan zone in the eastern part of an area that was reported to have hosted pervasive argillic and advanced argillic alteration over a mineralized potassic alteration zone. Results from that drill hole were summarized as follows:

92-676-4... was the only hole drilled into the South Gossan Zone. It penetrated a section dominated by highly vesicular rhyolite flows (silicified vesicular basalt flows?) and fragmental rocks. Alteration is moderate and consists of pervasive sericitization with minor silica flooding. Chlorite is also abundant, particularly near a basalt dyke at 91.0 m (298.6 ft.).

Heberlein, Dave; 1993B: p. 14.

The writer is of the opinion that the 1992 Minnova crew mis-identified silicified mafic volcanic rocks as rhyolitic rocks (section 3.4.1, this report); the same mis-identification during 1992 core logging is probable.

#### 1992 Continued

Quest Canada Exploration Services conducted a ground very-low-frequency electromagnetic survey on a 6-line grid on Gooding Ridge between Gooding Cove and the Culleet Creek zone to test a distinct airborne anomaly in that area. The surface anomaly was considered to be weak and of little interest (DeLong, 1992).

1992 to 1997

No exploration was recorded and the 1991-era LeMare claim group lapsed.

1997: On February 6, 1997, David J. Pawliuk recorded the LEM 1 to 6 (353575 to 353580) 2-post claims. The LEM 1 and 2 claims were located on the Culleet Creek zone and the LEM 3 to 6 claims occupied the eastern part of the Southern Gossan zone as defined by Birkeland (1991) (Figure 4). During the 1997 prospecting program conducted by Fox Geological Services Inc., 10 rock samples were taken. None were significantly mineralized with either copper or molybdenum (Pawliuk, 1998). Enough assessment credit was applied to the LEM claims to keep various claims in good standing to February 6, 2001 to February 6, 2003.

During the summer of 1997, geologists from Phelps Dodge Corp. visited the Le Mare Lake area as part of the company's project No. 207. Rob Cameron submitted grab samples 62960 to 62965 taken around the Gorby showing on the LEM 1 (353575) claim to Acme Labs. They were found to contain from 1,005.7 to 5,245.1 ppm copper and from 0.3 to 4.9 ppm molybdenum. The relation between Fox Geological Services Inc. and Phelps Dodge Corp., if any, is unknown to the writer.

1998 to 2006

No exploration was recorded and the LEM claim groups lapsed.

2006: From December 4 to 6, 2006, J.T. Shearer map-staked the FAR WEST 1 to 6 (546543, 546454, 546562, 546563, 546565, and 546689) claims to cover the slopes southwest of Le Mare Lake (Figure 3). Those claims formed the core-area of the current Le Mare property.

2007: J.T. Shearer enlarged the current Le Mare property-area by map-staking the FAR WEST 7 and 8 (563795 and 563802) claims south and southeast of the core-area respectively on July 29, 2007. The property-area was expanded farther to the north and east by Shearer's map-staking of the FAR WEST 9 to 11 and GEYSERITE (569848 to 569850 and 570078) claims from November 10 to 14, 2007. The property was optioned to Equus Energy Inc. of Vancouver, B.C.

Homegold Resources Ltd., a private exploration company controlled by J.T. Shearer, conducted a program of prospecting and soil sampling along several of the lower roads around Le Mare Lake focusing on previously defined anomalous areas (Shearer, 2007). A total of 131 soil and 4 rock samples were taken and analyzed by the induced plasma coupling (ICP) method for 30 elements. Gold concentrations were determined by fire assay and atomic adsorption techniques.

Upon contouring Shearer's 2007 and 2009 soil-survey data (sections 4.2.1, 5.3.2 and 7.0, this report), the writer found that Shearer's data more precisely defined soil copper and molybdenum anomalies and could be used to help define hydrothermal plumes in the northwestern part of the Le Mare hydrothermal system.

2008: During the 2007 exploration program, chalky geyserite, a grey-white hydrated silicate (SiO2.nH2O), an ingredient in Portland cement, was discovered to occur in small amounts along a road south of Culleet Lake. By sometime during 2007 or 2008, J.T. Shearer had optioned the copper and molybdenum of the Le Mare property to Equus Energy Inc. and the geyserite on the same property to Electra Gold Ltd.

From October 25 to December 4, 2008, J.T. Shearer's exploration company Homegold Resources Ltd., conducted prospecting for geyserite along a disused logging road southwest of Culleet Creek and Lake, and near the South Gossan zone (Shearer, 2009). A total of 51 samples were taken from those areas. No significant concentrations of that industrial mineral were found.

On April 5, December 5 and 14, 2008, J.T. Shearer expanded the Le Mare property-area by mapstaking the MAHATTA 1, NORTHEAST LEMARE, and FAR WEST 13 (580535, 595599, and 596074) claims to the northeast and south of the established property area.

2009: The options of Equus Energy and Electra Gold with regard to the Le Mare property were terminated. On October 7, 2009, New Destiny Mining Corp. optioned the Le Mare property from J.T. Shearer.

Upon reviewing the exploration data, the writer became of the opinion that the Le Mare hydrothermal system occupied an area shaped like a lima bean and was not part of a linear, asymmetric, mineralized trend as assumed by previous explorationists of the area. J.T. Shearer map-staked the FARWEST 12 and 13 (657343 and 657363) claims to cover the projected southwestern extension of the hydrothermal system (Figure 3).

J.T. Shearer, Bryce Clark (President of New Destiny Mining Corp.), and John Ostler examined the Le Mare property on November 4, 2009. The 2009 exploration program was conducted from that time until December 15, 2009 by Homegold Resources Ltd. The program comprised prospecting, soil sampling, and some check-mapping in two areas: between the Culleet Creek zone and Gooding Cove and in the South Gossan zone (sections 3.4, 4.2, and 5.1 to 5.4, 6.0 and 7.0, this report). A total of 235 soil and 33 rock samples were taken. All samples were analyzed for 33 elements by induced coupled plasma (ICP) techniques; high concentrations were determined by fire assay and atomic adsorption. Soil-copper anomalies between the Culleet Creek zone and Gooding Cove confirmed the presence of mineralized

hydrothermal plumes in that area, southwest of the linear trend that had previously been thought to have hosted all significant porphyry copper mineralization.

## 2011 Work

#### Background

In 2011 a series of mapping surveys were completed in the Le Mare Lake area focusing in on an area located along the western section of the Farwest claim group. More specifically, in an area roughly bounded by: west of Le Mare Lake, south of Culleet Creek and east of Gooding Cove with surveys extending from near tide water to summit of 450 meters.

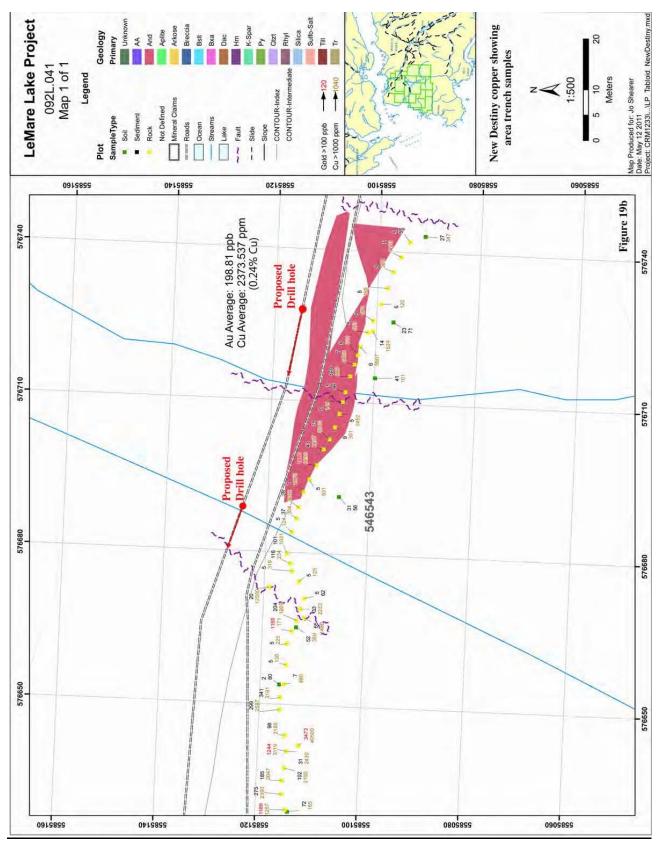
Previous geophysical VLF-EM surveys (1992) and soil geochemical surveys (2009) conducted in this area have outlined copper (gold) anomalous targets. A VLF-EM conductive signature was outlined along a northeast trending ridge (summit elev. 488 m) which is coincidental with a geochemical gold high. Three separate copper soil anomalies were outlined from the 2009 surveys. One of these anomalies is coincidental and responsible for the New Destiny copper zone discovered by backhoe trenching during March-April exploration in 2011.

Access to the mapping project site was via the Restless Creek mainline logging and branch roads. For mapping control, the authored utilized a PC mapping tool referred to as the Yuma Tablet PC. The mapping tool has Windows 7 Professional operating system and installed with Microsoft Office Suite. For mapping, geospatial Arc GIS software was installed and a 1:20,000 scale topographical map, supplied by the logging company detailing all natural and man-made features, was uploaded. All geological rock outcrops encountered were entered into the Yuma, generally at 1:5000 scale. A hand-held GPS Garmin model was also utilized as backup for field mapping plus, a 1:20,000 hard copy base map was used to manually plot all the outcrops mapped. This traditional procedure was a precautionary measure taken as the author was a first time user of the Yuma. Once proficient, the author found the Yuma quite time saving.

The Yuma Tablet along with the base map were submitted to Coastal Resource Mapping Ltd., GIS specialists, where the mapping data was downloaded and computer generated geological maps produced for future field mapping surveys and updates.

Historical exploration surveys along the south end of the southeast arm of Le Mare have outlined hydrothermal alteration signatures related to porphyry mineral environment. Subsequent geochemical soil surveys have delineated a coincident copper-molybdenum anomaly, referred to as the 'South Gossan zone' that supports a porphyry type model. The copper mineralization (e.g. Gorby, New Destiny and other related showings) found in the area mapped noted-above ( see Figure 1), is currently viewed in the technical report (J. Ostler, P.Geo., April 30, 2010) as at least 6 distinct 'hydrothermal-plume' copper-potential hosted systems and interpreted as been hosted in 'dilational jog' (pull-apart structure) similar to the Island Copper cluster deposits.

The regional tectonstratigraphic framework is represented by the northwest trending, Early to Middle Jurassic Bonanza volcanic arc. The Bonanza arc, evolved as part of the upper stratigraphic Bonanza Group, in a convergent-margin setting, built on basement comprising distinctive mid-Paleozoic arc volcanic rocks of Sicker and Buttle Lake groups and the Late Triassic Vancouver Group which includes, tholeitic flood basalts of the Kurmutsen Formation and Quatsino (carbonate) Formation. Resurgence of arc magmatism in Early Jurassic time gave rise to the Bonanza arc. The arc was thought to have developed in response to eastward-directed subduction of Pacific Ocean lithosphere during Early to Middle Jurassic times.



FIGUE 7A Culleet Creek Idealized Section

The Bonanza Group also forms part of the Insular Belt, a morphological belt that defines the southern portion of the Wrangellia Terrane, underlying Vancouver Island and coastal sections of British Columbia. The accretion of the Wrangellia to the inboard terranes of the Coast and Intermontane Belts occurred as late as mid-Cretaceous or as early as Middle Jurassic. This accretionary deformational event resulted in the development of the Middle Jurassic Nassian Orogeny manifested by regional lower greenschist facies metamorphism, transpressional and tensional faulting and shallow west dipping monoclines. This was followed by uplift, erosion and unroofing caused by the Late Jurassic to Late Cretaceous Columbia Orogeny, with deposition of detritus derived from the Bonanza Group volcanic rocks to form Middle Jurassic and Early Cretaceous conglomerates.

The Bonanza Group is comprised of: Late Triassic, platformal carbonates and siliclasitic sedimentary rocks of the Parson Bay Formation; upper Late Triassic to Early Jurassic volcanic-sedimentary unit, suggested to be a nascent arc and; Early to Middle Jurassic Le Mare Lake mature arc volcanics.

The Le Mare Lake volcanics constitute thick sequences of intercalated volcanic and marine sedimentary strata and mark episode of regionally extensive subaerial volcanism in the Bonanza Group. Wide variety of rock types in the Le Mare Lake proper include: black to grey-green or reddish grey, aphanitic to plagioclase-phyric, amygdaloidal flows of basaltic to andesitic composition; siliceous apple green to purplish banded andesite; grey to creamy pink and pale buff dacitic to rhyolitic flows; rhyodacitic to rhyolitic pyro-megaclastic flows and basaltic to rhyolitic volcanic breccia.

# Culleet Creek Copper-enriched Volcanic Horizon

A volcanic horizon which is cut by Culleet Creek and which makes up part of the overall Le Mare Lake volcanic suite, is herein referred to as the Culleet Creek volcanic horizon by the author (Figure 1.) in order to distinguish it from the remaining Le Mare Lake volcanco-lithostrata. This particular volcanic flow-horizon is bimodal and appears to be more enriched in copper than other volcanic horizons currently mapped in the Le Mare Lake proper to date.

The Culleet Creek volcanic andesitic horizon is temporal with rhyolitic pyroclastic flow horizons (see Figure 1). The andesite is characteristically aphanitic with alternating greyish green-maroon flow bands (Photos 1 & 2).

# **DEFORMATION AND METAMORPHISM:**

The Le Mare Lake volcanics were subjected to regional deformation (D1) during collision and accretion of the Wrangellia Terrane to west coast Intermontane Belts of British Columbia, between Middle Jurassic to mid-Cretaceous time. During the Nassian Orogeny (D1), the volcanic rocks would also have experienced regional lower greenschist facies metamorphism. A second deformation phase (D2) would have occurred during the Late Jurassic to Late Cretaceous Columbian Orogeny as the result of on-going subduction of the Pacific Oceanic (Juan De Fuca) plate. This orogeny would have produced D2 greenschist overprinting and further tilting of the Le Mare Lake volcanic as shown in the following photos.

Photo showing near the western end of the New Destiny some 130 meters west of photo 8. Fault above (marked in dashed line) is probably related to same fault-shear system in photo 8. The fault strikes northeast and dips shallow to southeast. This structure could also be interpreted as a possible thrust fault with HW riding over FW related to D3 deformation.



Photo 8 Part of New Destiny Showing

Part of a section of the New Destiny copper zone across 20 meters displaying intense shearing and brecciation (between dotted lines) probably related to transpressional deformation (D3). It is along this section that the high grade copper-gold-silver sample was collected.

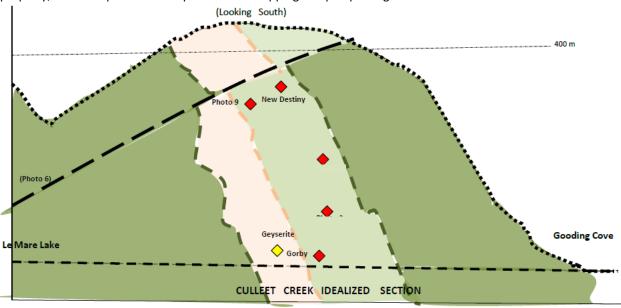


Photo 9 Part of New Destiny Showing

# Mineralization:

Presently, all of the copper mineralization to date is hosted in the Le Mare Lake andesitic volcanic rocks, with the Culleet Creek volcanic horizon more copper enriched then others. Although the pyroclastic rhyolite flows can carry abundant siliceous, fine pyrite, the copper content is generally low. The copper mineralization found on all of the 4 copper zones noted above are predominately structurally controlled, occurring as thin fracture veinlets or as fracture healed, irregular quartz-chalcopyrite veins. Some disseminated or isolated blebs of copper can be found away from the structurally controlled veinlets. The copper-bearing quartz veins characteristically fill architecturally prepared structural sites such as in the case of the New Destiny zone and to a lesser extent at the Gorby. Where there is an increase in quartz veining, chalcopyrite and pyrite mineralization tend to be more abundant. This is evident in the New Destiny, especially along one narrow exposed section where there is highly siliceous quartz veining carrying abundant chalcopyrite and pyrite, as displayed by the photo below.

The copper(gold)-bearing andesite and the rhyolite and pyroclastic flows are temporal and suggest some phreatomagmatic activity. The possibility that some of this mineralization was syngenetically deposited and the possibility of defining a volcanogenic style mineralization of temporal epithermal environment on the Farwest property, is a concept that will require further mapping and prospecting.



(Schematic Cross Section not to scale)

FIGURE 7B

## SOME PRELIMINARY CONTRAINTS TO THE COPPER AND GOLD MINERALIZATION

Copper and gold mineralization is hosted along an andesitic volcanic horizon temporally and spatially related to ryholitic and rhyolite pyroclastic flows. The mineralization is post deformational and appears in part, to be structurally related, and could also be considered as a volcanic-hosted orogenic style mineralization, with of some of the mineralized-bearing fluids originating from a deeper seated (mesozonal) pluton.

The New Destiny Showing was discovered in 2010. In the 2011 program the showing was trenched with a tracked excavator and sampled in 3m intervals by chip samples. The results show over 200m averaging over 0.2% copper with significant gold.

Gold in soil anomalies are widespread, the largest is on the knoll southwest of the New Destiny showing which is 100m long NE-SW and 400m east-west. There may be a mineralized fault zone on the top of the knoll that is the source of the gold. Gold values range up to 947 ppb gold.

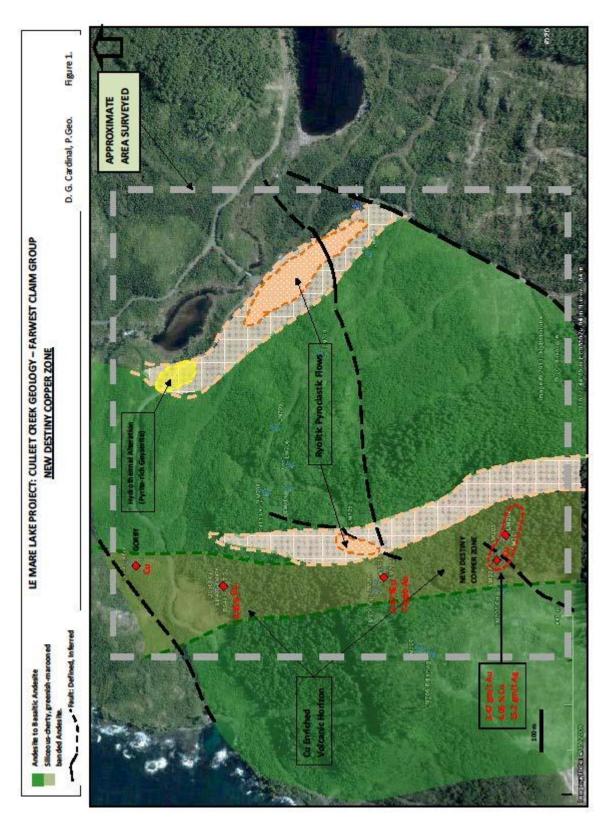


FIGURE 7C New Destiny Copper Zone; Google Image

# Soil Surveys

Of the three major soil surveys conducted around the Le Mare hydrothermal system, the 1991 Stow survey (Birkeland, 1991) was the most extensive and most closely resembled a regional survey. Also A. O. Birkeland (1991) made the only calculation of soil-metal thresholds using sample populations. However, he adjusted some of his thresholds downward, which enlarged anomalies.

Contoured soil-copper and molybdenum concentrations in soils from the 1991 Stow, 2007 Equus and 2009 New Destiny surveys (Birkeland, 1991; Shearer, 2007 and 2010, respectively). The most recent data was preferentially plotted in areas of overlap.

Most high soil-copper concentrations coincide with orange-weathering, orthoclase-quartz, potassic alteration. This co-incidence facilitated identification of the hydrothermal plumes in the northwestern part of the La Mare hydrothermal system. It supports the theses that copper mineralization at depth, probably is related to potassic alteration like at the Island Copper mine deposit (Section 11.1 of this report). At the South Gossan zone, where argillic-phyllic alteration has overprinted on previous potassic alteration, soil-copper anomalies are small and weak. This indicates that copper, previously deposited with potassic alteration, has been partly removed from the rocks of this area during this later alteration phase.

All significant soil-molybdenum anomalies are spatially associated with the lower eastern flank of the plume of argillic-phyllic alteration adjacent to an area of quartz-sericite-pyrite (phyllic) alteration. None are associated with the earlier potassic hydrothermal plumes.

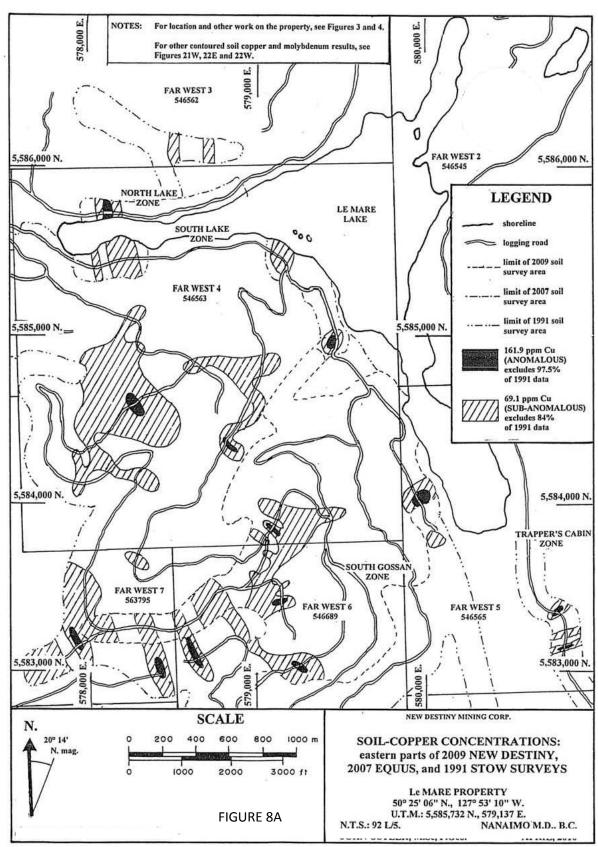
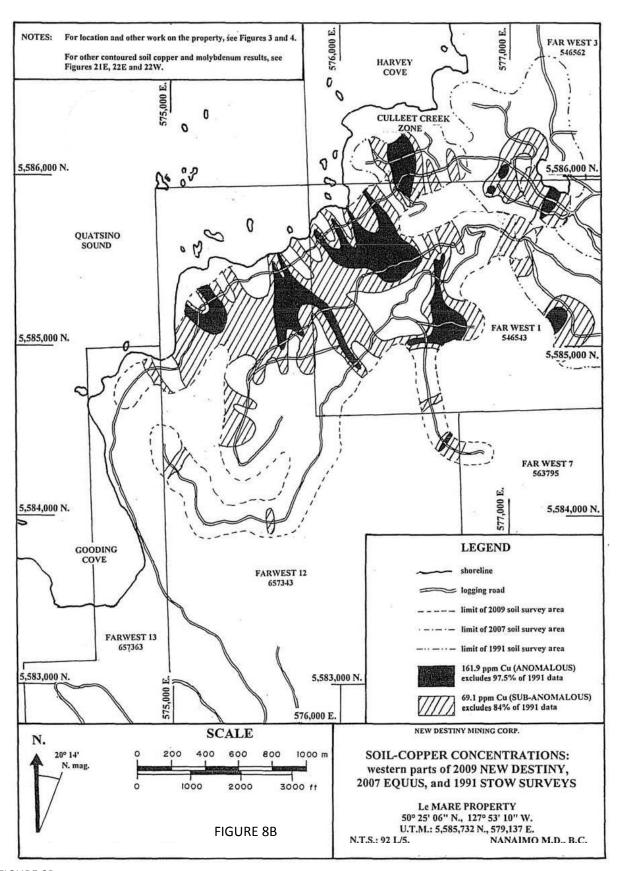
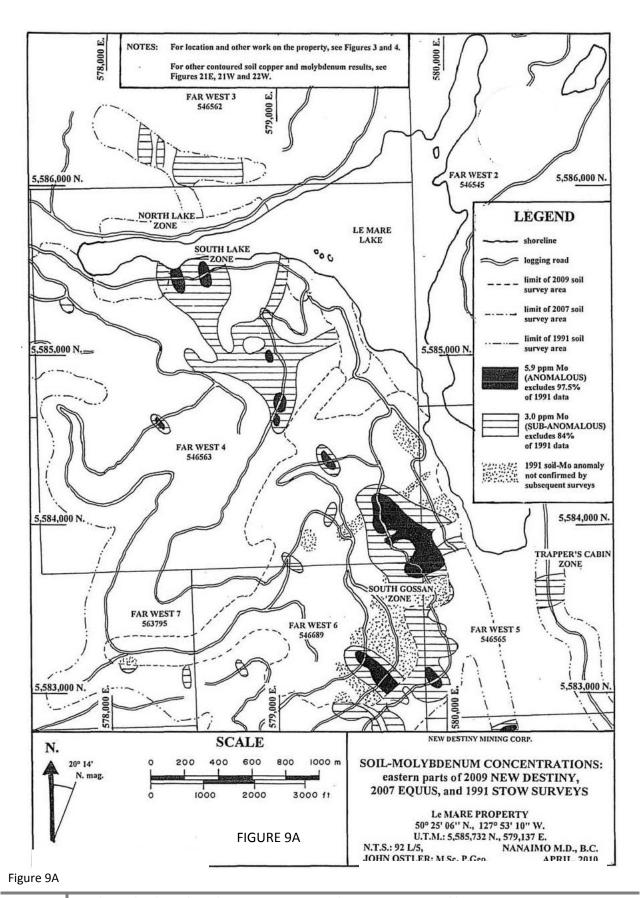


FIGURE 8A





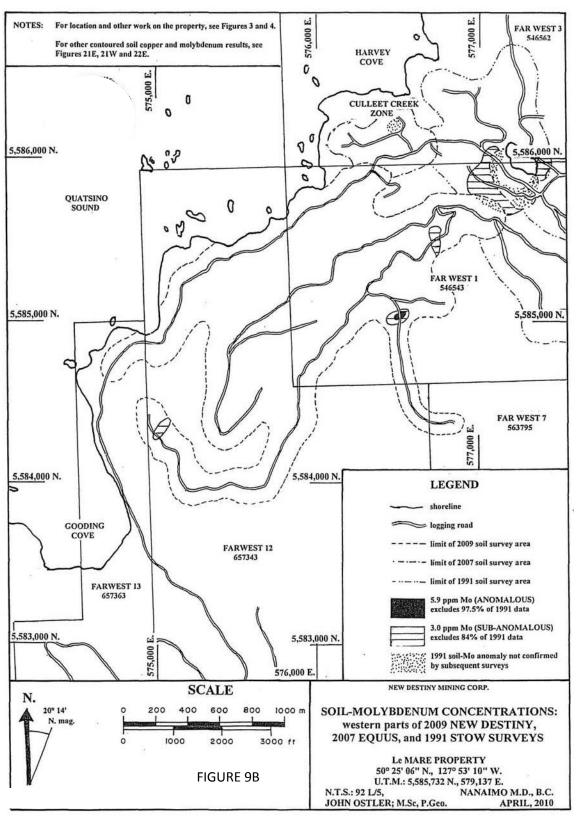


FIGURE 9B

# **Exploration 2014**

Stephen Wetherup, Mark Rein, Max Estaris and Rob Cameron completed three days of geological mapping on the LeMare Property, in northern Vancouver Island from July 22nd to July 24th, 2014. The purpose of the mapping was to determine if geology and alteration on the LeMare Property were indicative of a porphyry Cu-Au-Mo system occurring on the Property.

