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HYLAND RIVER MINES LTD.
The Miko Claims, Y.T.

February 17, 1971

ALINE ENGINEERING LTD.

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TO PROTECT OUR CLIENTS, THE PUBLIC AND OURSELVES, ALL REPORTS ARE SUBMITTED AS THE CONFIDENTIAL PROPERTY OF CLIENTS AND AUTHORIZATION FOR PUBLICATION OF STATEMENTS, CONCLUSIONS AND EXTRACTS FROM OUR REPORTS MUST RECEIVE OUR WRITTEN APPROVAL.

ALRAE ENGINEERING LTD.
VANCOUVER, B.C.
ENGINEERS & GEOLOGISTS

TABLE OF CONTENTS

	Page
INTRODUCTION	1
LOCATION AND ACCESS.	1
CLAIMS	2
GEOLOGY.	2
Creek Zone.	3
Hillside Zone	4
The Cirque Showing.	4
CONCLUSIONS AND RECOMMENDATIONS.	5
COST ESTIMATE.	5
REFERENCES	7
CERTIFICATE.	8

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INTRODUCTION

The Miko claims were first located in 1966 and exploration work has continued each summer season since that time. Silver, lead, and zinc exposures occur on the claims which have been initially explored by geochemical, geophysical surveys, and detailed prospecting together with bulldozer trenching, rock trenching, and shallow diamond drilling.

There are three known mineralized zones on the Miko claims which have been named the Creek Showing, the Hillside Showing, and the Cirque Showing. The Cirque Showings are in an area of difficult access and at high elevation but were tested by three diamond drill holes during the 1969 season. The remainder of exploration work on this property has been chiefly on the Hillside and Creek Showings. These two occurrences are approximately 3,000 feet apart and occur in similar geological settings. The area between the two deposits has been tested by soil sampling work. During 1970, the Creek Zone was tested by X-ray diamond drilling of seven drill holes totalling 192 feet. This core provided fresh sample material of the Creek Zone mineralization.

LOCATION AND ACCESS

The Miko claims are located approximately 11 miles west of Mile 47 of the Cantung Highway which is some 107 miles by road north of Watson Lake, Yukon. The claims are accessible by four wheel drive vehicles during the summer months via a dirt road leading from the Cantung Highway to the Monarch Metal Mines claims which adjoin the Miko claims on the northwest. This access road crosses the northernmost Miko claims.

CLAIMS

Claims and their record numbers are as follows:

<u>CLAIM NAME</u>	<u>RECORD NUMBER</u>
Miko 1 - 16	Y2719 - Y2734
Miko 17 - 24	Y29174 - Y29181
Miko 25 - 40	Y41869 - Y41884

All 40 claims are within the Watson Lake Mining Division and are owned by Hyland River Mines Ltd.

GEOLOGY

The Miko claims are underlain by Mesozoic acidic intrusives and Paleozoic quartzites, argillites, limestones and schists. The sediments and metasediments strike northwesterly approximately parallel to the major portion of the intrusive contact.

The intrusive is of irregular disposition on the Miko claims, and the contact trends, generally, northwest but locally crosscuts the sedimentary sequence, particularly on the Miko 3, 18, 19 and 20 mineral claims. This granodiorite contains no evidence of sulphide mineralization and is generally quite unaltered and crystalline.

Mineralization of the Hillside and Cirque Zones occurs immediately adjacent to the intrusive contact in skarn zones developed from former impure limestones. Mineralization of the Creek Zone on Miko 17 claim appears to be entirely enclosed within the metasediments. The Hillside and Cirque mineralization is also conformable with the sediments, but is adjacent to the contact and dips steeply south, away from the intrusive.

The portion of the intrusive contact which strikes northerly and easterly across Miko 3, 18 and 20 mineral claims is crosscutting

the sediments which is a promising structural attitude for the emplacement of mineralization in sediments.

