

ARCHER, CATHRO

AND ASSOCIATES LTD.

CONSULTING GEOLOGICAL ENGINEERS

WHITEHORSE, Y.T. 667-4415

1475 TWO BENTALL CENTRE, VANCOUVER, B.C. 688-2568

4127

POST OFFICE BOX 1708
WHITEHORSE, Y.T.

NITE AND MID CLAIMS REPORT

GEOLOGY, GEOCHEMISTRY, TRENCHING AND DIAMOND DRILLING

Nite 1-24; Y64042-Y64065 inclusive
Nite 25-64; Y64274-Y64313 inclusive
Mid 1-29 Y64349-Y64377 inclusive



105-B-7

WATSON LAKE MINING DISTRICT

WOLF LAKE JOINT VENTURE

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 575.34

M. W. Milne (for)

Resident Geologist or
Resident Mining Engineer

Considered as representation work under
Section 53 (4) Yukon Quartz Mining Act.

R.J. Cathro, P.Eng.

[Signature]
Commissioner of Yukon Territory

June, 1972

TABLE OF CONTENTS

	<u>Page</u>
Conclusions and Recommendations	1
Introduction	2
Location and Access	2
Claim Data	2
History	2
Physiography	3
Geology	4
Mineralization	5
Geochemistry	9
Trenching and Drilling	10
Certification	(Appendix)
Drill Logs	(Appendix)

ILLUSTRATIONS

	<u>Following Page</u>
Figure 17A- Nite, Mid and Wolverine Saddle Geology	11
17B- Nite, Mid and Wolverine Saddle Cu,Mo,W, Ni Geochemistry	11
17C- Nite, Mid and Wolverine Saddle Zn,Pb,Ag, Geochemistry	11
17D- Nite, Mid and Wolverine Saddle Airborne Magnetics	11
17F- Nite Drill Section Holes 1, 2 and 3 Scale-1"=40'	11
17G- Nite Drill Section Holes 4 and 5 Scale-1"=40'	11
17H- Nite Drill Section Holes 6 and 7 Scale-1"=40'	11
17I- Nite Drill Section Hole 8 Scale-1"=40' ...	11
Figure 18A- Mid Geology Scale-1"=500'	11
18B- Mid Cu, Mo, W, Ni Geochemistry Scale-1"=40' ...	11
18C- Mid Zn, Pb, Ag Geochemistry Scale-1"=40' ..	11

FIGURES IN POCKET

Figure 17E- Nite Geology, Bulldozer Trenching and Drill Hole Locations Scale 1"=100'	
--	--

CONCLUSIONS AND RECOMMENDATIONS

The Nite and Mid claim blocks cover two skarn occurrences in lower Cambrian or earlier G.S.C. Unit 1b.

The Nite showing was extensively explored for its tungsten and molybdenum potential. Neither drilling or bulldozer trenching proved sufficient grade to justify continued exploration. The only exploration potential left is the possibility of (a) the skarn contracting the intrusive either to the east or west or (b) small intrusive outliers re-cutting the skarn downhill to the north. Both possibilities are difficult to explore because of overburden cover and both appear unlikely on the basis of the few outcrops that exist in these directions. No further work is recommended on the Nite showing during 1972.

Geochemical sampling in the Mid zone has indicated that the lead-zinc-silver potential is greater than the tungsten potential. Not enough work was done here to evaluate the showing and further work is justified. It should include grid geochemical sampling and detailed reconnaissance sampling to the west, towards Wolverine Saddle, directed mainly toward discovery of silver-lead-zinc veins. The skarn should be traced south toward the intrusive contact where a better grade would be expected. A bulldozer should be walked to the property in late summer to explore the Mid gossan zone and other zones located geochemically.

INTRODUCTION

This report covers geological mapping, geochemical surveys, trenching and diamond drilling carried out during the period July 25 to October 6, 1971 on the Nite 1-64 and Mid 1-29 claims by the Wolf Lake Joint Venture (Caltor Syndicate, Rayrock Mines Ltd., and Ashland Oil Inc.).

LOCATION AND ACCESS

The Nite and Mid claim groups are situated about twenty air miles north of Rancheria Lodge and 70 air miles northwest of Watson Lake. The claim group is accessible by helicopter or by float equipped fixed wing aircraft using Caribou or Edgar lakes, four miles northwest and three miles southwest, respectively.

CLAIM DATA

The Nite 1-24 claims, record numbers Y64042-Y64065 inclusive, Nite 25-64 claims record numbers Y64274-Y64313 inclusive and the Mid 1-29 claims record numbers Y64349-Y64377 inclusive form an L-shaped, contiguous block of claims and are recorded in the Watson Lake Mining District. The claims are owned by Wolf Lake Joint Venture (Caltor Syndicate, Rayrock Mines Ltd., Ashland Oil Inc.).

HISTORY

The claims were located in August and September, 1971 by the Wolf Lake Joint Venture, to cover a zone of scheelite and molybdenite-bearing garnet-diopside skarn. No previous claims have existed in the Nite claim group. Three small claim blocks were staked six miles northwest of the Nite group in 1948 by Great Northern Exploration Co. Ltd. Two

molybdenum showings in the main skarn unit were staked as the Bender, Moly, and Aurora claims. A silver-lead vein occurrence was covered by the Moose claims. Later staking included the Dual claims in 1962, and the El Capitan, Doll, Blacky and Marina groups in 1968. All claims were allowed to lapse.

The Mid claims cover an area of skarn which was previously staked as the Bastille claims in 1948 by Great Northern Exploration Co. Ltd.

During the 1971 field season the Wolf Lake Joint Venture, under the management of Archer, Cathro and Associates Ltd., carried out a program of geological mapping, prospecting, geochemical sampling, trenching and diamond drilling.

PHYSIOGRAPHY

The Nite zone is situated on the northeast side of a northwest trending mountain ridge. Slopes are gentle for the most part in the vicinity of the Nite zone. Elevation varies from 4000 ft. to 5500 ft. in both claim groups. The Nite zone is situated at tree line. The higher elevations are bare and moss covered. The zone extends below tree line to the northeast. The Mid zone showings lie mostly above tree line. Outcrops are not abundant in the area. The higher areas above tree line are generally moss covered. Overburden exceeds 30 ft. in depth within several hundred feet of outcrops.

GEOLOGY

(See Figures 17A, 18A)

The skarn is developed in impure limy rocks of G.S.M. Unit 1b which consists of intercalations of marble and calc-silicates near the top of Unit 1a, a sequence of biotite-quartz schist and gneiss. Unit 1b occurs in several areas along a length of seven miles on the northeast margin of the Cassiar Batholith. The southeast end consists of the Mid and Nite showings which are separated by an inferred fault.

Surface examination of scattered, small outcrops in the Nite zone indicated a fairly simple sequence of skarn, marble and schist. However, the drilling and trenching showed that a great range in skarn alteration exists with poor correlation along strike or down dip. This is due, to some extent, to faulting but is probably due, in part, to facies changes and unconformities within the calc-silicate unit. In the drill logs, this unit has been sub-divided into (1) massive garnet-diopside skarn, (2) banded garnet-diopside skarn, (3) garnet actinolite skarn, (4) garnet-biotite hornfels, (5) biotite hornfels, (6) garnetiferous marble and banded calc-silicate marble, and (7) finely banded limestone. The Mid zone skarn is located 1.5 miles west of the Nite zone. Several prominent black gossans prompted earlier staking in the area.

The Mid Zone skarn is separated from the intrusive contact by a thick band of schist. It contains less diopside than the Nite Zone. The calc-silicate unit strikes north and dips 35-65° east. It includes narrow bands of limy hornfels, marble, weakly to intensely altered skarn and schist, the details of which are obscured by seventy-five per cent overburden cover.

The rock types underlying the area are described below:

Cretaceous

G.S.C. Unit 15 - Biotite quartz monzonite and granodiorite

Lower Cambrian

G.S.C. Unit 3b - Limestone

Lower Cambrian or earlier

G.S.C. Unit 1b - Calc-silicates, marble skarn

G.S.C. Unit 1a - Schist, quartzite

G.S.C. Unit 2 - Quartzite, slate, phyllite

MINERALIZATION

Mineralization at the Nite Zone consists of scheelite and molybdenite in garnet-diopside-quartz skarn. The skarn is developed in impure limy rocks of G.S.C. Unit 1b, which consists of intercalations of marble and calc-silicates.

The Nite Zone is partially exposed on a low hill on the north flank of a gentle mountain. The batholith outcrops within one thousand feet south of the mineralized zone, and the intervening depression is underlain by quartz-mica schist

(Unit 1a). Mapping and sampling of the twenty-five per cent outcrop over the zone suggested that a potential existed for a mineralized thickness of one hundred feet, a length of over three thousand feet, and a grade of 0.3% WO₃. With this tonnage potential in such a favourable location and topographic setting, the decision was made for a limited program of drilling and trenching to check the continuity and grade.

The best mineralization occurs in a skarn composed of eighty per cent massive, cinnamon-brown garnet, fifteen per cent quartz and five per cent dark green diopside, which contains traces of tremolite and a green calc-silicate that is probably epidote. The only tungsten and sulfide minerals seen are scheelite, molybdenite, pyrite, pyrrhotite and sphalerite. Their mode of occurrence is (a) Scheelite- as disseminated euhedral crystals up to 1/4 inch, as narrow veinlets cross trending the skarn and as fine grained disseminations that show a crude alignment to the stratigraphy. The scheelite fluorescence varies from blue-white to creamy white, possibly due to differences in molybdenum content. Assays of fairly pure material indicate that the molybdenum content of a tungsten concentrate would be within commercial purity limits; (b) Molybdenite - as disseminated flakes in the more chloritic sections. It oxidizes near surface to ferromolybdate, which has a yellow fluorescence that can be mistaken for molybdo-scheelite or powellite. (c) Pyrite and Pyrrhotite -

are not common and usually occur as disseminated crystals near fractures and (d) Sphalerite - was only noted in a five inch wide vein in Hole N8. Other holes cut occasional narrow veins that were oxidized and leached and probably contained sphalerite prior to weathering. Fragments of similar oxidized material were found on surface.

Assays of nine specimens collected from the main showing prior to bulldozing and drilling were assayed at three laboratories with the following results.

<u>Sample No.</u>	<u>Whitehorse Assay</u>		<u>Chemex</u>	<u>General Testing</u>
	<u>%MoS₂</u>	<u>%WO₃</u>	<u>%WO₃</u>	<u>%WO₃</u>
10017	0.072	0.20	0.22	0.23
10008	0.010	11.60	12.2	12.78
10009	0.777	2.27	2.38	2.97
10020	0.003	0.30	0.29	0.32
10001	0.119	2.82	2.97	3.02
10002	0.003	0.26	0.35	0.43
10003	0.008	4.67	4.92	5.05
10004	0.003	2.56	2.65	2.77
10005	0.038	5.50	5.30	5.71
10006	0.443	1.45	1.45	1.88

These assays were obtained mainly to aid in visual grade estimation. Rock geochemical assays of representative samples across the same area indicated an average grade of approximately 0.5%. Later sampling of bedrock in a bulldozer trench (Trench 4N) in the same location returned only 0.22% WO₃ over twenty-five feet. Drilling beneath the trench (Hole N4) returned even lower values. This same trend of abundant high grade float on surface over lower grade bedrock in the bulldozer trenches with a rapid reduction in grade downdip in the drill holes persisted on each section

tested. The only obvious explanation is that grade decreases with increasing distance down-dip from the intrusion. Unfortunately, the contact between the intrusion and skarn has been completely removed by erosion. The high grade residual material over the showing may be a remnant of the higher grade material that once occurred above.

A traverse across the Mid Zone skarn, with rock geochemical assays of each unit, is shown on Figures 18A to 18C. The best tungsten-molybdenum mineralization occurs in a skarn band about ten to fifteen feet thick at the southwest end of the section where geochemical assays indicate a tungsten content of about 0.25% . An interesting feature of the Mid area is a NE-trending zone of intermittent lenses of black porous gossan which contains visible galena. The zone is about 1800 feet long and averages ten to fifteen per cent porous gossan over a width of 200-300 feet. Grab samples of better mineralized material assayed as follows:

<u>Sample No.</u>	<u>Au(oz/T)</u>	<u>Ag(oz/T)</u>	<u>Pb%</u>	<u>Zn%</u>
10027	0.005	1.06	8.0	1.8
1588	Tr	7.92	18.5	10.08

A semi-quantitative spectrographic analyses of sample 1588 showed 0.02-0.1% Sb, 0.01-0.05% Cu and 1-5% Mn.

The Mid area appears to be mainly of interest for its silver-lead-zinc potential although the tungsten can not be ignored.

GEOCHEMISTRY

(See Figures 17B, 17C, 18B, & 18C)

The regional geochemical sampling of the Nite and Mid claim groups are shown in Figures 17B and 17C. The geochemical response indicates that the skarn belt between the two zones is of interest for silver-lead-zinc mineralization. Tungsten and molybdenum are only anomalous in the vicinity of the Nite and Mid showings, and are erratically distributed. Copper values are generally low throughout. Considered as a whole the geochemical pattern suggests that the skarn belt may have a mineralogical zoning from silver-lead-zinc in the northwest to molybdenum to tungsten in the southeast.

A total of 67 geochemical soil, silt and rock samples were initially taken in the Nite claim group including rock assays done during the drilling program. The Nite and Mid showings were discovered by prospecting while geochemical samples were being taken. The geochemical response was high enough in tungsten to have required further investigation, had the showing not been found by prospecting.

The Mid Zone was discovered by prospecting previously staked showings. A total of 72 geochemical soil, silt, and rock samples were taken in the claim group. Soil samples taken over it on a 200 foot grid returned highly anomalous lead, zinc, and silver values with the occasional weakly anomalous value in copper, molybdenum and tungsten. The geochemical response indicates that the lead-zinc-silver potential is greater than the tungsten potential. Further

investigation of both possibilities is warranted since most of the exploration was directed toward the Nite claims.

