GEOLOGICAL

ASSESSMENT REPORT

on the

BRUSSELS CLAIM GROUP

KAMLOOPS LAKE AREA

KAMLOOPS MINING DIVISION

by

MURRAY S. MORRISON, B.Sc.

Claims:	Brussels 1-5, 10&11 (37 units).
Location:	The Brussels Claim Group is situated 2 km south of Kamloops Lake, 25 km due west of Kamloops, B.C.
	Lat. 50°43'; Long. 120°41';
	N.T.S. Map 92-I-10E
Owner:	Murray S. Morrison
Operator:	Murray S. Morrison
Date Started:	March 12, 1991
Date Completed:	April 25, 1991

Kelowna, B.C.

June 29, 1991

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ILLUSTRATIONS

SUMMARY

The Brussels Claim Group 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 five reverse circulation drill holes into five widely separated targets and proved that at least two of the large replacement zones on the property extend to 80 metres in depth. However, the precious metal values obtained from intercepts of the replacement zones were insignificant and Goldstone Exploration allowed their option to lapse.

This year's (1991) geological mapping has outlined several carbonate/silica replacement zones on the Brussels 1, 3 & 4 mineral claims, and most have been examined to determine the intensity of replacement. Several of the strongest faulted replacement zones align in either a northeasterly direction (Brussels Fault Zone) or a northwesterly direction (Bluff Fault Zone). A third east-west fault direction has also been recognized.

These fault zones are believed to have allowed for the intrusion of Late Cretaceous(?) or Early Tertiary(?) felsic porphyry dykes and amorphous rhyolite(?) dykes. The faults are also believed to have served as conduits for the large volumes of hydrothermal solutions which brought about the carbonate and/or silica replacement of the metasediments.

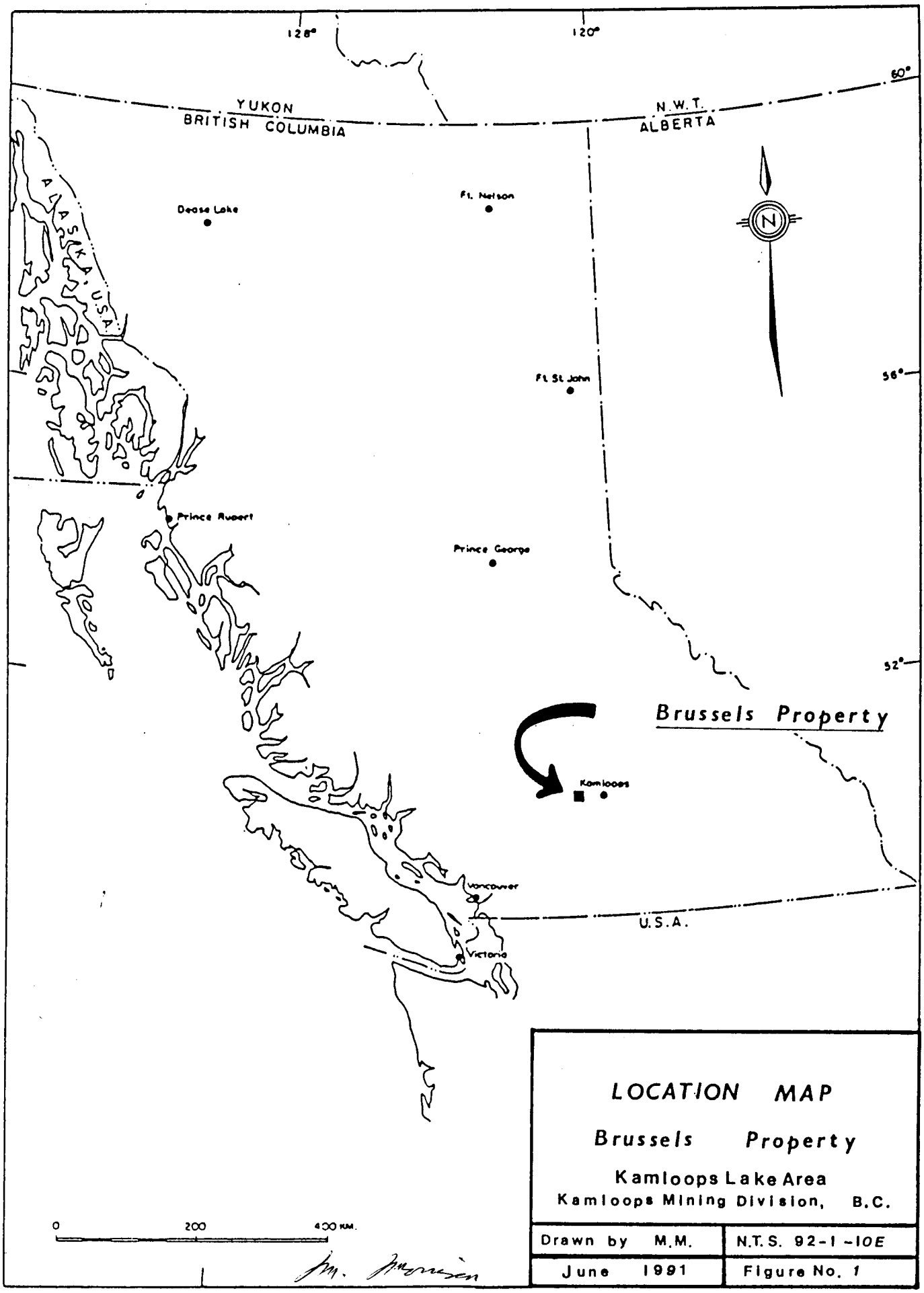
Continued . . .

SUMMARY - Continued

The Newmont Showing located just 10 metres west of the Brussels property is the only carbonate replacement zone that has yielded significant values to date (3.2 g/tonne gold and 65 g/tonne silver) and these values have been obtained from a vertical, one metre wide, brecciated and mended quartz/chalcedony-filled shear zone that cuts through the Newmont carbonate replacement zone.

The Newmont Showing, although small, provides confirmation that precious metal values can accompany the Savona area epithermal systems, and it is believed that some of the very large carbonate replacement zones on the Brussels property do represent very favorable exploration targets for precious metal exploration.

A recommendation has been made to drill one of the largest and most accessible replacement zones on the Golden Lime 1/Brussels 3 mineral claims with at least two inclined drill holes to test for a precious metal-bearing quartz stockwork at moderate depth.



LOCATION MAP

Brussels Property

Kamloops Lake Area
Kamloops Mining Division, B.C.

