

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 92.03.14

ASSESSMENT REPORT 21400

MINING DIVISION: Kamloops

PROPERTY: Golden Lime

LOCATION: LAT 50 43 12 LONG 120 42 12  
UTM 10 5620985 662121  
NTS 092I10E

CLAIM(S): Golden Lime 1-2

OPERATOR(S): Morrison, M.S.

AUTHOR(S): Morrison, M.S.

REPORT YEAR: 1991, 29 Pages

COMMODITIES

SEARCHED FOR: Gold

KEYWORDS: Upper Triassic, Nicola Group, Metasediments, Faulting, Carbonatization  
Silicification, Quartz veins

WORK

DONE: Geological  
GEOL 50.0 ha

GEOLOGICAL  
ASSESSMENT REPORT

on the

GOLDEN LIME 1&2 MINERAL CLAIMS

KAMLOOPS LAKE AREA

KAMLOOPS MINING DIVISION

by

MURRAY MORRISON, B.Sc.

Claims: Golden Lime 1&2 (2 units)

Location: The Golden Lime Mineral Claims are situated 2 km south of Kamloops Lake, 25 km due west of Kamloops, B.C.

Lat. 50°43'; Long. 120°42';

N.T.S. 92-I-10E

Owner: Murray Morrison

Operator: Murray Morrison

Date Started: February 22, 1991

Date Completed: February 23, 1991

Kelowna, B.C.

May 25, 1991

LOG NO: JUN 13 1991 K

ACTION:

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**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

Continued . . .

21,400

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## SUMMARY

The Golden Lime Property located 2 km south of Kamloops Lake, or 25 km due west of Kamloops hosts several carbonate/silica replacement zones within Upper Triassic Nicola Group volcanoclastic metasediments. The zones are believed to represent the upper (low temperature) horizons of strong Late Cretaceous(?), or Early Tertiary(?) epithermal systems that could contain precious metal values at depth.

The property, staked by the writer in March, 1981, has been optioned to Placer Development (1981-1984) and to Goldstone Exploration Ltd. (1984-1988), both of Vancouver. Placer Development conducted a widely-spaced soil geochemical survey over the property in 1981, and in 1984 allowed their option to lapse. Goldstone Exploration Ltd. drilled one vertical reverse circulation drill hole into the largest replacement zone on the Golden Lime #1 mineral claim, and proved that the zone extends to 80 metres in depth. However, the precious metal values obtained from intercepts of the replacement zone were insignificant and Goldstone Exploration allowed their option to lapse.

A ground magnetometer survey conducted over the property by the writer in 1989 confirmed low magnetic readings over the largest replacement zones.

This year's (1991) geological mapping program yielded some evidence to suggest that a northeast-striking fault zone called, "the Brussels Fault Zone," may be a structural control for most of the carbonate/silica epithermal replacement zones on the property. The mapping also indicates that a second, later, northwest-striking fault, called "the Main Valley Fault" may have offset the Brussels Fault Zone by as much as 75 metres near the centre of the Golden Lime 1 mineral claim.

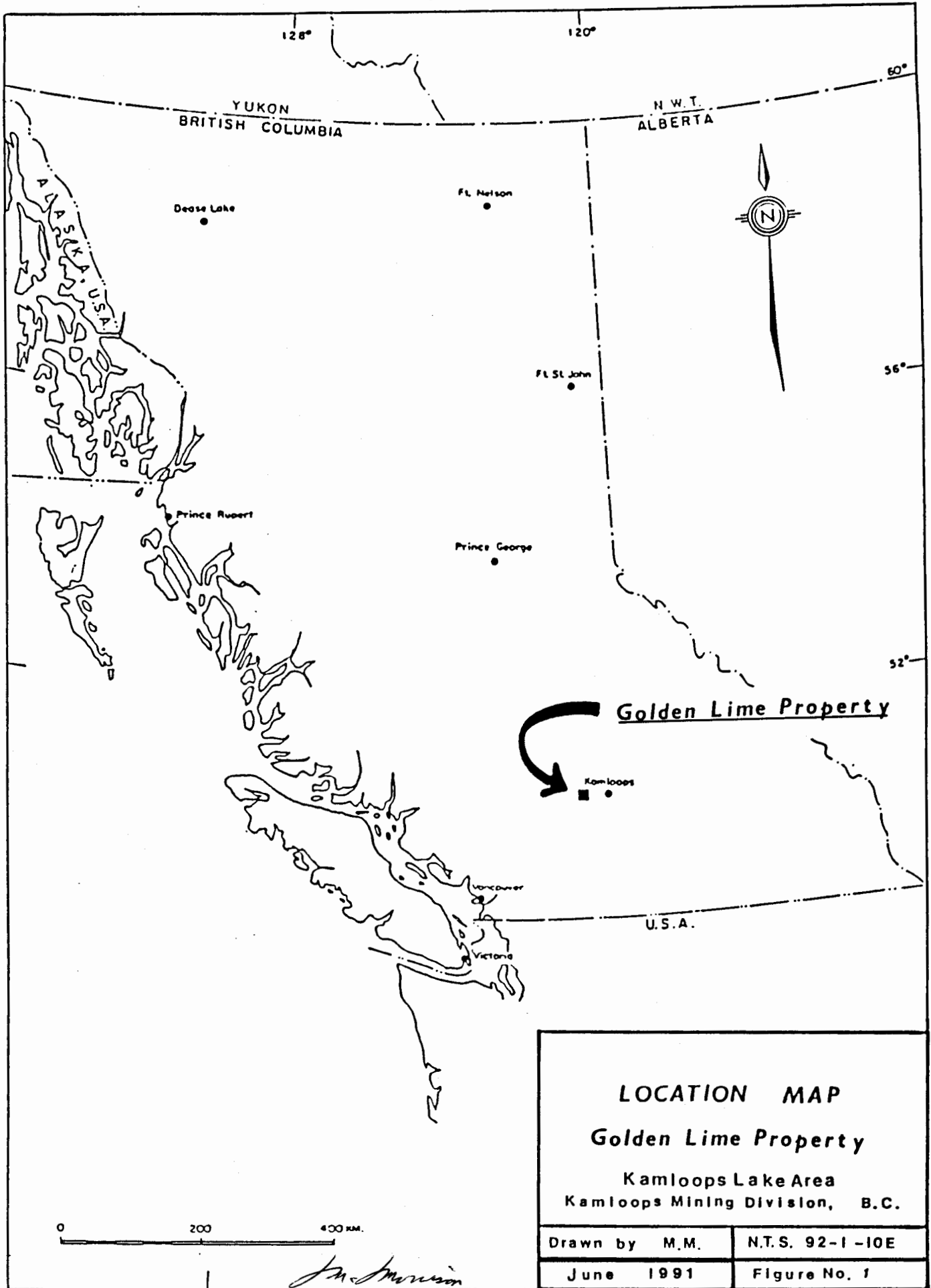
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SUMMARY - Continued

