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GEOLOGICAL AND GEOCHEMICAL REPORT on the

ZINCTON PROPERTIES (Phroso)

Slocan Mining Division
British Columbia

NTS: 82K/03
Latitude: 50°02'N Longitude: 117°12'W

OWNER: John Bell, Esq. Vancouver, B.C.
OPERATOR: Nomad Energy and Resources Ltd., Vancouver, B.C.

Hugh Copland
Geologist

May 20, 1983

SUMMARY

The Zincton Properties consist of 13 crown-granted claims totalling approximately 156 hectares in area. The claims are located 15 kilometres northeast of New Denver, B.C. in the Slocan Mining Division. The Slocan area was once an important silver, lead, and zinc producing area. The claims are adjacent to the now abandoned Lucky Jim Mine. Soil geochemistry on the claim group has revealed a zinc-silver anomaly over the area sampled. It is recommended to extent a soil geochemistry and geological grid over the claim group followed by geophysis, trenching, and diamond drilling at a total estimated cost of $133,800.

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Slocan Mining Division, Britsh Columbia

INTRODUCTION

The Zincton Properties consist of a group of 13 crown-granted claims located 15 kilometres northeast of New Denver. An examination and sampling of the properties was carried out during the period May 10 and May 11, 1983. During this period a total of 23 soil, 3 stream sediment and 3 rock samples were collected.

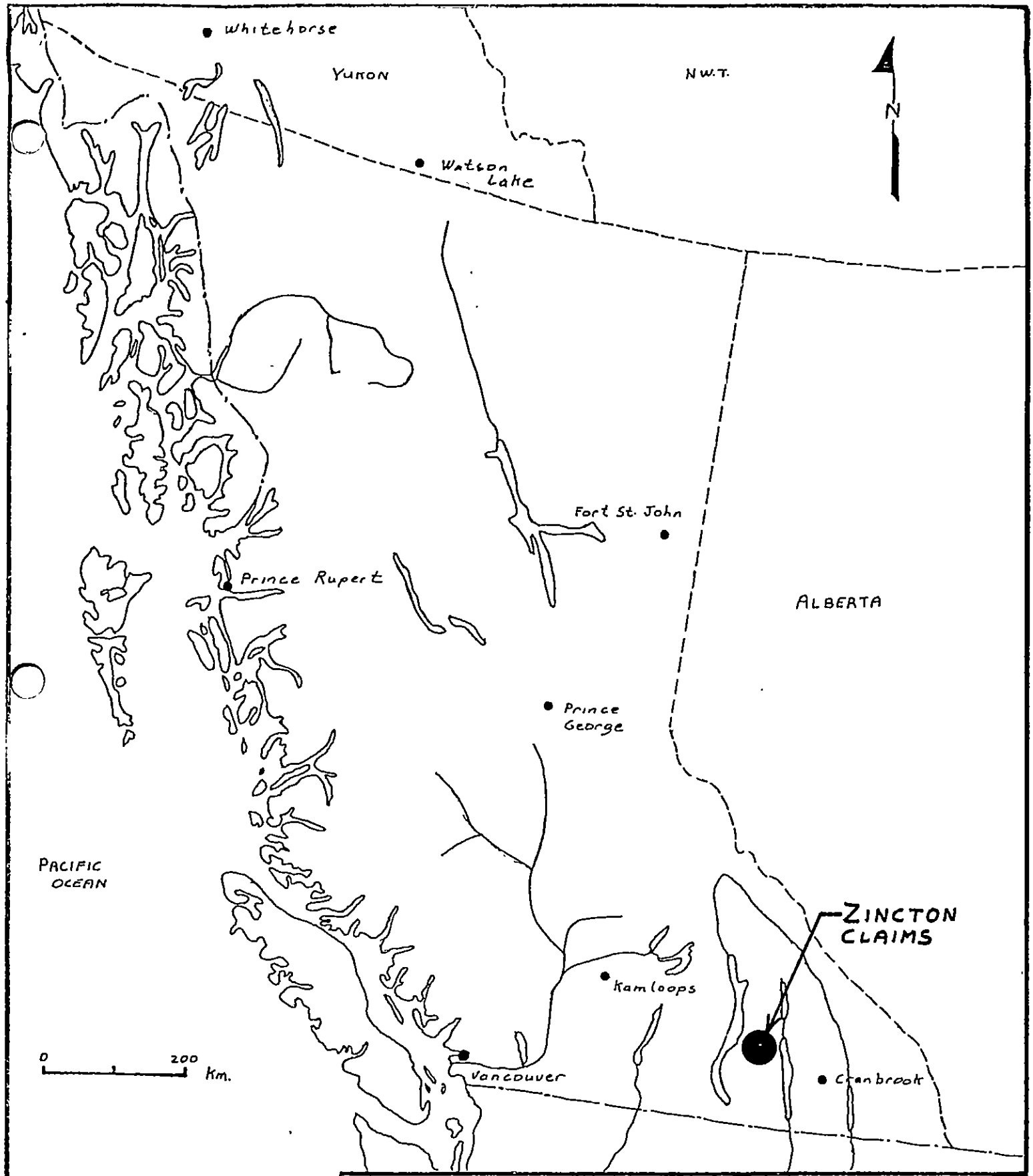
PROPERTY AND LOCATION

The property consists of 13 crown-granted claims located between New Denver and Kaslo on B.C. Highway 31A near Bear Lake (see fig. 1). The claims spread over both sides of the valley and are easily accessible from the highway (see fig. 2).