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

INTRODUCTION

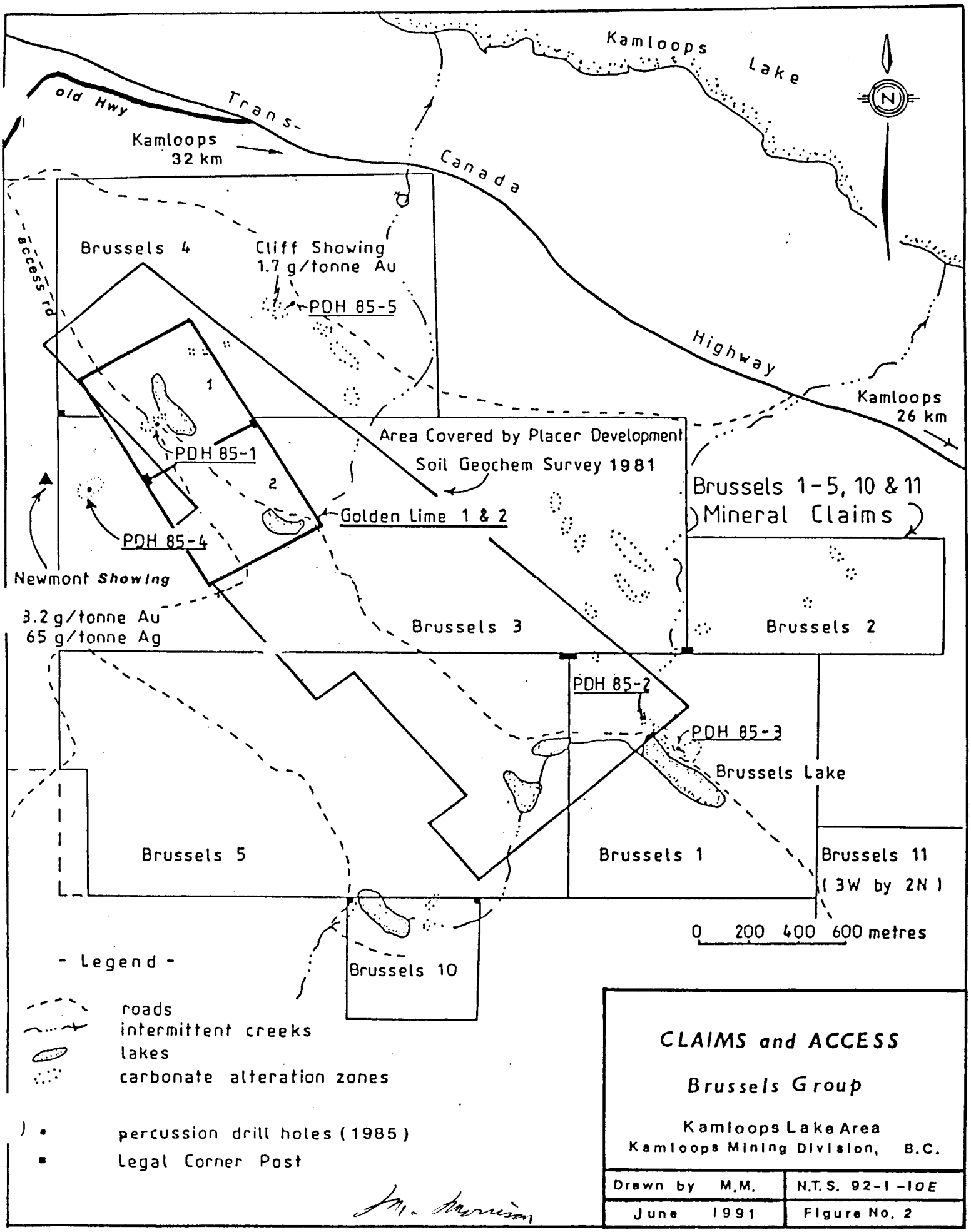
This report, written for government assessment work requirements, discusses the results of a geological mapping program conducted on the Brussels 1 & 4 mineral claims and the northwest corner of the Brussels 3 mineral claim by the writer during March-April, 1991.

The Brussels Claim Group, owned by the writer, is comprised of 39 claim units covering 9.25 square kilometres of ground, 1 to 3 km south of Kamloops Lake, 25 km due west of Kamloops, B.C. The property was staked by the writer in 1981 to cover a system of highly faulted and carbonate replaced zones occurring within volcanoclastic metasediments of the Upper Triassic Nicola Group. The rusty replacement zones measure several metres in width and tens of metres in length, and during a 1985 drilling program were found to extend to at least 80 metres in depth (Morrison, 1986).

The 1985 drill program proved that some of the carbonate alteration zones overlie strong silica replacement zones which 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 is illustrated on Figures 4-7 (Brussels 4 mineral claim), Figures 9&10 (Brussels 1 mineral claim), and Figure 8 (northwest corner of the Brussels 3 mineral claim). All of these figures accompany this report.



CLAIMS and ACCESS

Brussels Group

Kamloops Lake Area
Kamloops Mining Division, B.C.

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

LOCATION AND ACCESS

The Brussels Claim Group lies 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°41'; 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 Tourist Lookout. Dirt access roads traverse most of the Brussels mineral claims as illustrated on Figure 2.

PHYSICAL FEATURES AND CLIMATE

The Brussels Claim Group with an average elevation of 600 metres above sea level lies 1 to 3 km south of Kamloops Lake (350 m elv.). The property features low relief with rounded rocky ridges and shallow, gravel-filled, valleys. An exception to the rolling topography is a 150 metre bluff which crosses the entire eastern side of the property from northwest to southeast.

The Kamloops Lake region is semi-arid at lower elevations with precipitation equalling less than 30 cm per year, and usually falling in the form of spring rains. Vegetation on the Brussels property reflects an increase in precipitation with elevation. Sagebrush is dominant at lower elevations on the property, near the Trans-Canada Highway, while Ponderosa pine grow sparsely at intermediate elevations and Douglas fir more densely at higher elevations and on the north slopes where moisture is retained.

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

Several small lakes, deepened by the building of earthen dams, supply water for grazing cattle during summer months. The largest lake is Brussels Lake, located on the Brussels 1 mineral claim (see Figure 2).

CLAIM STATUS

The mineral claims making up the Brussels Claim Group were staked by the writer in April 1981. All of the mineral claims are 100% owned by the writer, Mr. M. Morrison, of Kelowna, B.C. Particulars on the mineral claims, located within the Kamloops Mining Division are given below:

CLAIM NAME	UNITS	DATE OF RECORDING	RECORD NO.	EXPIRY * DATE
Brussels 1	4	April 30/81	3440	April 30/92
Brussels 2	2	" "	3441	" "
Brussels 3	10	" "	3442	" "
Brussels 4	6	" "	3443	" "
Brussels 5	8	" "	3444	" "
Brussels 10	1	" "	3449	" "
Brussels 11	6	" "	3450	" "
	37			

*(New Expiry Date based on the acceptance of this report for Assessment Work Credits).

The Legal Corner Posts and Initial Posts of all of the above listed mineral claims were verified by a Government Claims Inspector in 1981.

It should be noted that the Golden Lime 1&2, two-post, mineral claims have been entirely overstaked by the Brussels 3&4 modified grid mineral claims. The Golden Lime 1&2 mineral claims are also owned by the writer and have a March 16/93 expiry date.

HISTORY

The Brussels Claim Group was staked by the writer in April, 1981 to cover several large rusty carbonate alteration zones found within Nicola Group rocks during routine prospecting. The claim group was transferred to Placer Development Ltd. soon after staking.

Continued . . .

HISTORY - Continued

During 1981 crews from Placer Development Ltd. conducted a widely spaced (25x100 to 250 metre) soil geochemical survey over the central portion of the property as illustrated on Figure 2. Elements typical of epithermal systems (mercury, antimony and arsenic) were found to occur in moderate concentrations on the Brussels 3&4 mineral claims, and gold was found on the Brussels 1&3 mineral claims, but no drilling was done 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 widely spaced reverse circulation percussion drill program across the Brussels property (see drill hole locations on Figure 2). Drill holes 85-1 and 85-4 encountered up to 80 metres of intensely carbonate and/or silica replaced Nicola metasediments but no significant precious metal values were encountered during the drill program and in 1988 Goldstone Exploration allowed their option to lapse.

In 1989 the writer conducted a ground magnetometer survey over the Golden Lime 1 & 2 mineral claims and western portions of the Brussels 3 & 5 mineral claims. A detailed geochemical soil survey (25 x 50 to 100 metre grid spacing) was also conducted over the western portion of the Brussels 3 mineral claim and northwestern corner of the Brussels 5 mineral claim. The soil samples were analyzed for 30 elements by ICP plus mercury. Gold at the parts per billion level was not tested.

In 1990, soil samples were collected from a 25 x 50 metre grid over the southwestern portion of the Brussels 3 mineral claim by the writer and analyzed for gold. Two small experimental biogeochemical surveys were also conducted over portions of the same grid. In one survey, the twigs of Douglas fir were collected; in the other, stems of sagebrush were sampled. The biogeochemical samples were ashed and tested for 30 elements by ICP, plus gold by Atomic Absorption (Morrison, 1990).

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 chalcedony 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 rocks. The Newmont showing, illustrated on Figure 8, is located just 10 metres west of the west boundary of the Brussels 3 mineral claim. Another zone of anomalous gold (1755 ppb) and arsenic (400 ppm) mineralization occurs within carbonate altered Nicola Group rocks on a steep bluff on the Brussels 4 mineral claim.