Mineralization exposed in each of the three showings consists of galena and sphalerite disseminated in skarn. Remnant banding, conformable to the strike and dip of the enclosing sediments, indicates the replacement nature of the sulphides in the former limy sediments. Magnetite occurs in varying amounts in the skarn zones adjacent to the intrusive contact, but does not appear directly related to the sulphide content.

Creek Zone

This mineralized zone has been partially tested by surface rock trenching and shallow diamond drilling, and is indicated to be a sulphide zone two to 16 feet in width, which has been traced intermittently for approximately 300 feet. Drilling during 1970 for fresh sample material indicates this mineralization to consist chiefly of galena and sphalerite and to contain small amounts of silver. Silver assays range from 0.76 to 5.34 oz per ton; lead is approximately 35% in the massive sulphide sections; and zinc approximately 25% in the massive sulphide portions. The 1970 drilling tested approximately 100 feet of the length of the occurrence.

Significant soil sample anomalies for both lead and zinc occur in the area of this mineralized zone and are definite targets for further exploration work. It is probable that a regional fault traverses the valley of Conglomerate Creek, immediately to the northwest of the Creek Zone showing, and may have some structural bearing on the emplacement of this mineralization. The eastward extension of the mineralized zone toward the intrusive contact is geologically a favourable area.

Hillside Zone

This mineralization extends for some 1,500 feet along a skarn zone formed adjacent to the intrusive-sediment contact. Intermittent occurrences of mineralization have been exposed by blasting of shallow trenches into the bedrock at various points across the mineralized zones in areas of shallow overburden. Three lenses, from 150 to 500 feet in length and from 30 to 40 feet wide in their centre portions, but tapering to a few feet towards the ends, are indicated by this work. Grade of mineralization varies throughout the lenses but is distinctly increased in the centre sections of each lens. Samples taken from this area indicate the grade to be in the order of 1.5 to 2 oz of silver per ton; 3% lead and 4% zinc. Minor amounts of gold, copper, cadmium, bismuth and tungsten are also indicated.

There has been no bulldozer trenching because of the steep topography and, as yet, no diamond drilling to test the downward extension of this mineralization.

The Cirque Showing

This mineralized zone is on the Miko 12 claim, approximately 4,500 feet southeast of the Hillside Zone and along the same contact between intrusives and metasediments. The mineralization is similar to the Hillside Zone and occurs in the same geological setting. A three foot wide band of siliceous epidote skarn, dipping 45° to 50° to the south, has been traced along the cirque floor and the east wall of the cirque for some 200 feet by intermittent outcrop and talus.

Surface sampling indicates the zone to contain 3.4 oz of silver per ton; 0.73% copper; 4.39% lead; and 0.20% zinc. Four diamond drill holes were drilled on this occurrence during the summer of 1969. Only one hole encountered the mineralization at depth. A seven foot length of core contained 2.42 oz of silver per ton; .54% lead; 4.30% zinc; and 0.01% copper some 120 feet downdip from the

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surface mineralization. A subsequent hole 63 feet farther downdip on the same section failed to encounter mineralization.

CONCLUSIONS AND RECOMMENDATIONS

Initial work on the Miko claims of Hyland River Mines Ltd. has exposed and partially explored three silver-lead-zinc occurrences in a skarn zone occurring along the contact between acidic intrusives and siliceous metasediments. Exploration work has consisted of surface trenching, geochemical soil surveys, magnetometer survey, and shallow diamond drilling. The Cirque Zone, the most difficult of access of the three occurrences, has been drilled by deeper diamond drill holes to depths of some 200 feet. The Creek Zone has been drilled to depths of only 30 feet and the Hillside Zone remains untested at depth.

The best exploration target is the intrusive contact area between the Creek Zone and Hillside Zone which is the portion of the contact crosscutting the sediments. Anomalous amounts of lead and zinc are known to occur in the soils in the vicinity of this contact.