The claim names, lot numbers and approximate areas are listed in Table 1 below. Figure 3 shows an up-to-date claim map of the area.

Claim	Lot No.	Area (hectares)
Seattle Fraction	4555	7.52
Non Pariel	4179	19.37
Black Bird	4180	12.62
Ironside	4182	12.24
Bessie	4183	12.19
Gentle Annie	4184	14.45
Non Pariel Fraction	4554	5.72
Century Fraction	4557	8.68
Alta	853	19.30
Dragon	848	14.48
Moses	856	10.95
John Plummer Fraction	851	2.07
Phroso	852	16.80
		Total 156.39 hc

TABLE 1. Zincton Properties



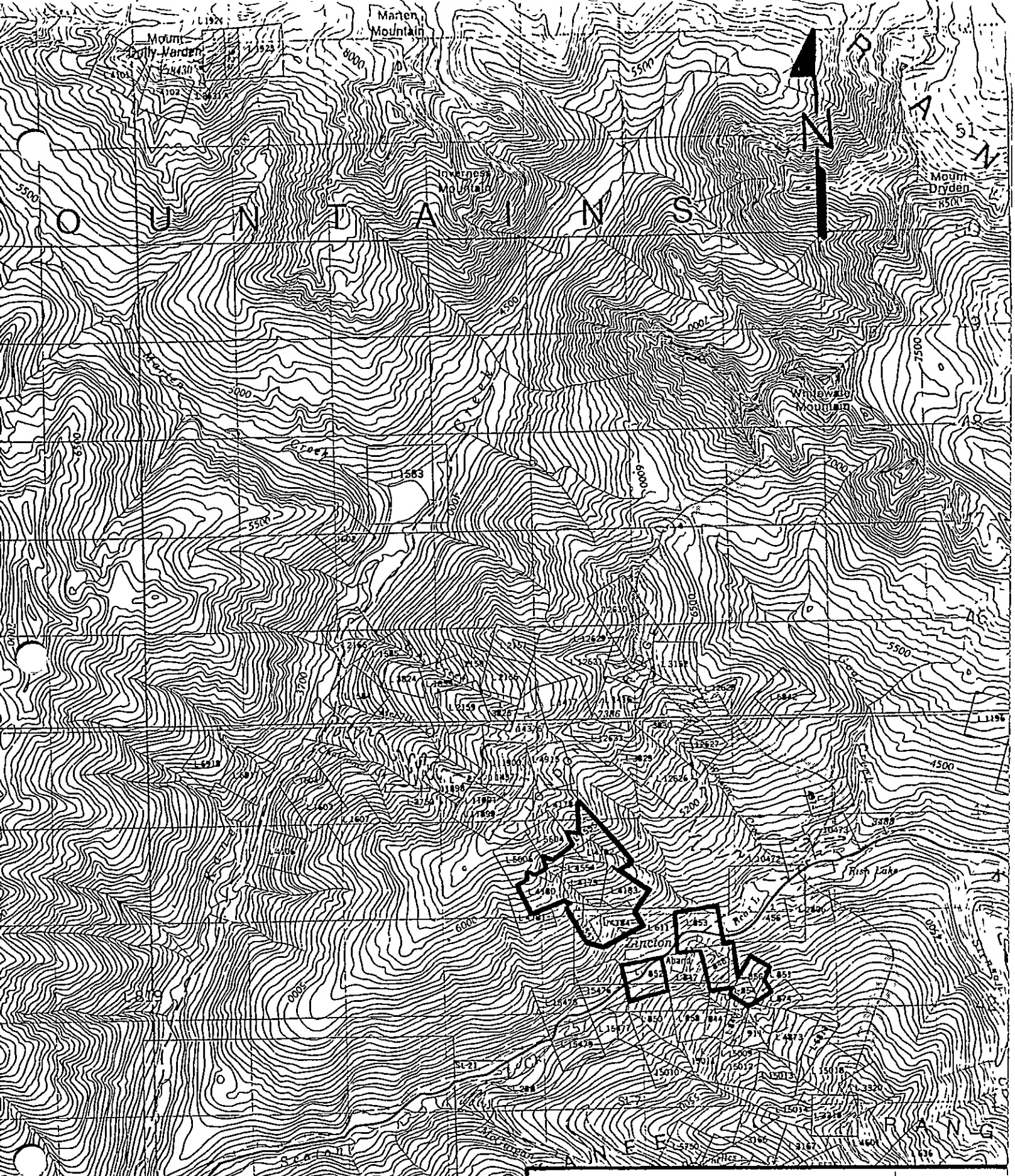
LOCATION MAP FIG. 1

ZINCTON CLAIMS

SLOCAN MINING DIVISION

British Columbia

May 1983

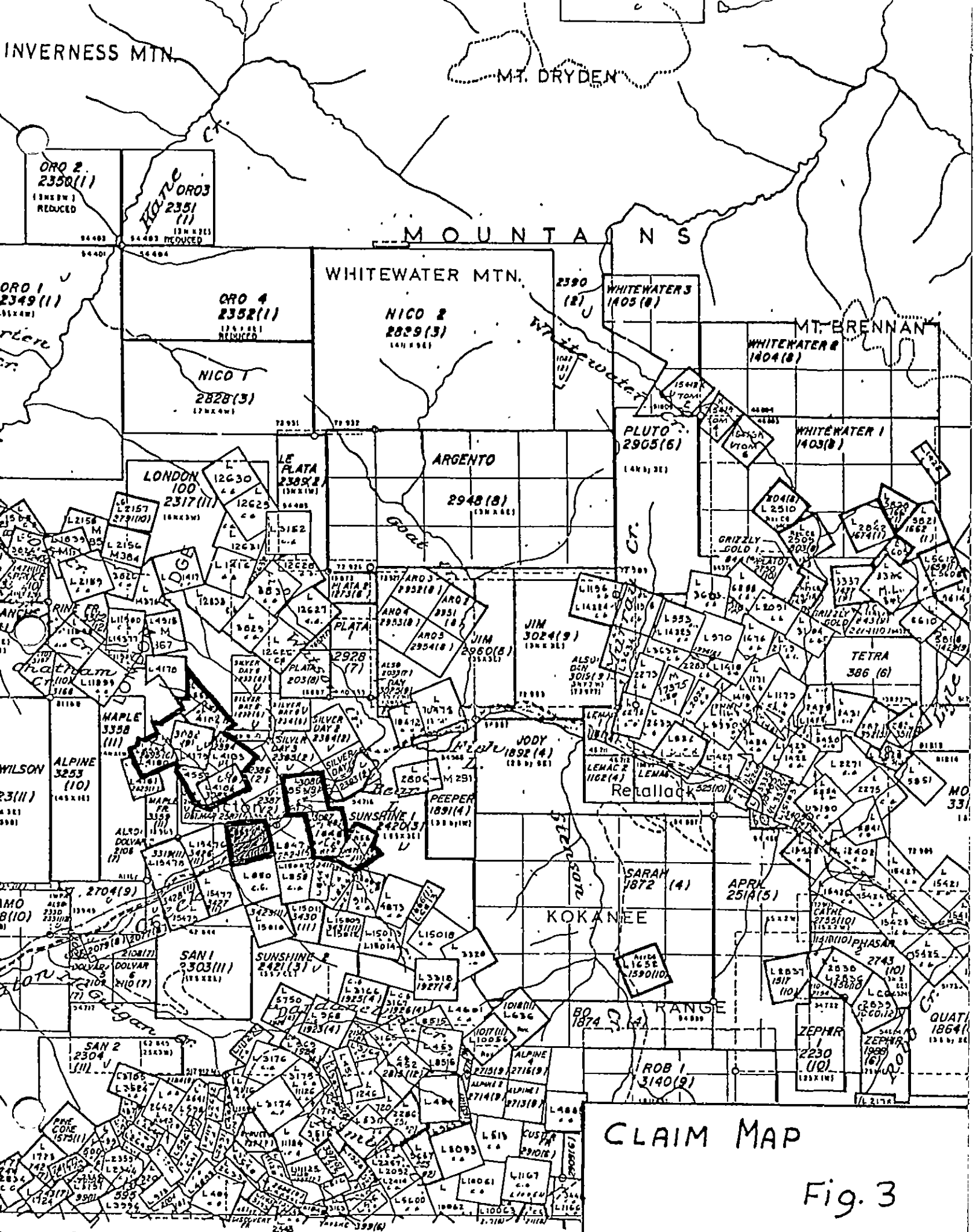


PROPERTY LOCATION

0 1000 2000 3000 metres

Scale: 1:50,000

Fig. 2


INVERNESS MTN.
MT. DRYDEN
MOUNTAINS
WHITEWATER MTN.
MT. BRENNAN
ORO 2
2350(1)
REDUCED
ORO 3
2351
(1)
REDUCED
ORO 1
2349(1)
ORO 4
2352(1)
NICO 1
2828(3)
NICO 2
2829(3)
2390
(2)
WHITEWATER 3
1405(8)
WHITEWATER 2
1404(8)
WHITEWATER 1
1403(8)
PLUTO
2905(6)
ARGENTO
2948(8)
LONDON
100
2317(11)
LE PLATA
2389(2)
PLATA
2928
(7)
PLATA
