

MAP No.

105-1-3,0,0

ASSESSMENT REPORT
N M L A P
CONFIDENTIAL
OPEN FILE

X
X

TYPE OF

WORK: Geological

REPORT FILED UNDER

Acheron Mines Ltd.

DOCUMENT NO. 061022

DATE RECEIVED

JULY 20, 1973

DATE FILED Nov. 22, 1973.

LOCATION - LAT
LONG

62° 03' to 62° 22' N

AREA Selwyn Basin Area, Mack & Yukon.

128° 23' to 129° 15' W

CLAIM NO

YUK 1-80 Y72452-501, Y72503-12, 14

PAT 1-40 Y72412-51

NOR 1-113 A66801-13, A66501-600

VALUATION

TO 1-49 A66601-49

HAT 11-40 A66721-50

WORK DONE BY

D.W. Tully (D.I.T. Holdings Ltd.)

WORK DONE FOR

Acheron Ms L

REMARKS

Preliminary geological studies of the 5 claim groups. No mineralization was recognized but each claim group overlies "favourable" geology, in particular the shales which contain the Canex Placer lead-zinc deposit.

D. I. T. HOLDINGS LTD.

SUITE 102, 2222 BELLEVUE AVENUE
WEST VANCOUVER, B.C.

GEOLOGICAL REPORT

ON THE

YUK and PAT Claim Groups
Selwyn Basin - Summit Lake Area
Yukon Territory

N. Lat. 62-22

W. Long. 129-15

AND

NOR, TO and HAT Claim Groups
Selwyn Basin Area
Northwest Territories

N. Lat. 62-22
62-03

W. Long. 129-00
128-23

FOR

Acheron Mines Ltd. (N.P.L.)
326 Howe Street
Vancouver 1, B.C.

BY

Donald W. Tully, P.Eng.

July 20, 1973

West Vancouver, B.C.



06102

105-I-3,6

NMEAP
Received
Nov 22/73

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SUMMARY AND CONCLUSIONS

Acheron Mines Ltd. hold 295 mineral claims in five separate blocks in the Selwyn Basin of the Yukon and the adjacent Northwest Territories in the Summit Lake Area some 170 miles north of Watson Lake.

The claim blocks were acquired by staking in February, 1973 to cover Cambrian-Ordovician limestones and favourable carbonaceous shale indicated from government geological maps to occur in the area. The carbonaceous shale is considered to be a prime host rock on the nearby Canex-Placer Development held ground.

It is concluded the Acheron properties are well located geologically and warrant a program of detailed prospecting, geological mapping and geochemical soil sampling to test the claim areas for potential mineral targets.

The recommended initial work program is estimated to cost \$108,000.00 to test the five claim groups.

Follow-up estimates for further exploration on any mineral target areas should be made after the initial work program has been completed.

INTRODUCTION

This report is prepared at the request of Mr. R.H.D. Philp, President and Managing Director of Acheron Mines Ltd. (N.P.L.).

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Interest in the Selwyn Basin area near Summit Lake revived in the summer and autumn of 1972 when Canex-Placer Development Ltd. reported a significant lead-zinc discovery in Cambrian-Ordovician sediments. The favourable geological horizon was believed to be an intensely folded black carbonaceous, graptolitic shale horizon. Numerous claims were subsequently staked in the general area of this discovery.

The writer has been familiar with exploration in this general area ever since directing the initial diamond drilling program on the Anvil Mining lead-zinc orebody. The writer also wishes to acknowledge valuable assistance from W.G. Stevenson, P.Eng., regarding the YUK, PAT, TO, HAT and NOR claim groups and the drawings accompanying this report.

PROPERTY LOCATION, ACCESS, TOPOGRAPHY

The YUK and PAT claim groups are located at and west of Summit Lake respectively in the Yukon Territory. The NOR and TO groups are to the east in the adjacent area of the Northwest Territories. The HAT group lies about 35 miles southeast of Summit Lake just inside the Northwest Territories boundary with the Yukon along the Flat River.

Access is convenient by fixed-wing float equipped plane from either Watson Lake or Ross River to Summit Lake and thence to the claim groups by pre-arranged helicopter flight.

Elevations vary on the several claim groups as follows:

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 WEST VANCOUVER, B.C.

