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GEOLOGICAL REPORT FOR CANOVA RESOURCES LTD.
ON THE LAKE CLAIMS

Osoyoos M.D. N.T.S. 82E 5W
Latitude 49°23' Longitude 119°57'

D.A. Shaw
September, 1985

FILMED

*{ Owner
Operator }* Canova Resources Ltd

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

14,549

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Introduction

Location, Access and Physiography

The Lake Claims are located on the southeast side and southern end of Nickel Plate Lake (Figure #1 and #2). Forestry roads traverse through the central part of the Claim block in a north-south direction and through the southern part in an east-west direction. Further access to the remainder of the Claims can only be achieved on foot. The topography slopes downwards to the northwest, the physical boundary of the Claims being limited in that direction by the lake. The vegetation consists of medium to heavy density forest cover with a low underbrush.

Outcrop distribution is limited to road cuts and surface excavations/trenches. Soil creep in the unconsolidated, glacially derived cover is active and trenches excavated within the previous nine months were found to be partly or completely slumped in.

Property

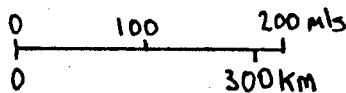
The Property consists of the Lake #1 to #4 claims, the Nova #5 to #12 claims, and the Roy #1 and #2 claims (Figure #2). All claims are of the two-post type and are recorded in the Osoyoos Mining Division on map sheet 83E/5W.

Claim Name	No. of Units	Record No.	Registered Owner	Expiry
Roy #1	1	2065	Canova Resources Ltd.	Aug. 1, 1988
Roy #2	1	2066	Canova Resources Ltd.	Aug. 1, 1988
Nova #5	1	2067	Canova Resources Ltd.	Aug. 1, 1988
Nova #6	1	2068	Canova Resources Ltd.	Aug. 1, 1988
Nova #7	1	2069	Canova Resources Ltd.	Aug. 1, 1988



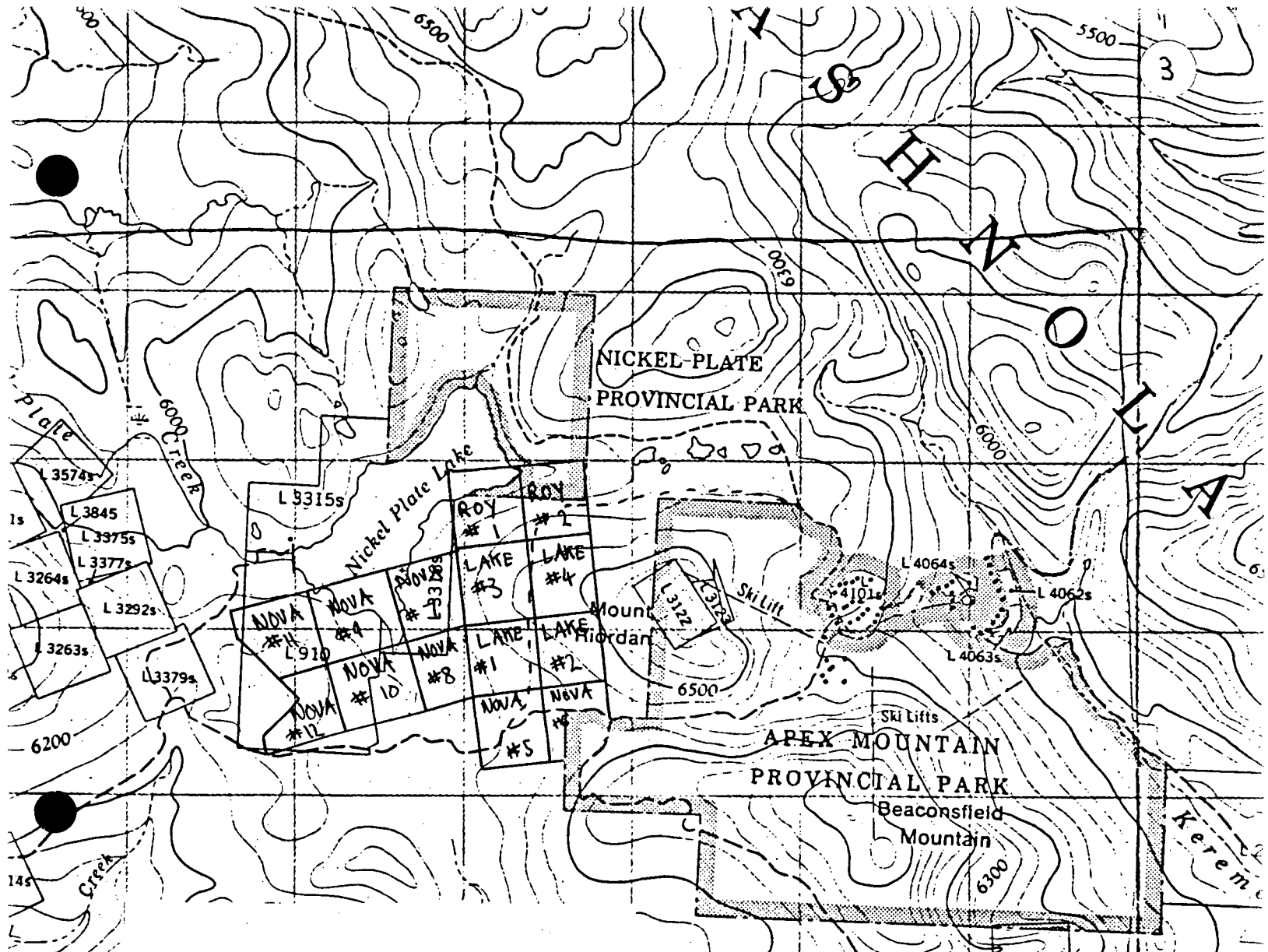
CANOVA RESOURCES LTD.
Property Location Map

Lake Claims - 82E 5W - Osoyoos M.D.