205(8)
JIM
2960(8)
JIM
3024(9)
JODY
1892(4)
PEEPER
1891(4)
SUNSHINE 1
2420(3)
SUNSHINE 2
2421(3)
MAPLE
3358
(11)
ALPINE
3253
(10)
SAN 1
2303(11)
SAN 2
2304
(11)
TETRA
386 (6)
Retallack
325(10)
SARAH
1872 (4)
APRIL
2518(5)
KOKANEE
RANGE
ROB 1
3140(9)
ZEPHYR
1
2230
(10)
PHASAR
2743
(10)
CAINE
2755(10)
QUATI
1864(
BO
1874
2704(9)
Goat Ck.
Whitewater Ck.
Lyle Ck.
Duncan R.
Gulgan Cr.
Cr.
SLOCAN MINING DIVISION
CLAIM MAP
Fig. 3
0
1000
2000
metres

TOPOGRAPHY AND VEGETATION

The claims lie within the Slocan and Kokanee Ranges of the Selkirk Mountains on either side of a narrow valley cut by Seaton Creek. Elevation varies from a low of 1065 metres in the valley to 1925 metres on the north slope and 1525 metres on the south slope of the valley. Precipitation in the area averages 75 to 100 centimetres, with a mean daily temperature in January of -5 to -10°C and in July 16 to 18°C.

The claims are primarily covered by poplar, birch, and alder with minor stands of pine and fir trees. Numerous southeast and northwest flowing creeks drain the claims into Seaton Creek.

