

MACDONALD CONSULTANTS LTD.

SUITE 11-425 HOWE STREET, VANCOUVER 1, B.C.

FINAL REPORT ON THE
 HOPE 1-48 and ED 1-32
 MINERAL CLAIMS
 located in the
 WHITEHORSE MINING DIVISION
 YUKON TERRITORY
 by
 H. WOBER, P. ENG.

GEOLOGICAL SURVEY
 FEB 13 1967
 Resident Geologist
 Whitehorse, Y. T.

This report has been examined by
 the Geological Evaluation Unit.
 Approved as to technical worth by:
[Signature]
 RESIDENT GEOLOGIST
 Approved as to cost in the amount
 of \$ 3247.65
[Signature]
 RESIDENT MINING ENGINEER
 Accepted as representation work
 under Section 53(4) Yukon Quartz
 Mining Act.
[Signature]
 COMMISSIONER OF YUKON

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INTRODUCTION

This is a final evaluation and report on the work performed on the Hope 1-48 and Ed 1-32 groups of mineral claims and is to be submitted with the application for a certificate of work to the office of the Mining Recorder at Whitehorse, Y.T.

PROPERTY

The claims are recorded as follows at the office of the Mining Recorder at Whitehorse, Y.T.:

Hope 1-48	Grant Number 96441 - 96489 inclusive
Ed 1-32	Grant Number 97149 - 97180 inclusive

Claim sheet 105K - 7

LOCATION

The claim groups are located NW and W of Blind Lakes in the Ross River area at approximately 62° 15' latitude and 132° 30' longitude.

EVALUATION OF PROPERTY

Geological and engineering work performed during the summer season of 1966, showed that the property is underlain by granodiorite and schistose hornfels-silicates and skarns dipping moderately to the north.

The result of soilsampling showed a slight increase in copper and zinc values on Ed #13. This area is underlain by the hornfels silicate-skarn schist formation. The writer examined the outcrops in this area in detail.

WORK PERFORMED AND EXPENDITURES

Original Engineering and Geological

Report by McCutcheon MacDonald Cameron Consultants	\$ 250.00 ✓
Engineering and Geology: Field trips and reports, Maps by MacDonald Consultants Ltd.	1,638.48 ✓
Prospecting Soilsampling and streamsilt sampling, wages	1,110.75
Assaying	72.00
Camp supplies, food, misc. expenses	<u>176.22</u>
TOTAL	\$ <u>3,247.45</u>

These expenditures do not include any costs for transportation of crews to and from the property.

APPLICATION FOR GROUPING

An application for a certificate of work is to be filed for the following two groups of claims:

Group 1: ED 3 to 16 inclusive and Hope 47 and 48.

Group 2: Ed 19 to 32 inclusive and Hope 23 and 24.

Each group consists of 16 claims.

Fifty percent of the expenditures above should be applied to each group.

Respectfully submitted,

MACDONALD CONSULTANTS LTD.

for DOMO MINES LIMITED



H. WOBER, P. ENG.

MACDONALD CONSULTANTS LTD.

SUITE 11 - 425 HOWE STREET, VANCOUVER 1, B.C.

GEOLOGICAL AND TECHNICAL

Report on the

HOPE 1-48 and ED 1-32

MINERAL CLAIMS

Located in the

Whitehorse Mining Division

Yukon Territory

by

MACDONALD CONSULTANTS LIMITED

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INTRODUCTION

This report is an evaluation of the Hope 1-48 and ED 1-32 groups of mineral claims in the Anvil district, Ross River area, Yukon Territory. It also assesses the exploration work performed to date and gives recommendations based thereon.

The report is based on a study of the regional geology of the Anvil district in particular, published in reports of the Geological Survey of Canada, on papers and information made public by the local mining companies, the study of air photographs and on information obtained by the writer during the time he spent on the property. The writer visited the property on two occasions in August and September 1966 to perform the geological mapping and to supervise the prospecting and geochemical sampling.

LOCATION AND ACCESS

The claim groups are located NW and W of Blind Lakes in the Ross River area, Yukon Territory, at approximately 62° 15' latitude and 132° 30' longitude. The ED 1-32 group of mineral claims adjoins the Hope 1-48 group of mineral claims at the NE boundary.