YUK - 4000-5500 feet above sea-level
 PAT - 4500-5500 " " "
 NOR - 4500-5500 " " "
 TO - 5000-6000 " " "
 HAT - 3500-4500 " " "

CLAIMS

The YUK and PAT claim groups are recorded in the Watson Lake Mining Division at Watson Lake, Yukon Territory as follows:

<u>CLAIM NAME</u>	<u>GRANT #</u>	<u>DATE STAKED</u>	<u>DATE RECORDED</u>	<u>STAKER</u>
YUK 1-8	Y72452-59	Feb. 10/73	Feb. 22/73	A. Franks
" 9-12	-63	" 10 "	" "	D. George
" 13-16	-67	" 11 "	" "	D. George
" 17-20	-71	" 11 "	" "	D. Taylor
" 21-28	-79	" 10 "	" "	P. Frank
" 29-36	-87	" 11 "	" "	C. Porter
" 37-38	-89	" 11 "	" "	D. Taylor
" 39-44	-95	" 10 "	" "	B. Bailey
" 46	-96	" 10 "	" "	"
" 50-54	Y72497-Y72501	" 11 "	" "	W. Carlick
" 55-56	-03	" 11 "	" "	D. Taylor
" 58	-04	" 10 "	" "	C. Nelson
" 65	-05	" 12 "	" "	R. Abou
" 67	-06	" 12 "	" "	"
" 69-70	Y72507-08	" 12 "	" "	"
" 73	-09	" 12 "	" "	C. Pete
" 75	-10	" 12 "	" "	"
" 77-78	Y72511-12	" 12 "	" "	"
" 79-80	-14	" 13 "	" "	R. Abour

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<u>CLAIM NAME</u>	<u>GRANT #</u>	<u>DATE STAKED</u>	<u>DATE RECORDED</u>	<u>STAKER</u>
PAT 1-4	Y72412-15	Feb. 13/73	Feb. 22/73	S. Foubister
" 5-12	-23	" 12/ "	" "	D. Taylor
" 13-16	-27	" 12/ "	" "	D. George
" 17-24	-35	" 12/ "	" "	D. Reinke
" 25-32	-43	" 13/ "	" "	C. Porter
" 33-36	-47	" 13/ "	" "	D. George
" 37-40	-51	" 13/ "	" "	S. Foubister

The TO, NOR and HAT claims are recorded in the Nahanni Mining District in the Northwest Territories at Yellowknife.

<u>CLAIM NAME</u>	<u>GRANT #</u>	<u>DATE STAKED</u>	<u>DATE RECORDED</u>	<u>STAKER</u>
TO 1-28	A66601-28	Feb. 17/73	Feb. 22/73	C. Nelson
TO 29-49	A66629-49	" 18/ "	" "	D. Taylor
NOR 1	A66801	Feb. 10/73	Feb. 22/73	D. Reinke
" 2-19	A66502-19	" 10/ "	" "	"
" 20-30	A66520-30	" 11/ "	" "	B. Bailey
" 31-32	A66531-32	" 11/ "	" "	D. Reinke
" 33-41	A66533-41	" 12/ "	" "	B. Bailey
" 42-53	A66542-53	" 12/ "	" "	D. Reinke
" 54-56	A66554-56	" 14/ "	" "	B. Bailey
" 57	A66557	" 13/ "	" "	D. Reinke
" 58-69	A66558-69	" 14/ "	" "	B. Bailey
" 70-100	A66570-600	" 15/ "	" "	D. Taylor
" 101	A66501	" 16/ "	" "	"
" 102-105	A66802-05	" 16/ "	" "	"
" 106-113	A66806-13	" 16/ "	" "	C. Nelson
HAT 11-30	A66721-40	Feb. 17/73	Feb. 22/73	D. Taylor
" 31-40	A66741-50	" 18/ "	" "	D. Reinke

I have not searched the title of the YUK, PAT, TO NOR and HAT claims nor have I examined the claim posts in the field.

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SUITE 102 2222 BELLEVUE AVENUE
WEST VANCOUVER B.C.

PREVIOUS DEVELOPMENT - REFERENCES

There is no known previous development on the claim groups.

Exploration in the general area of the Selwyn Basin has been sporadic since the use of the airplane facilitated access to this more remote area. As a result Hudson Bay Mining have a lead-zinc deposit and American Metals Climax have a tungsten prospect at MacMillan Pass on the Canol Road some 40 miles to the northwest. Canada Tungsten is currently mining at Cantung in the Northwest Territories some fifty miles to the southeast.

Geological survey of Canada map 14-1961 and B-1967 (Nahanni) as well as topographic map 105-I on scale 1" = 4 miles are the only recently published geological maps of this area.

