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DAY Property
[MEIPS]

PROPERTY FILE

GEOLOGICAL REPORT
ON
QUINSTAR CLAIM OF
QUINSTAR OIL CORPORATION
PENDER HARBOR AREA
BRITISH COLUMBIA

49°42' N Latitude
123°58' W Longitude

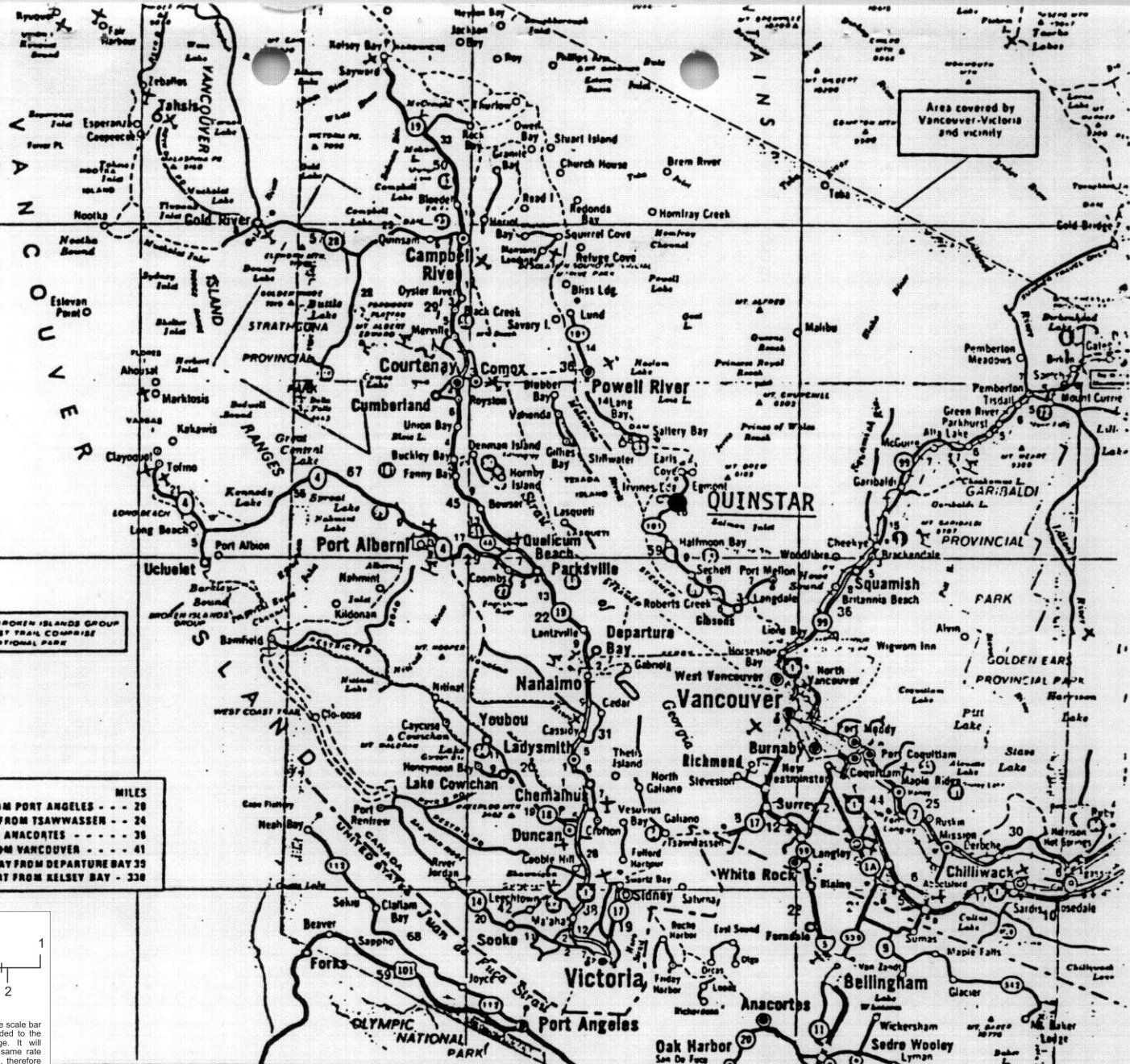
NTS 92G/12W Topographic Map 1" - 50,000
SECHELT INLET, NEW WESTMINSTER LAND DISTRICT
OF THE VANCOUVER MINING DISTRICT

BY
EDWARD O. CHISHOLM, P. ENG.

June 25, 1977

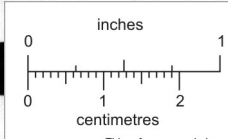
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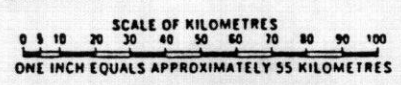
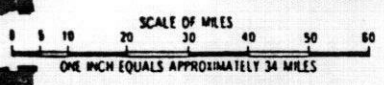
LONG BEACH BROKEN ISLANDS GROUP AND WEST COAST TOWN COMPLEX ARE PART OF NATIONAL PARK

FERRIES	MILES
TO VICTORIA FROM PORT ANGELES	20
TO SWARTZ BAY FROM TSAWWASSEN	24
TO SIDNEY FROM ANACORTES	38
TO NANAIMO FROM VANCOUVER	41
TO HORSESHOE BAY FROM DEPARTURE BAY	39
TO PRINCE RUPERT FROM KELSEY BAY	238



