

LOG NO:	APR 08 1992	RD.
ACTION:		
FILE NO:		

ASSESSMENT REPORT  
on a  
GEOPHYSICAL SURVEY

Conducted on the  
Clinton Claims  
NTS 92P/2W  
Clinton Mining Division  
Lat. 51° 09' Long. 120° 54'

Owned by  
Charles Boitard

Operated by  
Menika Mining Ltd. (N.P.L)

Author:

John P. La Rue

Lillooet, B.C.

January 10, 1992

**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

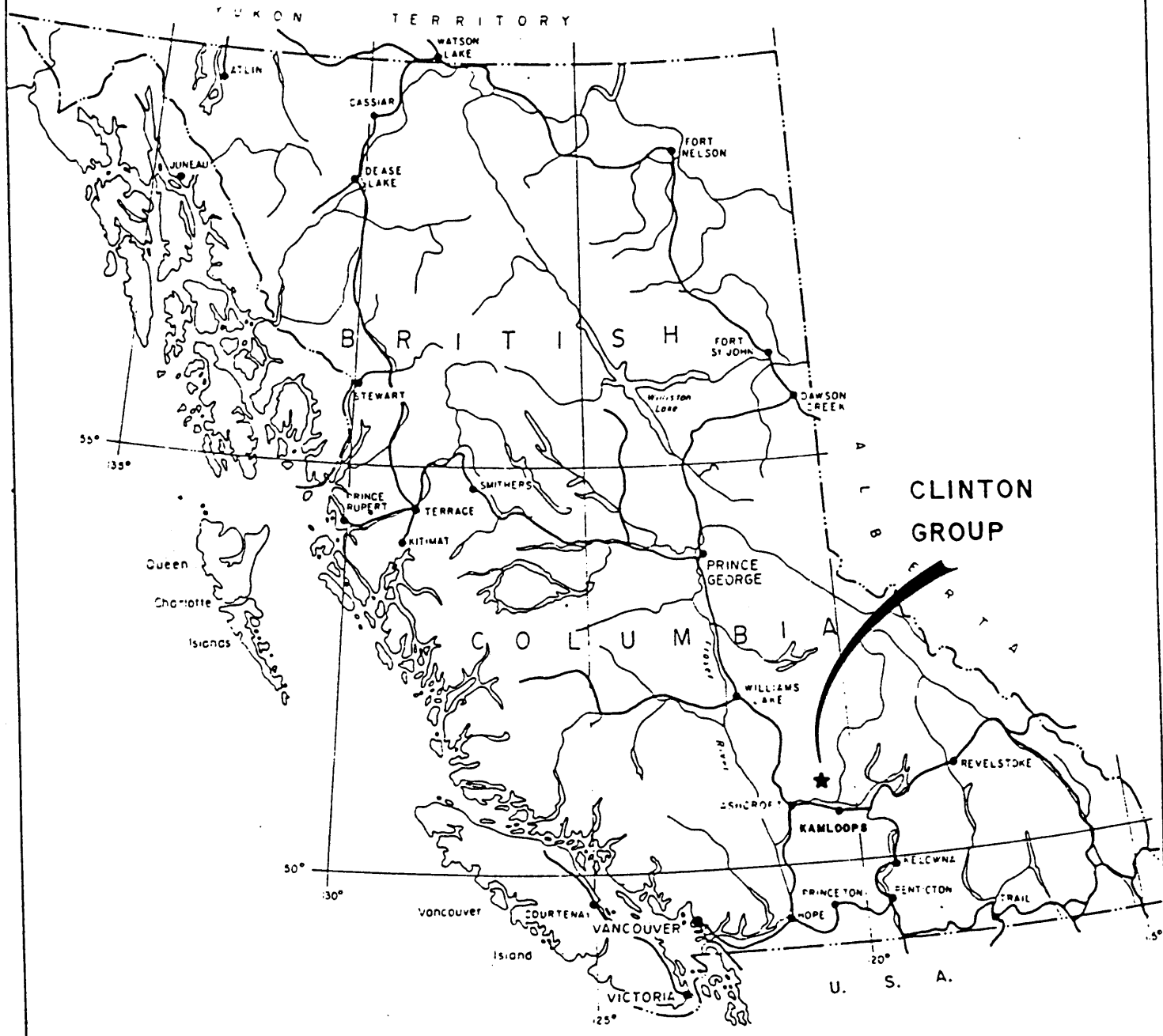