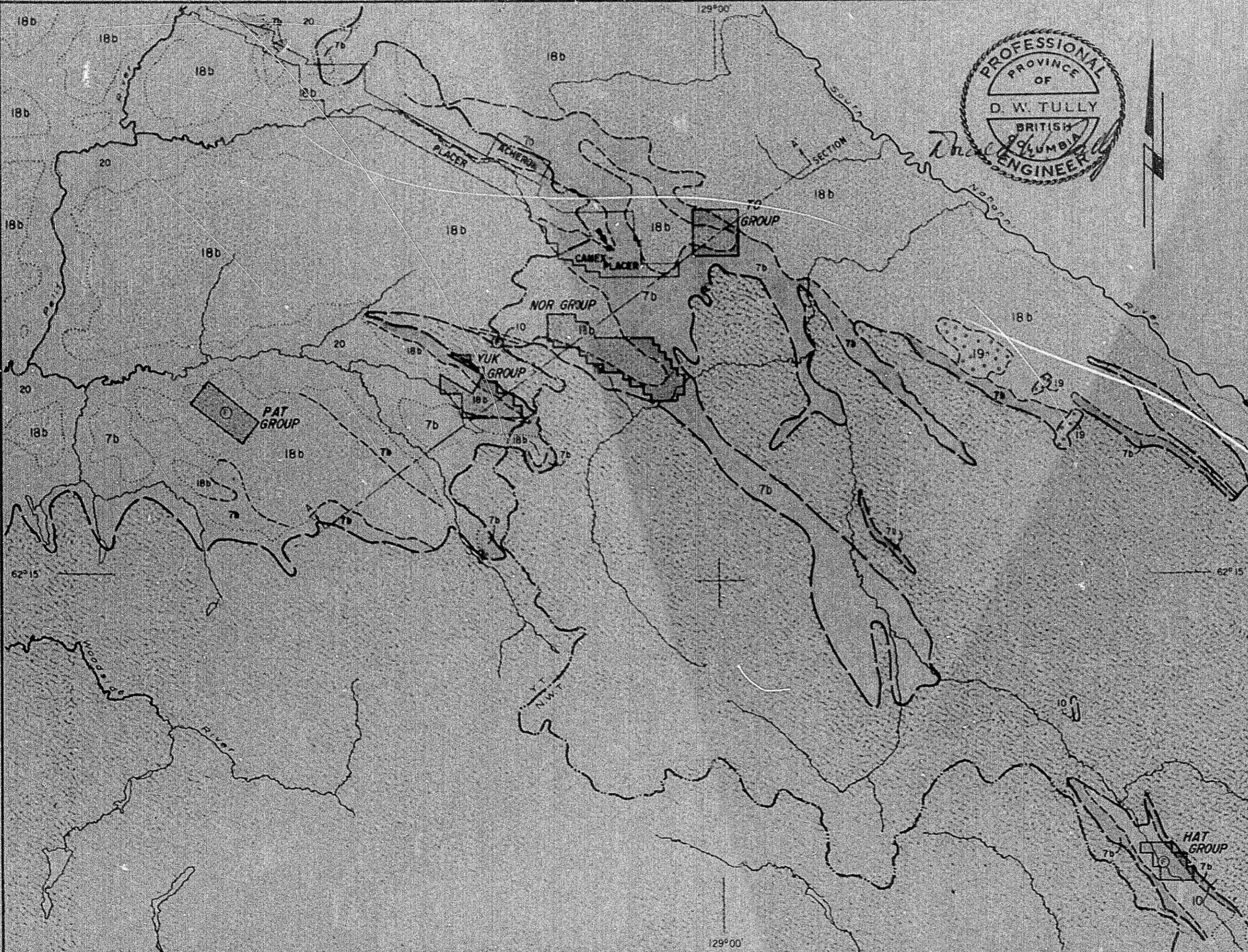
Yukon claim sheets 105-I-5, 105-I-6 and Northwest Territories claim sheets 105-I-1, 105-I-7, 105-I-10, 105-I-11 are useful references.

GEOLOGY

PAT Group - Yukon

This 40-claim group lies ten miles due west of Summit Lake.

Devonian age black shales, sandstones, cherts and conglomerates underlie the property.