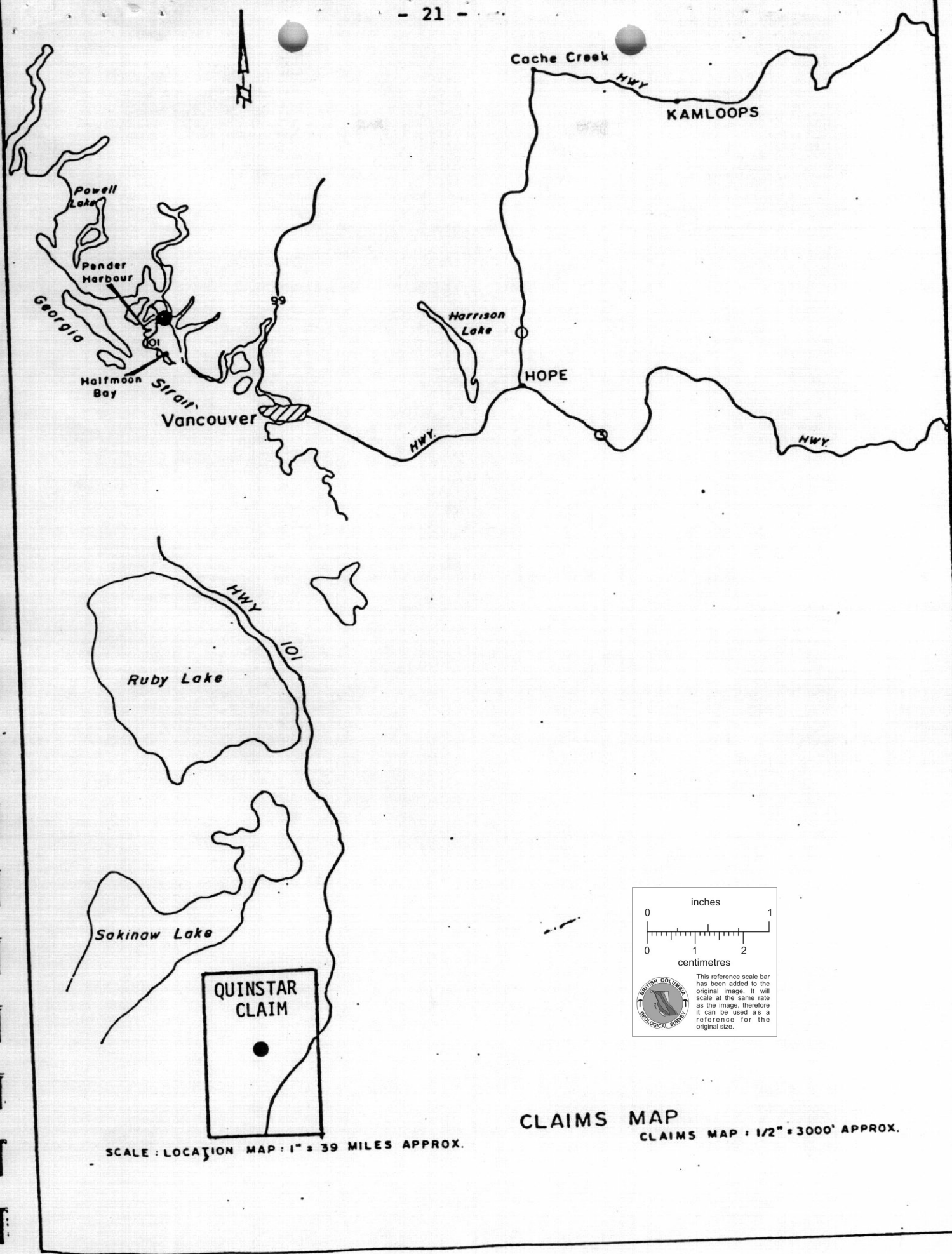
BRITISH COLUMBIA

CLASSIFICATIONS	MILEAGES	MAP SYMBOLS	POPULATION SYMBOLS
Divided Highway with Interchanges	Mileages between towns and junctions	Parts of Entry	● Prov. and State Capitals
Paved (main routes)	Total mileages between red symbols	Open 24 Hours	○ Under 250
(secondary routes)		Enquire Locally	○ 250 to 1,000
Jct. Road		Dams	○ 1,000 to 2,500
Construction		Passes	○ 2,500 to 5,000
cted Roads		Waterfalls	● 5,000 to 10,000
Home Highway		Railroads	● 10,000 to 25,000
			● 25,000 to 50,000
			● 50,000 to 100,000
			● 100,000 and over



NOTE: Distorted scale in northern area of the Province. Use mileages shown between towns





SCALE : LOCATION MAP : 1" = 39 MILES APPROX.

inches
0 1

centimetres
0 1 2

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CLAIMS MAP
CLAIMS MAP : 1/2" = 3000' APPROX.

Hes. Min. B.Ploc.
10/C1666.11Mr
No Stakin

North L.

RECEIVED
Vaugh
JUN 3 1977

Recorder's Office
VANCOUVER, B. C.

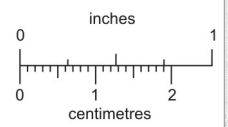
Skookumchuck
Narrows
Park

I. R. 27

Skookum I.

CLAIM MAP QUINSTAR CLAIM
- of
Quinstar Oil Corporation

Ruby L.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.



