

# 4503

92I/7E

GEOCHEMICAL REPORT  
on the  
KAY-LYN CLAIM GROUP  
SWAKUM MOUNTAIN AREA  
SOUTH-CENTRAL BRITISH COLUMBIA  
NICOLA MINING DIVISION  
Lat. 50°16'N  
Long. 120°41'W  
for  
HESCA DEVELOPMENT CORP. LTD.

<u>Claim Name</u>	<u>Record Number</u>	<u>Expiry Date</u>
Kay 1	53731	May 11, 1974
Kay 20	53750	May 13, 1974
Kay 39	53767	May 14, 1974
Kay 40	53768	May 14, 1974
Lyn 1 - 4	55924 - 55927	June 16, 1974
Lyn 11	55934	June 16, 1974
Lyn 12	55935	June 16, 1974
Lyn 32 - 40	55955 - 55963	June 18, 1974
Lyn 44 - 59	56119 - 56134	June 25, 1974
Lyn 78 - 81	56153 - 56156	June 28, 1974
Lyn 83	56158	June 28, 1974

by

G. C. GUTRATH, P. ENG.

ATLIED EXPLORATION MANAGEMENT LTD.

Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT

NO. 4503 MAP

NTS 921

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GEOCHEMICAL REPORT  
KAY-LYN CLAIM GROUP  
NICOLA MINING DIVISION

INTRODUCTION

This report is written at the request of Mr. E. Mueller,  
President of Hesca Developments Ltd.

The Kay-Lyn Group of 40 claims is located on the south  
side of Swakum Mountain, seven miles north of Merritt in southern  
British Columbia.

An exploration program of geochemical soil, silt and rock  
chip sampling and analyses was carried out in July and August of  
1972 and in May of 1973.

## GEOGRAPHY

### Location

The property is located in south-central British Columbia, 10 miles northeast of the community of Merritt.

The coordinates of the property are  $50^{\circ}16'$  north latitude and  $120^{\circ}41'$  west longitude.

### Access

The Clapperton Creek gravel road goes to the northeast from Highway 5 at the west end of Nicola Lake seven miles from Merritt. Approximately 2.5 miles north along the Clapperton Creek Road, the Shuta Creek Road turns off to the north and passes through the west side of the claim group at mile 5.

### Topography

The claims cover an area between the elevations of 4,700 feet and 5,400 feet on the southerly facing slope of Swakum Mountain. The relief is quite gentle with numerous rounded ridges bordering Kirby and Shuta Creek.

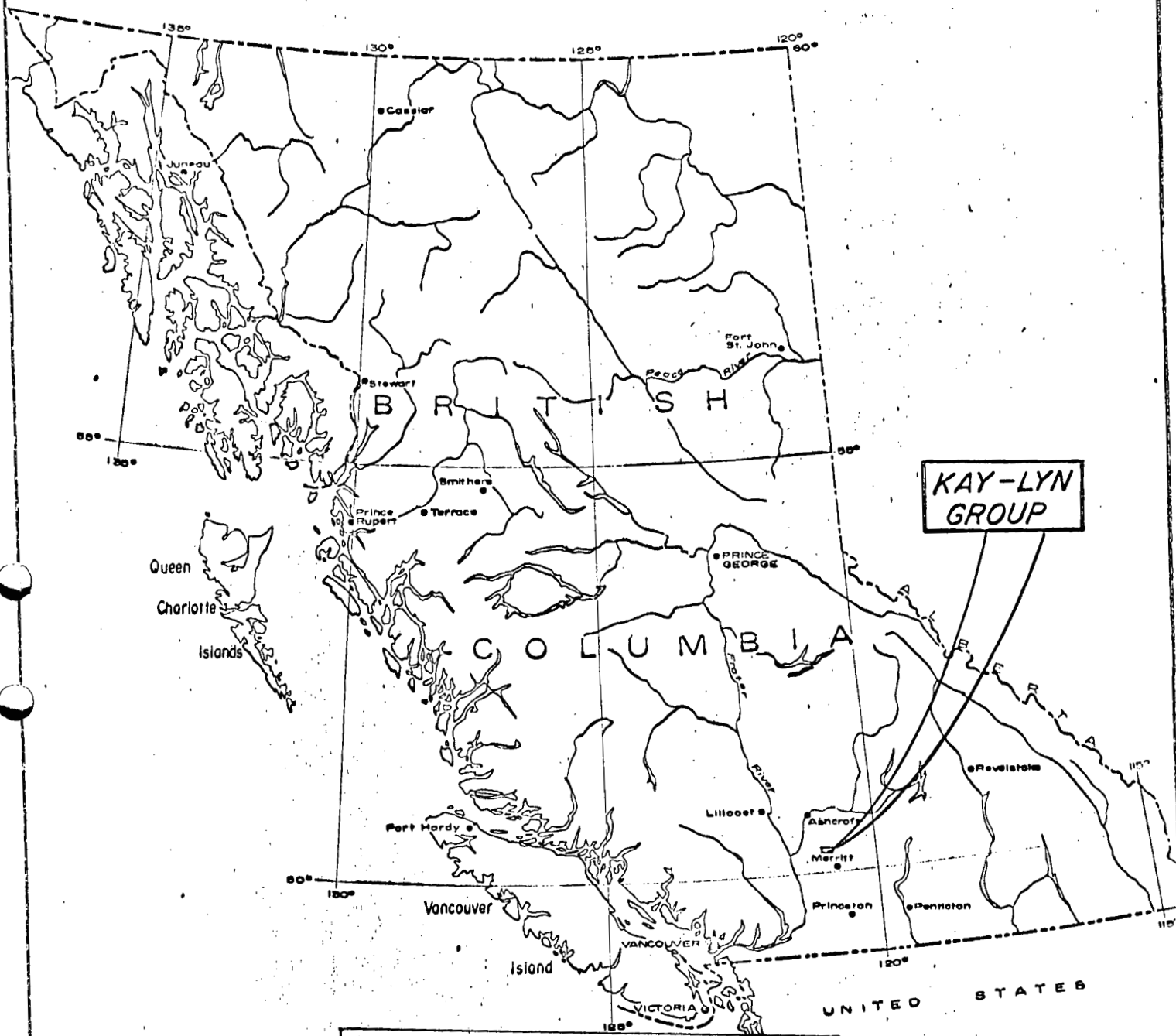
### Vegetation

The area is completely timbered with mixed fir, spruce and pine on the well-drained ridges and with cedar and hemlock in the few poorly drained areas. The area is relatively open except along the creeks where there are thick willows.