To further explore and evaluate this property, the following work is recommended:

- (a) Detailed geological mapping on a contoured topographic base map.
- (b) Diamond drilling of the Hillside Zone (helicopter access).
- (c) Diamond drilling of the contact area between the Creek Zone and Hillside Zone, in the vicinity of lead anomalies in the soils.


COST ESTIMATE

Approximate cost of the above recommended work would be as follows:

Detailed geological mapping	\$ 3,000.00
Drilling of the Hillside Zone - 2,000 ft @ \$20/ft.	40,000.00
Drilling of the Creek Zone and adjacent anomalies 3,000 ft @ \$13/ft.	<u>39,000.00</u>
	<u>\$ 82,000.00</u>

Should this work encounter economically significant grades and quantities of mineralization, much more work would be required to fully evaluate the discovery.

Respectfully submitted:


Rae G. Jury, P. Eng.

REFERENCES


- | | | |
|---------------|------|---|
| CROTEAU, F.I. | 1970 | Summary Report of Work Program of 1970, Miko Claim Group, Yukon. |
| SIMPSON, J.G. | 1969 | Geology Report on the Miko Claims, by Alrae Engineering Ltd. - report complete with maps. |

CERTIFICATE

I, Rae G. Jury, of the City of Vancouver, British Columbia, do hereby certify that:

1. I am a consulting geological engineer.
2. I am a graduate of Queen's University in Kingston (B.Sc. in Geological Sciences, 1957).
3. I am a registered Professional Engineer of the Provinces of British Columbia and Ontario and also a member of the Canadian Institute of Mining and Metallurgy.
4. I have practiced my profession since 1957 with Labrador Mining & Exploration Company, Quemont Mining Corporation, Canadian Johns-Manville Co. Ltd., and Alrae Engineering Ltd.
5. I have personally examined the Creek Zone mineralization and Dr. J.G. Simpson, of Alrae Engineering Ltd., examined and reported on each of the mineralized zones during 1969.
6. I have personally examined some of the claim locations and many other claim locations have been examined by field personnel under the supervision of Dr. J.G. Simpson in 1969.
7. I have not received, nor do I expect to receive, any interest, either directly or indirectly, in the properties or securities of Hyland River Mines Ltd.

DATED AT VANCOUVER, this 17th day of February, A.D. 1971.


Rae G. Jury, P. Eng.

CREEK ZONE

DIAMOND DRILL RECORD

PROPERTY HYLAND RIVER MINES

HOLE No. 1

DIP TEST		
		Angle
Footage	Reading	Corrected
<u>SURFACE</u>		<u>-70°</u>

Hole No. 1 Sheet No. 1 Lat. _____ Total Depth 24.0
 Section _____ Dep. _____ Logged By F.L.C.
 Date Begun SEPT 13/70 Bearing S 15° W
 Date Finished SEPT 13/70 Elev. Collor. _____

DEPTH	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	Pb	Zn	Ag.
<u>0-13.5</u>	<u>MASSIVE LEAD-ZINC SULPHIDE ZONE. OCCASIONAL SLIPS WITH SLIGHT OXIDIZATION</u>			<u>%</u>	<u>%</u>	<u>oz.</u>
	<u>0-5.0</u>	<u>22776</u>	<u>5.0</u>	<u>37.15</u>	<u>29.50</u>	<u>1.27</u>
	<u>5.0-10.0</u>	<u>22777</u>	<u>5.0</u>	<u>35.45</u>	<u>29.06</u>	<u>0.93</u>
	<u>10.0-13.5</u>	<u>22778</u>	<u>3.5</u>	<u>36.20</u>	<u>29.44</u>	<u>0.86</u>
<u>13.5-16.5</u>	<u>SKARN. SLIGHTLY BLOCKY TO MASSIVE. SPARSE PB AND ZN SOME EPIDOTE. BECOMES MORE LIMY AS CORE ADVANCES</u>					
	<u>15.0-16.5 FAIR MINERAL</u>	<u>22779</u>	<u>1.5</u>	<u>2.56</u>	<u>3.90</u>	<u>2.45</u>
<u>16.5-24.0</u>	<u>SKARN TOWARDS LIMESTONE GREY-GREEN. DENSE. SOME EPIDOTE. SLIGHT LOCAL BANDING. VERY SPARSE PB AND ZN ON LOCAL SLIPS. BECOMES CREAMY COLOR AS HOLE ADVANCES</u>					
	<u>END OF HOLE</u>					