The Newmont Showing, 550 metres southwest of the Golden Lime 9+50S, 10+75W replacement zone, also falls within the Brussels Fault Zone if allowance for another late north-west-striking fault is made (Morrison, 1990). It is suggested that the carbonate alteration zone which is cut by a narrow vertical breccia zone of quartz and chalcedony veining at the Newmont Showing could be genetically related to the Golden Lime replacement zones. The Newmont Showing has produced samples of pyrite, stibnite, galena and sphalerite which have assayed 3.2 g/tonne silver and 65 g/tonne gold. It is considered that the much larger Golden Lime replacement zones could host sizeable precious metal deposits at depth.

The single vertical reverse circulation drill hole (RCDH 85-1) drilled into the carbonate/silica replacement zone at grid 9+50S, 10+75W in 1985 is not considered an adequate test of the large zone. The drill hole could have easily paralleled (and missed) any vertical precious-metal-bearing quartz veins, stockworks or breccia zones cutting through the zone.

A recommendation is made to drill the 9+50S, 10+75W, and 9+50S, 11+50W replacement zones with at least two inclined (-50 degrees) drill holes from the north to test for precious metal vales at depths of 100 metres or more.



## INTRODUCTION

This report, written for government assessment work requirements, discusses the results of a geological mapping program conducted on the Golden Lime 1&2 mineral claims by the writer during February, 1991.

The Golden Lime 1&2, two-post mineral claims, owned by the writer, fall within the boundaries of a larger claim group, "the Brussels Claim Group," also owned by the writer. The Brussels Claim Group is comprised of 7, four-post mineral claims (37 units), located 2 km south of Kamloops Lake, 25 km due west of Kamloops, B.C.

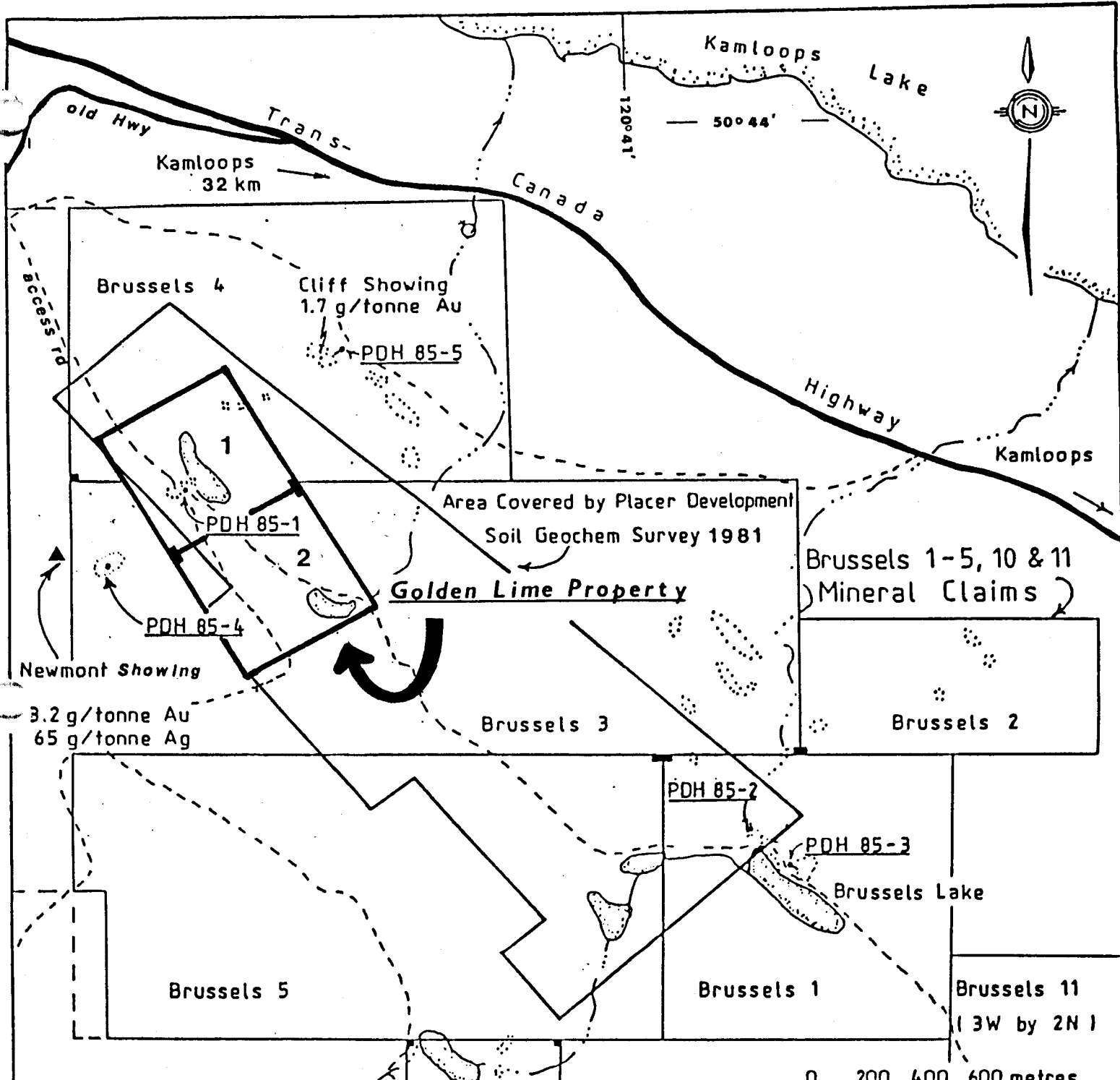
The large claim group was staked by the writer in 1981 to cover a system of highly faulted and carbonate altered zones occurring within metasedimentary rocks of the Upper Triassic Nicola Group. The Golden Lime 1&2 mineral claims, in particular, cover a zone of intensely faulted and altered rock measuring at least 30x60 metres in surface dimensions and known to extend to 80 metres in depth (Morrison, 1986).