**22,235**

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CLINTON GROUP

### LOCATION MAP

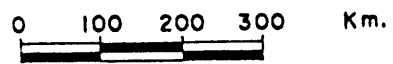
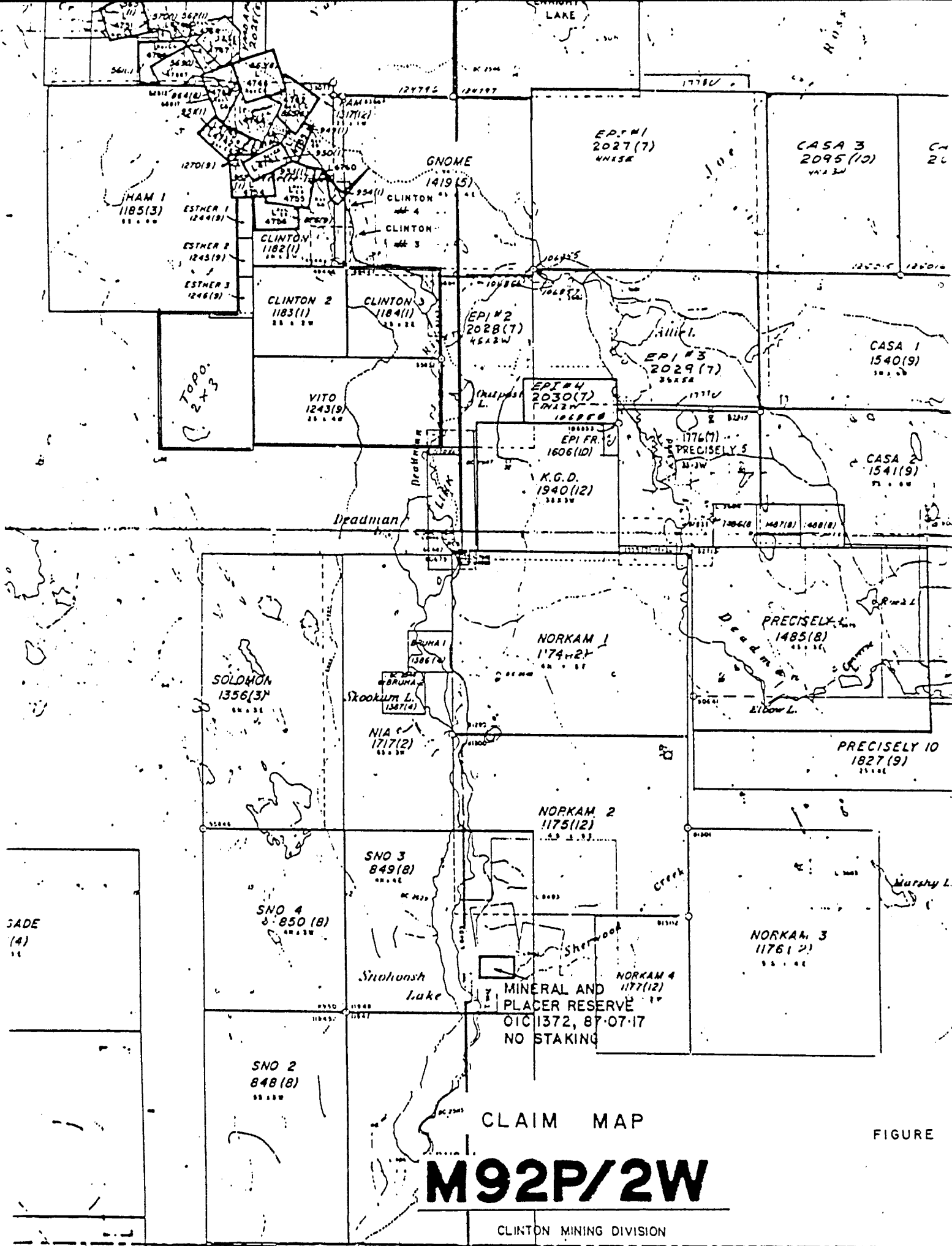
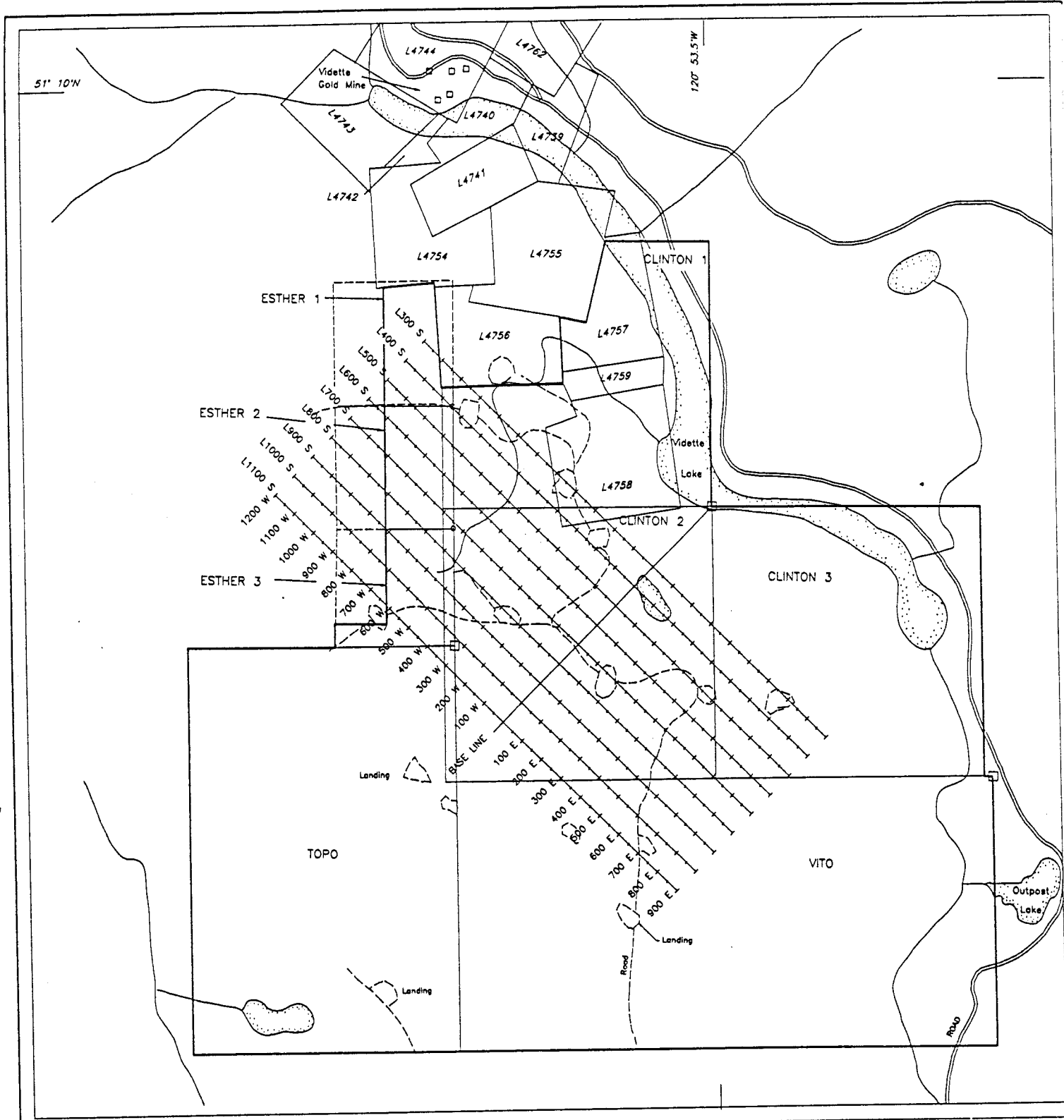