### Water

There are numerous streams cutting the area as well as a number of small lakes. There is ample water in the area for drilling requirements.





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LOCATION MAP

### CLAIMS

The following is a list of the claims grouped for assessment work.

<u>Name</u>	<u>Record No.</u>	<u>Expiry Date</u>
Kay 1	53731	May 11, 1974
Kay 20	53750	May 13, 1974
Kay 39	53767	May 14, 1974
Kay 40	53768	May 14, 1974
Lyn 1 - 4	55924 - 55927	June 16, 1974
Lyn 11	55934	June 16, 1974
Lyn 12	55935	June 16, 1974
Lyn 32 - 40	55955 - 55963	June 18, 1974
Lyn 44 - 59	56119 - 56134	June 25, 1974
Lyn 78 - 81	56153 - 56156	June 28, 1974
Lyn 83	56158	June 28, 1974

### GEOLOGY

#### General

The Swakum Mountain area is underlain by a northerly trending belt of Nicola volcanics that has been intruded to the east and west by Coast Range granodiorite intrusive.

Occurrences of copper, gold, silver and tungsten have been reported on Swakum Mountain both to the north and south of the claim group. Areas of silicification associated with fracturing and pyritization were noted in a number of areas within the claim group.

The property geology has not been mapped.

### PERSONNEL

The first phase of the exploration program was carried out in July and August of 1972 by Mr. Fritz Orth under the supervision of Mr. G. Milburn.

The second phase of the programme consisted of line cutting for a grid survey and soil sampling. This work was carried out by Atled Exploration Management Ltd. under the overall supervision of G. C. Gutrath, P.Eng. The field work was done by G. Baker, E. Cox, and R. Emerson in May of 1973.

The work completed by both groups has been compiled by G. C. Gutrath.

#### WORK COMPLETED

Mr. Milburn and Mr. Orth collected soil, silt and rock chip samples using a topographic map and an aneroid barometer for survey control. They also chain-and-compassed three small grid areas for soil sampling. These are identified as Grids A, B and C on the enclosed maps. A total of 21,400 feet was surveyed.

Atled cut and surveyed an 8,000-foot baseline at N55°E which connects Grid "B" and Grid "C". Crosslines totalling 33,000 feet were cut at right angles at 1,000-foot intervals with stations marked every 200 feet.

A total of 160 soil and silt samples and 21 rock chip samples were collected for analysis in 1972. Vangeochem Lab. Ltd. analyzed 74 of the samples for copper and zinc, and Crest Laboratories (B.C.) Ltd. analyzed 86 of the samples as well as the 21 rock chip samples for copper, lead and zinc. A total of 210 soil samples were collected from the 1973 Atled grid and these samples were analyzed by Chemex Labs Ltd. for copper.

The samples were collected from the "B" soil horizon at depths varying from six inches to 15 inches using a mattock and a stainless steel trowel. The samples were placed in Kraft paper bags, labelled and partially dried before shipment to the various laboratories for analysis.

The sample analysis was carried out as follows:

1. Sample was sifted to -80 mesh.
2. Mesh weight used 0.50 g.
3. Final volume: 50 ml.
4. Analyzed by instrument: atomic absorption spec.
5. Extraction by hot  $\text{HClO}_4$  -  $\text{HNO}_3$ .
6. Detection by tectatron AAS-AA1000

### SURVEY RESULTS

#### Copper

The background for copper is in the range of 20 to 70 p.p.m. Threshold anomalous is +70 p.p.m., anomalous +120 p.p.m. and very anomalous is +150 p.p.m.

Since the lines are widely spaced, it is not possible to contour the results. However, the values have been colour coded on the enclosed maps to distinguish the more anomalous areas.

The results indicate an erratic distribution of copper anomalous values that are probably related to small occurrences of copper mineralization in the Nicola volcanics. There are a few isolated highs in the 120 to 150 p.p.m. range.

#### Zinc

Background zinc is in the range of 40 to 100 p.p.m., threshold anomalous +100 p.p.m., anomalous +140 p.p.m. and very anomalous +180 p.p.m.

Threshold anomalous values are common and are concentrated in the area of Grid "B" on the Lyn 50, 52 and 54 claims.

