

Minorex Consulting Ltd.

800636

Geological Consultants and Mineral Exploration Management

2391 Bossert Avenue, Kamloops, B.C. V2B 4V6

Telephone (604) 372-2181 or 376-8228

Code No: 86-4

Date: Jan. 7/86

Examined by: J.D.B.

PROPERTY EVALUATION REPORT

1. GENERAL INFORMATION

PROPERTY NAME: CK

LOCATION: Twenty-three kilometres northwest of Avola post office, or approximately 43 kilometres northeast of the town of Clearwater, B.C. The property covers the Raft River valley near the confluence of Richie Creek with the Raft River.

Lat. 50° 54.8' N. Long. 119° 34.9' W. N.T.S 82M/13E.
U.T.M. LH5756600 N. by LH0322600 E.

ACCESS: Vehicular access is readily possible via several good logging roads north and east of Clearwater along the Raft River. Much of the steeper or remote areas of the property are only accessible by hiking or helicopter support.

MINING DISTRICT: Kamloops

MINERAL CLAIMS: (see attached list by A. Horne, 1986)

OWNER: Mr. Andrew Horne
Address: Site 4, Comp. 19
R.R. #1
Chase, B.C.
Telephone: (604) 679-3070

AGREEMENT TERMS:

- \$15,000.00 downpayment on signing escalating yearly payments to a total of \$500,000.00.
- No returned interest after \$500,000.00 payments.

11. PROPERTY DESCRIPTION

PHYSIOGRAPHY

Elevations: 850 to 1,700 m. (New Showing at 1,100 m.)
% Outcrop: Quite low, perhaps less than 1 to 2%.
Overburden Depth: Variable but extensive.
Glaciation: Unknown.

HISTORY

- 1973 - Large High-grade mineralized boulders were found in a creek valley by prospector Andy Horne. Several hand trenches were dug in trying to locate their source.
- 1974 - The property was dealt to Sicintine Minerals who optioned it to Rio Tinto. Rio Tinto carried out an airborne EM/Mag survey, geochemistry, prospecting and a four hole diamond drill program.
- 1975 - Rio Tinto first conducted an extensive program of regional grid geochemistry. Prospecting located a stratiform ZnPb showing about 3 km northeast of the original boulders which was thought to represent the source. A limited program of mapping, magnetic and I.P. surveying was followed by three drill holes in this area. Two of the holes intersected relatively thin stratiform Zn/Pb mineralization. The option was terminated and returned to Sicintine.
- 1976 - Sicintine conducted a small program of back-hoe trenching in the Main Boulder Area. No success was encountered, so the property was returned to Andy Horne.
- 1977 - Paul Wojdak of Cominco examined the property and an agreement with the owner was signed.
- 1978 - Prospecting, geochemistry (600 sample), mapping, cat trenching, I.P. surveying (38 km), diamond drilling (20 holes, 2114 m).
- 1979 - Property mapping, blanket geochemistry (8000 samples), I.P. (40 km) and diamond drilling 18 holes for 2768 m).
- 1980 - Local detail mapping, prospecting, blanket geochemistry (2,000 samples), I.P. (12 km), diamond drilling (15 holes for 1277 metres).
- 1981 - Summary report
- 1982 - Dormant.
- 1983 - Dormant.
- 1984 - Dormant.
- 1985 - Property returned to A. Horne.

GEOLOGY

Regional Geology

Recent regional mapping by the G.S.C. (Okulitch - Open File 637), centred on Vernon, has included much of the western part of the Shuswap Metamorphic Complex. Unfortunately, the map coverage stopped south of the CK area. Prior to this mapping, regional lithologies of the Shuswap Complex merely divided the complex into three rock types, all related to the gneiss domes present on the eastern side. The Okulitch map reveals much of the central and northern part of the complex to be comprised mainly of intrusives varying in age from Devonian through Jurassic and Cretaceous. Large blocks of metasediments are present, but they can be likened to large islands of metamorphosed sediments floating in a sea of intrusives. In the southern part of the complex, the reverse is true, where intrusives are much subordinate to the metasediments. The stratiform deposits, such as the CK are confined to the "islands" of metasediments.

The CK property lies in the northwest portion of the Shuswap Metamorphic Complex which consists of "a strongly foliated and lineated assemblage of metasedimentary gneisses and schists intruded by an enormous number of dykes, sills, and small irregular bodies of granitic rock. Pegmatite often comprises 70 per cent of the exposed rock. Other intrusives are likely related to the pegmatite in origin and occurrence, but pegmatite always appears to be the last phase, cutting all other rock types" (GSC Map 48 - 1963).