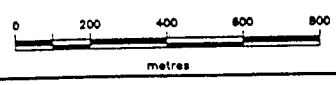
Fig 1





**LEGEND**  
 ○ CLAIM POST  
 □ LEGAL CORNER POST  
 L4760 CROWN GRANT CLAIMS

**CLINTON CLAIM GROUP**  
 CLINTON M.D.  
**CLAIM LOCATION MAP**



SCALE: 1:10,000	DATE: MARCH '91	N.T.S. 92P/ZW	DRAWN BY GEO-COMP	FIGURE: 3
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<u>NAME</u>	<u>UNITS</u>	<u>RECORD #</u>	<u>EXPIRY DATE</u>
Clinton #1	4	1182	Jan. 12, 1993
Clinton #2	4	1183	Jan. 12, 1993
Clinton #3	4	1184	Jan. 12, 1993
Vito	8	1243	Sep. 20, 1993
Esther #1	1	1244	Sep. 20, 1993
Esther #2	1	1245	Sep. 20, 1993
Esther #3	1	1246	Sep. 20, 1993
Topo	6	2182	Apr. 15, 1993

The expiry date shown above includes the assessment work presented in this report.

(iii)

GEOLOGY

The Vidette Lake area is underlain mainly by plateau basalts of Miocene and pliocene age. These basalts have been cut by the Deadman River to expose Upper Triassic Nicola Group volcanic rocks and related intrusions. The intrusives consist of dykes and small plugs of feldspar porphyry varying from granitic to monzonitic in composition.

Gold mineralization in the Vidette Lake area consists of narrow, but fairly continuous, quartz veins in greenstone of the Nicola Group. The veins strike northwesterly and dip 45 to 70 degrees to the northeast. They are fissure fillings that may or may not be

accompanied by wall rock shearing. Mineralization consists of quartz and pyrite, chalcopyrite and local tellurides. High grade gold values occur with chalcopyrite in shoots averaging 36 centimeters in width. Post-mineralization faults generally strike east-west, northwest and northeasterly (from Cockfield, 1935 and Stevenson, 1936).

#### Detailed Geology

The Clinton claims are underlain by Nicola Group volcanic rocks, consisting of grey to green, augite andesite. Hornblende monzonite - quartz monzonite has been noted as float and in sub-outcrop. Plateau basalts occur along the west side of the claims. Fracture controlled pyrite and local shearing has been noted in the andesite. Allen (1982) proposes that the Vidette Lake valley is a major structure which would parallel vein structures in the Vidette mine. He also suggests that the small gully, in the southeast corner of the Clinton 1 claim, is a fault, as some geochemical and geophysical features are terminated or offset near it.

Pyrite is widespread on the claims, being up to 7% of the andesite and quartz monzonite. It occurs as fracture filling and disseminations. Chalcopyrite and malachite occur as minor constituents in fractures.

Quartz veins are reported up to 20 centimeters wide. They are irregular, steeply dipping, trend north-westerly, and contain minor pyrite. More commonly the veins are 0.1 to 5 centimeters wide, and barren (from: Allen, 1982).

### History

The area has been mapped by the Geological Survey of Canada, Cockfield (1935) and Campbell and Tipper (1971). The B.C. Ministry of Mines refers to the area on several occasions because of the former Vidette Gold Mine, Stevenson (1936) and Mitchell (1939, 40).

The old Vidette Lake Gold Mine located 1.4 km. to the northwest, produced approximately 30,000 oz. of gold from 49,000 tonnes of ore between 1930 and 1940. Gold mineralization at the Vidette Mine consists of narrow, but fairly continuous, quartz veins in greenstone of the Nicola Group.

Portions of the property were mapped and tested by soil-sampling, geochemistry and an induced polarization survey in 1982. In 1983 an access road was constructed and four diamond drill holes were completed. In 1987 three diamond drill holes were completed to further test a coincidental I.P. and geochemistry anomaly.



- (iv) 3.4 km. of survey line grid were established in preparation for an I.P. Survey, the work was carried out with a hipchain and compass. The survey lines are blazed, cut to facilitate the carrying of instruments, and flagged at 25 and 50 meter intervals with different coloured flagging. 1.8 km. of I.P. Survey was carried out from Sept. 12th to 15th, 1991 on the Clinton #2 Claim. 72 readings were taken at 25 meter intervals.
- (v) The I.P. work for assessment purposes was carried out on approximately 10% of the Clinton #2 Claim.

DETAILED TECHNICAL DATA AND INTERPRETATION

The baseline starting from the L.C.P. was established in 1990 in the southwest direction ( $225^{\circ}$ ). The survey lines are at 100 meter intervals in the southeast ( $235^{\circ}$ ) northwest direction ( $315^{\circ}$ ) 3.4 km. of survey lines were established with a hipchain and compass. The lines are blazed, cut to facilitate the carrying of instruments, and flagged at 25 and 50 meter intervals with different coloured flagging. The work was carried out on the following lines:

Line 400S from the baseline to 700W = 700m.

Line 500S from 200E to 700W = 900m.

Line 600S from 200E to 700W = 900m.

Line 700S from 200E to 700W = 900m.