LEGEND	
GEOLOGY	
PLEISTOCENE and RECENT	
20	Overburden - glacial and alluvial
CRETACEOUS	
19	Quartz monzonite, granodiorite and minor granite, commonly porphyritic
DEVONIAN	
18b	Black shale and argillite, minor brown sandstone
UPPER ORDOVICIAN	
10	Black graphitic shale, argillaceous limestone, minor black chert
ORDOVICIAN	
7b	Sandy dolomite, fine-grained limestone
CAMBRIAN and EARLIER	
	includes several rock types
SYMBOLS	
	Boundary of rock outcrop
	Gradational geological contact
	Contact - Cambrian and earlier
	Canex-Placer discovery
	Properties referred to in report
	Fossil locality

NOTE - Geology based on G.S.C. MAP B-1967, 'NAHANNI'

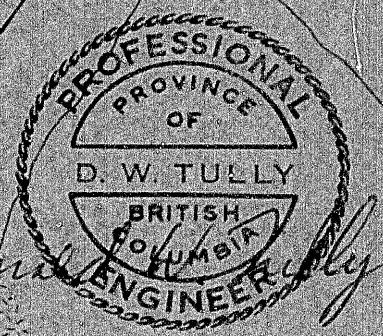
ACHERON MINES LTD. (NPL)
SELWYN BASIN AREA PROPERTIES
YUKON AND NORTHWEST TERRITORIES

APPENDIX B
SURFACE GEOLOGY
and PROPERTY
LOCATION

Scale: 1" = 4 miles

20

20



APPENDIX E

ACHERON MINES LTD. (NPL)
SELWYN BASIN AREA PROPERTIES
 YUKON & NORTHWEST TERRITORIES

PAT CLAIM GROUP
GEOLOGICAL
SKETCH MAP

SCALE - 1" = 0.5 MILES

DONALD W. TULLY, P.Eng

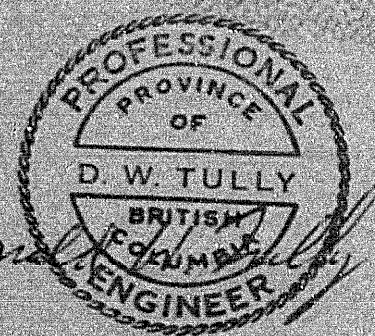
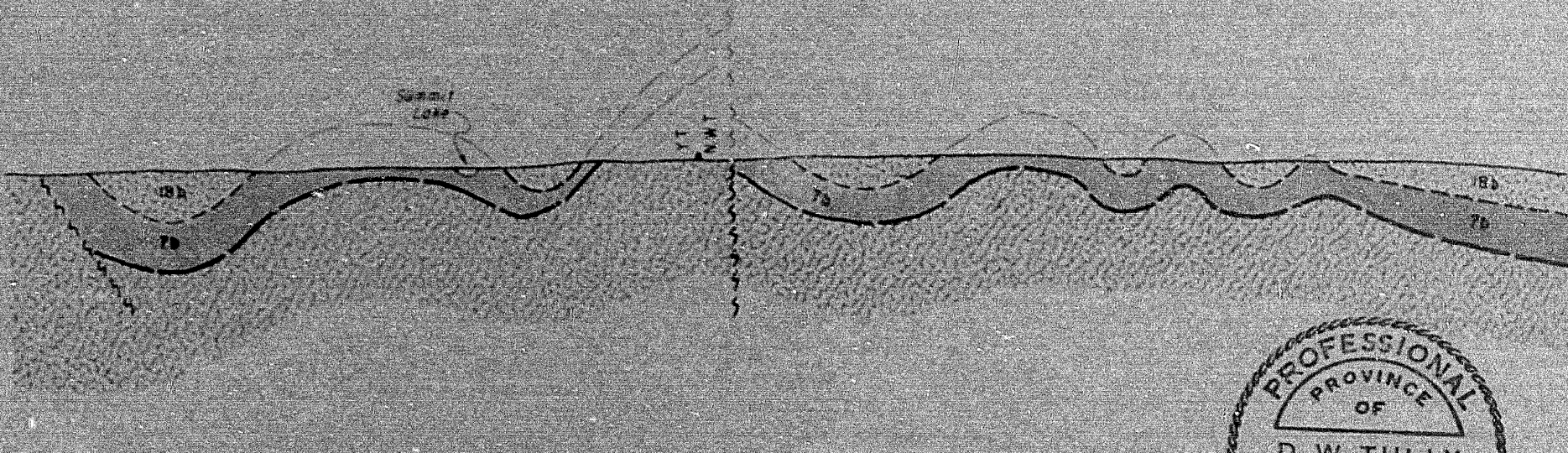
JULY, 1973

NOTE - For legend refer to APPENDIX B

NE

A

A'



ACHERON MINES LTD (NPL)
 SELWYN BASIN AREA PROPERTIES
 YUKON & NORTHWEST TERRITORIES

**SCHEMATIC
 GEOLOGICAL
 CROSS-SECTION**

LOOKING NORTHWESTERLY

NOTE - Geology interpreted from G.S.C.
 MAP 8-1967, 'NAHANNI'

For legend refer to APPENDIX B

DONALD W. TULLY, P. Eng. JULY, 1973

APPENDIX 1

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The formations strike northwest and dip 70 degrees to the north.