Sakinaw

MT HALLWELL

TYEE
155 (3)

QUINSTAR CLAIM

MINERAL RESERVE
O/C V/10, IC 676
NO STAKING

WAR A

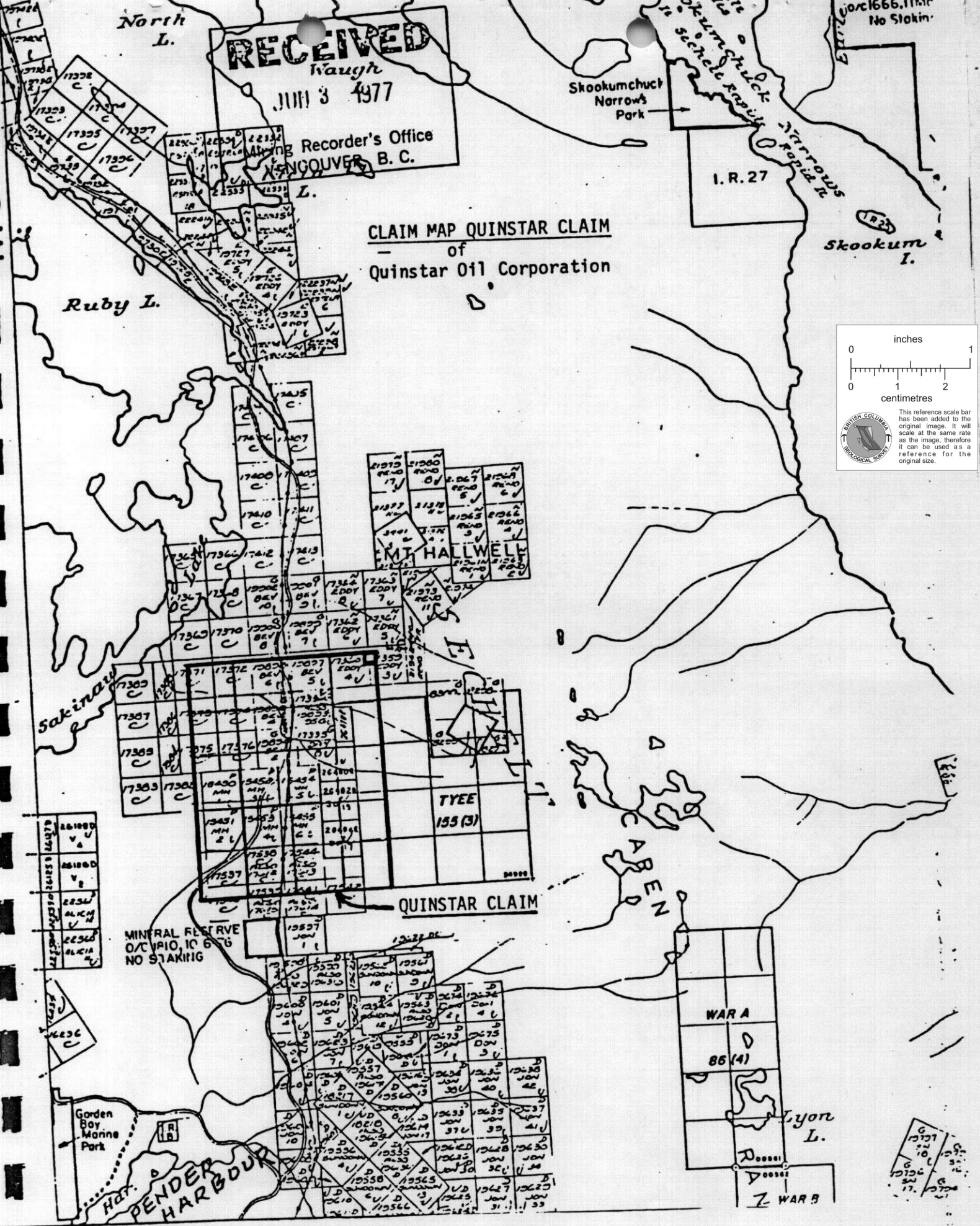
86 (4)

Lyon L.

Z WAR B

Garden Bay
Manne Park

PENDER HARBOUR



SUMMARY

The Quinstar claim of 20 units recently staked covers the location of a former surface discovery of scattered molybdenite and chalcopyrite in an 80 feet wide shear zone in granodiorite located on Highway 101 some 8 miles north of Pender Harbour, B.C. A few shallow rock trenches on the road cut exposed the zone across a width of 80 feet. The immediate area is heavily wooded and covered with shallow overburden. Geochemical survey work previously carried out by former owners showed an anomalous zone some 2,000 feet long and 500 feet wide overlying the zone of exposed mineralization. The geological association of scattered molybdenum and chalcopyrite in altered and fractured granodiorite rocks of the Coast Range batholith warrants further investigation of the anomalous area and a programme of diamond and percussion drilling is recommended at an estimated cost of \$25,000.00.

INFORMATION

The following report is compiled from information obtained by the writer during an examination of the property on June 13th, 1977 accompanied by Larry R.W. Sostad, prospector of Vancouver, B.C., who staked the claims in June, 1977. Other information was obtained from the assessment work files of the B.C. Department of Mines, Vancouver, B.C. and private reports and government reports on previous work on file with the company.

The purpose of the examination was to assess the possible mineral potential of the property and to recommend

a preliminary exploration programme.

An initial work programme has been recommended and additional work will depend on its outcome.

PROPERTY

The property consists of one claim comprising 20 units recently staked by L.R.W. Sostad of Vancouver and recorded June 3, 1977 at the Vancouver office of the B.C. Department of Mines.

<u>Claim Name</u>	<u>No. of Units</u>	<u>Expiry Date</u>
Quinstar Claim	20	June 3, 1978

OWNERSHIP OF CLAIM

The Quinstar Claim is held by Quinstar Oil Corporation of Vancouver, British Columbia.

LOCATION

Latitude 49° 42' North
Longitude 123° 58' West

Vancouver Mining Division
British Columbia Claim Map M92G/12W
Sechelt Inlet, New Westminster Land District
on Highway 101, 5 kilometres NE of Pender
Harbour, B.C. and 1,000 metres south of Mt.
Halliwell.