Access to the property was along logging roads many of which were heavily overgrown and some areas were just too far to reach on foot although most of the focus area (the South Gossan) was covered at lower elevations. A total of 16 samples were collected during the mapping for later Terraspec analysis and mapping data focused on rock types, structures, alteration minerals/type and intensity of the alteration.

The LeMare Property is largely underlain by Jurassic age, Wrangellian island arc Terrane Bonanza Group bi-modal volcanic rocks. The Bonanza group rocks are dominated by andesitic flow and volcaniclastic rocks with rare siltstone, wacke and rhyolite/dacite flows and tuffs.

Bonanza Group rocks generally strike southward and dip moderately westward which are folded locally to a SE strike and near vertical dip. A major NE trending fault is interpreted to occur along Dumortierite Creek and appears to down-drop the NW block of Bonanza Group rocks on the Property. This assumption is based on alteration in the Bonanza rocks which is distinct in each block and described below.

On the southwest corner of the Property a downthrown block of Cretaceous age, Longarm Formation basalt and shale/siltstone occurs and presumably overlies the Bonanza Group rocks. The Longarm Formation rocks are cut by numerous faults, mainly WNW striking, steep, dextral strike-slip faults, N striking steep normal block faults and NE striking oblique faults. The Longarm block is bounded by the WNW and NE faults and locally contains N striking qtz-cb-ep+/-py+/-apy veins and breccia zones.

# Alteration and Mineralization

Bonanza group rocks are generally chlorite-pyrite (propyllitic) altered. In the NW block of Bonanza rocks the chlorite-pyrite alteration is overprinted by silica (locally chalcedonic)-hematite+/-jasperoid locally (Gorby showing) and silica-clay-pyrite (advanced argillic?). At the Gorby showing minor amounts of chalcopyrite occur with the silica replacement. Several zones (beds?) of advanced argillic alteration comprised mainly silica-pyrite-clay which appear to be 25-50m thick. There are also rare zones of sericite-silica-pyrite along structural zones (possibly bedding planes as well) approximately 1-2 m wide and generally along LeMare Lake on the east side of the NW block.

The SE block of the Bonanza group rocks (South Gossan Zone) is also propyllitically altered by chlorite-pyrite but on the eastern margin of the block by LeMare Lake the andesite is chlorite-epidote-pyrite-magnetite altered with abundant epidote-calcite+/-chalcopyrite (rare covellite/bornite) veins. This area coincides with a moderate magnetic high on the aeromagnetic data. Up slope from LeMare Lake the Bonanza volcanic rocks are chlorite-pyrite-epidote altered and are cut by numerous zones of sericite-pyrite-silica alteration which is generally structurally controlled but also appears along bedding planes or within permeable layers. These QSP zones contain pyrite veinlets and rare quartz (with no pyrite) veinlets locally.

North of LeMare Lake several K-feldspar altered fault zones occur within Bonanza andesite rocks and is the only observed potassic alteration on the property.

The Longarm formation is weakly chlorite-epidote alteration with local vuggy quartz-epidote-calcite-pyrite veins.

The Bonanza group rocks in the NW block on the property contains extremely few veins and any alteration more intense that the regional chlorite-pyrite propyllitic alteration is very high level in character with advanced argillic

silica-pyrite or chalcedonic silica-hematite. Chalcopyrite mineralization associated with the silica-hematite is not likely to be porphyry related. Overall, this block of rocks does not appear to have any porphyry potential.

The Bonanza rocks SE of Dumortierite Creek (South Gossan Zone) are distinct as the propyllitic alteration of the lower elevation andesite units near LeMare Lake and south of the lake contain abundant epidote and magnetite which was nearly absent north of the creek. And, there are many more QSP alteration zones within the otherwise propyllitic rock. Overall, it appears that these rocks were lower in the hydrothermal system than the NW block.

The presence of numerous epidote-calcite-chalcopyrite/bornite veins in the magnetic area is encouraging in terms of porphyry potential. However, the lack of veining in the overlying rocks, lack of any appreciable intrusive rocks and the presence of the faulting that cuts the SE block 2km to the south, severely limits the exploration potential.

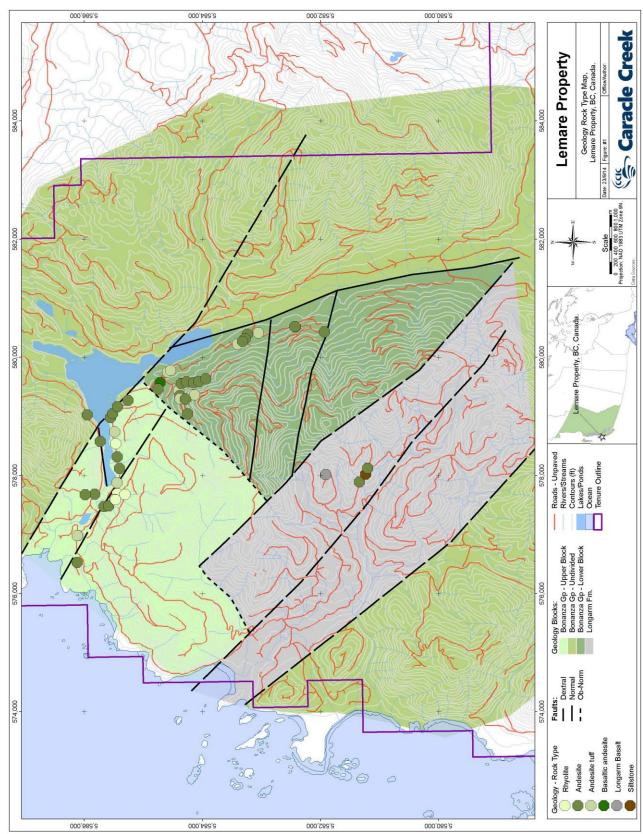


Figure 10 Geology Rock Type Map

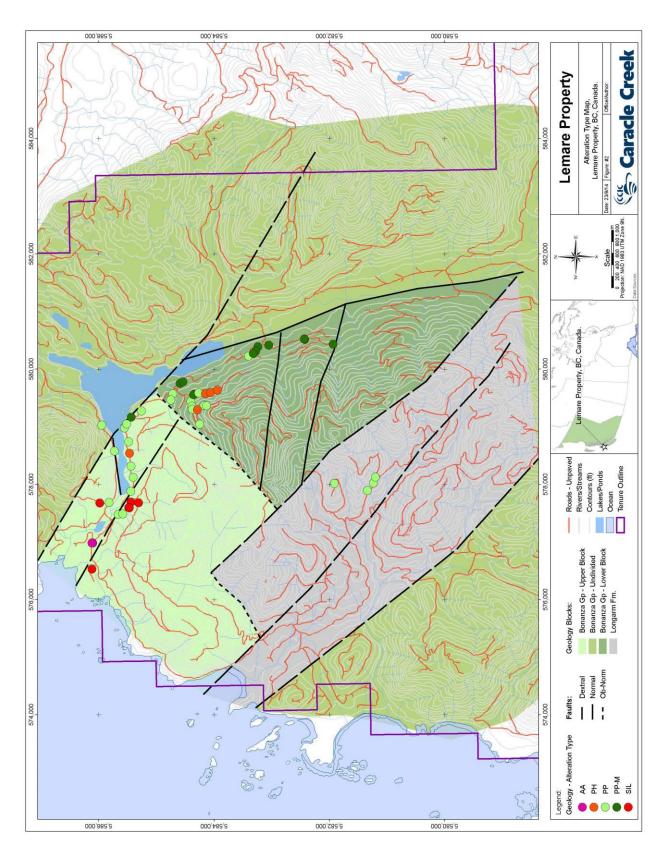


Figure 11 Alteration Type Map

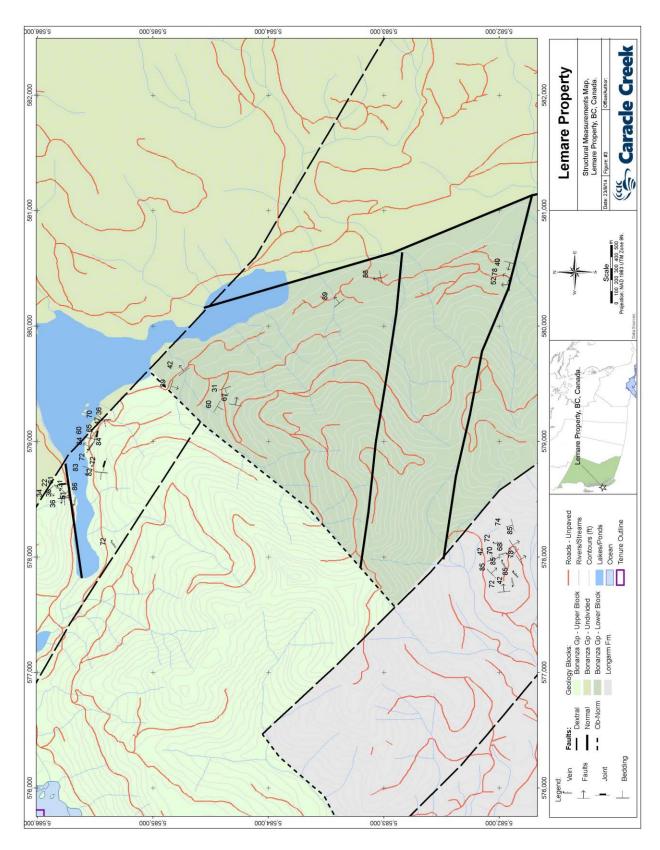


Figure 12 Structural Measurements Map

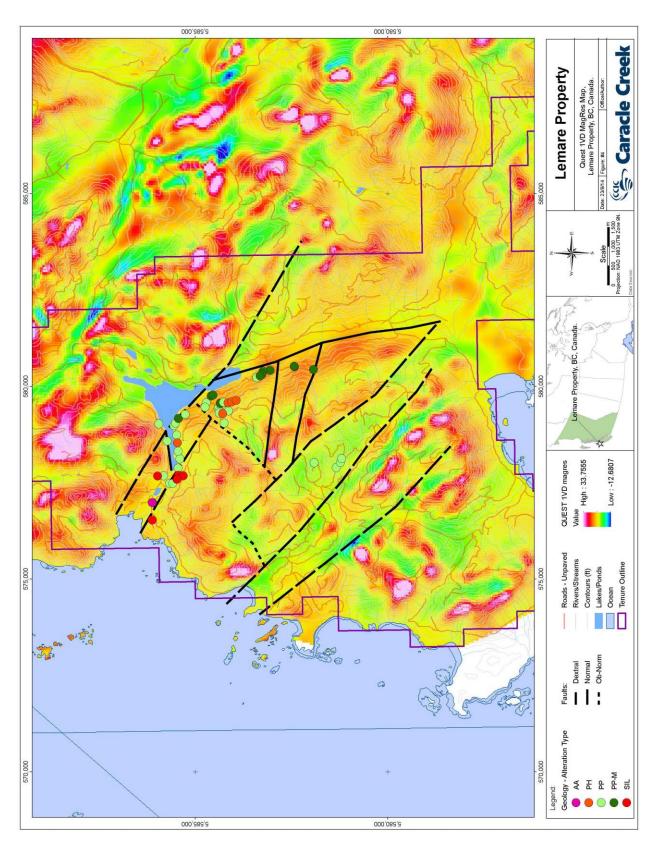


Figure 13 Quest 1VC MagRes Map

Work Program 2016

Work in 2016 focussed on detailed geological mapping with geological notes in Appendix III.

Detailed mapping was mainly conducted by T. Ruks, M.Sc., Ph.D.

At the New Destiny Zone banded veins, containing quartz-magnetite-hematite-chalcopyrite were observed throughout the 180m of road-cut outcrop. These veins appear to cross-cut all lithologies including the massive mafic/intermediate unit which dominates the road-cut in addition to "felsic" units.

On the east side of the New Destiny zone, next to the logging slash are green outcrops approximately 10 m east-west in dimensions which appear to have mixed sediments and mafic volcanic rocks. Volcanic sandstone of lapilli tuff having hematite 1-2% black clasts (mudstone rip ups (?), angular to 2-3 mm size) in medium grained, sandy matrix. Purplish, hematite altered, green (dark) mafic volcanic -> potential basalt-andesite flows with pillows. Some amoeboid clasts with rusty rinds (pillow rinds?). Chlorite-malachite in small fracture zones. Strong hematite alteration in sediment rocks. Potential bedding in places. Structure: S0: 167/80SE; (Mafic volcanic texture), (volcanic sandstone?), (chlorite-malachite in fracture zone).

In the central New Destiny showing a massive, aphanitic, dark green and purple mafic volcanic unit-dolomites. Hematite on fractures are common. Anastamosing quartz-chalcopyrite +/- bornite veins with blebby sulfides to 2-3 mm or greater are common. Most mafic volcanic is moderately magnetic with rusty outcrop. Most fracture are hematite and/or limonite coated. Vein density: 2mm/50mm; (quartz-chalcopyrite vein), (quartz-chalcopyrite+/-bornite vein).

The high grade zone is characterized more by gossanous outcrop of massive fine grained mafic unit (dark green). Abundant anastamosing quartz-chalcopyrite +/- bornite stockwork forming pseudo-breccia/breccia. Quartz often cockscomb. Potential A veins occur here. These are banded quartz-magnetite/hematite +/- chaclopyrite-bornite veins, sometimes cross-cutting each other. Clearly banded! Some fractures appear to have magnetite coatings. Potassic alteration includes banded quartz-magnetite-hematite-chalcopyrite+/- bornite veins, quartz-chalcopyrite+/- bornite vein, high grade zone of quartz-chalcopyrite+/- bornite veins, intense quartz-chalcopyrite +/- bornite veining, quartz-chalcopyrite +/- bornite veining.

Southwest of the New Destiny showing is a rusty fault zone next to creek. Rhyo-dacitic microporphoric is full of quartz-magnetite-hematite-chalcopyrite +/- bornite veins (banded). Back into massive mafic unit on west side. The zone is this felsic unit may be intruding faults. Nice contacts exposed in zone. Rhyodacite unit is brecciated with hematite matrix. Is cross-cut by quartz-chalcopyrite veins and banded A veins. This may be the mineralizing intrusion. Feldspar in porphyry altered to greasy green mineral (illite?). Rhyodacite unit has sub-mm QDs (trace) and some mafic fragments. If these are mafic xenoliths, this rhyodacite unit is likely intrusive, and cross cuts the massive mafic units in the road cut. E-W of N-S control? Rhyodacite breccia appears to be dyke like. If these units were controlled by E-W structures, they should occupy most of this road cut, which is E-W trending. Since they do not dominate the geology here, they are likely N-S, or oblique to the road (or pipe-like). These rhyodacite dykes may be similar to the altered dykes at the South Gossan zone.

More massive mafic units are located directly north of the New Destiny Showing (M-4). More quartz-chalcopyrite +/- bornite veins occur sporadically. Potential A veins here. Nice banded quartz-chalcopyrite-magnetite +/- bornite veins. Appear sheeted in places. Some have chalcopyrite +/- bornite centerline. Magnetite added to host rock at vein margins. The massive mafic unit is found uphill from here with quartz-chalcopyrite veins, suggesting that the zone extends uphill (south) into the slash. Good vein density here in places, but too rusty to confirm. Abundant limonite coatings on fractures. The structure here is very interesting. If one traces this flat fault down to base of outcrop, it appears to grade into rhyodacite dyke, as per station M-3. This suggests that rhyodacite dykes are intruding flat lying structures in places. Perhaps a Jurassic compressional structure formed during accretion of Wrangellia to North America? It seems that best Cu in area seems to be proximal to these zones of

potential A veins. There is a very important contact located here proximal to some old logging choker that is draping over the outcrop (Station M-4). Here, rhyodacitic porphyry occurs to west with breccia and more prominant quartz-chalcopyrite +/- bornite veining. Structure: FT: 052/52SE; Pictures: 102-3390-3393 (Banded quartz-chalcopyrite-mt +/- bornite veins), 3393 (chalcopyrite centreline in quartz-chalcopyrite vein), 3394 (fault zone with rhyodacite dyke in fault near base of outcrop; banded quartz-mt-chalcopyrite +/- bornite veins close to the intrusion).

Outrcop to west of station 005 is rhyodacitic porphyry with zones of breccia and abundant quartz-chalcopyrite +/-bornite veins. Quartz-chalcopyrite-bornite as veins and as matrix in breccia. Quartz-chalcopyrite-bornite as blebs in intrusion, as well (miarolitic cavities?), often with sucrosic/sugary quartz. Chalcopyrite as centrelines in some quartz veins. 0.25-0.5% quartz-feldspar phenocrysts in purple unit. Lots of hematite in matrix. Abundant mineralization occurs near the blast pit full of water. Limonite on fractures. This is a decent sized gossan.

Buff green weathering stratified units in outcrop(M-8) north west of main showing and creek area. In float, have potassium feldspar phyric, buff weathering unit full of cm scale voids lined with coarse-medium quartz. Looks like miarolitic cavities in a high level intrusion. 1-2% pink potassium feldspar phenocrysts to 1-2mm size. Intense quartz stockwork, with hairlines to 3 mm. Similar to unit on west size of ND zone. What was thought to be flow banding, upon closer inspection appears to be strong UST development. Is this an intrusion x-cutting stratified rocks in the area? If so, does this mean that some of the potential flow banding at the New Destiny zone is actually fine UST development in a high level intrusion? Is this a contact zone? Note: The miarolitic cavity-UST bearing material here may be giant float/subcrop. Outcrop here is still stratified volcaniclastic rocks, as per last station. Pictures: 102-3411 (outcrop), 3412 (miarolitic cavities), 3413 (UST), 3414 (miarolitic cavities), 3415 (miarolitic cavities and quartz veins), 3421 (float with miarolitic cavities and UST; close to source?).

On huge outcrop at northeast side of slash, downhill and NE of New Destiny. Potassium feldspar-quartz phyric rhyodacitic porphyry loaded with miarolitic cavities (quartz-potassium feldspar lined) and intense hairline to 2-4mm quartz stockwork (often cockscomb). 5-10% potassium feldspar (pink) and quartz phenocrysts to 1-3mm size. 10-30% miarolitic cavities filled with coarse to medium grained quartz and UST (?) lining cavities. Cavities average 1-2 cm size, but up to fist size in places. Magmatic-hydrothermal transition zone? Potential greasy green illite alteration of feldspars in places. Unit is cross-cut by breccia dykes with clasts of more aphyric phase in silica matrix. Sharp contacts to this breccia dyke.

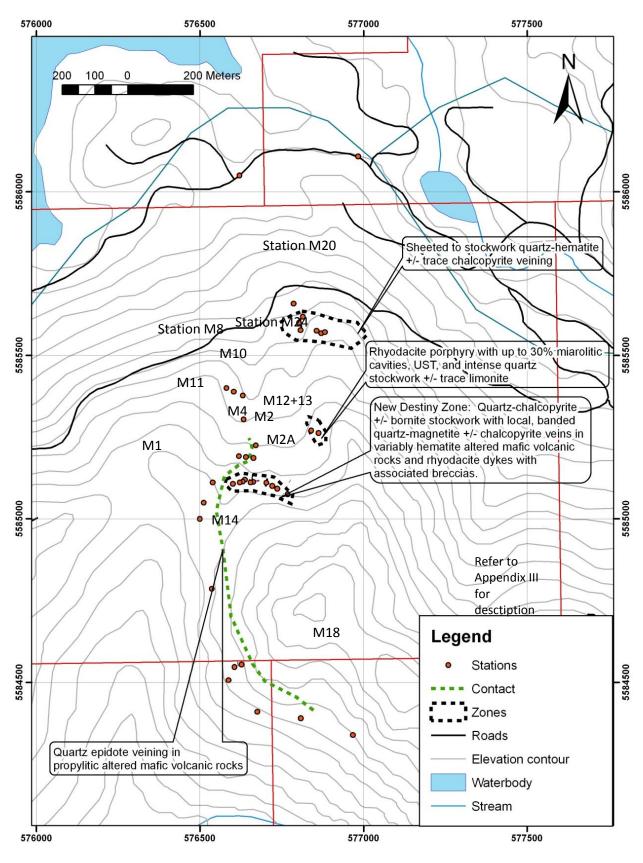


Figure 14 Station Locations

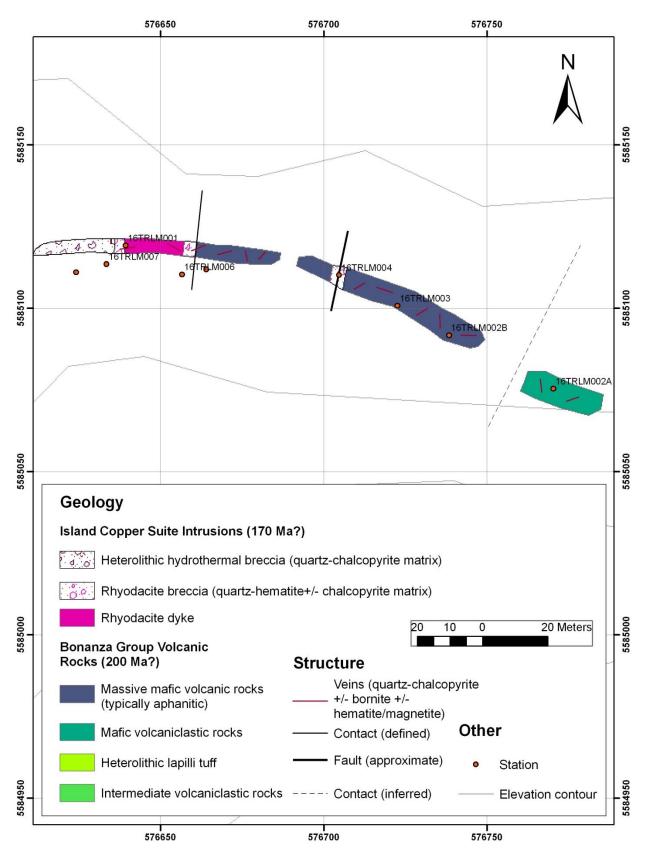


Figure 15 Geology Map

### **GEOLOGICAL SETTING**

**Regional Geology** 

Dave Heberlein (1993A) described the geology of northwestern Vancouver Island as follows: Northwestern Vancouver Island lies within Wrangellia; a part of the Insular belt of British Columbia. Oldest rocks in the region are Upper Triassic tholeitic basalts of the Karmutsen Formation which form the basement to the overlying Jurassic and Cretaceous stratigraphy.