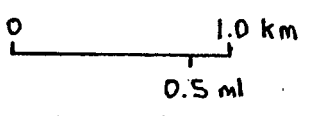
D. Shaw - Sept. '85

Figure #1.



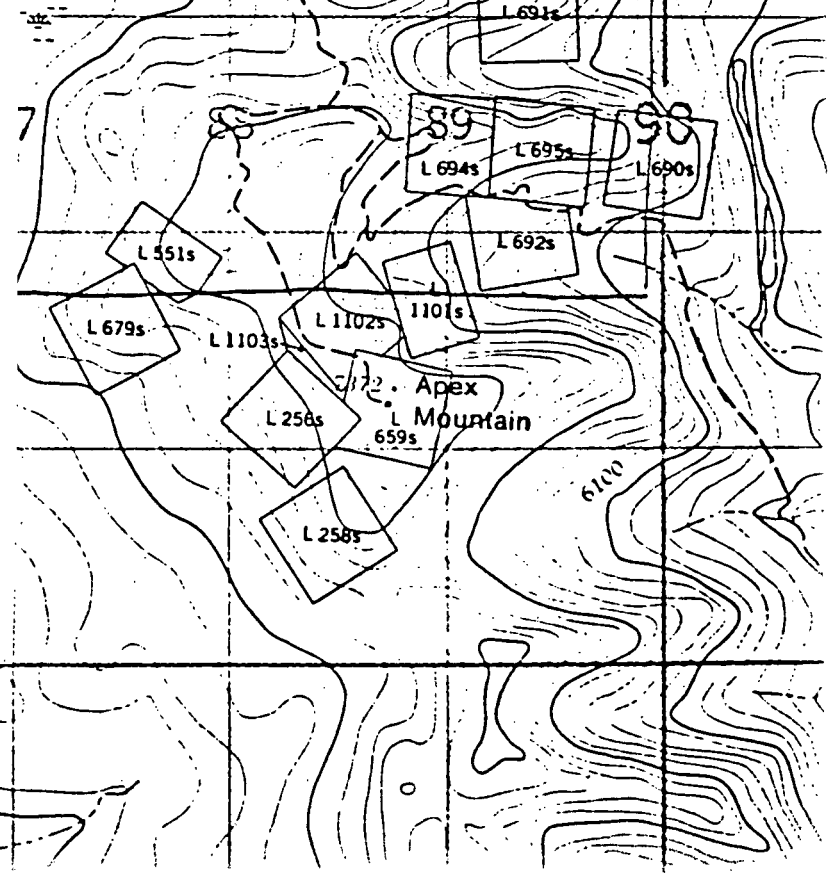
Lake Claims
Claim Location Map

Osoyoos M.D.
82E-5W



■ claim post

D. Shaw - Sept. '85. Fig. # 2



Claim Name	No. of Units	Record No.	Registered Owner	Expiry
Nova #8	1	2070	Canova Resources Ltd.	Aug. 1, 1988
Nova #9	1	2071	Canova Resources Ltd.	Aug. 1, 1988
Nova #10	1	2072	Canova Resources Ltd.	Aug. 1, 1988
Nova #11	1	2073	Canova Resources Ltd.	Aug. 1, 1988
Nova #12	1	2074	Canova Resources Ltd.	Aug. 1, 1988
Lake #1	1	797	Canova Resources Ltd.	July 30, 1986
Lake #2	1	798	Canova Resources Ltd.	July 39, 1986
Lake #3	1	799	Canova Resources Ltd.	July 30, 1986
Lake #4	1	800	Canova Resources Ltd.	July 39, 1986

History

Gold exploration has been carried out in this part of south-central British Columbia since the late 1800's when gold and platinum placer deposits were discovered along the Similkameen and Tulameen Rivers. Prospecting in the region resulted in the discovery of numerous copper occurrences which were often associated with gold and silver. Of more local interest was the discovery in 1859 of placer gold on Hedley Creek. Prospecting on nearby Nickel Plate Mountain in 1898 located an arsenopyrite showing with gold values. Between the period 1904 to 1955 milling of the Nickel Plate ore continued intermittently with a total production from the Hedley Camp of 17,360,643 ounces of gold at an average grade of 0.436 oz/ton.

Presently in the Hedley area there is exploration, development and/or production from the Mascot Gold Mine, the Nickel Plate Mine and the Banbury Gold Mine. Furthermore, there is considerable staking and exploration activity in the adjacent areas.