GRID - 1991

A Baseline was measured 4 km across the property from the Brussels 1 to the Brussels 4 mineral claim at 320 degrees azimuth subparallel to the bedding of the Nicola Group metasediments. A series of perpendicular grid lines at 100 to 200 metre intervals were then flagged out from the Baseline to facilitate geological mapping. Grid stations were measured out and

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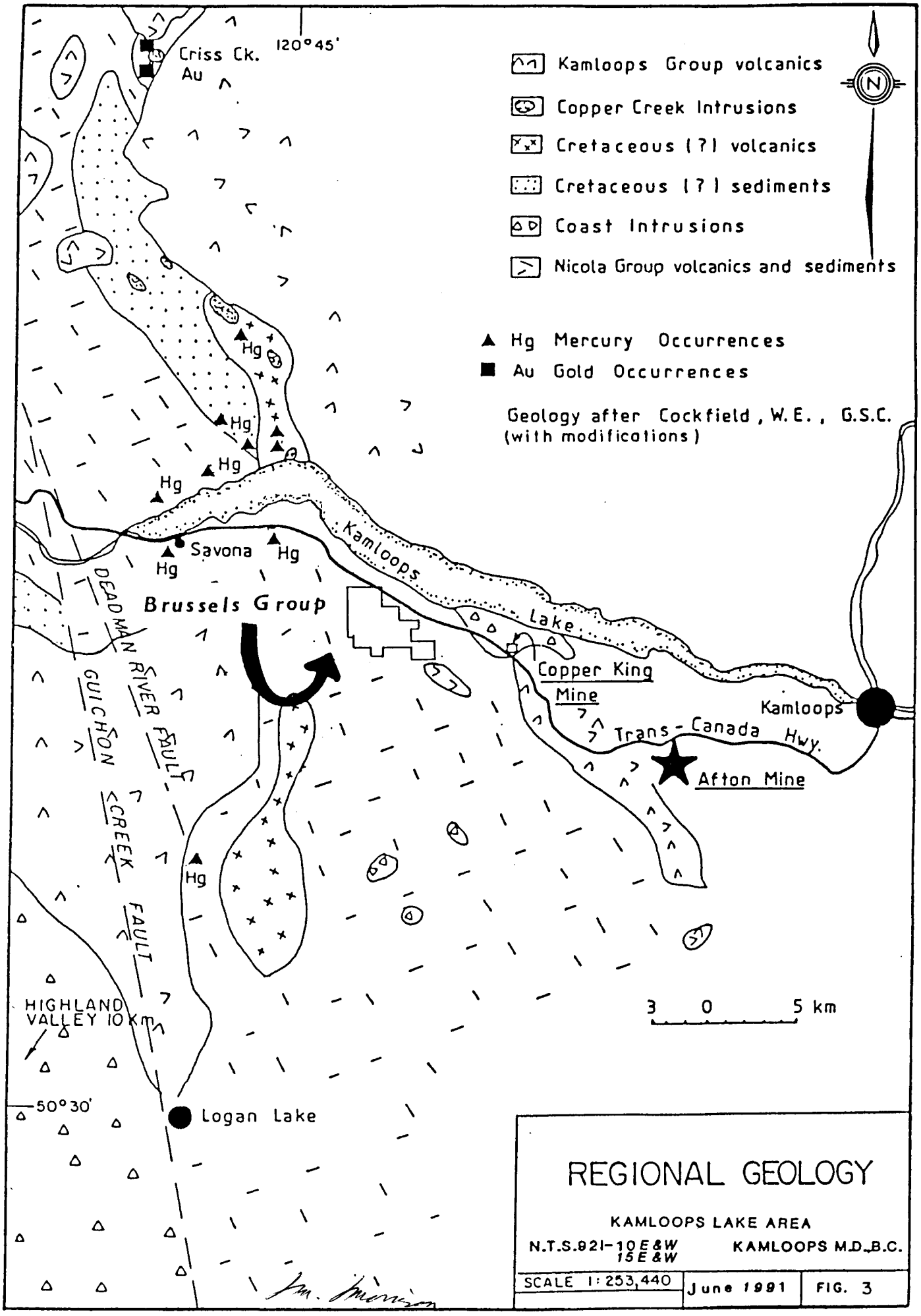
Criss Ck.
Au
120°45'
Kamloops Group volcanics
Copper Creek Intrusions
Cretaceous (?) volcanics
Cretaceous (?) sediments
Coast Intrusions
Nicola Group volcanics and sediments
N
▲ Hg Mercury Occurrences
■ Au Gold Occurrences
Geology after Cockfield, W.E., G.S.C.
(with modifications)
Hg
Savona
Kamloops Lake
Brussels Group
DEAD MAN RIVER FAULT
GUICHON CREEK FAULT
Copper King Mine
Kamloops
Trans-Canada Hwy.
Afton Mine
HIGHLAND VALLEY 10 KM
50°30'
Logan Lake
3 0 5 km
REGIONAL GEOLOGY
KAMLOOPS LAKE AREA
N.T.S. 92I-10E&W 15E&W
KAMLOOPS M.D., B.C.
SCALE 1:253,440
June 1991
FIG. 3

GRID - 1991 - (Continued)

marked at every 25 metres along each line. The Baseline and grid lines were offset around bodies of water or cliff faces as illustrated on Figures 4-10. In all, 18.3 kilometres of Baseline and grid line were established with a Topoline belt chain and a Silva Ranger Compass.

All Legal Corner Posts were tied-in to the grid.

PROPERTY GEOLOGY

Summary

The Brussels Claim Group is underlain by Upper Triassic Nicola Group metasediments comprised of volcanoclastic conglomerates with minor sandstone and siltstone interbeds (see Figures 4-10). The metasediments (metamorphosed to the greenschist facies) appear to occur as a monoclinal sequence which crosses the property at an average 145 degrees. The metasediments dip vertically to steeply east, east of the Main Valley crossing the property, and moderately southwest, west of the Main Valley, and it is believed that a fault may underlie the Main Valley.

Late Cretaceous(?) or Early Tertiary(?), discordant, felsic dykes, with or without quartz-eye phenocrysts, intrude the metasediments at several scattered locations across the Brussels Claim Group. 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.

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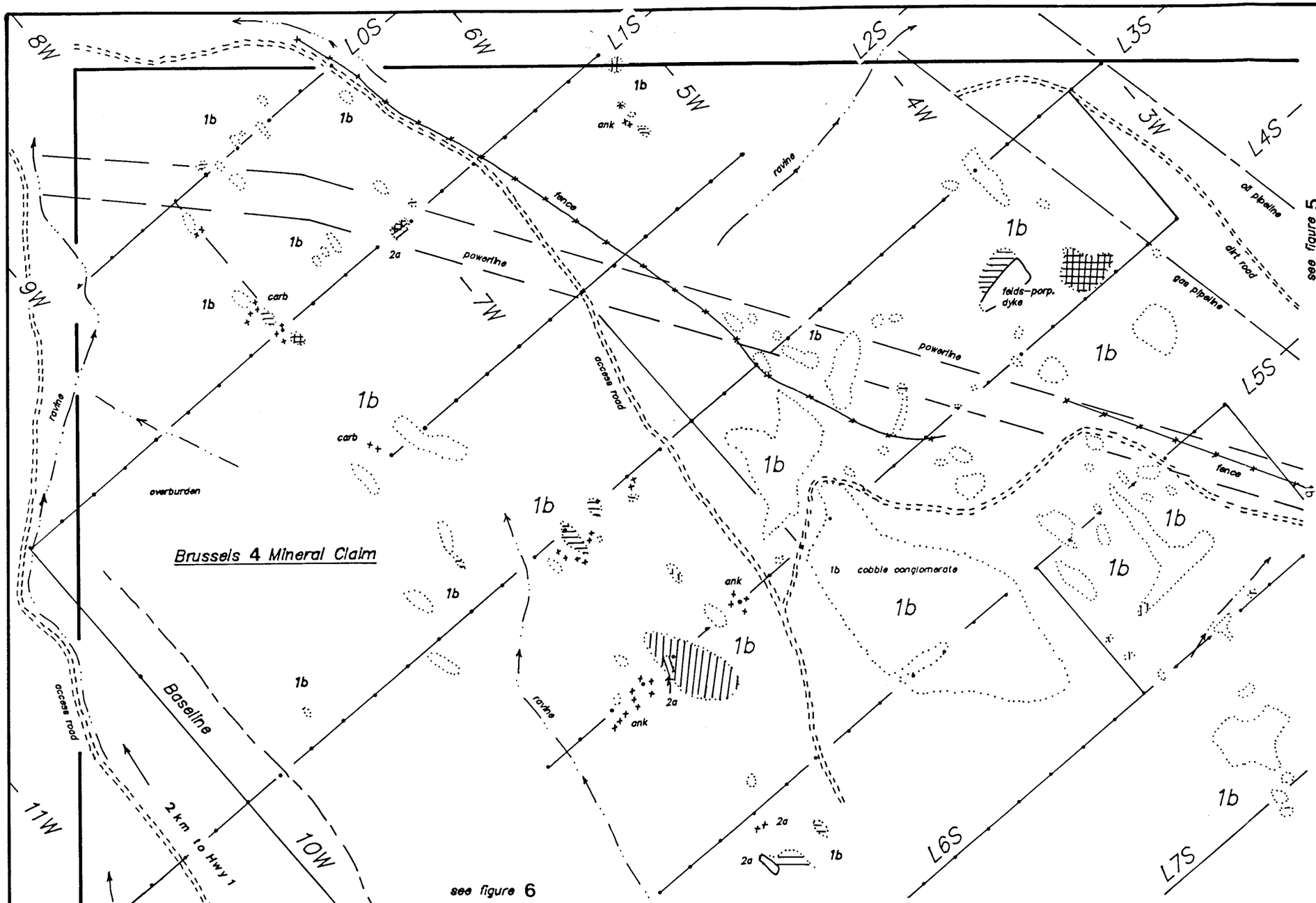