HISTORY

There is no record of mineral production from the 13 crown-granted claims, although a partially caved adit is present on the Gentle Annie claim. Former producers are located immediately adjacent to the Zincton Properties. The Lucky Jim Mine borders the claim group to the south, while the McAllister Group, Miner Boy, London Hill Group, Silver Glance, Panama, and Empress are all former silver producers north of the properties. In recent years the later four have undergone extensive drilling and evaluation by the London Silver Corporation.

The Lucky Jim Mine produced 18,634,369 g of silver, 3,694,182 kg of lead, 79,798,691 kg of zinc, 2,800 g of gold, and minor cadmium between 1893 and 1959 (B.C. EMR Minifile, p. 2446). The others have produced lesser but significant amounts of lead, zinc, and silver. Within 10 kilometres of the Zincton area are at least 100 prospects or former producers of Pb, Zn, and Ag.

GEOLOGY

Regional Geology

The properties lie within the Omineca Crystalline Belt. This belt consists of deformed sedimentary rocks with major metamorphic and plutonic complexes throughout. Specifically the area falls within the Kootenay Arc, a thick sequence of Paleozoic and Mesozoic

sedimentary and volcanic rocks.

The Kootenay Arc is bounded by the Shuswap and Monashee Metamorphic complexes on the west, and the Purcell Mountains on the east. Two large Jurassic batholiths, the Nelson and Kuskanax, intrude the sedimentary rocks. In the vicinity of the property Slocan Group phyllites, argillites, and quartzites are interbedded with thin beds of limestone. To the east of the Zincton area a 3 kilometre wide band of Kaslo Group meta-andesites and tuffs crop out. Small stocks of feldspar porphyry of unknown age are scattered throughout the Slocan Group in the Zincton area, see Table 2 Table of Formations.

Property Geology

The properties are primarily underlain by rocks of the Slocan Group. A black, fissile, and locally pyritiferous slate predominates in the lower elevations of the claims. This slate has been intruded by sills of light coloured granitic rocks ranging in thickness from less than one metre to several metres. This slate represents the basal portion of the Slocan Group and is reported to be approximately 2000 metres in thickness (Hedley 1945, p. 7).

In the higher elevations of the claims a light grey to tan quartzite and a dark grey banded argillite are interbedded with the slates. Contacts between the units are not exposed on the claims. Barren, white, vuggy quartz veins less than 0.5 metres in thickness are exposed in the quartzite unit. The continuity of these veins is lost in the incompetent snaly beds.

To the south of the highway, just west of the claims, beds of a dark brown to grey limestone up to 10 metres in thickness are interbedded with the slate. Although not seen to crop out north of the highway, regional geology and published maps (GSC O.F. 432, 1976) suggest that the limestone beds continue to the northeast, cutting through the claim group. Small pieces of limestone float in the area confirm this possibility.

TABLE 2: Table of Formations

Quaternary

Qs	Glacial Deposits

Cretaceous and/or Jurassic

Kqm	Nelson Batholith: granodiorite, quartz monzonite, quartz diorite

Jurassic

JKx	Kuskanax Batholith: leucoquartz monzonite, leucogranite, syenite

Triassic to Jurassic

Slocan Group

RJsp	phyllite, argillite, quartzite, minor tuffaceous sediments
RJsc	limestone, minor argillite and quartzite
RJscg	conglomerate, sedimentary breccia, minor sandstone

Permian and/or Jurassic

PKv	Kaslo Group: meta-andesites

Mississippian to Pennsylvanian

uMms	Milford Group: sediments and meta-sediments

Cambrian to Devonian

PLs	Lardeau Group: sediments and meta-sediments
PBc	Badshot Formation: limestone

Hadrynian and/or Cambrian

Hw	Windermere Supergroup

adapted from: Read, 1976

Structure

Bedding orientation is consistent over the claim group with northwest strikes and moderate to steep southwest dips. Foliation is generally parallel to bedding throughout the slates. Small scale tight folds are evident throughout the shale and bedded argillites. The axial planes of the folds generally trend northwest with shallow southwest dips. Major faults in the area trend northwest.

Economic

The Lucky Jim Mine flanking the southern boundary of the property is a replacement type lead, zinc, silver deposit. Replacement of limestone by sphalerite, galena, and pyrite occurred in fracture zones running northeast through the limestone. Slates flanking the replaced limestone bodies are usually pyritiferous. Ore from the mine was generally low grade, although a number of high grade zones were encountered.