DIAMOND DRILL RECORD

PROPERTY HYLAND RIVER MINES

HOLE No. 2

DIP TEST		
Footage	Angle	
	Reading	Corrected
SURFACE	-55°	

Hole No. 2 Sheet No. 1 Lat. _____ Total Depth 26.0
 Section _____ Dep. _____ Logged By F.L.C.
 Date Begun SEPT 14/70 Bearing N15°E
 Date Finished SEPT 14/70 Elev. Collar _____

DEPTH	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	Pb	Zn	Ag.
0-4.0	CASING			%	%	oz.
4.0-6.0	PHYLLITE SCHIST BECOMES MORE SILICEOUS. FAIRLY DENSE THROUGHOUT FINE GRAINED. MEDIUM GREY					
6.0-7.4	SKARN WITH FAIR Pb-Zn MINERALIZATION. MASSIVE Pb-Zn FROM 6.2-6.5. SOME EPIDOTE GREY-GREEN. MEDIUM TO FINE CRYSTALLINE	22780	1.4	13.44	16.55	2.68
7.4-9.8	SKARN. DENSE FINE CRYSTALLINE LIMY. YELLOWISH GREY-GREEN. MINOR SLIPS SHOW SOME FAULTING BECOMES PHYLLITIC 8.5 TO 9.5 WITH Pb-Zn ON SLIPS FROM 9.5 TO 9.8					
9.8-13.2	MASSIVE Pb-Zn SULPHIDE ZONE	22781	3.4	34.86	29.15	1.40
13.2-26.0	SKARN. LOCALLY LIMY. YELLOWISH GREY-GREEN. FINELY CRYSTALLINE. MINOR SLIPS WITH WITH SPARSE OXIDIZED Pb-Zn. SOME TENDENCY TOWARDS PHYLLITE AS CORE ADVANCES. LOCAL QUARTZ	22782	0.8 (13.2-14.0)	20.22	16.28	0.76

DIAMOND DR. RECORD

PROPERTY HYLAND RIVER MINES

HOLE No. 6

DIP TEST		
Footage	Angle	
	Reading	Corrected
SURFACE	-60°	

Hole No. 6 Sheet No. 1 Lat. _____ Total Depth 27.0
 Section _____ Dep. _____ Logged By F.L.C.
 Date Begun _____ Bearing S 25° W
 Date Finished _____ Elev. Collar _____

DEPTH	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	Pb%	Zn%	Ag%
0-4.0	MASSIVE Pb-Zn SULPHIDE ZONE SLIGHT OXIDIZATION. HEAVY Zn.	6-1	4.0	32.10	26.32	0.83
4.0-9.0	AS ABOVE	6-2	5.0	35.53	27.21	0.96
9.0-13.6	AS ABOVE	6-3	4.6	34.44	28.94	1.31
13.6-15.0	MIXED GNE AND SCHIST. 20% SULPHIDES. SILICEOUS APPROACHES QUARTZITE. METAMORPHIC.	6-4	1.4	10.00	8.64	5.34
	0.6 LOST CORE					
15.0-19.6	QUARTZITE. SPARSE TO FAIR Pb+Zn.	6-5	4.6	3.86	4.97	4.34
19.6-27.0	QUARTZITE. METAMORPHOSED SOME SCHISTINE. MEDIUM GRAIN FINE GRAINED. BLOCKY.					
	END OF HOLE					