22° 30' declination

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

- III weak
- ≡ moderate
- 卌 strong

SYMBOLS

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

0 50 100 m

scale 1:2,500

ABBREVIATIONS

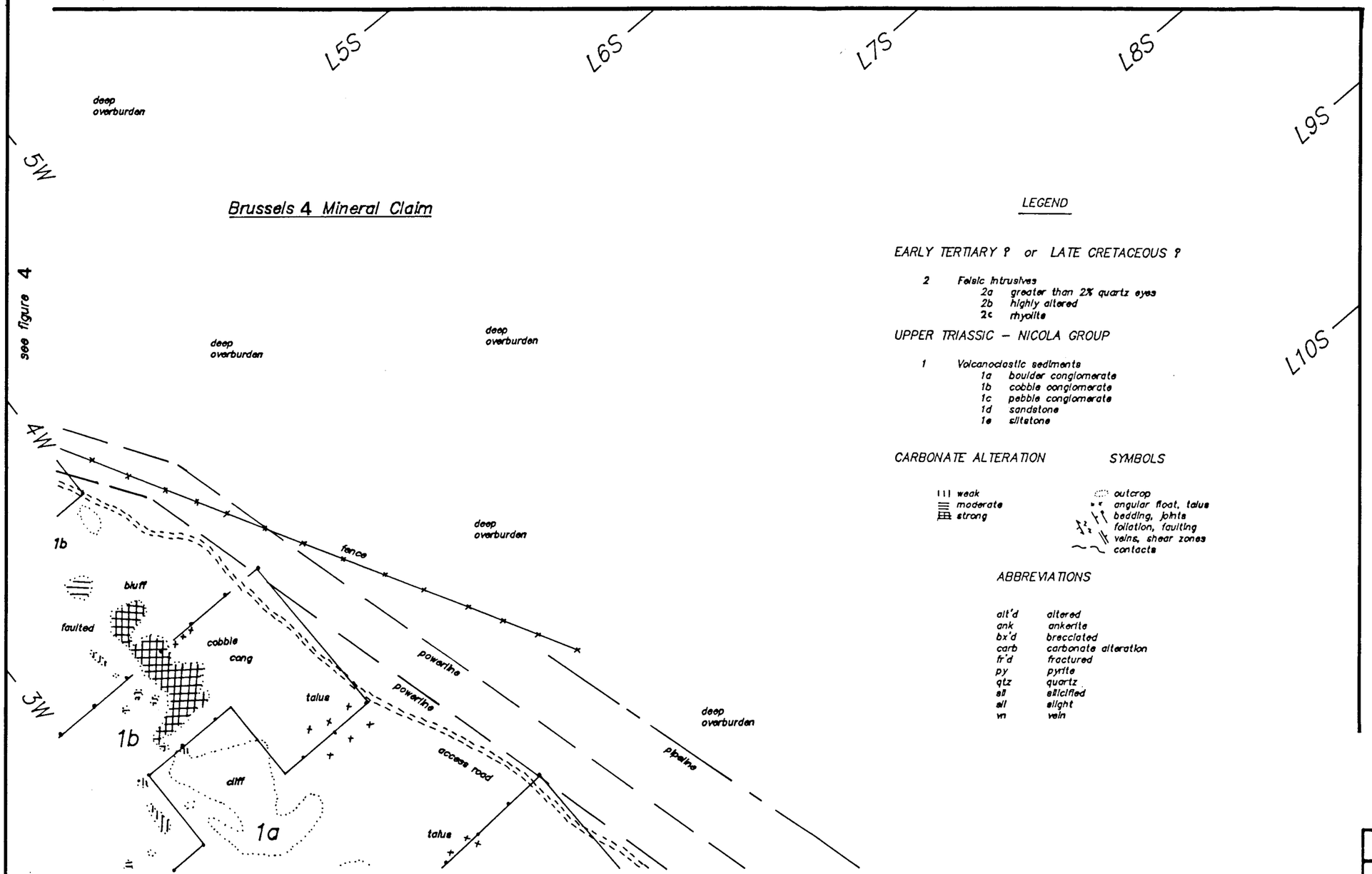
alt'd	altered
ank	ankerite
bx'd	brecciated
carb	carbonate alteration
fr'd	fractured
py	pyrite
qtz	quartz
sil	silicified
sl	slight
vn	vein

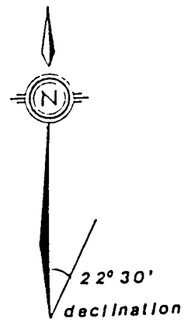
Brussels Property

Geology

Northwest Corner Brussels 4 Mineral Claim
Kamloops Lake Area
Kamloops Mining Division, B.C.

Geology by M.M.	N.T.S. 92-I-10E
June 1991	Figure No. 4





LEGEND

EARLY TERTIARY ? or LATE CRETACEOUS ?

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UPPER TRIASSIC – NICOLA GROUP

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bx'd	brecciated
carb	carbonate alteration
fr'd	fractured
py	pyrite
qtz	quartz
sil	silicified
sl	slight
vn	vein