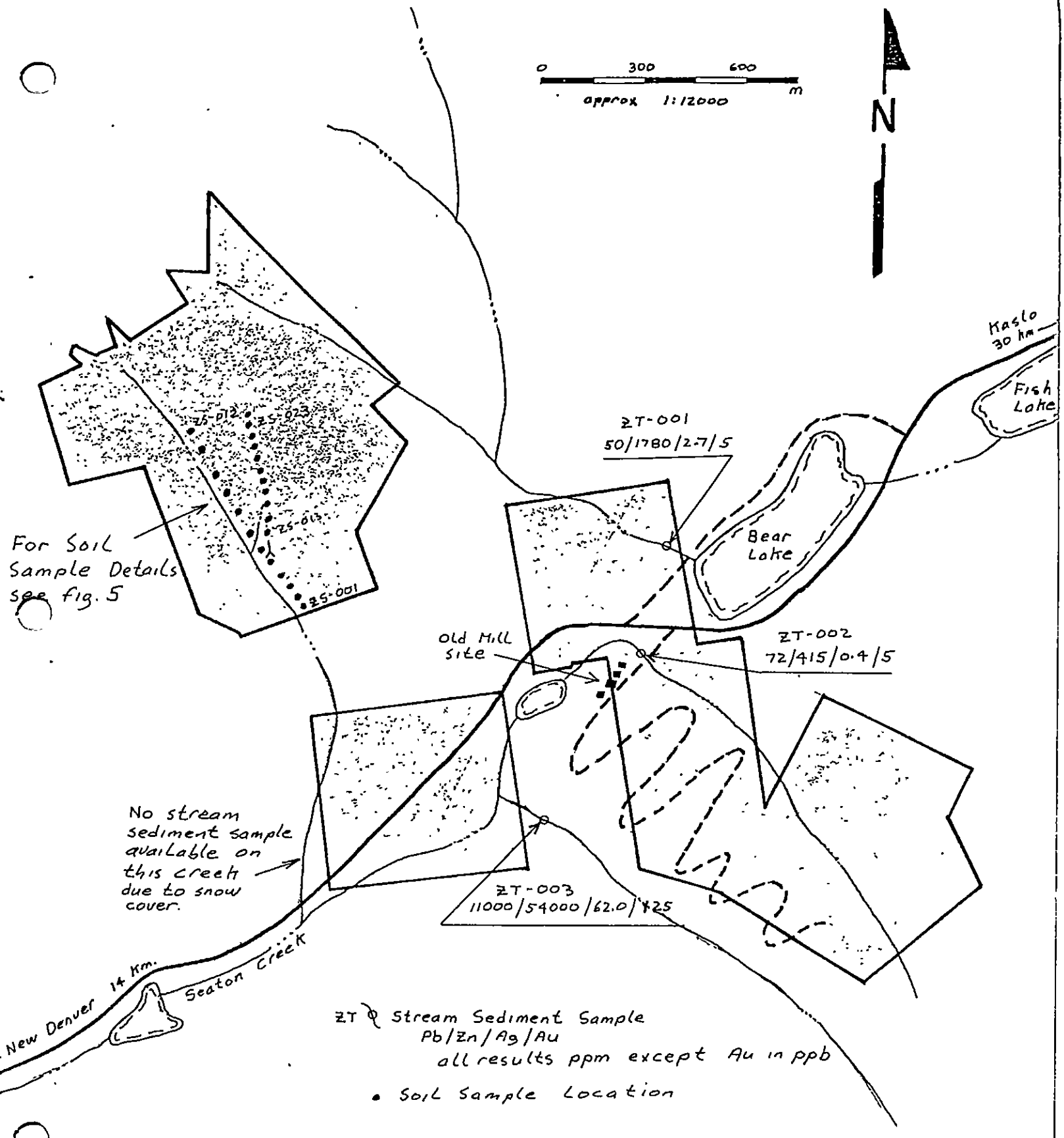
Along London Ridge to the north of the property ore occurs as veins of quartz containing freiburgite, argentite, galena, and sphalerite occurring in Slocan Group sediments. High grade zones of ore ran between 45 and 267 ounces of silver per ton from the London Hill Group (Cairnes 1935, p. 68).

GEOCHEMISTRY

Procedure

A total of 23 soil samples were collected along two lines, see fig. 4. The sampling interval was 50 metres where possible. Soil was taken from the B horizon ranging from a depth of 10 to 40 cm. and placed in standard wet strength kraft paper bags. Flagging tape noting the sample number and line distance was placed at the sample site.

Three stream sediment samples were collected from streams draining the property. The samples were collected from silt and sand sized material in the centre of the streams where possible. Approximately 1 to 2 kilograms of material was collected by hand