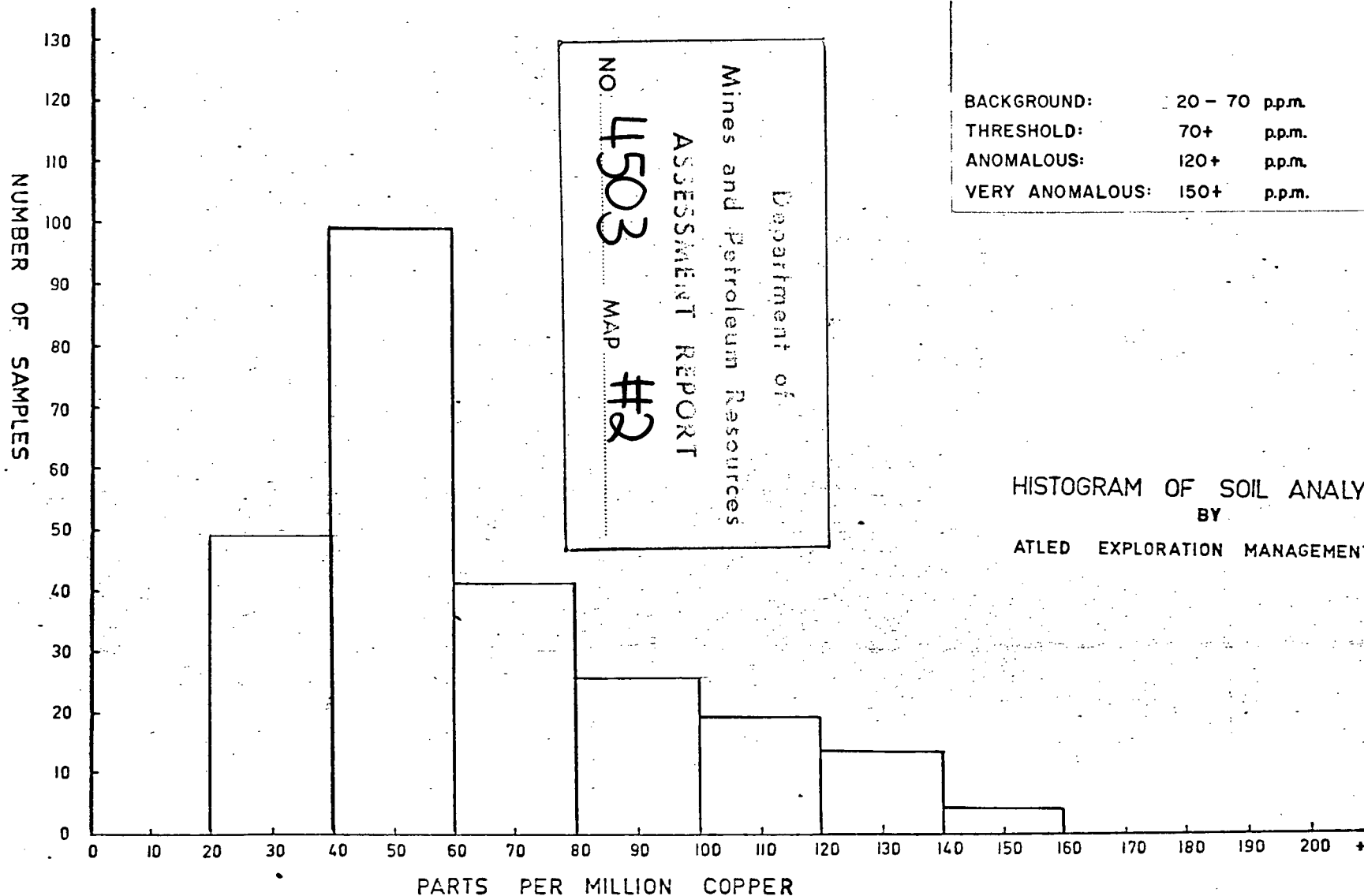
The silts from the lower part of Shuta Creek are threshold anomalous. The highest value of 170 p.p.m. is from the last silt taken from a southerly flowing tributary on the Lyn 53 claim.