Helicopter services were used for access to the property during the 1966 Exploration program.

The mining camp extends for about 72 miles from Ross River along and mainly on the northeast side of Pelly River, reaching a maximum width of about 30 miles at a point some 24 miles downstream from Ross River. The Ross River settlement is about 125 miles northeast of Whitehorse by Air.

Access to the area is gained by the old all-weather Canol Road built during World War II. The road starts from the Alaska Highway at Johnson's Crossing. The total distance by road from Whitehorse to Ross River is 240 miles. The system of winter roads, built by some of the mining companies in the area, provides access into the actual mining camps. Some of these roads will most probably be maintained passable for 4-wheel drive vehicles during the summer months, although it was observed by the writer that the piece of winter road along the north bank of Blind Creek in the immediate area of the Luk claims would require a considerable amount of cat work to make it passable even for 4-wheel drive vehicles after the damage done to the road during breakup.

A new all-weather gravel road, being started this summer and planned to be completed in 1967 will connect Ross River with Carmacks on the Whitehorse-Mayo Highway. Fixed wing aircraft up to the size of a D-3 are able to land on airstrips at Anvil's Faro and Ace properties, the Vangorda property and Ross River, providing the ground conditions are good. Smaller fixed wing aircraft and helicopters can land on the many small lakes in the area.

HISTORY

Apart from early prospecting for placer gold early in the century and reconnaissance work done by the Geological Survey of Canada in the thirties (J. R. Johnston, G.S.C. memoir 200, 1936) the area was dormant until the Canol Road, built during World War II, provided better access to the district.

No significant mineralization was found in the Ross River district until 1953 when Prospectors Airways found, and in the following two years proved up, the Vangorda deposit of 9,400,000 tons or grading 3.16% lead, 4.96% zinc, 0.2% copper and 1.76 ounces of silver per ton.

No additional tonnage or better grade ore was found during the following period. Further exploration seemed not to be feasible due to the low metal prices in the following years.

The above mentioned deposit is now controlled by Vangorda Mines Ltd., a subsidiary of Kerr Addison Mines Ltd.

Kerr Addison Mines Ltd. caused new interest in the district when it staked claims in the Swim Lake area and carried out a program of geophysical surveys in the fall of 1963.

Dynasty Exploration, formed in early 1964, and Kerr Addison conducted an extensive staking and exploration program during 1964. The results gained by Dynasty during the 1964 exploration season were encouraging enough to provide further financing to Dynasty by Cyprus Mines Corporation of Los Angeles in early 1965. Future joint operations by Dynasty and Cyprus became known as the Anvil project. Anvil Mining Corp. was formed in December, 1965. June 1965 brought the breakthrough for Dynasty when encouraging drill results from their Sea, Nasty, Cub and Beta anomalies were obtained and finally massive sulfides were intersected on the Faro anomaly.

The last official report released by Anvil to date states that its' Faro deposit contains "and indicated potential ore tonnage of thirty million tons with a probable average grade of 8 - 11% combined lead zinc with some silver mineralization". Also Kerr Addison obtained encouraging results during 1965 from their limited drill program and discovered "what appears to be a sizeable lead-zinc deposit by drilling a magnetic, E M and gravity anomaly zone west of Swim Lakes." (Dr. A. E. Aho, paper presented at the Second Natural Resources Conference, Whitehorse, Y.T. March, 1966)

Staking activity continues to be strong in the whole area with well over 10,000 claims recorded to date.

GEOLOGY

1. Regional

The Anvil district shows a striking resemblance to many other metallogenic provinces in North America and Europe.

This is not only the case for the actual Anvil district but the entire greater region.

A series of younger (cretaceous to tertiary) intrusions has come up along a regional zone of weakness - the strong Tintina Fault - which has been traced by a remarkable lineament for some 450 miles north - west, from the headwaters of Liard River to beyond the Alaskan border.

Every batholith in the chain of intrusions along the Tintina Fault and of approximately the same age represents the possibility for the existence of a mineralized halo in the surrounding host rock caused directly or indirectly by the intrusion. Whether this mineralization can be found in economic concentration depends on the local geological conditions of host rock, chemical composition of the intrusion, the stratigraphical thickness of overlaying formations at the time of the intrusion and the influence of temperature, pressure and timing.