LEGEND

- STREAM
- HIGHWAY
- GRAVEL ROAD
- CLAIM BOUNDARY
- Adit

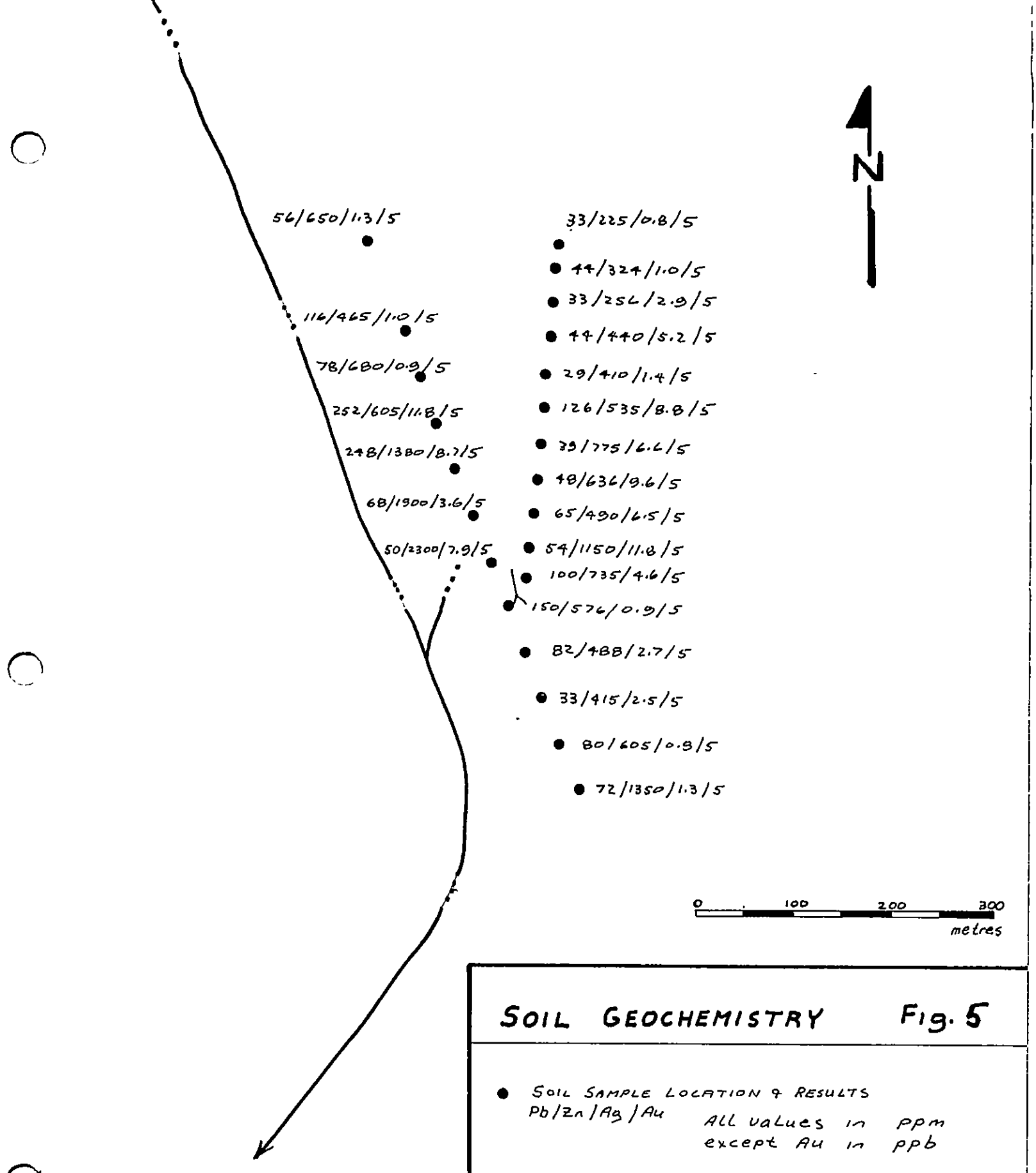
ZINCTON CLAIMS

SLOCAN MINING DIVISION
British Columbia
NTS: 82K/03

GEOCHEMICAL SAMPLES

H.C. May 19 1983

FIG. 4



SOIL GEOCHEMISTRY Fig. 5

- Soil Sample Location & Results
  Pb/Zn/Ag/Au All values in ppm except Au in ppb

Scale : 1 cm ≅ 50m

Stream

Adit

ZINCTON CLAIMS

SLOCAN MINING DIVISION

British Columbia

NTS : 82K/03

and placed in plastic bags. Flagging tape noting the sample number was placed at the site.

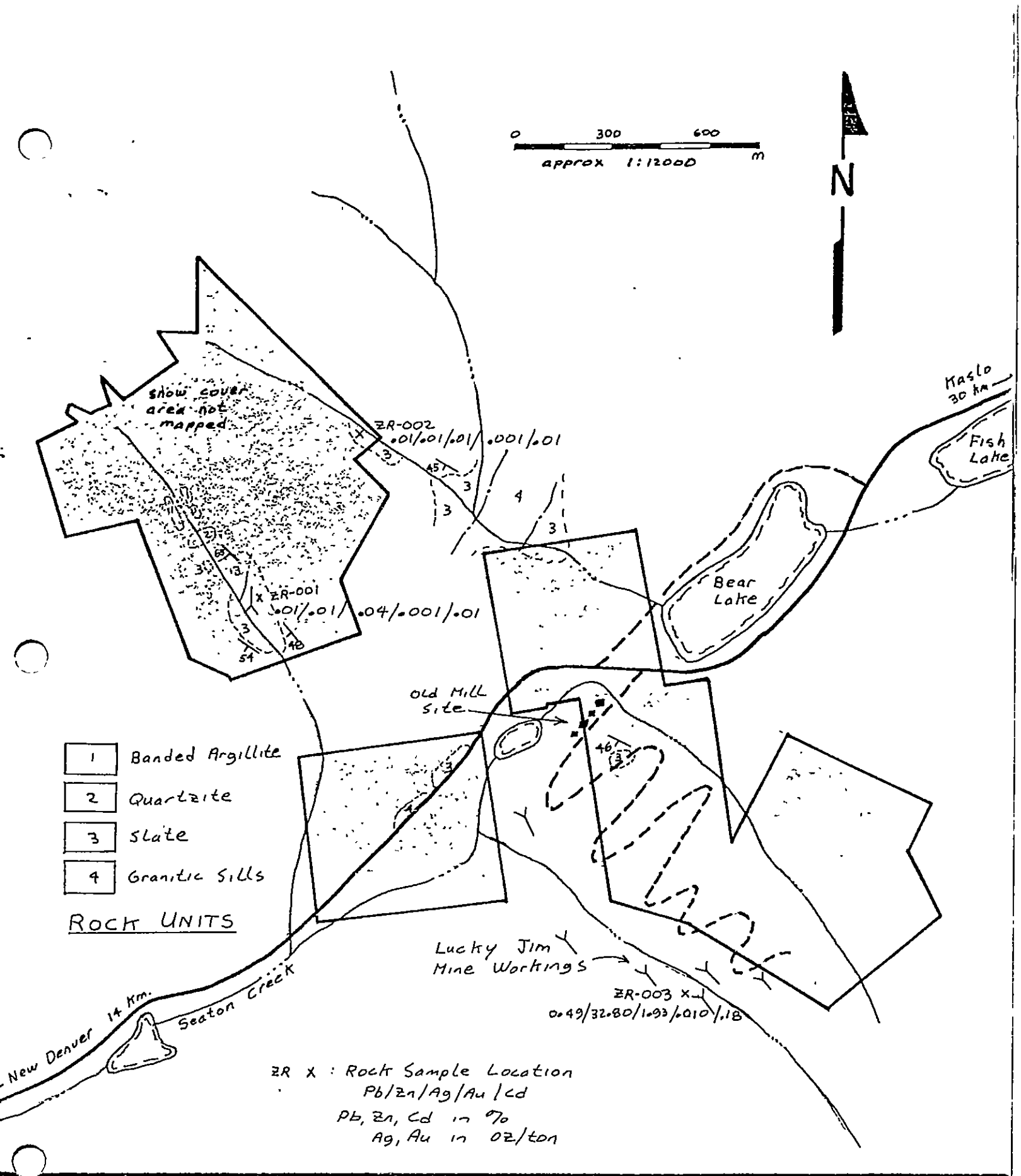
Three rock samples were collected at random from both outcrop and float found on the property. A description of these may be found in Table 3. All samples were taken to Acme Laboratories in Vancouver, B.C. for preparation and analysis. All samples were analysed for Pb, Zn, Ag, and Au. In addition the rocks were analysed for cadmium.

