

# PROPERTY FILE

COPPER ROAD PROPERTY

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NTS 92K - 3W, NANAIMO M.D.

QUADRA ISLAND, BRITISH COLUMBIA

## **EVALUATION REPORT**

FOR

NETWORK 1 555 West Hastings Street, Suite 700 Vancouver, B.C. V6B 4N5

Cover Photo: Copper Road, View West from Shaft

PREPARED BY:



H. WAHL, P.ENG.B.C. RR4 S12 C4 GIBSONS, B.C. VON 1VO

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PORTION OF ORIGINAL, AS PROVIDED BY WESTMIN RESOURCES, Scale 1" =100 feet (in-pocket)

## SUMMARY

The Copper Road Deposit is situated on the west side of Quadra Island, British Columbia within the Triassic Karmutsen formation.

Previous production from the East Zone aggregated 5,064 DST grading 3.66% Cu, 0.51 oz/T Ag, and 0.018 oz/T Au. The property was formerly explored by Anaconda and Western Mines. Some 36 angle core holes have defined a 4,500 foot long by ± 20 foot wide chloritized shear zone striking roughly east-west with a near vertical dip. Exploration to date has defined two bornite-chalcopyrite shoots totalling some 120,000 tons grading 2.6% Cu and 0.47 oz/T Ag. While the drilling has been performed by responsible operators, there is a degree of uncertainty attached to the reserve estimates, as no drill cores, drill logs, or cross-sections are available to confirm the true thicknesses of mineralized intercepts.

The East Shoot is the most significant of the two zones having a possible high grade core of  $\pm$  14,000 tons grading 6% Cu. (Feeder Zone?) This zone is open at depth and might ultimately contain some 60,000 tons of material in a grade range of 2% Cu or better.

The Copper Road deposit could develop into a small, stand-alone high-grade copper operation ( $\pm$  100 Tpd) or supply feed to a larger milling operation based upon Network's Gowlland Bay properties, located 10 km south of Copper Road.

A two-stage program is recommended totalling \$800,000. Stage One (\$120,000) consists of check drilling (3 NQ angle holes for  $\pm$  1,800 feet) to verify zone thickness, grade, and test downward continuity. Success here (at least 5 feet true thickness of + 2% Cu), would then warrant a \$680,000 underground exploration and development program to gain entry to the high grade East Shoot, test mining characteristics and costs, and provide bulk samples for mill tests. The deposit has many favourable geological and locational aspects suggestive of relatively low cost mining for this type of deposit.

As a regional exploration option, the company is advised to consider an INPUT/GRADIOMETER airborne survey over their land holdings to search for large, sub-surface strata bound disseminated/massive, basalt-hosted chalcocite deposits, within the flat-lying Karmutsen stratigraphy.

## **INTRODUCTION & BACKGROUND**

At the request of Mr. Felix Reyes of Network 1, a site visit was made to the Copper Road property on Quadra Island, via helicopter from Campbell River on March 28, 1997.





FIG. 1 GENERAL LOCATION MAP COPPER ROAD PROPERTY, QUADRA IS. NETWORK 1 VANCOUVER, B.C. 92 K



The writer is familiar with this shear-zone copper deposit, having reported twice previously on the subject, the last for Black Marlin Resources in 1983.

Network 1 has acquired by recent staking the mineral rights covering the Copper Road zone, as well as some 10 other high grade chalcocite deposits situated some 10 kms southeasterly, just north of Gowlland Harbour. The company is interested in developing the indicated copper resource into a small high-grade mining operation.

Since the writer's last visit, there has been no material changes to the property, other than continued deterioration of the access road.

The majority of the data concerning the property are in imperial measure, thus this usage will be continued.

## LOCATION AND ACCESS (FIGS.1,2)

## NTS 92K-3W,

## Nanaimo Mining Division, Quadra Island, Latitude 50012', Longitude 125018'

The property is easily accessible from Campbell River, Vancouver Island via a 15 minute ferry trip to Quathiaski Cove. An 11 mile paved/gravel road extends to Granite Bay. From here the route turns west to Deepwater Bay for 0.75 miles, then north along a logging road (now washed out) to the claims.

## History:

<u>1953</u>: Golden Contact Mines drilled eight shallow holes totalling 948 feet around the shaft area.

<u>1963</u>: Optioned by Anaconda who drilled 11,740 feet indicating reserves of 115,000 tons grading 2.8% Cu and 0.5 ounces of silver.