TRENCHING AND DRILLING

(See Figure 17E)

Trenching and drilling in the Nite Zone was carried out from September 2 to October 6, 1971. During that time 1503 ft. of NQ size core was drilled in 8 holes, and 10 trenches were cut across a strike length of 3600 ft., using a D7 bulldozer. The location of trenching and drill holes are shown on Figure 17E in the pocket. Drill hole sections are shown on Figures 17F to 17I in the text. Drill logs are included in the appendix.

Skarn zones in trenches were sampled at twenty-five foot intervals. A total of 79 trench samples were assayed. Assays were done by Whitehorse Assay Office. Three check samples were sent to Chemex Labs Ltd., North Vancouver.

Drill core was split and assayed over 5 ft. intervals in skarn zones. Seventy-four samples were sent to Whitehorse Assay Office and analyzed for tungsten and molybdenum. Fourteen check samples were assayed by Chemex Labs Ltd, North Vancouver, B.C.

Some average grades were calculated for the best intersections. Diamond drill hole N4 contained three sections which graded as follows:

<u>WO₃%</u>	<u>MoS₂%</u>	
.136	.001	over 20'
.16	.004	over 30'
.17	.008	over 30'

These sections were contained in 115' continuous true thickness.

Hole N6 had the following average grades: (See Figure 17G)

<u>WO₃%</u>	<u>MoS₂</u>	
.093	.003	over 30'
.142	.003	over 10'

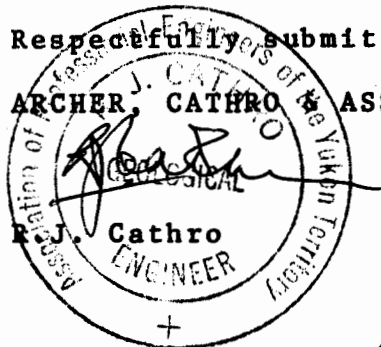
These were contained in a 85' continuous true thickness.

Hole N8 had the following average grade: (See Figure I)

<u>WO₃%</u>	<u>MoS₂</u>	
.11	.016	over 15'

Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES LTD.



June 19/72

ARCHER, CATHRO
AND ASSOCIATES LTD.
CONSULTING GEOLOGICAL ENGINEERS

WHITEHORSE, Y.T. 667-4415

1475 TWO BENTALL CENTRE, VANCOUVER, B.C. 688-2568

4127
POST OFFICE BOX 1X02X
WHITEHORSE, Y.T.

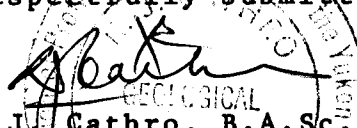
June 19, 1972

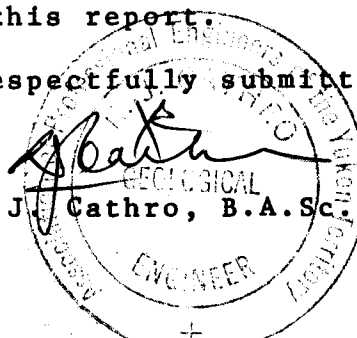
CERTIFICATE

I, Robert J. Cathro, with business address in Whitehorse, Yukon Territory, and residential address in West Vancouver, B.C., do hereby declare that:

1. I am a consulting engineer.
2. I am a 1959 graduate of the University of British Columbia in geological engineering.
3. I am a registered professional engineer in B.C. and Yukon Territory.
4. From 1959 to 1965 I was engaged in Mining and exploration geology and held positions of responsibility with United Keno Hill Mines Ltd., Giant Yellowknife Mines Ltd., and Eldorado Mining and Refining Ltd. I entered private practice in January, 1966.
5. I have personally supervised the work program referred to in this report.
6. I have no interest, nor do I expect to receive any interest, direct or indirect, in any properties or companies referred to in this report.

Respectfully submitted,


R.J. Cathro, B.A.Sc., P.Eng.



DRILL LOG HOLE N1

<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azimuth</u>
200'	12+00N 7+00E	-50	230°

All Readings to core axis:

OF= Open Fracture

CF= Closed Fracture

xdip= dip opposite to bedding or foliation

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
Collar	17	OVERBURDEN	
17	64	GARNET DIOPSIDE SKARN Garnet porphyroblasts 1-10 mm anhedral-80%, diopside 10%, quartz 10%; diopside and quartz occur interstitially between garnets; banding poorly developed, at 80° to core. (54-58.5) banding developed better. (60.5-64.5) FeMn stain on fractures.	19.5' OF 40°; 20.0' OF 30°; 26' OF 30°; 27' OF 15°; 26.5' OF 30°; 28.5' OF 80°; 29; OF 45°; also 50° calcite, 30.5-34' qtz., CF 0°-15°, 31.5' OF 30° Fe stain, 33' banding 70°; 35' OF 0°-15° calcite; 35.5'-36.5' OF 0°-15°; 37-38' OF 15°; 38.5'-40' OF 15°; 43.3' OF 30°; 44.5' OF 25° broken ground; 45.5' OF 25° broken ground; 46.5' OF 30°; 48' OF 30°; 49' OF 30°; 49.5' OF 0°; 52' OF 30; 52-54' broken ground' about 5 fractures/ft 15°-40°; 54 clay fault gouge; 55 calcite in CF 40°; 56' calcite CF 40°; 56.5-57' fault gouge (limy clay) 60' OF 30°; 62' OF 40° and 25°, Fe, Mn stain, 64' conjugate fracture 30°, 25° .
64	77	WHITE TO LIGHT GREY GARNET CALC-SILICATE MARBLE White to pink and grey; garnet porphyroblasts and calc-silicates form weak banding at 70°; contains about 20% garnet and 20% grey calc-silicates; hard effervescent (67-68) grey thinly laminated limestone.	64-64.5' fault gouge; 66 OF 0°; 67' OF calcite 15°; 71.5' OF 15°; 74 CF calcite 40° xdip; 75-76 vert. OF

DRILL LOG HOLE N1

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
77	138.5	GREY THINLY LAMINATED LIMESTONE Laminations 80° strongly effervescent.	78-79' OF 0° calcite; 79' OF 30° calcite; 81' OF 30°; 83' OF 40°; 86' OF 40° calcite slickensides down dip; 87' CF calcite; 89' OF 40°; 90' CF calcite 40°; 91' OF 40°; 92' OF 30°; 94.5' OF 45°; 97.5' OF 40°; 98.5' OF 40°; 99.5' OF 40°, banding 80°; 100.5' OF 40° xdip; 103' OF 40°; 104' OF 40°; 107' OF 40° conjugate 30°; 109' OF 30°; 110' OF 50°; 111' OF 45°; 113' OF 30°; 114.5' OF 40°; 115.5' OF 50°; 116.5' qtz. vein 1 1/2"; 118.5-120' OF 0-15° Fe stain movement parallel core axis; 121.5' OF 5°; 123' OF 0°-15°; 124.5' OF 40°; 129.5' OF 45° fault gouge; 130' OF 40°; 131' OF 30°, Fe stain; 132' OF 40° and 15°; Fe stain; 134-135' OF 0°; 136' OF 50°, 15°; 135.5' OF calcite 25°.
138.5	141.5	WHITE BANDED GARNET MARBLE Garnet 15%; Calc-silicates 15% and marble 70%.	139' OF 40°; 140' OF 30°; 140-141' calcite in CF 0°.
141.5	144	CINNAMON BROWN GARNET- DIOPSIDE SKARN	142.5-143.5' OF 0°-15°; 144' OF 40°.
144	150	BANDED GARNET DIOP, BIOTITE HORNFELS Garnet 20%; banding at 80°.	147' calcite CF 0°; 148' calcite CF 50°; 149'-150' calcite 0°.
150	156	GREY THINLY LAMINATED LIMESTONE	151' OF 30°; 151.5' OF 40°; 154' OF 45° calcite.
156	163	GARNET ACTINOLITE SKARN Garnet 60%, actinolite 30%, banding 80°, and calc- silicates 10%.	banding 80°
163	170	WHITE BANDED CALC-SILICATE MARBLE	banding 80°; 169.5' OF 30°.

DRILL LOG HOLE N1

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
170	174.5	GREY BANDED BIOTITE HORNFELS Banding 80°.	170.5' OF 30°.
174.5	179	WHITE BANDED CALC- SILICATE MARBLE	banding 80°, 175' OF 30°; 177' OF 20°.
179	189	GREY BANDED BIOTITE HORNFELS 50% biotite porphyroblasts	180' OF calcite 50°; 182' foliation 80°; 183' OF 30° calcite; 185' OF 50°.
189	200	GREY BIOTITE SCHIST	fractures parallel to foliation 80° foliation, 195.5'-196.5' fault gouge; 197.5-198.5' fault gouge.

-----END OF HOLE-----

DRILL LOG HOLE N2

<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azimuth</u>
212'	10+00N 9+50E	-50°	244°

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
0	6	OVERBURDEN	
6	14	BLACK BIOTITE GNEISS	foliation 70°, broken ground about 8 fract/ft. 10' OF 0° down dip
14	68.5	BLUE GREY BIOTITE HORNFELS Minor schist bands; banding 70° biotite porphyroblasts poorly developed 30%, white silicates 50%, green chlorite? in matrix 20% (62-68.5') biotite porphyroblasts well developed.	banding 70°, 14' OF 45° xdip; 15-16' broken ground; 16' OF 40° xdip, 19-21' broken ground; 23' OF 45°; 25' OF 40° xdip; 25.5' OF 40° dip foliation 70°; 32.5' OF 25°; 33.5' calcite CF 60° 35' OF conj. 30°, 50°; 35.5' quartz vein 1"; 37.5' OF 15°; 41' OF 25°; 41.5' OF 25° Fe stain; 42-43' OF 15°, foliation 70°; 42.5' OF 25°; 43' OF 15°; 43.5' CF calcite 15°; 45.5' OF 30°; 47.5' CF calcite 20°; 48-49' broken ground talcy gouge 2" OF 0° 45°, 70°; 50' CF 0° calcite; 50-52 5 fract/ft talcy surface; 70° down dip, 30° xdip; 53" qtz. vein 50°; 56-57' broken ground 45° 70°; 57' OF 30° xfoliation; 58' fol. 70°; 60' 5" OF 45° xdip, 2 fract. 70° down dip; 67.5' OF 0°.
68.5	70	BANDED GARNET BIOTITE HORNFELS Garnet 30%, biotite 30%, quartz 20%.	banding 70°.
70	73	BANDED CINNAMON BROWN GARNET DIOPSIDE SKARN Garnet 80%, diopside 10%, quartz 10%.	banding 70°; 71' OF 40° xdip; 72' OF 40°.
73	82	GARNET BIOTITE HORNFELS	banding 70°; 76' OF 40°; 77' OF 45°; 81' OF 40° xdip; 81.5' OF 30°.

DRILL LOG HOLE N2

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
151	166.5	BANDED GARNET DIOPSIDE SKARN Some sections grade to biotite hornfels; banding weak to well developed, 50-60°; garnet 30-40%, diopside 20%, quartz 20%, biotite 10-15%. (154-155) garnet biotite hornfels.	151.5' CF 40° xdip; 152' CF calcite 30°; 153' CF calcite 50°, xdip; 154' OF xdip 40°; 156° calcite CF 15°; 164' OF 50°; 166' OF 40°, 15°; 166.5' CF calcite 20°.
166.5	188	DARK GREY BANDED BIOTITE HORNFELS Banding well developed 70°; minor garnet less than 10%, biotite 40-50%, quartz 20%+; some white calc-silicates	168' OF 15°; 169.5' OF 45° xdip; 170.5' OF 40° xdip; 173' OF 0-15°; 174.5' calcite CF 50°; 175' quartz in fracture; 176-179' broken ground Fe stained; 178' calcite CF 50° xdip; 178.5'-179.5' OF 0-15; 180° CF calcite xdip 50°; 180.5' OF 40° calcite; 181' OF 15°; 181.5' calcite CF 15°; 183' OF 15° calcite; 182-190' broken ground; 3-5 frac/ft; 186' OF 30°; 186.5' OF 30°; 187.5' calcite CF 50°.
188	206	CINNAMON BROWN GARNET DIOPSIDE SKARN Garnet 70-80%, remainder diopside and quartz (199-202') biotite hornfels.	188.5' OF 40°; 191' OF 40°; 192' OF 40°; 192.5' OF 25° 196' OF 25°; 199" OF 40°; 200' OF 40° calcite; 205' OF 45°.
206	212	Broken ground, caves, sand seams, calcite in fracture.	
210	212	BIOTITE HORNFELS Scheelite observed under lamp from 70.5-73.5' and 83.5-93.5'	

-----END OF HOLE-----

DRILL EOG HOLE N3

<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azimuth</u>
173'	11+20N 4+90E	-75°	244°

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
Collar	12	OVERBURDEN	
12	16	BLUE GREY GARNET DIOPSIDE BIOTITE HORNFELS Garnet 20%, diopside 50%, biotite 30%.	13' OF 30°; 14-16' broken ground about 5 frac/ft.; 14-15' OF 0° Fe stained
16	29.5	WHITE TO GREY BANDED GARNET DIOPSIDE MARBLE Garnet 10%, diopside in fractures 20%, limestone 60%, quartz 10%; porphyroblasts of garnet, minor scheelite.	16-18' broken ground parallel foliation; 18.5' OF 40°; 19' OF 45°; 19.5' OF 40°; 20' OF 45°; 21 OF 45°; 21-23 OF 0°; 21-23 qtz. in CF 15° to 0°; 23.5' OF 45°; 24.5' OF parallel banding 40°; 25' OF 40°; 25.5-26' qtz. CF 15°; 28.5' OF 25° 70°; 29' OF 40°; 29.6' 2 parallel fault gouge calcareous clay .
29.5	36	DARK CINNAMON BROWN GARNET DIOPSIDE SKARN Banding absent to poorly developed; composition garnet 40%, diopside 30-40% quartz 10%, diopside in fractures 10%.	30' OF 45°; 30.5-32' OF 0° to 15°; 31.5' OF 40° calcite 32' OF 40° calcite 1/2" ; 32-36' CF 5 frac/ft calcite
36	39.5	GREEN WHITE BANDED DIOPSIDE MARBLE Diopside 50%, marble 50%.	36.5' OF 40°; 37' OF 40°; 38.5' OF 40°; 39' OF 35°.