0 50 100 m

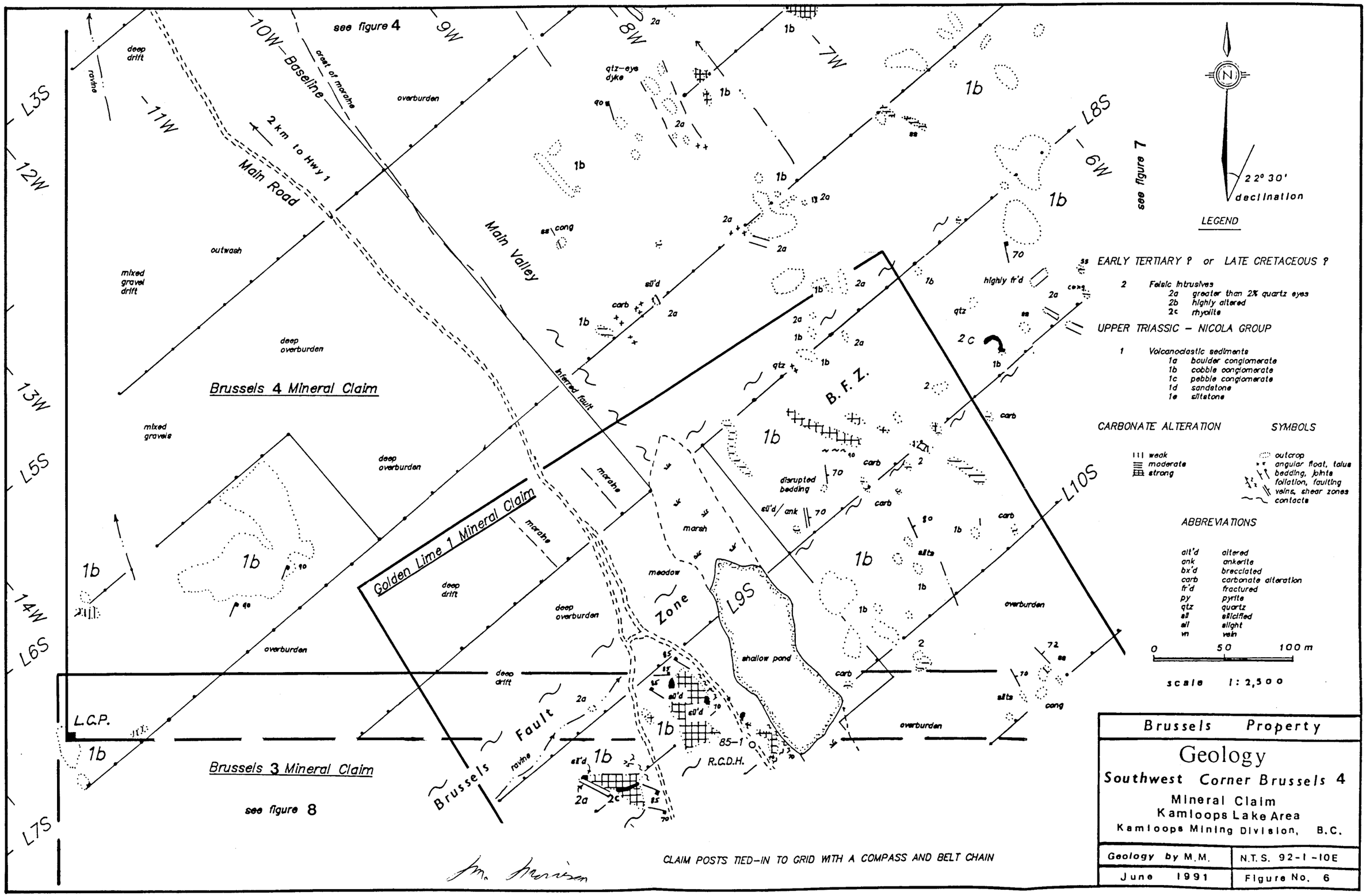
scale 1:2,500

Brussels Property

Geology

Northeast Corner Brussels 4
Mineral Claim
Kamloops Lake Area
Kamloops Mining Division, B.C.

Geology by M.M.	N.T.S. 92-I-10E
June 1991	Figure No. 5



LEGEND

EARLY TERTIARY ? or LATE CRETACEOUS ?

2 Felsic intrusives
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UPPER TRIASSIC – NICOLA GROUP

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sil	silicified
sli	slight
vn	vein

0 50 100 m

scale 1:2,500

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

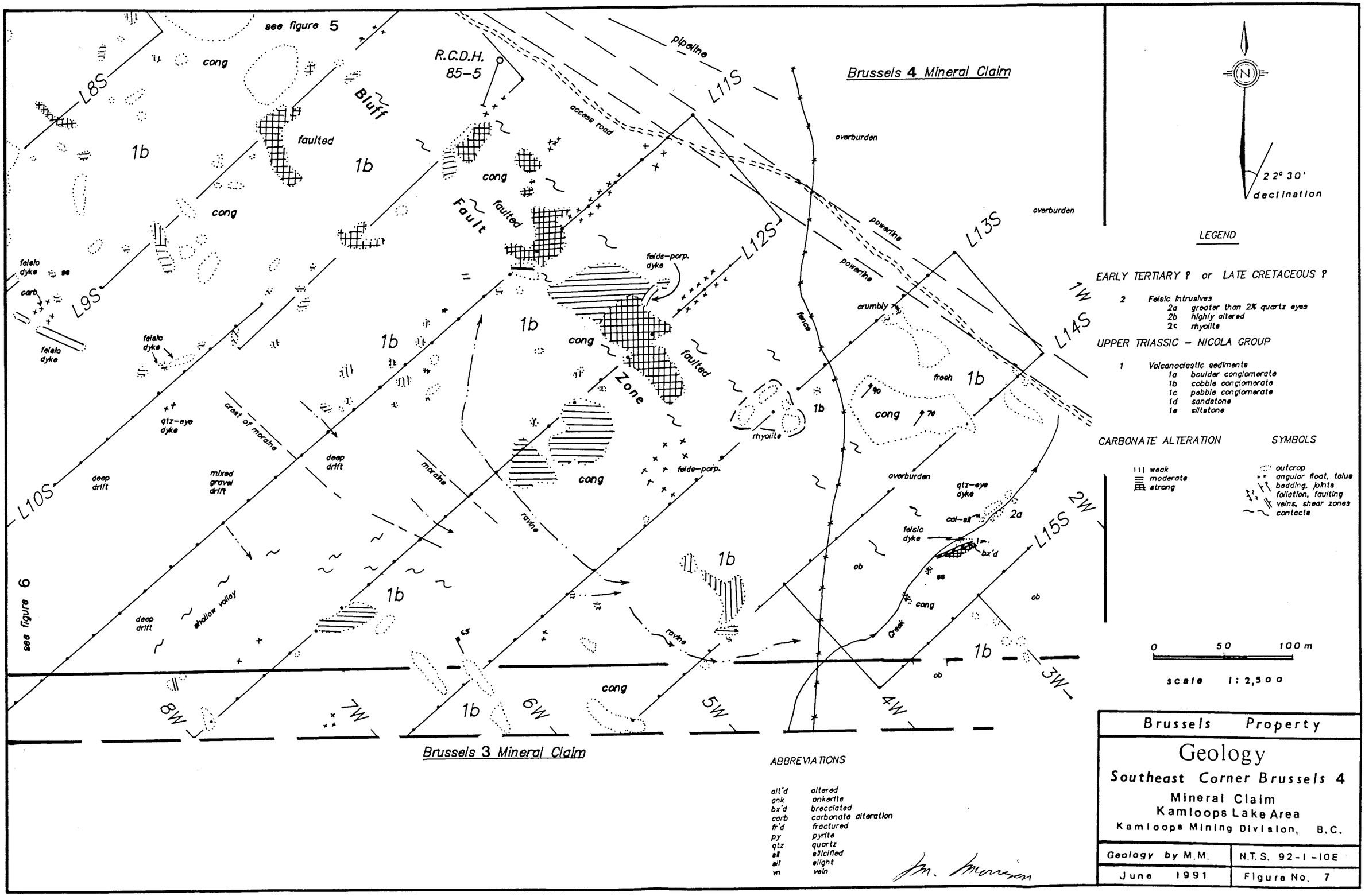
Brussels Property

Geology

Southwest Corner Brussels 4

Mineral Claim
Kamloops Lake Area
Kamloops Mining Division, B.C.