Drilling in 1985 proved that some of the carbonate alteration zones overlie strong silica replacement zones that are believed to represent the upper (low temperature) horizons of large epithermal systems. The property was originally staked with the belief that some of the epithermal systems could host precious metals at depth.

This year's geological mapping, at a scale of 1:2,500, was designed to determine: (a) the stratigraphy of the Nicola Group rocks, (b) important fault directions, and (c) the origin, size, and significance of the replacement zones.

The geology of the Golden Lime 1&2 mineral claims is illustrated on Figures 4&5 accompanying this report.





- Legend -**
- roads
  - intermittent creeks
  - lakes
  - carbonate alteration zones
  - percussion drill holes (1985)
  - Legal Corner Post

*M. Morrison*

**CLAIMS and ACCESS**  
**Golden Lime Property**

Kamloops Lake Area  
Kamloops Mining Division, B.C.

Drawn by M.M.	N.T.S. 92-1-10E
June 1991	Figure No. 2

### LOCATION AND ACCESS

The Golden Lime 1&2 mineral claims lie 2 km south of Kamloops Lake, or 1 km south of the Trans-Canada Highway, 25 km due west of Kamloops, B.C. (Lat. 50°43'; Long. 120°42'; N.T.S. Map 92-I-10E). Access to the property is via a segment of old highway which leaves the Trans-Canada Highway at a point 32 km west of Kamloops, or 3 km southeast of the Savona Highway Lookout. An access road runs south 1 km from the old highway to the Golden Lime mineral claims as illustrated on Figure 2.

### PHYSICAL FEATURES AND CLIMATE

The Golden Lime mineral claims straddle a shallow, drift-filled, northwesterly trending valley at the 600 metre elevation, 2 km south of Kamloops Lake (at 350 m elv.). Vegetation on the property is typical of that at low elevations near Kamloops Lake with sagebrush dominant, Ponderosa pine widely spaced, and Douglas fir restricted to thick groves on northeastern slopes. The region adjacent Kamloops Lake is semi-arid with precipitation equalling less than 30 cm per year.

Winter snow rarely accumulates to more than 30 cm on the property and covers the ground from late November until early March.

The land supports grazing cattle throughout the summer season with the lake near the southeastern corner of the Golden Lime 2 mineral claim providing drinking water.

### CLAIM STATUS

The Golden Lime 1&2 mineral claims are 2-post mineral claims which were staked by the writer on March 16, 1981. They were recorded in the Kamloops Mining Division March 16, 1981 and

Continued . . .

CLAIM STATUS - Continued

were given record numbers 3328 and 3329 respectively. The claims are presently owned 100% by the writer, M. Morrison of Kelowna, B.C.

The position of the initial Post for the Golden Lime 1&2 was verified by a government Claims Inspector in 1981.

The Golden Lime 1&2, two-post, mineral claims have been entirely overstaked by the Brussels 3&4 modified grid mineral claims, also owned by the writer.

HISTORY

The Golden Lime 1&2 mineral claims were staked by the writer March 16, 1981 to cover a large rusty carbonate alteration zone found within Nicola Group rocks during routine prospecting. The mineral claims (inclusive within the Brussels Group of Claims) were optioned to Placer Development Ltd. soon after staking.

During 1981 crews from Placer Development Ltd. conducted a widely spaced (25x100 to 250 metre) soil geochemical survey over the property. Elements typical of epithermal systems (mercury, antimony, and arsenic) were found in moderate concentrations on and near the Golden Lime mineral claims, but no follow-up programs were conducted by Placer Development Ltd. and the mineral claims were returned to the writer in April, 1984.

The property was next optioned to Goldstone Exploration Ltd. of Vancouver in May 1984, and during May 1985 Goldstone Exploration conducted a reverse circulation percussion drill program on their Brussels property with one drill hole of 86.0 metres being drilled into the carbonate alteration zone on the Golden Lime 1 mineral claim. The drill hole inter-

Continued . . .

## HISTORY - Continued

cepted 79.9 metres of intensely carbonate and/or silica replaced Nicola metasediments before passing into a quartz monzonite intrusive. No significant precious metals were encountered in the drill hole. Goldstone Exploration allowed their option to lapse in 1988.

During 1989 a magnetometer survey was conducted over the Golden Lime 1&2 mineral claims by the writer.