DRILL LOG HOLE N3

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
39.5	54.5	WHITE TO GREY BANDED GARNET MARBLE Garnet porphyroblasts in bands; garnet 30%, diopside 15%, marble more than 50%.	40' calcite CF 30°; 40.5' OF 40°; 41.5 OF 45°; 42.5' 65°, OF 40° ; banding 40°
54.5	71	DARK CINNAMON BROWN GARNET DIOPSIDE SKARN Garnet 70%, diopside 20%, quartz about 10%; calcite in fracture.	54.5' OF 30°; 55.5 1" calcite CF 60°; 55-63 CF with calcite 3-5 fract/ft; 57' OF 40° calcite; 57.5 OF 40°; 58' OF 40°; 60' conj. fract. 40°,40°; 60.5' Calcite 70°; 61' calcite 5mm CF 40°; 62.5' conj.fact. 45°, 30°; 64-65' lightly fractured ; 0° and oblique fractures ; 65.5' OF 45°; 66' OF 60°, 40° with calcite; 66.5' OF 60°; 67' calcite CF 2mm 40°; 68.5 calcite OF 40°; 69.5' calcite CF 40°.
71	90	WHITE GARNET DIOPSIDE MARBLE Garnet porphyroblasts 20%, diopside in fractures 10%, white massive to poorly banded marble 50%, quartz and other calc-silicates in CF 10%.	72' banding 70°; 73' OF 30°; 74-75' OF 0-15°; 76-76.5' CF 40° diopside and calc-silicate; 77-78' quartz and calc-silicate in CF ; 78-79' OF 0°; 79' banding 40°; 79.5' grey calc-silicate and diopside 30°; 80.5' CF grey diopside and calc-silicates 30°; 81' OF 45°; 81.5 OF 45°; 82' OF 40°; 85' quartz in 1-2 mm. fractures 15°; 87' banding about 40°.
90	102	CINNAMON BROWN GARNET DIOPSIDE SKARN Anhedral garnet porphy- blasts 80%, diopside 10%, quartz 10%.	89.5' OF 40°; 92.5' OF 45°; 93' OF 40°; 95' OF 40°; 94.5' -98' broken up core, vertical and oblique OF 5 frac. per foot; 98' OF 40°; 98.5' OF 40° banding; 99.5 OF 40° MnFe stain; 100' CF 30°; 100.5' OF 30°; 101' CF 30°
102	109	THINLY LAMINATED GREY LIMESTONE	102.5' CF calcite conj.fract. 45°; 103.5' OF 45° xdip; 105.5' OF 40°; 106' OF 35°.
109	111	BANDED GARNET ACTINOLITE SKARN	

DRILL LOG HOLE N3

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
111	120	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding poorly developed; garnet porphyroblasts 1-5mm 70-80%, diopside 10-15%, quartz 10%.	114.5' OF 20°; 115' OF 40°; 116' OF 40° calcite CF 116.5' banding parallel OF 40°; 117.5' OF 40°; 118.5' OF 45°; 119.5' OF 25° calcite; 120' OF 25°.
120	123	BANDED GARNET ACTINOLITE AND CALC-SILICATE SKARN Garnet porphyroblasts 5-10mm. 50%, actinolite 10%, calc-silicates 40%.	
123	157	WHITE CALC-SILICATE MARBLE Minor garnet, less than 10% porphyroblasts of grey silicates and calc-silicates remainder marble.	124' OF 40°; 125' OF 30°; 126' OF 30°; 126' OF 20°-0°; 128' OF 40° parallel fol.; 129' OF 40°; 131' white clay gouge 1 parallel; 131.5' OF 40°; 134' OF 25°; 138' OF 30°; white mica 2" in fracture slickensides down dip; 139' OF 0-15°; 140' OF 40°; 143' OF 15°; 144' OF 40° calcite; 145' OF 30°; 146' OF 30°; 146.5' OF 30°; 152.5' OF 30°, 50°; 153' OF 40° calcite 154' OF 50°.
157	173	BLACK BIOTITE SCHIST Grades to hornfels (170-173') biotite hornfels. Fluorescence, few spot values throughout skarn; scheelite visible under lamps from 55-56.5, 71.5- 72'.	167.5-169' grey clay fault gouge 165.5'.

----END OF HOLE----

DRILL LOG HOLE N4

Depth Location Dip Azimuth
 165' 3+00N 2+90E -50° 244°

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
Collar	18	OVERBURDEN	
18	23	GRANITE BOULDERS	
23	68	<p>BLUE GREY GARNET BIOTITE HORNFELS Partly limy; garnet 20-30%, biotite 30%, quartz feldspar matrix 50%. (35-36') massive, white siliceous zone Mn dendrites along fracture (55-68') banded garnet mica hornfels, 1-5mm bands of green mica, garnet to 25%. (61-62) Black gossan, vein, minor qtz. breccia, 8 frac/ft over 1' (63.5) calcite vein 3/4" wide.</p>	<p>25' banding 80°; 32' banding 80°; 23.5' OF 15°; 27' OF 80°; 26' OF 30°; 29.5' OF 30° Mn stain; 32.5' CF 35° calcite conjugate fracture 20° garnet; 34.6' OF slickensides calcite; 36.5' OF 15°; 37' OF 40° slickensides down dip; 35.5' OF 30°; 40.5' OF 40°; 38' moderate foliation 80°; 43' OF 25°; 44.5' OF 40°; 45.5' CF 15° calcite; 47.5' foliation 80°; 48' OF 30° slickensides perpendicular to dip; 46' OF 15°; 51' OF 45°; 52' OF 0°; foliation 80°; 53.5' OF 45°, 80°; 56' fol. 80°; 55.5' OF 60°; 56' OF 35°; 56.5' OF parallel foliation 80°; 57' OF 45° conj. set; 58' CF 45° calcite xdip; 59' OF 0° and 45°; 59.5' OF 30° xdip; vein 40° xdip 1' qtz. vein minor breccia; 63' OF down dip; 65' OF 40°; slickenside perpendicular to dip; 65.5' OF 55° xdip slickensides parallel to core; foliation about 80°; 68' OF 25° slickensides perpendicular to core axis.</p>
68	73	<p>CINNAMON BROWN GARNET DIOPSIDE SKARN Anhedral, poor banding to massive; garnet 60-70% diopside 20%, white calcareous silicates 10%; garnet porphyroblastic up to 10 mm. diam.; diopsides and white calc-silicates-interstitial; all core slightly effervescent & highly effer.along CF.</p>	<p>68.5' CF thin black calcite 30°; 69' OF 20° calcite conj. fract. perpendicular to 40°; 69.5' OF 0° 2mm. dark green effervescent; 60' white calcite CF 50°; 62.5' OF 75°.</p>

DRILL LOG HOLE N4

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
73	78.5	LIGHT GREY TO LIGHT CINNAMON BROWN SKARN Effervescent; garnet 40-50%, diopside 15%, epidote 5%, calcite 10%, white calc-silicates (actinolite) 25%, garnet porphyroblasts 1-10mm diameter also coarse-banding 10-20mm garnet and white calc-silicate; trace pyrite.	73.5' calcite vein 1" wide; 74.5' OF 30°; 76' OF 50°
78.5	91	DARK CINNAMON BROWN GARNET DIOPSIDE SKARN Banding poorly developed to massive; anhedral; garnet 70-80%, diopside 20-30%; calcite in fractures, core is effervescent throughout; (80') anhedral pyrite crystals 1-3mm 1" width . (80.5) 2" wide coarsely crystalline calcite 40°.	80' coarse banding 60°; 85' calcite CF 40°; 82 ' OF 35° 83' OF 40°; 83.5' OF conj. 30°, 80°; 86.5' OF 60°; 87' CF calcite 70°; 87.5' OF 40°; 1" brown oxide; 89' CF calcite diopside 15°; 91 OF 40° Mn, Fe stain; CF 15°, 70° calcite.
91	106.5	GREY GREEN CALCARIOUS Banded HORNFELS Very soft green chlorite, minor diopside and garnet; lots of calcite filled fractures ; intermittent anhedral pyrite crystals	92' OF parallel banding 50°; CF conj. 50°30°; 92.5' CF 50°; calcite banding 50°; 93.5' OF with calcite MnFe stain parallel fol. ; 94.5 CF 40° calcite; 97.5' OF 70° down dip, calcite fol. x 50°; 99 ' frac. 50%, Fe Mn stain; 99.5' OF 50° FeMn stain ; 102-103' OF 0° broken ground FeMn stain; 105' OF 15° calcite; 106.5' OF 50°/

DRILL LOG HOLE N4

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
138	141.5	BLUE GREY BANDED GARNET BIOTITE HORNFELS Coarse banding 70° core.	138.5' calcite vein parallel banding 45°; 139' OF 20° sdip; 140' OF 45°.
141.5	144.5	GREY BROWN MICA SCHIST Highly broken up talcy; also light brown clay fault gouge; chlorite along fracture plane, minor anhedral pyrite.	141.5'-144.5' fault zone.
144.5	154.5	TALCY MICA SCHIST Broken parallel foliation	foliation 70-80°.
154.5	155	FAULT GOUGE Two inches light brown clay.	154.5' fault
155	156	WHITE MASSIVE LIMESTONE	155.5' OF 45°.
156	165	BLUE GREY BANDED HORNFELS Calcareous effervescent.	FOL. %)°-60°; 157.5' CF 30°; 160' CF 45° calcite.

Scheelite visible under lamp
from 25-60'
70-100'
105-140'

---END OF HOLE---

DRILL LOG HOLE N4

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
106.5	111.5	LIGHT CINNAMON BROWN LIMY GARNET SKARN Minor diopside epidote, calcite in fractures; garnet porphyroblasts 1-5mm. 30% white calc-silicate 40%, actinolite minor diopside epidote calcite remainder; coarse banding caused by garnet porphyroblasts	108' coarse garnet banding 80°, CF 15° calcite; 109.5' 3mm calcite in fractures with epidote; 111.5 calcite in CF 20°.
111.5	133.5	CINNAMON BROWN GARNET DIOPSIDE SKARN 1-7 mm porphyroblasts OF garnet with interstitial diopside; none to poor coarse banding developed by garnet; all core effervescent ; calcite in closed and open fractures with chlorite?; (119.5) moly in open fractures	112' OF 50° 10mm; 112.5' OF 45° and 80°; 112.5-114' OF 0°; 114' OF 70° and CF 20° calcite; 115' quartz vein CF 80°; 115.5' OF 35° slickensides perpendicular to core axis; 116-116.5' calcite in dark green matrix, breccia 116.5' OF 80°; 117' OF 0°; 118' OF 20° calcite; 119' OF 35° and 25° calcite; 119.5' CF calcite 20°; 121' OF 25° calcite also OF 40° Fe stained; 122' OF 45° 122.5' OF 45°; 123' conj. fract. 55,10°; 123' 5-128 CF 0-15° calcite with chlorite?; 125.5' OF 45°; 128' OF 45°; 128.5' CF calcite; 130' OF 45°; 130.5' OF and CF 70° calcite; 131.5' OF 45°; 132-133.5 CF 15° green with calcite 133' OF 40° slickensides oblique to core axis; 133.5 OF 45°; 133' coarse banding 60°
133.5	134.5	GREY GREEN BANDED HORNFELS 5mm calcite fractures	1'CF 15°, calcite; 3'CF 45°.
134.5	138	CINNAMON BROWN GARNET DIOPSIDE SKARN Massive; banding poorly developed; garnet 80%, diopside up to 20%; core is effervescent	135' CF 50° calcite; 136' OF 45° parallel coarse banding

DRILL LOG HOLE N5

<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azi.muth</u>
230'	2+60N 4+60E	-50°	244°

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
Collar	52	OVERBURDEN AND GRANITE BOULDERS	
52	72.5	CINNAMON BROWN BANDED GARNET DIOPSIDE SKARN Garnet 80%, remainder green bands of diopside, epidote and chlorite; minor calcite present in core, slightly effervescent.	54' banding at 80°; 54' OF 40° xdip also OF 80° parallel banding; 55' OF 15 and 65°; 56.5' OF 0° also 25° Fe oxide; 57.5' OF 45°; 58' OF 0°; 59' OF 40° Fe oxide; 69' banding 60°; 69.5' OF 45°; 71' PF 45°; 72' OF 15°.
72.5	79	GARNET DIOPSIDE SKARN Banding poorly developed.	72.5' OF 15°; 73' OF 15°; 73.5' OF 45°; 74' OF 45°; 75.5' OF 60°; 76-77.5' broken up along fractures; 77.5 OF 45° moly 2mm.; 78' OF 45° CF 15° calcite; 78.5'-79' 3 open fractures 60° black brown weathered surface.
79	85	LIGHT BROWN LIMY GARNET ACTINOLITE SKARN Coarse banding developed by coarse anhedral garnet porphyroblasts 1-10mm; garnet varies 20-60%, actinolite 10-50%, minor grey banded limestone zones; effervescent throughout. (80.5'-81.5') grey thinly laminated limestone.	79', 3 closed fractures 45° and 0°; 80' OF 45°; 82' coarse banding 75°; 81' OF 35°; 81' OF 35°; 81.5' OF 45°; 82.5' OF 60°; 83' OF 45°; 85.5 OF 45°; 86' OF 45°; 86.5' OF along black gossan 25°.