DIAMOND DRI RECORD

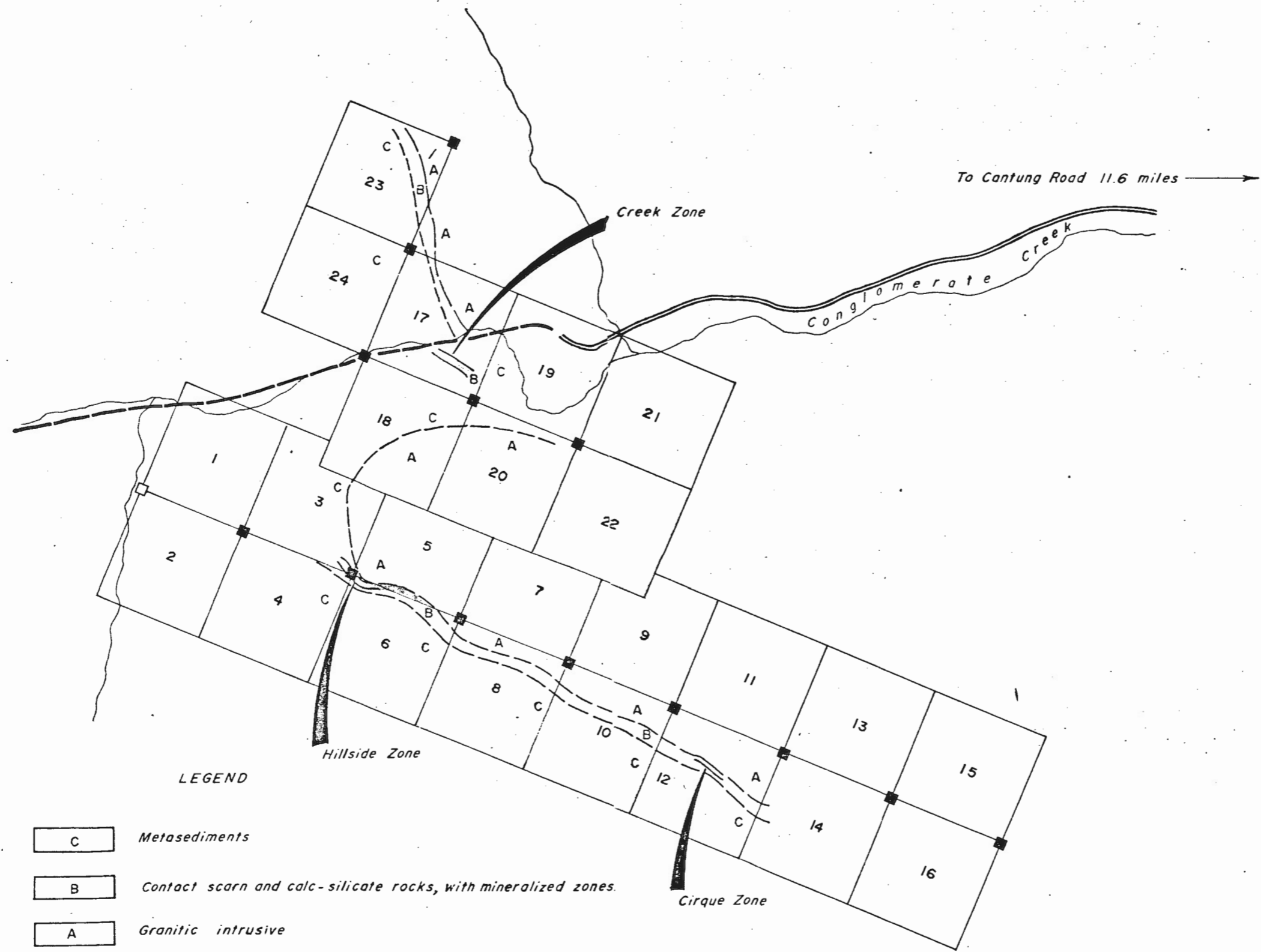
PROPERTY HYLAND RIVER MINES

HOLE No. 7

DIP TEST		
Footage	Angle	
	Reading	Corrected
SURFACE	-60°	

Hole No. 7 Sheet No. 1 Lat. _____ Total Depth 26.0
 Section _____ Dep. _____ Logged By F.L.C.
 Date Begun _____ Bearing N 25° E
 Date Finished _____ Elev. Collar _____

