824526

#### MINNOVA INC

MEMORANDUM

DATE:

April 24, 1991.

TO:

I. Pirie, 5. Bradford

FROM:

A. Hill

SUBJECT:

CK PROPERTY -- An evaluation based on a review of Rea Gold's data and reports.

#### Summary:

The property contains a thin, stratiform Zn-Pb deposit that has been traced fairly continuously for over 20 km of strike length, but rarely exceeds 1 metre in thickness. Grades are fairly consistent at 15% zinc, 3% lead, 8 grams/tonne silver, 300 ppm copper, and <10 ppb gold. Several vigorous exploration campaigns, (Rio Tinto, Cominco, Rea Gold/Minorex) have failed to find areas of significant structural or primary thickening. The probability of finding economic mineralization on the property is considered to be low, with the exploration of the property fairly complete.

# Property History:

- 1973 Prospector Andy Horne discovered sulphide boulders in a creek valley, staked claims, and several hand trenches were completed.
- 1974 Claims dealt to Sicintine Minerals who optioned it to Rio Tinto, and carried out an airborne EM/Mag survey, geochem, prospecting and 4 ddh's.
- 1975 Rio Tinto performed large-scale grid geochem, mapping, and limited ground Mag and IP surveys. Three ddh's were completed, then the option was terminated and returned to Sicintine.
- 1976 Sicintine conducted a small program of backhoe trenching in the Main Boulder showing area with no success, and the property was returned to the prospector.
- 1977 Cominco examined the property and an agreement with the owner was signed.
- 1978 Cominco performed prospecting, geochem (600 samples), mapping, cat trenching, IP (38km), Mag (30km), VLF (22km), and drilling (20 holes, 2114m).

- 1979 Cominco continued property-wide mapping, geochem (8000 samples!), IP (4km), and drilling (18 holes, 2768 metres).
- 1980 Cominco did local detailed mapping, geochem (2000 samples), IP (12km), and drilling (15 holes, 1277m). Note: Cominco data was not available for examination during this study.
- 1981-85 Cominco held the property, but it lay dormant until it was returned to A. Horne in 1985.
- 1986 Property acquired by Rea Gold/Verdstone Gold based on evaluation report by D. Blanchflower of Minorex Consulting.
  Blanket geochem was performed over the southern half of the property, along with road building and trenching.
- 1987 Rea Gold performed drill program on the "New Showing" (11 holes, 1373m), geochem (1269 samples), mapping, and additional drilling property-wide (84 holes, 6975m).
- 1988 Rea Gold switched consultants to Dolmage Cambell & Assoc. and performed 20km of IP, backhoe trenching, and 24 ddh's (3754.4 m).

In all, this work represents a total of 18,500 metres of drilling in 180 holes, over twelve thousand soil samples, 100km of IP, and 40 km of Mag.

## Property Geology:

The CK property (331 units), lies about 43 km NE of Clearwater, B.C. and is entirely underlain by the rocks of the Shuswap Metamorphic Complex. Early Cambrian amphibolite grade metasediments and orthogneiss host the mineralization, which is developed at the transition between platformal carbonates (marble and calc silicate rocks), and a more pelitic sequence (biotite almandine gneiss). The mineralized horizon has been affected by the same deformational events as the enclosing strata, and is frequently intruded by younger granite pegmatite intrusions (see strat. column).

Twelve main showing areas are present on the property (see attached list and map). The showings in the south half of the property are usually thin, poorly developed, badly truncated by pegmatites and have low potential. In the northern portions of the property the mineralization is thin (<<1m) and isoclinally folded in the nose of the regional scale Raft Synform. Drill testing over a maximum dip length of 500 metres failed to provide any indications that structural thickening has occurred here. The only remaining showing is also the best, and is described below.

# "New" Showing:

The New Showing, in the centre of the claim block, represents the most significant massive sulphide occurence on the property. The mineralization is traceable along surface for 1300m, but "may be discontinuous". It attains a maximum width of 5m for short distances (up to 25 m?), where small scale fold structures have produced thickenings. These folds do not appear large enough, or persistent enough to significantly thicken the sulphide layer any more than that already observed.