Fossil localities are noted in this claim group.

YUK Group - Yukon

Immediately northeast of Summit Lake is the 63-claim YUK group.

Cambrian age limestones and dolomites with later Devonian black shales, sandstones and conglomerate strike northwestward through the claims.

A fold-axis is believed to trend northwest through the property.

NOR Group - Northwest Territories

The NOR group comprises 113 mineral claims located five miles northeast of Summit Lake, just east of the height-of-land, in the Northwest Territories.

Cambrian limestones and dolomites with later Devonian black shales, sandstones and conglomerate trend northwesterly along a fold-axis through the claim group.

TO Group - Northwest Territories

Thirteen miles northeast of Summit Lake is the 49-claim TO group.

18b

7b

18b

18b

7b

TO 7	TO 14	TO 21	TO 28	TO 35	TO 42	TO 49
TO 8	TO 15	TO 20	TO 27	TO 34	TO 41	TO 48
TO 5	TO 12	TO 19	TO 26	TO 33	TO 40	TO 47
TO 4	TO 11	TO 18	TO 25	TO 32	TO 39	TO 46
TO 3	TO 10	TO 17	TO 24	TO 31	TO 38	TO 45
TO 2	TO 9	TO 16	TO 23	TO 30	TO 37	TO 44
TO 1	TO 8	TO 15	TO 22	TO 29	TO 36	TO 43