DRILL LOG HOLE N5

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
86	103.5	DARK CINNAMON BROWN GARNET DIOPSIDE SKARN Garnet 60-70%, diopside 20%, 10% calcite veins in core (86-89) dark brown and black FeMn stain. (86.5') 1/2" black gossan vein.	86.5-88' black gossan in small fractures; 87.5-86.5' CF 0° calcite Fe stain 1/4" calcite; 89' conj. set CF calcite 10mm. wide 25°, 25° also OF 25°; 89-92' conj. fractures calcite filled 25° and 25° 10, 1mm. fractures/ft; 91' 3/4" CF 55° calcite; 92-94' .25-.50" calcite in fractures 15°-0°; 93.5' CF 45° CF calcite; 94.5' CF calcite .25-.50" at 15°; 97.5-98.5' CF 15°; 98.5' 1" calcite CF 45° .25" diopside rim; 99' CF 45° calcite; 99.5' banding 80°; 99.5' CF 25° calcite; 100' CF 25° calcite; 100.5' CF 45° 1/4" calcite; 101.5-103.5' highly fractured core 1"-2" pieces OF Mn and Fe stain on fractures 45° 60-70°.
103.5	111.5	BLUE GREY BIOTITE HORNFELS Banding well developed, some garnet present.	103.5' OF 45°; 103.5-104.5' 5 fract/ft; 5' OF 45,70°, 2 CF 45° calcite; 105.5 CF calcite 1/4"; 105.5-106.5' broken up core 10 fract/ft.; 106.5' CF .5" 45°; 108-109 about 3" fault gouge and fragments, grey clay gouge 110' banding 70-80°.
111.5	123.5	CINNAMON BROWN GARNET DIOPSIDE SKARN Well fractured and contains lots of calcite in fractures; banding absent or poorly developed.	113' CF 1" calcite vein 45°; 113-113.5'; 113.5' CF 45° calcite; 114.5' CF 45°; 115' CF 30° and 0°; 115.5' OF; 116' OF 0°; 117-118' CF calcite 8 CF/ft 45°; 118-121' broken up core, est. 23 fractures; 118-118.5' black gossan along fracture 122.5' OF 45°.
123.5	163.5	BLUE GREEN SPOTTED AND BANDED MICA GARNET HORNFELS Banding poorly to well developed; garnet 10-30%, green mica 40-50%, grey green diopside 10-20%, black biotite 10-20%, white silicates and calcite 20%. (147.5-148.5') 80% garnet some intermittent garnet diopside skarn. (159.5-161') garnet diopside SKARN.	124' OF with calcite 40° OF 30°; 125' OF 45° conj. fract. 30°; 126' OF 45°; 129' OF 60°; 131.5 fol. 80°; 135' OF 15°; 135.5 OF 15°; 140' OF 15°; 138' fol. 80°; 141' OF xdip 45°; 142' conj. set fractures OF calcite 60°, 20°; 144' banding 70°; 147' banding 70°; 149.5' OF MnFe stain 25°, 40°; 150.5' OF 25°; 152-152.5' broken ground minor clay talcy fractures surfaces; 154' OF 35°; 155-156.5' OF with calcite 15°; 157' banding 70°; 158.5' calcite CF 45°; 159.5' calcite CF 45°; 161' banding 70°; 162.5' OF 45° calcite; 163' OF 45°.

DRILL LOG HOLE N5

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
163.5	174.5	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding absent or poorly developed; anhedral grains of garnet with interstitial diopside; garnet 60-80%, diopside 15-40%, qtz. 10%, calcite up to 10%; most core is effervescent.	164' OF calcite 30°; 164.5' OF 45°; 166' OF 15°; 167' OF 0°; 171' banding of garnet 70°; 169' OF 45°; 170' OF 45°; 171' OF 30°; 172' OF with calcite 70°; 173' OF 30° Fe stained.
174.5	175.5	WHITE GARNET MARBLE Porphyroblasts of garnet up to 10mm.; garnet 30%, white marble 70%.	
175.5	187.5	GREY LAMINATED LIMESTONE Thinly laminated to massive.	176' laminations 80°; 177.5; OF 25° Fe stained; 178' OF 45° Fe stained; 179' OF 15°; 180' OF 60°; 181' OF 25°; 184' OF 20°; laminations 80°; 187' OF 10°.
187.5	190	WHITE BLEACHED GARNET MARBLE Garnet porphyroblasts 20%, white marble 80%.	188' banding 50°.
190	225	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding absent or poorly developed; garnet 70-80%, diopside 20-30%; interstitial calcite in fractures.	191' CF 0° calcite; 192' OF 25° calcite and Fe stain in fracture; 193-194' CF 0° calcite; 194-195 about 6 fractures foot; 45° Fe stain broken core; 197' OF 30°; 197, 198' about and CF 30° calcite; 200-201.5' fault gouge 6" brown clay gouge; broken up core, light brown Fe stain; 202.5-206' broken up core 3" fault gouge dark brown gossan; 206.5' CF 30° calcite; 212' OF 15°; 212-212.5' broken core; 214' OF 45°; 216-216 1/2' broken ground; 217.5-218.5' CF 0°, also 45° calcite; brown gossan py in fracture; 217.5-219.5' CF 15°; 222' OF 25°; 223' CF 1" calcite 45°, 15°.

DRILL LOG HOLE N5

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
225	238	MEDIUM GRAY BIOTITE SCHIST Foliation 70-80° ; talcy on fractured surfaces.	225-226' broken ground fractures parallel foliation and 30° down dip; 226-227' fault gouge gray clay 6" and broken ground; 229.5-233.5' highly broken up schist minor clay gouge; talcy on fractured surfaces.
		Scheelite visible with lamp from 77-101.5', 109-124', 159.5-161', 168-175.5'; 198.5-207.7'.	

---END OF HOLE---

DRILL LOG HOLE N6

	<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azimuth</u>
	153'	1+90S 0+25W	-50°	244°
<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>	
Collar	22	BOULDERS AND OVERBURDEN		
22	31	<p>BLUE GREY BANDED BIOTITE GARNET HORNFELS</p> <p>Biotite porphyroblasts trend 80°; porphyroblasts garnet 10-30%, black biotite 30%, green chloritic silicate matrix up to 40%.</p>	<p>23' OF parallel foliation 80°; 26' OF 80°; 26.5' OF 25°; 27.5' OF 35° xdip foliation 70°; 28.5' OF 70° parallel foliation; 30' foliation 80°.</p>	
31	59	<p>CINNAMON BROWN GARNET DIOPSIDE SKARN</p> <p>Garnet 80-90% as anhedral porphyroblasts with interstitial green matrix 10-15%; matrix-made up of diopside 30%, quartz 50%, chlorite (poorly developed green mica) 20%; banding poorly developed; minor zones less than 1' show good banding developed and green micas increase to 40%.</p> <p>(37.5-38.5) green mica and silicates banding 80°.</p> <p>(44.5-46.5') 60% green banded silicates;</p> <p>(55-57) biotite garnet Hornfels banded at 70-80°.</p>	<p>31.5' OF 70° parallel weak banding; 33.5-34' well banded 70-80°; 36' OF parallel banding 80° minor Mn stain; 37.3' OF parallel banding 80°; 39' conj. fract. 80°, 35°; foliation poorly developed slight Mn stain; 41.5' OF parallel banding 80°; 43.5' CF 15° qtz. 2mm.; 44.5' CF 15° qtz 2mm. ; 44.5' CF 15° qtz 2mm.; 44.5-48' OF 0° some quartz on fracture surface parallel dip Mn Fe stained; 46.2' phase OF 70° and 45°; 46.5' 2nd phase OF 45°; 48' OF 80°; 47.5'-48.5' CF qtz. 2mm; 51.5-52.5' OF 0°; Mn,Fe stain; 54' OF parallel banding 60°; 58.5' OF conj. pair 15°, 45°.</p>	

DRILL LOG HOLE N6

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
59	73.5	<p>BLUE GRAY BIOTITE GARNET HORNFELS</p> <p>Thinly banded biotite 20-80%, garnet up to 20%, green mica 40-60% plus qtz., calc-silicates, in variable proportions; biotite porphyroblasts 1-2mm well developed; green mica or chlorite in silicates; garnets in bands of anhedral porphyroblasts. (59.5-60)white quartz vein.</p>	<p>59.5-60' white qtz. vein; 60' OF 45°, 60° conj. 62' OF parallel banding 70°; 65.5' OF parallel foliation; 66' OF 75° par. fol.; 67' OF par.fol. 70°; 71.5' OF Fe stained parallel foliation 80°.</p>
73.5	78.5	<p>GARNET DIOPSIDE QUARTZ SKARN</p> <p>Banding poorly developed in some sections; diopside about 10%.</p>	<p>73-73.5' calcite CF 15°; 74' OF 30°; 74.5' OF 15° 45°; 75' OF 45°; 76' OF 15,30°; 77.5' OF 30° FeMn stain calcite, also 0°; 78-79.5' OF 15° parallel dip plane FeMn stain.</p>
78.5	97	<p>BLUE-GRAY BIOTITE HORNFELS</p>	<p>79.5' OF 30°; 80.5' OF 30°; banding 80°; 82.5' OF Fe stain 80°; 84.5' OF 35°, 15°; 86' OF 30°; 87' OF 30°; 87.5', 35° qtz. on fract. surface 89°; banding 80°; 90.5' OF 0°; 92' OF 70° parallel banding; 93.5' limonite filled vein 3/4", 80°, also OF 45°; 97' OF 45°.</p>
97	115.5	<p>CINNAMON BROWN GARNET DIOPSIDE SKARN</p> <p>Banding absent or poorly developed; coarse anhedral, porphyroblasts of garnet 80%; with interstitial diopside 10% and quartz 10% (100) specs. of moly.</p>	<p>99-100.5 OF 0° calcite FeMn stain along fracture 100' OF 30° FeMn stain; 101° OF 80°; 101.5' CF calcite diopside 0° 101.5-103' qtz. filled CF 0°; 103-106' banline CF qtz. filled 0-15°; 108-109.5 1-2mm qtz 0-15°; 108.5' OF 40°; 108-108.5' CF 15°c calcite, diopside; 108-109.5' OF 15°; 113-113.5' OF 15° calcite diopside; 114' OF 50°; 114-114.5' CF 15° calcite diopside</p>

DRILL LOG HOLE N6

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
115.5	153	<p>BLACK TO BLUE GREY BIOTITE HORNFELS</p> <p>Fine grained porphyroblasts of biotite 40%, anhedral porphyroblasts, garnet 15%, green banded silicates 40%; banding well on fractured surface also developed throughout at 80°.</p> <p>(115.5-117.5) black banded biotite hornfels.</p> <p>(123.5-124.5) banded garnet diopside skarn.</p> <p>153' end of hole.</p>	<p>118' black biotite bands 80°; 123' OF 15°, fol. 80°; 124' OF 60°; 124.5' CF 1/2" calcite; 125' OF 30°; 126.5' OF 60° 123' CF 1-2mm calcite 25°; 125' OF 70°, parallel foliation; 125.5' 2 OF 30° 125.5-126.5' CF 15° calcite; 132' OF 35° calcite 45,60; 133' OF 45° xdip; 133.5 py in frac.; 25° xdip plane; 134' OF 35° xdip; 135-138.5' broken up core, talcy frac. surfaces about 20 fract/3'; 139' OF 70° foliation 80° talcy on fractured surface; 143.5' OF 45°; 144.5 OF 50°; 149-149.5' OF 0° calcite; 152.5' OF 40° talcy.</p>

Scheelite visible under lamp
from 25-85' and 105-115'

---END OF HOLE---

DRILL LOG HOLE N7

<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azimuth</u>
160'	2+60S 2+50E	-50°	244°

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
Collar	35	OVERBURDEN AND GRANITE BOULDERS	
35	47.5	BLACK BIOTITE SCHIST Weathered and fractured pieces of bedrock fol. 80°.	35-47.5' fractures parallel foliation about 5 frac/ft.
47.5	50	BANDED GARNET BIOTITE HORNFELS Garnet 20%, biotite 25%, green mica 15%, white calc-silicates 20%, qtz. 20%; porphyroblasts of garnet 1-10mm and biotite 1-5mm well developed; well developed banding.	47.5' OF 35°; 51' banding 80°; 52' OF 45° xdip; 54' OF 30°; 56' banding 70°; 59' OF 40°; 61.5' OF 45°; 64 2" calcareous talcy fault gouge;
50	107	BANDED BIOTITE HORNFELS Biotite porphyroblasts 40-50%, remainder white-calc-silicate, green mica and quartz;	Fault zone fractured about 10 fractures/ft. calcite and talc on all fractures; most of the core is broken into small fragments calcite at 66, 66.5, 67, 67.5, 68, 68.5' fractures 0°, 30°, 45°; 68.5-70' CF with calcite vein 1-10mm 0°; 15° 45° x foliation; 77-90' hornfels breccia with calcareous matrix; talc and calcite along fractures; 90.5' CF 15° 10mm calcite; 91' foliation 80°; 91' CF 15° calcite 1mm.; 91.5-93' calcite in CF conj. fractures 30°, 0°; 93-95' broken ground breccia; 96.5' CF 30° 1/4" calcite; 96.5'-97' OF 15° Fe stained; 97' OF 40° Fe stain; 98' calcite in fracture, 15° 30°; 100' foliation 80°; 99.5' -100' CF 0° 2mm. calcite; 103' OF 45° Fe stain; 103-103.5' OF 0° Fe stain; 103.5-104.5' broken ground Fe stain;

DRILL LOG HOLE N8

<u>Depth</u>	<u>Location</u>	<u>Dip</u>	<u>Azimuth</u>
210'	10+20S 3+00E	-50°	244°