Results

Complete geochemical and assay results are tabled in Appendix 1. Soil and stream sample geochemistry results and locations are shown on figures 4 and 5. The total number of soil samples collected is too low to consider a complete statistical analysis of results. Sampling conducted in 1971 on the upper levels of the Lucky Jim Mine area, report threshold values of lead and zinc to be 100 and 250 ppm respectively (BC Assessment Report No. 3650, 1971). Utilizing these threshold values, the majority of the samples are anomalous with respect to zinc. One zone consisting of four samples north of the adit report values in excess of 1000 ppm zinc. Lead values remain low and below threshold except for a few spot samples. High silver values (2.5 ppm Ag considered threshold) reflect high zinc content.

Stream sediment samples ZT-001 and ZT-002 are moderately anomalous with respect to zinc but are low when compared to ZT-003. This sample was collected off the claim group from the stream directly draining the Lucky Jim Mine workings.

The assay values of rocks taken from the property (Table 3 and Fig. 6) are negligible. Sample ZR-003 taken west of the claims from a small vein on the Lucky Jim property returned high assay values in all elements.



LEGEND

- STREAM
- HIGHWAY
- GRAVEL ROAD
- CLAIM BOUNDARY
- Adit
- Bedding Orientation
- Outcrop
- Contact

ZINCTON CLAIMS

SLOCAN MINING DIVISION
British Columbia NTS: 82K/03

GEOLOGY & ASSAY LOCATIONS

H.C. May, 1983 FIG. 6

Sample No.	Description	Anomalous Values
ZR-001	Float below adit, vuggy quartz vein 2-4 cm. thick with wall rock replacement of limestone by pyrite, and pyrrhotite	none
ZR-002	pyritiferous slate	none
ZR-003	west of claims on Lucky Jim property, fracture zone in limestone, chip sample over 50 cm.; sphalerite, pyrite, galena in calcite, ankerite gangue	Zn 32.8% Ag 1.93 oz/ton Pb 0.49% Au 0.01 oz/ton Cd 0.18%

TABLE 3: Rock Sample Descriptions and Anomalous Values

CONCLUSIONS

The possibility for an economic lead, zinc, silver prospect on the Zincton properties is indicated by a favourable geological setting and numerous anomalous soil samples. Replacement type Pb, Zn, and Ag mineralization similiar to the Lucky Jim Mine may exist in the strike extension of limestone beds north of the highway. Silver mineralization may also occur in quartz veins found throughout the Slocan sediments on the claims, similiar to the London Ridge properties to the north.

RECOMMENDATIONS

A grid should be established over the claim area north of the highway and an extensive soil and geological survey completed over the area. This survey will establish the size and strength of the soil anomaly indicated by the initial sampling. Following a favourable geochemical program a geophysical survey over the grid may aid in delineating diamond drill targets.

Estimated cost of geochemical survey:

Grid, geology and sampling	$2300
Sample analysis	$ 800
Report preparation	$ 600
Contingencies 10%	$ 400
TOTAL:	$4100

ADDITION TO THE MAY 20, 1983 Geological and Geochemical Report on the
ZINCTON PROPERTIES, Slocan Mining Division

PROPOSED DEVELOPMENT PROGRAM

Phase 1

Establishment of a grid on the claim group north of the highway, and conducting an extensive soil geochemical and geophysical survey (VLF-EM and IP) along with detail geological mapping.

Establish grid	$2000
Soil geochemistry	2000
Geophysics	12000
Sample Analysis	4500
Report Preparation	2000
Contingencies(10%)	2300
Total	$24800

Phase 2

Upon successful identification of anomalies in Phase 1, trenching and diamond drilling of these areas could proceed.

Trenching	$15000
Site Preparation	10000
Drilling(600 m at $100/m)	60000
Sample Analysis	10000
Report Preparation	4000
Contingencies(10%)	10000
Total	$109000

TOTAL Phase 1 & 2: $133,800

Hugh Copland
Geologist July 18, 1983

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Weissenborn, A.E. editor
1970: Lead-Zinc Deposits in the Kootenay Arc; Washington Division of Mines and Geology, Bull. No. 61.