1.8 km. of I.P. Survey was carried out on Line 600S and 700S with readings taken at 25 meter intervals. The I.P. Survey was carried out with a Sabre Instrument, Model 21 Frequency Domain 0.3 10.0Hz.

1.8 km. of Induced Polarization Survey was completed consisting of 72 readings. The readings were taken at 25 meter intervals with a dipole-dipole array of 25 meters separation between the transmitter and the receiver  $n=1$ .

The survey was carried out for a total distance of 1.8 km. on lines 600S and 700S (see figure 3)

The purpose of the induced polarization survey was to locate fracture filling or disseminated sulphides which could be associated with sulphides of economic value.

The preliminary I.P. results from Line 600S and 700S appears to cross a zone of interest located between 200 and 300 west.

Additional surveying will be carried out in this area. (fig. 4 & 5)

The following notes on the theory and method of field operation for the Induced Polarization method are taken from context of a geophysical report completed for McPhar Geophysics by Phillip G. Hallof, Ph.D. (Geophysics)

"Induced Polarization as a geophysical measurement refers to the blocking action or polarization of metallic or electronic conductors in a medium or ionic solution conduction. This electrochemical phenomenon occurs wherever electrical current is passed through an area which contains metallic minerals such as base metal sulphides. Normally when current is passed through ground, as in resistivity measurements, all of the conduction takes place through ions present in the water content or the rock, or soil, i.e. by ionic conduction. This is because almost all minerals have a much higher specific resistivity than water. The group of minerals commonly described as 'metallic' however, have specific resistivities much lower than ground waters. The Induced Polarization effect takes place at those interfaces where the mode of conduction changes from ionic in the solutions filling the interstices of the rock to electronic in the metallic minerals present in the rock. The blocking action or induced polarization mentioned above, which depends upon the chemical energies necessary to allow the ions to give up or receive electrons from the metallic surface, increases with the time that a d.c. current is allowed to flow through the rock; i.e. as ions pile up against the metallic interface the resistance to current flow increases. Eventually, there is

enough polarization in the form of excess ions at the interfaces, to appreciably reduce the amount of current flow through the metallic particle. This polarization takes place at each of the infinite number of solution-metal interfaces in a mineralized rock... when the d.c. voltage used to create this d.c. current flow is cut off, the Coulomb forces between the charged ions forming the polarization cause them to return to their normal position.

INSTRUMENT

The survey was conducted with a Sabre Model 21, Induced Polarization unit system. This equipment is designed to measure the I.P. effect in the frequency domain using 0.3Hz. and 10Hz.

The current is provided by a battery connected to the transmitter which is transformed with an output capacity of 100 to 500 volts, at a minimum of 100 milliampere, according to the setting. The frequency is 10Hz and 0.3Hz.

The receiver is a sensitive A.C.-D.C. millivolt meter with a circuit capable of measuring small voltage deviation, measured as a percent change, is read directly as % frequency effect.

The apparent resistivity at each setup is calculated using the following formula:

$$2 \pi \frac{V}{I} (x) (G)$$

$$2 \pi \quad 6.28$$

V = millivolts

I = milliampere

X = electrode spread

G = geometric constant

$$G = n1 = 3$$

$$G = N2 = 12$$

$$G = n3 = 30$$

$$G = n4 = 60$$

$$MV \times \frac{\text{spread} \times G \times 6.28}{M.A.} = \text{ohm meters}$$

SUMMARY

The I.P. Survey on Line 600 and 700 South on the Clinton #2 Mineral Claim was carried out with a dipole dipole-array of 25 meters separation. The readings were rounded to the nearest half a percent. The survey clearly indicates a background F.E. of 1½%. The zone from 250W to 375W on Line 600S. shows an area of twice the background correlating with low resistivity. This zone of interest is also showing on Line 700S from 200W to 300W.

The mapping of the I.P. results on Line 700S and 600S indicate a north-south trend paralleling the Deadman Valley.

The projection of this zone in the north direction could be the source of the high geochem values (Au, 600ppb) (Cu, 1700ppm), outlined in the 1982 geochem survey.

Additional surveys will be carried out on the west side of the baseline this coming season.

Detailed statement of costs and expenses incurred on the Clinton #2 Mineral Claim from Sept. 12th to 15th, 1991 in the Clinton Mining Division.

3.4 km. of survey was established on the following lines with a hipchain and compass. The lines are blazed and flagged at 25 and 50 m. intervals with different coloured flagging. The lines have been cut to make them passable with instruments.