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
Collar	53	OVERBURDEN AND GRANITE BOULDERS	
53	96.5	GRAY BIOTITE HORNFELS Broken up core; porphyroblasts of biotite form well developed banding 80°; (70.5-71.5') light colored garnet mica hornfels with biotite 40% and qtz. and fine grained silicates 60%; very hard (82.5-84') light grey mica hornfels.	broken core fractures parallel foliation, about 6 fractures per foot; 53-64' broken core; 62' OF 30°; 64.5' OF 45°, talc on fractures; 66' OF 45°; 68-70.5 broken core; 68' OF 0°; 70.5' OF 35°; 71' OF 35°; 72.5' OF 35° OF 0°; 74' OF 45°; 76' banding 80°; 76.5' OF 30°; 79.5' OF 45° Fe stain; 81' OF 35° foliation 80°; 88-91' broken up core about 5 fract./ft.; 88-90' OF 0°-15° some calcite in fractures; 88.5' OF 45°; 90' OF 25°; 91' OF 25°; 91.5' OF 30°; 92' OF 25°; 92.5' OF 25°; 93.5' OF 30°; 95' OF 30°; 95.5' OF 45°, 80°; 96.5' OF 45°.
96.5	98	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding weakly developed; garnet 75%, diopside 10%, quartz 15%.	
98	102.5	LIGHT BROWN, WHITE BANDED GARNET ACTINOLITE SKARN Porphyroblasts of garnet 1-5mm, forms bands at 80°, radiated actinolite in between	102' OF 30°

DRILL LOG HOLE N8

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
102.5	105.5	BLUE GREY AND GREEN BIOTITE HORNFELS Well banded at 80°; minor garnet, biotite 30-50%, green mica 30%; quartz and white silicates 20%.	banding 80°
105.5	114.5	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding poorly developed; minor section of mica hornfels present; composition garnet 80%, quartz 10%, diopside and green mica 10%. (107-108) green gray biotite hornfels.	106' OF 30°; 107' banding poor about 80°; 107-110' OF 0° with calcite; 111.5' OF 30°.
114.5	144.5	GRAY GREEN TO LIGHT BROWN BANDED GARNET MICA AND GARNET BIOTITE HORNFELS Banding well developed; garnet porphyroblasts and massive bands of garnet up to 2" wide banding at 75°; composition garnet 20-30%, biotite 20-30%, green mica about 30%, quartz 10-20% calc-silicates about 10%.	117.5' CF 0-15°; 118' OF 50°; 123-124' OF 0° minor calcite; 123.5' calcite 15° CF; 125.5-126' calcite in CF conj. fract. 0°, 15°, 1/2" vert displacement; 126-129.5' OF 0°-15° calcite along fracture surface; 129.5-131.6 calcite CF 25-30°; 131.5 OF 30°; Fe stained calcite in CF 10mm.; 133-133.5' calcite in irregular CF; 134 OF 35°; 138' banding 80°; 140' OF 30°;
144.5	151.5	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding poorly developed; garnet about 80%, diopside about 10%, quartz about 10%, calc-silicates? less than 10%.	145.5' OF 35° calcite; 147' conj. OF 35°, 15°; 147.5' OF 30°; 149' OF 30°.

DRILL LOG HOLE N8

<u>FROM</u>	<u>TO</u>	<u>DESCRIPTION</u>	<u>STRUCTURE</u>
151.5	169.5	DARK GREY TO GREY-GREEN BANDED BIOTITE GARNET HORNFELS Banding well developed at 80°; composition garnet 20%, biotite 30%, green mica 20-30%, quartz, calc-silicates 10%.	153' OF 60°; 159' 2" wide vein sphalerite py and calcite 40°; 160' calcite CF; 166' OF 45°; 167' OF 45°.
169.5	180.5	DARK GREY BIOTITE HORNFELS Well developed banding 70-80°; biotite porphyroblasts 50%, green mica 30%, quartz 20%.	172' OF parallel banding 80°; 172.5' OF 0°; 176' OF 45°; 171.5' OF 50° pyrite; 179' OF 15° pyrite; 179.5' OF 20° minor pyrite.
180.5	183	CINNAMON BROWN GARNET DIOPSIDE SKARN	181.5' OF 45° ; 183' OF 45°; calcite CF conj. set 30°.
183	185	DARK GREY AND WHITE SPOTTED HORNFELS Alteration zone around 5" vein is coarsely crystalline calcite and sphalerite, white pyrite.	veins at 30° carbonate breccia coarse.
185	186.5	GARNET ACTINOLITE SKARN Garnet 30-40%, actinolite 60% green mica 10%, banding at 80°.	
186.5	204.5	CINNAMON BROWN GARNET DIOPSIDE SKARN Banding absent or poorly developed; garnet in coarse porphyroblasts 1-10mm to massive with interstitial diopside and quartz; garnet 80%, diopside 10%, quartz 10%.	187' conjugate OF 30°; 191' OF 35° calcite; 192' OF 30°; 192.5' OF 40°; 193' OF 0° and 45°; 196-196.5' CF 15°; 198' OF 30°, 15°; 200' OF 30° calcite; 202' OF 30° calcite coating; 203' OF 25° calcite.

DRILLING OUTLINE

September 2- moved camp in
September 11- started drilling
October 2- stopped
Hours chopper time: 401 hours
Hours cat time: 349 1/2 hours
No. of holes: 8

<u>HOLE</u>	<u>DEPTH</u>	<u>COORDINATES</u>	<u>DIP</u>	<u>DIRECTION</u>
1	200'	12+00N 7+00E	-50°	230°
2	212'	10+00N 9+50E	-50°	244°
3	173'	11+20N 4+90E	-75°	244°
4	165'	3+00N 2+90E	-50°	244°
5	230'	2+60N 4+60E	-50°	244°
6	153'	1+90S 0+25W	-50°	244°
7	160'	2+60S 2+50E	-50°	244°
8	<u>210'</u>	10+20S 3+00E	-50°	244°
	1503' TOTAL			

M.06.0021

FIG. 17A
 ARCHER, CATHRO & ASSOCIATES LTD
GEOLOGY
 NITE PROPERTY
 WOLF LAKE JOINT VENTURE
 SCALE IN MILES
 To accompany report dated Dec, 1971

AGE	UNIT	LEGEND
CRETACEOUS	15	Biotite quartz monzonite and granodiorite
LOWER CAMBRIAN	3b	Limestone
	2	Quartzite, slate, phyllite
LOWER CAMBRIAN or EARLIER	1a	Schist, quartzite
	1b	Calc-silicates, marble, skarn

SYMBOLS	
CONTACTS	
—	Definite
- - -	Approximate
.....	Assumed



M.06.0021

FIG. 17B
 ARCHER, CATHRO & ASSOCIATES LTD
GEOCHEMISTRY
Cu, Mo, W, Ni.
 NITE PROPERTY
 WOLF LAKE JOINT VENTURE
 SCALE IN MILES
 To accompany report dated Dec. 1971

LEGEND

- X Soil } Cu, Mo, W, Ni
- Silt }
- All assays in ppm. by Acme Analytical Labs. Ltd.
- * Interference

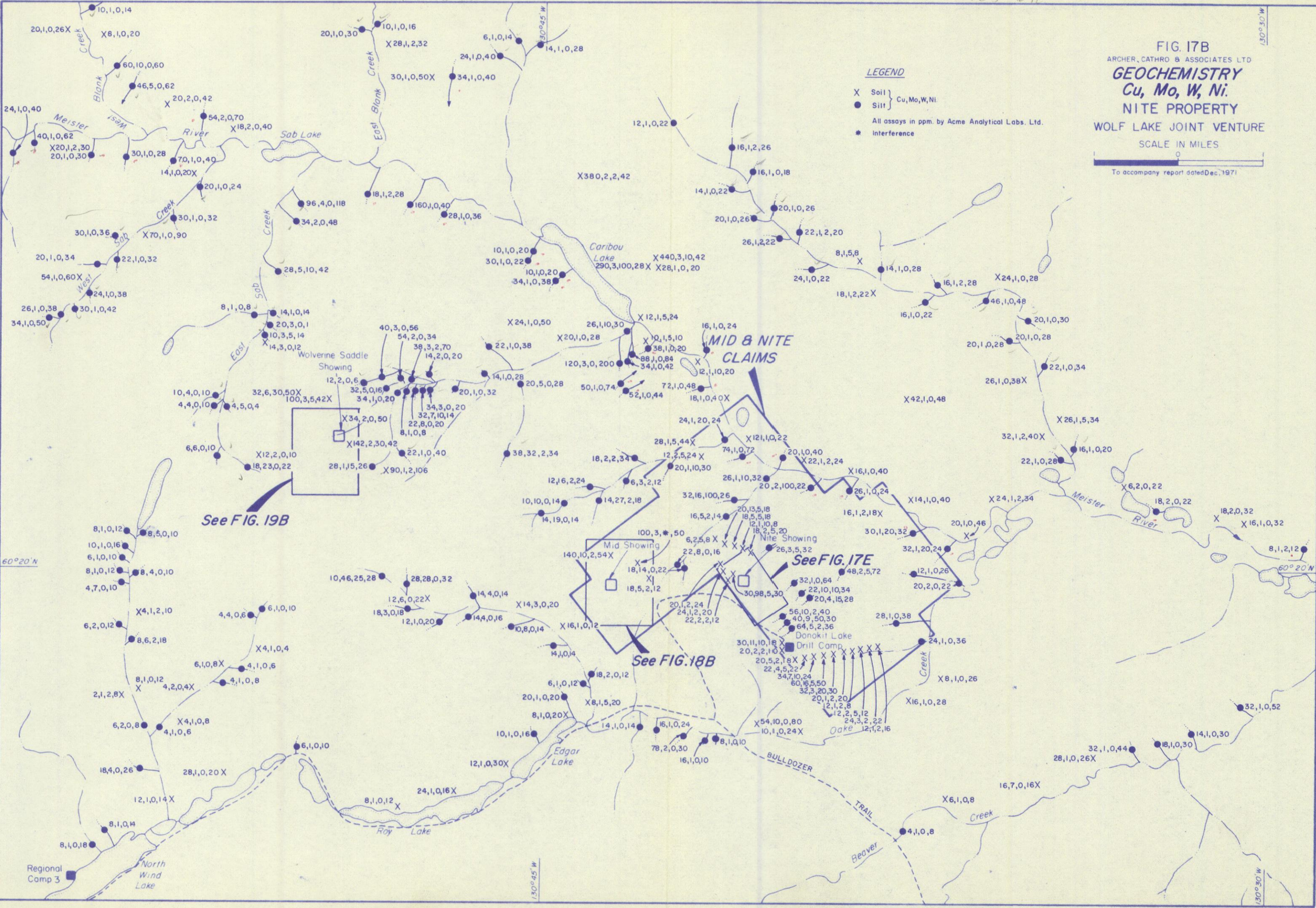
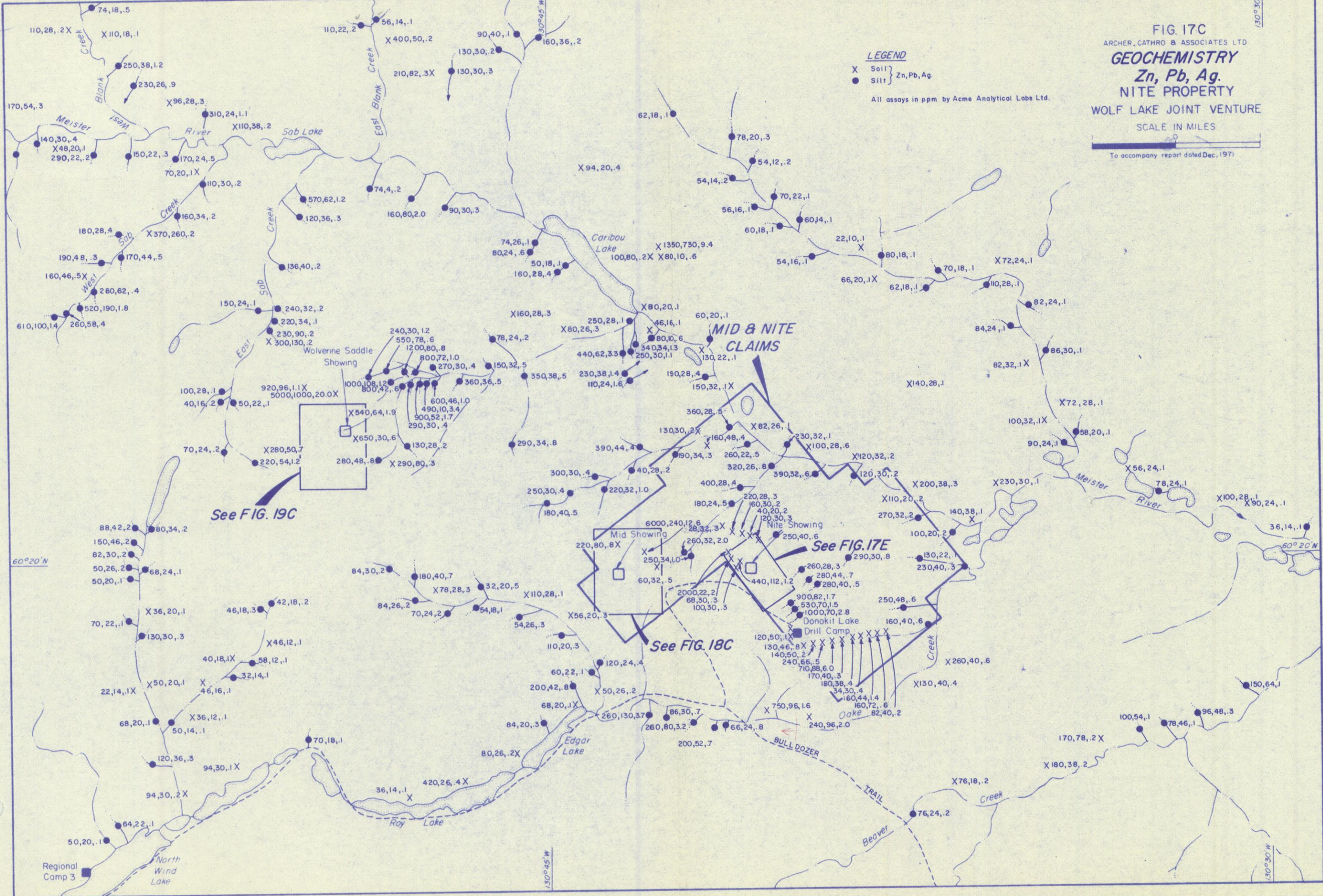


FIG. 17C
 ARCHER, CATHRO & ASSOCIATES LTD
GEOCHEMISTRY
Zn, Pb, Ag.
NITE PROPERTY
 WOLF LAKE JOINT VENTURE
 SCALE IN MILES
 To accompany report dated Dec, 1971

LEGEND
 X Soil } Zn, Pb, Ag
 ● Silt }

All assays in ppm by Acme Analytical Labs Ltd.