Geological Map 42-1963

Topographical Map NTS 92G/12W 1:50,000

ACCESS

By main paved highway north from Pender Harbour to claim group. Access to other areas on claim by numerous logging roads and trails.

TOPOGRAPHY

The claim covers in part an area on the NW flank of the Caren Range and extends along the Highway 101 towards Ruby Lake. The claim along the highway is at elevations from 100 to 800 feet.

The underbrush is generally dense like all southern coastal areas. The low-lying claims generally are covered with deep overburden whereas the flanks and steeper sections expose large areas of rock outcrops and precipitous cliffs.

GENERAL GEOLOGY

Bulletin 39 of the B.C. Department of Mines shows the Sechelt Peninsula as part of the main batholithic mass of the Coast Range and consists mainly of quartz diorite, all of Jurassic age.

Entrapped in these batholithic masses are found sediments of an older but of unknown age and consist of basalt, andesites, limestone, dolomitic limestones, cherts and argillites. The above sediments have been enfolded and usually appear as canoe shaped bodies having a north, northwesterly trend and steep dips. They have a large

strike length and moderate widths. The depth that these sedimentary bodies extend to is not known. These sedimentary bodies are referred to as roof pendants. The Cambrian Chieftain property described by W.R. Bacon in Bulletin 39 describes the mineral showings as:

" chalcopyrite, pyrite, magnetite and sphalerite as fracture fillings in a typical skarn zone environment."

The above combinations of sediments and intrusives are favourable loci for the development of important ore bodies.

WORK DONE IN 1971

During my examination of the property on June 13, 1977, I visited an area where shallow test pitting had exposed molybdenite, filling fractures in granodiorite. This showing was said to have been diamond drilled and is located on Claims Day 7 and 8, but no evidence of the drilling was found.

Time did not permit me locating the claim posts on this particular visit.

A work programme over the area was carried out by Glen E. White, Geophysical Consulting and Services, Ltd. Work was performed between July 9 and 20, 1972 and reported on August 11, 1972.

RESULTS OF GEOCHEMICAL SURVEY

A geochemical survey was made on the following claims:

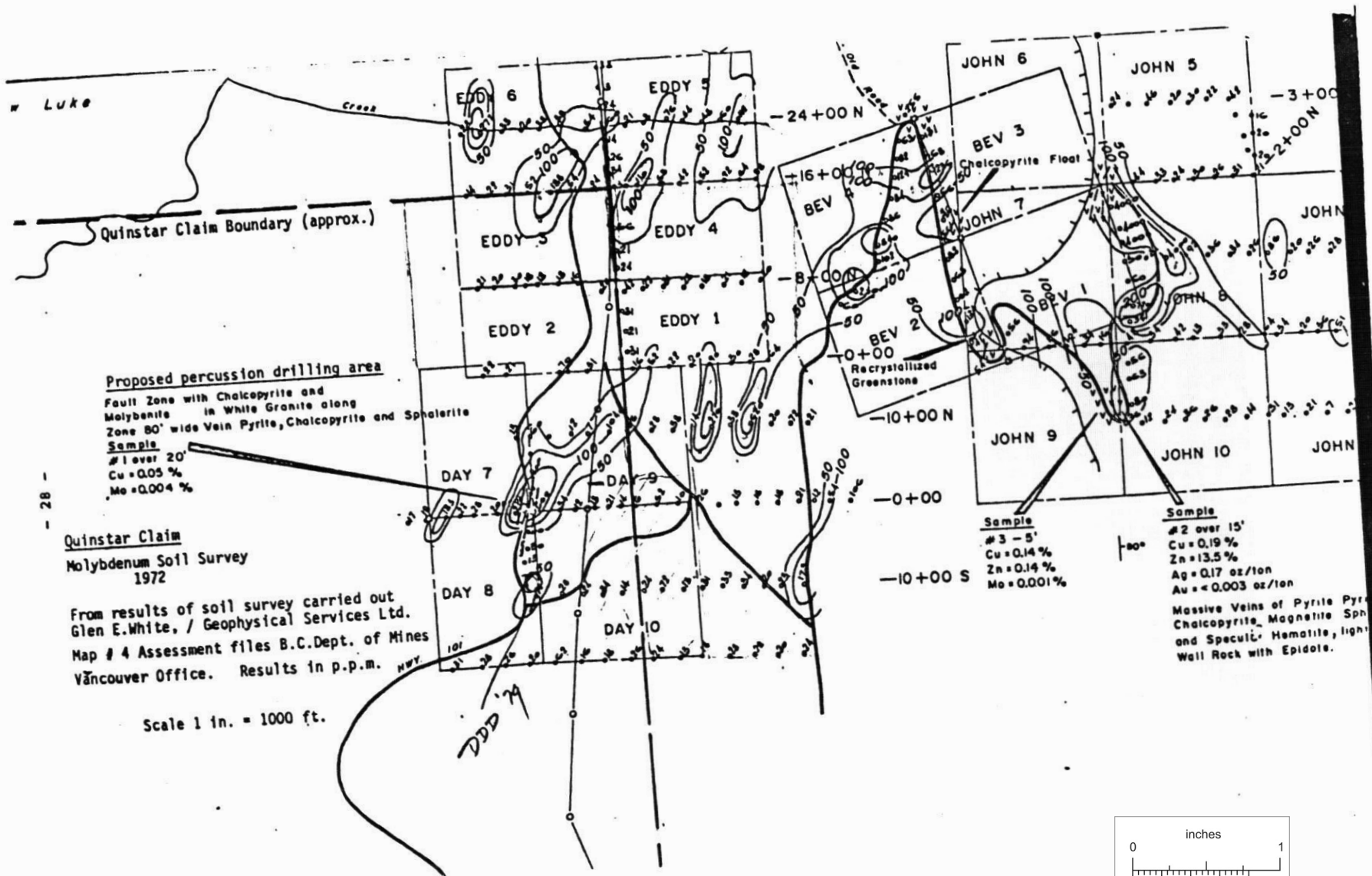
Bev	1 - 4	4
Day	7 - 10	4
Eddy	1 - 8	8
John	1 - 12	<u>12</u>
		<u>28</u>

The claim staking lines were used as base lines and grid lines at 800' spacing were turned off the base lines at right angles using chain and compass survey method. . Soil samples were taken of the "B" horizon with the use of augers at 200' intervals. A base map was prepared from the chain and compass survey aided by air photos of the area. The soil samples were analysed by the atomic absorption method for copper, molybdenum and zinc.