From 1962 to 1969 the property was lease-mined by Mr. Robert J. Bennett of Campbell River, who sank a 100 foot shaft and shipped a total of 5,064 DST to Brittania Beach, which graded 3.66% Cu, 0.51 oz/T Ag, and 0.018 oz/T Au. A total of some 972 feet of shallow U/G development was completed during the lease period (MMAR's).

<u>1969</u>: The property was optioned by Western Mines who conducted geological, geochemical and geophysical surveys, and drilled eight surface core holes totalling

4,737 feet. The property has been idle since 1970.

## **PROPERTY & OWNERSHIP (Fig.2)**

The Copper Road property is currently covered by the undernoted mineral tenures (4 post).

Claim Name	Tag/No.	Record No.	Record Date	<u>Units</u>
Copper Road-1	233239	346223	29 May 1996	18
Copper Road-2	233140	346224	29 May 1996 <u>Total:</u>	8 <u>26 units</u>

The registered owner is Elisa M. Reyes. Current assessment regulations require work or cash-in-lieu of \$100/unit in each of the first three years of tenure, increasing to \$200/unit thereafter.

The claim posts and boundary lines of the subject claims were not inspected by the writer and accuracy of location is considered the responsibility of Network 1.

#### Availability of Information:

Through the passage of time, records at previous drilling have become dispersed. Westmin Resources kindly gave permission to examine all their property records, which includes the drill plan and longitudinal section, the main item on which this report is based. There is some doubt whether the mineralized intervals portrayed on this map are true thicknesses or core lengths. Because of this the recommendations herein are designed to resolve this unknown.

## **GENERAL GEOLOGY (FIG.3):**

The Copper Road zone occurs within basalts and andesites of the Triassic Karmutsen Formation, which trends northwesterly across the western side of Quadra Island. These rocks are dominantly massive andesite-basalt flows with intermittent amygdaloidal units. Formational gradients are flat to gently eastward.

To the east, the volcanics are in fault contact with the younger Triassic Quatsino Formation, a well crystallized bluish limestone with occasional white recrystallized zones.





## STRUCTURE AND MINERALIZATION

The Copper Road property is a shear zone in basic volcanics which has been traced for some 4,500 feet along a topographic depression. The structure strikes 280° and dips vertically or nearly so. The zone of shearing is generally about 20 feet wide and characterized by intense chloritization of the sheared basalts. The north or hanging wall of the zone is a clean slip surface, while the footwall is more "hackly" with random quartz sulphide stringers.

This zone of shearing has been impregnated with chalcopyrite and bornite bearing quartz veins, wherein locally rich shoots of massive chalcopyrite and bornite are developed. Copper sulphides are apparently dominant as there is little recorded data on the presence of accompanying pyrite or pyrrhotite.

The overall potential of the shear to a vertical depth of 500 feet has been fairly well defined by the 36 holes drilled to date. This work has indicated two "ore" shoots referred to as East and West, but has not defined the downdip potential of what may be the "Feeder Zone." This could represent a former flat-lying channel in flow tops, which controlled the initial mineralization, and is now tipped on end. Alternatively, it may mark the zone of ingress for hydrothermal quartz-sulphide solutions entering or traversing the already existent vertical shear.

#### **RESULTS OF SURFACE SAMPLING (FIG.5)**

#### TABLE 1

## Copper Road: Rock sample descriptions 28 March 1997

<u>CRR-1:</u> Grab, west end open cut on shear, north side. Oxidized surface rock, quartzrich, mostly malachite, some remnant Cpy. Assay: Cu 5.168% Au <0.001, Ag 0.12 (opt)

<u>CRR-2:</u> 0+4 m east of #1, grab, south side shear, Qtz rich, mostly oxidized to malachite. Remnant fresh Brnt. and Cpy as rich blebs. Assay: Cu 13.34% Au Nil Ag 2.33 (opt)

<u>CRR-3</u>: 0+5 m east of #2, South wall, quartz with heavy concentrations bornite, west edge open stope. malachite

Assay: Cu 13.815% Au .002, Ag 4.03 (opt)

<u>CRR-4:</u> North wall, opposite #3. Oxidized, abundant malachite and azurite, plus seal brown limonites after Cpy. Slight argillic appearance. Assay: Cu 4.068% Au <001, Ag .98 (opt)



ASSAY RESULTS

SAMPLE#	%Cu	OPTAG	OPTAU
CRR-1	5.168	0.12	20.001
CRR-2	13.34	2.33	NIL
CRR-3	13,815	4.03	0.002
CRR-4	4.068	0.98	20.001
CRR-5	2.375	0.20	40.001
CRR-6	5.391	1.1	10.001



5 10 METERS SCALE ICM = ZM APPROX.