The only previous work done on these claims appears to have been that by Mr. Robert McCrae of Penticton, the prospector who was involved in the staking of the claims, in 1980. Two small pits were made by using hand tools; one was dug on what is referred to in this Report as Vein 'A' and the other one was approximately 150 metres to the south on the massive sulphide in quartz-veined skarn also referred to in this Report. A total of four samples were shipped to the Acme Analytical Laboratory in Vancouver for geochemical analysis and assaying. The most interesting results are as follows:

Vein 'A'	3.43 oz/ton Ag	.349 oz/ton Au
Skarn Vein	10.10 oz/ton Ag	.604 oz/ton Au

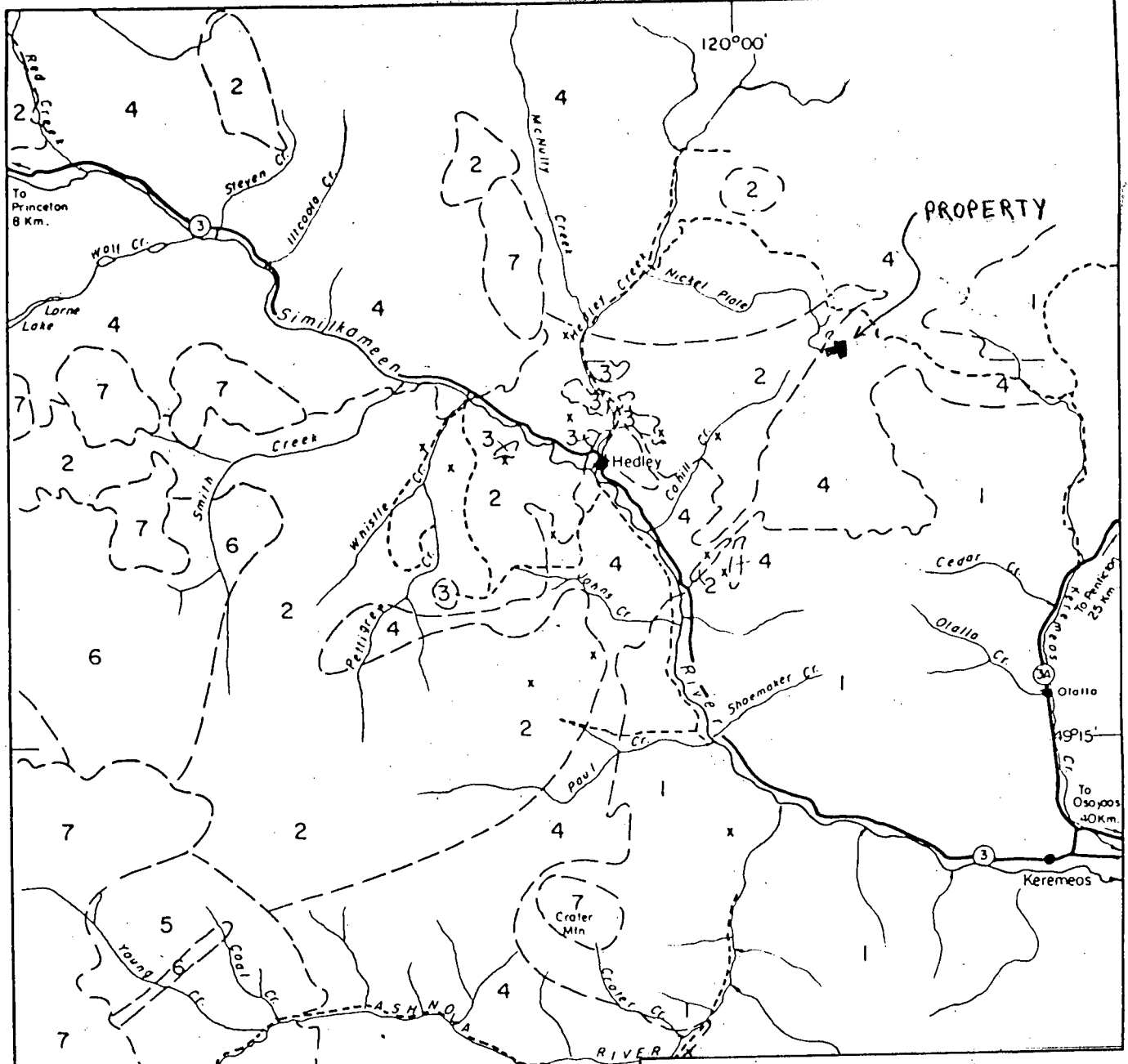
Regional Geology

The Upper Triassic Nicola Group volcanics, sediments and schists are, in the Hedley area, host to the Jurassic Coast Intrusives. The latter are predominantly varieties of granite, granodiorite and diorite (Figure #3).

Property Geology and Mineralization

The Lake Claims are covered by glacial drift deposits consisting of unconsolidated till and large boulders. The only exposures recognized by the author were in some partly slumped trenches a few hundred metres east of the north-south Forestry road in the central part of the Claims, and in road cuts on the east side of the road, again in the central part of the Claims (Lake #1 and Lake #3).

The trenches expose partly altered diorite with two types of veins. The first type is magnetite and pyrrhotite rich silica veins. The



LEGEND

- MIocene
- 7 PRINCETON GROUP
- UPPER CRETACEOUS
- 6 OTHER INTRUSIVES
- LOWER CRETACEOUS
- 5 KINGSVALE GROUP
- JURASSIC
- 4 COAST INTRUSIVES
- 3 PERIDOTITE, PYROXENITE, GABBRO
- UPPER TRIASSIC
- 2 NICOLA GROUP
- CARBONIFEROUS
- 1 ARGILLITE, ANDESITE, LIMESTONE & SCHIST
- x MINERAL OCCURRENCES
- GEOLOGICAL CONTACT
- - - SECONDARY ROAD



CANOVA RESOURCES LTD.
LAKE CLAIM GROUP

REGIONAL GEOLOGY
AND CLAIM LOCATION

0 5 10 km.