Both the Tintina Fault with its parallel subsidiaries and the uplift by the intrusions caused a system of structural features which have a certain influence on the control of the mineral deposits although only a part of these structures and their influence have been established to date.

The regional geology of the Anvil district has been mapped and published by the Geological Survey of Canada on preliminary maps at a scale of one inch to four miles.

The granitic core of the Anvil batholith has intruded a series of banded quartzose granolites, green and purplish banded skarn, quartz sericite schist, hornfels and phyllite and some graphitic schist members all of Mississippian age.

The intrusion caused an uplift of the above formations which now, after erosion has taken place, flank the sides of the granitic core.

The G.S.C. report states, referring to this series: "unit 7 (see above) is several thousand feet thick. Near the granitic rocks the unit locally contains sulfide minerals. Unit 7 grades upward into material that is increasingly volcanic."

This formation domed up to an anticlinal structure, has been established as to be the favourable host rock for massive sulfide deposits, which does not mean that other formations do not have economic deposits, just because they have not been discovered to date.

Apart from the higher, granitic regions little outcrop is to be seen in the area which was heavily glaciated at pleistocene time, the slopes of the hills are covered by overburden and the valleys are filled with river gravel and/or unsorted glacial material.

Geology of the Claim Groups

The writer mapped and prospected the claim area and found a silica rich banded hornfels and schist exposed on Ed #9, 11, 13, 28 and 30. The schist formation has northeast to easterly strike directions and dips 35° to 37° to the north on Ed 11, 13, 18 and 30. The smaller outcrop close to the granodiorite outcrops on the same claims dips to the southeast. The rest of the property is largely covered by overburden but where bedrock is exposed and to judge from float and slide rock in the overburden it is underlain by gabbro and granodiorite. A NNE trending fault forms the granodiorite-schist contact on Ed 11, 13 and 30.

Exploration Work 1966

A) Prospecting

Mr. F. P. Thode and Mr. K. Turnbull prospected over the entire claim area in detail during a period of 10 days from August 22 to 31st under the supervision of the writer. Several outcrops were found which were later on examined and mapped in detail by the writer, but no mineralization was discovered.

B) Geochemical Sampling and Testing

A program of reconnaissance soil sampling was carried out over the area underlain by hornfels-silicate schists and skarns on the Ed groups and part of the Hope group of mineral claims. Stream silt samples were taken from all the creeks crossing the property. The soil samples were spaced at 500' intervals on a line starting on the southwestern boundary of Ed #3 running in southwesterly direction parallel to the claim location lines.

A total of 36 soil samples and streamsilt samples were taken in the area of immediate interest. Samples of approximately one cup size were taken using a mattock from holes 6 to 18 inches deep of 'organic free' material. All samples were tagged and placed in small plastic sample bags.

Lab Procedure for Chemical Analysis of Soil Samples for lead, Zinc and Copper:

The Bio-Metal Corporation Ltd. of 204 - 1515 Pemberton Avenue, North Vancouver was contracted to do the chemical analysis of the soilsamples.

The samples were tested by the hot-aqua regia method for dissolving the metal contents in the samples. An atomic absorption apparatus was used for the reading of the values which were converted to parts per million (ppm) by a conversion factor.

Results and Assessment of Information:

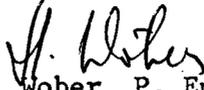
The result of soilsampling showed a slight increase in copper and zinc values on ED # 13 in samples #9111, 9113, 9114 and 9115. This area is underlain by hornfels-skarn-schist formations. The writer examined the outcrop in this area in detail but did not find any signs of sulphide mineralization. Since most of the other samples were taken from areas which are most likely underlain by granodiorite, it is difficult to say whether this increase represents a higher background in the schist formation or is to be regarded as a weak anomaly.