Geology by M.M.	N.T.S. 92-I-10E
June 1991	Figure No. 6


Brussels 4 Mineral Claim
Brussels 3 Mineral Claim
see figure 5
see figure 6
R.C.D.H. 85-5
pipeline
access road
powerline
fence
crest of moraine
ravine
Bluff
Fault
Zone
faulted
crumbly
fresh
overburden
deep drift
mixed gravel drift
shallow valley
cong
felsic dyke
carb
qtz-eye dyke
felds-porp. dyke
rhyolite
lm.
bx'd
ss
ob
Creek
L8S
L9S
L10S
L11S
L12S
L13S
L14S
L15S
1W
2W
3W
4W
5W
6W
7W
8W
22° 30' declination
LEGEND
EARLY TERTIARY ? or LATE CRETACEOUS ?
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UPPER TRIASSIC – NICOLA GROUP
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SYMBOLS
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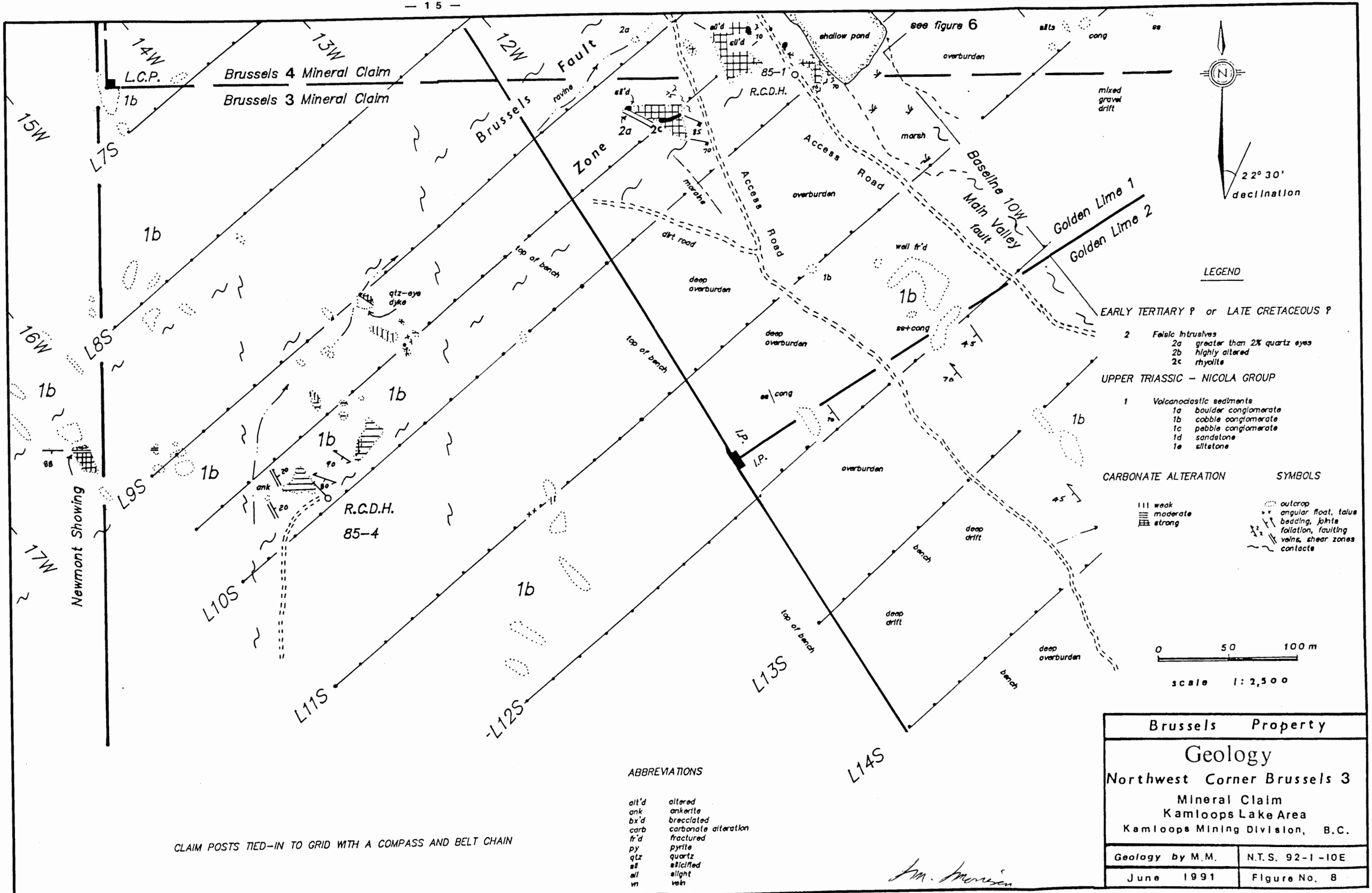
angular float, talus
bedding, joints
foliation, faulting
veins, shear zones
contacts
0 50 100 m
scale 1:2,500
ABBREVIATIONS
alt'd altered
ank ankerite
bx'd brecciated
carb carbonate alteration
fr'd fractured
py pyrite
qtz quartz
sil silicified
slt slight
vn vein
Brussels Property
Geology
Southeast Corner Brussels 4
Mineral Claim
Kamloops Lake Area
Kamloops Mining Division, B.C.
Geology by M.M.
N.T.S. 92-I-10E
June 1991
Figure No. 7



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

ABBREVIATIONS

alt'd	altered
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bx'd	brecciated
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sli	slight
vn	vein

Brussels Property

Geology

Northwest Corner Brussels 3
Mineral Claim
Kamloops Lake Area
Kamloops Mining Division, B.C.

Geology by M.M.	N.T.S. 92-I-10E
June 1991	Figure No. 8

Brussels 3 Mineral Claim

Brussels 1 Mineral Claim

L.C.P.
ss+cong
andesite dyke
felsic dyke
mixed gravel drift
crest of moraine
ravine
Creek
Bluff Baseline
Fault
Zone
S.E. Ext.
dirt road
deep drift
cong
overburden
poor exposure
ank
well indurated
fence
meadow
dam
access road
faulted
deep ob
R.C.D.H. 85-2
R.C.D.H. 85-3
Brussels Lake
Brussels Lake Showing
see figure 10
1b
L28S
L30S
L32S
L34S
1W
2W
3W
4W
5W
6W
7W
8W
1E
22° 30' declination

LEGEND

EARLY TERTIARY ? or LATE CRETACEOUS ?

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UPPER TRIASSIC – NICOLA GROUP

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- 1e siltstone

0 50 100 m

scale 1:2,500

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CARBONATE ALTERATION

- weak
- moderate
- strong

SYMBOLS

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

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

Brussels Property

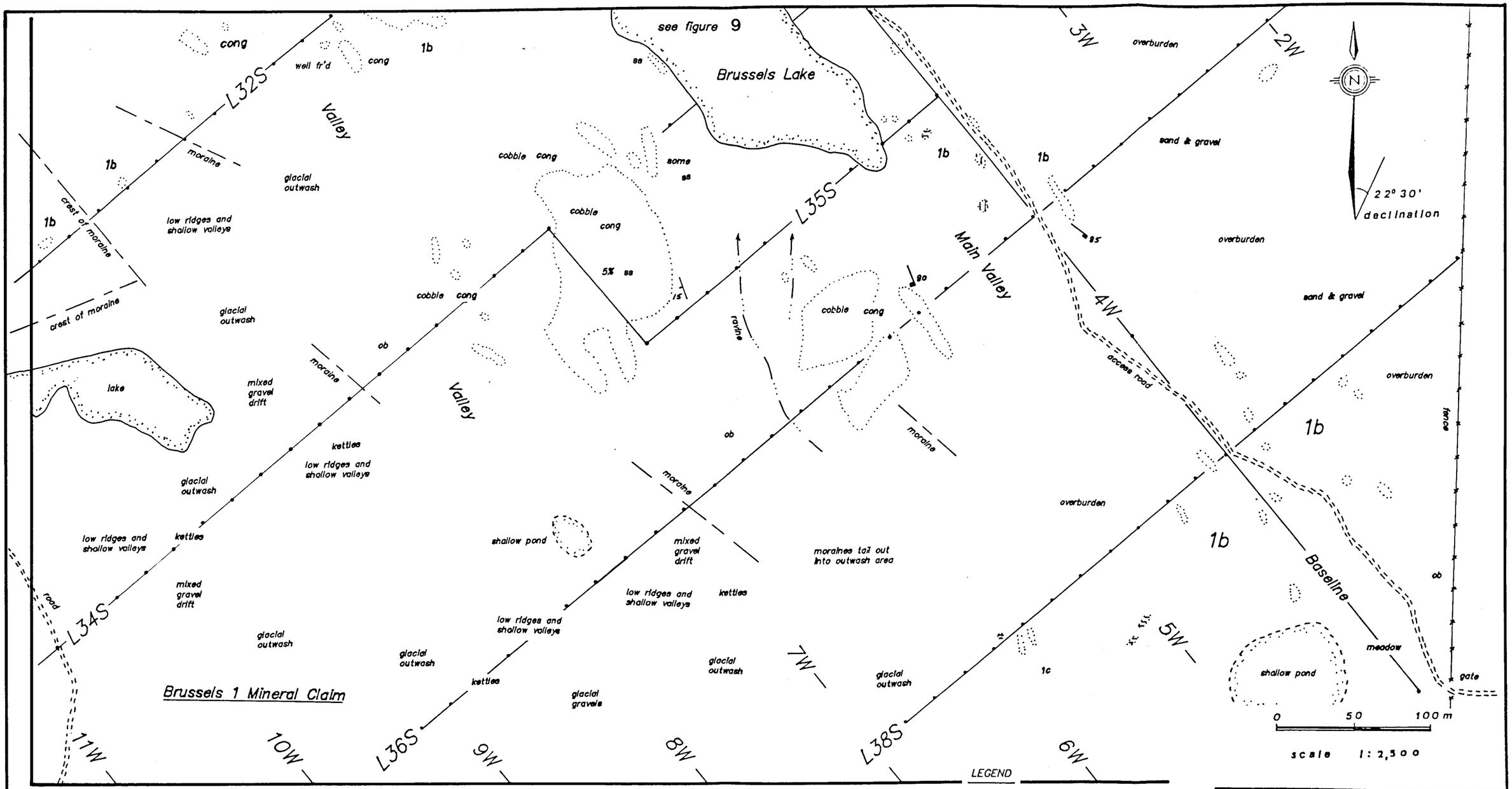
Geology

North Half Brussels 1 Mineral Claim

Kamloops Lake Area

Kamloops Mining Division, B.C.

Geology by M.M.	N.T.S. 92-I-10E
June 1991	Figure No. 9



LEGEND

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EARLY TERTIARY ? or LATE CRETACEOUS ?

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- 2b highly altered
- 2c rhyolite

UPPER TRIASSIC – NICOLA GROUP

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

Brussels Property

Geology

South Half Brussels 1

Mineral Claim
Kamloops Lake Area
Kamloops Mining Division, B.C.