Other lead-zinc deposits known in the Shuswap Complex are the Ruddock Creek, River Jordan, Cottonbelt, Wigwam, Big Ledge and Kingfisher deposits. They are mineralized layers broadly and complexly folded and members of a metasedimentary succession, and are within the highest grades of regional metamorphism. Usually they are associated with marble or calcareous layers in an overall metasediment assemblage of micaceous gneisses and schists.

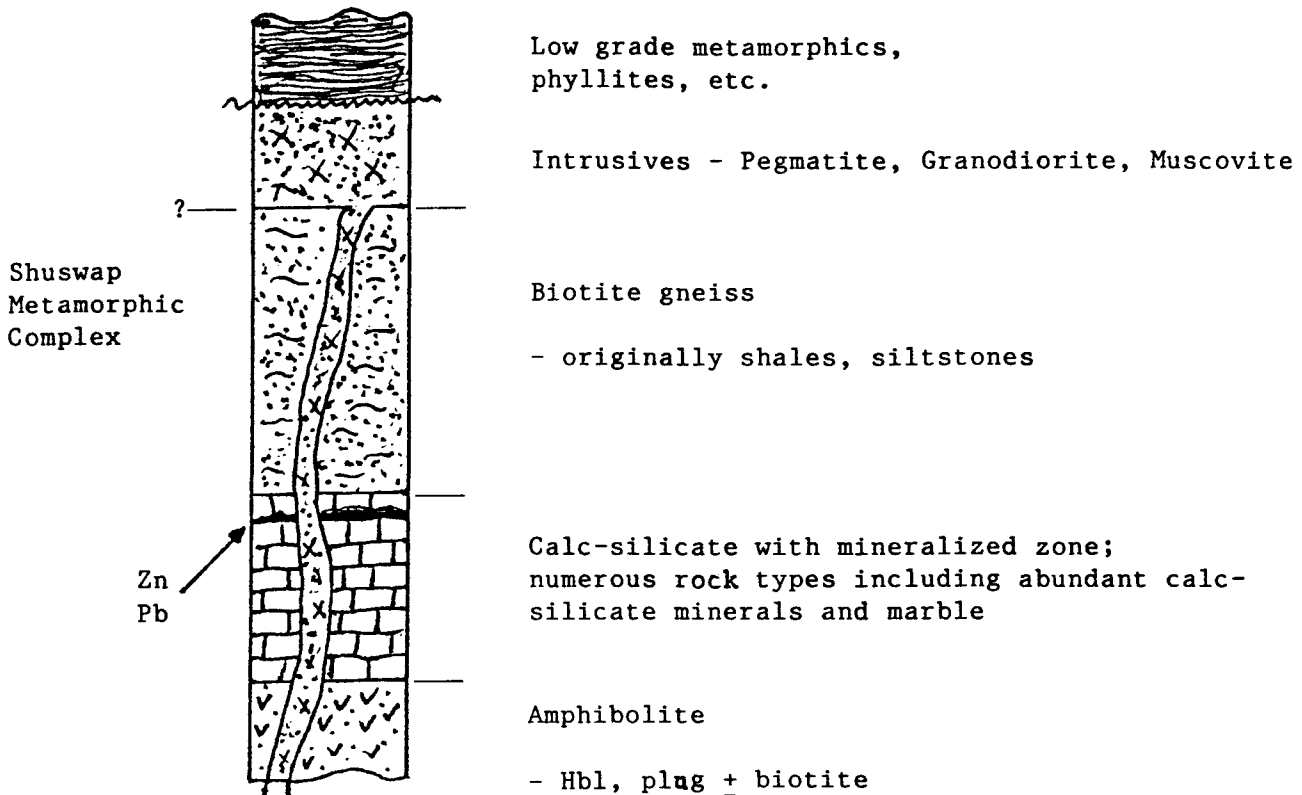
In the past, little effort had been made to completely decipher the structure of the Shuswap Complex on a regional scale. This situation is changing as several government groups are becoming involved with this problem. In the vicinity of the CK property, almost all trends to the foliation and bedding are from 320° to 360°. Most dips are steeply to the east, but west dips are also present. Except for the mineralization, individual beds cannot be correlated. There is a general association of the mineralization with a calcareous calc-silicate or marble unit.

Property Geology

a) Lithology

Property mapping during 1979 by Cominco has defined five major rock units on the CK property. Of course no estimate of thickness is

possible and the exact stratigraphic relationships are not clear, but the current thinking proposes the following general section on the property:



1. Amphibolite - black and white to rusty orange weathering, variably layered (laminated to thick layered). Composed mainly of hornblende and plagioclase + biotite.