Soil samples taken	450
Rock chip samples taken	3

Three base maps were prepared that outline the areal extent and intensity of each element analysed for i.e. copper, molybdenum and zinc.

The copper and zinc trends show a very strong lineation conforming to the roof pendant outlines, whereas the molybdenum response was much less intense and conforms to a major north-south fracture and fault system. The copper



Proposed percussion drilling area
 Fault Zone with Chalcopyrite and Molybdenite in White Granite along Zone 80' wide Vein Pyrite, Chalcopyrite and Sphalerite

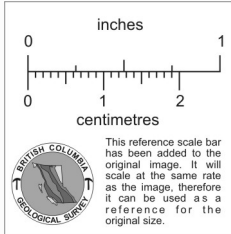
Quinstar Claim
 Molybdenum Soil Survey
 1972

From results of soil survey carried out
 Glen E. White, / Geophysical Services Ltd.
 Map # 4 Assessment files B.C. Dept. of Mines
 Vancouver Office. Results in p.p.m.

Scale 1 in. = 1000 ft.

Sample
 # 3 - 5'
 Cu = 0.14 %
 Zn = 0.14 %
 Mo = 0.001 %

Sample
 # 2 over 15'
 Cu = 0.19 %
 Zn = 13.5 %
 Ag = 0.17 oz/ton
 Au = 0.003 oz/ton
 Massive Veins of Pyrite Pyrite
 Chalcopyrite, Magnetite Sph
 and Specul. Hematite, light
 Wall Rock with Epidote.



This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

response was strong in the vicinity of the Bev, John, Eddy and Day claim areas.

The zinc anomalies correspond very much to those of the copper trends and appear to be closely related genetically.

DISCUSSION OF RESULTS

The geology noted on the property confirms that the Quinstar claim is underlain by the Jarvis group as depicted by W.R. Bacon on his Geological Map of Lower Jervis Inlet, 1957.

A copper-molybdenum showing is located near the common claim post for old mineral claims Day 7-10 or now covered by Quinstar Unit No. 3. This showing appears to be controlled by a N - S fault along which quartz enriched solutions have altered the diorite removing the ferro-magnesium minerals and depositing minor chalcopyrite and molybdenum mineralization.

The mineralization located by the writer consists of chrysacolla and "copper pitch", a black manganiferous variety containing copper oxides, which form flat coatings on the slip planes of joints and shears in the altered granite. Sparse chalcopyrite and fine molybdenite was noted in some narrow quartz veinlets. The alteration and secondary minerals indicates considerable surface leaching.

Glen W. White reports in part on assessment work, File #3757, B.C. Department of Mines, Vancouver, as follows:

" The molybdenum geochemical data, Figure 4, reaches a high of 110 p.p.m. molybdenum in this area. A possible continuation of this zone is shown by the high molybdenum values in Eddy 2, 3 and 6 mineral claims. A high of 35 p.p.m. molybdenum occurs in mineral claim John 8 where it is associated with high copper values of the Cambrian Chieftain showing. "

RECOMMENDATIONS & CONCLUSIONS

The Quinstar molybdenum copper occurrence is coincident with a substantial molybdenum anomaly that has not been explained by work carried out to date. The geological setting is favorable for the occurrence of a molybdenum/copper deposit and should be tested by drilling and sampling to a depth beneath the zone of leached surface rock.

A programme of two diamond drill holes spaced 100 feet apart angled across the mineralized zone to a depth of 250 feet, is recommended, followed by a series of vertical percussion holes at intervals along strike of the zone to a depth of 100 feet.

COST ESTIMATE

Diamond Drilling	
500 feet @ \$13.00/foot	\$ 6,500.00
Percussion Drilling	
1,000 feet @ \$ 8.00/foot	8,000.00
Engineering wages plus 30%	5,850.00
Contingencies, assays, etc.	<u>4,650.00</u>
Total Cost	<u><u>\$25,000.00</u></u>

Respect submitted,



Edward O. Chisholm, P.Eng.
Vancouver, B.C.
June 25, 1977

LIST OF REFERENCES

1. Bacon, W.R., 1957, Bulletin #39, B.C. Department of Mine
2. G.L. White, 9 July, 1972. Assessment work files, B.C. Department of Mines, Vancouver, B.C., on Geochemical Survey of Eddy 1-8 and Day 7-10, etc., Pender Harbour Area, B.C.
3. Douglas Parent, P.Eng., November 22, 1972, Vancouver, B.C. Property Examination Cone Mountain Mines Ltd.
4. Larry R.W. Sostad, Prospector, North Vancouver. Personal communication.