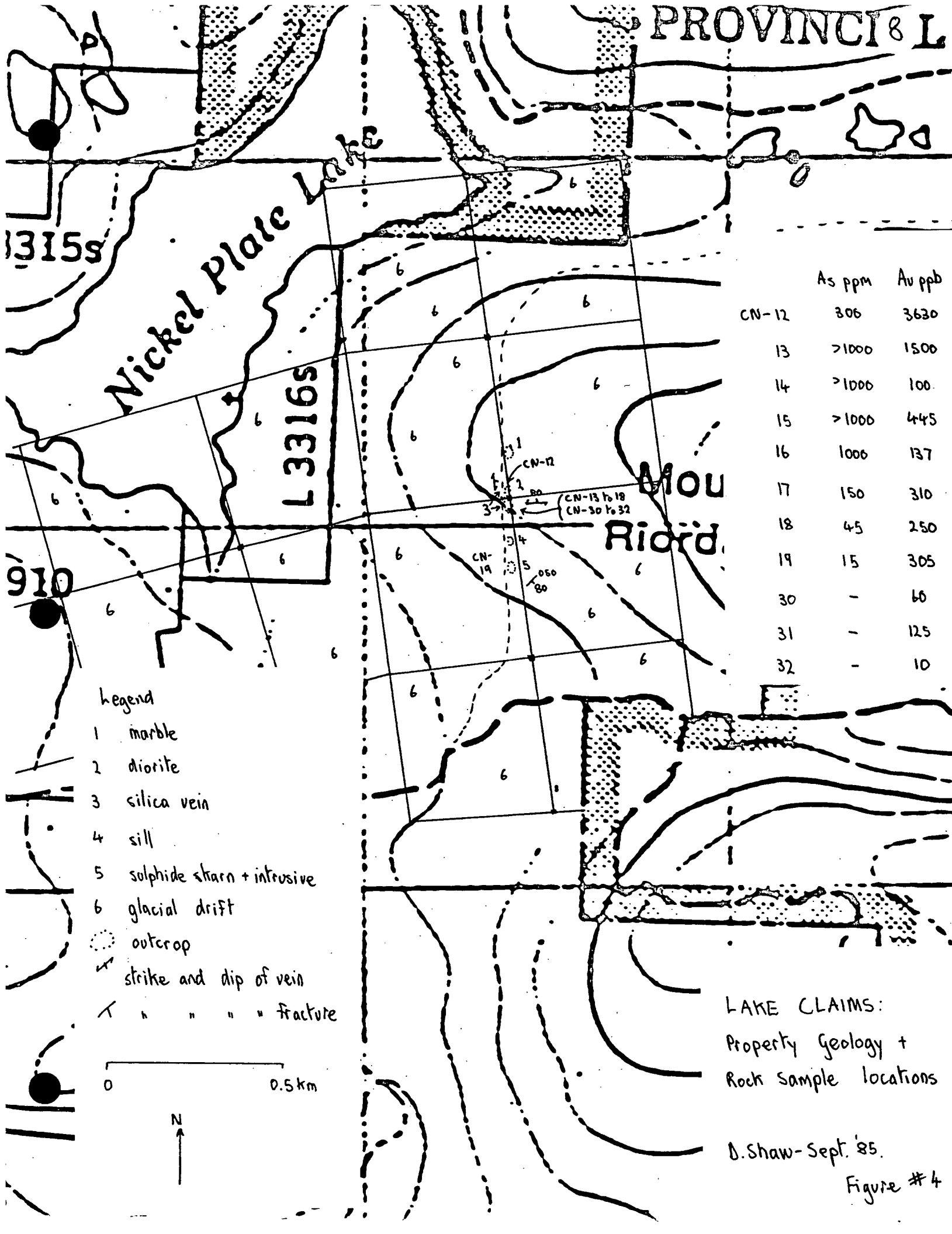
b. Shaw - sept. 1985.

Figure #3

second type of vein is composed of grey, featureless quartz. Due to the slumped nature of the trenches very little bedrock was exposed; consequently, little definition of the veins could be obtained.

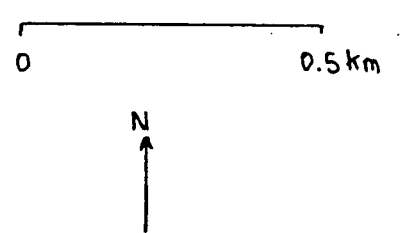
In the road-cut section (which was extended during the authors work by a backhoe) there is (from north to south) a zone, approximately 20 metres in length, of massive, medium to coarse grained, white-grey marble (Figure #4). There is then a gap in outcrop of approximately one hundred metres before a zone of quartz-diorite is exposed in the road cut. The diorite is strongly fractured with some of the fractures being quartz filled to produce a stockwork pattern. Towards the southern end of the 35 metre long outcrop there is a zone of fracturing, shearing and quartz mineralization. A vein (Vein A), approximately $\frac{1}{2}$ metre in width, of massive white-grey quartz striking 070° - 250° and dipping towards the north at 80° is the main feature of this zone (Figure #5). Gouge zones are developed on both the hangingwall and footwall sides of this main quartz vein. The footwall gouge zone is the better developed of the two and is up to 10 cm in width. Both gouge zones are composed of a grey, clay-like material. On the footwall side there is an abrupt contact between the gouge zone and the footwall host rock, quartz-diorite. There is only very minor alteration and a minimal amount of silica micro-veining at this contact. On the hangingwall side of the main quartz vein the gouge zone passes upwards into a zone of intense fracturing and alteration. The affected rock is quartz-diorite which exhibits a strong rusty alteration, probably due to pyrite and arsenopyrite within the hangingwall stockwork silica vein system. The silica itself is a variegated grey in colour.

