

SYNOPSIS
OF
EXPLORATION RESULTS
ON THE
KD, AC, AND A PORTION OF THE MX CLAIMS
WHITEHORSE MINING DISTRICT, YUKON TERRITORY

62° 27' North

133° 13' West

for

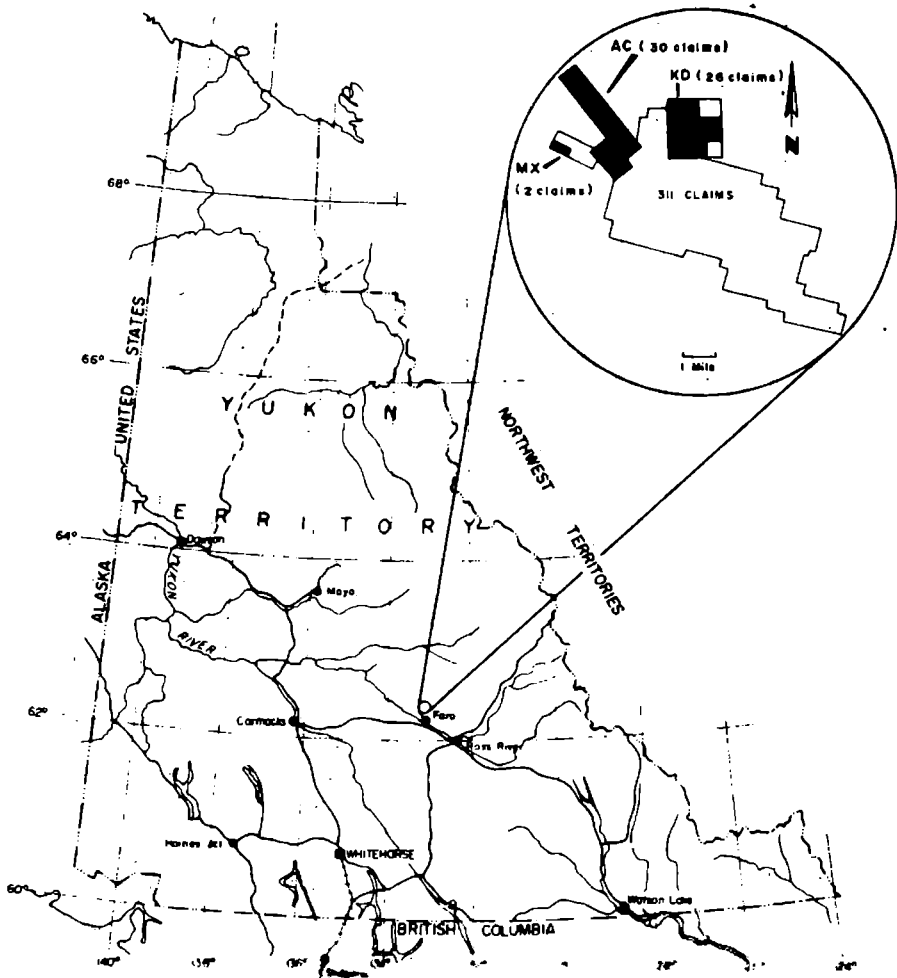
MERCURY EXPLORATIONS LTD. (N.P.L.)

by

MARCH 1972

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Property Location Map - 1" : 100 miles.	
Geochem, Gravity & Drillsites Composite - 1" : 1/2 mile.	In Pocket



MERCURY EXPLORATIONS LTD. (N.P.L.)

MT MYE PROSPECT

PROPERTY LOCATION MAP

YUKON
 SCALE 1" = 100 MILES
 FIGURE 1

INTRODUCTION & HISTORY OF PROPERTY

The property was first staked in early 1966 for Giant Yellowknife Mines Ltd., and was prospected by helicopter airborne magnetic and air E.M. surveys and soil sampling with outcrop mapping - several minor areas of lead and zinc mineralization were found both in overburden and in bedrock. The geophysical results indicate that the geological setting of the claims is very similar to that of the Anvil-Vangorda-Swim Lakes belt.