C E R T I F I C A T E

I, Edward O. Chisholm of the City of Vancouver in the Province of British Columbia, hereby certify that:

- 1) I am a geologist with offices at 821-602 West Hastings Street, Vancouver, B.C. V6B 1P2.
- 2) I am a graduate of the University of Toronto, Ontario, Master of Arts, 1945.
- 3) I am a member of the Professional Engineers of Ontario and British Columbia.
- 4) I have no direct interest or indirect interest in either the property or securities of Quinstar Oil Corporation or its affiliates, nor do I expect to receive any such interest.
- 5) This report is based on an examination of the property on June 13, 1977, on unpublished reports provided by the optionees and published government reports of the British Columbia Department of Mines.

DATED AT VANCOUVER, BRITISH COLUMBIA THIS
25th DAY OF JUNE, 1977.



EDWARD O. CHISHOLM, P.ENG.

E. O. CHISHOLM, M.A., P.ENG.
CONSULTING GEOLOGIST

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VANCOUVER, B.C. V6H 2J4

BUSINESS
PHONE (604) 682-2701
821-602 WEST HASTINGS STREET
VANCOUVER, B.C. V6B 1P2

July 10, 1978

ADDENDUM

Geological Report on Quinstar Claim of Quinstar Oil Corporation, Pender Harbor Area, Vancouver M.D., by E.O. Chisholm, P.Eng., dated June 25, 1977

On June 26 and 27, 1977 geologist John P. McGoran, B.Sc. and prospector Larry R.W. Sostad prospected and mapped geology of part of the Quinstar mineral claim just north of Pender Harbour, B.C.


Metavolcanic and metasedimentary rocks of the Jervis Group occur near the east boundary of the claim. They contain one to ten percent pyrite and have a rusty surface. Most of the claim is underlain by medium grained hornblende diorite which shows chloritization of feldspars and hornblende.

The diorite is intruded by dykes and larger bodies of alaskite which has a rusty weathered surface but is almost white on fresh fracture. This appears to be a Tertiary intrusive rock.

Molybdenite, chalcopyrite, pyrite and pyrrhotite occur in quartz veins, in fractures and disseminated within the alaskite. The iron sulphides (pyrite and pyrrhotite) occur with the molybdenite and chalcopyrite in a ratio of 5:1.

A quartz vein at the main showing near paved Highway 101 is 4 to 5 inches wide and contains 2 to 5% molybdenite. This vein is crossed by a 2-inch quartz vein also containing molybdenite. McGoran has concluded that the deposit is a Tertiary intrusive with the aspects of a porphyry copper-molybdenum deposit.

The old base map used for the 1972 soil survey map prior to page 6 of my report of June 25, 1977 shows the east boundary of the Quinstar claim as being about 1,000 metres west of its actual position on the ground. The claim map prior to page 1 of my report shows the location of the claim more accurately.


Edward O. Chisholm, P.Eng.

DIAMOND DRILLING REPORT
ON THE
QUINSTAR CLAIM
VANCOUVER MINING DIVISION, B. C.

for

QUINSTAR OIL CORP.
803 - 805 8th Avenue S.W.
Calgary, Alberta
T2P 1H7

by

J. P. ELWELL, P.Eng.
1030 - 510 West Hastings Street
Vancouver, B. C.
V6B 1L8

May 16th, 1979

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DIAMOND DRILLING	1
DISCUSSION OF RESULTS	2
STATEMENT OF COSTS	3

MAPS

LOCATION MAP OF QUINSTAR CLAIM	follows page 1
PLAN AND SECTION OF D.D.H. Q-1, QUINSTAR CLAIM	" " 2

APPENDICES

- APPENDIX 'A' - ASSAY CERTIFICATE
- APPENDIX 'B' - INVOICES

DIAMOND DRILLING REPORT
ON THE QUINSTAR CLAIM
PENDER HARBOUR AREA,
VANCOUVER MINING DIVISION, B. C.

INTRODUCTION

During the period May 4th and May 8-9th, 1979, one diamond drill hole was completed to a depth of 42 feet on unit #14 of the Quinstar claim located near Pender Harbour in the Vancouver Mining Division, B. C. The writer located the hole, supervised the drilling, and subsequently logged the core and submitted the samples for assay.

LOCATION OF QUINSTAR CLAIM

The Quinstar claim of 20 metric units is located on Highway #101 about 8 miles north of Pender Harbour. The geographic co-ordinates are approximately Lat. 49°42'N, Long. 123°58'W. A location map accompanies this report.