Middle Jurassic Bonanza Supergroup rocks outcrop over much of the western part of northern Vancouver Island. The basal part of the Bonanza Supergroup is a marine volcanic sequence consisting of amygdaloidal, pillowed basalts and andesite with interbedded tuffs and intraformational breccias. It grades upwards into a succession of andesitic to dacitic flows, tuffs, and breccias which are in turn overlain by a sub-aerial sequence of interbedded intraformational breccias and maroon subaerial basalt flows, dacites and rhyolites. Felsic rocks are abundant close to volcanic-intrusive centres and are often interbedded with volcaniclastic sediments.

The Bonanza volcanic sequence is unconformably overlain by or faulted against shallow marine clastic sedimentary rocks of the Cretaceous Long Arm Formation.

Intrusive rocks in the region are interpreted to be coeval with the Lower Jurassic Bonanza volcanic rocks. Known as the Island Intrusives, they consist mostly of granodiorites and monzonites. These intrusions are associated with porphyry and skarn mineralization throughout the central and north parts of Vancouver Island.

The LeMare claims lie within a fault bounded structural block named the Cape Scott block by Muller (1977). Brittle faulting and broad open folding are the main styles of deformation. Muller (1977) and Jeletzky (1970) attribute this to the thick, brittle section of Karmutsen basalt that forms the basement to the Jurassic rocks.

Heberlein, Dave; 1993A: pp. 4-5.

G.T. Nixon of the British Columbia Geological Survey conducted a regional mapping program throughout the northern part of Vancouver Island during the early 1990s that resulted in a regional geological map of the area (Nixon et al., 1994).

The writer's tabulation of the geologic history of the region around the Le Mare property-area is as follows:

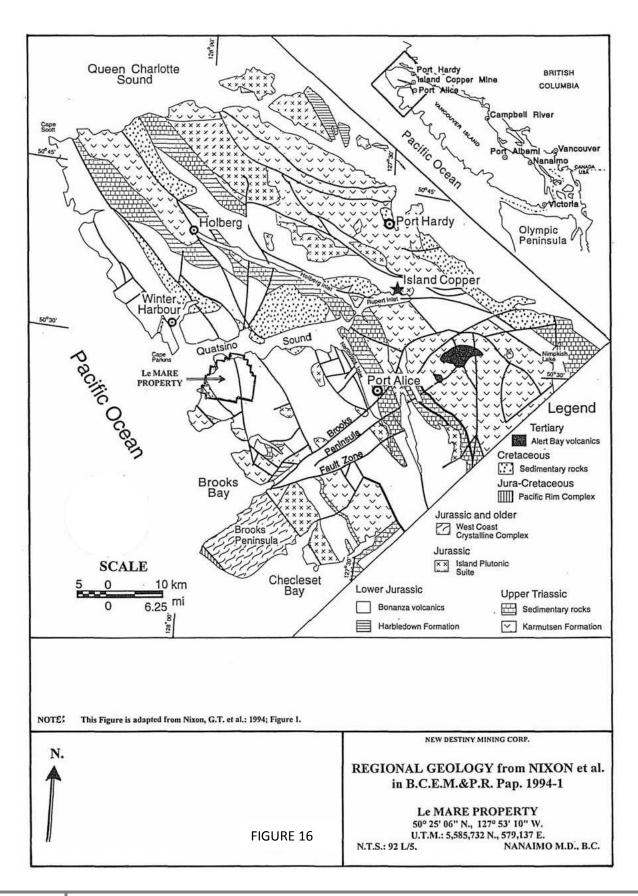
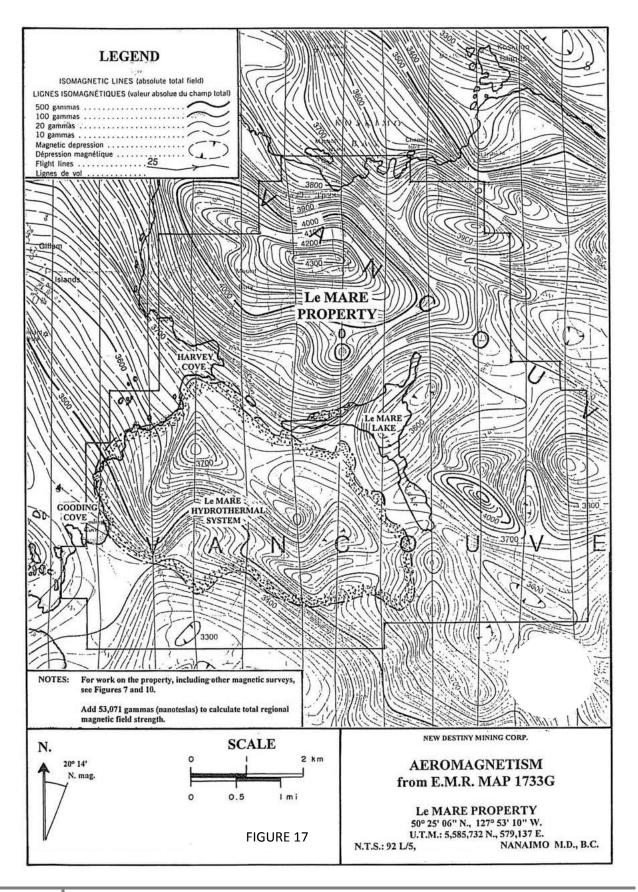


Table 4
Table of Geological Events and Lithological Units in the Le Mare Property-area

Time	Formation or Event
Recent	Valley rejuvenation:
0.01-0 m.y.	Down cutting of stream gullies through till, development of soil profiles.
Pleistocene	Glacial erosion and deposition:
1.6-0.01 my.	Removal of Tertiary-age regolith, deposition of till and related sediments at
	lower elevations, smoothing of the Tertiary-age land surface.
Late Miocene	Tensional faulting:
7.6-7.9 m.y.	Deposition of the Alert Bay basaltic volcanic rocks
Eocene to Late Oligocene	Northeasterly trending tensional faulting:
32 - 59 my.	Emplacement of the Sooke intrusions and Metchosin volcanic rocks
	MINERALIZATION: Emplacement of gold-bearing quartz veins
Late Cretaceous to Paleocene	Laramide Orogeny: Mild folding and faulting, in central British Columbia.
75.0-57.0 m.y.	Northeastward tilting on the eastern side of the Vancouver Island area.
	Emplacement of the Nanaimo Formation sediments
Early to Middle Cretaceous	Deposition of the Logram and Queen Charlotte Group clastic sedimentary
(Valanginian to Cenomanian)	rocks on the Late Mesozoic erosional surface.
137.0 - 93.5 m.y.	
Middle Jurassic to Early Cretaceous	Uplift and erosion: Gentle westward tilting of the western part of the
163-137 m.y.	Vancouver Island area resulting in partial unroofing of the early Mesozoic
,	stratigraphy
Late Jurassic to Late Cretaceous	Columbian Orogeny:
144-88 m.y.	Emplacement of the Coast Intrusions east of the Vancouver Island area,
,	thrusting and transcurrent faulting, deformation of Cache Creek rocks in a
	northeastward dipping subduction zone, accretion of Nicola Group rocks to
	North America
Middle Jurassic	Nassian Orogeny:
166.0-159.7 m.y.	Final emplacement of the Island Intrusions accompanied by local folding and
,	contact metamorphism in adjacent cover rocks and lower greenschist facies
	regional metamorphism. Regional faulting and tilting resulting in
	southwestward dipping monoclines followed by uplift and erosion.
Early to Middle Jurassic	Subduction and calc-alkaline island arc volcanism and related clastic
(Sinemurian to Bajocian)	sedimentation:
197.0 - 166.0 m.y.	Deposition of the Bonanza Supergroup mafic to felsic volcanics and Island
	Intrusions
	MINERALIZATION: 175 m.y.
	Development of the Island Copper Complex calc-alkaline porphyry Cu-Au-Mo
	deposits
	Presumed time of development of the Le Mare hydrothermal system
Late Triassic	Deposition of the Vancouver Group in a fore-arc basin:
(Karnian to Norian)	Quatsino Formation reef-related limestone beneath Parson Bay Formation
220.7- 209.6 m.y.	calcareous wacke and argillite
Middle Triassic	Deposition of Karmutsen Group mafic volcanics on a spreading oceanic crust.
(Ladnian to Karnian)	Deposition of Natifiation Group mane volcames on a spicating occame crust.
240.6-220.7 m.y.	
270.0-220.7 III.y.	m.y. = million years ago
	m.y. = mmon years ago

NOTE: Data for this table was compiled by the writer from various sources including Muller (1977) and Douglas ed. (1970).



## **Regional and Property Geophysics**

### Regional Aeromagnetic Survey

In September, 1962, the Geological Survey of Canada conducted a fixed-wing airborne aeromagnetic survey over the northern part of Vancouver Island. Energy, Mines, and Resources Map 1733G covering N.T.S. map-area 92 L/5 was one of the aeromagnetic maps produced. The current Le Mare property-area is in the west-central part of that map-area.

The northeastern part of the property-area coincides with a regional northwesterly trending magnetic high that may be a reflection of mafic volcanic stratigraphy in that area. Peaks in this magnetic trend are located at the hill top east of the southern end of Le Mare Lake and near the peak of Mount Bury. Exposures of the Le Mare hydrothermal system are located on the southwestern flank of the aeromagnetic trend. Three local magnetic highs occur along the ridge that transects the hydrothermal system. A distinct magnetic low coincides with the phyllic-argillic alteration that covers much of the South Gossan zone. The writer presumes that magnetic low to be an effect of magnetite destruction by that alteration.

During a preliminary investigation of the Le Mare Lake area in 1991, Keewatin Engineering manipulated data generated from E.M.R. Map 1733G to produce maps of enhanced total field and calculated gradient magnetic data superimposed on the 1: 50,000-scale N.T.S. Map sheet 92 L/5 (Birkeland, 1991). The maps submitted for assessment were in colour and without legends; thus, the locations of magnetic highs and lows, and the magnetic gradient can only be assumed from the colour distribution. The writer knows of no report of how the magnetic data manipulation was accomplished.

A.O. Birkeland's (1991) conclusions regarding the results of this data were as follow:

The calculated gradient map indicates the following:

- A northwest trending low magnetic trough corresponding to the major cross property LeMare alteration trend. This magnetic low in likely caused by the destruction of magnetite within the argillic alteration trend.
- Anomaly A is coincident with the South Gossan Zone and indicates that although magnetite
  destruction is present at a high level in the advanced argillic and phyllic zones which outcrop on
  surface, magnetite alteration exists at depth beneath the alteration cap.
- Anomaly B is located on the ridge west of Dumortierite Creek where the best anomalous soil
  geochemistry on the property occurs. It is interpreted that this area is underlain by a porphyry
  system with corresponding flanking magnetite alteration and associated Cu-Mo-Au
  mineralization.
- Anomaly C is the highest magnetic anomaly adjacent to the LeMare-Culleet alteration trend.
   This anomaly is on strike with east-west faults exposed in the South Gossan Zone and on trend with east-west structures and geochemical anomalies encountered on the east side of LeMare Lake (Trapper cabin area).
- Anomaly D occurs in a covered low-land in the vicinity of the gold geochem anomalies "down plunge" of the main South Gossan Zone alteration cap. This large positive anomaly within the northwest trending magnetic low indicates that a porphyry and associated magnetite-bearing Cu-Mo-Au system may be at depth beneath the valley till and has not been detected by conventional soil geochemistry completed to date.

Birkeland, A.O.; 1991: pp. 19-20.

Birkeland's "northwest trending low magnetic trough" is one of a series of such "troughs" that transect the volcanic stratigraphy in the Quatsino Sound area. It cuts through the area of soil-copper enrichment separating the North Lake zone from the main part of the zone of soil-copper enrichment. The writer interprets this magnetic

feature to have been due to post-mineralization weathering along a west-northwesterly trending fault, possibly previously responsible for the location of the Le Mare hydrothermal system.

Anomaly 'A' as plotted on Birkeland's (1991) magnetic gradient map is 1 km (0.61 mi) north of the South Gossan zone and not coincident with it. Similarly, Anomaly 'B' is plotted 1 km (0.61 mi) north-northeast of its described location. The described locations of these two anomalies make more sense than their plotted locations. The plotted locations of anomalies 'C' and 'D' are much better matches to their descriptions.

Anomalies 'A', 'B', and 'D' are small, local magnetic features. Although quite intense, anomaly 'C' doesn't resemble any of the magnetic gradient features spatially related to the areas of alteration and soil-metal enrichment associated with the Le Mare hydrothermal system. During the 1992 field season, Minnova geologists visited the area of anomaly 'D' and could not associate it with a body of hydrothermal alteration in the Bonanza Supergroup mafic volcanic rocks. That anomaly may be related to local volcanic stratigraphy.

During the early 1990s, it was well-known that the porphyry deposits of the Island Copper Cluster located near Port McNeill were concentrated at dilational jogs along a west-northwest trending, steeply dipping regional fault. Birkeland (1991) seems to have focused on the regional structure and ignored the round to oval shapes of individual deposits. He became convinced that alteration and mineralization near Le Mare Lake was exposed as a 6-km (3.66-mi) long linear belt of copper enrichment flanked to the northeast by belts of gold, molybdenum, and zinc enrichment, and to the southwest by a belt of zinc enrichment. A desire to promote that interpretation may have influenced focus on small magnetic features around the southeastern arm of Le Mare Lake to the exclusion of larger ones within the area defined by the magnetic gradient between Gooding Cove and Le Mare Lake.

When the 1991 Stow soil-copper and molybdenum anomalies, the 1992 Minnova ground electromagnetic anomaly, the results of the 1991 Keewatin calculated gradient magnetics, and those of the 2007 and 2009 soil surveys are combined, they indicate that the Le Mare hydrothermal system covers a 5 X 3 km (3.05 X 1.83 mi) or 15 km2 (5.6 mi2) oval-shaped surface-area and not an asymmetric linear belt.

### Regional Silt Geochemistry

A reconnaissance regional stream sediment sampling program was conducted during 1988 throughout the northern part of Vancouver Island, through a joint federal-provincial initiative resulting in the production of Geological Survey of Canada Open File 4020 (Matysek et al., 1988).

Research by Keewatin Engineering Inc. during March, 1991, including investigation of regional geochemical survey results, revealed that a belt similar to the Island Copper Belt was located between Kyuquot Sound and Quatsino Sound. It was named the Mahatta-Kashutl belt (Birkeland, 1991). Attributes of the two areas were sufficiently similar for Keewatin to stake and explore the 1991-era LeMare property (section 2.1, this report).

J.A. Perelló et al. (1995) reported that the porphyry deposits of the Island Copper Cluster were concentrated along dilational jogs in a west-northwesterly trending, steeply dipping, right lateral, transcurrent fault.

Selected silt-metal concentrations of silt samples taken from locations near the Le Mare property were tabulated as follows:

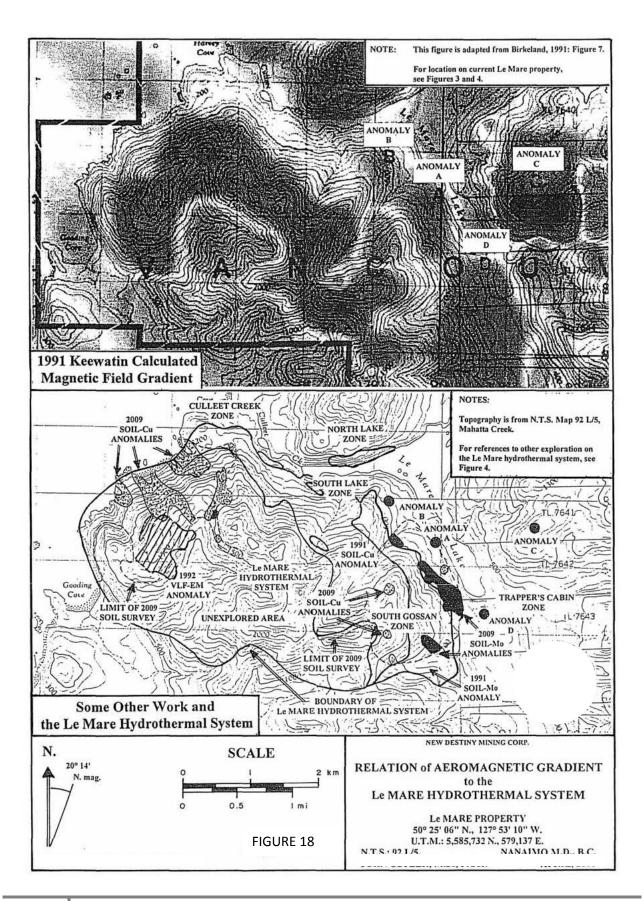


Table 5
Selected Regional Silt-metal Concentrations

Sample	Water pH	Copper	Lead	Zinc	Arsenic	Moly.	Silver	Gold
Number		ppm	ppm	ppm	ppm	Ppm	ppm	ppb
883053	7.3	38	1	82	7	1	0.1	1
883082	7.1	41	13	240	10	1	0.1	1
883128	7.1	32	1	76	6	1	0.1	1
883129	7.0	44	1	86	6	1	0.1	1
883131	6.8	33	2	75	4	1	0.1	1
883237	6.7	34	3	87	12	1	0.1	107
883238	7.1	19	1	68	7	1	0.1	1
883262	7.2	34	9	230	14	1	0.1	2
883263	7.1	39	3	152	11	2	0.1	2
883264	7.0	42	5	155	11	1	0.1	18
883265	7.4	41	1	102	11	2	0.1	2
883266	7.4	43	3	135	11	1	0.1	1
883267	7.3	44	1	87	7	3	0.1	4

NOTE: For sample locations, see Figure 10.

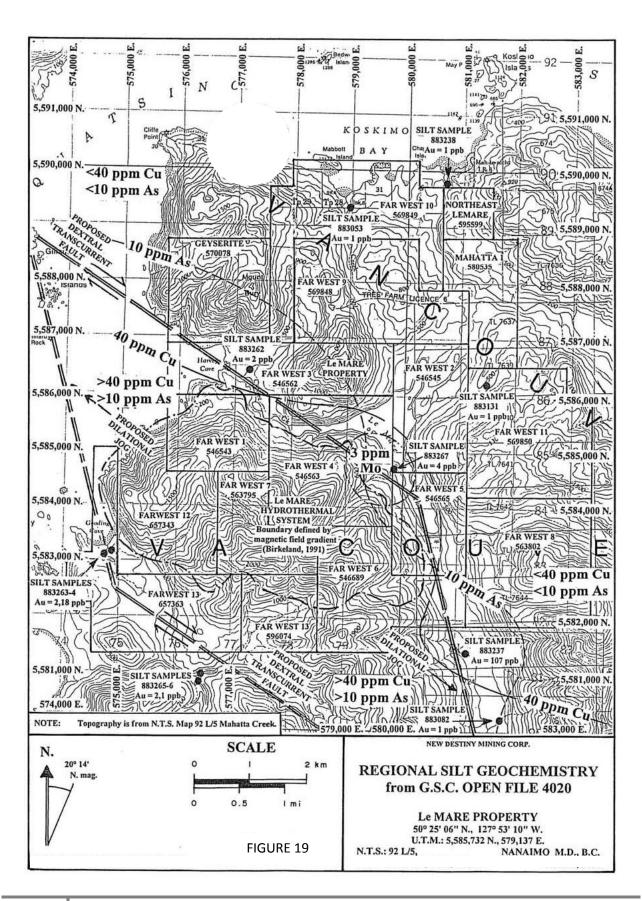
Regional silt survey results indicate that the Le Mare hydrothermal system may also occupy a dilational jog in a regional fault similar to those which controlled mineralization of the Island Copper Cluster.

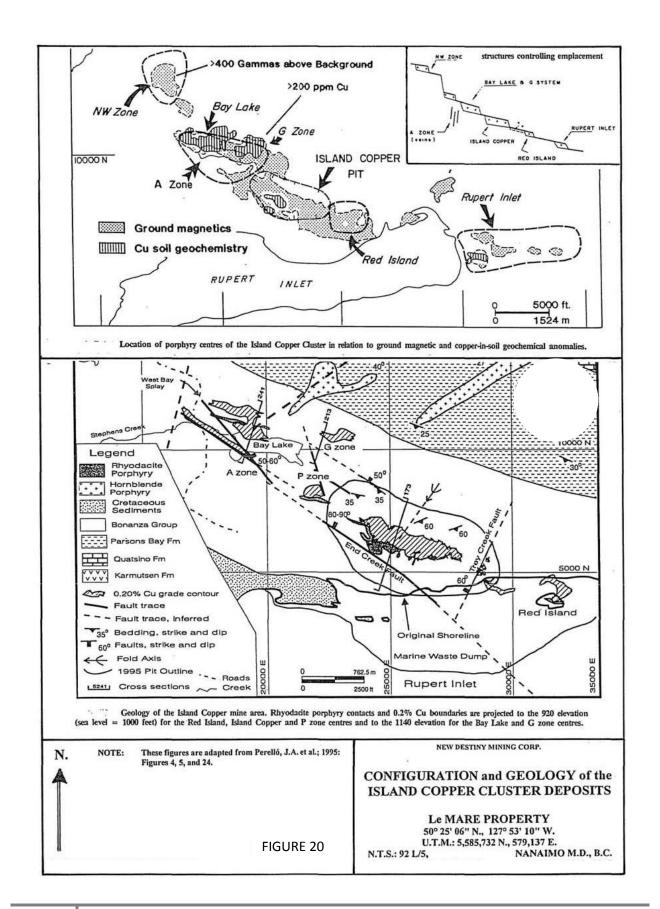
It is proposed that a steeply dipping right-lateral fault, trending at 306° may extend from beneath Quatsino Sound southeastward to Le Mare Lake where it terminates. A parallel structure may accommodate right-lateral displacement from Gooding Cove southeastward to beyond the head of Klatskino Inlet (about 12.5 km (7.6 mi)) southeast of the southeastern corner of the Le Mare property. A dilational jog between these two west-northwesterly trending faults may be defined by two steeply dipping faults that trend at about 338°. The easterly one may underlay the south arm of Le Mare Lake and Keith River; and the westerly one may extend from Gooding Cove north-northwestward to Gillam Islands beneath Quatsino Sound. The Le Mare hydrothermal system occupies an area bounded by these proposed faults.

Elevated silt-gold concentrations occur in six samples in the Le Mare property-area: 883237, 883262 to 65, and 883267, all of which are within 300 m (984 ft.) the surface traces of the proposed faults. The 40ppmcopper and 10-ppm arsenic contours separate areas of comparatively low silt-copper and arsenic concentrations to the north and east of Le Mare Lake with areas of higher concentrations to the south and west of it. The two contours roughly follow the northern and eastern boundaries of the proposed dilational jog, and could be the result of comparatively copper and arsenic-rich volcanic stratigraphy having been translated west-northwestward into contact with rocks with lower copper and arsenic contents along a regional dextral transcurrent fault system.

Silt sample 883267, taken near the mouth of Dumortiorite Creek and down-stream from the South Gossan Zone soil-molybdenum anomaly, contained 3 ppm molybdenum. That concentration was determined by the writer to be sub-anomalous in soils of the area. The only other two silt samples with elevated molybdenum contents were samples 883263 and 883265 which were taken from streams that drain the southern part of the Le Mare hydrothermal system.

Regional silt-silver, lead, and zinc distributions are not very diagnostic of regional structures or of mineralized locations.





## **Property Geology**

### Stratigraphy

Two mapping programs in the Le Mare property-area have been have been recorded for assessment: those of A. O. Birkeland (1991) for Stow Resources Ltd., and of J.T. Shearer (2010) for New Destiny Mining Corp., which formed part of the 2009 work program. A third mapping program, conducted by Dave Heberlein (1993B) for Minnova during 1992, was not filed.