SECTION A-A

7b

APPENDIX C

ACHERON MINES LTD. (NPL)
 SELWYN BASIN AREA PROPERTIES
 YUKON & NORTHWEST TERRITORIES

TO CLAIM GROUP
 GEOLOGICAL
 SKETCH MAP

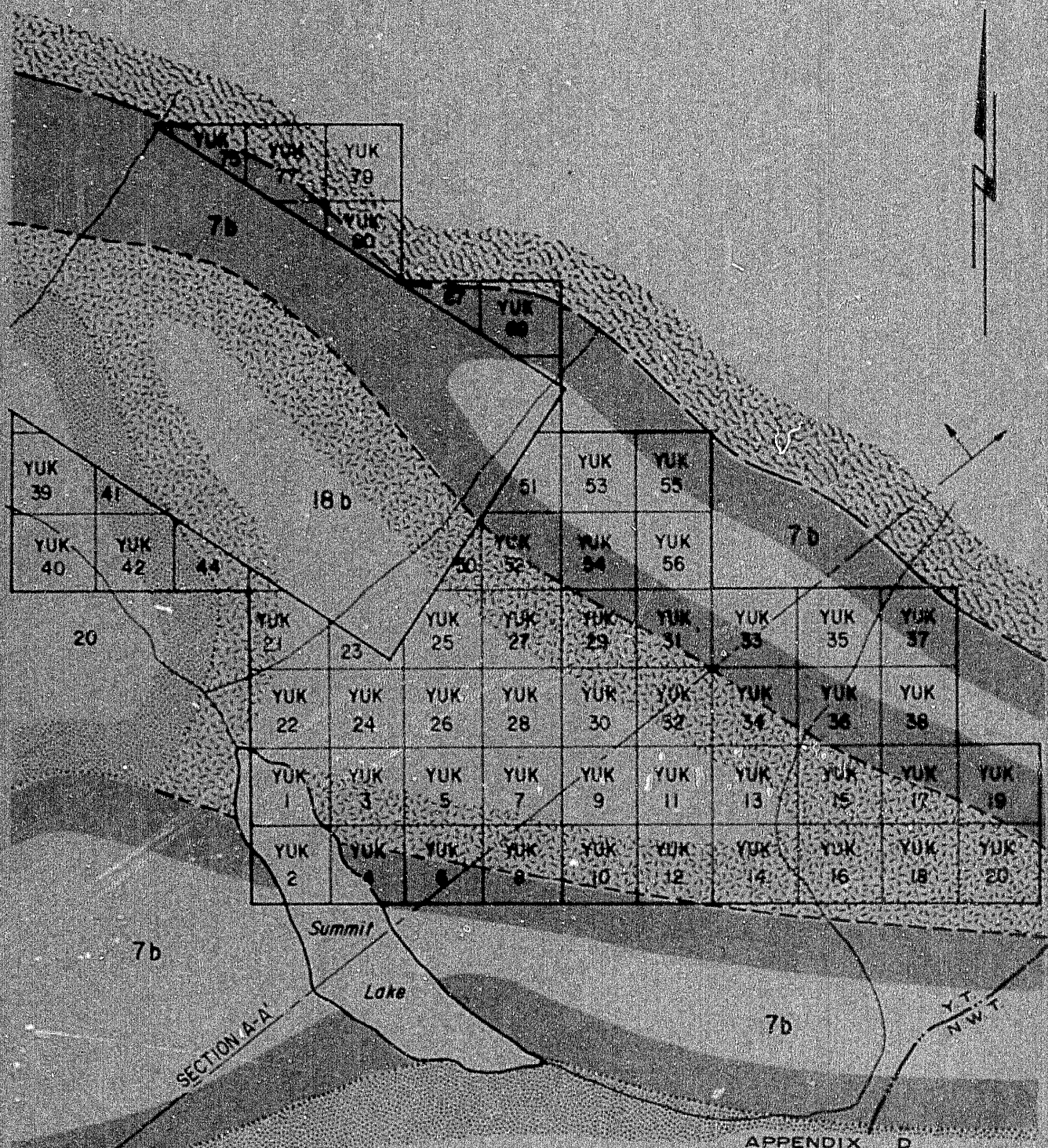
SCALE: - 1" = 0.5 MILES

DONALD W. TULLY, P.Eng

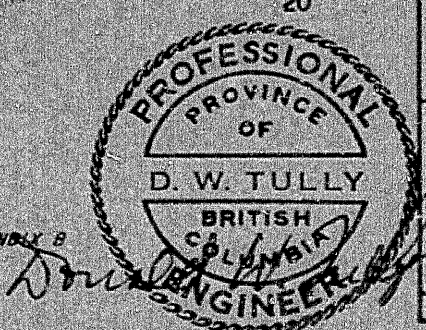
JULY, 1973



NOTE - For legend refer to APPENDIX B



NOTE - For legend refer to APPENDIX B



20

APPENDIX D

ACHERON MINES LTD. (NPL)
SELWYN BASIN AREA PROPERTIES
 YUKON & NORTHWEST TERRITORIES

YUK CLAIM GROUP
GEOLOGICAL
SKETCH MAP

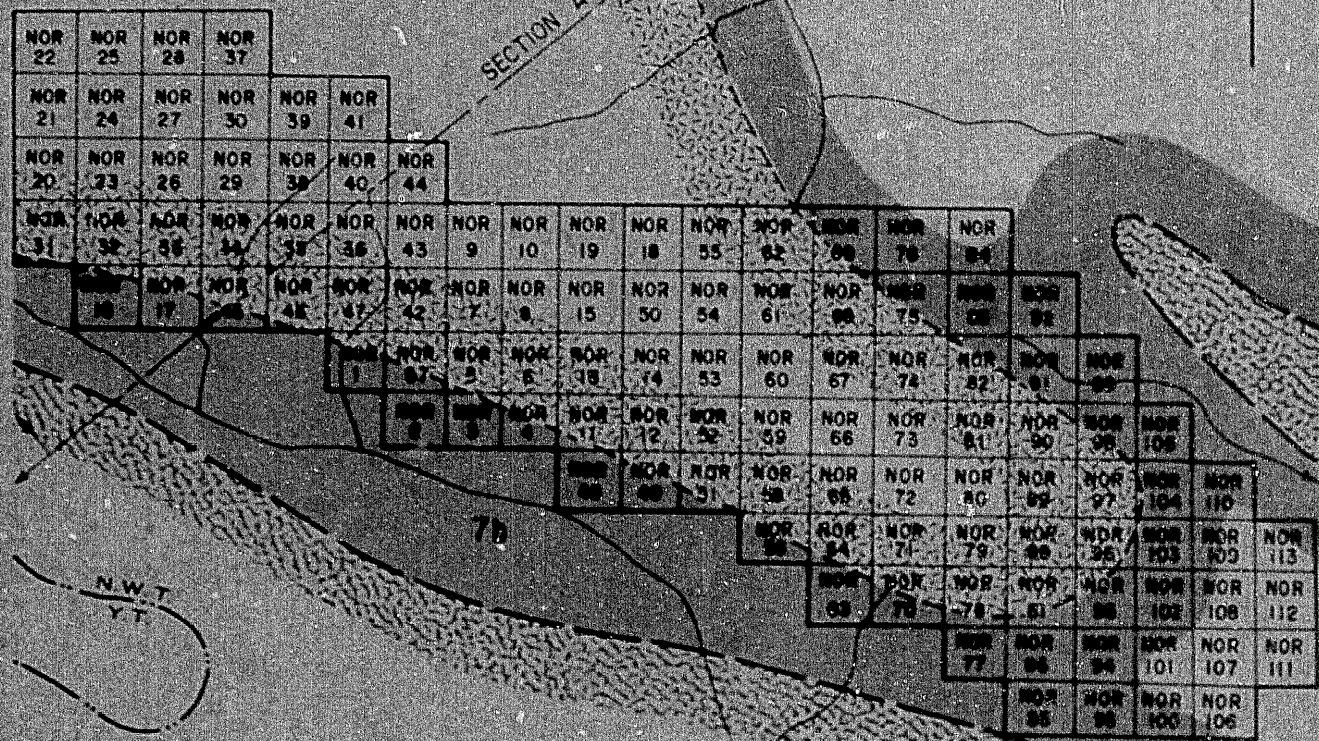
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DONALD W. TULLY, P. Eng. JULY, 1973