Geology by M.M.	N.T.S. 92-I-10E
June 1991	Figure No. 10

PROPERTY GEOLOGY - Continued

Summary - Continued

It is expected that faulting has allowed for the intrusion of felsic dykes, and that these same fault zones have served as conduits for the hydrothermal solutions which are believed to have been responsible for the intense replacement of the metasediments at several locations across the Brussels Claim Group. Many of the intensely faulted replacement zones will be described under the title "Mineralization", which follows later within this report.

Upper Triassic Nicola Group Metasediments (Unit 1)

Upper Triassic Nicola Group Metasediments, comprised of conglomerates predominantly, underlie the entire Brussels Claim Group (see Figures 4-10). 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 20 to 40% coarse sand.

The conglomerates are poorly sorted and massive in outcrop across much of the property. The conglomerates range from highly indurated to poorly indurated over short distances and the degree of induration appears to be, at least in part, proportional to the percentage of sandy matrix making up the conglomerates. The conglomerates with the least sandy matrix are the most indurated. In general, the conglomerates to the west of the Main Valley (west of Baseline 10W) are more highly indurated than those east of the valley.

Minor interbeds of pebble conglomerate, sandstone and siltstone from ½ to 2 metres thick occur locally within the massive conglomerates. The pebble conglomerates and sand-

Continued . . .

PROPERTY GEOLOGY - Continued

Upper Triassic Nicola Group Metasediments (Unit 1) - Continued

stones are comprised of the same volcanoclastic material as the cobble and boulder conglomerates.

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 across the Brussels 1, 3&4 mineral claims (see Figures 4-10). 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 to 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.

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

Dykes and irregular zones of a light green, highly siliceous, amorphous rock (possible rhyolite) cut carbonate replacement

Continued . . .

PROPERTY GEOLOGY - Continued

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

zones at several locations on the Brussels property (see Figures 4-10). 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 Brussels property is not clear. The minor sandstone and siltstone interbeds within the massive conglomerates underlying the property are often disturbed by faulting and unreliable indicators of the overall attitude of the Nicola Group metasediments. Limited data suggests that the metasediments strike at an average of 145 degrees across the property. East of Baseline 10W, 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 monoclinal 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 Baseline 10W as illustrated on Figures 6 & 8. 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 ridge of bluffs and cliffs possibly traces a fault scarp striking northwest across the Brussels 4 mineral claim (see Figures 4, 5 & 7) from L4S, 4+00W to L12S, 4+00W. Many highly

Continued . . .

PROPERTY GEOLOGY - Continued

Structural Geology and Faulting - Continued

faulted carbonate replacement zones occur on the bluffs.

A northeast-striking (050 degrees) fault identified as the "Brussels Fault Zone" on Figures 6 & 8 is inferred to cross the Brussels 3 and Golden Lime 1 mineral claims. The Brussels Fault Zone is considered to be an early fault.

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 Figures 6 & 8).

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 much of the Brussels Claim Group.

Three strongly faulted and carbonate replaced zones on the Brussels 1 mineral claim (on Figure 9) fall on the projection of the Bluff Fault Zone (striking 140 degrees). A second east-west fault also appears to cross the Brussels Lake Showing on the Brussels 1 mineral claim (see Figure 9).

In summary, it appears that northeast-striking (050 degrees), northwest-striking (320 degrees), and east-striking (090 degrees) faults have all been intruded by felsic dykes and have served as conduits for the hydrothermal solutions which are believed to have been responsible for the intense replacement of metasediments across the property.

Continued . . .

PROPERTY GEOLOGY - Continued

Alteration and Mineralization

Several zones of carbonate alteration and replacement of Nicola Group metasediments occur on the Brussels Claim Group (see Figures 4-10). 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 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.

Continued . . .

PROPERTY GEOLOGY - Continued

Alteration and Mineralization - Continued

Several zones of carbonate and/or silica replacement are illustrated on Figures 4-10 accompanying this report and some of the strongest replacement zones will be described in the paragraphs that follow.

RCDH 85-1 Replacement Zone

The RCDH 85-1 Replacement Zone on the Golden Lime 1/Brussels 3 mineral claims is illustrated on Figure 6. The zone at grid 9+50S, 10+75W is exposed over a width of 30 metres and a length of 50 metres, and could connect (below overburden) with a second zone at grid 9+50S, 11+50W which is 20 metres in width by 50 metres in length. 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 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 6). 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

Continued . . .

PROPERTY GEOLOGY - Continued

RCDH 85-1 Replacement Zone - Continued

included 58 metres of strong silica replacement (40-50%). The drill hole drilled into intrusive rock at 80 metres and was stopped at 86 metres.

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 recognizeable. 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.

RCDH 85-4 Replacement Zone

The RCDH 85-4 Replacement Zone is made up of scattered outcrop of highly faulted and carbonate replaced metasediments that extend from grid 9+75S, 15+50W to 9+00S, 14+00W. The zone of scattered outcrop measures 60 by 170 metres and extends to a depth of at least 85 metres (Morrison, 1986). Like other replacement zones on the property the rock is highly faulted, and replaced by 20 to 60% carbonate. Late ankerite veins (to 15 cm wide) and quartz veinlets (1%) cut through the replacement zone. A quartz-eye porphyry dyke (5 metres wide) cuts altered metasediments at grid L9S, 14+00W.

RCDH 85-4 was drilled at minus 80 degrees, 322° Azimuth, to a depth of 92 metres from grid 9+95S, 15+15W in 1985 and encountered 30 metres of strong (40-60%) carbonate replacement and another 55 metres of moderate (10-40%) carbonate replacement of Nicola Group metasediments. No significant precious metal values were obtained, but arsenic values ranged up to 258 parts per million over 3 metres.

Continued . . .

PROPERTY GEOLOGY - Continued

RCDH 85-4 Replacement Zone - Continued

The single, near-vertical drill hole was not a suitable test for the very large replacement zone, and like drill hole 85-1, drill hole 85-4 could easily have parallelled (and missed) a vertical quartz stockwork or breccia zone.

Bluff Replacement Zones

A series of faulted, carbonate replacement zones align in a northwesterly direction along the bluff crossing the northeast side of Brussels 4 mineral claim (see Figures 4, 5 & 7). These zones, extending from grid L4S, 3+75W to L12S, 3+75W, are collectively called the Bluff Replacement Zones in this report. The zones of moderate to strong carbonate replacement measure from 30 by 30 metres in size to 40 by 75 metres. In most cases cobble and boulder conglomerates with minor sandstone interbeds have been fractured and pervasively replaced by carbonate. The less indurated conglomerates with a high percentage of coarse sandy matrix exhibit the most replacement. There is, therefore, a strong correlation between the degree of replacement and the inherent permeability of the rock. Late veinlets of ankerite equal only 1 to 2 % on most of the Bluff Replacement Zones.

A plug of light green amorphous rhyolite(?) measuring 40 by 50 metres occurs on L13S at 3+25W, near a break in the bluff at a lower elevation on strike with the Bluff Zones. The rhyolite is well fractured and cut by 1% late chalcedony veinlets.

Further along strike at grid 14+60S, 2+50W, at still a lower elevation, there is a distinct quartz-eye porphyry intrusive, and 25 m west a minor rhyolitic felsic intrusive. There is also a 1 metre wide breccia zone comprised entirely of ankerite and silica that extends for 30 metres at 075 degrees. The felsic dyke lies on the north side of the breccia zone, while carbonate replaced metasediments lie on the southern side.

Continued . . .

PROPERTY GEOLOGY - Continued

Bluff Replacement Zones - Continued

RCDH 85-5 at grid 9+78S, 3+05W was drilled in 1985 at minus 60 degrees, 200 degrees azimuth, in an attempt to undercut one of the Bluff Replacement Zones. The drill hole hit a water channel and had to be abandoned at 67.4 metres well short of its objective.

Brussels Lake Showing

The Brussels Lake Showing located on the Brussels 1 mineral claim at grid 34S, 3+50W (on Figure 9) is made up of metasediments (conglomerates and sandstones) that have been well faulted and replaced by carbonate. Carbonate replacement equals 20 to 50% generally and up to 70% locally with 30% silica (resulting in total replacement). Late ankerite veinlets equal 5% locally.

A distinct 30 to 60 cm wide breccia zone comprised entirely of ankerite and silica crosses the northern edge of the outcrop for 30 metes in an east-west direction.