See FIG. 19C

See FIG. 17E

See FIG. 18C

60° 20' N

60° 20' N

130° 45' W

130° 45' W

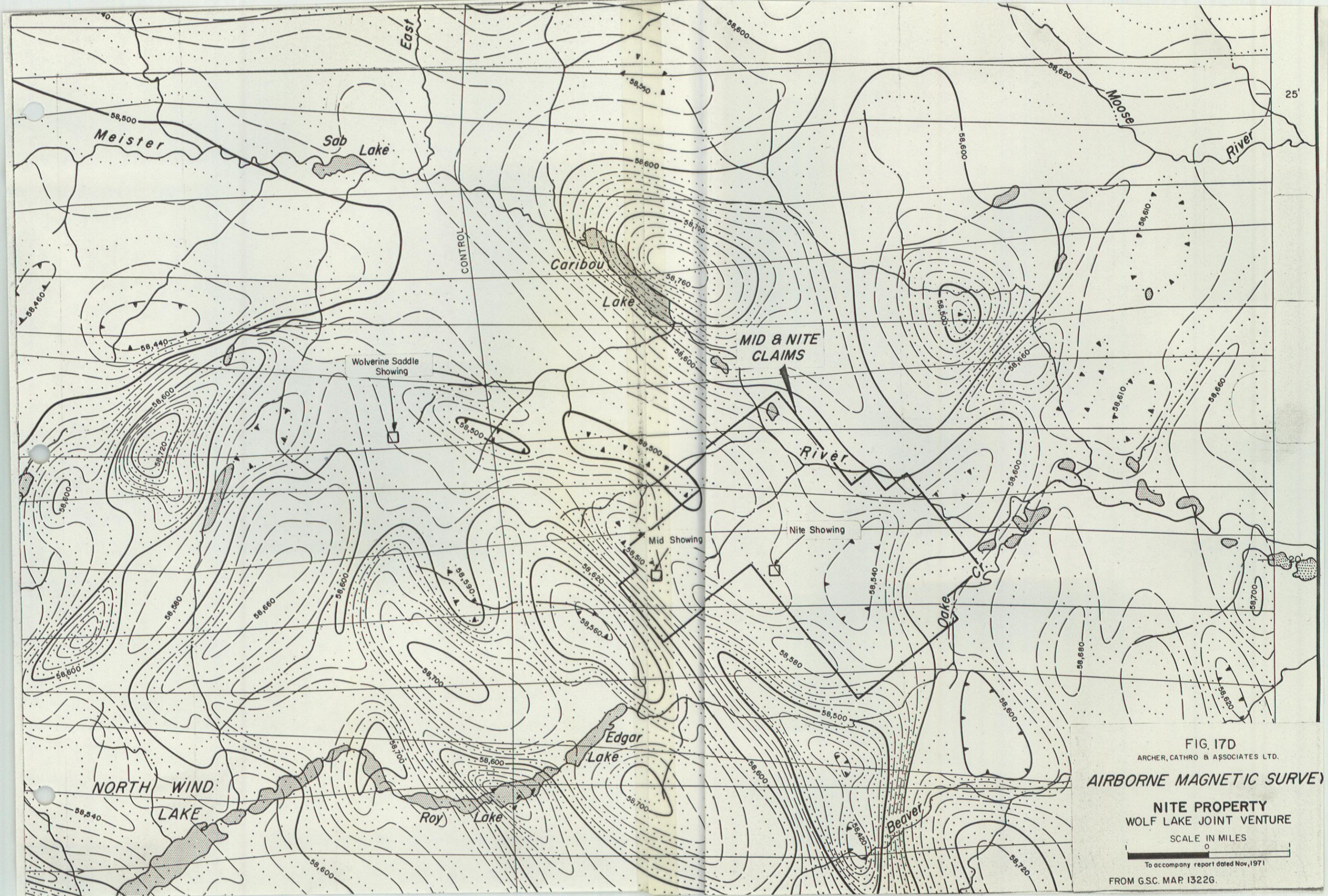
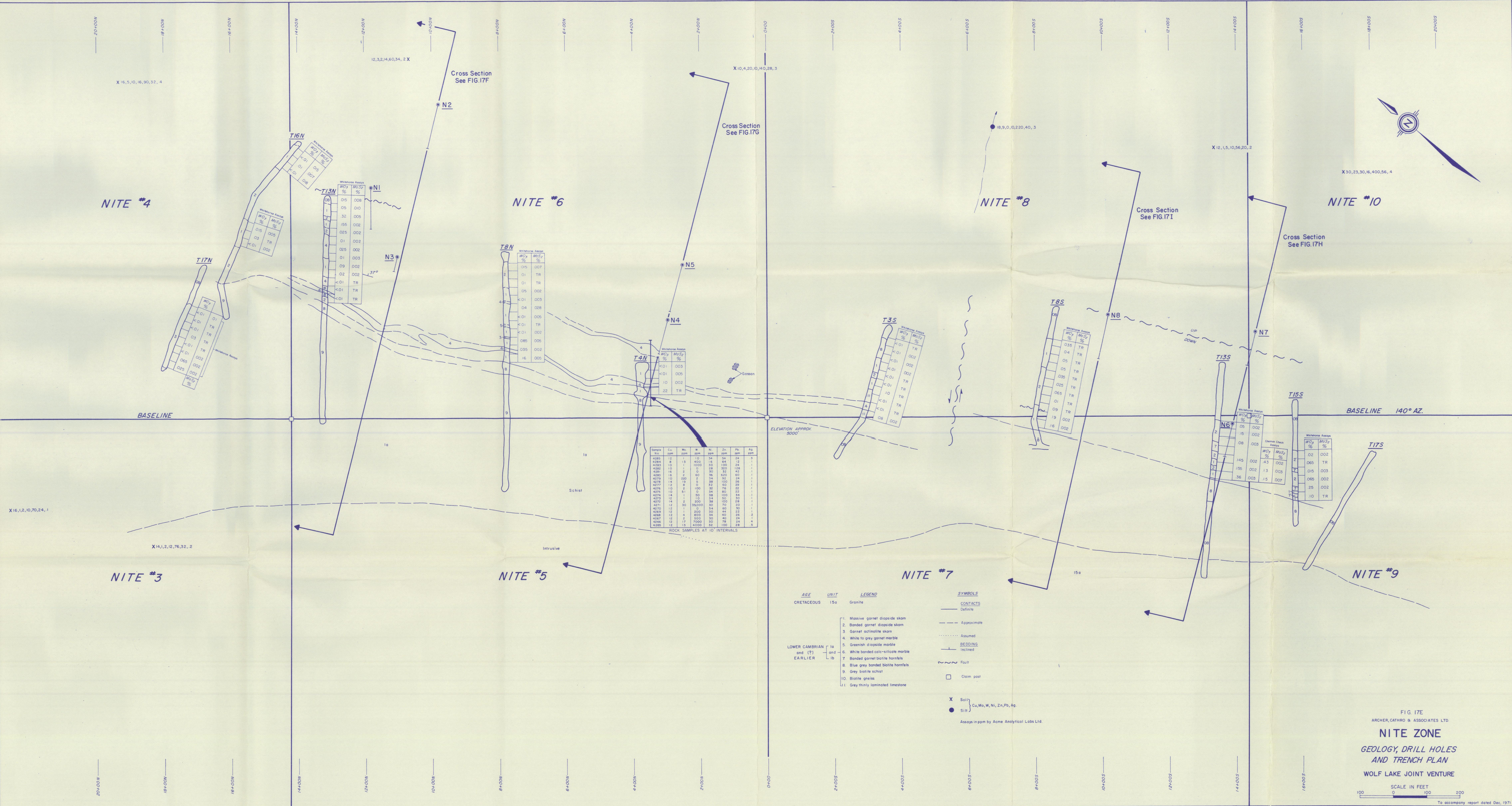


FIG. 17D
 ARCHER, CATHRO & ASSOCIATES LTD.
AIRBORNE MAGNETIC SURVEY
NITE PROPERTY
WOLF LAKE JOINT VENTURE
 SCALE IN MILES
 To accompany report dated Nov, 1971
 FROM G.S.C. MAP 1322G.



ROCK SAMPLES AT 10' INTERVALS

Sample No.	Cu ppm	Mn ppm	Ni ppm	Zn ppm	Pb ppm	Ag ppm
4285	12	1	10	34	54	24
4286	8	15	400	16	84	2
4283	10	1	1000	30	100	24
4282	10	1	0	38	300	18
4281	16	2	0	30	32	42
4280	15	2	60	36	600	60
4279	10	200	2	34	92	24
4278	14	19	5	38	100	56
4277	10	8	0	32	60	28
4276	10	2	100	32	76	22
4275	10	51	0	34	80	22
4274	4	1	0	38	100	34
4273	14	2	200	38	100	28
4272	12	1	0	34	60	30
4271	10	30	30000	30	70	20
4270	12	1	0	34	60	30
4269	12	1	200	30	44	22
4268	12	4	800	34	40	26
4267	12	2	500	30	40	24
4266	12	17	7000	30	78	24
4265	12	13	4000	32	100	28

AGE UNIT LEGEND

CRETACEOUS 15a Granite

LOWER CAMBRIAN and (?) EARLIER 1a 1b

SYMBOLS

CONTACTS
 — Definite
 - - - Approximate
 ····· Assumed

BEDDING
 — Inclined

Fault

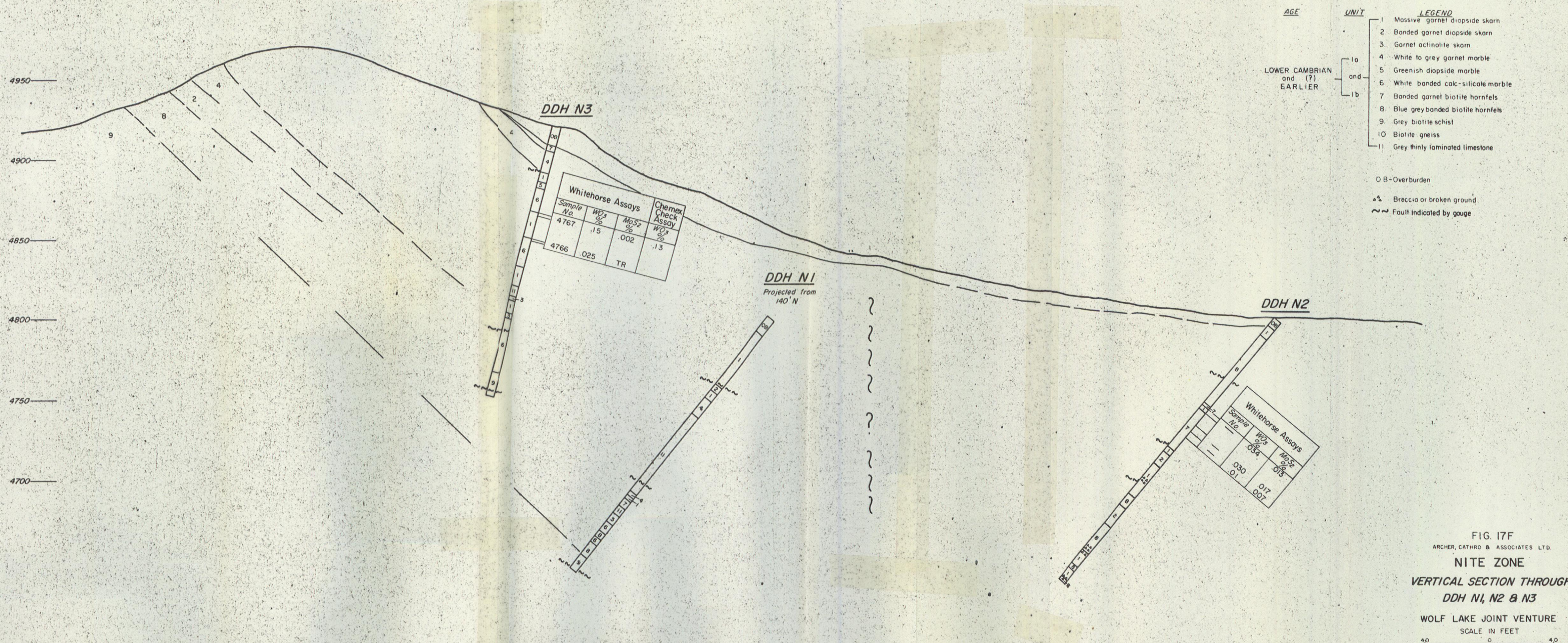
Claim post

X Soil
 ● Sil

Assays in ppm by Acme Analytical Labs Ltd.