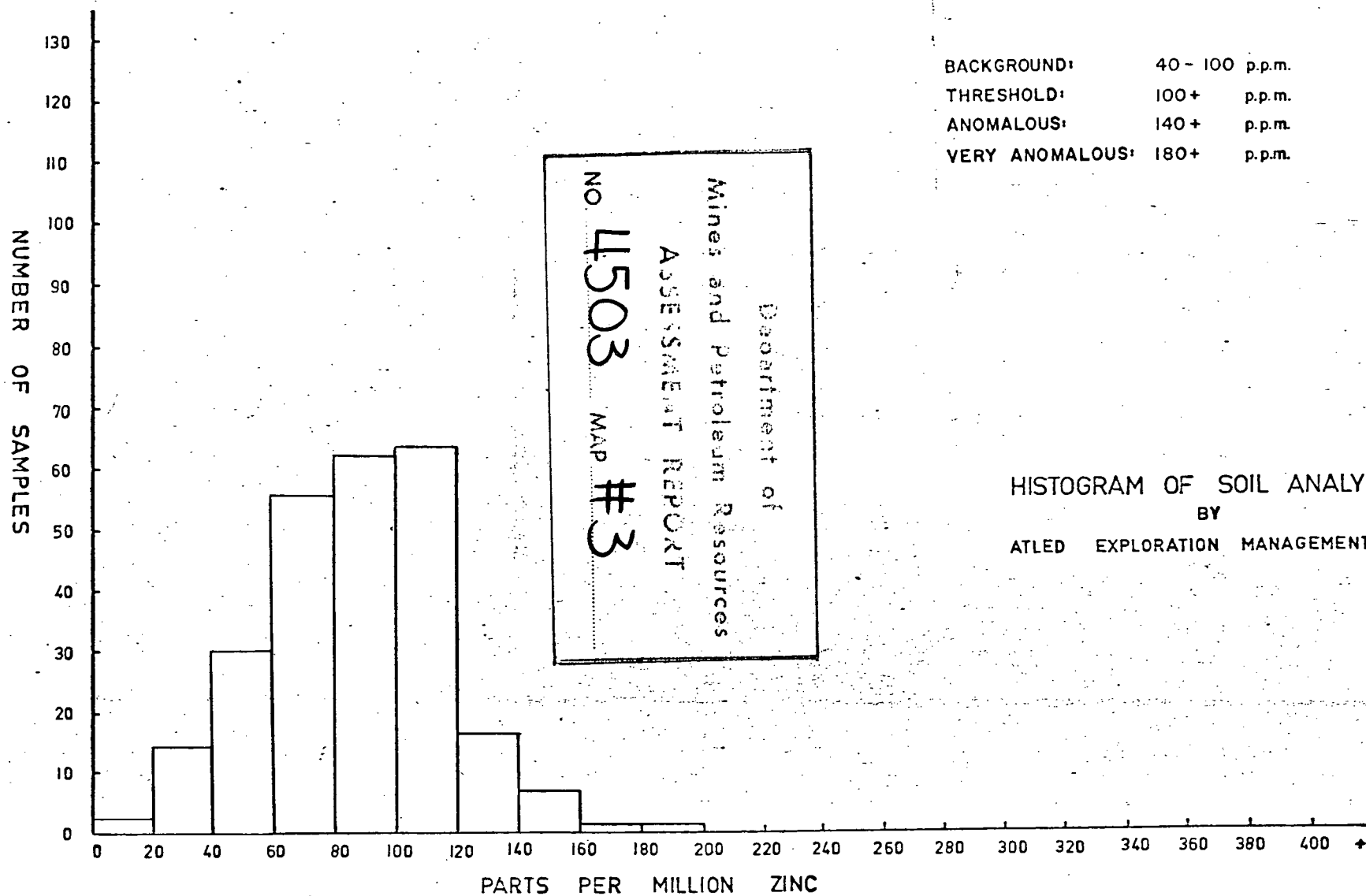
#### Lead

Background values for lead are in the range of 20 to 70 p.p.m., threshold anomalous is +100 p.p.m. and very anomalous is +140 p.p.m.

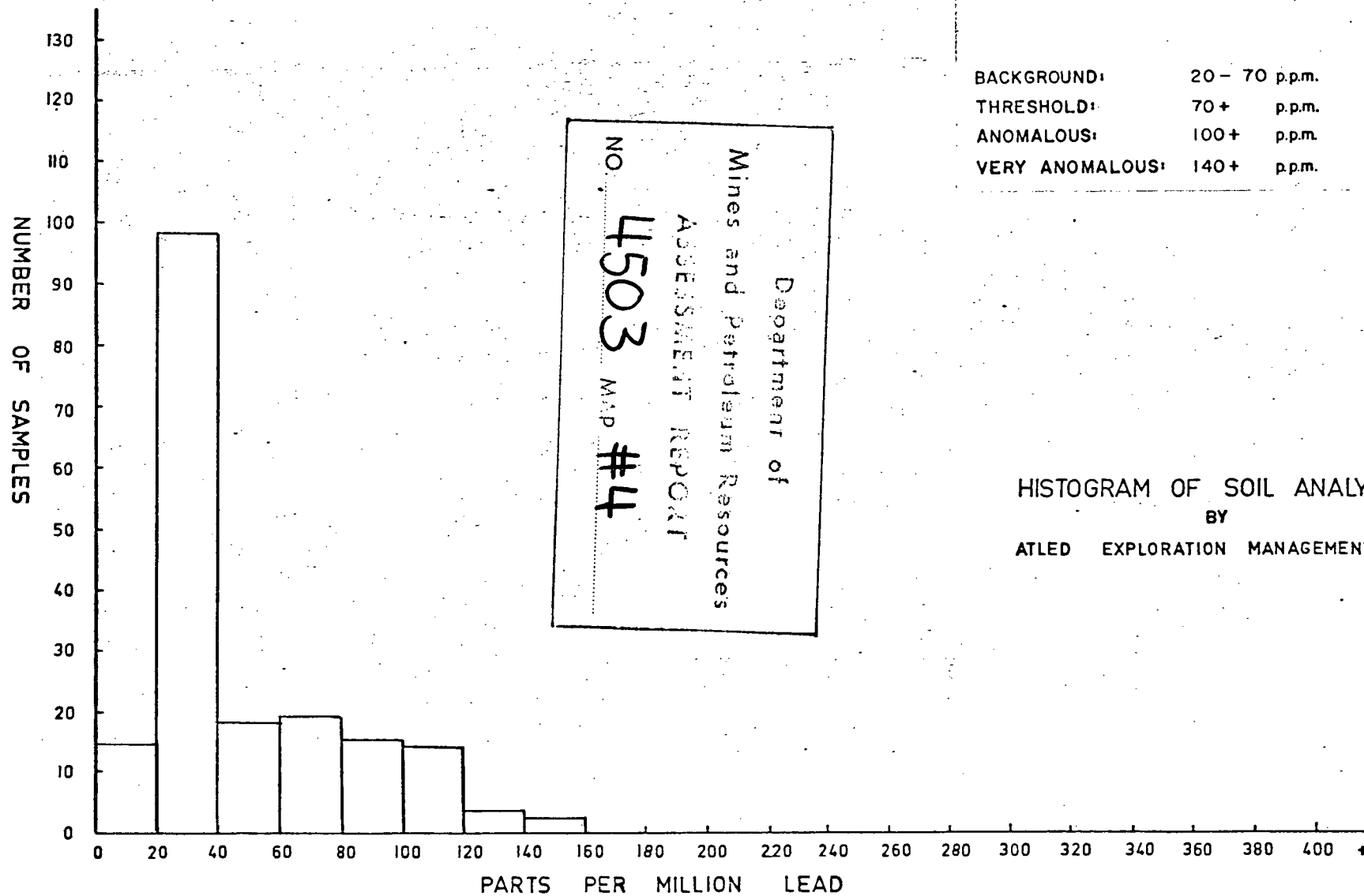
The lower part of the Shuta Creek on the Lyn 12 claim is definitely anomalous for lead with a high of 152 p.p.m. The area around Hensel Lake on the Lyn 38 claim is also anomalous with a high of 120 p.p.m.

The remainder of the areas has very low background lead value.