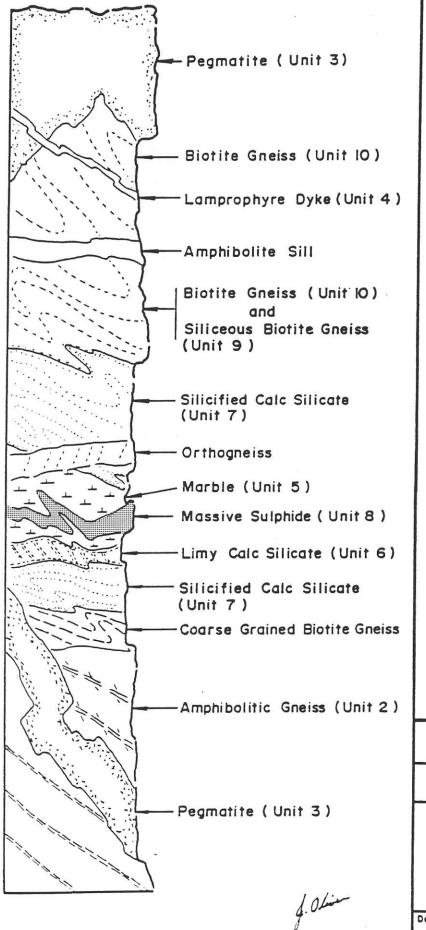
The massive sulphides are dominated by red-brown, fine grained equigranular sphalerite, with disseminated galena. Bedding (relict) is well defined, with very little alteration on either the footwall or hangingwall sides. Disseminated Pb/Zn is occasionally present within the marble units when in close proximity to the massive mineralization. Pyrrhotite (10-15%) is the dominant gangue sulphide, with lesser pyrite in fractures, and qtz-feldspardiopside-calc silicates-carbonate comprising the remainder of the rock.

Pegmatites truncate the stratigraphy, and probably account for at least 25% by volume. This is considerably lower than the average density on the rest of the property.

From an unweighted average of 83 diamond dril intersections, the zone contains 14.5% Zn, 2.36% Pb, 8.0 g/t Ag with very low levels in gold and copper, over an average width of 1.16 metres. Strike length is "semi-continuous" for 1300m but the horizon has seldom been traced more than 100m steeply down dip. Local zinc grades as high as 33.3% are noted, with many above 25%. Although grade relations are relatively easy to estimate within this zone, tonnage relations are not. The drill sections show that continuity both along strike and down dip is difficult to predict, with numerous irregular shaped pegmatite intrusions, and structural complications clouding the picture.

#### Conclusions:

Although the area contains considerable stratiform Zn/Pb massive sulphides, they do not appear to attain economic thicknesses. The potential for any new discoveries on the property has been exhausted by systematic exploration, using modern techniques and modelling. Further work on these claims is not warranted.