2. Calc-silicate Gneiss - this unit is actually made up of a variety of rock-types, but the occurrence of abundant calc-silicate minerals separates it from the higher and lower rock units. Within it are found the ten rock-types described in Cominco's 1978 Termination Report, all of which are distinguished in the core logging. The most significant of the rock types are: (a) the mineralization; (b) the white marble; and (c) the limy calc-silicates. There appears to be a general association between these rock units, but the exact relationship (if any) is not known. Correlation of rock-types, even from hole to hole is almost impossible for the rock-type changes very rapidly over very short distances. The mineralization still remains as the only concrete marker horizon. It is possible the mineralization may have been deposited as a vast sheet into a shallow water environment which would account for its variety of enclosing rocks, (originally limestone, shales and sandstones), or the mineralization may represent a Red Sea-type of depositional environment.

3. Biotite Gneiss - originally a thick sequence of shales and siltstones, this unit now consists of black and white (quartz)-plagioclase-biotite gneiss, muscovite-sillimanite-biotite gneiss, and local

variations. Bands of "dirty" quartzite are sometimes present; and often alteration or "bleaching" has been effected by intrusive or fault action.

4. Intrusive Rocks - these include pegmatite, granodiorite, and monzonite. The pegmatite is found throughout the property, except for the lower grade metamorphics. Cominco feels that the pegmatite's resistance to weathering gives a false impression as to the quantity on the property. Likely its overall abundance relative to the metamorphic rocks may not exceed 30%. It appears the pegmatite is of local origin. The other intrusives form extensive bodies in the regions along the eastern and western parts of the property.

b) Structure

The earliest recognizable phase of folding, and the one responsible for the overall distribution of the rock units, is large-scale isoclinal folding with northerly trending axes and generally moderately (25-40°) easterly dipping axial planes. The large-scale folds plunge southerly from approximately 30° southwesterly in the north part of the property to 10° southeasterly in the central part of the property. This inflection in direction of the first phase axial plane is caused by a later phase of folding which has east-west axial planes. The second phase has broad, open fold hinges; the best example of which is seen between the New Showing - Main Boulder area, and the Mist Showings. It is not likely this second phase of folding has caused thickening of the sulphide horizon. The best defined example of the early phase of folding is the Raft Synform. Although poorly exposed, the hinge area is defined by a combination of geology, geophysics and geochemistry. The mineralized hinge is seen within both limbs of the Raft Synform. On the eastern limb it is represented by the Popout Showing. On the west limb by (from north to south) the North Showing, Mist Showing, New Showing, Spring Showing, and the No-Name Boulder Train.

Southwest of the Raft Synform, a complimentary antiform has been mapped. Named the Kowalski Creek antiform, it is cored by the amphibolite of Unit 1. The mapped outline of this unit is ill-defined and questionable, but this is due to a combination of topography and complicated folding.

In the northeast part of the property, extensive outcropping of the biotite gneiss unit on the east side of the Raft River and geochemical anomalies along the river indicate that the Raft Synform is succeeded to the east by a southerly plunging antiform.

c) Mineralization

The sulphide mineralization occurs as a very extensive stratiform bed, usually dipping steeply to the east. Metamorphism, folding, etc. have acted differentially on this bed so that its identification is different along its length.

There are basically two types of massive mineralization. The most common is a fine-grained mixture of red-brown sphalerite with pyrrhotite and minor galena. Rounded "islands" of gangue give the rock a cream-spotted appearance and consist of quartz and plagioclase with minor fluorite, augite, diopside, calcite and sphene. The other type of massive mineralization is usually a very coarse-grained mixture of black sphalerite and galena. Spotting is also present. It is thought this variety may represent a remobilization by pegmatite of an iron-poor portion of the mineralized bed. Stringer and disseminated sphalerite and galena is sometimes present in the country rock near the main mineralized band. It likely represents a crackle-breccia and remobilization process, and may be considered a third type of mineralization.

The structure of the mineralized zones on the CK is not yet well understood. Folding and faulting, coupled with the extensive overburden cover, have obscured the geometry. Interference by pegmatite has further complicated the picture. It was inferred that the Main Boulder Area and the New Showing were within opposite limbs of a NW-SE trending anticline. More folding is also likely, so the horizon may be present elsewhere on the property.

GEOCHEMISTRY

The "blanket" geochemical grid coverage, started in 1979, was extended to cover more of the property that was apparently underlain by the favourable calc-silicate horizon. East-west lines were again run at 200 metre intervals, and samples were taken at 50 m intervals along the lines. This spacing was used to complete the overall survey, and to fill gaps left in the 1979 surveyed area. In some showing areas, a close spaced grid of 100 m x 25 m was run. In 1980, 2003 samples were taken.