FIG 17E
 ARCHER, CATHRO & ASSOCIATES LTD
NITE ZONE
 GEOLOGY, DRILL HOLES
 AND TRENCH PLAN
 WOLF LAKE JOINT VENTURE

SCALE IN FEET
 0 100 200
 To accompany report dated Dec. 1971



AGE: LOWER CAMBRIAN and (?) EARLIER

UNIT	LEGEND
1	Massive garnet diopside skarn
2	Banded garnet diopside skarn
3	Garnet actinolite skarn
4	White to grey garnet marble
5	Greenish diopside marble
6	White banded calc-silicate marble
7	Banded garnet biotite hornfels
8	Blue grey banded biotite hornfels
9	Grey biotite schist
10	Biotite gneiss
11	Grey thinly laminated limestone

- OB - Overburden
- △ Breccia or broken ground
- ~ Fault indicated by gauge

Whitehorse Assays

Sample No.	WO ₃ %	MoS ₂ %	Chemex Check Assay WO ₃ %
4767	.15	.002	.13
4766	.025	TR	

Whitehorse Assays

Sample No.	WO ₃ %	MoS ₂ %
030	.034	.015
017	.01	.007
007		

FIG. 17F
 ARCHER, CATHRO & ASSOCIATES LTD.
NITE ZONE
 VERTICAL SECTION THROUGH
 DDH N1, N2 & N3
 WOLF LAKE JOINT VENTURE
 SCALE IN FEET
 40 0 40
 To accompany report dated Dec. 1971

BASELINE

5050
5000
4950
4900
4850
4800
4750

- AGE**
LOWER CAMBRIAN
and (?)
EARLIER
- UNIT**
1a
and
1b
- LEGEND**
- 1 Massive garnet diopside skarn
 - 2 Banded garnet diopside skarn
 - 3 Garnet actinolite skarn
 - 4 White to grey garnet marble
 - 5 Greenish diopside marble
 - 6 White banded calc-silicate marble
 - 7 Banded garnet biotite hornfels
 - 8 Blue grey banded biotite hornfels
 - 9 Grey biotite schist
 - 10 Biotite gneiss
 - 11 Grey thinly laminated limestone
- OB-Overburden
▲ Breccia or broken ground
~ Fault indicated by gouge

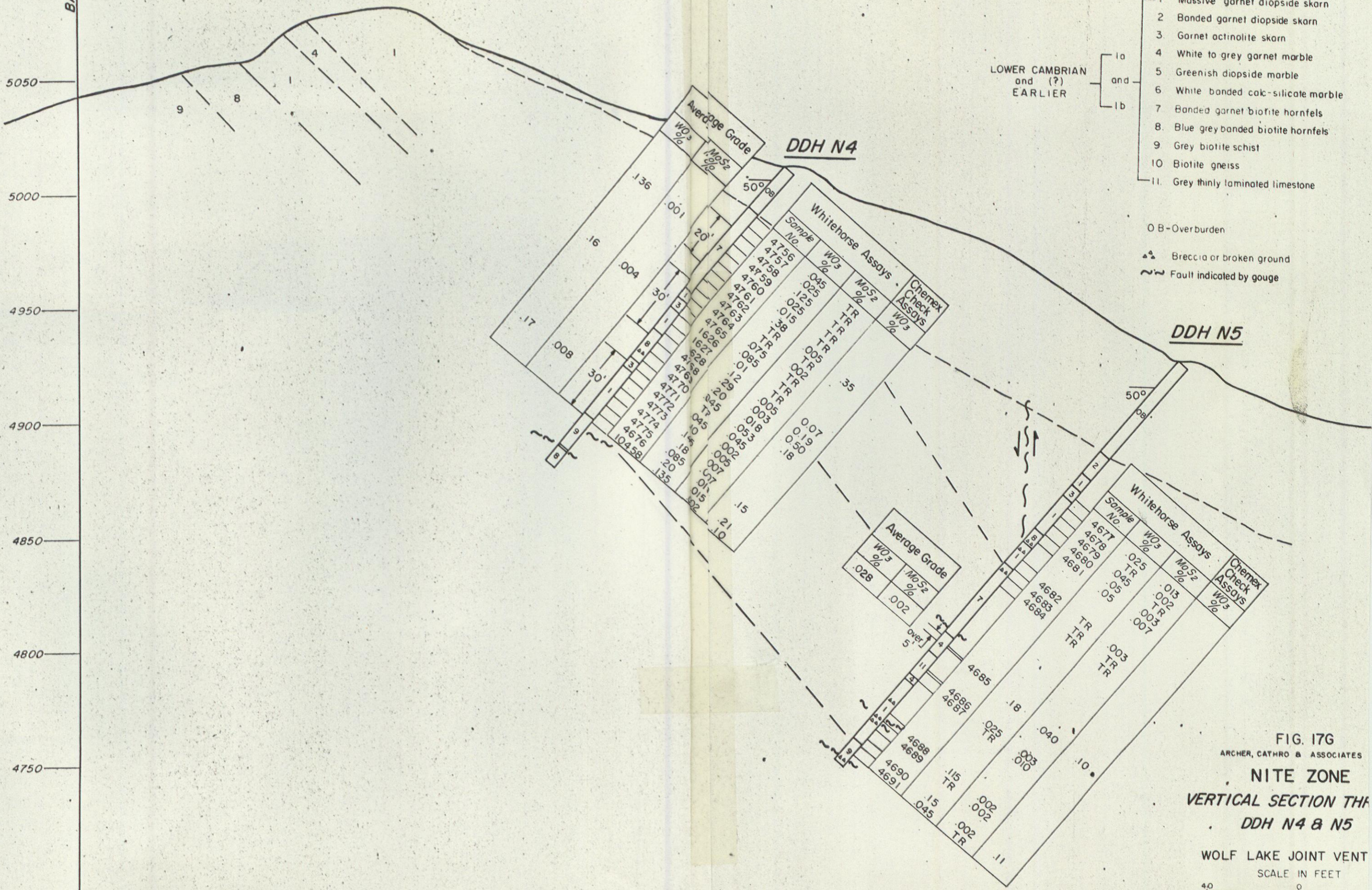


FIG. 17G
ARCHER, CATRO & ASSOCIATES
NITE ZONE
VERTICAL SECTION THROUGH
DDH N4 & N5
WOLF LAKE JOINT VENT
SCALE IN FEET
40 0
To accompany report

5050
5000
4950
4900
4850
4800
4750

BASELINE

- AGE** **UNIT** **LEGEND**
- LOWER CAMBRIAN and (?) EARLIER
- 1. Massive garnet diopside skarn
 - 2. Banded garnet diopside skarn
 - 3. Garnet actinolite skarn
 - 4. White to grey garnet marble
 - 5. Greenish diopside marble
 - 6. White banded calc-silicate marble
 - 7. Banded garnet biotite hornfels
 - 8. Blue grey banded biotite hornfels
 - 9. Grey biotite schist
 - 10. Biotite gneiss
 - 11. Grey thinly laminated limestone
- O.B - Overburden.
- ▲▲ Breccia or broken ground
- ~ Fault, indicated by gouge



Average Grade		Whitehorse Assays			
WO ₃ %	MgO %	Sample No	WO ₃ %	MgO %	Chemex Check Assay WO ₃ %
.11	.016	1618	.05	.002	
		1619	.05	.002	
		1620	.05	.002	
		1621	.05	.002	
		1622	.05	.002	
		1623	.05	.002	.13
		1624	.05	.002	
		1625	.05	.002	
		10453	.05	.002	
		10454	.05	.002	
		10455	.05	.002	
		10456	.05	.002	
		10457	.05	.002	

FIG. 171
ARCHER, CATHRO & ASSOCIATES LTD.
NITE ZONE
VERTICAL SECTION THROUGH DDH N8

WOLF LAKE JOINT VENTURE
SCALE IN FEET
40 0 40
To accompany report dated Dec, 1971

5050
5000
4950
900
4850
4800
4750

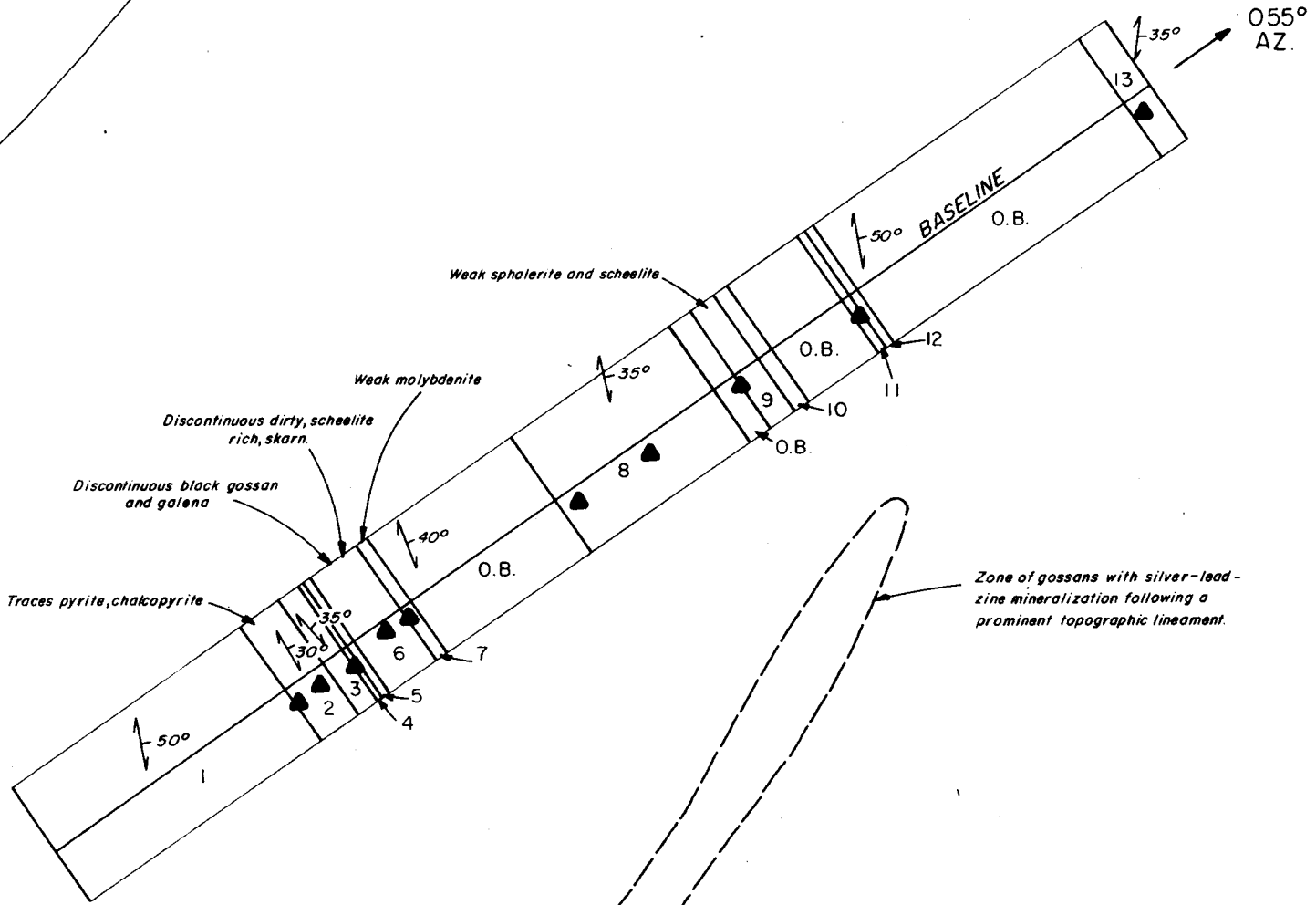
BASELINE

- AGE UNIT LEGEND
- LOWER CAMBRIAN and (?) EARLIER
- 1 Massive garnet diopside skarn
 - 2 Banded garnet diopside skarn
 - 3 Garnet actinolite skarn
 - 4 White to grey garnet marble
 - 5 Greenish diopside marble
 - 6 White banded calc-silicate marble
 - 7 Banded garnet biotite hornfels
 - 8 Blue grey banded biotite hornfels
 - 9 Grey biotite schist
 - 10 Biotite gneiss
 - 11 Grey thinly laminated limestone
- B-Overburden
 ▲▲ Breccia or broken ground
 ~ Fault indicated by gouge