The degree of alteration and fracturing diminishes within the



	As ppm	Au ppb
CN-12	306	3630
13	>1000	1500
14	>1000	100
15	>1000	445
16	1000	137
17	150	310
18	45	250
19	15	305
30	-	60
31	-	125
32	-	10

- Legend
- 1 marble
 - 2 diorite
 - 3 silica vein
 - 4 sill
 - 5 sulphide stain + intrusive
 - 6 glacial drift
 - outcrop
 - ↖ strike and dip of vein
 - ↗ " " " fracture



LAKE CLAIMS:
 Property Geology +
 Rock sample locations
 D. Shaw - Sept. '85.
 Figure #4

hangingwall as distance from the main vein increases. The edge of the zone of alteration and fracturing is approximately one metre into the hangingwall of the main quartz vein.

Approximately four metres away, on the hangingwall side of the main vein, is another slightly thinner vein (Vein B) of white-grey, featureless quartz with patches of rusty staining. At its maximum width the vein is approximately 30 cm and strikes 170° - 350° with a dip of 85° to the east. The host rock is quartz-diorite which exhibits a stockwork pattern of thin (a few centimetres), quartz veins.

Veins 'A' and 'B' are the main mineralized structures seen in this main part of the road-cut section.

Approximately seventy-five metres along the road to the south from the main showing is a small cut exposing a silica micro-veined and slightly altered, dark green, weakly magnetic (pyrrhotite?) sill.

A further seventy-five metres along the road is the most southerly of the road-cut exposures. A mottled dark green and dark red skarn with fractures striking 050° - 230° and dipping at 85° to the southeast lies adjacent to a magnetite and chalcopyrite in quartz, veined basic intrusive.

Soil Sampling Programme

Eleven soil samples were taken from the upper B zone soil horizon immediately overlying the main part of the road-cut section (Figure #6).

Discussion of Results from Soil Sampling Programme

The soil samples span a distance of forty-four metres and go over the area of the two main veins (Veins A and B). In only two of the eleven samples was any gold detected, yet the two veins which occur in

LAKE CLAIMS - ROAD CUT SECTION

MAIN SHOWING (viewed looking east).

Geology

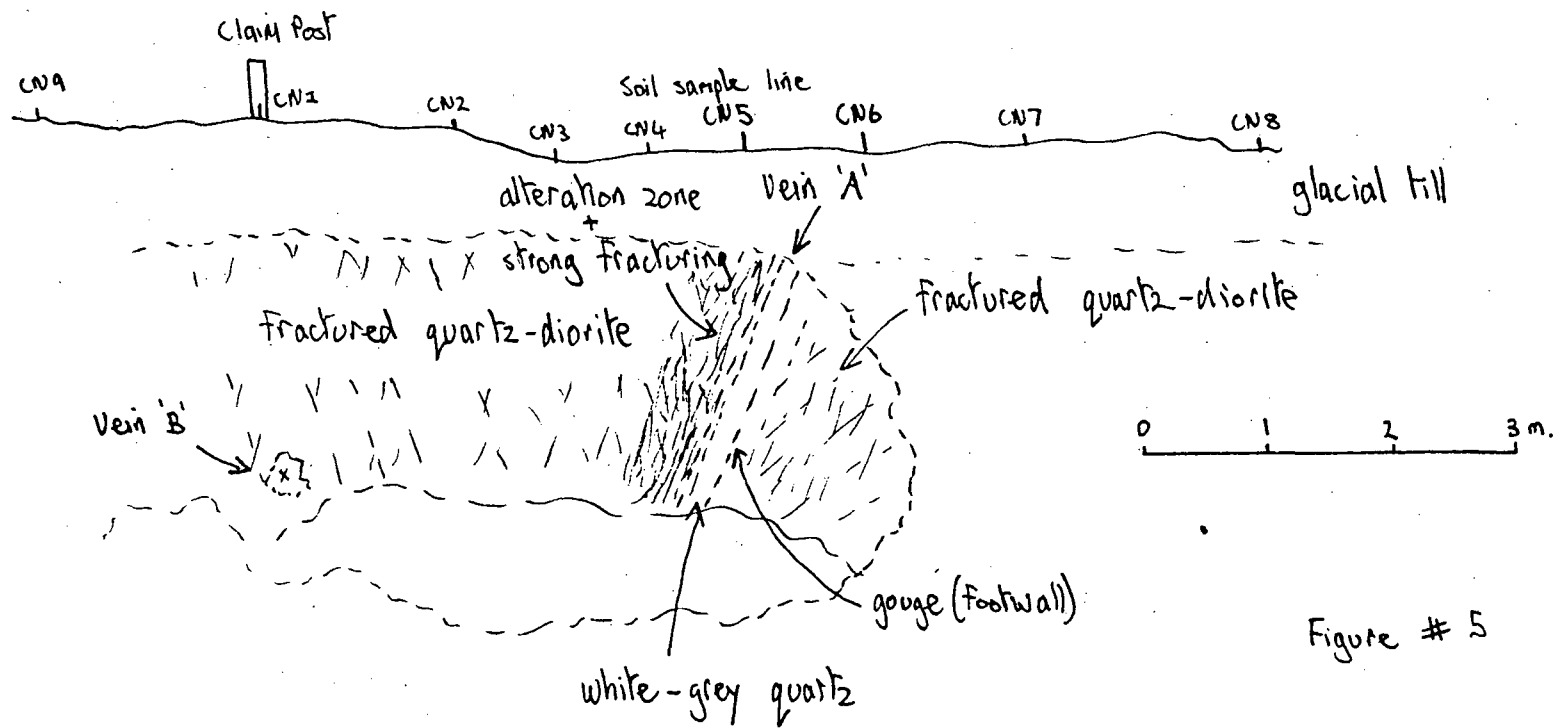


Figure # 5

the underlying bedrock have been shown to contain anomalous amounts of gold (see Geochemical Results of Soil Sampling Programme).