Mappers of Birkeland's (1991) field crew offered very little lithological description on their geological map. Rocks were described mostly andesite or rhyolite with or without brecciation. Structural determinations were sparse, and when compared with the results of later mapping, many bedding-attitude determinations were revealed to be orientations of dominant cleavages.

Mappers on Heberlein's (1993B) field crew had difficulty distinguishing felsic volcanic rocks from silicified andesite and basalt. Consequently, their map depicted an unrealistic amount of felsic volcanic rocks. Almost no structural symbols were recorded on Heberlein's (1993B) geological map.

Mapping during the 2009 work program was conducted mostly in the South Gossan zone area to check the inconsistencies and the level of reliability of previous mapping in order to determine if a subsequent, more thorough mapping program would be advantageous. Time was not spent on detailed structural and alteration studies.

The Le Mare property hosts mostly mafic volcanic rocks of the Bonanza Supergroup, including autobreccias, lahars, and minor amounts of tuff and other pyroclastic beds. Rhyolitic rocks comprise a minor amount of the stratigraphy in the property-area. A thin rock unit previously identified as quartzite, was observed by the writer to be a pyritic, rhyolitic tuff. It may be one of the most useful stratigraphic marker beds in the property-area.

A 50-m (152.4-ft) thick "dyke", occupied by a rock described on Shearer's (2010) map as aplite, was located at the divide at the head of the Dumortiorite Creek valley just south of the phyllitic-argillic alteration of the South Gossan zone. It pre-dates the Dumortiorite Creek fault and could be coeval with the development of the Le Mare hydrothermal system.

Perelló et al. (1995) described three intrusive phases responsible for emplacement of the Island Copper Cluster deposits: an "early" rhyodacite porphyry associated with potassic alteration, an "inter-mineral" rhyodacite associated with sericite-clay-chlorite alteration and molybdenum deposition, and a barren, "latemineral" rhyodacitic porphyry. The spatial association of the "aplite" with the sericite-clay-chlorite (phyllic-argillic) alteration and soil-molybdenum anomalies of the South Gossan zone indicates that it may be an equivalent of the "inter-mineral" or "late-mineral" rhyodacite identified at the Island Copper deposits.

A prominent topographic knob, located at U.T.M: 5,584,800 N., 578,850 E. about 400 m (1,312.4 ft.) northwest of Dumortiorite Creek, was found to host a rhyodacitic dome that was described by Shearer (2010) as follows:

... Adjacent to the road (northwest of Dumortiorite Creek) is a bench-like ridge overlooking the west arm of Le Mare Lake where a resistant weathered dome-like feature was examined. An intensely siliceous, brittle, silicified hetero-volcanic breccia is cut by numerous quartz-chalcedony-like veinlets. The breccia fragments include angular banded, lapilli rhyolite, dacite and sub-rounded altered andesite. The dome-like breccia measures roughly 200 X 200 m (656 X 656 ft.). Other than the numerous quartz-chalcedony veinlets, no alteration or sulphide minerals were noted.

Shearer, J.T.; 2010: p. 17.

This rock-unit may be a volcanic vent filling above a rhyodacite porphyry like those exposed at the Island Copper mine. It is curious that this dome is located adjacent to the South-Gossan zone, argillic-phyllic alteration plume.

## Structure and Metamorphism

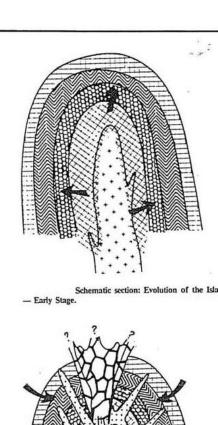
Regional mappers of the northern part of Vancouver Island have been in general agreement that folding of the Mesozoic and Cenozoic-age rocks exposed in that area has been minimal, and that block and transcurrent faulting have been the main mechanisms for stratigraphic displacement. J.E. Muller (1977) concluded that: Triassic-age rifting, westward tilting of the western part of Vancouver Island area during the Middle Jurassic-age Nassian orogeny, and eastward tilting east of the island's core area during the Late Cretaceous Laramide orogeny disrupted Vancouver Island stratigraphy into a series of tilted homoclines (Table 6). His conclusion has not been challenged.

However, there is a structural complication in the Le Mare property-area. The mostly mafic volcanic stratigraphy near the hydrothermal system has been deformed into a series of open to close outcrop-scale folds that have a wide variety of axial-plane orientations. Development of this deformation before that of the Le Mare hydrothermal system and great diversity of fold axis orientations indicate that this deformation was related to local intrusion and not to regional deformation.

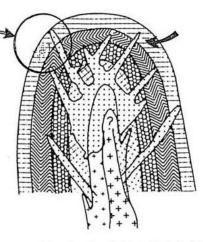
V.A. Preto (1979) concluded that such folding near the southern terminus of the Nicola batholith was related to emplacement of that intrusion. Similar folding mapped by the writer in mafic Nicola Group volcanics south of Merritt, British Columbia appeared to be the result of volcanic stratigraphy draping down over the margins of local plutonic cupolas. It was assumed that radial patterns of axial-plane orientations could be used to locate the locations of apices of such plutonic cupolas.

This style of folding indicates that the volcanic rock hosting the Le Mare hydrothermal system was buried at sufficient depth and sufficiently close to an intrusive contact for local heat, confining, and differential pressures to result in plastic, rather than brittle deformation. The existence of a near-surface contact of the volcanics with either of a coeval sub-volcanic intrusion or a rhyodacitic porphyry body is also supported by the exposure of the aplite rock unit at the head of Dumortiorite Creek.

Regional metamorphism around the Le Mare property-area does not exceed prehnite-pumpellyite or zeolite facies. It is difficult to discern around the Le Mare hydrothermal system due to pervasive, lower greenschist facies, thermal "contact" metamorphism that resulted in the formation of the axial plane cleavages in the drape-folds. Subsequently this was overprinted by pro-grade propylitic, potassic, and argillic-phyllic alteration. The writer presumes that this folding, thermal metamorphism, alteration and mineralization occurred during the Middle to Late Jurassic Period at about 175 million years ago, contemporaneous with development of the Island Copper Cluster deposits.

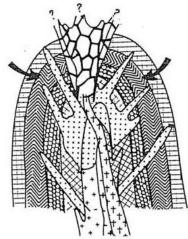


Level similar to that of exposures of the Le Mare Hydrothermal



Schematic section: Evolution of the Island Copper deposit

Schematic section: Evolution of the Island Copper deposit - Intermediate Stage.



LEGEND

EPIDOTE-PYRITE

CHLORITE-MAGNETITE-PYRITE

BIOTITE - MAGNETITE - CHALCOPYRITE

QUARTZ - AMPHIBOLE - MAGNETITE STOCKWORK

QUARTZ - SERICITE - CHLORITE OVERPRINT

RHYODACITE PORPHYRY

NEW (INTERMINERAL) MAGMATIC INPUT PYROPHYLLITE-DUMORTIERITE BRECCIA

LATE PORPHYRIES ( RHYODACITE)

Schematic section: Evolution of the Island Copper deposit - Late Stage.

NOTES: These figures are adapted from Perelló, J.A. et al.; 1995: Figures 23a to 23c.

For comparison to the Le Mare hydrothermal system, see Table 10.

# NO SPECIFIED SCALE

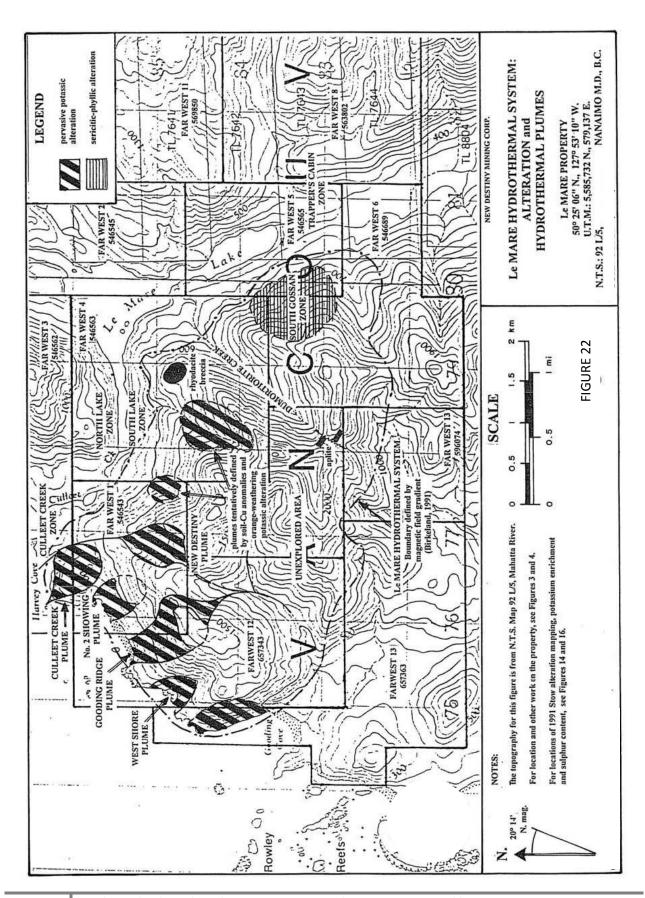
NEW DESTINY MINING CORP.

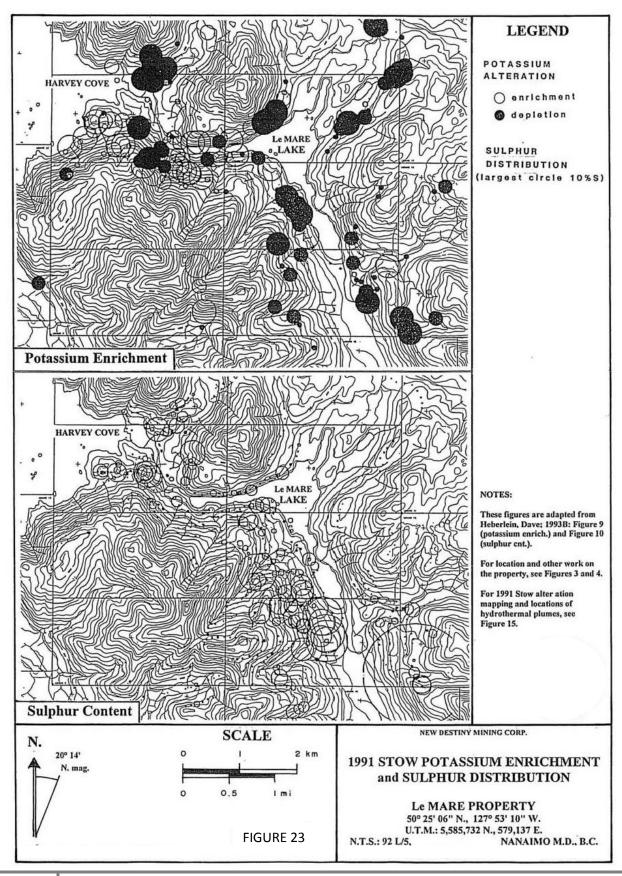
## EVOLUTION of the ISLAND COPPER DEPOSIT

Le MARE PROPERTY 50° 25' 06" N., 127° 53' 10" W. U.T.M.: 5,585,732 N., 579,137 E. NANAIMO M.D., B.C.

N.T.S.: 92 L/5,

FIGURE 21





#### MINERALIZATION

### Copper

At the Le Mare hydrothermal system, copper mineralization is related to an early potassic alteration event; molybdenum enrichment is related to a later argillic-phyllic event. High concentrations of copper and molybdenum occur together in significant amounts only where molybdenum enrichment has overprinted that of copper. The Le Mare hydrothermal system's potassic alteration zone has just been unroofed by erosion. At this level, copper mineralization occurs in discrete showings-areas located preferentially in the central parts of subvertical alteration plumes (previous). Copper mineralization occurs mostly as chalcopyrite with minor amounts of bornite. In weathered rock, primary minerals are replaced to varying degrees by chalcocite, covellite, and black (copper-rich) limonite. In intensely weathered areas, sulphides have been oxidized to brick-red hematite and limonite; copper concentrations have been reduced to very low levels. This occurred above the Gooding Cove road in the Gooding Ridge plume where the writer's sample N4-1 contained 3 ppm copper and traces of molybdenum, gold and silver.

Of the five hydrothermal plumes located between Harvey and Gooding coves, the Culleet Creek plume is the only one that has been explored intensively during the early 1990s. A.O. Birkeland (1991) described copper mineralization of the Culleet Creek plume as follows:

Rocks in the vicinity of the Culleet Creek Zone exhibit a white weathering rind on surface (kaolinite after chlorite-K-spar). Numerous voids and boxwork textures with remnant secondary Cu mineralization is being leached by surface weathering and all values (concentrations) encountered near surface are likely depleted. This distinctive weathering characteristic (including chalcedonic quartz intergrowths) occurs over an area of approximately 500 m X 750 m (1,640.4 X 2,460.6 ft.). Two road borrow pits (Gorby and Boris showings) have fresher rock exposed in the pitwalls and roadfill debris. All rock types exposed in the pits are silicified and mineralized to various degrees. Modes of occurrences of copper mineralization are described as follows:

- chalcopyrite, chalcocite, minor bornite, covellite, and native copper in apple green silicified (AGS) zones
- associated with chalcedonic intergrowths, jasper and quartz veinlets and fractures, amygdules
  or disseminated in breccia matrix overprinting all rock types
- disseminated chalcopyrite in lesser silicified dark green chloritized volcanics

The 500 m X 750 m (1,640.4 X 2,460.6 ft.) alteration zone of AGS has been trenched with 8 plugger and blast hole trenches.

Birkeland, A.O.; 1991: p. 13.

Within all of the hydrothermal plumes examined by the writer, the early phase of potassic alteration comprises veinlets and disseminations of predominantly orthoclase, minor quartz, and sparse red-brown biotite which hosts chalcopyrite, with small amounts of bornite associated with pyrite, commonly with a chalcopyrite:pyrite ratio greater than 2:1. Orthoclase-rich, alteration passes gradually to a distal phase of silicification which, as A.O. Birkeland (1991) correctly observed, was accompanied by a gradual decrease to low copper concentrations with chalcopyrite being the only significant copper-bearing sulphide.

Orthoclase-quartz alteration is post-dated by quartz-jasper veinlets, pods, and disseminations that host vein-segregations and disseminations of chalcopyrite, bornite, and pyrite. These look similar to, but can be seen to cross-cut earlier orthoclase-quartz related mineralization in fresh rock at the Gorby showing. Generally, copper mineralization seems to be more abundant in quartz-jasper alteration than in the preceding orthoclase-quartz alteration.

Tabulated averages of Birkeland's (1991) sampling results weighted per linear metre, from the eight plugger and blast-hole trenches that Birkeland mentioned (previous quote). Grab samples were excluded. That tabulation is as follows:

Table 6
Results of Birkeland's1991 Sampling in the Culleet Creek Zone
Weighted per Metre of Sampling

Location	Analysis	Total Sampling		Copper	Molybdenum	Gold	Silver	Zinc
	Number	Length		ppm	ppm	ppb	ppm	ppm
	Sequence	metres	feet					
Harvey Cove	125229-37	22.0	72.2	1043	<2	<6	<0.4	102
showing	131488-500				_			
Gorby showing	125357-61	30.5	100.1	315	<1	<5	<0.2	84
	125383-90							
	125403-07							
	131451-53							
Boris showing	125391-99	9.0	29.5	1134	<1	<5	0.5	30
91-T2	131457-61	5.0	16.4	93	<1	<5	<0.2	102
91-T3	131462-67	6.45	21.2	2665	4	<5	<0.4	70
91-T4	131468-70	3.0	9.8	660	<1.7	77	<0.3	77
91-T5	131471-73	3.0	9.8	577	3	17	<0.2	144
91-T6	131474-78	5.0	16.4	170	<1	<7	<0.2	167
91-T7	131479-83	4.8	15.7	687	<2.8	29	<0.2	50
91-T8	131484-87	4.3	14.1	133	<1	<5	<0.2	63
Average/m of		93.05	305.3	740	<1.5	<8.9	<4.7	87
Culleet Creek zone								
sampling								

NOTES: This table is produced from the data of A.O. Birkeland, A.O., 1991.

1991 grab samples have been excluded from this tabulation.

For locations of sampled areas, see Figures 4 and 5.

Average copper concentrations from the 1991 Stow Resources trenches varied from a low of 133 ppm to a high of 2,665 ppm (Table 8). Such variance is intrinsic to discontinuous copper mineralization near the top of the potassic alteration zone of any calc-alkalic porphyry system. A discussion of sample variance comprises part of section 7.0 of this report.

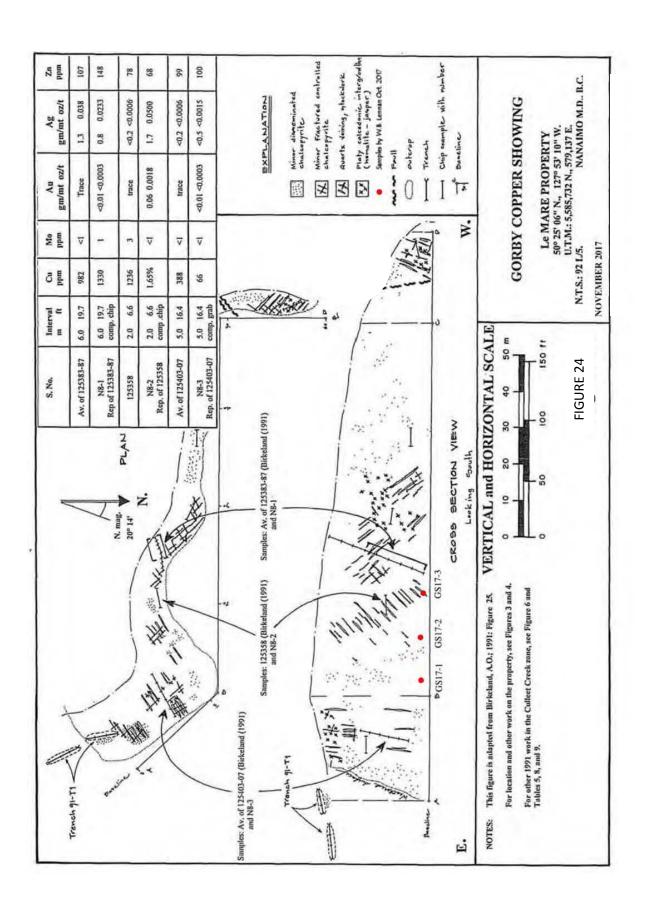
The Gorby occurrence is located on a spur road about 80 m (262 ft.) north of the Gooding Cove road in the southern boundary-area of the FAR WEST 3 (546562) claim. It is near the geographic centre of the Culleet Creek plume and hosts the most extensive exposure of fresh, mineralized rock in the plume. A road borrow pit was extended into a 50-m (164-ft) long side-hill cut during the 1991 Stow Resources program.

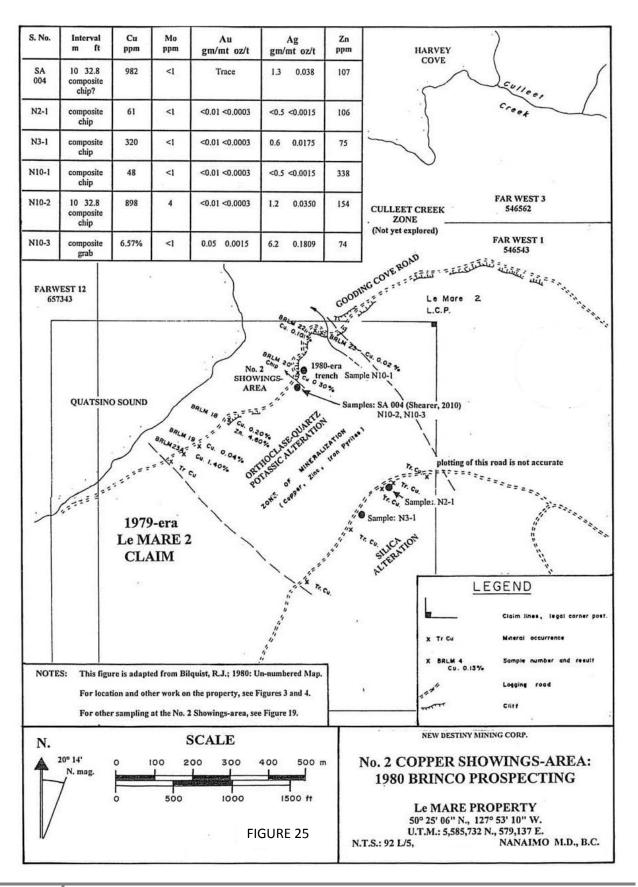
### J.T. Shearer (2010) added to a description of the Gorby showing as follows:

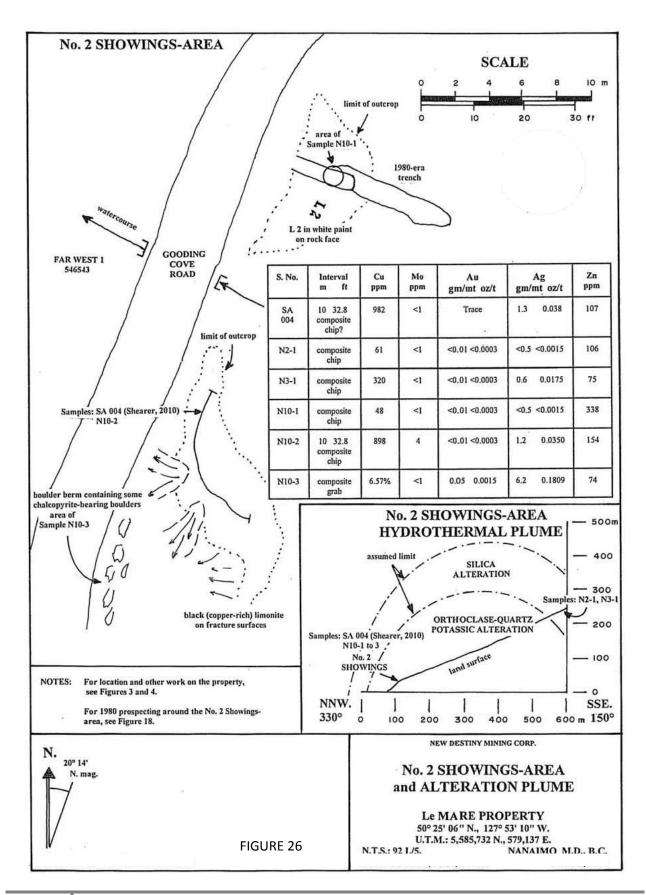
The Boris and Gorby copper showings were briefly examined and are well documented by (Birkeland, 1991) ... One of the key differences the writer noted at the Gorby showing was the increase (greater intensity) in quartz (and lesser calcite) veining hosted in the andesite (at that location). This was not observed in other andesitic rocks mapped - although minor (<0.05%) free chalcopyrite was occasionally noted. Also at the Gorby, quartz-filled stretched amygdaloidal andesitic flows are associated with disseminated chalcopyrite ...

J.T. Shearer; 2010: p. 17.

One of the 1992 Minnova Inc. diamond drill holes, No. 92- 676-2, penetrated the Culleet Creek potassic alteration plume at a location about 50 m (164 ft.) east of the centre of the Gorby cut (Figure 5, Table 5). That hole went through five 2-m (6.56-ft) and one 4.7-m (15.4-ft) long intersections that contained from 500 to 959 ppm copper. Those copper concentrations were similar to many of the average concentrations that the writer calculated from Birkeland's (1991) trench sampling results (Tables 5 and 8), indicating that the discontinuous style of copper mineralization recorded from the trenches is present to a depth of at least 200m (656 ft.). Sparse copper mineralization to depth in this plume may be related in part to its location at the outer edge of the hydrothermal system.







The No. 2 showings-area is located on the up-hill side of the Gooding Cove road in the northwestern part of the FAR WEST 1 (546543) claim (Figures 3 and 4). It is in the northwestern part of the potassic alteration zone of the No. 2 Showings-area plume.

During 1980, British Newfoundland Exploration Ltd. (BRINCO) conducted a prospecting program on the Le Mare No. 1 (later known as the North Lake zone) and the Le Mare No. 2 showings-areas (Figure 4). R.J. Bilquist (1980) recorded the results of BRINCO's work on the No. 2 Showings-area as follows:

Prospecting on the LE MARE NO.2 mineral claim resulted in the discovery of a zone of mineralization. This zone was traced along the road cut a distance of 600 m (1,968.5 ft.). The mineralization found included chalcopyrite, malachite, azurite, sphalerite, and iron pyrites. Mineralization appears to be related to faults and fractures and in places it is abruptly cut off at the boundaries of these. The rock appears to be mainly andesite flows and tuffs cut by an occasional andesite dike. Near chip sample BRLM 20, secondary potassium feldspar was seen as fracture fillings. Samples from here assayed between 0.20% and 1.40%. The copper mineralization was noted in another parallel road approximately 400 m (1,312.3 ft.) to the southeast. No samples from here were assayed but from visual examinations it is assumed that the values (concentrations) would be similar.