FIG. 5 FIELD SKETCH COPPER ROAD PROPERTY QUADRA IS. B.C. 92K-3W FOR NETWORK 1 VANCOUVER, B.C. APRIL 1997 H. WANL P. ENG. BC. <u>CRR-5</u>: West end second open stope, strong shearing 2 m wide. qtz-chlorite schist with abundant malachite.

Assay: Cu 2.375%, Au <001, Ag 0.20 (opt)

<u>CRR-6:</u> Shaft, north side, sheared quartz-chlorite rock, abundant malachite Assay: Cu 5.391%, Au <001, Ag 1.1 (opt)

<u>CRR-7</u>: 75 m east of shaft, exposed shear zone, quartz veins, low sulphide. Quartzchlorite schist, weak malachite, odd bleb Cpy, seal brown limonite spots after Cpy. Assay: Cu 0.219%, Au <001, Ag <01 (opt)

<u>CRR-8:</u> From ore dump, 50-60 m north of shaft. Breccia, basalt fragments to several cms. in white quartz matrix, malachite stained. Original disseminations and blebs of Cpy and Brnt.

Assay: Cu 2.265% Au <001, Ag 0.47 (opt)

Assays performed by Acme Analytical Laboratories Ltd., Vancouver, B.C.

## MINERAL RESERVES (FIG. A)

It should be mentioned that mineralized intervals plotted on the available information may not be the true zone thickness. However, it may be significant that grade and tonnage calculations reported by Western Mines are comparable to the results calculated by the writer. Nonetheless, the above proviso should be remembered, until clarified.

Mineral reserves were calculated by two standard methods: the triangular block method and the contour method. In both methods, a cut-off grade of 1% Cu and a minimum width of 5 feet were employed. Since the spacing between drill holes used to calculate tonnages and grade varies 70 to 200 feet, the material estimated should be classed as drill indicated.

Differing values for precious metal content (Ag) were observed so these were not included in the present estimate. Silver values observed in the Western data ranged from trace to 5.21 oz/T. The average for the East Shoot amounted to 1 oz/T Ag, while 0.53 oz/T was the average for the West Shoot. The only data for gold was the analysis for the 5,000 tons shipped which graded 0.018 oz/T Au. Future sampling should be directed to closer checks on the precious metals content.

## CALCULATED TONNAGES (Drill indicated)

The undernoted reserve estimate was done originally in 1981. Since there is no new information this data is still current.

			East Shoot
Tons	<u>%Cu</u>	oz/T Ag	
39,800 40,417 46,700	2.94 3.49 3.69	1.00 ? ?	Western, no dilution HJW, 10% dilution @ 0% Cu HJW contour method, 10% dilution @ 0% Cu
, *			West Shoot
<u>Tons</u> 75,700 81,778 84,750	<u>%Cu</u> 2.77 2.11 1.77	<u>oz/T Ag</u> 0.53 ?	Western, no dilution HJW, 10% dilution @ 0% Cu HJW contour method, 10% dilution @ 0% Cu
	. * A		Total Zone
<u>Tons</u> 115,500 122,195 131,450	<u>%Cu</u> 2.83 2.57 2.45	<u>oz/T Ag</u> 0.47 - -	Western, no dilution HJW, 10% dilution @ 0% Cu HJW contour method, 10% dilution @ % Cu

The **East Shoot** area is considered the most significant in terms of a potential small scale, higher grade mining venture. Using the contour method, there appears to be a high grade core zone of some  $\pm 14,000$  tons grading 6% Cu, which could be important in terms of a quick pay-back of investment. This zone appears to extend upward to the shaft area from which the original high grade shipments were mined.

Additionally, the grade contours are very suggestive that a "feeder" zone may extend beyond the present limits of the East Shoot at depth (FIG.A).

Using dimensions of 600 feet x 200 feet x 5 foot true thickness, there could exist some 60,000 tons of +2% Cu material, subject to confirmatory drilling and underground exploration. This area may also include an extension of the higher grade core area mentioned above.

## VALUATION OF IN-PLACE MINERAL RESOURCE

The current in-place value of  $\approx$  120,000 tons grading 2.6% Cu is some \$8.6 million Canadian dollars based upon \$US 1.00 lb/Cu and \$1.38 \$C = \$US 1.00. Additional value contribution from Au-Ag remains to be determined.