Consequently, either the upper B zone soil horizon is not the one within which gold sourced in the bedrock becomes concentrated, or the overburden depth is sufficient to mask the veins' presence.

Arsenic also exhibits uniformly low values with little statistical variation.

Whilst the number of samples in the study is limited, the fact that there was no reflection in any of them of the gold-bearing quartz veins in the underlying bedrock does not reflect positively on the potential of soil surveys on these claims.

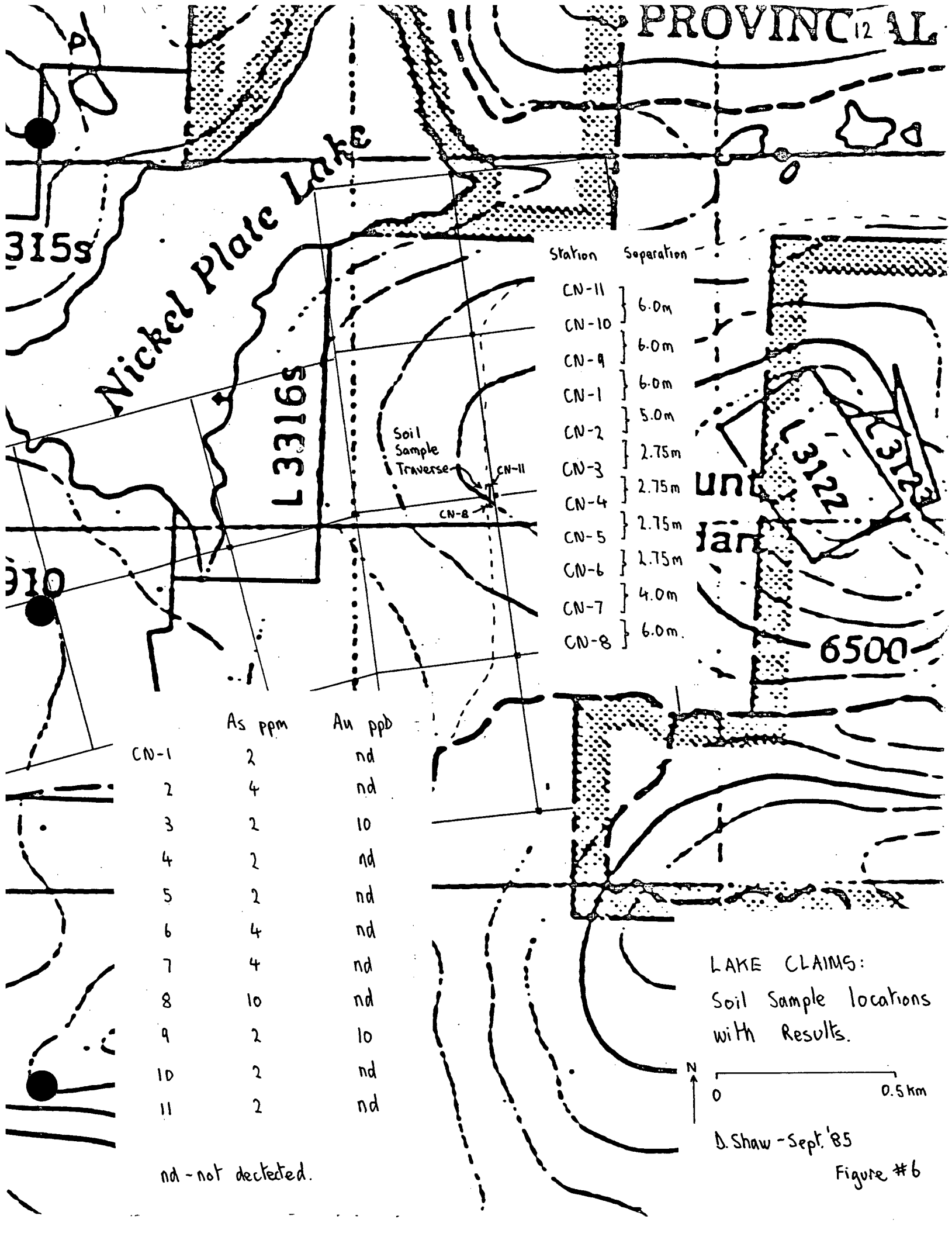
Rock Sampling Programme

A total of eleven rock samples were taken on the Lake Claims; all of the samples were collected on the road-cut section (Figure #7).

Discussion of Rock Sample Geochemical Results

The eleven rock samples were geochemically analysed for their arsenic and gold content (Figure #7). The highest gold value recorded is 3630 ppb, just over one tenth of an ounce per ton. Three of the samples contained more than 10,000 ppm of arsenic. With a restricted number of samples it is not possible to make any statistical correlations. However, it is quite probable that the relationship noted regionally between gold and arsenic (via arsenopyrite) within quartz veins also exists on the Lake Claims.