No further work was undertaken until the summer of 1968, when Mercury Explorations Ltd. placed two prospectors in the area, whereupon additional showings of silver-bearing lead-zinc were found in highly granitized metamorphic rocks on the south side of the claims. The favourable area is mostly obscured by valley fill - and it was this area that was staked by Mercury Explorations in 1968 and 1969 for a length of 17 miles, and an option was obtained by Mercury on the Giant Yellowknife claims.

Approximately 80 line miles of reconnaissance gravity surveys were completed by Mercury in 1969 - several gravity anomalies were indicated by the survey carried out on lines spaced 1,000 feet apart.

In 1970 a controlling interest in the combined properties was optioned to Kangaroo Exploration Corporation, a wholly owned subsidiary of Cyprus Mines Corporation.

From their work in 1970, it was considered by Kangaroo that the geochemical results, together with the results from the induced polarization surveys (report by P. Walcott, 1970) and previous gravity surveys indicated a number of preliminary diamond drill targets.

A program of three BQ diamond drill holes, totalling 1,948 feet, was carried out at a cost of \$38,768.00 between November 10th and December 5th, 1970. All core recovered was logged and stored in Whitehorse.

The presence of mafic sills and deep overburden adequately explained the observed gravity effects to within 100 feet of surface. The soil geochemical values, however, in respect of lead and zinc are comparable to those over the Faro orebodies, and it was recommended that further drilling be carried out, centred on elemental mercury anomaly - situated to the south and east of the highest lead-zinc values.

In 1972, further geochemical, gravity and Turam surveys were completed and a 2,000 ft. minimum diamond drill contract has been assigned for the summer of 1972 on targets determined from geochemistry and geophysics.

To date approximately \$430,000.00 has been spent on all the claims by all parties, including Giant Yellowknife, Mercury and Kangaroo Exploration.

LOCATION AND ACCESS

The property is north of Mye Mountain and 8 miles northeast of the Faro ore deposits of Anvil Mining Corporation Ltd., in the Whitehorse Mining District, $62^{\circ} 15' N - 133^{\circ} 10' W$.

Access is by helicopter from the Faro strip or by a winter road from the Anvil Mine road.

CLAIMS AND PROPERTY OWNERSHIP INTERESTSCLAIMS

The property consists of 311 full sized mineral claims duly recorded with the Mining Recorder in Whitehorse. The claims are listed below.

<u>Claim Name</u>	<u>Record Number</u>	<u>Recording Date</u>	<u>Expiry Date</u>
<u>MX - 49 claims</u>			
MX 1	Y30497	11-3-69	11-3-73
2	498	"	11-3-74
3	499	"	11-3-73
4	500	"	11-3-74
5	501	"	11-3-73
6	502	"	11-3-74
MX 7-13	Y30503-509	"	11-3-73
MX 25-28	Y30521-24	"	"
30	Y30526	"	"
56-62	Y30552-558	"	"
119-122	Y30591-594	"	"
182-187	Y30641-646	"	"
186A-187A	Y30647-648	"	"
188-191	Y30649-652	"	"
192	Y60514	5-4-71	5-4-72
193	Y30654	11-3-69	11-3-73
194	Y60515	5-4-71	5-4-72
195	Y30656	11-3-69	11-3-73
178-181	Y30637-640	"	"