Whether this material can be recovered at a profit is unknown at this time. There does appear to be sufficient value in place to warrant underground development with a view to confirming potential mining, milling, and operating costs related to a small scale operation.

## DISCUSSION OF ONWARD EXPLORATION AND DEVELOPMENT

#### --Scenario 1

The Copper Road deposit shows potential to develop into a small (100 Tpd) high grade copper mining operation with a potential quick payback from the high grade East Zone core material.

There are a number of favorable features which are considered significant.

I. <u>Extraction and Dilution</u>: Mineralized material should break cleanly form the hanging wall. Dilution has been calculated @ 0% Cu, but stringer mineralization is present in the footwall, which should contribute some values. The zone has vertical geometry which should allow open stoping, and very competent wall rocks which should eliminate timbering.

2. <u>Drilling Versus U/G Development:</u> The previous drilling has pretty well delineated the near surface mineralization. The potential for tonnage and grade expansion lies at depth.

The depth at which the zone requires testing (600 to 80 feet below surface) is very near or close to the cost effective point, where underground exploration makes better financial and technical sense than drilling.

3. <u>Infrastructure and access</u>: The property has an excellent location respecting transportation and communications. The concentrate loading facility for Western Mines Ltd. is situated about 1 mile north of the ferry terminal at Campbell river. There is good opportunity to move product either by road, barge or ship.

The surface disposition surrounding the property is Timberwest T.F.L. #2, so that a mining operation should be compatible with current land usage.

4. <u>Access to Reserves:</u> The East Shoot has an excellent topographic lie vis a vis gaining entry by an adit drive. The terrain, after a gradual slope northward, drops

steeply, so that an adit could be collared about 1,000 feet north of the 700 foot level to enter the zone at that elevation. This would provide 500 to 600 feet of backs and tap directly into the high grade core.

It would also offer the possibility to discover any non-outcropping mineralized shears that might exist north of the known zone.

Alternatively, development by ramp/decline in the footwall may also offer advantages. Upon successful conclusion of Phase I, independent mining engineering authority should be consulted to determine the best method of U/G access.

#### --Scenario 2

Whether the Copper Road will function as a small high grade stand-alone operation requires the execution of the recommended program. The property could also operate as a feed source for a larger milling operation based upon the Gowlland Bay properties 10 km to the south. Previous exploration and drilling in this area has identified the undernoted reserves, occurring primarily as chalcocite.

#### Location and Tonnage of the Various Showings:

Geological Report on the Pomeroy and Contact Groups for Prince Stewart Mines Ltd. (NPL) by E. Percy Sheppard, P.Eng. 29 January 1973

Name	<u>Claim</u>	Proven	<u>Grade</u>	Indicated	Grade%
Pomeroy 1	Copper Hill 2	16,500	3.67	260,000	3.50
Pomeroy 2	Evelyn 3 (N)	5,000	2.70	17,000	2.70
Pomeroy 2	" (S)	25,300	2.11	90,000	2.11
Pomeroy	3 & 4	972,400	1.22	472,000	1.62
Beaver 1	Bit 2	19,375	1.74	open	•
Doe	Copper Cliff	25,125	3.05	112,500	1.70
Butte	Cliff 2	•	-	40,000	1.40
Copper Cliff				•	
Adit	Copper Cliff	5.1	-	300,000	3.05
Hall Trenche	es Colleen 1	5,000	3.45	50,000	2.40
Copper Bell	1&2	112,000	2.55	700,000	2.55
		1,180,700		2,041,500	
4.	Taras 4		50/	0.044.500	

Tons: 1,180,700 @ 1.65%	2,041,500 @ 2.44%
Cu/ton	Cu/ton

## **Regional Exploration Potential**

Given the known copper mineralization, the rough and "brushy" nature of the terrain, the fact that no significant modern exploration has been performed on the Quadra volcanic belt, an airborne INPUT/GRADIOMETER survey is strongly recommended to evaluate the Network I land package. A basic 200 meter, E-W line spacing is suggested. The geologic setting of mafic volcanics with intercalated limestone and sedimentary layers, having flat to shallow dips suggests potential for large stratiform deposits of disseminated or massive type, plus much larger Copper Road-type shear zone deposits A number of major faults are apparent based upon topography and the existing low sensitivity aeromagnetics (FIG.4). It should be noted that all the Gowlland area drilling was completed at depths less than 100 feet below surface.

On the basis of comparative similarities the undernoted are potential target types:

<u>Kennecott, Alaska:</u> Both strata-bound and discordant ore zones in lower dolomite beds of Triassic Chitistone limestone at contact of altered basalts. Gentle stratigraphic dips. Average ore grade 12.4% Cu as chalcocite. Production of 1.2 billion pounds Cu plus substantial Ag.