Average Grade			Whitehorse Assays			Chemex Check Assays	
WO ₃ %	MoS ₂ %		Sample No.	WO ₃ %	MoS ₂ %	WO ₃ %	MoS ₂ %
.142	.003	30'	4692	.035	.002	TR	TR
.093	.003	7	4693	.14	.002	TR	TR
			4694	.065	.002	TR	TR
			4695	.045	.002	TR	TR
			4696	.045	.002	TR	TR
			4697	.045	.002	TR	TR
			4698	.045	.002	TR	TR
			4700	.045	.002	TR	TR
			1609	.045	.002	TR	TR
			1610	.045	.002	TR	TR
			1611	.045	.002	TR	TR
			1612	.045	.002	TR	TR
			1613	.045	.002	TR	TR
			1614	.045	.002	TR	TR
			1615	.045	.002	TR	TR
			1616	.045	.002	TR	TR
			1617	.045	.002	TR	TR
			1618	.045	.002	TR	TR
			1619	.045	.002	TR	TR
			1620	.045	.002	TR	TR
			1621	.045	.002	TR	TR
			1622	.045	.002	TR	TR
			1623	.045	.002	TR	TR
			1624	.045	.002	TR	TR
			1625	.045	.002	TR	TR
			1626	.045	.002	TR	TR
			1627	.045	.002	TR	TR
			1628	.045	.002	TR	TR
			1629	.045	.002	TR	TR
			1630	.045	.002	TR	TR
			1631	.045	.002	TR	TR
			1632	.045	.002	TR	TR
			1633	.045	.002	TR	TR
			1634	.045	.002	TR	TR
			1635	.045	.002	TR	TR
			1636	.045	.002	TR	TR
			1637	.045	.002	TR	TR
			1638	.045	.002	TR	TR
			1639	.045	.002	TR	TR
			1640	.045	.002	TR	TR
			1641	.045	.002	TR	TR
			1642	.045	.002	TR	TR
			1643	.045	.002	TR	TR
			1644	.045	.002	TR	TR
			1645	.045	.002	TR	TR
			1646	.045	.002	TR	TR
			1647	.045	.002	TR	TR
			1648	.045	.002	TR	TR
			1649	.045	.002	TR	TR
			1650	.045	.002	TR	TR
			1651	.045	.002	TR	TR
			1652	.045	.002	TR	TR
			1653	.045	.002	TR	TR
			1654	.045	.002	TR	TR
			1655	.045	.002	TR	TR
			1656	.045	.002	TR	TR
			1657	.045	.002	TR	TR
			1658	.045	.002	TR	TR
			1659	.045	.002	TR	TR
			1660	.045	.002	TR	TR
			1661	.045	.002	TR	TR
			1662	.045	.002	TR	TR
			1663	.045	.002	TR	TR
			1664	.045	.002	TR	TR
			1665	.045	.002	TR	TR
			1666	.045	.002	TR	TR
			1667	.045	.002	TR	TR
			1668	.045	.002	TR	TR
			1669	.045	.002	TR	TR
			1670	.045	.002	TR	TR
			1671	.045	.002	TR	TR
			1672	.045	.002	TR	TR
			1673	.045	.002	TR	TR
			1674	.045	.002	TR	TR
			1675	.045	.002	TR	TR
			1676	.045	.002	TR	TR
			1677	.045	.002	TR	TR
			1678	.045	.002	TR	TR
			1679	.045	.002	TR	TR
			1680	.045	.002	TR	TR
			1681	.045	.002	TR	TR
			1682	.045	.002	TR	TR
			1683	.045	.002	TR	TR
			1684	.045	.002	TR	TR
			1685	.045	.002	TR	TR
			1686	.045	.002	TR	TR
			1687	.045	.002	TR	TR
			1688	.045	.002	TR	TR
			1689	.045	.002	TR	TR
			1690	.045	.002	TR	TR
			1691	.045	.002	TR	TR
			1692	.045	.002	TR	TR
			1693	.045	.002	TR	TR
			1694	.045	.002	TR	TR
			1695	.045	.002	TR	TR
			1696	.045	.002	TR	TR
			1697	.045	.002	TR	TR
			1698	.045	.002	TR	TR
			1699	.045	.002	TR	TR
			1700	.045	.002	TR	TR
			1701	.045	.002	TR	TR
			1702	.045	.002	TR	TR
			1703	.045	.002	TR	TR
			1704	.045	.002	TR	TR
			1705	.045	.002	TR	TR
			1706	.045	.002	TR	TR
			1707	.045	.002	TR	TR
			1708	.045	.002	TR	TR
			1709	.045	.002	TR	TR
			1710	.045	.002	TR	TR
			1711	.045	.002	TR	TR
			1712	.045	.002	TR	TR
			1713	.045	.002	TR	TR
			1714	.045	.002	TR	TR
			1715	.045	.002	TR	TR
			1716	.045	.002	TR	TR
			1717	.045	.002	TR	TR
			1718	.045	.002	TR	TR
			1719	.045	.002	TR	TR
			1720	.045	.002	TR	TR
			1721	.045	.002	TR	TR
			1722	.045	.002	TR	TR
			1723	.045	.002	TR	TR
			1724	.045	.002	TR	TR
			1725	.045	.002	TR	TR
			1726	.045	.002	TR	TR
			1727	.045	.002	TR	TR
			1728	.045	.002	TR	TR
			1729	.045	.002	TR	TR
			1730	.045	.002	TR	TR
			1731	.045	.002	TR	TR
			1732	.045	.002	TR	TR
			1733	.045	.002	TR	TR
			1734	.045	.002	TR	TR
			1735	.045	.002	TR	TR
			1736	.045	.002	TR	TR
			1737	.045	.002	TR	TR
			1738	.045	.002	TR	TR
			1739	.045	.002	TR	TR
			1740	.045	.002	TR	TR
			1741	.045	.002	TR	TR
			1742	.045	.002	TR	TR
			1743	.045	.002	TR	TR
			1744	.045	.002	TR	TR
			1745	.045	.002	TR	TR
			1746	.045	.002	TR	TR
			1747	.045	.002	TR	TR
			1748	.045	.002	TR	TR
			1749	.045	.002	TR	TR
			1750	.045	.002	TR	TR
			1751	.045	.002	TR	TR
			1752	.045	.002	TR	TR
			1753	.045	.002	TR	TR
			1754	.045	.002	TR	TR
			1755	.045	.002	TR	TR
			1756	.045	.002	TR	TR
			1757	.045	.002	TR	TR
			1758	.045	.002	TR	TR
			1759	.045	.002	TR	TR
			1760	.045	.002	TR	TR
			1761	.045	.002	TR	TR
			1762	.045	.002	TR	TR
			1763	.045	.002	TR	TR
			1764	.045	.002	TR	TR
			1765	.045	.002	TR	TR
			1766	.045	.002	TR	TR
			1767	.045	.002	TR	TR
			1768	.045	.002	TR	TR
			1769	.045	.002	TR	TR
			1770	.045	.002	TR	TR
			1771	.045	.002	TR	TR
			1772	.045	.002	TR	TR
			1773	.045	.002	TR	TR
			1774	.045	.002	TR	TR
			1775	.045	.002	TR	TR
			1776	.045	.002	TR	TR
			1777	.045	.002	TR	TR
			1778	.045	.002	TR	TR
			1779	.045	.002	TR	TR
			1780	.045	.002	TR	TR
			1781	.045	.002	TR	TR
			1782	.045	.002	TR	TR
			1783	.045	.002	TR	TR
			1784	.045	.002	TR	



5000'



LEGEND

- O.B. Overburden
- 1. Rusty biotite quartz schist
- 2. Intercalations of limy hornfels and diopside garnet skarn
- 3. Rusty biotite schist
- 4. Grey marble and skarn
- 5. Diopside garnet skarn
- 6. Grey marble
- 7. Biotite-quartz, schist.
- 8. Pink garnet diopside skarn with some schist horizons
- 9. Garnet diopside skarn
- 10. Grey marble
- 11. Diopside garnet skarn
- 12. Biotite quartz schist
- 13. Sheared calc-silicates.

SYMBOLS

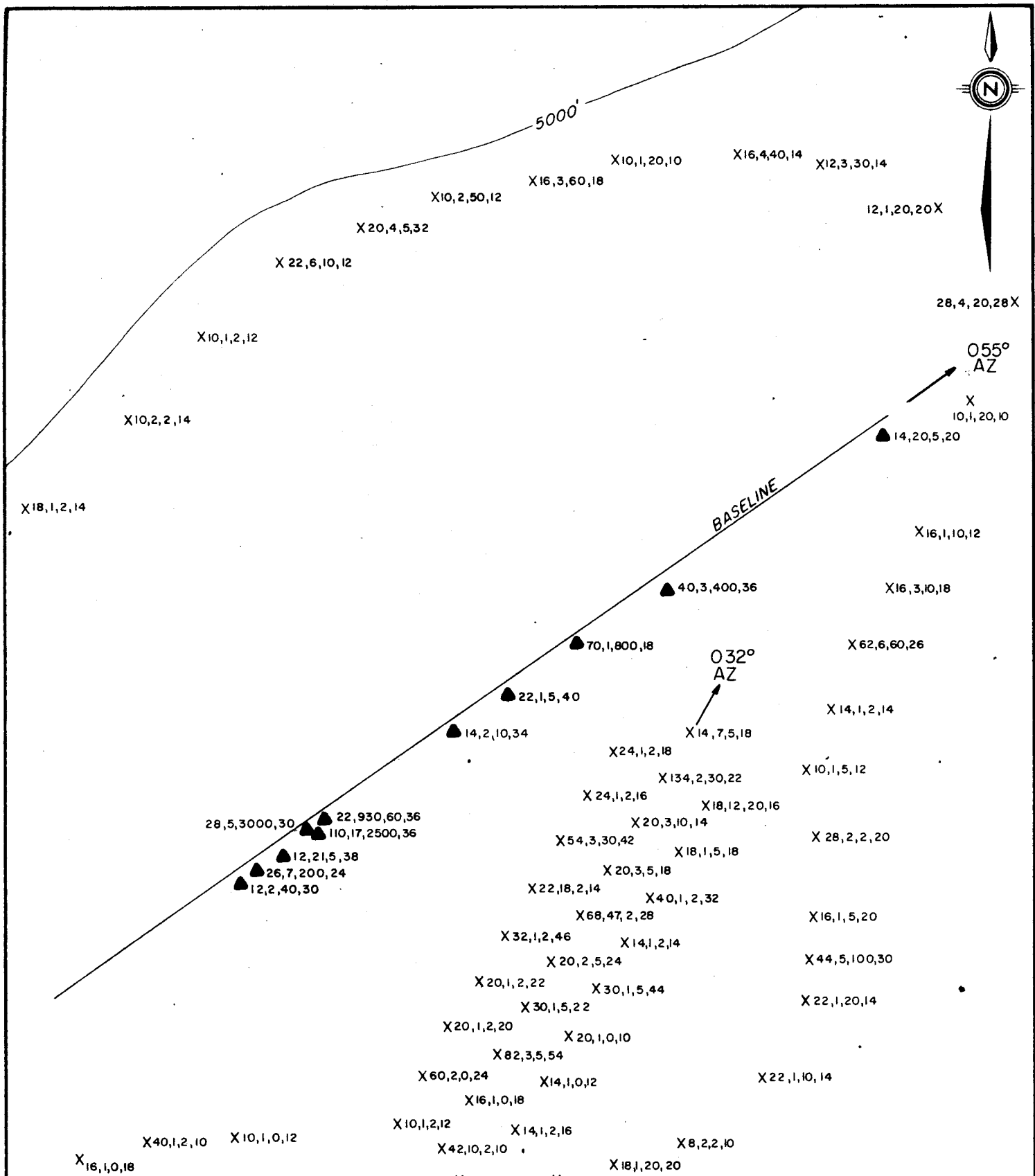
- ▲ Rock sample location
- ↗ FOLIATION inclined

FIG. 18A
ARCHER, CATHRO & ASSOCIATES LTD.

GEOLOGY
MID ZONE
WOLF LAKE JOINT VENTURE

SCALE IN FEET
500 0 500

To accompany report dated Dec, 1971

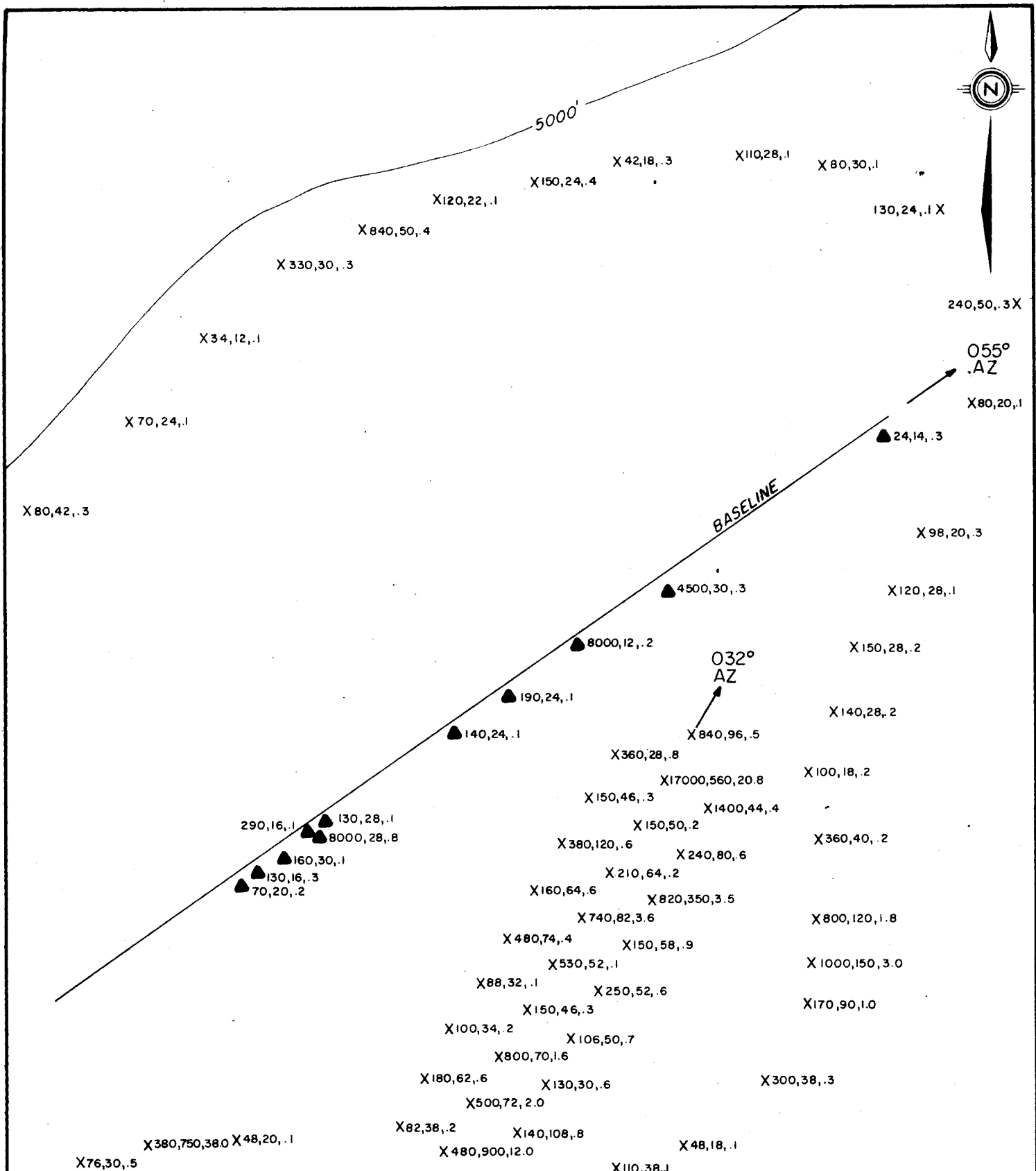


LEGEND
X Soil }
 } Cu, Mo, W, Ni
▲ Rock }

All assays in ppm by Acme Analytical Labs Ltd.

FIG. 18B
ARCHER, CATHRO & ASSOCIATES LTD
GEOCHEMISTRY
Cu, Mo, W, Ni.
MID ZONE
WOLF LAKE JOINT VENTURE





LEGEND
 X Soil } Zn,Pb,Ag.
 ▲ Rock }

All assays in ppm by Acme Analytical Labs Ltd.

FIG. 18C
 ARCHER, CATHRO & ASSOCIATES LTD.
GEOCHEMISTRY
Zn, Pb, Ag.
MID ZONE
 WOLF LAKE JOINT VENTURE
 SCALE IN FEET
 500 0 500
 To accompany report dated Dec, 1971