<u>Claim Name</u>	<u>Record Number</u>	<u>Recording Date</u>	<u>Expiry Date</u>
<u>TIM - 32 claims</u>			
TIM 1-32	Y30297-30328	11-2-69	11-2-73
<u>ZAN - 48 claims</u>			
ZAN 1-14	Y25973-986	9-9-68	9-9-74
15	Y26126	23-9-68	9-9-73
16-24	Y25987-995	9-9-68	9-9-73
25-28	Y26127-130	23-9-68	23-9-73
29	Y26131	"	23-9-74
30	Y26132	"	23-9-73
31	Y26133	"	23-9-74
32	Y26134	"	23-9-73
33-36	Y26135-138	"	23-9-74
37-40	Y26139-142	"	23-9-73
41-44	Y26143-146	"	23-9-74
45-48	Y26147-150	"	23-9-73
<u>AC - 30 claims</u>			
AC 67-72	Y60492-97	5-4-71	5-4-72
75-88	Y60500-513	"	"
89-96	Y60516-523	"	"
111-112	Y60498-499	"	"
<u>KD - 26 claims</u>			
KD 1	Y61954	7-9-71	7-9-72
2	Y61962	"	"
3-4	Y62052-53	14-9-71	14-9-72
5-7	Y61955-57	7-9-71	7-9-72
8	Y61963	7-9-71	7-9-72
9-10	Y62071-72	15-9-71	15-9-72
11-12	Y62054-55	14-9-71	14-9-72
13-18	Y61964-969	7-9-71	7-9-72
19-22	Y62056-59	14-9-71	14-9-72
23-26	Y61958-61	7-9-71	7-9-72
<u>JET - 48 claims</u>			
JET 1-16	Y3142-57	17-3-66	17-3-73
18	Y3159	"	"
20	Y3161	"	"
22	Y3163	"	"
24	Y3165	"	"
45	Y3186	"	"
47	Y3188	"	"
49-64	Y3190-3205	"	"
93	Y3234	"	"
95	Y3236	"	"
97-104	Y3238-3245	"	"

<u>Claim Name</u>	<u>Record Number</u>	<u>Recording Date</u>	<u>Expiry Date</u>
<u>AM - 14 claims</u>			
AM 1-14	Y63877-890	5-11-71	5-11-72
<u>TAF - 64 claims</u>			
TAF 1-12	Y62459-472	29-9-71	29-9-72
13-20	Y62475-482	"	"
21-22	Y62465-66	"	"
23-24	Y62473-74	"	"
25-64	Y62483-62522	"	"

Property Ownership Interests

Mercury owns 40% interest in all the claims, except the original Giant Yellowknife claims, namely, the AC, KD and JET claims in which Mercury owns 16% interest.

Mercury has one quarter of its interest carried for previous work and when Kangaroo completes the expenditure of its first \$100,000.00 on the Mercury claims (this does not include monies spent by Kangaroo on the Giant Yellowknife claims), any subsequent exploration and development costs will be borne by Kangaroo and Mercury at a rate of 70% and 30% respectively. Kangaroo has spent approximately \$100,000.00 to date on the Mercury claims.

When Kangaroo has spent \$74,600.00 on the Giant claims, Mercury shall supply 16% of all subsequent monies required to be spent on the Giant Yellowknife claims.

PREVIOUS WORK

The Mye Mtn. property has been the subject of a fair amount of work, mainly on the central portion.

Prior to acquisition of an interest by Kangaroo Exploration, airborne E.M. and magnetometer surveys, prospecting, reconnaissance gravity and some geochemical work were performed.

Subsequent to Kangaroo's involvement, the property has been systematically explored by soil geochemical surveys, geological mapping, I.P. surveys, and limited diamond drilling in the central part of the claims.

GEOLOGICAL SETTING

Three rock units prevail; the Anvil Batholith of Cretaceous age, massive to schistose greenstone of mid-Paleozoic age and strongly deformed metamorphic rocks thought to be lower Cambrian (Templeman-Kluit, 1968).

The lower Cambrian metasedimentary and metavolcanic units are host to three important bedded lead-zinc deposits on the south side of the Anvil batholith. On the north side, these bedded rocks outcrop in a N-W belt approximately 2 miles wide and comprise pelitic phyllite and schist with subordinate chloritic, limy, graphitic and quartzose phyllite, greenstone, limestone and skarn. The foliation planes are commonly flat to gentle northeast.

The only fault definitely present is a northerly trending normal fault with about 300 ft. downthrow to the east; several similar faults are inferred from air photos.