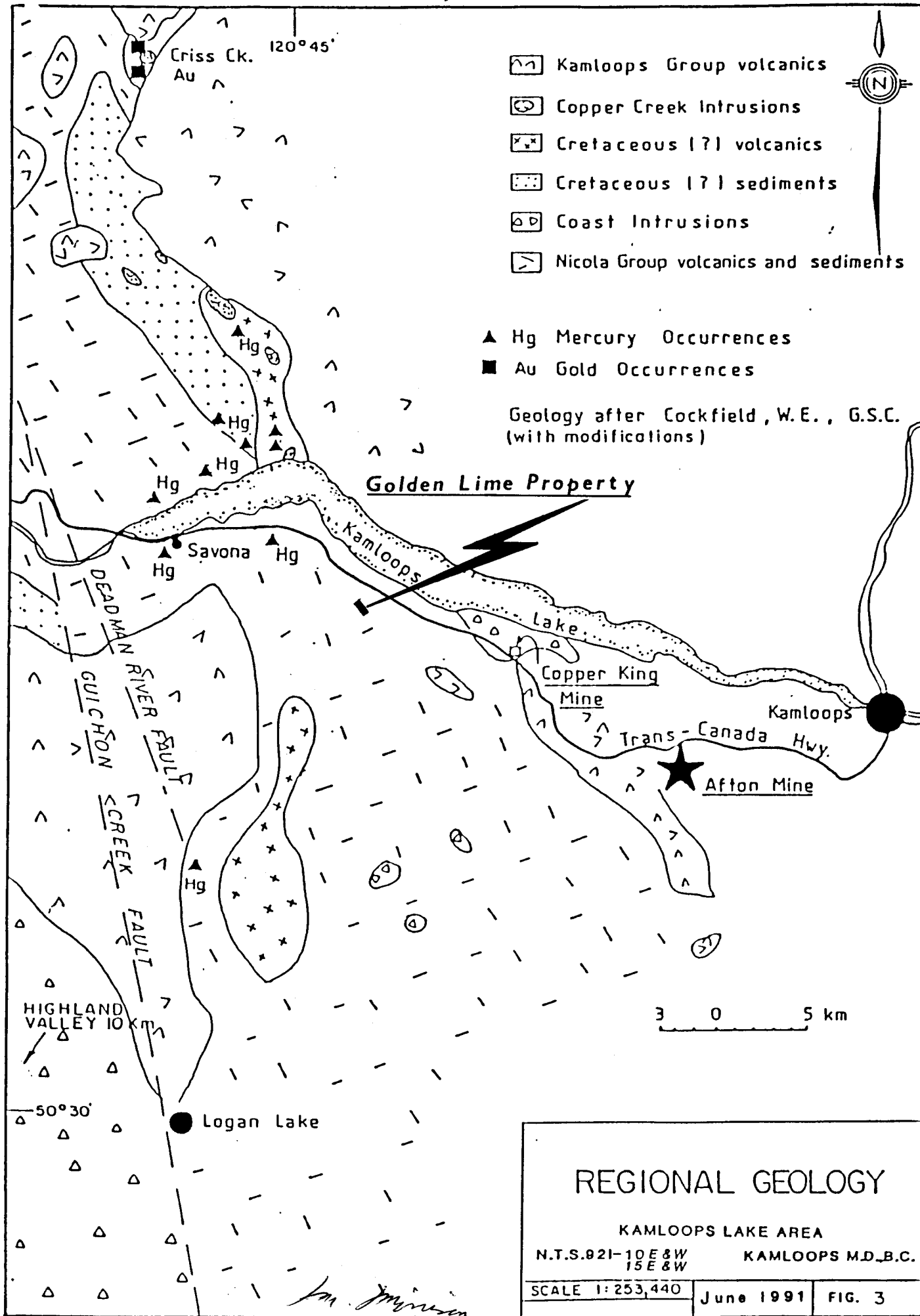
## REGIONAL GEOLOGY AND MINERALIZATION

The regional geology of the Savona area is outlined on Figure 3 accompanying this report. The Savona Mercury Belt shows up as a series of mercury prospects that occur within Upper Triassic Nicola Group or Cretaceous (?) metavolcanics and metasediments in close proximity to Copper Creek Intrusions. The mercury showings are often associated with replacement zones within faulted country rock. The mercury content at the Savona mercury prospects is generally much less than 0.1% and non-economic, but the mercury is an indicator of strong epithermal systems.

Precious metals and base metals have been found within chalcidony and quartz veins associated with the alteration zones which are believed to represent strong Late Cretaceous or Early Tertiary epithermal systems. Gold has been found at Criss Creek as illustrated on Figure 3.

In 1982 Newmont Exploration of Vancouver discovered a silicified zone carrying pyrite, galena, and stibnite, with values in gold and silver, associated with a carbonate alteration zone within Nicola Group metasediments. The Newmont showing, illustrated on Figure 2, is located just 500 metres west of the Golden Lime 1&2 mineral claims. Another zone of anomalous gold (1755 ppb) and arsenic (400 ppm) mineralization

Continued . . .



REGIONAL GEOLOGY AND MINERALIZATION - Continued

occurs on a steep bluff 400 metres northeast of the Golden Lime 1&2 mineral claims.

GRID - 1991

A Baseline was measured across the Golden Lime 1&2 mineral claims at 320 degrees azimuth, subparallel to the bedding of the Nicola Group Rocks. A series of perpendicular grid lines at 100 metre intervals were then flagged from the Baseline to the borders of the property. Grid stations were measured out and marked at every 25 metres along the grid lines. The Baseline and grid lines were offset around bodies of water as illustrated on Figures 4&5. In all, 4.7 kilometres of Baseline and grid line were established during the course of geological mapping with a Topoline belt chain and a Silva Ranger Compass.

The Initial and Final Posts of the Golden Lime 1&2 mineral claims were tied-in to the grid.

PROPERTY GEOLOGY AND MINERALIZATION

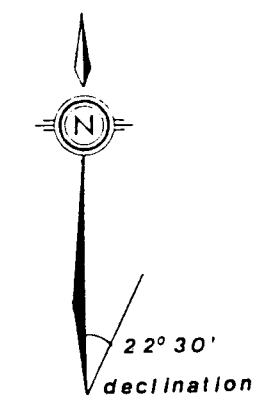
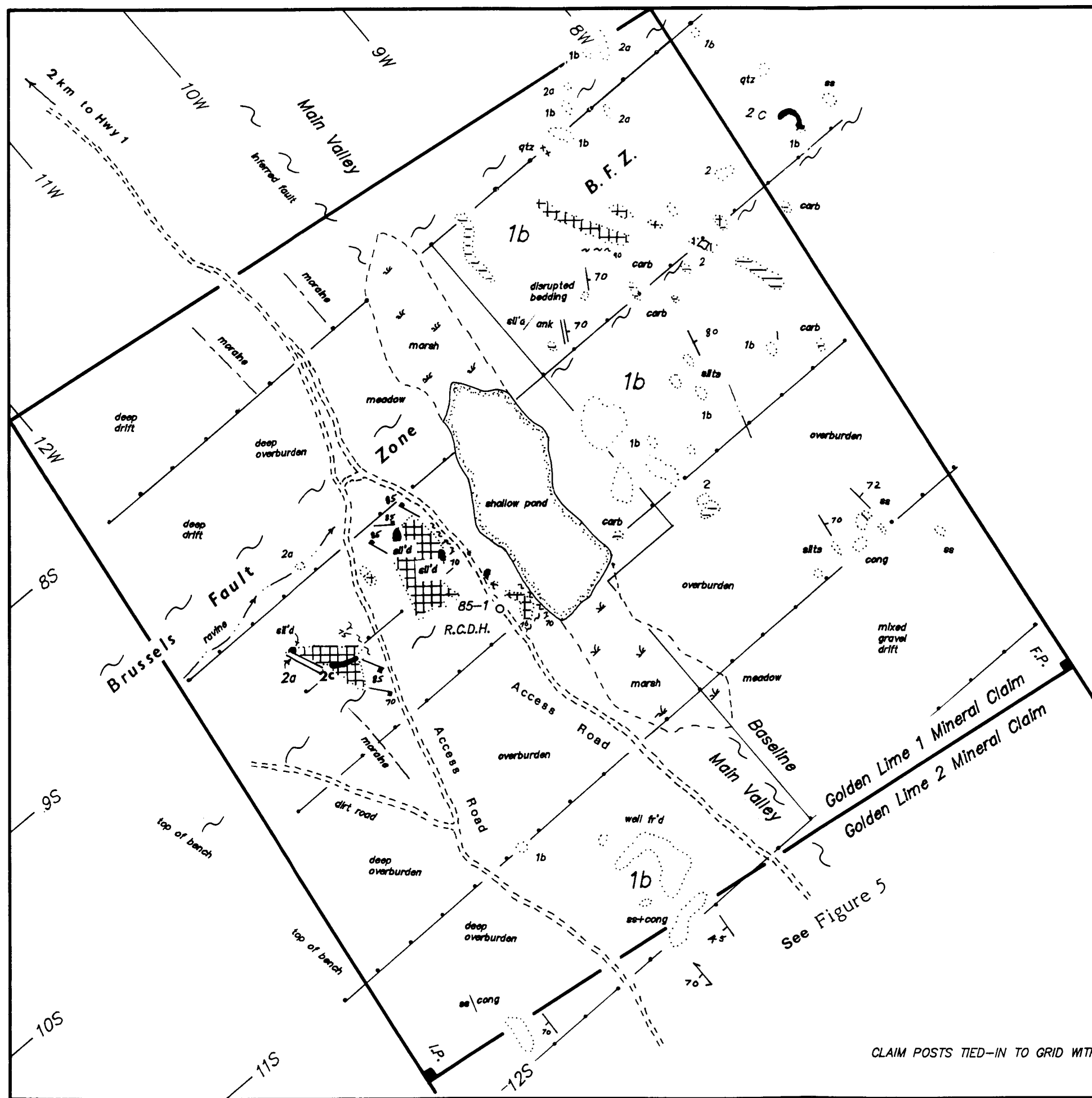
Summary