All samples were analyzed for Zn and Pb. The results are plotted on maps at a scale of 1:5,000. Anomalous values are considered greater than 200 ppm Zn and greater than 40 ppm Pb. The main area of 1980 coverage was south of the Spring Showing. A well defined linear anomaly resulted, which may be indicating the mineralized horizon extending southerly from the Spring Showing. From Cominco's experience in 1979, this new pattern was rather predictable. Reconnaissance geochemical sampling of this nature is a very cost-effective method in locating the probable mineralized horizon in the extensively overburden covered stratiform deposit environment.

GEOPHYSICS

Geophysics has been very effective in pin-pointing drill targets within the mineralized horizon as defined by geochemical anomalies. During 1980, 12 km of I.P. were run, and a short test of horizontal loop E.M. was conducted. The I.P. completed the coverage in the Raft Synform area. The E.M. test detected the New Showing,

but it is felt this method is not sufficiently discriminating to distinguish the various geological features present on the CK property. The cost of a large E.M. survey would be comparable to a Lopo (battery operated) I.P. survey, and results would not be as useful.

In the Raft Synform, the completed I.P. survey supported the synform theory and was useful in spotting drill holes in the west limb, nose area. Two of the four holes intersected Zn/Pb mineralization.

111. ECONOMIC ASSESSMENT

None of the known sulphide mineralization could be considered proven; at best, in local areas, Cominco's drilling has defined drill indicated mineralization.

According to Cominco's published table the following data is available (Cominco, 1981):

	Grade (Pb-Zn%)	Width (m.)	Length (m.)	Grade Over 2.5 m. (Pb-Zn%)
Pop-Out Showing	5.7	Grab	?	?
Raft Synform				
East Limb	?	?	700(?)	?
Nose	11.0	0.5	1,000	2.2
West Limb	?	?	500	?
North Showing	4.7	1.1	700	2.1
Mist Showing	17.0	0.4	500	2.7
New Showing				
North	13.0	1.5	>700	7.8
Central	10.1	1.7	1,000	6.9
South	16.7	2.6	>500	17.4
Inner Spring	27.0	0.3	35(?)	3.2
No Name				
Boulder Train	10.2	Grab	200	?
Autumn Showing	13.0	2.0	100(?)	10.4
Main Boulder Area	27.0	2.0(?)	400	21.6
Spring Showing	22.0	0.4	100(?)	3.5

From this table it is obvious that there is excellent potential for both larger tonnages and higher grades with further exploration.

CONCLUSIONS AND RECOMMENDATIONS

A preliminary review of the Cominco data on the property was carried out by the writer at the request of Mr. L. Reaugh, president of both Desperado Resources Inc. and Verdstone Gold Corporation. It is the writer's opinion that the property has excellent exploration potential. Most of the known showings have not been delineated by Cominco and remain open along strike and downdip. In addition, results indicate that the sulphide mineralization is much more continuous than previously thought.

Both lead and zinc have a strong industrial base, despite current low metal prices. With further exploration and development this property could have good economic potential in the near future.

Although much further work would be required to fully assess the exploration data, it is the writer's opinion that Desperado and Verdstone should definitely acquire this property. Future exploration would require detailed surveying, trenching and drilling. Such an exploration program could be staged with first and second phase estimates in the order of \$80,000 and 120,000, respectively.

REFERENCES

BCDM GEM 1974-99
BCDM ASS RPT 5189, 5992, 5471, 5613, 5631, 6756, 6909
BCDM OPEN FILE
BCDM EXPL IN BC 1975-E59, 1978-E116
Cominco's 1978-81 Exploration Data

Submitted by,

MINOREX CONSULTING LTD.

J.D. Blanchflower, F.G.A.C.
Consulting Geologist

TABLE I

Mineral Claim Data

<u>Claim Name</u>	<u>Record No.</u>	<u>Unit(s)</u>	<u>Record Date</u>	<u>Expity Date</u>	<u>Registered Owner</u>
CK 1		1		October 19, 1989	Andrew Horne (100% owner of all claims listed below)
CK 2		1		October 19, 1989	
CK 3		1		October 19, 1989	
CK 4		1		October 19, 1989	
CK 5		1		October 19, 1989	
CK 6		1		October 19, 1989	
CK 7		1		October 19, 1989	
CK 8		1		October 19, 1989	
CK 9		1		October 19, 1989	
CK 11		1		October 19, 1989	
CK 13		1		October 19, 1989	
CK 15		1		October 19, 1989	
CK 16		2		June 16, 1989	
CK 17		1		June 16, 1989	
CK 34		1		November 6, 1989	
CK 36		1		November 6, 1989	
CK 39		1		November 6, 1990	
CK 40		1		November 6, 1989	
CK 41		1		November 6, 1990	
CK 42		1		November 6, 1990	
CK 43		1		November 6, 1989	
CK 44		1		November 6, 1989	
CK 45		1		November 6, 1989	