Background values for both gold and arsenic are unknown. Six of the eight samples analysed for arsenic contained greater than 100 ppm, four contained 1000 ppm or more and three contained greater than 10,000

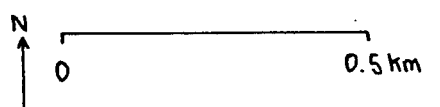


Station	Separation
CN-11	6.0m
CN-10	
CN-9	6.0m
CN-1	6.0m
CN-2	5.0m
CN-3	2.75m
CN-4	2.75m
CN-5	2.75m
CN-6	2.75m
CN-7	4.0m
CN-8	6.0m

	As ppm	Au ppb
CN-1	2	nd
2	4	nd
3	2	10
4	2	nd
5	2	nd
6	4	nd
7	4	nd
8	10	nd
9	2	10
10	2	nd
11	2	nd

nd - not detected.

LAKE CLAIMS:
Soil Sample locations
with Results.



D. Shaw - Sept. '85

Figure #6

LAKE CLAIMS - ROAD CUT SECTION

MAIN SHOWING (viewed looking east)

SAMPLE LOCATIONS (ROCK)

• GEOCHEMICAL RESULTS (arsenic ppm. / gold ppb).

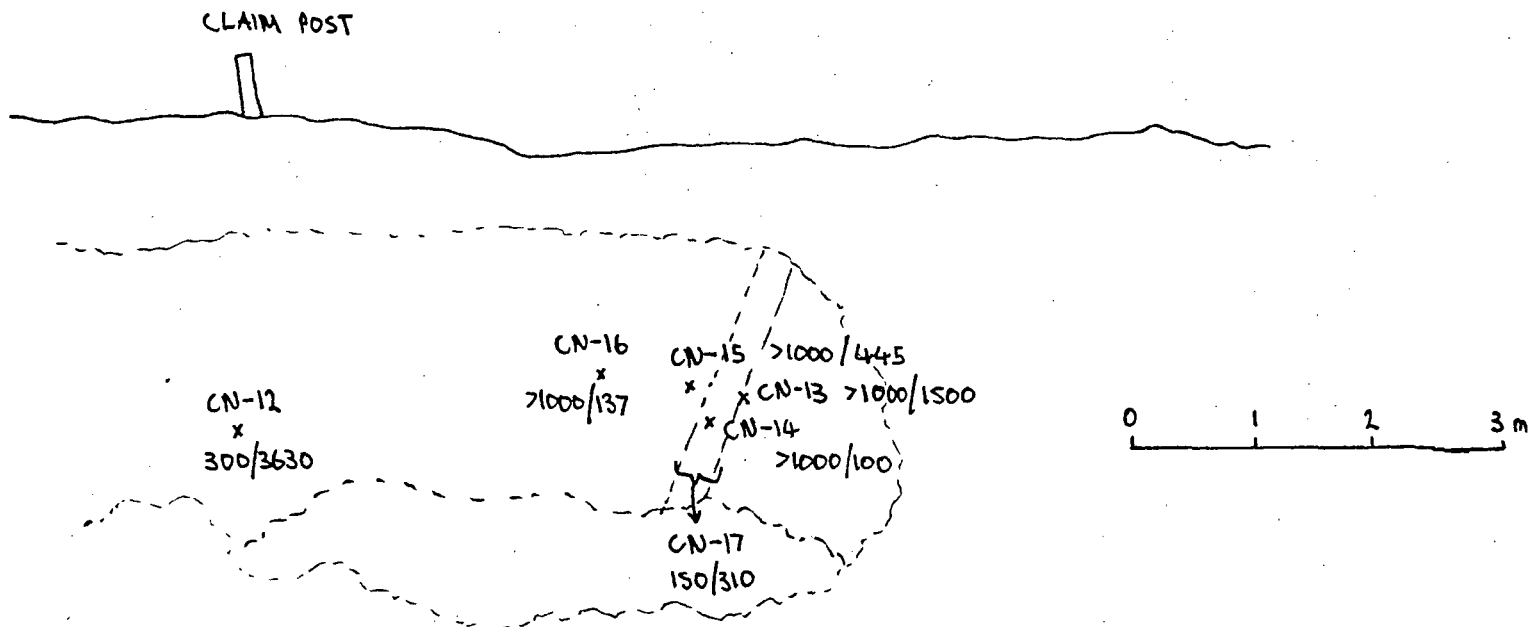


Figure # 7

ppm. It would not be unreasonable to propose that those with 1000 ppm or more are anomalous.

Of the eleven rock samples analysed nine contained 100 ppb or more of gold and two of these contained greater than 1000 ppb. The majority of the samples would therefore probably be anomalous within the bounds of a larger sample set.

Conclusions and Recommendations

The Lake Claims Group is covered by glacially derived drift deposits which have obscured the bedrock exposure. Outcrops of bedrock are limited to partially slumped trenches and road-cut exposures. At the latter, two veins, Vein 'A' and Vein 'B', have been opened up by a backhoe and sampled. The results with regard to gold content are extremely interesting as is the association of a quartz-filled stockwork fracture zone and a strong alteration of the host rock. The results of a soil sampling traverse across the glacial cover over the veins failed to indicate the presence of gold-bearing structures.

An association recognized in the Lake Claims road-cuts which is significant with regard to mineralization in the Hedley region to the west is that of marble and the mottled skarn.

Further work on the Lake Claims is definitely warranted; the vein system which is now more clearly exposed in the road-cut requires exploration both along strike and down-dip. The marble-massive sulphide skarn association should also be further investigated.