The Golden Lime 1&2 mineral claims are underlain by Upper Triassic Nicola Group metasediments comprised of volcanoclastic conglomerates with minor sandstone and siltstone interbeds. The metasediments (metamorphosed to the greenschist facies) appear to occur as a monoclinial sequence which crosses the property at an average 145 degrees. The metasediments dip vertically to steeply east, east of the Baseline, and moderately southwest, west of the Baseline. A broad drift-filled valley crossing the property, parallel to the Baseline, may conceal a northwest striking fault which separates the easterly dipping metasediments from the westerly dipping metasediments.

Late Cretaceous(?) or Early Tertiary?), discordant, felsic dykes, with or without quartz-eye phenocrysts, intrude the metasediments across the northern half of the Golden Lime #1 mineral claim. Moderate to strong carbonate and/or silica replacement of the conglomerates and sandstones occurs adjacent the felsic dykes. Both the country rocks and the felsic dykes are often faulted and cut by 1 to 5%, banded, ankerite, dolomite, chalcedony and quartz veins. The felsic dykes are also often altered to pink carbonates, clay minerals and 10% pore space.

A light green, highly siliceous, amorphous rock (possibly rhyolite) occurs as late dykes or irregular zones within the most intensely faulted replacement zones.

Continued . . .



LEGEND

EARLY TERTIARY ? or LATE CRETACEOUS ?

- 2 Felsic Intrusives
  - 2a greater than 2% quartz eyes
  - 2b highly altered
  - 2c rhyolite

UPPER TRIASSIC - NICOLA GROUP

- 1 Volcanoclastic sediments
  - 1a boulder conglomerate
  - 1b cobble conglomerate
  - 1c pebble conglomerate
  - 1d sandstone
  - 1e siltstone

CARBONATE ALTERATION

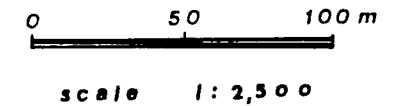
- ||| weak
- |||| moderate
- ||||| strong

SYMBOLS

- outcrop
- △ angular float, talus
- bedding, joints
- ~ foliation, faulting
- veins, shear zones
- contacts

ABBREVIATIONS

- |       |                      |
|-------|----------------------|
| alt'd | altered              |
| ank   | ankerite             |
| bx'd  | brecciated           |
| carb  | carbonate alteration |
| fr'd  | fractured            |
| py    | pyrite               |
| qtz   | quartz               |
| sil   | silicified           |
| sl    | slight               |
| vn    | vein                 |

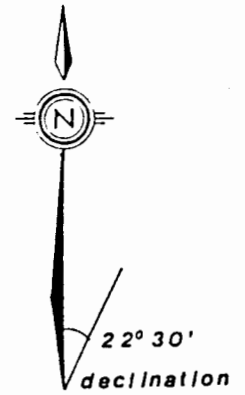
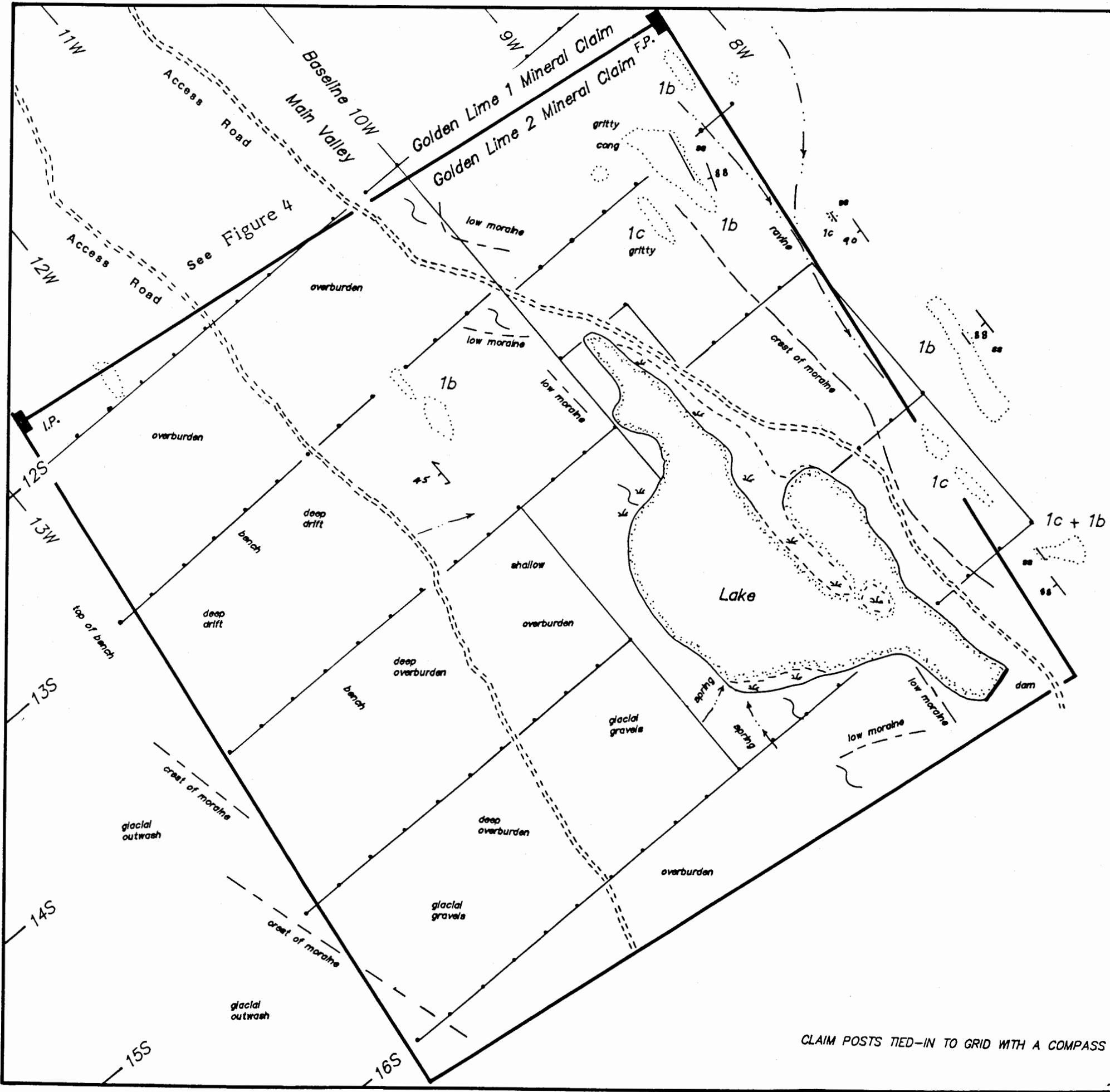