Line 400S from the baseline to 700W	=	700m
Line 500S from 200E to 700W	=	900m
Line 600S from 200E to 700W	=	900m
Line 700S from 200E to 700W	=	900m
		<u>3.400m</u>

3.400m. ÷ 25m. = 136 stations \$ 550.00

I.P. Survey at 25m spacing on lines 600S and 700S = 1.8 km. ( 72 readings)

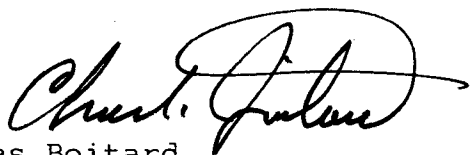
1.8 km. at \$1,900 per km. all inclusive 3,420.00

Report 1,000.00

Drafting 250.00

Typing 250.00  
\$5,470.00

Respectfully submitted,



Charles Boitard

# MALASPINA COLLEGE

## Statement of Course Completion

JOHN P. LARUE

has

Successfully Completed 180 Hours of Instruction  
in

MINERAL EXPLORATION FOR PROSPECTORS

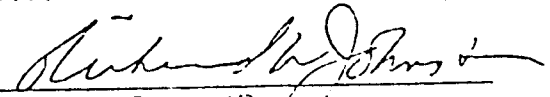
PRESENTED BY B.C. MINISTRY OF ENERGY, MINES AND PETROLEUM RESOURCES  
B.C. MINISTRY OF EDUCATION

APRIL 16 to 30, 1983 - MESACHIE LAKE, B.C.

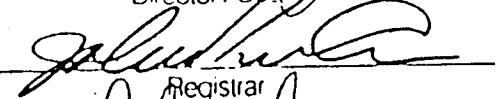
MAY 2, 1983

Dated at Nanaimo,  
British Columbia, Canada





Director / Dean



Registrar



Instructor



REFERENCES

- Cockfield, W. E. (1935) B.C. Geol. Survey of Canada Memoir 179
- Stevenson, J. S. (1936) Vidette Lake Area in Min. of Mines Annual Report
- Allen, D. G. (1982) I.P., Geological & Geochemical Report
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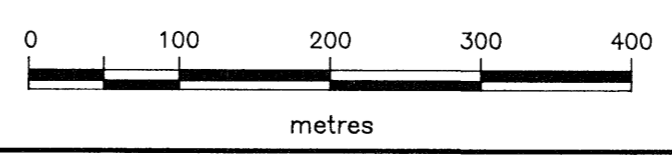


**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

# 22,235



**LEGEND**  
 ○ CLAIM POST  
 □ LEGAL CORNER POST  
 Instrument: Sabre Model 21  
 Type: Frequency  
 Frequency: 0.3 & 10.0 hz  
 Array Dipole: dipole-dipole  
 Electrode spacing: 25 metres  
 Dipole Separation: n= 1, 25 m



<b>CLINTON CLAIM GROUP</b>				
CLINTON M.D.				
<b>INDUCED POLARIZATION SURVEY</b>				
<b>FREQUENCY EFFECT %</b>				
SCALE: 1:5,000	DATE: JAN 1992	N.T.S. 92P/2W	DRAWN BY GEO-COMP	FIGURE: 4



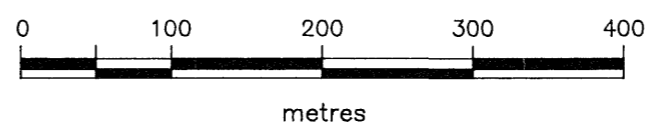
**GEOLOGICAL BRANCH  
ASSESSMENT REPORT**

**22,235**

**LEGEND**

- CLAIM POST
- LEGAL CORNER POST

Instrument: Sabre Model 21  
 Type: Frequency  
 Frequency: 0.3 & 10.0 hz  
 Array Dipole: dipole-dipole  
 Electrode spacing: 25 metres  
 Dipole Separation: n= 1, 25 m



<b>CLINTON CLAIM GROUP</b>				
CLINTON M.D.				
<b>INDUCED POLARIZATION SURVEY</b>				
<b>APPARENT RESISTIVITY</b>				
SCALE: 1:5,000	DATE: JAN 1992	N.T.S. 92P/2W	DRAWN BY GEO-COMP	FIGURE: 5