Recommended Work Programme

In order to further explore the vein and stockwork fracture system plus associated alteration along strike and down-dip, the following is

recommended:

- 1) Further backhoe trenching to extend the length of the road-cut and rigorous sampling of quartz veins, contact zones and alteration zones to further define the location of the anomalous gold values within the fracture system.
- 2) A more comprehensive soil sampling programme that is to be preceded by a test pit (to establish if one particular soil horizon has anomalous precious metal values, each soil horizon being individually sampled) and by a test grid. The latter should be at ninety degrees to the orientation of Vein 'A', the main structure. If and when it has been established that mineralization within bedrock can be identified via soil sampling, the comprehensive programme should be initiated. Geochemical analysis of both rock and soil samples should include arsenic, gold and silver.
- 3) A V.L.F. survey should be conducted in order to try and map the quartz vein-stockwork fracture zone along strike. (To the east the glacial cover will probably diminish with a rise in topography whilst to the west it may increase as lower elevations occur towards the lake. Therefore both the soil and geophysical surveys should initially be oriented along strike, i.e. the strike of Vein 'A' to the east.)
- 4) Once the main fracture system has been geophysically mapped on surface to the east it should be systematically trenched across its strike in order to obtain samples for assaying and to determine its along strike width variation.

- 5) Finally, with sufficient encouragement along strike vis-à-vis width and grade the mineralized fracture system should be diamond drilled to obtain similar information down-dip.
- 6) The marble-massive sulphide skarn associated should be explored via a magnetometer survey. This may be done in conjunction with the V.L.F. survey referred to earlier utilising the grid established for the soil survey. Any anomalies generated should be investigated with a diamond drill programme.

References

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Minister of Mines Reports: 1982, p. A186; 1931, p. A134.

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Certificate

I, David Shaw, do certify that:

1. I am a graduate of the University of Sheffield, England (1973), and hold a B.Sc. (Hons) degree in Geology.
2. I am a graduate of Carleton University, Ottawa (1980) and hold a Ph.D. degree in Structural Geology.
3. I have been practising my profession for six years.
4. The information for the accompanying report is based on a property examination made by myself and on the references cited.
5. I have no direct or indirect interest in the property described herein or in Canova Resources Ltd.
6. This report may be utilized by Canova Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

September 26, 1985.
Calgary, Alberta

David Shaw, Ph.D.

Appendix 1

1985 Exploration Programme
Lake Claim Group
Costs Incurred

Period: July 2, 3, 4, 5 (field); September 13, 14, 15, 16 (office)

1. Labour:

	<u>Position</u>	<u>Field</u>	<u>Office</u>		<u>Cost</u>
D. Shaw	geologist	3.5	3.5	@ \$300/day	\$2100.00
R. Walleen	assistant	2		@ \$10/hr for 6 hrs/day	\$ 120.00
D. Ashton	assistant	4		@ \$10/hr for 6 hrs/day	\$ 240.00
R. McCrae	prospector	2		@ \$10/hr for 6 hrs/day	\$ 120.00

2. Travel:

Shaw - airfare Vancouver/Penticton return \$ 216.00

3. Food & Accommodation:

Shaw 4 days x \$30/day \$ 120.00
4 nights x \$68/night \$ 288.00

4. Vehicle (4x4):

4 days x \$80/day \$ 320.00
gasoline \$ 80.00

5. Backhoe: 1 day @ \$360.day

\$ 360.00

6. Analysis:

Rocks: 11 rocks @ \$17.50 each \$ 192.50
Soils: 11 soils @ \$10.00 each \$ 110.00

7. Report Typing: 23 pages @ \$2.25/page

\$ 51.75

TOTAL

\$4318.25

Appendix 2

Analytical Method: Rock and Soil Sampling Programme

Soil samples were placed in kraft wet strength soil bags, air dried and shipped to Vangeochem Laboratory, Vancouver, B.C. The samples were further dried and then sieved, with the -80 mesh portion being retained for analysis. Rock samples were crushed and then pulverized in a ring grinder to -100 mesh. For Au determination, a fire assay-atomic absorption technique is used with the fire assay bead being dissolved in HCl and HNO₃ and then analyzed by conventional atomic absorption techniques. The As analyses are done by standard colorometric techniques following an HClO₄ plus HNO₃ digestion.

Appendix 3

Results from Soil Sampling Programme

Sample #	As ppm	Au ppb
CN 1	2	nd
CN 2	4	nd
CN 3	2	10
CN 4	2	nd
CN 5	2	nd
CN 6	4	nd
CN 7	4	nd
CN 8	10	nd
CN 9	2	10
CN 10	2	nd
CN 11	2	nd

Appendix 4

Results of Rock Sampling Programme

Sample #	As ppm	Au ppb
CN 12	300	3630
CN 13	>1000	1500
CN 14	>1000	100
CN 15	>1000	445
CN 16	1000	137
CN 17	150	310
CN 18	45	250
CN 19	15	305
CN 30	---	60
CN 31	---	125
CN 32	---	10

--- not analysed for

Appendix 5

Rock Sample Description.

- CN-12 massive, white-grey, rusty stained quartz from vein
- CN-13 white-grey, rusty stained quartz from footwall contact of Vein A with partly silicified quartz diorite
- CN-14 white-grey, rusty stained quartz from central part of Vein A
- CN-15 white-grey, rusty stained quartz from hangingwall contact of Vein A with highly altered quartz-diorite
- CN-16 rusty stained, grey quartz from minor vein one metre into hangingwall of Vein A
- CN-17 composite sample across Vein A, white-grey, rusty stained quartz
- CN-18 micro-quartz veined and partly altered, weakly magnetic, basic intrusive
- CN-19 magnetite and chalcopyrite veined, red and green mottled skarn
- CN-30 grab samples from Vein A - white/grey, rusty quartz
- CN-31 grab samples from Vein A - white/grey, rusty quartz
- CN-32 grab samples from Vein A - white/grey, rusty quartz