<b>Golden Lime Property</b>	
<b>Geology</b>	
Golden Lime 1 Mineral Claim Kamloops Lake Area Kamloops Mining Division, B.C.	
Geology by M.M.	N.T.S. 92-1-10E
June 1991	Figure No. 4

CLAIM POSTS TIED-IN TO GRID WITH A COMPASS AND BELT CHAIN

*M. Morrison*





LEGEND

EARLY TERTIARY ? or LATE CRETACEOUS ?

- 2 Felcic Intrusives
  - 2a greater than 2% quartz eyes
  - 2b highly altered
  - 2c rhyolite

UPPER TRIASSIC - NICOLA GROUP

- 1 Volcanoclastic sediments
  - 1a boulder conglomerate
  - 1b cobble conglomerate
  - 1c pebble conglomerate
  - 1d sandstone
  - 1e siltstone

CARBONATE ALTERATION

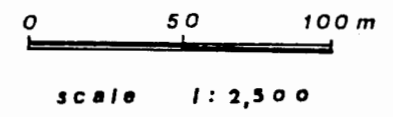
SYMBOLS

- ||| weak
- ≡ moderate
- ≡≡ strong

- outcrop
- △ angular float, talus
- bedding, joints
- ~ foliation, faulting
- ∩ veins, shear zones
- ∩ contacts

ABBREVIATIONS

- alt'd altered
- ank ankerite
- bx'd brecciated
- carb carbonate alteration
- fr'd fractured
- py pyrite
- qtz quartz
- sil silicified
- sl slight
- vn vein



<b>Golden Lime Property</b>	
<b>Geology</b>	
Golden Lime 2 Mineral Claim	
Kamloops Lake Area	
Kamloops Mining Division, B.C.	
Geology by M.M.	N.T.S. 92-1-10E
June 1991	Figure No. 5

CLAIM POSTS TIED-IN TO GRID WITH A COMPASS AND BELT CHAIN

*M. Morrison*

PROPERTY GEOLOGY AND MINERALIZATION - Continued

Summary - Continued

The most intensely faulted replacement zones on the Golden Lime #1 mineral claim occur on L9+50S at 10+75W and at 11+50W. Those zones fall within a northeast-striking fault zone which has been called the Brussels Fault Zone in an earlier report by the writer (Morrison, 1990). It is expected that the Brussels Fault Zone has allowed for the intrusion of the felsic dykes, and that it has also served as a conduit for the hydrothermal solutions believed to have been responsible for the intense replacement of the metasediments on grid line 9+50S.

The Brussels Fault Zone has been projected (Morrison, 1990) 550 metres southwest of the replacement zones on L9+50S to pass through the Newmont Showing where precious metal values are associated with base metals in a narrow quartz/chalcedony breccia zone which cuts through carbonate-replaced Nicola Group metasediments.

Upper Triassic Nicola Group Metasediments (Unit 1)

Upper Triassic Nicola Group Metasediments, comprised of conglomerates predominantly, underlie the entire Golden Lime property. They are made up of Nicola Group volcanic clasts of andesite and basalt. The most common clasts are dark green augite andesite and light grey plagioclase microphenocryst andesite. The subrounded to subangular clasts range from pebble, to cobble, to boulder size and are set in a matrix of 40% coarse sand.

Locally the conglomerates are poorly sorted and massive, but on the eastern side of the property pebble and cobble conglomerates

Continued . . .

PROPERTY GEOLOGY AND MINERALIZATION - Continued

Upper Triassic Nicola Group Metasediments (Unit 1) - Continued

erates are interbedded with  $\frac{1}{2}$  to 1 metre sandstone and siltstone beds.

The sandstones and siltstones are dark green to black and are also comprised of volcanoclastic material.

The conglomerates are more highly indurated west of the Baseline than they are to the east.

All of the metasediments are metamorphosed to the greenschist facies and chlorite and epidote are the dominant minerals of both the matrix particles and clasts.

Late Cretaceous(?), or Early Tertiary(?) Felsic Dykes (Unit 2)

Late Cretaceous(?) or Early Tertiary(?) felsic dykes intrude faulted metasediments at scattered locations from grid line 10S to the northern border of the property. Many of the dykes are poorly exposed, or highly altered and difficult to distinguish from the rocks they intrude. There appears to be a general north and northwest strike of the narrow (5 to 10 metre wide) dykes.

The dykes are made up of fine to medium crystals of orthoclase feldspar (80%) and muscovite (15%) with or without (0 to 5%) quartz-eye phenocrysts, 0.2 to 1 cm.