### CONCLUSION

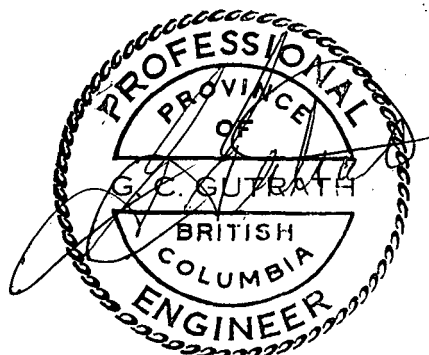
The geochemical results indicate two areas of coincident copper, zinc and lead anomalies. The most significant of these areas is the lower part of Shuta Creek on the Lyn 12 claim. The results indicate that lead mineralization associated with lesser copper and zinc mineralization occurs in this area.

The coincident lead, zinc and copper anomalous values in the Hensel Lake area appear to be related to possible down-slope ion migration and accumulation around the edge of the lake.

The zinc threshold anomaly in the Grid "B" area has very uniform values and is believed to be related to a particular soil condition rather than bedrock mineralization. The anomalous values in the silts to the north of Grid "B" are believed to be related to known mineral occurrences located to the north of the claim group.

The geochemical anomalous areas warrant detailed prospecting and geological mapping.

Respectfully submitted,



G. C. Gutrath, P.Eng.  
Atled Exploration Management Ltd.

DOMINION OF CANADA:  
PROVINCE OF BRITISH COLUMBIA.  
To Wit:

In the Matter of Minimum Cost of Geochemical Survey  
Completed on the Kay-Lyn Group,  
Nicola Mining Division

I, Gordon Gutrath

of 420-475 Howe Street, Vancouver.

in the Province of British Columbia, do solemnly declare that the following expenditures were made in carrying out the geochemical survey on the Kay-Lyn Group.

Personnel and Support

July-August, 1972

G. Milburn--Field Supervision: 8 days @ \$60.00 \$ 480.00  
F. Orth--Linecutting, Soil Sampling: 20 days @ \$50.00 1,000.00

May, 1973

G. Baker--Field Supervision and Soil Sampling  
9 days @ \$50.00 450.00  
R. Emerson--Linecutting: 9 days @ \$30.00 270.00  
R. Cox--Linecutting: 9 days @ \$30.00 270.00  
G. Gutrath, P.Eng.--Overall Supervision, Data Compilation  
and Report 1,200.00  
8 days @ \$150.00

Geochemical Analyses

21 Rock Chip Samples @ \$2.40 50.40  
74 Samples for Cu, Zn @ \$1.70 125.80  
86 Samples for Cu, Pb, Zn @ \$2.10 180.60

Map, Reproductions on Xerox

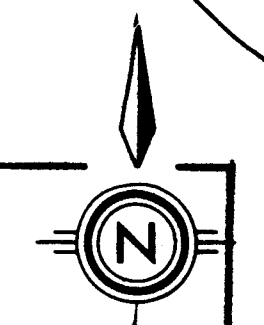
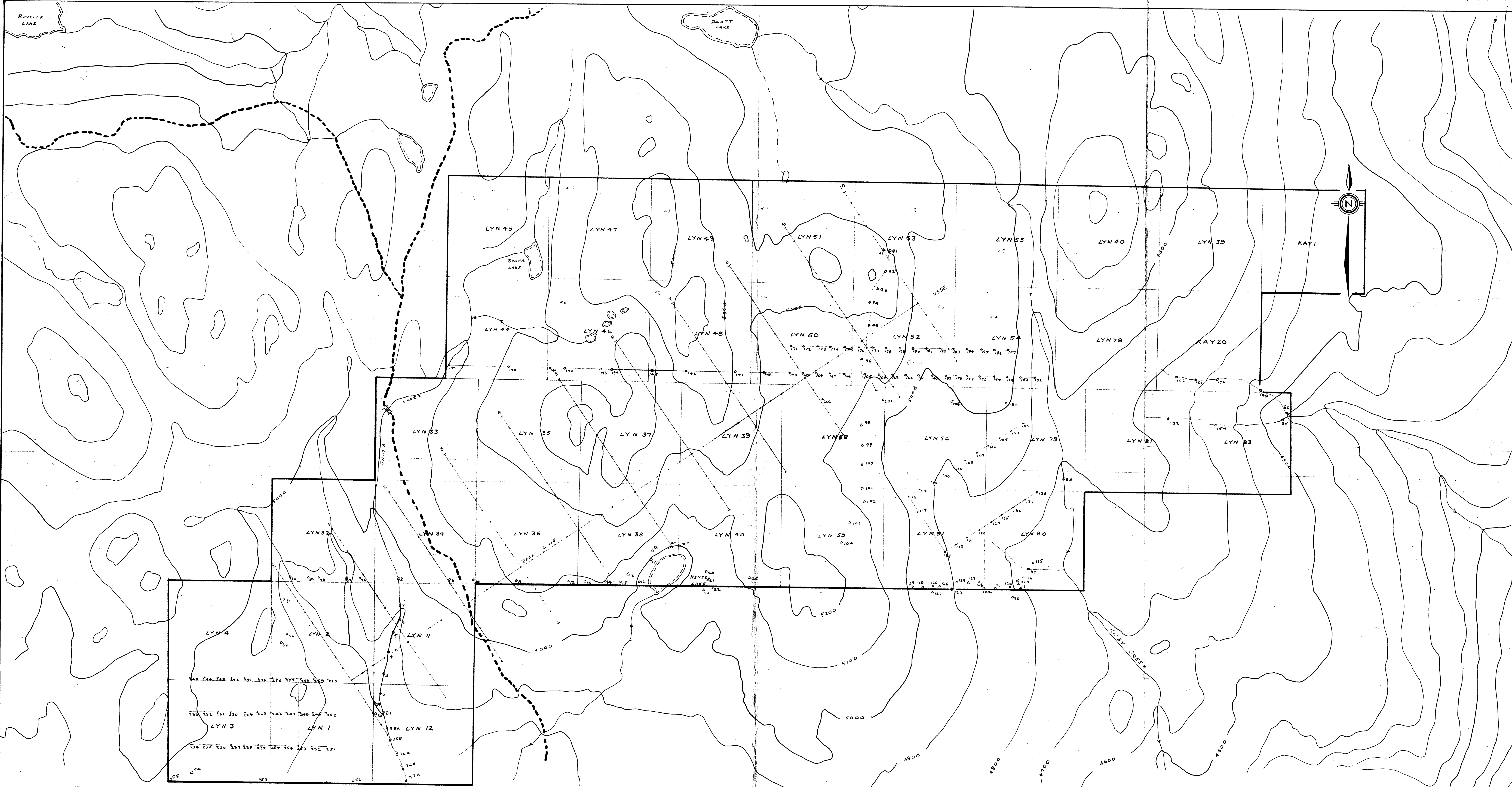
14.50  
\$4,041.30