18b

7b

SECTION A-A



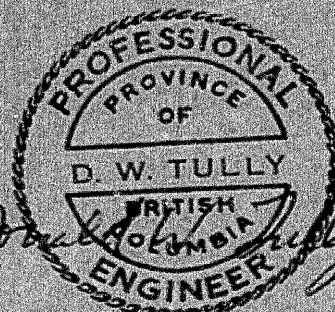
APPENDIX G

ACHERON MINES LTD. (NPL)
 SELWYN BASIN AREA PROPERTIES
 YUKON & NORTHWEST TERRITORIES

NOR CLAIM GROUP
 GEOLOGICAL
 SKETCH MAP

SCALE - 1" = 0.8 MILES

DONALD W. TULLY, P. Eng. JULY, 1973



NOTE - For legend refer to APPENDIX B

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Cambrian limestones and dolomites overlain by black shales, sandstones and conglomerate strike northwest through the claims.

HAT Group - Northwest Territories

The HAT claim group lies thirty-five miles southeast of Summit Lake along the South Nahanni River.

Cambrian and Ordovician limestones, dolomites and carbonaceous fossiliferous shales underlie this 30-claim group.

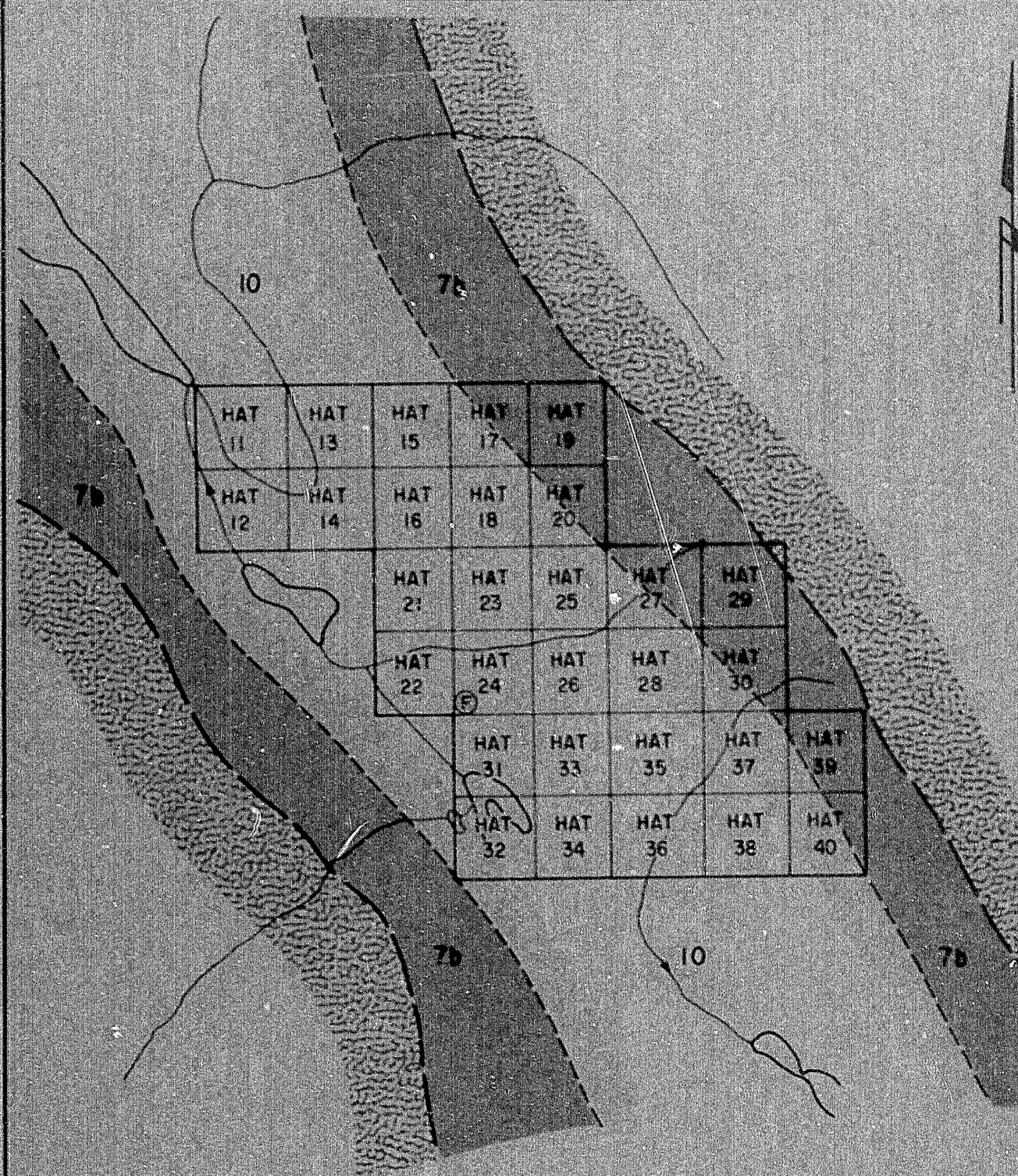
The formation strike northwest along the South Nahanni River.