The dykes are most often highly altered to pink carbonates, clay, and 10% pore space with or without the quartz-eye phenocrysts.

The dykes are sheared by faulting and often cut by up to 5% late ankerite, dolomite, chalcedony and quartz veinlets like the metasediments they intrude.

Continued...

PROPERTY GEOLOGY AND MINERALIZATION - Continued

Late Cretaceous(?), or Early Tertiary(?) Rhyolite(?) Dykes  
(Unit 2c)

Dykes and irregular zones of a light green, highly siliceous, amorphous rock (possibly rhyolite) cut carbonate replacement zones at several locations on the Golden Lime #1 mineral claim north of grid L10S. The rhyolite(?) dykes appear to be later than the felsic dykes although the two are often intimately associated.

Structural Geology and Faulting

The structural geology of the Golden Lime property is not clear. Only minor sandstone or siltstone units are interbedded within the massive conglomerates and attitudes of the metasediments are often difficult to determine. Many of the thin-bedded sediments have been disturbed. In general, the metasediments appear to strike at an average 145 degrees across the property. East of the Baseline, the dips are very steep to the southwest or northeast, or vertical. West of the Baseline, the dips are moderate to the southwest.

The mapped geology suggests that the Nicola Group metasediments are made up of a monoclinial sequence (rather than an anticline) and that the difference in dip angles from steeply northeast, east of the Baseline, to moderately southwest, west of the Baseline, might be accounted for by rotation along a major fault striking northwesterly across the property parallel with the Baseline, as illustrated on Figures 4&5. Two slickenside fault surfaces on the eastern edges of the carbonate/silica replacement zones on L9+50 at 10+50W and on L10S at 10+40W parallel the Main Valley Fault (135°) and dip 70 degrees southwest.

A second major fault, "the Brussels Fault Zone" (Morrison,

Continued . . .

PROPERTY GEOLOGY AND MINERALIZATION - Continued

Structural Geology and Faulting - Continued

1990) is inferred to cross the Golden Lime 1 mineral claim at 050 degrees. The Brussels Fault Zone is considered to be an early fault. It is believed to have provided a conduit for the felsic intrusions and associated hydrothermal solutions that brought about the intensive replacement of the metasediments by carbonate and silica.

The Brussels Fault Zone is believed to have been offset approximately 75 metres to the north, east of the Main Valley, by a late northwest-striking fault which has been named the "Main Valley Fault" in this report (see Figure 4).

The Brussels Fault Zone is comprised of the many replacement zones that all show evidence of repeated faulting and brecciation. Further evidence for the fault is the dislocation of a siltstone unit within the fault zone at grid 8+80S, 9+00W. The siltstone has a strike of 173 degrees compared with the predominant strike direction of 145 to 155 degrees for the metasediments across most of the Golden Lime property.

Alteration and Mineralization

Several zones of carbonate alteration and replacement of Nicola Group metasediments occur on the Golden Lime property over an area extending from grid 10+20S to the north border of the Golden Lime 1 mineral claim. The carbonate alteration demonstrates a close spacial relationship with Late Cretaceous (?), or Early Tertiary(?) felsic dyking and is most probably genetically related. Felsic dykes have not been recognized at all alteration zones, but all of the felsic dykes that have been mapped have carbonate alteration haloes. The felsic dykes themselves are often highly altered to pink carbonates, clays and pore space making them difficult to distinguish

Continued . . .

PROPERTY GEOLOGY AND MINERALIZATION - Continued

Alteration and Mineralization - Continued

from altered metasediments. A prolonged period of post-intrusive hydrothermal activity is indicated.

The felsic dykes are often faulted and cut by banded ankerite, dolomite, quartz and chalcedony veinlets (up to 5%) like the metasediments they intrude.

The metasediments display all degrees of carbonate alteration from weak to intense. Weakly carbonate altered rocks are light pink and weather rusty, and they are cut by 1 to 2% banded carbonate and silica veinlets. The original rock texture is recognizable. Intense alteration zones are often cut by 5 to 10% banded ankerite, dolomite, chalcedony and quartz veinlets and the original constituents of the rock have been totally replaced by ankerite (up to 70%) and/or silica (sometimes up to 90%). The ankerite replacement zones are pink to white and weather rusty. The silica replacement zones are light green, to white, to grey and do not discolour with weathering. The original texture of the rock is barely discernible within the zones of total replacement.

Several zones of carbonate and/or silica replacement are illustrated on Figure 4 accompanying this report. The two strongest zones on the property are on L9+50S at 10+75W and at 11+50W (and could prove to be one continuous zone below the overburden cover).

The zone exposed at L9+50S, 10+75W is exposed over a width of 30 metres and a length of 50 metres, while that at L9+50S, 11+50W is exposed over a width of 20 metres and a length of 50 metres. If the two zones represent one continuous zone, below overburden, it would measure 50 metres in width by 110 metres in length. The zone has also been measured to a depth

Continued . . .

PROPERTY GEOLOGY AND MINERALIZATION - Continued

Alteration and Mineralization - Continued

of 80 metres (Morrison, 1986).

The zone at L9+50S, 10+75W represents metasediments that have been totally replaced by ankerite (up to 70%) and silica (up to 40%). The zone has been faulted repeatedly and is cut by 5% banded ankerite and dolomite veinlets. Rare chalcedony veinlets also cut the rock. The dominant attitude of ankerite veinlets is 120/85NE.

Light green to white zones of total silica replacement occur over 5 by 5 metre zones on the eastern and northern sides of the L9+50S, 10+75W outcropping (see Figure 4). The northern silica zone is brecciated.

The L9+50S, 10+75W zone was tested with a vertical reverse circulation drill hole in 1985 to a depth of 80 metres. The drill hole, drilled from the road at grid 9+96S, 10+60W, encountered 80 metres of carbonate replacement (20-50%) which included 58 metres of strong silica replacement (40-50%). The drill hole drilled into intrusive rock at 80 metres depth.

The carbonate zone at L9+50S, 11+50W is not as totally replaced as that at L9+50S, 10+75W, and some of the original texture of the volcanoclastic conglomerate is recognizable. The rock is cut by a light green, highly siliceous, amorphous dyke near grid line 9+50S. A second siliceous replacement zone occurs near the north end of the outcrop and a felsic dyke defines the western edge of the replacement zone.