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

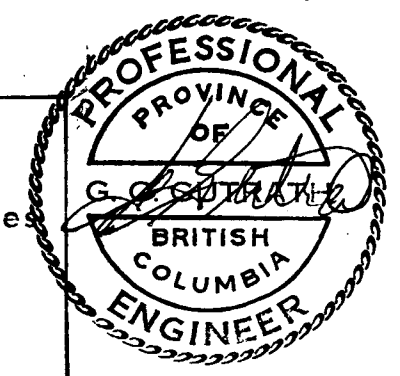
Declared before me at the City  
of Vancouver, in the  
Province of British Columbia, this 30<sup>th</sup>  
day of July, 1973, A.D.

*G. Gutrath*

*[Signature]*  
A Commissioner for taking Affidavits for British Columbia or  
A Notary Public in and for the Province of British Columbia.



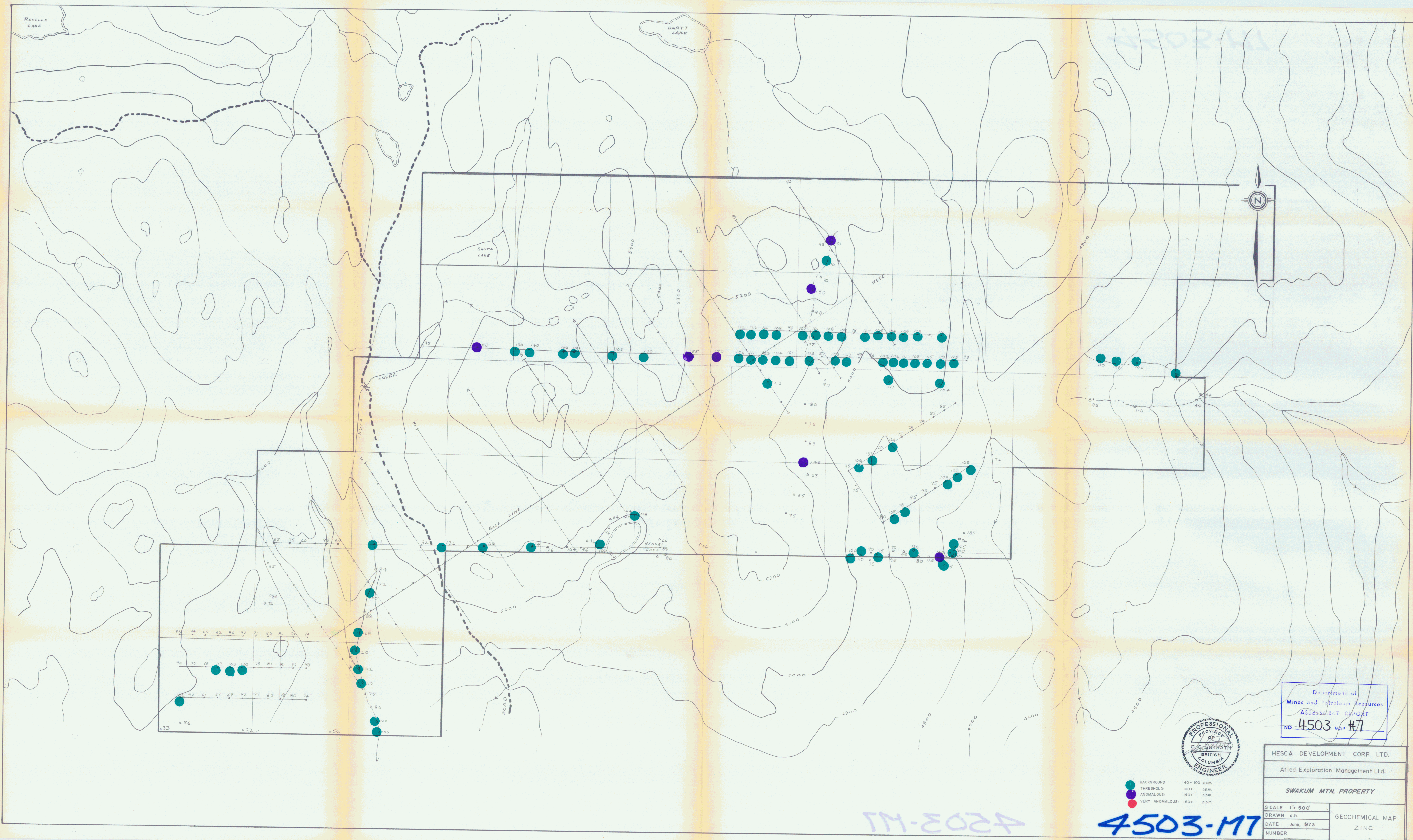
Department of  
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NO. 4503 MAP #5