GEOCHEMISTRYDescription of Soil

Soils occurring on summits and flanks of gentle, rounded hills - 2,000 ft. relief:-

- (1) A₀ - dark brown to black humic
A₁ - dark brown to semi-decomposed humic gradational into A₀
A₃ (?) - orange-red to brown organic and mineral matter - not always present
B & C - some brown loamy material, many angular pebbles of bedrock
- (2) Soils in valleys where there is no outcrop:
organic - undecomposed or semi-decomposed matter
alluvium - fine grained, silty
Above 6,000 ft. the only available soil is of the B or C horizons.

Note: A ubiquitous thin layer of buff-coloured volcanic ash commonly occurs below the A₀ horizon, and the valley areas are permafrost locations.

Soil samples were collected from the B-C horizon on lines 1,000 feet apart and at 200-foot sample intervals on each line. Follow-up sampling of anomalous values in Pb, Zn, Cu included work between the lines.

The samples were analysed by Barringer Research on the -80 mesh portions, using a hot perchloric acid attack.

Histogram plots of Pb, Zn and Cu show that Pb and Zn have strongly anomalous populations. Detailed fill-in lines tend to provide a built-in bias in sample density of anomalous areas.

Cumulative frequency plots indicate the following threshold values:-

	<u>Threshold</u>	<u>Anomalous</u>
Pb	50 ppm	90 ppm
Cu	50 ppm	90 ppm
Zn	160 ppm	210 ppm

The survey delineates a large area on the northeastern portion of the grid that is highly anomalous in lead and zinc - and preliminary indications suggest a coincident silver anomaly exists. The anomaly is 2,500 feet wide and 5,000 feet long, reaching peak values of 10,600 ppm Zn, 4,800 ppm Pb, 1,650 ppm Cu and 5.0 ppm Ag.

Southeast of the above anomaly is an area of patchy, irregularly shaped, smaller anomalies, mostly of a much lower magnitude. A notable feature of this area is a 4,000 ft. long narrow zone of very high Pb and Zn values.

Discussion of Geochemical Results

The large anomaly is on a hilltop with little glacial cover. Some downhill migration of the cations is evident - however, the source area of the transported portion is on the top and uppermost flanks of the hill. The soil consists largely of finely ground rock fragments and may closely reflect the metal content of the underlying rocks. Preliminary rock sampling indicates that the distribution of anomalous values arises from high metal content in a relatively high background of bedrock metal content - rather than mechanical dispersion of debris from localized "hot spots".

The anomaly overlies metavolcanics along a late fold axis. The metals may have been mobilized from the underlying phyllites, and collected in the hinge-zone of the fold, particularly in fractures in the brittle greenstones and possibly in chemically favourable layers.

The linear anomaly to the south may be caused by a metal-rich horizon in the underlying phyllites.

CONCLUSIONS AND RECOMMENDATIONS

The work has located evidence of widespread lead-zinc-copper-silver mineralization in and near phyllites known to be favourable host rocks in the Anvil district. A follow-up program should consist of detailed geological mapping to further define the complex structure, a vertical loop E.M. survey and a magnetometer survey with sufficient diamond drilling to test present targets and further targets that emerge.

ESTIMATE OF COSTS FOR THE NEXT PROGRAM RECOMMENDED ABOVE

Preliminary Claim Survey (partial)	\$ 5,000.00
Geological Mapping	
E.M., Magnetic & Gravity Survey	10,000.00
Geochemistry	1,000.00
Diamond Drilling 2,000 ft. @ \$25.00/ft.	50,000.00
Assaying	1,000.00
Camp	7,000.00
Transportation	6,000.00
Salaries & Wages	12,000.00
Supervision	5,000.00
	<hr/>
	\$ 97,000.00
Contingency	13,000.00
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TOTAL	<u><u>\$ 110,000.00</u></u>

In order to retain their 40% and 16% interest respectively, Mercury must advance:-

30% of the funds for 1972 work done on Mercury's original claims and 16% of the funds for 1972 work done on the Giant Yellowknife claims, which could total approximately \$40,000.00 of the above cost estimate.