The Brussels Lake Showing falls on the southeastern projection of the Bluff Fault Zone (see section on Structural Geology and Faulting) as does the large area of moderate carbonate replacement on the eastern side of Brussels Lake, 200 metres northwest of the Brussels Lake Showing.

RCDH 85-3 was drilled to test the Brussels Lake Showing from approximately grid 33+75S, 4+20W. The hole was drilled at minus 70 degrees, 113 degrees azimuth, to a depth of 18.9 metres. The drill hole encountered 12.8 metres of strong (60-80%) carbonate replacement and then drilled into fresher metasediments and was stopped. No quartz vein stockworks or precious metals were intercepted.

Continued . . .

PROPERTY GEOLOGY - Continued

The Newmont Showing

The Newmont Showing is located immediately west of the west boundary of the Brussels 3 mineral claim at grid 8+55S, 16+30W on Figure 8. A 1 metre wide, east striking, vertically dipping, shear zone comprised of brecciated and mended quartz and chalcedony cuts well indurated volcanoclastic conglomerates of the Nicola Group. Strong carbonate replacement extends for 2 metres north of the shear zone and moderate carbonate replacement extends for 15 metres south. Minor ankerite veinlets parallel the main shear zone.

Sulphides disseminated throughout the brecciated quartz and chalcedony equal 5% and include pyrite, galena, sphalerite, stibnite, chalcopyrite and tetrahedrite. An average of 3.2 g/tonne gold and 65 g/tonne silver was obtained from the shear zone (Bohme, 1985).

A possible extension of the mineralized shear zone has been located at grid 8+85S, 15+85W on the Brussels 3 mineral claim, 50 metres east of the Newmont Showing. The new find is still poorly exposed.

It is believed that the Newmont Showing falls within the Brussels Fault Zone.

The Newmont Showing has never been drilled.

Other Replacement Zones

Several more carbonate replacement zones have been mapped on Figures 4-10. Many exhibit strong replacement and suggest a genetic relationship with nearby felsic intrusions.

DISCUSSION

The massive conglomerates underlying the Brussels Claim Group have revealed few clues with respect to determining the overall stratigraphy of the Nicola Group, or determining the geological controls related to the large carbonate replacement zones on the property. Carbonate alteration zones are very visible and widespread across the property and it is difficult to make order out of the "smears and clusters" of replacement zones. Mapping the areal extent of the zones and the degree of carbonate and/or silica replacement has, however, helped in forming a few hypothesis.

First of all, an alignment of strong replacement zones in a northeast direction (050 degrees) has been recognized, and this alignment of faulted and replaced rocks has been termed the Brussels Fault Zone.

A second alignment of all of the Bluff faulted replacement zones strikes at 140 degrees and extends southeast to include the Brussels Lake Showing. This zone has been called the Bluff Fault Zone.

A much more subtle, but important fault direction is due east-west. Although not recognized on the larger scale, the east-west direction is important at the Newmont Showing, the Brussels Lake Showing, and at the grid 14+60S, 2+75W Showing, where in each case there is a high degree of repeated brecciation, and mending by ankerite and silica (and in the case of the Newmont Showing there is the added introduction of sulphides and precious metal values).

There appears to be a definite correlation between faulting, and the introduction of felsic intrusions on the property. The faulting is believed to have also served as the conduit for the ascending hydrothermal solutions which brought about the large scale carbonate and/or silica replacement. It is evident that

Continued . . .

DISCUSSION - Continued

a long period of hydrothermal alteration has occurred as many of the felsic dykes also show a high degree of alteration. The intrusion of rhyolite(?) dykes is believed to have been late, but they too are well fractured and cut by ankerite and quartz veinlets.

All of the carbonate replacement zones on the property (including the Newmont Showing immediately west of the property) appear to be genetically related. Many of the replacement zones are thought to represent the uppermost horizons of strong epithermal systems which could host sulphides and precious metals at some moderate depth below surface. The Newmont Showing is believed to represent a lower horizon of such an epithermal system which has been exposed by erosion (and trenching). Several of the carbonate replacement zones on the Brussels Claim Group are of a much greater size than the Newmont replacement zone and it is suggested that some of these replacement zones represent large targets for precious metal exploration.

In 1985 drill hole RCDH 85-1 was drilled to test the large replacement zone at grid 9+50S, 10+75W (on Figure 6). The drill hole confirmed strong (up to 100%) replacement of the Nicola Group metasediments throughout the first 80 metres of the hole before drilling into an intrusive. However, the hole was drilled vertically and although it confirmed the intensity of the replacement zone to depth it could easily have parallelled (and missed) any vertical quartz veins, stockworks or breccia zones associated with the Brussels Fault Zone. It is therefore, recommended 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.

Continued . . .

DISCUSSION - Continued

The L9+50S, 10+75W replacement zone is one of the largest and most accessible on the property, and further exploration of other zones scattered across the Brussels Claim Group should await the drilling results from the L9+50S, 10+75W zone.

CONCLUSIONS AND RECOMMENDATIONS

The March-April, 1991, geological mapping program carried out on the Brussels 1, 3&4 Mineral Claims has outlined several carbonate and/or silica replacement zones within the Upper Triassic Nicola Group metasediments. The size of the zones and the intensity of replacement have also been recorded. The largest zones, all of which exhibit a high degree of faulting, have been recognized as aligning in northeast (050 degrees) northwest (320 degrees) or east (90 degrees) directions, and the names Brussels Zone Fault (050 degrees) and Bluff Zone Fault (320 degrees) have been applied to these alignments.

It is believed that the northeast, northwest and east faulting has allowed for the intrusion of Late Cretaceous(?) or Early Tertiary(?) felsic dykes into the metasediments as well as the intrusion of later rhyolite(?) dykes. The faulting has also allowed for the introduction of the large volumes of hydrothermal solutions which have brought about extensive carbonate and/or silica replacement of the Nicola Group metasediments.

The large zones of carbonate replacement are thought to represent the uppermost horizons of precious metal-bearing quartz-stockwork epithermal systems that could lie at some moderate depth below surface. The Newmont Showing lying just 10 metres west of the Brussels 3 mineral claim west boundary is thought to represent a small example of such a system. A one metre wide shear zone with brecciated and mended quartz and chalcedony contains several sulphides and an average 3.2 g/tonne gold and 65

Continued . . .

CONCLUSIONS AND RECOMMENDATIONS - Continued

g/tonne silver at the Newmont Showing.

The large carbonate/silica replacement zones on the Brussels Claim Group are thought to represent very large and favorable precious metal exploration targets.

It is recommended that the L9+50S, 10+75W and L9+50W, 11+50W replacement zones be drilled with inclined drill holes (minus 50 degrees) from the north and that the silicified breccia zones at the north edge of each replacement zone be the primary targets for the drill.

Drill intercepts should be analyzed for 30 elements by ICP and for gold and silver by fire assay.

The L9+50S, 10+75W replacement zone represents a very accessible drill target with a high potential for success. Drilling of other replacement zones on the Brussels Claim Group should await the results of the L9+50S, 10+75W zone drill program.

June 29, 1991
Kelowna, B.C.

Murray Morrison - B.Sc.

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* denotes Assessment Reports filed with the Ministry of Energy, Mines and Petroleum Resources of British Columbia.

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 survey outlined in this report.

6. I own a 100% interest in the Brussels Claim Group.

June 29, 1991

Kelowna, B.C.

Murray Morrison - B.Sc.

APPENDIX B

STATEMENT OF EXPENDITURES - ON THE BRUSSELS CLAIM GROUP.

Statement of Expenditures in connection with the Geological Mapping Program conducted on the Brussels Claim Group, 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 (3 sq. km)

M. Morrison, geologist	17 days @ $250.00/day	$ 4250.
J. Hunt, assistant	6 days @ $100.00/day	600.
Truck, 4x4 (incl. gasoline and insurance)	17 days @ $ 75.00/day	1275.
Meals and Lodging		
one man	11 days @ $ 50.00/day	550.
two men	6 days @ $ 75.00/day	450.
Flagging and belt chain thread		45.
	Sub-total:	$ 7170.

REPORT PREPARATION COSTS

M. Morrison, geologist	2 days @ $250.00/day	$ 500.
Drafting		100.
Typing		75.
Copying		25.
	Sub-total:	$ 700.
	GRAND TOTAL:	$ 7870.

I hereby certify that the preceding statement is a true statement of monies expended in connection with the Geological Mapping Program carried out March 12 - April 25, 1991.

JUNE 29, 1991

Murray Morrison

Murray Morrison - Geologist