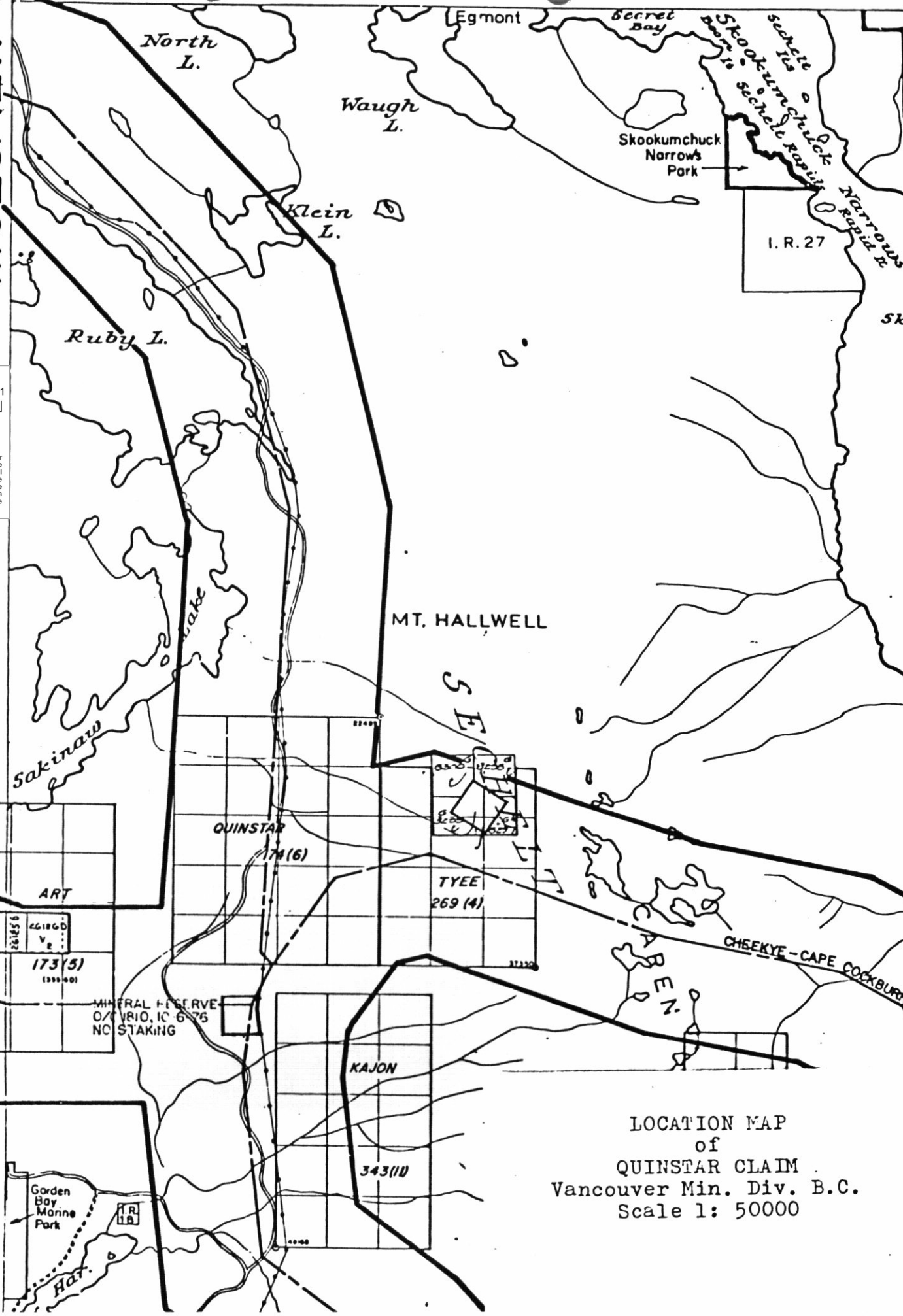
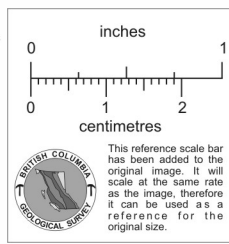
DIAMOND DRILLING

Diamond drill hole Q-1 was located on unit #14 of the claim at approximately the center of a molybdenum geochemical anomaly resulting from the survey carried out in 1972 by Glen E. White Geophysical Services Ltd.

The hole was drilled on a bearing of 95° at an inclination of -56° using a Winkie drill with 'E' rods. The ground was extremely hard and the hole was stopped at 42 feet when it was found that no progress was being made with acceptable core recovery using this light machine. The details log of the hole is as follows:

49° 45' 124° 00'

M92G/12W



LOCATION MAP
of
QUINSTAR CLAIM
Vancouver Min. Div. B.C.
Scale 1: 50000

<u>Footage</u>		<u>Description</u>
<u>From</u>	<u>To</u>	
0	- 5	Qtz. monzonite, minor py., very minor cpy., some weathering with rusty fractures
5	- 11.3	Same rock as above with increase in diss.py. Minor speck of MoS ₂ at 8'.
11.3	- 14.4	Sheared qtz. monzonite some MoS ₂ on fractures, minor diss. cpy., py.
14.4	- 15	Shearing at 60° to core, MoS ₂ on shear planes with graphite?, minor cpy.
15	- 27	Hard Qtz. monzonite, very minor py.
27	- 33	Qtz. monzonite grading into diorite. Minor diss. py.
33	- 42	Diorite - 30% core recovery.
end of hole		

Sampling

Two sections of core were split for samples and assayed for copper and molybdenum.

<u>Sample</u>	<u>% Cu</u>	<u>% Mo</u>	<u>Footage</u>
69507	0.01	0.134	14.3 - 15
69508	0.02	0.024	11 - 14.3

DISCUSSION OF THE RESULTS

The initial diamond drill hole cut one steeply dipping silicified shear zone carrying minor values in molybdenum. The assay values and widths encountered are below economic range, however, the amount of drilling done has been insufficient to draw any conclusions as to the potential of this property.