RECOMMENDATIONS

1. The Hope 1-48 group of mineral claims is underlain by granodiorite gabbro and shows no indications of mineralization in the silt samples. It is therefore recommended to let 44 of these claims lapse and to retain Hope # 23, 24, 47 and 48. No further work is recommended.
2. The work done on the ED 1-32 group of mineral claims should be filed as assessment work with the exception of ED # 1, 2, 17 and 18, in order to extend the validity of the claims until next summer. If the general outlook in the Dynasty area improves by this time, some more detailed soilsampling can be recommended on the ED group of mineral claims in the area underlain by schist and along the inferred granodiorite-schist contact. No further work should be done during the winter due to the difficulty of operation in the severe weather conditions.

Respectfully submitted,

MACDONALD CONSULTANTS LTD.


H. Wober, P. Eng.

CERTIFICATE

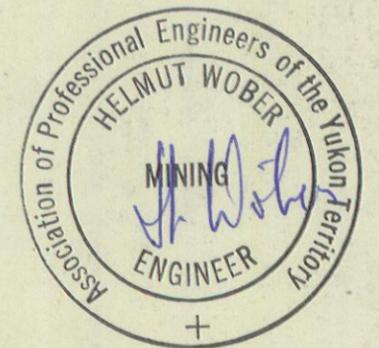
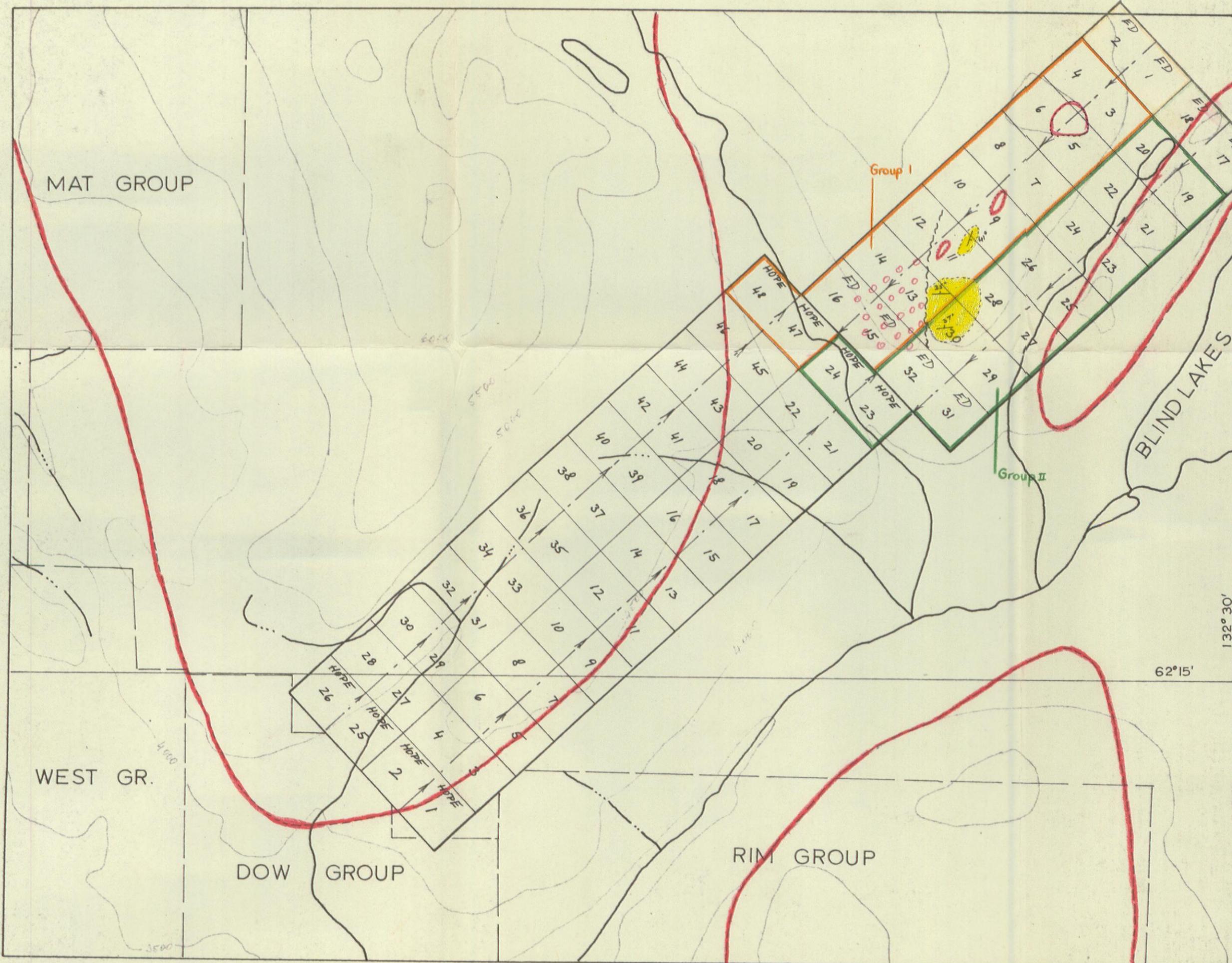
I, Helmut Wober, with business and residential address in Vancouver, B.C. do hereby declare:

1. I am a consulting mining engineer.
2. I am a graduate of the Montanistische Hochschule Leoben, Austria, 1963.
3. I am a registered professional engineer in the Yukon and British Columbia.
4. I have gained experience in mining and exploration geology in positions of responsibility with Nordisk Mineselskab A/S in East Greenland in 1961 and 1962, with United Keno Hill Mines from 1964 to 1966. I held the position of Chief Mine Geologist with United Keno Hill Mines when I resigned to join MacDonald Consultants Ltd. in May 1966.
5. I have personally studied all available information on the geology of the area described.
6. I do not have, nor do I expect to have, any interest, direct or indirectly, in any properties referred to in this report.

Respectfully submitted,



H. Wober, P. Eng. (Yukon and B.C.)



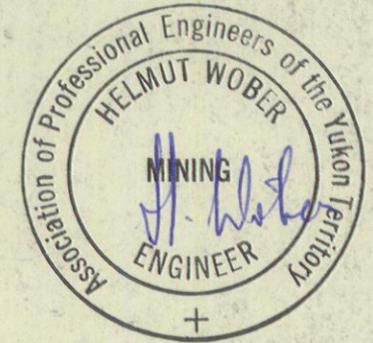
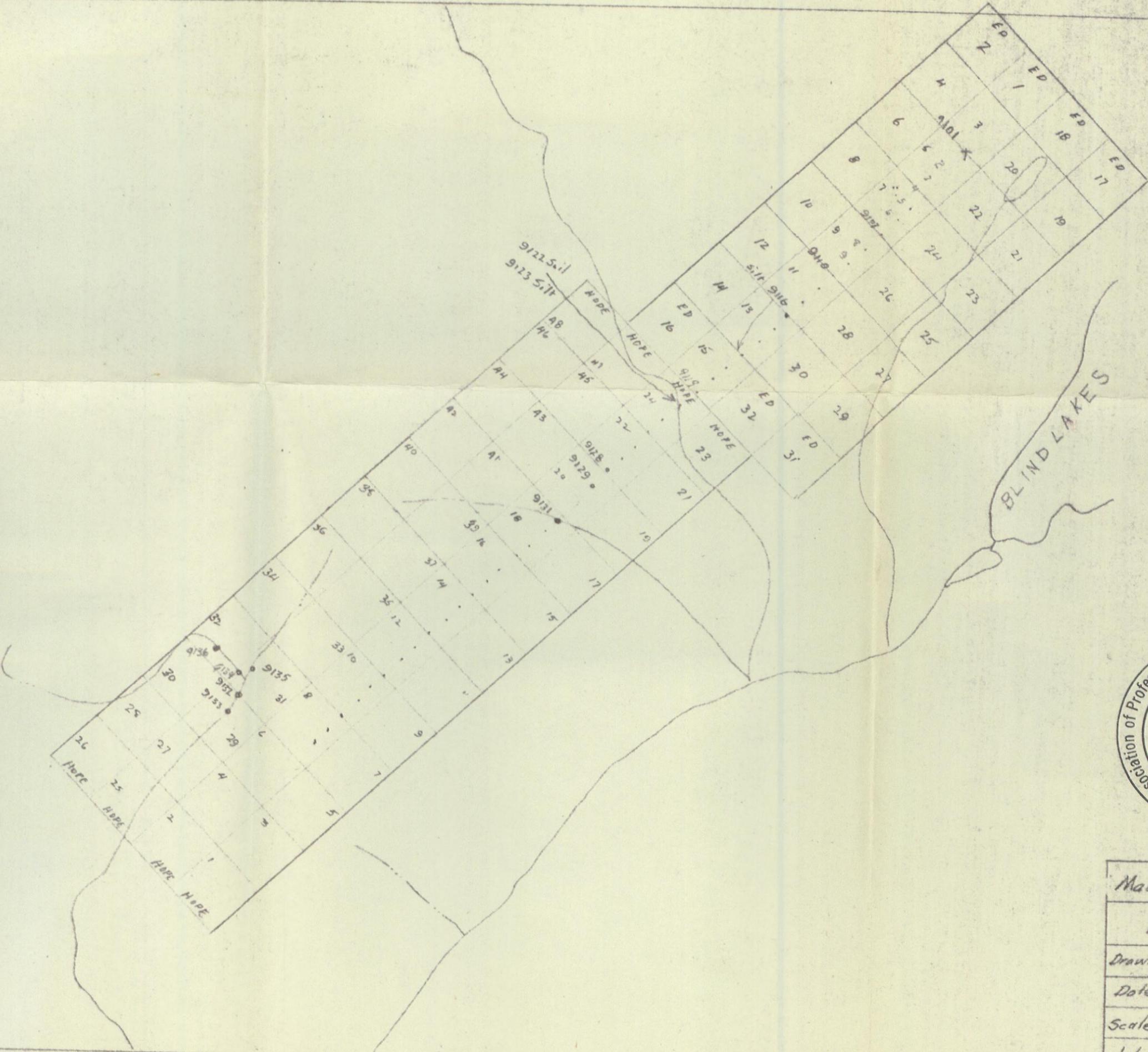
- ~~~~~ FAULT, assumed.
- BANDED QUARTZOSE SCHIST
HORNFELS SILICATES
- GRANODIORITE, GABBRO
○ sliderock, float
- GLACIAL & ALLUVIAL DEP.

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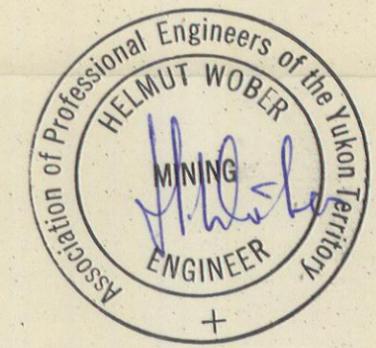
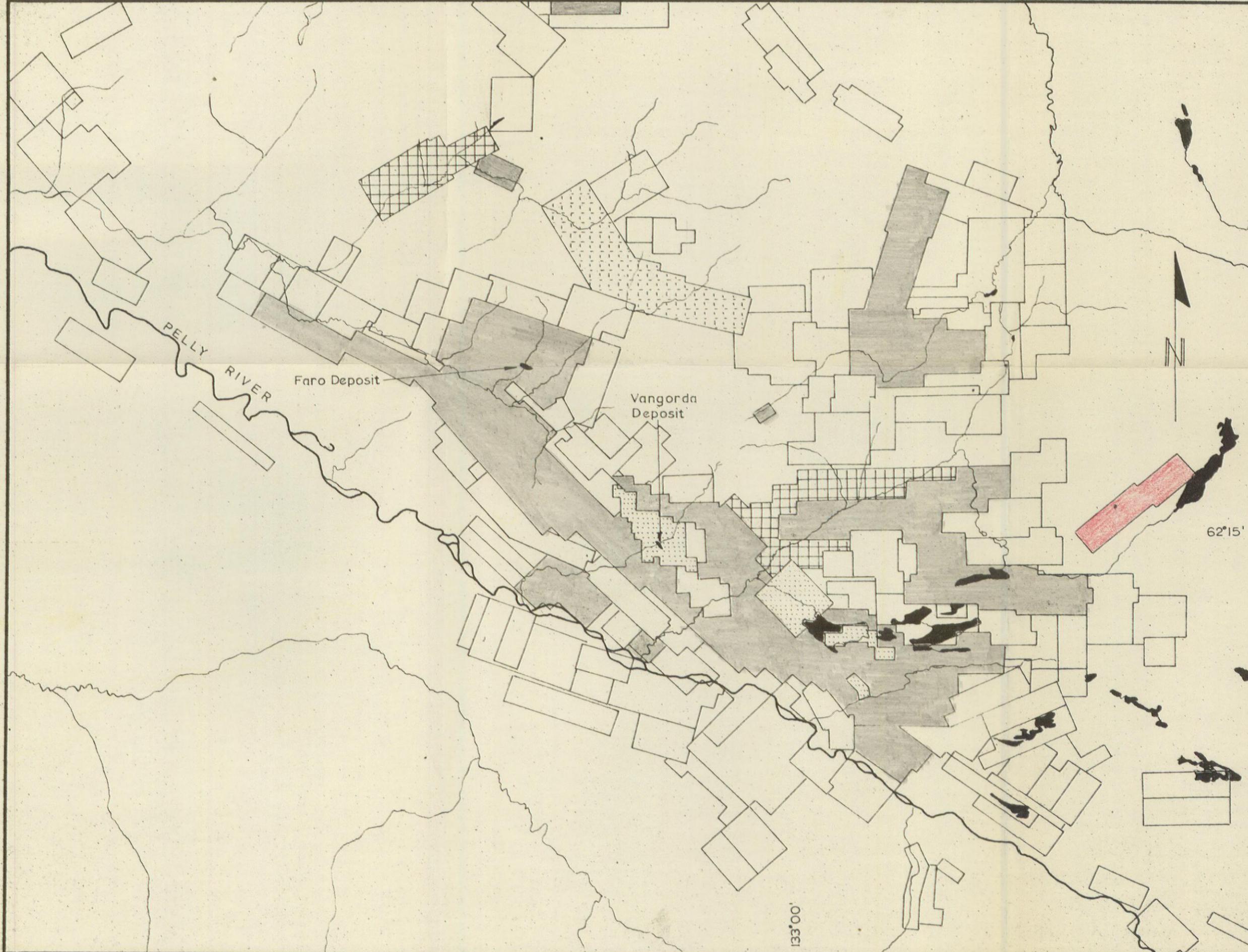
DRAWN	J.W.	CLAIM LOCATION GEOLOGY
DATE	Aug 66.	
SCALE	1" = 1/2 mi	
JOB	203	
		CLAIMSHEETS 105-K7K2

	Cu PPM	Zn PPM	Pb PPM
9101	14	62	T
9102	12	75	Nil
9103	24	50	Nil
9104	14	125	Nil
9105	14	75	Nil
9106	10	85	Nil
9107	16	48	Nil
9108	10	37	Nil
9109	14	99	Nil
9110	12	48	Nil
9111	30	75	Nil
9112	7	83	Nil
9113	50	62	Nil
9114	18	447	Nil
9115	41	62	Nil
9116	7	178	Nil
9117	8	75	Nil
9118	7	62	Nil
9119	10	110	Nil
9120	7	37	Nil
9121	5	75	Nil
9122	18	62	Nil
9123	7	62	Nil
9124	12	43	Nil
9125	8	24	Nil
9126	14	37	Nil
9127	8	37	Nil
9128	10	83	Nil
9129	7	48	Nil
9130	7	37	Nil
9131	18	37	Nil
9132	5	13	Nil
9133	3	24	Nil
9134	3	13	Nil
9135	3	24	Nil
9136	3	62	Nil



MacDonald Consultants Ltd		
DOMO MINES LTD		
Drawn	Soil Samples Location and Value	
Date		Nov 66
Scale		1 1/2" = 100'
Job		203

Source of Information:
 Government Claim maps.
 Individual ownership not certified.



-  DOMO MINES
-  SWIM LAKE MINES
-  Anvil
-  Kerr Addison
-  Giant Yellowknife
-  Other Interests

MacDonald Consultants Ltd.

DOMO MINES LTD.

SCALE	1" = 4mi	CLAIM LOCATIONS ROSS RIVER AREA WHITEHORSE MINING DIVISION Y.T.
DRAWN	<i>H.W.</i>	
DATE	Dec. 66.	
NO.		