## DISCUSSION

The mapping program has produced data to suggest that the Brussels Fault Zone and Main Valley Fault do exist. The Brussels Fault Zone is believed to have allowed for the emplacement of Late Cretaceous(?), or Early Tertiary(?) dykes across the northern half of the Golden Lime 1 mineral claim. The Brussels Fault Zone is also believed to have provided the conduit for the ascending hydrothermal solutions which brought about the complete replacement of the metasediments at L9+50S, 10+75W, and elsewhere across the northern half of the Golden Lime 1 mineral claim.

The Brussels Fault Zone has been projected 550 metres southwest of the replacement zone at L9+50S, 10+75W (Morrison, 1990) to include the Newmont Showing where a narrow quartz/chalcedony breccia zone has yielded gold and silver values from mineralized samples containing pyrite, stibnite, galena and sphalerite. The breccia zone cuts Nicola Group metasediments that have also been replaced by carbonate.

There is, in this writer's opinion, a strong genetic relationship between the Newmont Showing and the L9+50S, 10+75W replacement zone. The L9+50S, 10+75W zone is much larger in size and stronger in intensity than the Newmont Showing replacement zone, and is therefore considered to have a greater potential for hosting an economic precious metal deposit.

Drill hole RCDH85-1 encountered strong (up to 100%) replacement of Nicola Group metasediments throughout the first 80 metres on the south side of the L9+50S, 10+75W replacement zone in 1985. The drill hole was drilled vertically, and although it confirmed the intensity of the replacement zone to depth it could easily have paralleled (and missed) any vertical quartz veins, stockworks or breccia zones associated with the Brussels Fault Zone. It is, therefore, recommended

Continued . . .



DISCUSSION - Continued

that at least two more drill holes be drilled into the silicified northern border zones of both the L9+50S, 10+75W and L9+50S, 11+50W replacement zones, and that these drill holes be drilled at minus 50 degrees from the north to intercept any vertical mineralized systems.

The L9+50S, 10+75W replacement zone is the largest and most intense replacement zone on the property, and further exploration of other zones scattered across the northern half of the Golden Lime 1 mineral claim should await the drilling results from the L9+50S, 10+75W zone.

CONCLUSIONS AND RECOMMENDATIONS

The February, 1991, geological mapping program carried out on the Golden Lime 1&2 mineral claims has provided evidence that the northeast-striking Brussels Fault Zone could be responsible for all of the carbonate/silica replacement zones scattered across the northern half of the Golden Lime 1 mineral claim (see Discussion). An inferred northwesterly-striking fault, "the Main Valley Fault", appears to have offset the Brussels Fault Zone a distance of 75 metres across the Main Valley. If allowance is made for the offset then all of the major replacement zones mapped do fall within the Brussels Fault Zone.

Even the Newmont Showing falls on the projected southwest extension of the Brussels Fault Zone if offsetting by late northwest faulting is taken into account (Morrison, 1990). The precious-metal-bearing Newmont Showing is therefore considered to be genetically related to the Golden Lime property replacement zones. The precious metals at the Newmont Showing are associated with pyrite, stibnite, galena and sphalerite occurring within brecciated quartz/chalcedony veins filling a shear zone within carbonate-replaced Nicola Group Metasediments. It is believed that the much larger replacement zones on the Golden Lime property could host sizeable precious-metal-bearing zones at depth.

Continued . . .

CONCLUSIONS AND RECOMMENDATIONS - Continued

The L9+50S, 10+75W replacement zone was tested with a vertical drill hole (RCDH85-1) in 1985. The drill hole confirmed the intensity of the replacement zone to a depth of 80 metres (Morrison, 1986), but failed to locate any significant mineralization. It is now considered that the single vertical drill hole was a poor test for the large replacement zone, and that the drill hole could have easily missed any vertical quartz veins, stockworks or breccia zones associated with the Brussels Fault Zone (the Newmont Showing is a vertical shear zone).

It is, therefore, recommended that the L9+50S, 10+75W and L9+50S, 11+50W replacement zones be tested with at least two more inclined (-50 degrees) drill holes drilled from the north to depths of at least 100 metres. The drill holes should be designed to cut the silicified breccia zone in particular.

May 25, 1991  
Kelowna, B.C.

  
Murray Morrison - B.Sc.

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Continued . . .

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APPENDIX A

STATEMENT OF QUALIFICATIONS

I, Murray Morrison, of the City of Kelowna, in the Province of British Columbia, do hereby state that,

1. I graduated from the University of British Columbia in 1969 with a B.Sc. Degree in Geology.
2. I have been working in all phases of mining exploration in Canada for the past twenty-one years.
3. During the past twenty-one years, I have intermittently held responsible positions as a geologist with various mineral exploration companies in Canada.
4. I have examined many mineral properties in Southern British Columbia during the past twenty-one years.
5. I conducted the geological mapping program outlined in this report.
6. I own a 100% interest in the Golden Lime 1&2 mineral claims.

May 25, 1991

Kelowna, B.C.

A handwritten signature in cursive script, reading "Murray Morrison", is written over a horizontal line.

Murray Morrison - B.Sc.

APPENDIX B

STATEMENT OF EXPENDITURES - ON THE GOLDEN LIME 1&2 MINERAL CLAIMS.

Statement of Expenditures in connection with the Geological Mapping Program conducted on the Golden Lime 1&2 mineral claims, located at Kamloops Lake, 25 km west of Kamloops, B.C. (N.T.S. Map 92-I-10E) for the year 1991.

FIELDWORK - GEOLOGICAL MAPPING (2 units)

M. Morrison, geologist	2 days @ \$250.00/day	\$ 500.
Truck, 4x4 (including gasoline and insurance)	2 days @ \$ 75.00/day	150.
Meals and Lodging	2 days @ \$ 50.00/day	100.
Flagging and belt chain thread		<u>15.</u>
	sub-total	\$ 765.

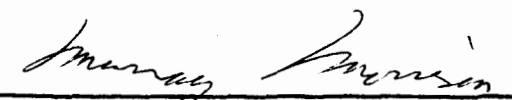
REPORT PREPARATION COSTS

M. Morrison, geologist	1 day @ \$250.00/day	\$ 250.
Drafting		50.
Typing		50.
Copying reports		<u>20.</u>
	sub-total	\$ 370.

GRAND TOTAL      \$1135.

I hereby certify that the preceding statement is a true statement of monies expended in connection with the Geological Mapping Program carried out February 22&23, 1991.

May 25, 1991

  
Murray Morrison - Geologist