Bilquist, R.J.; 1980: p. 6.

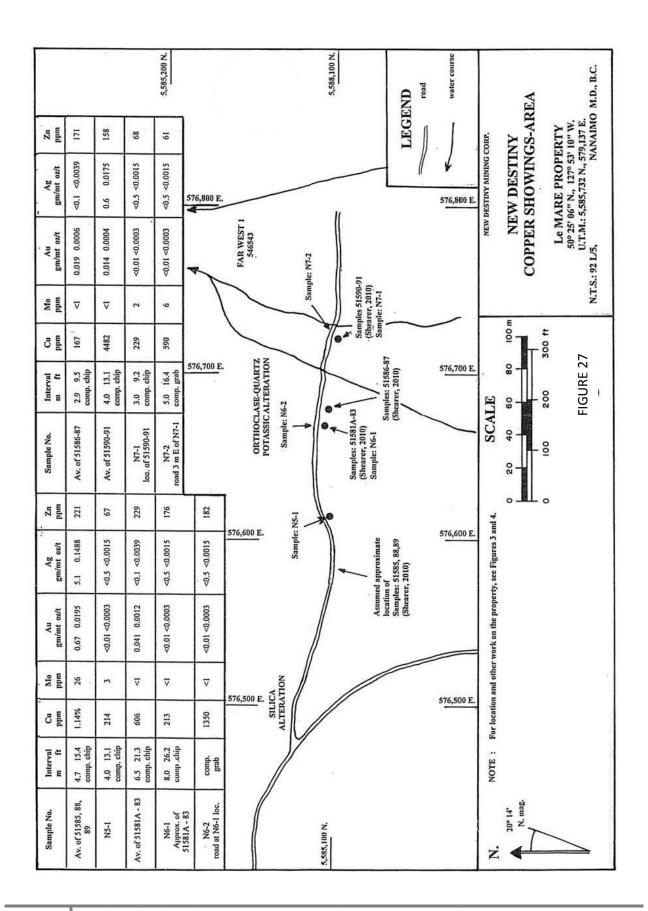
Bilquist's (1980) description of a 600-m (1,968.5 ft.) section of the Gooding Cove road has been copied in various versions by subsequent writers who all have ascribed that description to the No. 2 showings-area itself. The location of Bilquist's sample No. BRLM 20 is the actual location of the showings-area.

Recognition of "secondary potassium feldspar" at the BRLM 20 sample site may have encouraged the BRINCO prospectors to work the slope above the No. 2 (BRLM 20) showings-area along a road where the writer took samples N2-1 and N3-1 (Table 9). Although R.J. Bilquist (1980) did not report the presence of a hydrothermal plum, he did outline the potassic alteration zone of the No. 2 Showings-area plume fairly accurately.

Later, when A.O. Birkeland (1991) developed his theory of the presence of a linear, 6-km (3.7-mi) long, mineralized belt from Harvey Cove to the southeastern end of Le Mare Lake, he seems to have ignored the 1980 BRINCO discoveries southwest of his preferred zone. Being outside Birkeland's trend, the No. 2 showings-area and Gooding Ridge was explored little prior to the 2009 exploration program.

At the No. 2 showing itself, there is an old trench dug into chloritic andesite hosting orthoclase-quartz and quartz-jasper (potassic) alteration similar to that in the Gorby cut. Any significant copper mineralization has been removed from the trench. A few metres southwest of the trench, the letters L 2 have been painted in white on the rock face, probably by either the 1991 or 1992 field crew.

There is a relatively new cut into the rock for road material about 18 m (59 ft.) south of the trench along the road. Sample SA 004 was taken along a variably weathered 10-m (32.8-ft) long section near the base of the rock face. Composite chip samples contained 982 ppm and 898 ppm copper respectively. A boulder berm, dug out of the cut and left beside the road in front of it, comprised clasts of andesitic flow and flow-breccia rock. Comparatively 'permeable' parts of the matrix in several flow-breccia boulders contained blebs of chalcopyrite up to 5 cm (about 2 inches) in length. Grab sample N10-3 containing 6.57% copper, was comprised of pieces hammered off some of the boulders. On the rock face itself, very little chalcopyrite remained. Most of it had been replaced by black copper-rich limonite.



The New Destiny showings-area is near the western end of Le Mare Ridge in the south-central part of the FAR WEST 1 (546543) claim (Figures 3 and 4) in the potassic alteration zone of the plume. Dave Pawliuk, a member of the 2009 field crew and a former owner of the 1997-era LEM claims (Figure 4), discovered the showings on December 5, 2009. J.T. Shearer's account of them was as follows:

The New Destiny Copper Zone ... is exposed along a new logging road hosted by rhyodacite and andesite with pervasive chlorite and hematite, locally brecciated alteration. Mineralization consists of up to 2% chalcopyrite and pyrite ..., sample 51585, a chip over 0.9 m (3.0 ft.) assayed 2.34% Cu, 1.97 g/tonne (0.057 oz./ton) gold and 9.0 g/tonne (0.26 oz./ton) silver.

Shearer, J.T.; 2010: p. 22.

The western part of the showings area hosts intensely chloritized and silicified dacitic rock near the base of a Tertiary-age weathering profile. This rock contains significant amounts of chalcopyrite and pyrite that have been partly weathered to hematite and limonite. D.J. Pawliuk's samples: 51585, 51588 and 51589, taken from felsic volcanic rocks near the western end of the showings-area contained an average of 1.14% copper. This high concentration may have been be due in part to local copper concentration in "permeable" areas.

Rock with blebs of massive chalcopyrite-pyrite-bornite mineralization were sampled by the writer farther east in the showings-area (subsequent).

East of the dacite is medium-green silicified mafic andesite or basalt with sparse to moderately intense orthoclase-quartz alteration. Black (copper-rich) limonite and traces of azurite and malachite occur on fracture surfaces. Rusty blebs throughout this rock may be the result of weathering of pyrite and chalcopyrite to hematite and limonite. Sparsely disseminated chalcopyrite is present on fresh surfaces.

Averages of D.J. Pawliuk's samples 51581A to 51583 and 51590 and 51591, from about the same locations as samples N6-1 and N7-1, contained 606 and 4482 ppm respectively. Like at the other copper showings that the writer has examined in this part of the Le Mare hydrothermal system, there is great local variability in copper concentrations. The molybdenum content of samples from the New Destiny showings-area is low.

Potassic alteration and accompanying copper mineralization have been overprinted by argillic-phyllic alteration in the South Gossan zone, and in a small area around the Mo Road showing west of Culleet Lake. Locally, along discrete fracture systems in the South Gossan zone, argillic-phyllic alteration is in turn, overprinted by minor amounts of advanced argillic alteration. The effects of the overprinting alteration events have been to liberate copper deposited during the previous potassic alteration event and to redistribute it, probably upward, to rock that has now been eroded away. This is indicated by the lack of distinct soil-copper anomalies in the South Gossan zone. J.T. Shearer (2010) summarized copper occurrence in and around the South Gossan zone as follows:

South Gossan Zone (SGZ)

Copper mineralization flanks the (argillic, phyllic, and advanced argillic) alteration zones occurs in volcanic wallrocks. Modes of occurrences are described as follows:

- Massive fine-grained chalcopyrite and bornite/chalcocite/covellite (may be Au bearing) veinlets and fractures radiating out from beneath the northeast plunge beneath the advance alteration cap.
- Disseminated fine grained chalcopyrite associated with black chlorite-magnetite hydrobiotite? in mafic volcanic (transitional potassic-phyllic "mafic porphyry") alteration.
- East of the SGZ and across the Le Mare Lake valley (Trapper Cabin area) (Figure 4) are fault controlled chalcopyrite and bornite occurrences in siliceous pyritic volcanics.

To the west of the SGZ and in the headwaters of "Dumortiorite Creek", carbonate veins up to .3m (1 ft.) in width occur in propylitic alteration envelopes. The veins have been traced for a strike length of up to 15m (49.2 ft.).

Shearer, J.T.; 2010: p. 18.

Copper-bearing veins radiating out from subsequent alteration could describe re-mobilized copper that has been flushed outward from the sloping margin of a vertically zoned argillic-phyllic alteration plume. Shearer's description of chalcopyrite in association with "transitional potassic-phyllic" alteration could be a manifestation of local partial overprinting of early potassic by subsequent argillic-phyllic alteration as mentioned previously.

### Molybdenum

The distribution of molybdenum enrichment related to the Le Mare hydrothermal system has been defined mostly by soil-molybdenum anomalies. All of the largest and most intense of these anomalies are spatially associated with quartz-sericite-pyrite (phyllic) alteration lower eastern flank of the argillic-phyllic alteration plume. Molybdenum enrichment is conspicuously absent in the copper showings that are related to potassic alteration. Discussions of the relevance of molybdenum enrichment to alteration and the distribution of soil-molybdenum anomalies form part of sections 4.2.1 and 5.3.2 of this report.

A small, roadside outcrop hosting visible molybdenite was located by the 1991 Stow mapping crew (Birkeland, 1991) on the main Gooding Cove road southwest of Culleet Lake. It was described as follows:

At the Mo Road showing to the west of Culleet Lake, sparse chalcopyrite and molybdenite mineralization has been noted in the road cut associated with advanced argillic and phyllic alteration ...

Birkeland, A.O.; 1991: p. 14.

The outcrop was less than 5 m (16.4 ft.) long and was composed of white to yellow sericite with subsequent and veinlets and disseminations of clay and a white chalky mineral that Shearer identified as geyserite. Traces of fine-grained molybdenite and possibly chalcopyrite were disseminated throughout the rock.

The Mo Road outcrop is located at about U.T.M. co-ordinates: 5,585,884 N., 577,209 E. (50° 25' 12" N., 127°54' 47"W.) on the FAR WEST 1 (546543) claim. It is within a small area of phyllic alteration between the road and Culleet Lake. The most important aspect of this outcrop is that, as at the flank of the argillic-phyllic alteration plume in the South Gossan zone and at the Island Copper mine deposit, molybdenite mineralization is demonstrated to be intimately associated with phyllic alteration in outcrop (sections 4.2.3 and 5.3.2, this report).

Comparison of the Island Copper and Le Mare Hydrothermal Systems

The Island Copper mine deposit covered an elongate 1,750 X 480 m (5,741 X1,575 ft.) oval-shaped area. From the mine's opening until 1994, a total of 345 million tonnes (380 million tons) of ore having average head grades of 0.41% copper, 0.017% molybdenum, 0.19 gm/mt (0.006 oz./ton) gold and 1.4 gm/mt (0.041 oz./ton) silver were produced.

The Le Mare hydrothermal system is exposed in an oval-shaped area with axes measuring about 5,000 X 3,000 m (16,404 X 9,843 ft.). There is more than sufficient area within the exposed boundaries of the Le Mare hydrothermal system to accommodate a pit the size of the one required at the Island Copper mine deposit.

Many aspects of the Le Mare hydrothermal system are quite similar to those of the Island Copper mine deposit. Similarities and differences between the two systems are tabulated by the writer as follows:

Table 7
Comparison of the Island Copper and Le Mare Hydrothermal Systems

Aspect	Island Copper Hydrothermal System	Le Mare Hydrothermal System		
Mineral occurrence class	Calc-alkalic porphyry Cu-Au-Mo	Calc-alkalic porphyry Cu-Mo		
		(Au potential is not assessed)		
Age	175 m.y - Middle Jurassic Period	175 m.y - Middle Jurassic Period		
	Aaelnian-Bajocian Stage	Aaelnian-Bajocian Stage		
Host rocks	Bonanza Supergroup mafic to intermediate	Bonanza Supergroup mafic to intermediate meta-		
	meta- volcanic and associated meta-	volcanic and associated meta-sedimentary rocks		
	sedimentary rocks			
Controlling structures	End Creek Fault:	proposed west-northwest trending, right lateral,		
	west-northwest trending, right-lateral, sub-	sub-vertical, regional fault		
	vertical, regional fault			
Local structures	block faults, minor folds	block faults, drape folds		
Localization	dilational jog along the regional structure	proposed dilational jog along a regional structure		
Alteration	Early Potassic and Pro-grade Propylitic:	Early Potassic plumes surrounded by Pro-grade		
	1. Inner potassic: qtz-actinolite-hb-Na.plag- =/-	Propylitic		
	scapolite-apatite (low Cu + Mo contents)	1. Potassic plume: core of kspar-qtz +/-bio		
	2. Outer potassic: bio-mag-albite-kspar +/-	intruded by qtz-jasper all contained in silicic		
	amphiboles (>0.2% Cu)	envelope (Cu showings in core areas)		
	3+4. Propylitic: chlorite-calcite-epidotepyrite	2. Outer propylitic: chlorite-calciteepidote-pyrite		
	3. (<0.3% Cu) 4. (<0.1% Cu) Intermediate	(low Cu)		
	phyllic-argillic: sericite kaolinite-illite-chlorite	Intermediate phyllic-argillic: sericitekaolinite-clays-		
	+/- pyrite (Mo and minor Cu mineralization)	chlorite at the South Gossan zone (asst. with soil-		
	Late Advanced Argillic:	Mo anomalies)		
	(hosted in pyrophyllite-dumortiorite breccia)	Late advanced argillic:		
	pyroph-qtz-sericite-kaoliniteclays-dumortiorite	(restricted to a few permeable faults)		
		sericite-kaolinite-clays		
Intrusion	1. Early mineral rhyodacite (altered and	1. Rhyodacite breccia at Culleet Creek zone with		
	associated with potassic alt and most Cu	qtz-jasper (late potassic) alteration		
	mineralization)	2. Altered + unaltered felsic dykes in the South		
	2. Intra-mineral rhyodacite (altered and asst	Gossan zone		
	with most Mo and minor Cu mineralization)	3. Rhyodacite northwest of Dumortiorite Creek-		
	3. Late-mineral rhyodacite (unaltered) and	Unaltered aplite at the head of Dumortiorite Creek		
	pyrophyllite breccia (post-mineral)			
Mineralization	1. Early Cu-Au+/-Mo asst with kalt	1. Cu showings + soil anomalies asst with kalt		
	2. Late Mo-Cu+/-Au asst with argillicphyllic alt	2. Mo Road showing and soil anomalies asst with		
		phyllic alt		

NOTE: Au = gold, Cu = copper, Mo = molybdenum, bio = biotite, hb = hornblende, kspar = potassium feldspar, mag = magnetite, plag = plagioclase feldspar, qtz = quartz, alt = alteration, kalt = potassic alteration, m.y. = millions of years ago.

The deposits of the Island Copper Cluster differ from typical calc-alkalic porphyry copper-molybdenum deposits in that, for the most part, they have gold contents similar to those of alkalic porphyry copper-gold deposits (Perelló et al., 1995).

### **WORK PROGRAM 2017**

Four rock grab samples in were collected the immediate vicinity of the 2011 chip sampling on the New Destiny Copper Showing (discovered in late 2009) that returned 180 m of continuous chip samples which assayed copper values averaging 0.24% Copper. Figure 12 shows that the 2009 sampling by Pawliuk extended further west which shows the locations of samples 51585, 51588 and 51589. The author's sample locations are shown on Figure 13 and 28 and the results are tabulated as follows in Table 8 and Appendix IV:

 Table 8

 October 12, 2017 New Destiny Showing Grab Sample Results from ALS Labs

		,		0 1			
Location	Analysis	Total	Copper	Molybdenum	Gold	Silver	Zinc
	Number	Sampling	ppm	ppm	ppb	ppm	ppm
	Sequence	Length					
New	NDD17-01	Grab	2970	0.91	<0.02	1.88	129
Destiny	NDD17-02	Grab	6300	1.17	0.03	1.02	117
Showing	NDD17-03	Grab	5680	2.58	<0.02	1.55	58
	NDD17-04	Grab	>10,000 or	1.16	0.15	3.63	61
			3.94%				

The 2017 results corroborate the 2011 chip sample results and indicate that the New Destiny Showing warrants further detailed investigation.

Ostler's (2010) grab samples range from 3 ppm to 6.57% copper and the 2017 grab samples at the Gorby Showing ranged from 530 to 1235 ppm copper. The 2017 four grab samples from the New Destiny Showing ranged from 2970 ppm to 3.94% copper. Such variability should be expected in mineralization located near the top of the potassic alteration zone of a porphyry copper-molybdenum deposit.

Additional samples of wide ranging rock samples were also collected in 2017.

Assays were conducted by using an XRF Unit factory calibrated (Cert No. 0154-0557-1) on October 30, 2013, Instrument #540557 Type Olympus DPO-2000 Delta Premium. The instrument was calibrated using Alloy Certified reference materials by ARM1 and NISS standards. Only certified operators were employed and that were experienced in XRF assay procedures. Read times were 120 seconds or greater.

The program in 2017 included a small ground magnetometer survey was completed around the New Destiny Showing (see Figure 28). A fluxgate unit was used and a loop base station during the survey was used at frequent intervals. Background levels are below 1000 gammas and the area over the New Destiny Showing is over 2000 gammas. The ground magnetometer survey totalled 6.1 line kilometres.

Proposed drill locations are plotted on Figure 13 to test the mineralized zone (New Destiny Showing) and ground magnetometer anomaly.

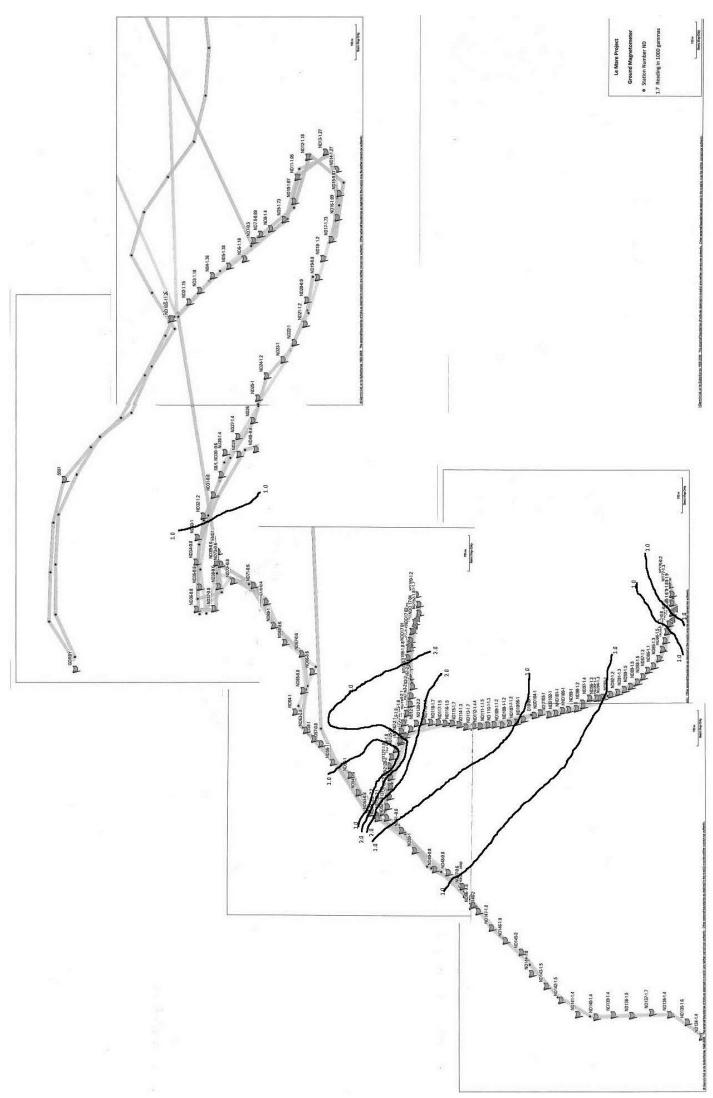


Figure 28 Ground Magnetometer Survey 2017

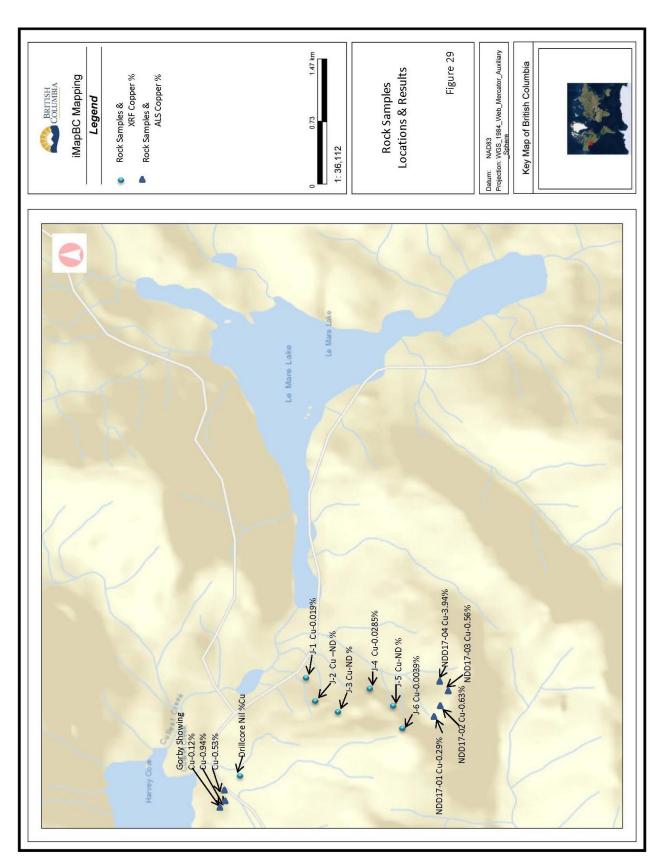


Figure 29 Rock Sample Locations and Results

#### CONCLUSIONS and RECOMMENDATIONS

The Le Mare hydrothermal system has been just barely unroofed by erosion. The top of the potassic alteration zone is exposed along the crests of Le Mare and Gooding ridges, located between Le Mare Lake and Gooding Cove in the southwestern part of the Le Mare property. Local magnetic field gradient indicates that this system occupies a 5 X 3 km (3.05 X 1.83 mi) or 15 km2 (5.6 mi2) oval-shaped area that may be hosted by a dilational jog in a regional right-lateral fault system. The proposed fault system is similar to the one that hosts the Island Copper Cluster deposits near Port McNeill, British Columbia.

At surface, copper mineralization occurs in discrete showings-areas, located preferentially in the central parts of sub-vertical hydrothermal plumes. These plumes have core-zones of orthoclase-quartz-biotite (potassic) alteration, enveloped in siliceous exteriors. The gradual decrease in the orthoclase:quartz ratio from about 4:1 in potassic core zones to less than 1:20 in siliceous envelopes, indicates that peripheral silicification is a distal phase of the core-zone potassic alteration and is not overprinted by it. Orthoclase-quartz-biotite alteration is succeeded by quartz-jasper alteration; both phases are mineralized with chalcopyrite, and minor quantities of bornite. This potassic alteration is accompanied by co-incident soil-copper and local magnetic anomalies. Discovering economically viable concentrations of copper mineralization within the Le Mare hydrothermal system depends on the successful identification of zones where these hydrothermal plumes and copper occurrences coalesce.

Molybdenum enrichment occurs in areas flanking phyllic alteration in a 600-m (1,968.5-ft) diameter argillic-phyllic alteration plume, covering a 0.28 km2 (0.1 mi2) area in the eastern part of system in the South Gossan zone. Another, much less extensive plume of argillic-phyllic alteration is exposed between the Culleet Creek zone and Culleet Lake in the system's northwestern part. These two plumes cover less than 2% of the total exposure-area of the Le Mare hydrothermal system. Argillic-phyllic alteration post-dates and overprints potassic alteration.

Both sample results and the distribution of soil-copper and molybdenum anomalies, demonstrate that copper and molybdenum mineralization are associated with early potassic and subsequent argillic-phyllic alteration events respectively. They occur together in significant amounts only where molybdenum enrichment has overprinted that of copper.

Most aspects of the Le Mare hydrothermal system are similar with those of the Island Copper Cluster deposits. Geology, alteration, and mineralization at surface at the Le Mare hydrothermal system correspond with those attributes at the Island Copper mine above the main deposit. These similarities indicate that the Le Mare hydrothermal system may host a calc-alkalic porphyry copper-molybdenum deposit of the Island Copper Cluster type.