#### -- LEGEND --

## SHUSWAP METAMORPHIC COMPLEX

Biotite Gneiss

9 Siliceous Biotite Gneiss

Sulphide Mineralization

7 Siliceous Calc-Silicate

6 Limy Calc-Silicate

5 Marble

4 Lamprophyre Dyke

3 Pegmatite

2 Amphibolite

Hornblende Garnet Dyke

To accompany a report by J.L. Oliver



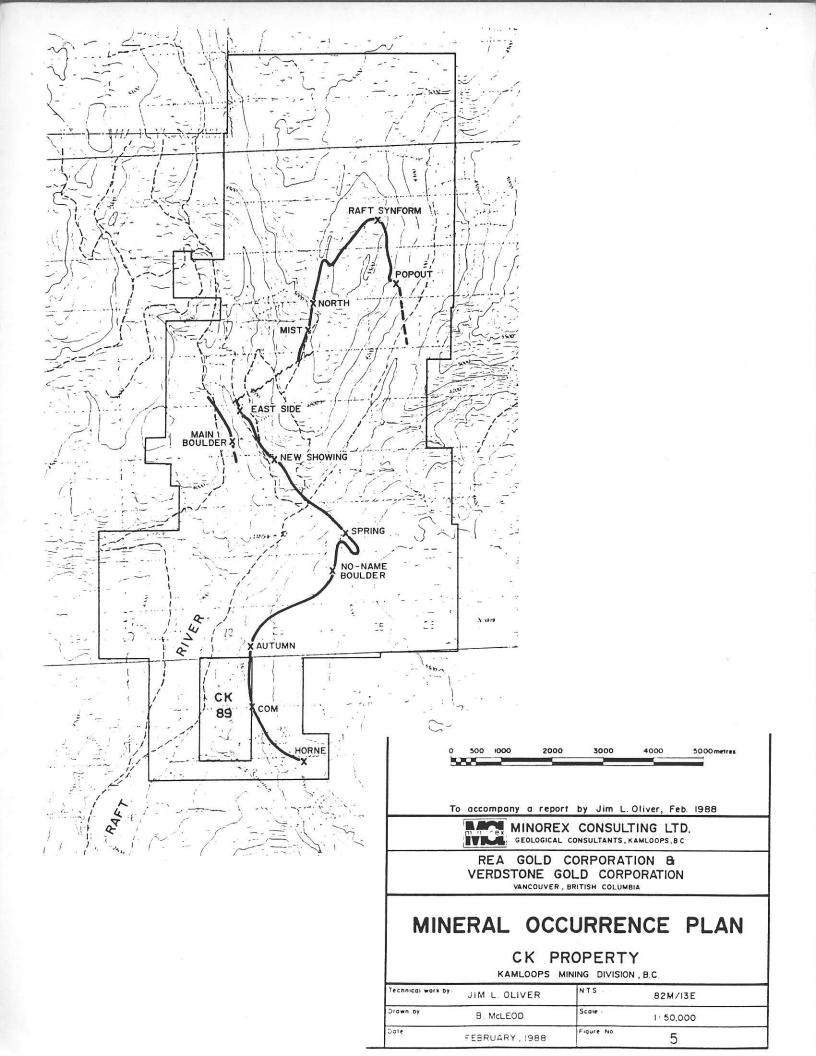
MINOREX CONSULTING LTD. GEOLOGICAL CONSULTANTS, VANCOUVER, B.C.

REA GOLD CORPORATION & VERDSTONE GOLD CORPORATION VANCOUVER BRITISH COLUMBIA

# CK STRATIGRAPHIC COLUMN

CK PROPERTY
KAMLOOPS MINING DIVISION, B.C.

Date	February, 1988	1000000	To Scale
Technici	at Work By: J. Oliver	Map No. :	4



### List of other showings:

NO NAME: 4 holes (Rea 1987) No local bedrock source. No favourable stratigraphy. (Oliver)

AUTUMN: 5 holes (Rea 1987). 0.275 bed. Pegmatites. 50m max strike length. (Oliver)

HORNE: 1 hole (Rea 1987). 25m or less strike length. Less than 1m true thickness. Truncated by large pegmatite bodies. Thick carbonates to east within Stratton Creek Canyon.

NORTH STRAT: 31 holes (Cominco and Rea). 2 bands - 13.16% In, 4.51 gpt Ag, 1.32% Pb over 0.705m. Flat dips. Truncated by pegmatites and series of dextral faults. Oliver says no.

MAIN BOULDER SHOWING: At least 12 holes (Rio, Cominco, Rea). No more than 200m strike length and most probably boulder train. Trenches were good. ddh never hit. (Oliver)

EAST SIDE SHOWING: 6 holes (Rea--DC)Mineralized horizon brtoken and discontinuous due to pegmatites and faulting. No contunity with New Showing found. (Dolmage Campbell)

MIST AND NORTH SHOWINGS: 4 holes (Rea-DC). Westerly limb of isoclinal fold. Geophysical anomaly bounded to west by surface showings. Mineralized horizon dips to east. Geochem and geophysical anomalies. 1 to 2 km strike contuity--4% to8% In, 0.1 to 0.4m thick. DC drilling indicates no structural thickening downdip within 300 - 500m of surface. ENE major fault limits southerly extension. (Dolmage Campbell)

SPRING: Truncated to southeast by pegmatites. Deep talus and large pegmatites to north.

RAFT SYNFORM: 8 holes (3 Cominco, 5 Rea-DC). Calc silicate Low geochem anomaly corresponds to IP and resistivity low. Little outcrop. Units are repeated but don't thicken over 500m of dip. Calc silicate unit from Raft Synform extends 3 km southeast along west side of Raft River where it is cut off by ENE major fault. (Dolmage Campbell)

RAFT RIVER VALLEY: 1 hole (Rea-DC) to test resistivity low. No qo. Biotite gneiss only.

EAST OF RAFT RIVER VALLEY: Biotite gneiss and granite only. POPOUT: Mineralized horizon in calc silicate bluff. No drilling. Geophysics not encouraging. (Dolmage Campbell)