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<u>Claim Name</u>	<u>Record No.</u>	<u>Unit(s)</u>	<u>Record Date</u>	<u>Expiry Date</u>	<u>Registered Owner</u>
CK 46		1		November 6, 1990	Andrew Horne (100% owner of all claims listed below)
CK 47		1		November 6, 1989	
CK 48		1		November 6, 1990	
CK 61		1		September 20, 1987	
CK 62		1		September 20, 1987	
CK 63		1		September 20, 1987	
CK 64		1		September 20, 1987	
CK 65		1		September 20, 1986	
CK 66		1		September 20, 1989	
CK 67		1		September 20, 1987	
CK 68		1		September 20, 1987	
CK 69		1		September 20, 1989	
CK 70		1		September 20, 1989	
CK 71		1		September 20, 1989	
CK 72		1		September 20, 1989	
CK 73		1		September 20, 1989	
CK 74		1		September 20, 1989	
CK 75		1		September 20, 1989	
CK 76		1		September 20, 1989	
CK 77		1		September 30, 1989	
CK 78		1		September 30, 1989	
CK 79		1		September 30, 1987	
CK 80		1		September 30, 1987	

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<u>Claim Name</u>	<u>Record No.</u>	<u>Unit(s)</u>	<u>Record Date</u>	<u>Expiry Date</u>	<u>Registered Owner</u>
CK 81		4		August 18, 1990	Andrew Horne (100% owner of all claims listed below)
CK 82		1		October 7, 1989	
CK 83		8		October 7, 1989	
CK 84		6		October 7, 1989	
CK 85		4		July 27, 1986	
CK 86		6		July 27, 1989	
CK 87		20		August 15, 1990	
CK 88		15		August 15, 1989	
CK 91		4		August 15, 1989	
CK 92 Fr.		1 Fr.		August 25, 1988	
CK 93 Fr.		1 Fr.		August 25, 1989	
CK 94		20		November 1, 1989	
NORTH 1		20		November 1, 1988	
NORTH 26		1		July 29, 1989	
NORTH 28		1		July 29, 1989	
NORTH 39		1		July 29, 1989	
NORTH 40		1		July 29, 1990	
NORTH 41		1		July 29, 1990	
NORTH 42		1		July 29, 1990	
NORTH 43		1		July 29, 1990	
NORTH 44		1		July 29, 1990	
NORTH 45		1		July 29, 1990	

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Mineral Claim Data

<u>Claim Name</u>	<u>Record No.</u>	<u>Unit(s)</u>	<u>Record Date</u>	<u>Expity Date</u>	<u>Registered Owner</u>
NORTH 46		1		July 29, 1990	Andrew Horne (100% owner of all claims listed below)
NORTH 57		1		July 29, 1989	
NORTH 59		1		July 29, 1989	
NORTH 61		1		July 29, 1989	
NORTH 63		1		July 29, 1989	
NORTH 65		1		July 29, 1989	
NORTH 67		1		July 29, 1989	
RAFT 23		1		November 28, 1989	
RAFT 24		1		November 28, 1990	
RAFT 25		1		November 28, 1989	
RAFT 26		1		November 28, 1990	
RAFT 27		1		November 28, 1988	
RAFT 28		1		November 28, 1988	
RAFT 29		1		November 28, 1989	
RAFT 30		1		November 28, 1989	
RAFT 31		1		November 28, 1989	
RAFT 32		1		November 28, 1988	
RAFT 33		1		November 28, 1989	
RAFT 34		1		November 28, 1989	
ULO 1		1		September 30, 1989	
ULO 2		1		September 30, 1989	

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<u>Claim Name</u>	<u>Record No.</u>	<u>Unit(s)</u>	<u>Record Date</u>	<u>Expiry Date</u>	<u>Registered Owner</u>
ULO	3	1		September 30, 1989	Andrew Horne (100% owner of all claims listed below)
ULO	4	1		September 30, 1989	
STRAT	2	18		November 15, 1989	
STRAT	3	16		November 15, 1989	
STRAT	9	15		November 15, 1989	
PARK	1	200		November 15, 1986	
PARK	2	200		November 15, 1991	
PARK	3	5		November 15, 1991	
PARK	4	20		November 15, 1991	
HIGH	9	2		February 9, 1990	