The Early Jurassic-age land surface above the Le Mare hydrothermal system, and whatever near surface hot-spring environment that it may have hosted, has been lost to erosion. Only a few narrow roots of a late, advanced argillic alteration occur in the argillic-phyllic alteration plume in the South Gossan zone. They attest to the former existence of hot spring development above the current erosional level.

Previously, the Le Mare hydrothermal system has been investigated for geyserite (SiO2.nH2O), an industrial mineral related to hot spring deposits. The level of exposure of the Le Mare hydrothermal system is beneath that favourable for the development of near-surface clays and industrial minerals. The chance of finding a commercially viable geyserite deposit in this area is low to nil.

Most exploration has been conducted in the northeastern part of the Le Mare hydrothermal system; its southeastern part remains sparsely explored to unexplored. Six BQ diamond drill holes penetrated the northeastern margin of the Le Mare system in 1992. One hole that penetrated the Culleet Creek potassic alteration plume, intersected five 2-m (6.56-ft) and one 4.7-m (15.42-ft) long intersections that contained from 500 to 959 ppm copper, which is similar to the tenor of copper mineralization in nearby trenches. Copper mineralization at surface is locally quite variable. The writer's samples range from 3 ppm to 6.57% copper.

Generally, the reproducibility of small-scale sampling is low. Such variability should be expected in mineralization located near the top of the potassic alteration zone of a porphyry copper-molybdenum deposit. Less than 1% of the surface area of the Le Mare hydrothermal system has been drilled.

#### Recommendations

It is recommended that a two-phase work program be conducted on the Le Mare hydrothermal system to explore for the presence of a calc-alkalic porphyry copper-molybdenum deposit of the Island Copper Cluster type.

The first phase of the recommended work program comprises geological mapping, prospecting, and soil survey. The services of an excavator, two pick-up trucks and an all-terrain vehicle (quad) will be required to provide efficient access to the work-area.

Geological mapping and prospecting should be conducted over the whole 15 km2 (5.6 mi2) covered by the hydrothermal system. Focus of this work should be on: 1. identifying areas of mineralization that may be present, 2. recording the relationship among mineralization and the various alteration types that are known to be present in the system, 3. mapping the distribution of alteration types to determine the locations of potassic and argillic-phyllic alteration plumes which are hosts of copper and molybdenum mineralization respectively, 4. discerning both the volcanic and intrusive stratigraphy, and the pattern of drape folding.

Soil samples should be collected along traverses using the many logging roads that are present throughout the area covered by hydrothermal system. In most parts of the project-area, logging roads are sufficiently close together to enable contouring of soil data between them. Contour traverses through the bush will be necessary in locations with widely spaced roads. Soil samples should be taken at 50-m (82-ft) intervals along traverses. During the current (2009) work program, soils were surveyed over 5 km2 (1.9 mi2) of the 15 km2 (5.6 mi2) area of the hydrothermal system. If the sampling density of the 2009 soil survey is maintained, then to survey the remaining 10 km2 (3.7 mi2) will require about 580 samples to be taken along 27.6 km of line.

If reasonable encouragement is generated by the results of the first-phase program, it should be followed by a second-phase program of 3-dimensional induced polarization and ground magnetic surveys. Those surveys should be conducted over the whole 15 km2 (5.6 mi2) area of the hydrothermal system. Induced polarization surveys are conducted most efficiently along cut lines where wires of known lengths can be strung out from generators. A survey over the Le Mare hydrothermal system will require the cutting and surveying of about 75 km (45.75 mi) of line to produce a survey grid-area with lines spaced 200 m (656 ft.) apart. Cutting lines through dense second-growth rain forest over the rugged terrain on the Le Mare property will be slow work. It is estimated that a 2-man crew will be able to cut only about 0.5 km (0.31 mi) of line per day.

The results of the two phases of the recommended work program should produce a three-dimensional assessment of the rock to a depth of about 300 m (984 ft.) beneath the surface exposure of the Le Mare hydrothermal system. It is expected that this assessment will be sufficiently detailed to enable precise location of the best target-areas to drill for porphyry copper and molybdenum mineralization.

The program in 2017 included a small ground magnetometer survey was completed around the New Destiny Showing (see Figure 28). A fluxgate unit was used and a loop base station during the survey was used at frequent intervals. Background levels are below 1000 gammas and the area over the New Destiny Showing is over 2000 gammas.

Proposed drill locations are plotted on Figure 13 to test the mineralized zone (New Destiny Showing) and ground magnetometer anomaly.

## Estimated Cost of the Recommended Follow-up Exploration Program

Time-cutting Costs: 75 km of line @ \$2,250/km (all-in contractor price) Excavator for road opening; 90 hours @ \$150/hour Excavator for road opening; 90 hours @ \$150/hour Excavator for road opening; 90 hours @ \$150/hour Excavator mobilization  Geophysical Survey Costs: 75 km of 3-dimensional induced polarization and ground magnetic surveys @ \$2,40,000  \$3,200/km (all-in contractor price including data manipulation and reporting)  Geological Support and Project Management: 1, T. Sharare, senior geologist and project manager; 25 days @ 700/day 1 geologist; 25 days @ \$650/day each including field work, data manipulation and reporting for assessment  \$16,250 \$33,750  \$18,250  \$17,500  \$18,250 \$1,600 \$1,500 \$2,000  Gasoline \$2,000  Gasoline \$2,000  Meals in transit; 20 man-days @ \$100/day Meals in transit; 20 man-days @ \$60/day  \$1,800 \$2,000  Communication Costs:  Stallite phone rental; 4 weeks @ \$400/week \$1,600 \$1,600 \$2,350 \$2,350 \$2,350 \$2,350  Reporting Costs and Office Expenses:  Digital Map Drafting Physical and Electronic Assessment Report Production Costs  Environmental and Compliance Costs:  Top up of current environmental bond for road work and line cutting  \$10,000 \$10,000 \$5,3,000 \$485,450  \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,3,000 \$5,	Item	Costs	Accumulated cost
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Geophysical Survey Costs: 75 km of 3-dimensional induced polarization and ground magnetic surveys @ 53,200/km (all-in contractor price including data manipulation and reporting)  Geological Support and Project Management: J.T. Shearer, senior geologist and project manager; 25 days @ 700/day 1 geologist; 25 days @ \$650/day each including field work, data manipulation and reporting for assessment  Transport and Crew Costs for Geological Support and Management: 1-ton 474 pick-up truck; 20 days @ 5100/day Gasoline Hotel; 20 man-days @ \$100/day Meals in transit; 20 man-days @ \$60/day  Satellite phone rental; 4 weeks @ \$400/week 1 FM truck radio; 1 month @ \$750/month  Satellite phone rental; 4 weeks @ \$400/week 1 FM truck radio; 1 month @ \$750/month  Satellite phone rental; 6 weeks @ \$3,000  Reporting Costs and Office Expenses: Digital Map Drafting Physical and Electronic Assessment Report Production Costs  Environmental and Compliance Costs: Top up of current environmental bond for road work and line cutting  Satellite phone rented Second-phase Induced Polarization and Ground Magnetic Survey Program Harmonized goods and services tax (H.S.T.) (12% of previous items  Total Estimated cost of Recommended Second-phase Induced Polarization  Sate Tax, 2500 Sauto-S	1		
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Itemized Cost of Recommended Second-phase Induced Polarization and Ground Magnetic Survey Program Harmonized goods and services tax (H.S.T.) (12% of previous items \$\frac{5}{5}8,254\$  Itemized Budget \$543,704  Contingency; 10% of itemized budget \$\frac{5}{5}4,370\$  Total Estimated cost of Recommended Second-phase Induced Polarization \$\frac{5}{5}98,074\$			
Magnetic Survey Program       \$58,254         Harmonized goods and services tax (H.S.T.) (12% of previous items       \$58,254         Itemized Budget       \$543,704         Contingency; 10% of itemized budget       \$54,370         Total Estimated cost of Recommended Second-phase Induced Polarization       \$598,074	Top up of current environmental bond for road work and line cutting	\$ 10,000	<u>\$ 10,000</u>
Magnetic Survey Program       \$58,254         Harmonized goods and services tax (H.S.T.) (12% of previous items       \$58,254         Itemized Budget       \$543,704         Contingency; 10% of itemized budget       \$54,370         Total Estimated cost of Recommended Second-phase Induced Polarization       \$598,074	Harrisond Coat of Daggers and ad Coagged whose lands and Dalaying the good Coagged		Ć 40E 4E0
Harmonized goods and services tax (H.S.T.) (12% of previous items \$58,254  Itemized Budget \$543,704  Contingency; 10% of itemized budget \$54,370  Total Estimated cost of Recommended Second-phase Induced Polarization \$598,074	·		\$ 485,450
Itemized Budget       \$ 543,704         Contingency; 10% of itemized budget       \$ 54,370         Total Estimated cost of Recommended Second-phase Induced Polarization       \$ 598,074			ć 50.35 <i>4</i>
Contingency; 10% of itemized budget \$54,370  Total Estimated cost of Recommended Second-phase Induced Polarization \$598,074	Harmonized goods and services tax (H.S.1.) (12% of previous items		<u>\$ 58,254</u>
Total Estimated cost of Recommended Second-phase Induced Polarization \$ 598,074	Itemized Budget		\$ 543,704
Total Estimated cost of Recommended Second-phase Induced Polarization \$ 598,074	Contingency: 10% of itemized budget		\$ 5 <b>4</b> 370
· · · · · · · · · · · · · · · · · · ·	Contingency, 1070 or itemized budget		<del>9 54,510</del>
	Total Estimated cost of Recommended Second-phase Induced Polarization		\$ 598,074
	and Ground Magnetic Survey Program		

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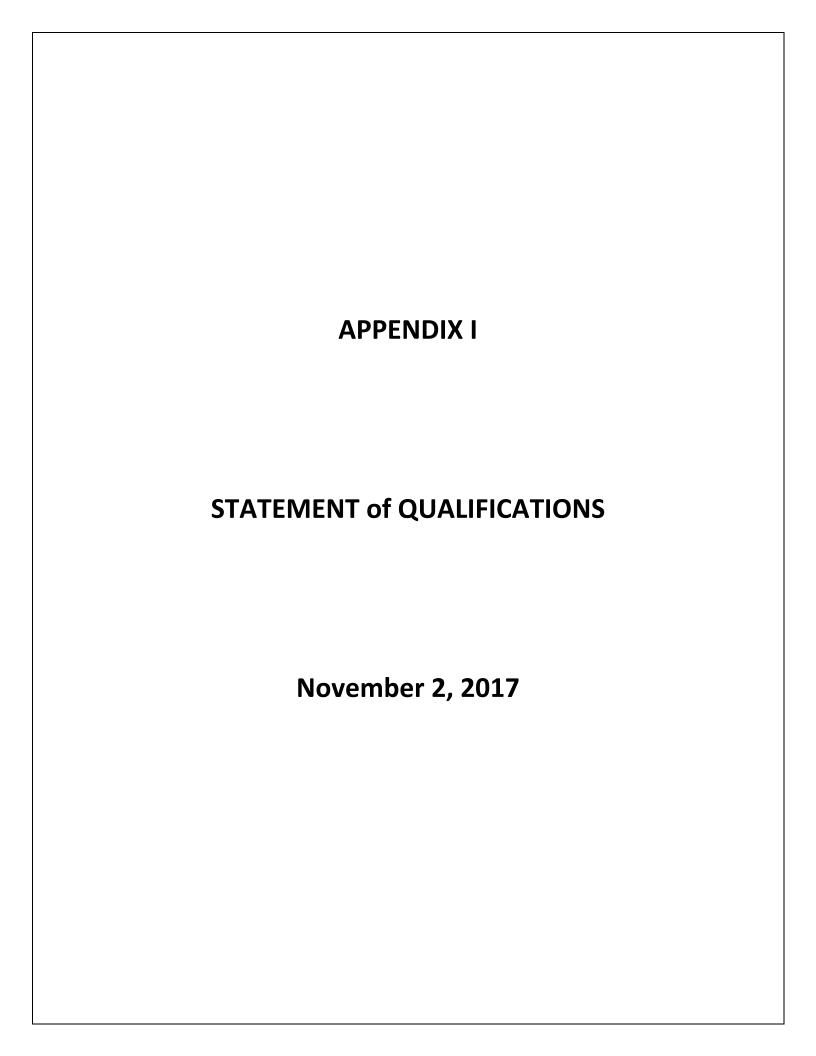
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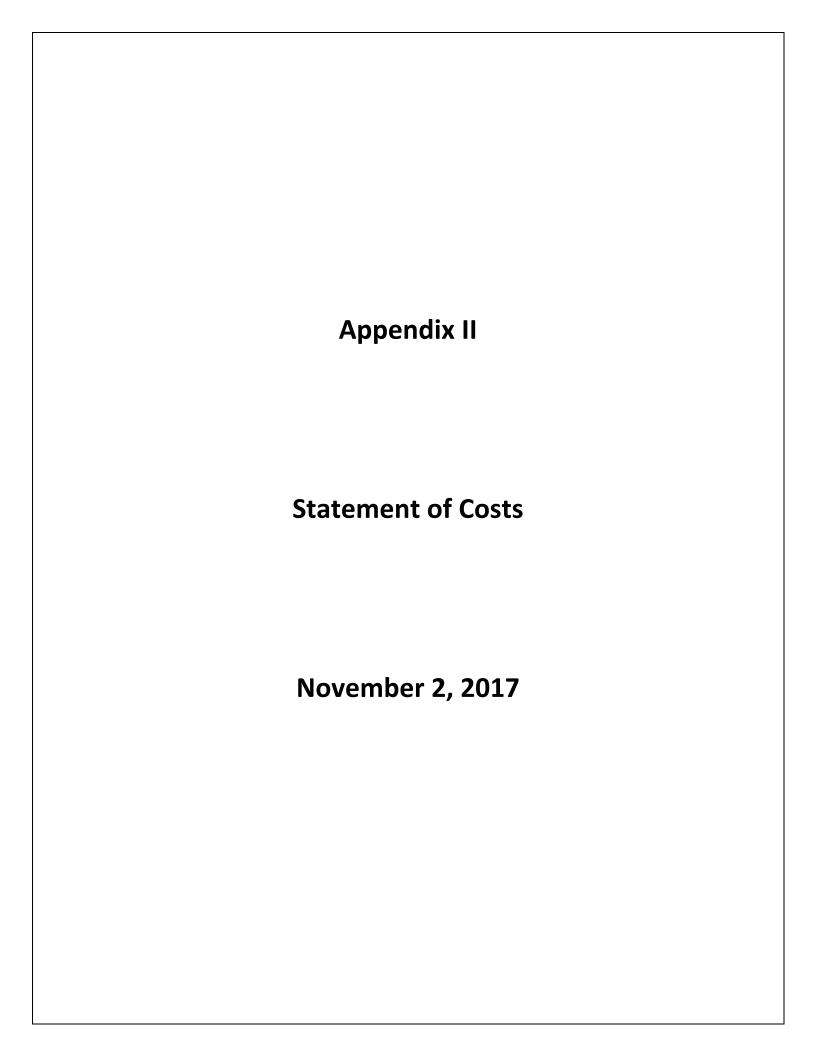


#### STATEMENT of QUALIFICATIONS

- I J. T. (Jo) Shearer, of Unit 5 2330 Tyner St. Port Coquitlam, BC, V3C 2Z1, do hereby certify that:
  - 1. I am an independent consulting geologist and principal of Homegold Resources Ltd.
  - 2. My academic qualifications are:
    - Bachelor of Science, Honours Geology from the University of British Columbia, 1973
    - Associate of the Royal School of Mines (ARSM) from the Imperial College of Science and Technology in London, England in 1977 in Mineral Exploration
    - Master of Science from the University of London, 1977
  - 3. My professional associations are:
    - Member of the Association of Professional Engineers and Geoscientists in the Province of British Columbia, Canada, Member #19,279 and the APGO in Ontario, Member 1867.
    - Fellow of the Geological Association of Canada, Fellow #F439
  - 4. I am responsible for the preparation of all sections of the technical report entitled "Geochemical and Geophysical Assessment Report on the Le Mare Copper-Gold Property" dated November 2, 2017.
  - 5.
  - 6. I have visited the property between April 24 and 25, 2016, February 24, 2011, May 15, 2011, July 21-24, 2014 and October 11-17, 2017. I have carried out mapping and sample collection and am familiar with the regional geology and geology of nearby properties. I have become familiar with the previous work conducted on the Le Mare Project by examining in detail the available reports and maps and have discussed previous work with person knowledgeable of the area.

 $\bigcap$ 

November 2, 2017	Shearer
Date	J.T. (30) Shearer, M.Sc., P.Geo.



# **Statement of Costs 2017**

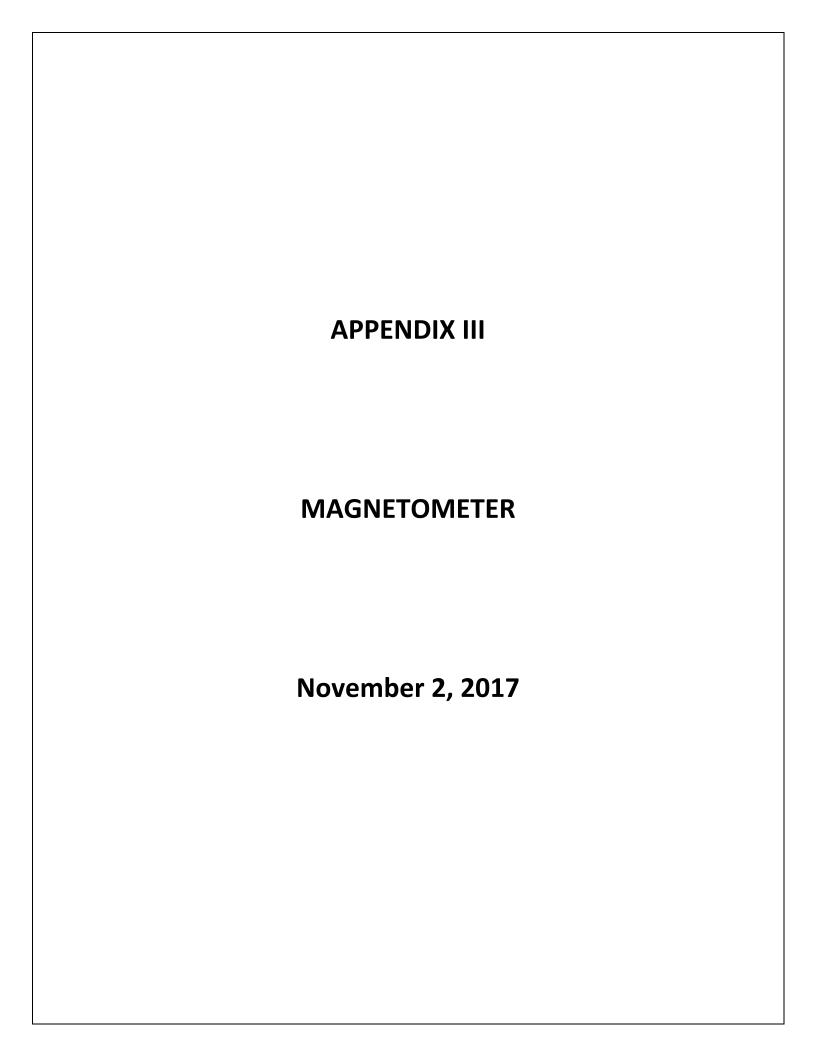
Wages	Total
	without GST
J. T. Shearer, M.Sc., P.Geo, Geologist	
6 days @ \$700/day, October 11-17, 2017	\$4,200.00
W. B. Lennan, P.Geo	
6 days @ \$600/day, October 11-17, 2017	3,600.00
Subtotal Wages	\$7,800.00
Transportation	
Truck 1 – 6 days @ \$120/day	720.00
Truck 2 – 6 days @ \$100/day	720.00
Fuel	1,200.00
Ferry	750.00
Hotel	610.00
Meals	525.00
Camp, 6 days @ \$120/day	720.00
Denis Delisle – Geophysical Operator,	2,250.00
6 days @ \$375/day, October 11-17, 2017	
Magnetometer Rental, 6 days @ \$150/day	900.00
GPS Rental	300.00
XRF Rental and Tech	300.00
ALS Invoice 4065670 for VA17228608 Assays	319.03
Data Plotting, Compilation and Interpretation	1,400.00
Drafting	1,200.00
Report Writing	1,400.00
Word Processing and Reproduction	350.00
Subtotal Expenses	\$13,664.03

Total \$21,464.03

Event # 5671933

Date Filed November 2, 2017

Amount \$19,800.00 PAC filed \$8,237.98 Total Applied \$28,037.98



		_									1	T.			
Ne	w Destiny N	lagetom	eter Survey at 10 K se	tting											
Oc	t 2017 D De	isle Le	Mare Property												
					D: :l	6	0								
D.1.	CLATTA		1 k		Diurinal	Corrected	Comments								
Date	Station		READING Calculated	(S	Ajustment	Reading				cal1.6-1.2	= (.4 )/61= (	).00655738	CAculato	r-m+for the	
	B/SND1 ND2	2:40	1.6K 1.2 1.1549	024	minutes	(-) x minutes 7 0.045901		1.1	15		number th				-
-, -,	ND3	2:47				3 0.019672		1.1				_		the reading	g
<u> </u>	ND4	2:50				6 0.039344		1.1		00655738	1.6-1.2= (.	4 )/61= 0.0	0655738 6	51 TOTAL MI	NUTES -
13/10/17		2:57					20 to end 14 All stations at 50 meter stations unless otherwise specified			by the dife	erence in Ks	from begi	nning		-
13/10/17		3:00					14 CREEK LARGE	1.1		-					-
	ND7	3:02				2 0.013114		0		_					-
-, -,	ND7.5	3:04					76 25M STATION because of mag difference	0.9		_					-
	ND8	3:04				2 0.013114		1		_					-
	ND9	3:10				4 0.026229		1.7							
	ND10	3:14				4 0.026229		1.0							
	ND11	3:16				2 0.013114		1.0							+
	ND12	3:19			_	3 0.019672		1.1							+
	ND13	3:21			_	2 0.013114		1.2	_						
13/10/17	ND14	3:25	1.3 1.2737	048		4 0.026229	52	1.2	27						
13/10/17	ND15	3:30					69 DRAINAGE STREAM	3.0							
	ND16	3:33				3 0.019672		1.0	_						
13/10/17	ND17	3:35		524		2 0.013114	76	1.7	73						
13/10/17	ND18	3:39	1.2 1.1957	048		4 0.026229	52 Last station, by small creek	1	.2						
13/10/17	B/SND1	3:58	1.2		add to	Diurinal	B/SND1- 4:02=1.2 K END								
							B/SND1- Average Oct 14- 1.2K;		B/SND1- 4:	:02=1.2 K EN	ID.				
			Corrected	nin	reading	min per station	B/SND1-AVERAGE Oct 13=1.4 K; Oct 13&14 average=1.3		, -	verage Oct 1					
							Oct 14th			VERAGE Oct		Oct 13&14			
			1.15k				B/SND1-3:40 1.0 K + Oct13/14 average=2.3/2= 1.15		average=1.	.3					
14/10/17	ND19	9:25	1.2				30 25 meter Stationing			40 1.0 K + O		-	2=		
14/10/17	ND20	9:27	0.9				2for the day of Oct 14			01 8:40-1.4 k					
, -,	ND21	9:30					3			adingfor			_		
	ND22	9:33					3 420 minutes / 1.15 = <b>.0027381</b> for the day of Oct 14th			es / 1.15 =.0	UU2/381 to	or the day o	DT		
	ND23	9:36					3		Oct 14th .						
14/10/17	ND24	9:40					4								
14/10/17	ND25	9:45					5 Secondary Station SB/S ND306 - 295 minutes. No change								
· ·	ND26	9:49					4 in Magnetometers readings, stable at .6 for all ND30 readings.	ngs.							
	ND27	9:54					5								
	ND28	9:58					4 curve								
<u> </u>	ND29	10:03					5 spur road to the south								
14/10/17	ND30	9:10					7 SB/SND30- 10:10 = 0.6 and 9:10 = 0.6 @ 2:45= 0.6,				-	<del>                                     </del>			
14/10/17	ND31	10:18	0.8				8								