1979: British Columbia Ministry of Energy Mines and Resources Minifile of Mineral Occurrences, p. 2446.

CERTIFICATE

I, Hugh Copland, do hereby certify that:

1. I am a geologist residing at 5250 Ash Street, Vancouver, B.C. V5Z 3G4.

2. I am a graduate of the University of British Columbia with a B. Sc. (Honours) in Geological Sciences (1982); and of McMaster University with a B. Eng. (Mechanical) (1976).

3. I have practised my profession for the past 4 years in British Columbia, and the Yukon Territory.

4. I have no interest or holdings of any sort in Nomad Energy and Resources Ltd. nor do I expect to receive any interest in said company.

5. That this report is based on field work conducted by myself during May 1983 under the direction of Mr. A. Ashton, P. Eng.

Dated this 24th day of May, 1983, at Vancouver, B.C.

Hugh Copland
Geologist

APPENDIX

COST STATEMENT - Phroso Crown-granted claim

1. LABOUR

   i) Field Work

Geologist	0.5 days @ $115/ day	...	$ 58
Assistant	0.5 days @ 80/ day	...	40

   ii) Office Work

Report Preparation	0.5 days @ 115/day	...	58
			$156

2. ANALYTICAL COSTS

   i) Stream Sample

Preparation	$0.75 x 1 sample	...	0.75
Analysis (Pb,Zn,Ag,Au)	9.00 x 1	...	9.00
			$10

3. FOOD AND ACCOMMODATION

i) Food	...	30
ii) Accommodation	...	16
		$ 46

4. TRANSPORTATION

i) Vehicle Rental	...	40
ii) Gasoline and Oil	...	10
		$ 50

5. OFFICE SUPPLIES $ 5

6. FIELD SUPPLIES $ 10

TOTAL: $277

NOTE: The above costs have been calculated on an apportionment basis with the following claims: Zincton North Group, Zincton South Group, Tamarack No. 2, and CPR crown-granted claims.

$3414

ACME ANALYTICAL LABORATORIES LTD.
852 E. HASTINGS, VANCOUVER B.C.
PH:253-3158 TELEX:04-53124

DATE RECEIVED MAY 16 1983

DATE REPORTS MAILED May 18/83

GEOCHEMICAL ASSAY CERTIFICATE

A .500 GM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
THE SAMPLE IS DILUTED TO 10 MLS WITH WATER. ELEMENTS ANALYSED BY AA : CU, ZN, AG.
SAMPLE TYPE : SOIL AND STREAM SED
PB* RUN BY AA
AU* - 10 GM, IGNITED, HOT AQUA REGIA LEACH MIBK EXTRACTION, AA ANALYSIS.

ASSAYER _____ DEAN TOYE, CERTIFIED B.C. ASSAYER

NOMAD ENERGY FILE # 83-0561A PROJECT # ZN-83 PAGE# 1

SAMPLE	CU PPM	PB* PPM	ZN PPM	AG PPM	AU* PPB
SX-001	-	20	150	.4	5
SX-002	-	16	180	.3	5
SX-003	-	18	256	.3	5
SX-004	-	14	135	.4	5
ZS-001	-	72	1350	1.3	5
ZS-002	-	80	605	.9	5
ZS-003	-	33	415	2.5	5
ZS-004	-	82	488	2.7	5
ZS-005	-	150	576	.9	5
ZS-006	-	50	2300	7.9	5
ZS-007	-	68	1900	3.6	5
ZS-008	-	248	1380	8.7	5
ZS-009	-	252	605	11.8	5
ZS-010	-	78	680	.9	5
ZS-011	-	116	465	1.0	5
ZS-012	-	56	650	1.3	5
ZS-013	-	100	735	4.6	5
ZS-014	-	54	1150	11.8	5
ZS-015	-	65	490	6.5	5
ZS-016	-	48	636	9.6	5
ZS-017	-	39	775	6.6	5
ZS-018	-	126	535	8.8	5
ZS-019	-	29	410	1.4	5
ZS-020	-	44	440	5.2	5
ZS-021	-	33	256	2.9	5
ZS-022	-	44	324	1.0	5
ZS-023	-	33	225	.8	5
ZT-001 SS	-	50	1780	2.7	5
ZT-002 SS	-	72	415	.4	5
ZT-003 SS	-	11000	54000	62.0	125
ST-001 SS	-	46	215	.2	5
ST-002 SS	-	21	145	.1	5
ST-003 SS	-	16	128	.5	5
QT-001 SS	252	-	-	.3	5

Zincton Properties

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DATE RECEIVED MAY 16 1983

DATE REPORTS MAILED May 18/83

ASSAY CERTIFICATE

SAMPLE TYPE : ROCK - CRUSHED AND PRULVERIZED TO -100 MESH.

ASSAYER __ DEAN TOYE, CERTIFIED B.C. ASSAYER

NOMAD FILE # 83-0561B PROJECT # ZN-83 PAGE# 1

SAMPLE	CU %	PB %	ZN %	AG OZ/TON	AU OZ/TON	CD %
RX-001	-	3.98	6.30	38.60	.001	.03
RX-002	-	.83	5.18	11.60	.001	.03
QR-001	4.19	-	-	1.33	.001	-
QR-002	2.32	-	-	.81	.004	-
ZR-001	-	.01	.01	.04	.001	.01
ZR-002	-	.01	.01	.01	.001	.01
ZR-003	-	.49	32.80	1.93	.010	.18

Zincton Properties