<u>Sustut Copper, B.C.</u>: Mineralized zone of 60 MT @ 1.25% Cu. Bornite, Chalcopyrite, chalcocite and native Cu in conformable zone within gently dipping upper Triassic mafic volcanics.

<u>47 Zone, Coppermine River NWT</u>: Shear zone deposit in Proterozoic mafic volcanics 4.16 Mt @ 2.96% Cu dominantly as chalcocite. Deposit is 1500' long x 35' wide drilled to 600 '; open at depth and to southwest.

#### CONCLUSIONS

The Copper Road deposit is a high grade shear zone controlled feature occurring in Triassic Karmutsen basalts. The zone strikes roughly E-W, is some 4,500 feet long by present definition, and contains two drill-indicated mineralized lenses, which constitute the mineral reserves. The gross value of material-in-place amounts to an estimated \$8.6 M dollars based upon current metal prices and exchange rates. The East Shoot appears the most attractive of the two zones by virtue of a potential highgrade core, which could be significant in terms of a rapid investment pay-back. The deposit has many favourable features related to gaining underground access to the indicated higher grade zone, and extraction of material

The East Shoot is open at depth and the chance may exist to more than double reserves.

This report is based upon incomplete technical data as drill cores and/or logs are not available. With this in mind, the following proposals are recommended.

## RECOMMENDATIONS

A two-stage program is recommended.

- 1. <u>Reserve Confirmation:</u> Confirm and extend the presently indicated reserves by drilling 3 NQ core holes, with dip tests every 100 ft. Success at this stage (at least 5 feet of +2% Cu True thickness) would then justify proceeding with the underground exploration and development program.
- 2. <u>Underground Development</u>: Whether by adit or ramp, access the mineralized zone (East Shoot) at the 700-foot level. The objective of this work is to gain entry to reserves and establish a transportation corridor, to test-mine several hundreds of tons, check the mined grade, and provide bulk samples for mill testing. Upon completion of this phase, a detailed inquiry should be prepared investigating the feasibility of a small-scale copper mining operation and/or the provision of mill feed for an expanded operation including the Gowlland properties.

## **BUDGET/COST ESTIMATE - COPPER ROAD ZONE**

<u>Check Drilling</u>: To test for extension of East Shoot high grade zone at 600 feet below surface, confirm grade at 350 feet below surface, and test area between holes 15 and 19.

<u>\$</u>	3,000	Preparation of detailed topo map at scale 1:2500 with 10 m contour interval
	54,000	Core drilling - 1,800 feet NQ @ \$30/foot inclusive contract charges
	1,000	Assays
	50,000	Road and site preparation, 2 km @ \$25,000/km to current code standards
	5,000	Engineering and supervision
\$ 1	113,000	
_	7,000	Contingency
<u>\$</u>	120,000	TOTAL

<u>Underground Development:</u> Allowance for 1600 feet entry plus preliminary U/G work and sampling <u>\$680,000</u> 1600 feet of development @ \$425/ft. inclusive.

Recapitulation:

\$ 120,000 Phase I 680,000 Phase II 800,000 Grand Total

Optional: Regional INPUT/GRADIOMETER survey estimated 260 line kilometres @ \$30/km......\$78,000.

Prepared by

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Herb Wahl, P.Eng. B.C.

#### CERTIFICATION

This is to certify that:

- I, Herbert J. Wahl, am a resident of British Columbia and live at 1459 Gower Point Road, Gibsons, BC, RR4 S12 C4, VON1VO.
- I am a graduate of Dartmouth College, Hannover, New Hampshire, with the degree of Bachelor of Arts with Honors in Geology (1957).
- 3. I am a member of the Association of Professional Engineers of British Columbia and have practiced my profession continuously from 1961 to the present.
- 4. I have not, directly or indirectly, received or expect to receive any interest, directly or indirectly in the property of Network I, or of any affiliate, or beneficially own, directly or indirectly, any securities of the company or of any affiliate.
- 5. This report is based on a one-day field examination, upon unpublished data furnished by Network I, upon unpublished data furnished by other companies as listed in this report, and upon information in the public record.
- Consent is given to submit this report as herein presented to the Vancouver Stock Exchange, Canadian Dealing Network Inc., and/or Montreal Stock Exchange, in support of a Statement of Material Facts.

Herb Wahl, P.Eng., B.C.

15. April 1997

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