14/10/17				
	ND32	10:20 1.2		
	ND33	10:24 1		
	ND34	10:27 0.8		
14/10/17	ND35	10:30 0.8		3 creek
	ND36	10:33 0.8		B curve
14/10/17	ND37	10:35 0.8		curve & road channels through rock outcrop
14/10/17	ND38	10:40 0.6		5 CREEK
14/10/17	ND39	10:45 0.6		Go back to SB/S ND30 11:15= 0.6
14/10/17 /	VD40	11:30 0.8	45	Survey 1st junction off main road/trail
14/10/17 /	VD41	11:40 0.8	10	very thick spikey bush
14/10/17 /	VD42	11.45 0.6		'l
14/10/17 /	VD43	11:50 0.8		Stop to thick brush 11:22 SB/S ND30= .6
14/10/17	ND30	11:59 0.6		Walk up main roadto ND46
14/10/17				
14/10/17	ND46	1:21 0.8	91	
14/10/17	ND47	1:24 0.6		
14/10/17	ND48	1:26 0.8		
14/10/17	ND49	1:28 0.8		
14/10/17	ND50	1:30 1		
14/10/17	ND51	1:33 0.8		
14/10/17	ND52	1:35 0.8		
14/10/17	ND53	1:37 0.8		
14/10/17	ND54	1:38 0.8		
14/10/17	ND55	1:40 1		
14/10/17	ND56	1:42 1		
14/10/17	ND57	1:43 0.8		
14/10/17	ND58	1:44 1	1	25m from ND57
14/10/17 r	n/a	n/a n/a		missed stations- skipped number
14/10/17 r	n/a	n/a n/a		missed stations- skipped number
14/10/17	ND63	1:55 0.8	11	
	ND64	1:57 1		
	ND65	1:58 0.8		
14/10/17	ND66	2:00 0.6		2 creek
	ND67	2:05 0.6	5	
	ND68	2:10 0.6		
14/10/17	ND69	2:12 1	7	
	ND70	2:14 0.4		2 creek
14/10/17	ND71	2:18 0.6		
14/10/17	ND72	2:20 0.8		
14/10/17	ND73	2:22 0.6		Stop at ND39 @ 2:45pm- SB/S30 = 0.6
14/10/17	ND74	2:23 0.6	1	
				End at- B/SND1 =1.0 K at 3:40
15/10/17 E	3/S ND-1	8:00 1.6		Start: B/SND1@ 8am, 8:15 & 8:30 all readings = 1.6k

20 m	stations				Final reading	Tertiary B/S	Minutes @ station	SB/S NS30 = 0.6 @ 9:15AM							
15/10/17	B/S ND74	10:10	1.45	0	1.45										
15/10/17	No ND75					0		Stationing 20 meter apart.							
15/10/17	ND76	11:15	0.6	0.7913857	0.19	0.270829	65	walk to end of trail. Start readings, near cr	reek-dug out						
15/10/17	ND77	11:17	1.8	0.5205567	1.28	0.0083333	2	TB/S ND74 = 2.2 @ 3:08							
15/10/17	ND78	11:35	2.4	0.5166637	1.88	0.075	18	TB/S ND74 = 2.2 @ 1:14							
15/10/17	ND79	11:37	2.2	0.4416637	1.76	0.0083333	2		Start: B/SND1@ 8	3am, 8:15 & 8:3	0 all reading	gs = 1.6k			П
15/10/17	ND80	11:39	2	0.4333304	1.57	0.0083333	2		Start: B/SND1@ 8	3am, 8:15 & 8:3	0 all reading	s = 1.6k			П
15/10/17	ND81	11:47	1.2	0.4249971	0.78	0.0333328	8		SB/S NS30 = 0.6 (	9:15AM					П
15/10/17	ND82	11:49	1.2	0.3916643	0.8	0.0333328	8		TB/S NS74 @ 10:1		U	U			П
15/10/17	ND83	11:51	1.5	0.3583315	1.14	0.0083333	2		SB/SNS30 = 0.6 or						
15/10/17	ND84	11:54	1.5	0.3499982	1.15	0.0124998	3					:10, 10:16, a	all readings averaged =	= 1.45 SB/SI	NS30 =
15/10/17	ND85	11:57	1.6	0.3374984	1.26	0.0124998	3		0.6 on the way up	•	•			TD	, [
15/10/17	ND86	11:59	1.4	0.3249986	1.06	0.0083333	2					-	rvey to the end of the inutes-192 = .0041666	-	ъ.
	ND87	12:01	1.6	0.3166653	1.28	0.0083333	2		Divide the time in	Detween. 1.4-	o uiviu) د.د– ۰۵	eu by tile III	mutes-1320041000	U	П
15/10/17	ND88	12:02	1.8	0.308332	1.49	0.0124998	3						1	ı	
15/10/17	ND89	12:03	1.8	0.2958322	1.5	0.00416666	1								
15/10/17	ND90	12:05	1.8	0.2916656	1.51	0.0083333	2								
15/10/17	ND91	12:07	1.6	0.2833323	1.32	0.0083333	2								
15/10/17	ND92	12:08	1.5	0.274999	1.23	0.00416666	1								
15/10/17	ND93	12:09	1.3	0.2708324	1.03	0.00416666	1								
15/10/17	ND94	12:10	1.4	0.2666658	1.13	0.00416666	1								
15/10/17	ND95	12:11	1.6	0.2624992	1.34	0.00416666	1	10m							
15/10/17	ND96	12:12	1.6	0.2583326	1.34	0.00416666	1								
15/10/17	ND97	12:13	1.6	0.254166	1.35	0.00416666	1								
15/10/17	ND98	12:15	1.4	0.2499994	1.15	0.0083333	2								
15/10/17	ND99	12:17	1.2	0.2416661	0.96	0.0083333	2								
15/10/17	ND100	12:20	1.2	0.2333328	0.96	0.0124998	3								
15/10/17	ND101	12:22	1.2	0.220833	0.98	0.0083333	2								
15/10/17	ND102	12:24	1.2	0.2124997	1	0.0083333	2								
15/10/17	ND103	12:26	1.2	0.2041664	1	0.0083333	2								
15/10/17	ND104	12:28	1.2	0.1958331	1	0.0083333	2								
	ND105	12:30	1.2	0.1874998	1.01	0.0083333	2								
	ND106	12:31	1.2	0.1791665	1.02	0.00416666	1								
	ND107	12:33	1.4	0.1749999	1.2	0.0083333	2								
15/10/17	ND108	12:35	1.4	0.1666666	1.2	0.0083333	2								
15/10/17	ND109	12:37	1.4	0.15833124	1.24	0.0083333	2								
	ND110	12:39	1.4	0.14999794	1.25	0.0083333	2								
	ND111	12:41	1.6	0.14166464	1.46	0.0083333	2								
15/10/17	ND112	12:43	1.5	0.13333134	1.37	0.0083333	2								
15/10/17	ND113	12:44	1.8	0.12499804	1.68	0.00416666	1								
15/10/17	ND114	12:45	1.4	0.12083144	1.28	0.00416666	1								
15/10/17	ND115	12:48	1.8	0.11666484	1.68	0.0124998	3								

15/10/17	ND116	12:50	1.6	0.10416584 1.5	0.0083333 2	
15/10/17	ND117	12:52	1.6	0.09583254 1.5	0.0083333 2	
15/10/17	ND118	12:53	1.8	0.08749924 1.71	0.00416666 1	
15/10/17	ND119	12:54	2	0.08333264 1.92	0.00416666 1	
15/10/17	ND120	12:56	2.3	0.07916604 2.22	0.0083333 2	
15/10/17	ND121	12:57	2.2	0.07083274 2.13	0.00416666 1	
15/10/17	ND122	12:58	2.2	0.06666614 2.13	0.00416666 1	
15/10/17	ND123	12:59	2	0.06249954 1.94		
15/10/17	ND124	1:01	2	0.05833294 1.94	0.0083333 2	
15/10/17	ND125	1:02	2	0.04999964 1.95	0.00416666 1	
15/10/17	ND126	1:04	1.8	0.04583304 1.75		
	ND127	1:05	1.8	0.03749971 1.76	0.00416666 1	
15/10/17	ND128	1:07	2	0.03333311 1.97	0.0083333 2	
15/10/17	ND129	1:08	2	0.02499981 1.97500019		
	ND130	1:09	2	0.02083321 1.97916679	0.00416666 1	
	ND131	1:10	2	0.0166666 1.9791668		
15/10/17	ND132	1:13	2.2	0.0125 2.1875		
15/10/17	TB/S ND74	1:14	2.2	total =	0.7958257 1	TB/S ND74 = 2.2 @ 1:14
						192
15/10/17	ND133	1:25	2.2	2.2	11	
15/10/17	ND134	2:05	1.4	1.4	5	
	ND135	2:08	1.6	1.6	3	
15/10/17	ND136	2:15	1.4	1.4	7	
15/10/17	ND137	2:16	1.7	1.7	1	
	ND138	2:19	1.5	1.5	3	
	ND139	2:23	1.4	1.4	4	
	ND140	2:27	1.4	1.4	4	
	ND141	2:31	1.4	1.4	4	
	ND142	2:34	1.5	1.5	3	
	ND143	2:36	1.5	1.5	2	
	ND144	2:38	1.8	1.8	2	
	ND145	2:44	2	2		
	ND146	2:48	1.8	1.8	2	
	ND147	2:50	1.8	1.8	2	
	ND148	2:52	2	2	2	
15/10/17	ND149	2:55	2	2	3	
						TB/S ND74 = 2.2 @ 3:08 - 208 minutes
	B/L ND30	3:31	1.4		7	
	B/SND1	4:15	0.6			
		B/L				SB/L ND30 3:20PM = 1.4 RETURN TO B/SND1=0.6 @4:15PM
	B/SND1	9:10	1.6			
	SB/SND30	9:50	1.6			
16/10/17	TB/SND74	10:40	1.8			TB/SND74= 1.8 @ 10:40am

16/10/17	SB/SND30	1:00	1.6	return- TB/SND = 1.8 @ 11:45
	B/SND1	2:00	1.6	Tetam 19/3/10 = 1.0 @ 11.43
16/10/17	ND150	11:04	1.2	To ND 167-20 METER STATIONS
16/10/17	ND151	11:06	1.7	all
16/10/17	ND152	11:08	1.8	
16/10/17	ND153	11:09	2	
16/10/17	ND154	11.11	2	
16/10/17	ND155	11:13	2	
16/10/17	ND156	11:14	2.1	
16/10/17	ND157	11:16	2	
16/10/17	ND158	11:19	2	
16/10/17	ND159	11:22	1.8	
16/10/17	ND160	11:24	2	
16/10/17	ND161	11:27	2	
16/10/17	ND162	11:29	2	
16/10/17	ND163	11:31	2	
16/10/17	ND164	11:33	2.1	
16/10/17	ND165	11:34	1.8	
16/10/17	ND166	11:36	1.8	10 meter stations
16/10/17	ND167	11:38	2.1	meets, old road Station ND124
	TB/SND74	11:45	1.8	

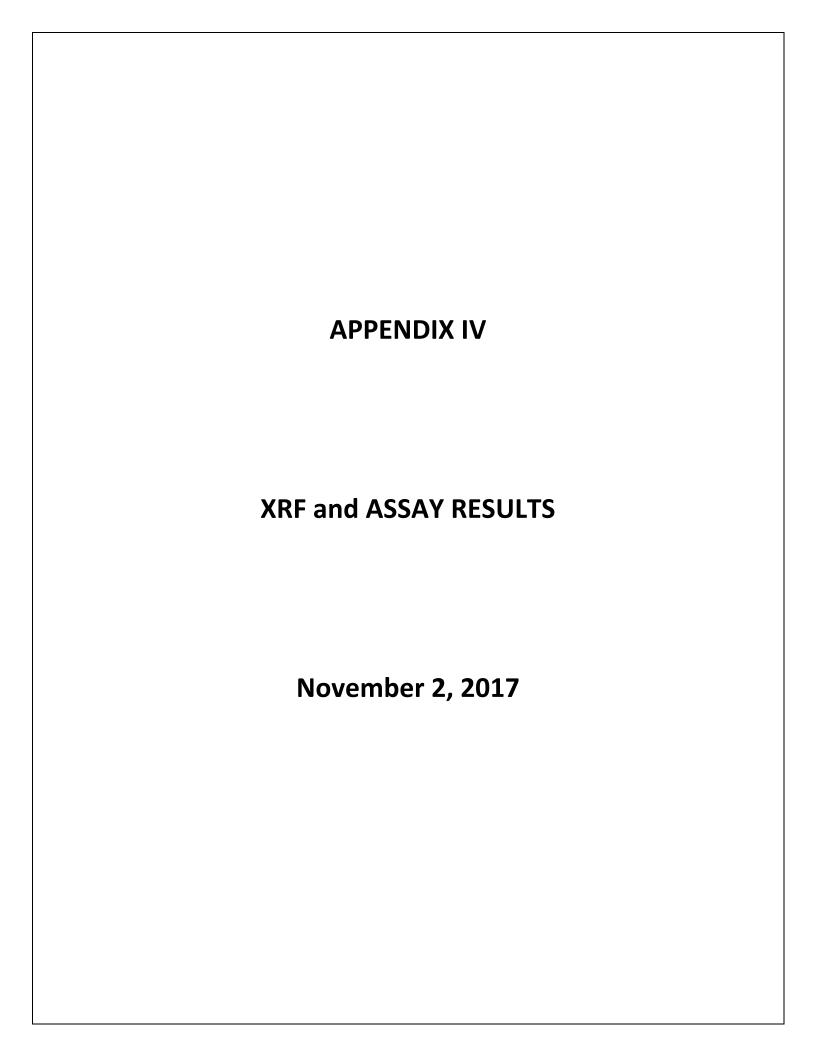
## Magnetometer 2017 LeMare

Magnetometer 201	/ Leiviare		
5551	N50 25.303 W127 54.944	46 m	13/10/2017 2:26:48 PM
5571	N50 24.926 W127 55.420	344 m	14/10/2017 12:50:37 PM
5581	N50 24.858 W127 55.519	376 m	14/10/2017 1:43:19 PM
5591	N50 24.871 W127 55.487	370 m	14/10/2017 1:44:29 PM
5601	N50 24.915 W127 55.430	348 m	14/10/2017 1:51:57 PM
5621	N50 24.943 W127 55.331	313 m	14/10/2017 2:01:47 PM
5641	N50 24.553 W127 55.902	406 m	15/10/2017 2:34:41 PM
BS1 ND- 11.6k	N50 25.143 W127 54.652	20 m	13/10/2017 2:46:36 PM
D105-1	N50 24.593 W127 55.378	425 m	15/10/2017 12:32:27 PM
GORBY	N50 25.287 W127 55.294	50 m	13/10/2017 2:23:15 PM
NB4	N50 25.080 W127 54.572	38 m	13/10/2017 2:57:25 PM
NB4-1.36	N50 25.080 W127 54.572	38 m	13/10/2017 2:57:25 PM
NB6	N50 25.032 W127 54.541	48 m	13/10/2017 3:03:24 PM
ND 110-1.3	N50 24.654 W127 55.395	422 m	15/10/2017 12:41:23 PM
ND 133 - 2.2	N50 24.830 W127 55.560		31/10/2017 4:50:16 PM
ND END1	N50 25.072 W127 55.077	237 m	14/10/2017 11:08:19 AM
ND10	N50 24.957 W127 54.435	76 m	13/10/2017 3:17:27 PM
ND10-1.07	N50 24.957 W127 54.435	76 m	13/10/2017 3:17:27 PM
ND100-1	N50 24.541 W127 55.367	428 m	15/10/2017 12:24:06 PM
ND101-1	N50 24.550 W127 55.369	429 m	15/10/2017 12:25:25 PM
ND102-1	N50 24.561 W127 55.374	432 m	15/10/2017 12:27:13 PM
ND103-1	N50 24.571 W127 55.376	430 m	15/10/2017 12:30:00 PM
ND104-1	N50 24.584 W127 55.373	425 m	15/10/2017 12:30:55 PM
ND106-1	N50 24.610 W127 55.385	424 m	15/10/2017 12:34:07 PM
ND107-1.2	N50 24.620 W127 55.390	420 m	15/10/2017 12:35:33 PM
ND108-1.2	N50 24.631 W127 55.392	422 m	15/10/2017 12:37:23 PM
ND109-1.2	N50 24.642 W127 55.395	414 m	15/10/2017 12:39:27 PM
ND11-1.05	N50 24.952 W127 54.391	84 m	13/10/2017 3:20:13 PM
ND111-1.5	N50 24.664 W127 55.395	424 m	15/10/2017 12:43:35 PM
ND112-1.4	N50 24.675 W127 55.397	421 m	15/10/2017 12:45:36 PM
ND113-1.7	N50 24.685 W127 55.397	423 m	15/10/2017 12:46:51 PM
ND114-1.3	N50 24.697 W127 55.396	424 m	15/10/2017 12:49:37 PM
ND115-1.7	N50 24.707 W127 55.393	426 m	15/10/2017 12:51:54 PM
ND116-1.5	N50 24.717 W127 55.390	428 m	15/10/2017 12:53:58 PM
ND117-1.5	N50 24.728 W127 55.390	427 m	15/10/2017 12:55:02 PM
ND118-1.7	N50 24.738 W127 55.389	431 m	15/10/2017 1:08:45 PM
ND119-1.9	N50 24.750 W127 55.389	425 m	15/10/2017 1:10:40 PM
ND12-1.18	N50 24.936 W127 54.354	91 m	13/10/2017 3:22:21 PM
ND120-2.2	N50 24.760 W127 55.388	420 m	15/10/2017 1:12:55 PM
ND121-2.1	N50 24.771 W127 55.391	418 m	15/10/2017 1:14:41 PM
ND122-2.1	N50 24.780 W127 55.401	418 m	15/10/2017 1:16:28 PM
ND123-1.9	N50 24.788 W127 55.413	412 m	15/10/2017 1:18:17 PM
ND124-1.9	N50 24.795 W127 55.425	410 m	15/10/2017 1:19:55 PM
ND125-2	N50 24.802 W127 55.439	412 m	15/10/2017 1:20:56 PM
ND126-1.8	N50 24.808 W127 55.453	412 m	15/10/2017 1:20:55 PM
ND127-1.8	N50 24.812 W127 55.469	409 m	15/10/2017 1:21:35 FM
ND127 1.0	N50 24.810 W127 55.490	406 m	15/10/2017 1:23:30 FM
ND129-2	N50 24.810 W127 55.508	404 m	15/10/2017 1:24:45 FM
140167 6	1420 74.010 AA171 22.200	<del>101</del> 111	13/10/201/ 1.20.23 FIVE

		1	
ND13-1.27	N50 24.910 W127 54.344	105 m	13/10/2017 3:25:39 PM
ND130-2	N50 24.811 W127 55.527	399 m	15/10/2017 1:27:42 PM
ND131-2	N50 24.814 W127 55.545	401 m	15/10/2017 1:29:28 PM
ND132-2.1	N50 24.821 W127 55.554	397 m	15/10/2017 1:31:10 PM
ND134-1.4	N50 24.342 W127 55.970	380 m	15/10/2017 2:12:36 PM
ND135-1.6	N50 24.363 W127 55.943	384 m	15/10/2017 2:15:24 PM
ND136-1.4	N50 24.389 W127 55.929	387 m	15/10/2017 2:17:32 PM
ND137-1.7	N50 24.417 W127 55.925	389 m	15/10/2017 2:20:01 PM
ND138-1.5	N50 24.447 W127 55.930	393 m	15/10/2017 2:22:21 PM
ND139-1.4	N50 24.474 W127 55.929	398 m	15/10/2017 2:26:43 PM
ND14-1.27	N50 24.893 W127 54.377	103 m	13/10/2017 3:29:21 PM
ND140-1.4	N50 24.501 W127 55.933	401 m	15/10/2017 2:29:14 PM
ND141-1.4	N50 24.528 W127 55.929	402 m	15/10/2017 2:31:50 PM
ND142-1.5	N50 24.553 W127 55.902	406 m	15/10/2017 2:34:44 PM
ND143-1.5	N50 24.575 W127 55.876	408 m	15/10/2017 2:39:04 PM
ND144-1.8	N50 24.597 W127 55.853	407 m	15/10/2017 2:41:44 PM
ND145-2	N50 24.613 W127 55.814	415 m	15/10/2017 2:44:57 PM
ND146-1.8	N50 24.637 W127 55.793	411 m	15/10/2017 2:47:27 PM
ND147-1.8	N50 24.658 W127 55.769	407 m	15/10/2017 2:49:54 PM
ND148-2	N50 24.678 W127 55.739	402 m	15/10/2017 2:52:36 PM
ND149-2 Stop	N50 24.695 W127 55.705	405 m	15/10/2017 2:56:31 PM
ND15-0.87	N50 24.889 W127 54.421	111 m	13/10/2017 3:33:17 PM
ND150-1.2	N50 24.772 W127 55.153	414 m	16/10/2017 11:08:44 AM
ND151-1.7	N50 24.769 W127 55.171	412 m	16/10/2017 11:11:07 AM
ND152-1.8	N50 24.768 W127 55.187	399 m	16/10/2017 11:13:14 AM
ND153-2	N50 24.774 W127 55.204	400 m	16/10/2017 11:16:02 AM
ND154-2	N50 24.779 W127 55.221	400 m	16/10/2017 11:18:01 AM
ND155-2	N50 24.781 W127 55.237	401 m	16/10/2017 11:19:49 AM
ND156-2.1	N50 24.781 W127 55.247	102111	16/10/2017 7:44:53 PM
ND157-2	N50 24.783 W127 55.253	398 m	16/10/2017 11:21:34 AM
ND157-2	N50 24.784 W127 55.270	401 m	16/10/2017 11:23:32 AM
ND159-1.8	N50 24.784 W127 55.288	402 m	16/10/2017 11:25:45 AM
ND16	N50 24.892 W127 54.466	109 m	13/10/2017 11:25:45 AW
ND16-1.09	N50 24.892 W127 54.466	109 m	13/10/2017 3:36:29 PM
ND160-2	N50 24.782 W127 55.306	403 m	16/10/2017 11:27:24 AM
ND161-2	N50 24.777 W127 55.323	405 m	16/10/2017 11:27:24 AW
ND161-2 ND162-2	N50 24.777 W127 55.323	403 m	16/10/2017 11:23:22 AW
ND163-2	N50 24.780 W127 55.355	403 m	16/10/2017 11:31:21 AW
ND164-2.1	N50 24.786 W127 55.372	405 m	16/10/2017 11:35:23 AM
	N50 24.780 W127 55.390	1	16/10/2017 11:37:21 AM
ND165-1.8	N50 24.790 W127 55.390 N50 24.793 W127 55.405	407 m	
ND166-1.8		411 m	16/10/2017 11:38:47 AM
ND167-2.1	N50 24.796 W127 55.422	411 m	16/10/2017 11:40:19 AM
ND17	N50 24.901 W127 54.506	108 m	13/10/2017 3:39:35 PM
ND17 02	N50 24.387 W127 55.205	420 m	15/10/2017 11:47:59 AM
ND17-01	N50 24.383 W127 55.186	400	31/10/2017 4:23:22 PM
ND17-1.73	N50 24.901 W127 54.506	108 m	13/10/2017 3:39:35 PM
ND18	N50 24.914 W127 54.541	111 m	13/10/2017 3:42:39 PM
ND18- 1.2	N50 24.914 W127 54.541	111 m	13/10/2017 3:42:39 PM
ND19-0.8	N50 24.921 W127 54.575		23/10/2017 9:23:48 PM