May 16th, 1979

J. P. ELWELL, P.Eng.

CERTIFICATE

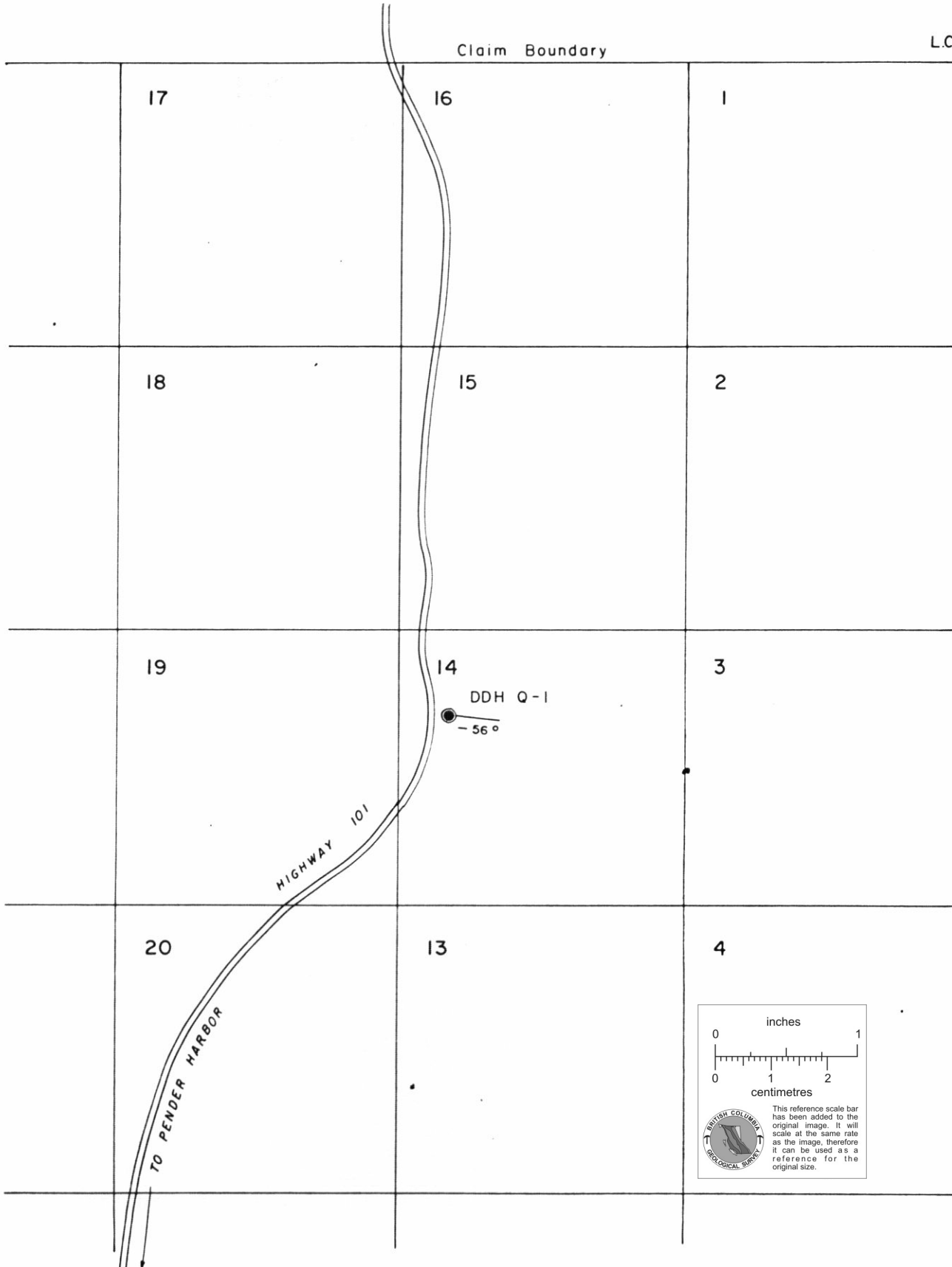
I, James Paul Elwell, of 4744 Caulfield Drive, West Vancouver, B. C., do hereby certify that:

1. I am a Consulting Mining Engineer residing at 4744 Caulfield Drive, West Vancouver, B. C., and with an office at 1030 - 510 West Hastings Street, Vancouver, B. C. V6B 1L8.
2. I am a graduate in Mining Engineering from the University of Alberta in 1940, and am a Registered Professional Engineer in the Province of British Columbia.
3. I have no personal interest, directly or indirectly in the properties examined or in Quinstar Oil Corp. securities nor do I expect to receive directly or indirectly any interest in such property or securities.
4. The findings of the report are from work supervised by me May 4th - 9th, 1979.

DATED at VANCOUVER, B. C. this 16th day of May, 1979

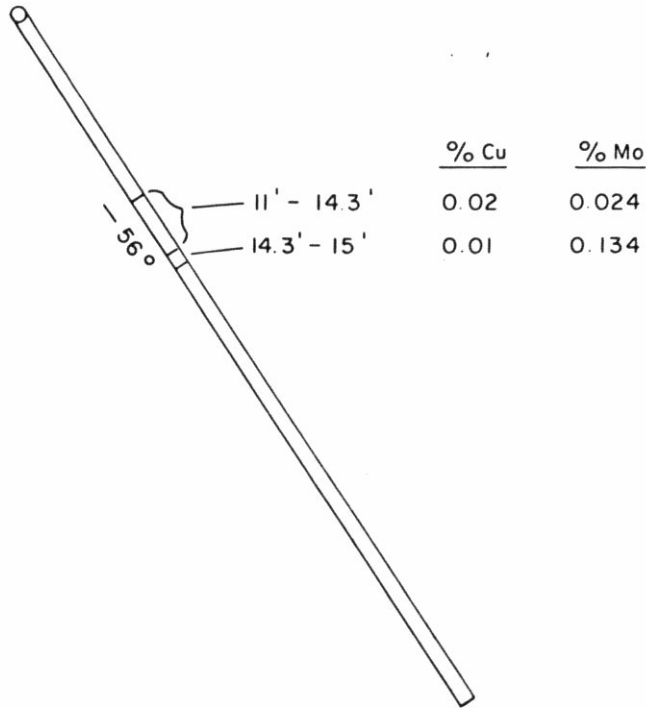
J. P. ELWELL, P.Eng.

Claim Boundary



PLAN OF PART OF QUINSTAR CLAIM
 SHOWING LOCATION OF DDH Q-1

SCALE : 1 : 10,000



SECTION THROUGH
DDH Q-1
SCALE : 1" = 10'

QUINSTAR OIL CORPORATION

PLAN AND SECTION OF DDH Q-1
QUINSTAR CLAIM

VANCOUVER MINING DIVISION, BRITISH COLUMBIA

May 1979

J.P. Elwell, P. Eng