**4503-M5**

HESCA DEVELOPMENT CORP. LTD.	
Atled Exploration Management Ltd.	
SWAKUM MTN. PROPERTY	
SCALE 1" = 500'	CLAIMS MAP AND GEOCHEMICAL SAMPLE POINTS
DRAWN C.R.	
DATE June, 1973	
NUMBER	

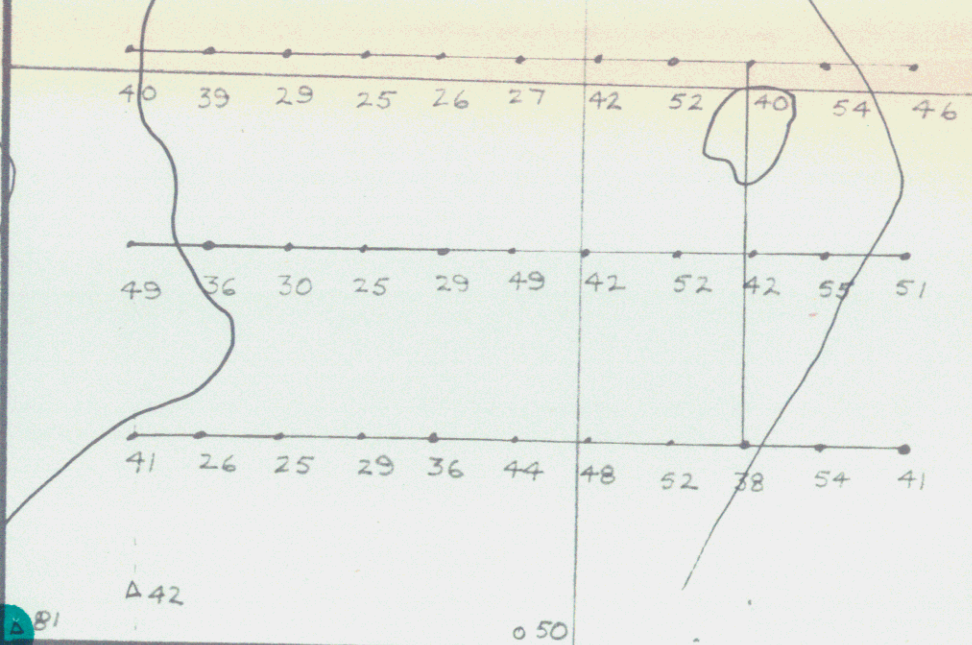
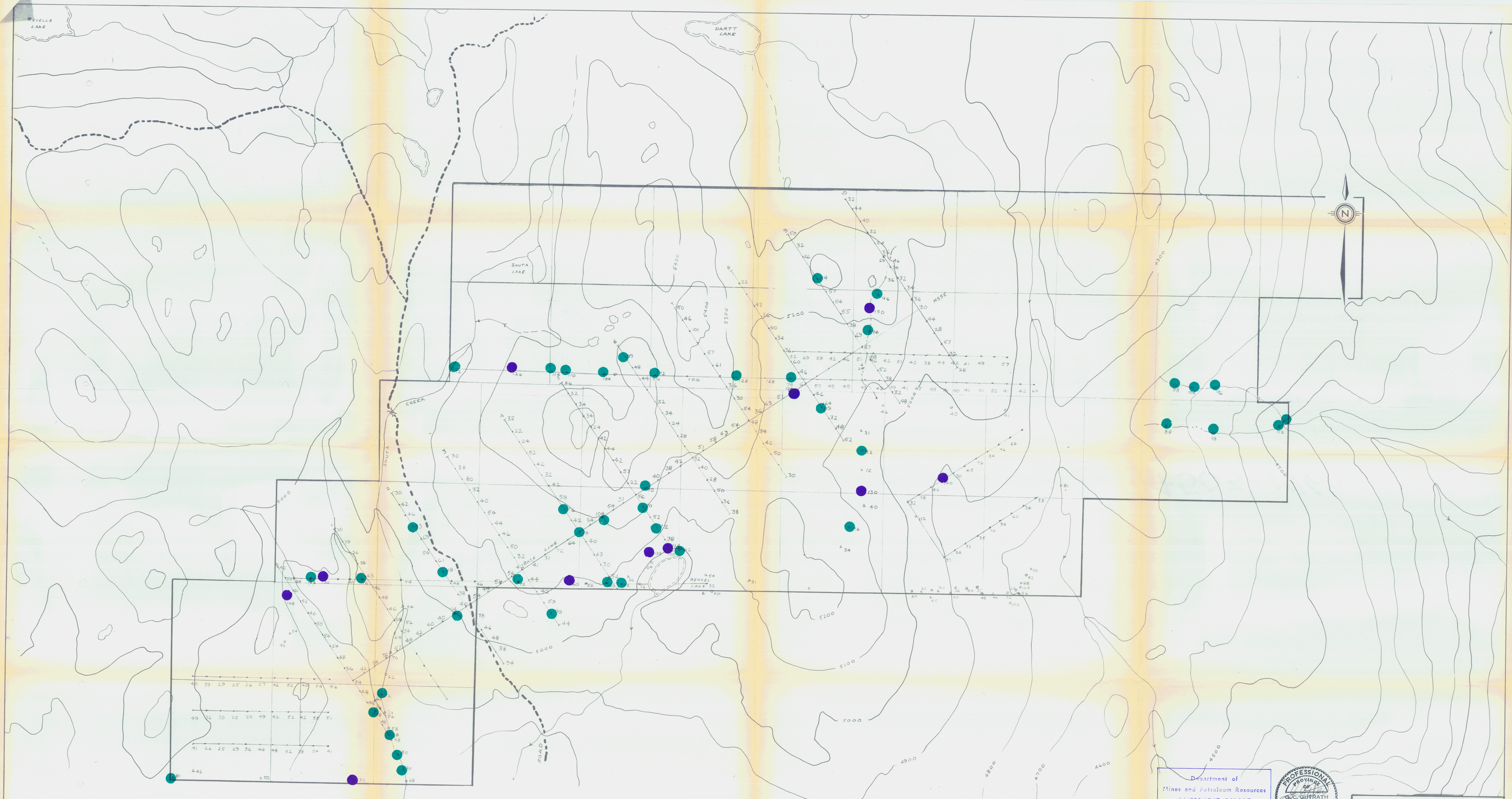