ND4DC 44 2L	NEO 25 4 42 M/427 54 654	22	42/40/2047 2 50 46 DM
ND1BS-11.2k	N50 25.142 W127 54.651	22 m	13/10/2017 2:50:16 PM
ND2-1.15	N50 25.115 W127 54.620	304 m	13/10/2017 7:06:59 PM
ND20-0.9	N50 24.937 W127 54.617	118 m	14/10/2017 9:19:53 AM
ND21-1.2	N50 24.940 W127 54.661	135 m	14/10/2017 9:25:31 AM
ND22-1	N50 24.956 W127 54.696	146 m	14/10/2017 9:28:29 AM
ND23-1	N50 24.973 W127 54.727	152 m	14/10/2017 9:33:37 AM
ND24-1.2	N50 24.998 W127 54.756	152 m	14/10/2017 9:38:04 AM
ND25-1	N50 25.011 W127 54.797	164 m	14/10/2017 9:46:39 AM
ND26-1.2	N50 25.019 W127 54.836	172 m	14/10/2017 9:51:07 AM
ND27-1.4	N50 25.042 W127 54.865	166 m	14/10/2017 9:55:37 AM
ND28-1.4	N50 25.061 W127 54.895	177 m	14/10/2017 9:59:36 AM
ND29	N50 25.040 W127 54.898	192 m	14/10/2017 10:06:50 AM
ND3 1.18	N50 25.099 W127 54.599	301 m	13/10/2017 7:08:01 PM
ND31-0.8	N50 25.079 W127 54.973	200 m	14/10/2017 10:20:34 AM
ND32-1.2	N50 25.094 W127 55.012	209 m	14/10/2017 10:23:56 AM
ND33-1	N50 25.103 W127 55.051	213 m	14/10/2017 10:27:49 AM
ND34-0.8	N50 25.104 W127 55.096	212 m	14/10/2017 10:31:10 AM
ND35-0.8	N50 25.099 W127 55.142	215 m	14/10/2017 10:33:53 AM
ND36-0.8	N50 25.104 W127 55.183	224 m	14/10/2017 10:36:32 AM
ND37-0.8	N50 25.077 W127 55.182	235 m	14/10/2017 10:40:59 AM
ND38-0.6	N50 25.071 W127 55.141	244 m	14/10/2017 10:59:38 AM
ND39-0.6	N50 25.074 W127 55.097	238 m	14/10/2017 11:04:34 AM
ND400.8	N50 25.015 W127 54.889	188 m	14/10/2017 11:32:31 AM
ND41-0.8	N50 24.980 W127 54.876	198 m	14/10/2017 11:40:43 AM
ND42-0.6	N50 24.957 W127 54.852	202 m	14/10/2017 11:48:45 AM
ND43-0.8	N50 24.939 W127 54.830	218 m	14/10/2017 11:57:13 AM
ND46- 0.8	N50 24.686 W127 55.727	405 m	14/10/2017 1:19:32 PM
ND47-0.6	N50 24.700 W127 55.690	406 m	14/10/2017 1:27:38 PM
ND48-0.8	N50 24.722 W127 55.665	402 m	14/10/2017 1:29:18 PM
ND49-0.8	N50 24.742 W127 55.659	401 m	14/10/2017 1:30:21 PM
ND5	N50 25.055 W127 54.555	45 m	13/10/2017 3:00:38 PM
ND5-1.38	N50 25.055 W127 54.555	45 m	13/10/2017 3:00:38 PM
ND50-1	N50 24.773 W127 55.625	391 m	14/10/2017 1:32:43 PM
ND510.8	N50 24.792 W127 55.588	390 m	14/10/2017 1:36:33 PM
ND52-0.8	N50 24.815 W127 55.565	388 m	14/10/2017 1:37:57 PM
ND53-0.8	N50 24.840 W127 55.557	389 m	14/10/2017 1:40:33 PM
ND54-0.8	N50 24.858 W127 55.519	376 m	14/10/2017 1:43:19 PM
ND55-1	N50 24.871 W127 55.487	370 m	14/10/2017 1:44:29 PM
ND56-1	N50 24.897 W127 55.463	356 m	14/10/2017 1:47:13 PM
ND57-0.8	N50 24.915 W127 55.430	348 m	14/10/2017 1:51:57 PM
ND58-1	N50 24.926 W127 55.420	344 m	14/10/2017 12:50:37 PM
ND6-1.18	N50 25.032 W127 54.541	48 m	13/10/2017 3:03:24 PM
ND63-0.8	N50 24.938 W127 55.405	337 m	14/10/2017 1:55:02 PM
ND64-1	N50 24.954 W127 55.371	325 m	14/10/2017 1:58:52 PM
ND65-0.8	N50 24.943 W127 55.331	313 m	14/10/2017 2:01:47 PM
ND66-0.6	N50 24.929 W127 55.297	304 m	14/10/2017 2:04:56 PM
ND67-0.6	N50 24.945 W127 55.264	295 m	14/10/2017 2:08:12 PM
ND68-0.6	N50 24.970 W127 55.242	289 m	14/10/2017 2:11:46 PM
ND69-1	N50 24.988 W127 55.212	280 m	14/10/2017 2:13:34 PM
	1.00 - 1.000 11 - 1 00.212	200 111	/ 10/ 201/ 2:13:3 : 1 141

ND7	N50 25.018 W127 54.508	63 m	13/10/2017 3:06:46 PM
ND7-0.3	N50 25.018 W127 54.508	63 m	13/10/2017 3:06:46 PM
ND7-5	N50 25.007 W127 54.496	63 m	13/10/2017 3:09:58 PM
ND7.5-0.99	N50 25.007 W127 54.496	63 m	13/10/2017 3:09:58 PM
ND70-0.4	N50 25.000 W127 55.169	261 m	14/10/2017 2:16:38 PM
ND71-0.6	N50 25.018 W127 55.139	255 m	14/10/2017 2:19:34 PM
ND720.8	N50 25.049 W127 55.131	257 m	14/10/2017 2:22:06 PM
ND73-0.6	N50 25.067 W127 55.100	241 m	14/10/2017 2:25:13 PM
ND74 -2.2	N50 24.829 W127 55.566	396 m	15/10/2017 10:24:16 AM
ND76-0.2	N50 24.395 W127 55.127	438 m	15/10/2017 11:24:14 AM
ND77-1.3	N50 24.390 W127 55.142	436 m	15/10/2017 11:31:24 AM
ND78-1.9	N50 24.386 W127 55.158	434 m	15/10/2017 11:38:56 AM
ND79-1.8	N50 24.386 W127 55.175	429 m	15/10/2017 11:41:04 AM
ND8	N50 24.992 W127 54.486	62 m	13/10/2017 3:12:21 PM
ND8-1.4	N50 24.992 W127 54.486	62 m	13/10/2017 3:12:21 PM
ND80-1.6	N50 24.386 W127 55.193	422 m	15/10/2017 11:43:06 AM
ND81	N50 24.390 W127 55.213	419 m	15/10/2017 11:50:55 AM
ND81-0.8	N50 24.390 W127 55.213	419 m	31/10/2017 4:24:17 PM
ND82	N50 24.393 W127 55.228	418 m	15/10/2017 11:53:02 AM
ND82-0.8	N50 24.393 W127 55.228	418 m	31/10/2017 4:25:14 PM
ND83	N50 24.396 W127 55.245	418 m	15/10/2017 11:55:05 AM
ND83- 1.1	N50 24.396 W127 55.245	418 m	31/10/2017 4:25:51 PM
ND84-1.5	N50 24.400 W127 55.261	420 m	15/10/2017 11:57:50 AM
ND85-1.3	N50 24.405 W127 55.278	420 m	15/10/2017 12:01:02 PM
ND86-1.1	N50 24.413 W127 55.291		23/10/2017 7:58:40 PM
ND87-1.3	N50 24.422 W127 55.299		23/10/2017 8:00:13 PM
ND88-1.5	N50 24.429 W127 55.311	428 m	15/10/2017 12:05:59 PM
ND89-1.5	N50 24.437 W127 55.321	430 m	15/10/2017 12:08:10 PM
ND9	N50 24.971 W127 54.469	77 m	13/10/2017 3:14:56 PM
ND9-1.73	N50 24.971 W127 54.469	77 m	13/10/2017 3:14:56 PM
ND90-1.5	N50 24.447 W127 55.329	430 m	15/10/2017 12:09:59 PM
ND91-1.3	N50 24.457 W127 55.335	430 m	15/10/2017 12:11:15 PM
ND92-1.2	N50 24.467 W127 55.340	430 m	15/10/2017 12:12:10 PM
ND93-1	N50 24.478 W127 55.344	430 m	15/10/2017 12:14:29 PM
ND94-1.3	N50 24.489 W127 55.349	433 m	15/10/2017 12:15:44 PM
ND95-1.3	N50 24.495 W127 55.350		23/10/2017 8:01:11 PM
ND96-1.3	N50 24.499 W127 55.350	432 m	15/10/2017 12:17:05 PM
ND97-1.4	N50 24.510 W127 55.350	429 m	15/10/2017 12:18:38 PM
ND98-1.2	N50 24.520 W127 55.360	430 m	15/10/2017 12:19:42 PM
ND99-1	N50 24.529 W127 55.365	426 m	15/10/2017 12:22:35 PM
NDD 17 03	N50 24.777 W127 55.211		16/10/2017 7:41:25 PM
NDD 17 04	N50 24.774 W127 55.197		16/10/2017 7:41:46 PM
NDD17 01	N50 24.786 W127 55.246	396 m	16/10/2017 12:05:04 PM
NDD17 02	N50 24.780 W127 55.218	400 m	16/10/2017 12:12:35 PM
SB/L ND30- 0.6	N50 25.067 W127 54.936	341 m	14/10/2017 7:14:24 PM





2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry

To: HOMEGOLD RESOURCES LTD. UNIT 5, 2330 TYNER ST. PORT COQUITLAM BC V3C 2Z1

Page: 1 Total # Pages: 2 (A - D) Plus Appendix Pages Finalized Date: 9-NOV-2017

Account: MWE

## CERTIFICATE VA17228608

Project: Le Mare This report is for 9 Rock samples submitted to our lab in Vancouver, BC, Canada on 20-OCT-2017. The following have access to data associated with this certificate: JO SHEARER BRIAN LENNAN J. SHEARER

	SAMPLE PREPARATION	
ALS CODE	DESCRIPTION	
WEI-21	Received Sample Weight	NAME OF TAXABLE PARTY.
CRU-QC	Crushing QC Test	
PUL-QC	Pulverizing QC Test	
LOG-22	Sample login - Rcd w/o BarCode	
CRU-31	Fine crushing - 70% <2mm	
SPL-21	Split sample - riffle splitter	
PUL-31	Pulverize split to 85% <75 um	

	ANALYTICAL PROCEDURE	S
ALS CODE	DESCRIPTION	INSTRUMENT
ME-OG46	Ore Grade Elements – AquaRegia	ICP-AES
Cu-OG46	Ore Grade Cu - Aqua Regia	ICP-AES
ME-MS41	Ultra Trace Aqua Regia ICP-MS	

To: HOMEGOLD RESOURCES LTD. ATTN: J. SHEARER UNIT 5, 2330 TYNER ST. PORT COQUITLAM BC V3C 2Z1

This is the Final Report and supersedes any preliminary report with this certificate number. Results apply to samples as submitted. All pages of this report have been checked and approved for release.

\*\*\*\*\* See Appendix Page for comments regarding this certificate \*\*\*\*\*

Signature:

Colin Ramshaw, Vancouver Laboratory Manager



2103 Dollarton Hwy North Vancouver BC V7H 0A7 Phone: +1 (604) 984 0221 Fax: +1 (604) 984 0218 www.alsglobal.com/geochemistry To: HOMEGOLD RESOURCES LTD. UNIT 5, 2330 TYNER ST. PORT COQUITLAM BC V3C 2Z1 Page: 2 - A
Total # Pages: 2 (A - D)
Plus Appendix Pages
Finalized Date: 9-NOV-2017
Account: MWE

CERTIFICATE OF ANALYSIS VA17228608

Project: Le Mare

								L								
Sample Description	Method Analyte Units LOR	WEI-21 Recvd Wt. kg 0.02	ME-MS41 Ag ppm 0.01	ME-MS41 AI % 0.01	ME-MS41 As ppm 0.1	ME-MS41 Au ppm 0.02	ME-MS41 B ppm 10	ME-MS41 Ba ppm 10	ME-MS41 Be ppm 0.05	ME-MS41 Bi ppm 0.01	ME-MS41 Ca % 0.01	ME-MS41 Cd ppm 0.01	ME-MS41 Ce ppm 0.02	ME-MS41 Co ppm 0.1	ME-MS41 Cr ppm 1	ME-MS41 Cs ppm 0.05
58618		0.26	0.02	0.26	1.0	<0.02	<10	20	<0.05	0.02	6.18	0.10	0.39	0.1	2	<0.05
58619		0.16	0.01	0.84	8.0	< 0.02	10	160	0.21	0.10	0.26	0.04	1.37	0.2	1	0.55
GS17-1		1.56	0.64	0.89	5.2	< 0.02	<10	60	0.25	0.62	0.13	0.05	8.97	2.1	6	< 0.05
GS17-2		1.28	0.22	1.19	2.2	< 0.02	<10	70	0.43	0.05	0.47	0.17	15.05	1.8	4	< 0.05
GS17-3		1.20	0.28	1.00	2.9	<0.02	<10	80	0.21	0.34	0.13	0.06	11.90	1.7	5	<0.05
NDD17-01		1.60	1.86	2.70	42.3	<0.02	<10	70	0.20	0.31	0.03	0.01	3.31	14.5	3	0.14
NDD17-02		2.64	1.02	3.42	2.3	0.03	<10	80	0.45	0.14	0.21	0.11	6.89	14.1	79	0.44
NDD17-03		1.48	1.55	1.83	5.2	< 0.02	<10	80	0.21	0.83	0.11	0.22	10.80	13.4	23	0.09
NDD17-04		0.40	3.63	1.95	36.2	0.15	<10	50	0.20	1.08	0.02	0.13	4.25	48.0	19	0.07



NDD17-03

NDD17-04

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**CERTIFICATE OF ANALYSIS VA17228608** 

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Sample Description	Method Analyte Units LOR	ME-MS41 Cu ppm 0.2	ME-MS41 Fe % 0.01	ME-MS41 Ga ppm 0.05	ME-MS41 · Ge ppm 0.05	ME-MS41 Hf ppm 0.02	ME-MS41 Hg ppm 0.01	ME-MS41 In ppm 0.005	ME-MS41 K % 0.01	ME-MS41 La ppm 0.2	ME-MS41 Li ppm 0.1	ME-MS41 Mg % 0.01	ME-MS41 Mn ppm 5	ME-MS41 Mo ppm 0.05	ME-MS41 Na % 0.01	ME-M\$41 Nb ppm 0.05
58618		0.8	0.81	0.30	<0.05	<0.02	0.02	0.006	0.04	<0.2	1.8	<0.01	11	0.22	<0.01	0.05
58619		2.9	0.85	0.87	< 0.05	< 0.02	0.02	< 0.005	0.50	0.5	0.4	0.01	10	0.09	< 0.01	0.05
GS17-1		1235	2.72	6.95	0.05	0.20	0.05	0.037	0.19	3.5	1.6	0.16	495	1.97	< 0.01	0.48
GS17-2		944	3.33	9.74	0.07	0.18	0.04	0.021	0.20	6.1	2.3	0.22	701	0.57	< 0.01	0.45
GS17-3		530	2.84	7.86	0.06	0.19	0.04	0.024	0.22	4.5	1,7	0.17	527	0.95	< 0.01	0.39
NDD17-01		2970	10.65	11.35	0.05	0.11	0.27	0.045	0.25	1.3	10.6	0.58	1050	0.91	<0.01	0.12
NDD17-02		6300	12.25	12.25	80.0	0.04	0.22	0.083	0.26	2.6	19.1	0.66	1860	1.17	< 0.01	< 0.05

0.057

0.309

<sup>\*\*\*\*\*</sup> See Appendix Page for comments regarding this certificate \*\*\*\*\*



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Sample Description	Method Analyte Units LOR	ME-MS41 Ni ppm 0.2	ME-MS41 P ppm 10	ME-MS41 Pb ppm 0.2	ME-MS41 Rb ppm 0.1	ME-MS41 Re ppm 0.001	ME-MS41 S % 0.01	ME-MS41 Sb ppm 0.05	ME-MS41 Sc ppm 0.1	ME-MS41 Se ppm 0.2	ME-MS41 Sn ppm 0.2	ME-MS41 Sr ppm 0.2	ME-MS41 Ta ppm 0.01	ME-MS41 Te ppm 0.01	ME-MS41 Th ppm 0.2	ME-MS41 Ti % 0.005
58618 58619 G517-1 GS17-2 GS17-3		0.3 0.3 1.3 1.4 1.0	20 370 220 230 250	8.5 4.7 3.3 10.3 7.0	0.9 10.5 4.2 5.7 5.0	<0.001 <0.001 <0.001 <0.001 <0.001	5.07 0.06 0.22 0.20 0.14	0.07 0.09 0.14 0.10 0.09	0.4 2.1 2.3 3.2 2.4	0.2 <0.2 <0.2 <0.2 <0.2	0.2 1.2 0.8 0.8	188.0 19.6 1.3 6.6 1.4	<0.01 <0.01 0.01 0.01 0.01	0.04 0.06 0.01 <0.01 0.01	<0.2 0.4 0.2 0.3 0.2	<0.005 <0.005 0.066 0.086 0.062
NDD17-01 NDD17-02 NDD17-03 NDD17-04		7.5 22.3 11.7 20.6	400 640 540 320	4.5 4.0 7.5 6.1	8.3 8.2 4.8 2.7	<0.001 <0.001 <0.001 <0.001	0.58 0.74 0.63 5.44	2.02 0.93 1.58 1.21	5.6 15.2 9.4 7.5	0.2 <0.2 <0.2 <0.2 3.3	1.1 0.3 0.4 <0.2	0.9 3.1 2.6 0.9	<0.01 <0.01 <0.01 <0.01 <0.01	0.04 0.03 0.02 0.61	0.4 <0.2 0.3 <0.2	0.048 0.015 0.119 0.007
×.																



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Project: Le Mare

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Sample Description	Method Analyte Units LOR	ME-MS41 TI ppm 0.02	ME-MS41 U ppm 0.05	ME-MS41 V ppm 1	ME-MS41 W ppm 0.05	ME-MS41 Y ppm 0.05	ME-MS41 Zn ppm 2	ME-MS41 Zr ppm 0.5	Cu-OG46 Cu % 0.001	6
58618 58619 GS17-1 GS17-2 GS17-3		0.05 0.06 0.06 0.07 0.05	<0.05 <0.05 0.10 0.12 0.11	2 3 5 4 5	<0.05 0.07 0.13 0.12 0.10	1.05 2.66 10.10 13.25 11.05	27 21 54 97 62	<0.5 <0.5 5.7 4.4 5.4		
NDD17-01 NDD17-02 NDD17-03 NDD17-04		0.06 0.04 0.05 0.07	0.13 0.09 0.14 0.05	38 118 81 63	22.9 4.00 4.89 0.31	2.35 5.24 7.17 3.03	129 117 58 61	3.1 1.5 4.8 1.1	3.94	



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CERTIFICATE OF ANALYSIS VA17228608

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		CERTIFICATE COMMEN	ITS		e
		ANALYTICAL	L COMMENTS		LOCATION STREET, STREE
Applies to Method:	Gold determinations by this method ME-MS41	are semi-quantitative due to the	small sample weight used (0.5g).		
		LABORATOR	Y ADDRESSES		
	Processed at ALS Vancouver located	at 2103 Dollarton Hwy, North Vai	ncouver, BC, Canada.		
Applies to Method:	CRU-31	CRU-QC	Cu-OG46	LOG-22	
	ME-MS41	ME-OG46	PUL-31	PUL-QC	
	SPL-21	WEI-21			
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LeMare 2017

Date	Sample	Mg	Mg +/- A	AΙ	Al +/-	Si	Si +/-	P	P +/-	S	S +/-	Cl	Cl +/-	K	K +/-	Ca	Ca +/-	Ti
15/10/2017	J-1	ND		2.03	0.08	8.99	0.08	0.5782	0.0209	0.0337	0.003	0.262	0.048	4.6311	0.039	0.5478	0.0075	1.1693
15/10/2017	J-2	ND		1.46	0.05	12.31	0.1	0.633	0.0207	0.1827	0.0036	0.5899	0.0423	0.6217	0.0059	1.2735	0.0107	0.4064
15/10/2017	J-3	ND		1.31	0.07	9.68	0.09	0.3053	0.0182	0.0444	0.003	0.8943	0.0465	3.4204	0.0301	0.5401	0.0071	0.3324
15/10/2017	J-4	ND		1.0817	0.0439	4.1684	0.043	0.3294	0.0142	0.0394	0.0021	1.8328	0.0348	0.3506	0.004	0.9588	0.0091	0.4782
15/10/2017	J-5	ND		2.7	0.06	9.96	0.09	0.3935	0.0182	0.0357	0.0026	0.5239	0.0414	0.5383	0.0056	1.6471	0.0145	0.8607
15/10/2017	J-6	1.59	0.46	1.72	0.06	6.05	0.07	0.186	0.0206	0.0308	0.003	1.8259	0.0485	0.1921	0.0038	5.58	0.06	0.2666

Ti +/-	V	V +/-	Cr	Cr +/-	Mn	Mn +/-	Fe	Fe +/-	Co	Co +/-	Ni	Ni +/-	Cu	Cu +/-	Zn	Zn +/-	As	As +/-	Se	Se +/-
0.032	7 0.0749	0.0107	ND		0.0646	0.0045	4.2282	0.0428	ND		ND		0.0192	0.0013	0.008	0.0007	ND		ND	
0.019	4 ND		ND		0.0612	0.0039	4.1275	0.0375	ND		ND		ND		0.0043	0.0005	ND		ND	
0.019	7 0.0542	0.0082	ND		0.1171	0.0055	5.85	0.06	ND		ND		ND		0.0073	0.0007	ND		ND	
0.017	2 ND		ND		0.076	0.004	10.25	0.09	ND		ND		0.0285	0.0015	0.0062	0.0007	0.0024	0.0003	ND	
0.024	1 0.037	0.0077	ND		0.3095	0.0078	8.92	0.08	ND		ND		ND		0.0186	0.001	ND		ND	
0.019	5 0.0253	0.0078	ND		0.2125	0.0076	6.68	0.08	ND		0.0039	0.0012	0.0039	0.001	0.0042	0.0007	ND		ND	

Rb	Rb +/-	Sr	Sr +/-	Υ	Y +/-	Zr	Zr +/-	Мо	Mo +/-	Ag	Ag +/- Cd	d Cd +/-	Sn	Sn +/-	Sb	Sb +/-	W +	/- Hg	Hg +/-	Pb
0.0135	0.0004	0.0023	0.0002	0.0072	0.0003	0.0404	0.0006	ND		ND	N	D	ND		ND		ND	ND		ND
0.001	0.0001	0.0044	0.0002	0.0063	0.0002	0.0253	0.0004	ND		ND	N	D	ND		ND		ND	ND		0.0012
0.0085	0.0003	0.0023	0.0002	0.0064	0.0003	0.0245	0.0005	0.0008	0.0002	ND	N	D	ND		ND		ND	ND		ND
0.0028	0.0002	0.0113	0.0003	0.0041	0.0002	0.0178	0.0004	0.0015	0.0002	ND	N	D	ND		ND		ND	ND		ND
0.0009	0.0002	0.0173	0.0004	0.0058	0.0003	0.0139	0.0004	0.0008	0.0002	ND	N	D	ND		ND		ND	ND		ND
ND		0.0183	0.0004	0.0016	0.0002	0.0035	0.0003	0.0009	0.0002	ND	N	D	ND		ND		ND	ND		0.0016

Pb +/-	Bi	Bi +/-	Th	Th +/-	U	U +/-	LE	LE +/-	
	ND		ND		ND		77.3	0.2	
0.0003	ND		ND		ND		78.29	0.17	
	ND		ND		ND		77.4	0.2	
	ND		0.004	0.0007	ND		80.35	0.17	
	ND		0.0033	0.0008	ND		74.01	0.22	
0.0004	ND		ND		ND		75.6	0.42	

# **XRF Rock Descriptions**

XRF Results	Location	Description
J-1	50.41875°N 127.91311°W	Dioritic intrusive, fine grained, green overall, could
	577248E 5585591N Zone 9	be mafic tuff
J-2	50.41648°N 127.91397°W	White weathering, rhyolitic porphyry phenocrysts
	577151E 5585507n Zone 9	to 3mm in fine matrix
J-3	50.41506°N 127.91603°W	Diorite, fine grained, may be recruystallized mafic
	577110E 558443N Zone 9	tuff
J-4	50.41315°N 127.91157°W	Magnetic, strong hematite alteration, andesite,
	577298E 5585086N Zone 9	dark green in colour
J-5	50.41112°N 127.91517°W	Weakly magnetic, fine grained andesitic tuff
	577088E 5584846 Zone 9	
J-6	50.41069°N 127.91680°W	Rhyo-dacite tuff, flow banded, white weathering,
	576914E 5584935N Zone 9	brown on fresh surface, very fine grained
ALS Lab Results	Location	Description
Gorby 1	576344E 5586110N Zone 9	Intrusive breccia, andesite
Gorby 2	576371E 5586113N Zone 9	Andesitic breccia, jasper clasts
Gorby 3	576389E 5586018N Zone 9	Intrusive andesitic breccia
Drillcore Nil	576525E 5586018N Zone 9	Gouge from drillcore Hole 6 south east zone
NDD1701	577039E 5584675N Zone 9	Andesite, mineralized cpy, bornite
NDD1702	577143E 5584634N Zone 9	Andesite, mineralized cpy
NDD1703	577229E 5584602N Zone 9	Andesite, dark green chlorite
NDD1704	577290E 5584603N Zone 9	Andesite, dark green, mineralized cpy