Overburden occupies the river valley.

MINERALIZATION

Galena, sphalerite and hydrozincite are the minerals reported present in the Canex-Placer Development discoveries. The host rock is believed to be carbonaceous, graptolitic shale that has been severely folded and faulted in complex configuration.

At the present time it is believed the relationship between the host rocks and the origin of the lead-zinc deposits is obscure.



APPENDIX F

ACHERON MINES LTD. (NPL)
 SELWYN BASIN AREA PROPERTIES
 YUKON & NORTHWEST TERRITORIES

HAT CLAIM GROUP
 GEOLOGICAL
 SKETCH MAP

SCALE - 1" = 0.5 MILES

DONALD W. TULLY, P. Eng.

JULY, 1965



NOTE - For legend refer to APPENDIX B

D. I. T. HOLDINGS LTD.

SUITE 102 2222 BELLEVUE AVENUE
WEST VANCOUVER B.C.

RECOMMENDATIONS

1. Tag claim posts and survey claim location lines on each claim group.
2. Prepare a base map from existing air photographs on scale 1" = 400 feet for each claim group.
3. Layout a grid over each of the claim groups with picket lines 400 feet apart.
4. Prospect each claim group in detail.
5. Geologically map each claim group on scale 1" = 400 feet.
6. Geochem soil sample along each picket line at 400-foot intervals.

ESTIMATED COST - PROPOSED WORK PROGRAM

YUK., PAT., TO., NOR., HAT Claim Groups

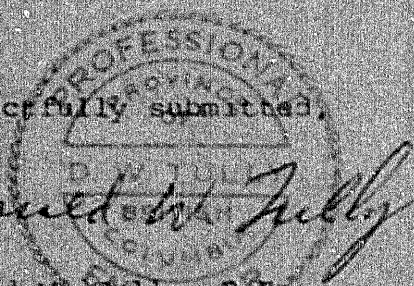
1.	Prepare photogrammetric base plan on scale 1" = 400 feet for each claim group	\$ 3,000
2.	Mobilize and install 4-man camp at each claim group locations	7,000
3.	Layout 295 line miles survey control grid	14,750
4.	Tag claim posts and survey location lines on each claim group	5,000
5.	Prospect each claim group in detail @ \$60 per claim	17,700
6.	Map geologically each claim on scale 1" = 400 feet @ \$60 per claim	17,700

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SUITE 107 2227 BELLEVUE AVENUE
WEST VANCOUVER B.C.

7.	Geochem soil sample on 400-foot reconnaissance grid over each claim group (16 samples/claim x 295 claims = 5320 samples x \$1.75/sample)	\$ 9,310
8.	Geochemical assaying (Pb, Zn, Cu, Ag) 5320 samples x \$2.50/sample	13,300
9.	Engineering, administration, supervision	5,000
	Contingency @ 10%	<u>15,000</u>
	TOTAL	\$107,760

Respectfully submitted,


Donald W. Sully
Donald W. Sully, P. Eng.
CONSULTING GEOLOGIST

July 20, 1973