DEPTH	FORMATION	SAMPLE No.	WIDTH OF SAMPLE	Pb	Zn	Ag
0-8.2	SERPENTINE SCHIST. BLOCKY-MEDIUM GREY. OCCASIONAL OXIDIZED SEAMS			9.	9.	0.
8.2-9.7	MASSIVE Pb-Zn MINERAL ZONE	7-1	1.5	13.71	10.04	0.99
9.7- 18.2 17.0	METAMORPHIC ZONE SLIGHT SCHISTINE. SOME SERPENTINE. LITTLE OR NO MINERAL. FINE GRANULARITY PHYLITE.					
17.0-18.2	PHYLITE-METAMORPHIC. MINOR Pb-Zn.		1.2	27.00	20.28	1.28
18.2-18.7	MASSIVE Pb-Zn MINERAL ZONE	7.2	0.5	4.64	1.88	5.31
18.7-26.0	QUARTZITE. METAMORPHIC. FINE GRAINED. LIGHT GREY. FAIRLY DENSE. SOME BANDING OCCASIONAL SLIPS.					
END OF HOLE						
	1.0-4.0		3.0	0.03	0.02	0.03
	5.0-6.0		1.0	29.40	22.15	2.60



LEGEND

- C Metasediments
- B Contact scarn and calc-silicate rocks, with mineralized zones.
- A Granitic intrusive
- Possible dislocation zone

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MIKO CLAIMS

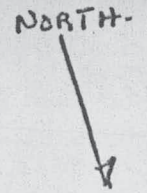
(After Mr. C. Turner)

Scale: 1" = 1500' approx.

HYLAND RIVER MINES LTD.

XRAY DIAMOND DRILL

SEPT. 10/70 to SEPT 23/70



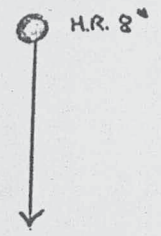
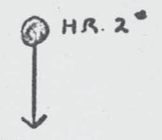
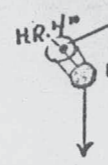
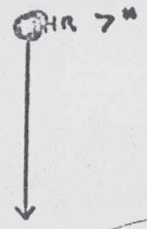
HR. 8[#]
 DIRECTION.
 N25°E.
 ANGLE -45°
 FOOTAGE - 29'

HR. 7[#]
 N25°E
 -60°
 26'

HR. 3[#]
 N25°E
 -55°
 27'

HR. 2[#]
 N25°E
 -55°
 26'

HR. 4[#]
 90°
 17'
 ABANDONED
 NO CORE.
 RECOVERY

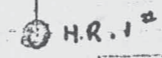
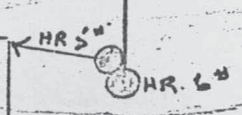


OUTCROP

HR. 5[#]
 S75°E
 -70°
 16'

HR. 6[#]
 S25°W
 -60°
 27'

HR. 1[#]
 S25°W
 -70°
 24'



MIKO CLAIM 17 ^d		
D.O. HOLE	1" = 10'	CORE RECOVERY
HR. 1	24'	24'
2	26'	23'
3	27'	18'
4	17'	4'
5	16'	14'
6	27'	25'
7	26'	24'
8	29'	24'

TOTAL FOOTAGE DRILLED EX. 192'

CORE RECOVERED 156'

HR. 4[#] ABANDONED 4' of RUBBLE. NOT SHIPPED.

A.C. Janner