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HESCA DEVELOPMENT CORP. LTD.	
Atled Exploration Management Ltd.	
SWAKUM MTN. PROPERTY	
SCALE 1"=500'	GEOCHEMICAL MAP ZINC
DRAWN c.h.	
DATE June, 1973	
NUMBER	





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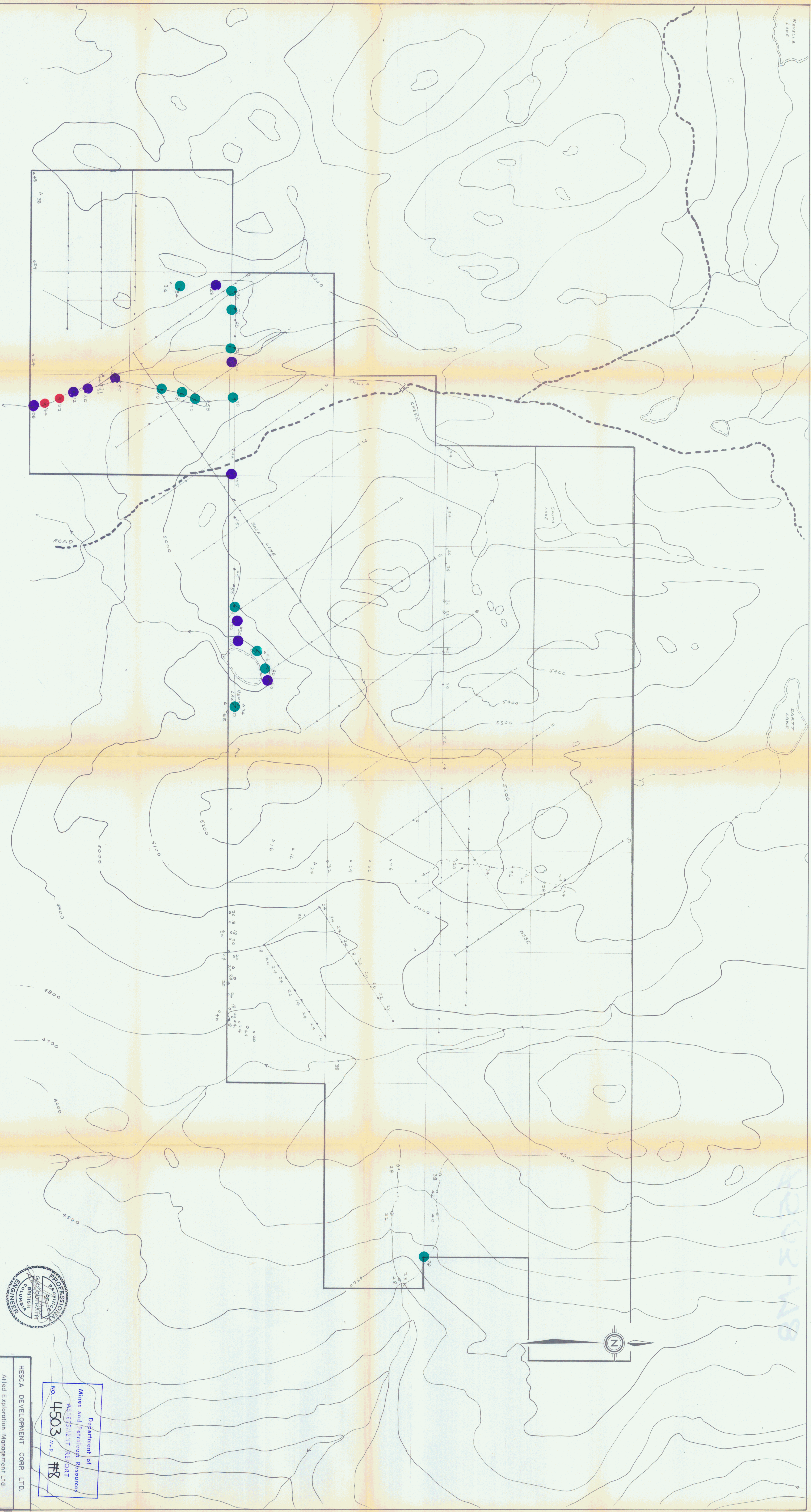
BACKGROUND: 20-70 ppm  
THRESHOLD: 70+ ppm  
ANOMALOUS: 120+ ppm  
VERY ANOMALOUS: 150+ ppm

HESCA DEVELOPMENT CORP. LTD.  
Atled Exploration Management Ltd.

SWAKUM MTN. PROPERTY  
SCALE 1"=500'  
DRAWN c.h.  
DATE June, 1973  
NUMBER  
GEOCHEMICAL MAP  
COPPER

4503-M6





Department of  
Mines and Petroleum Resources  
ASSESSMENT REPORT  
NO. 4503 M.P. #8

HESCA DEVELOPMENT CORP. LTD.

Allied Exploration Management Ltd.

SWAKUM MTK. PROPERTY

SCALE 1" = 500'

DRAWN c.h.

DATE June, 1973

NUMBER

GEOCHEMICAL MAP

LEAD

BACKGROUND:  
THRESHOLD  
70+ 5 ppm.  
140+ 50 ppm.  
VERY ANOMALOUS

8M-2024

4503-M8