

4305

92I/15W

WORK PROGRESS REPORT

on

ANDEX MINES LTD (NPL)

PROPERTY

SPLIT 1 - 40

During July to October, 1972

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4305 MAP



December 5, 1972

E. Amendolagine, P.Eng.,

Vancouver, B.C.

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MAPS

GEOLOGY

GEOCHEMICAL SILVER COPPER ZINC

HISTOGRAM SILVER AND COPPER

LOCATION MAP

- | | | |
|-----|--------------------|----|
| #1 | Geology | |
| #2 | Geochemical Survey | Ag |
| #3 | " | Cu |
| #4 | " | Zn |
| #5 | Geology | |
| #6 | Geochemical Survey | Ag |
| #7 | " | Cu |
| #8 | " | Zn |
| #9 | Histogram | Cu |
| #10 | " | Ag |

Scale
 1" = 400'
 "
 "
 "
 1" = 800'
 "
 "
 "

INTRODUCTION

At the request of Andex Mines Ltd (N.P.L.) the first phase of their program was carried out on their property known as Split 1-40 some ten miles north of Savana, British Columbia during the months of July, August and September, 1972.

SUMMARY

The first phase of the exploration program carried out on the Andex Mines Ltd (N.P.L.) property consisted of 1) Geological mapping, 2) Geochemical soil sampling with tests for Cu, Au, Ag, Pb and Zn. and 3) one test drill hole to 100 feet to test for geology and mineralogy.

The reconnaissance geochemical survey covered the entire property. The soil samples were assayed by professional assayers "Core Laboratories Ltd, B.C." for copper, lead, zinc, silver and gold. The only metal that responded favourably was silver. The entire south eastern portion of the property, some 14 claims in area, returned higher than normal silver assays. The few high copper and zinc geochemical assays yielded by the copper and zinc tests were also in this area. A fire assay bead test was made

for four silver samples. All the samples showed visible silver beads.

A diamond drill hole was put down during the survey to test for geology and mineralization. All the core was assayed for Cu, Ag and Au. Copper and gold returned no values at all. Silver returned very low assays ranging to .05 oz/ton.

With the silver geochemical response and minor amounts of silver being found in the core, it is recommended that the property be further examined for economic silver mineralization.

The recommended program should consist of a detailed geochemical soil sampling and rock chip surveys to delimit the anomalous areas and alteration zones which could lead to the source of the silver and possible copper and zinc mineralization. The second phase would be either to follow up with geophysics or diamond drilling which would be determined by the results of the first phase. The expenditures required for the field program would be some \$18,500.00. The second phase expenditures required would be determined by the necessary program to follow up the results of the first phase.

PROPERTY

The property consists of 40 contiguous mining claims named Split 1-40 located west of the Afton-Kamloops area, Kamloops Mining Division, Province of British Columbia.

LOCATION

The claims are located at $120^{\circ} 55'$ west longitude, $50^{\circ} 58'$ north latitude, some 30 miles northwest of Kamloops, B.C. some 24 miles northwest of the Afton Mines Ltd property, some 10 miles north of Savona and the west end of Kamloops Lake. Post for the Split No. 1 and No. 2 claims is located some 300 feet north and 200 feet west of the 10 mile marker on the Criss Creek road. Some 4,000 feet northeast from the 11 mile marker lies the claim line for claims Split 31 and 32. The final post for Split 31 and 32 lies some 100 feet south of the road, in the Kamloops Mining Division of B.C.

ACCESS

Access from Kamloops, B.C. is via some 30 miles west on the Trans Canada Highway to Deadman River Road, some 3 miles west of Savona, then some 8 miles north on an all-weather road to the Criss Creek road, then 2 miles northeast to the mile 10 marker on the north bank of the road.

GENERAL GEOLOGY

This area is part of the Interior Plateau Region and contains rocks dating from Palaeozoic to Recent. The general geology referred to is G.S.C. Memoir 249, Geology and Mineral deposits of Nicola Map Area, Map 886A by W. E. Cockfield.

LEGEND

Cenozoic

Miocene, Kamloops Group - Andesites, basalts

Mesozoic

Cretaceous, Copper Creek Intrusions

(1) granites, granodiorite and porphyry

(2) Andesites, conglomerates

Lower Cretaceous, Kingsvale - Rhyolites, andesites, basalts

Jurassic Coast Intrusions - Iron Mask batholith

Triassic - Nicola Group Greenstone, andesites, basalt agglomerate and breccia

Palaeozoic

Permian, Cache Creek - Greenstone, argillites

MINERALIZATION OF THE AREA

The G.S.C. mineral location Map 887A by E.A. Cockfield indicates the prevalence of copper, gold, silver and molybdenum mineralization throughout the Kamloops-Afton-Ironmask area. This mineralized belt seems to extend

for over 35 miles on strike from showings east of Separation Lake through the Cominco 9 - 10 million tons of copper mineralization, through the Leemac copper drilling, through the Afton Mines Ltd copper drilling, through the Cherry Creek showings and through the Copper Creek copper[?] showings.

The line of strike is very impressive and could represent the projection of mineralization associated with the Ironmask Batholith.

The Andex Mines Ltd (N.P.L.) property lies on this line of strike.

PROPERTY GEOLOGY AND EXAMINATION

The Andex Mines Ltd (NPL) Split group of claims lies some 20 miles north of the Guichon Creek batholith which is producing numerous large copper mines and some 24 miles northwest of the Ironmask Batholith which is currently under intense investigation by many mining interested companies.

The general geologic formations underlying the property as described by W.E. Cockfield in the G.S.C. Nicola Map Sheet 886A are of the Cenozoic, Kamloops Creek group on the western half of the property, and the Mesozoic Nicola group on the eastern half of the property. The younger Kamloops Group formations consist mainly of rhyolites, andesites and basalts associated with tuffs and breccias. The older Nicola Group formations consist mainly of greenstones, andesites, agglomerates, breccias and tuffs. A variety of these and granitic rocks are seen along the bank of the road which follows Criss Creek and goes through the southeastern portion of the Split 1-40 claim group.

The property was mapped by Pat Nolan during the period of August and September 1972. The control for mapping was six two and a half mile long north-south lines and six 3,000 feet long east-west lines. The lines were flagged and marked at 200-foot intervals. The major portion of the property is underlain by andesitic type formations and basalts. The andesites vary from a light grey-green to a medium grey. Their texture varies from fine to medium with occasional light green epidote. The basalt is generally medium to dark grey brown and the texture varies from fine to medium grain. Some of the basalt is amygduloidal.

The andesitic formation underly the major portion of the formations with the basalt outcropping mainly in the northeastern portion of the property on claims Split 20, 25 and 26. There are some scattered remnants of the basalt present in the southern portion of the property on claims Split 6, 37, 38, 39 and 40.

GEOCHEMICAL SURVEY

The geochemical soil sampling survey consisted of 526 soil samples taken on six north-south lines measuring some two and a half miles each in length and six east-west lines measuring some 3,000 feet each in length. The samples were taken at 200-foot spacing on all lines with an auger below the humus at a depth of approximately 18 inches. The lines were compass and pacing lines with locations marked on flagging at all soil sample stations. A previous run reconnaissance geochemical survey was conducted on the Split 35-36 claim line and is described in the attached August 3 , 1972 Preliminary Progress Report by the author.

All the soil samples were assayed by "Core Laboratories Ltd" in Vancouver, B.C. The samples were assayed for copper, lead, zinc, gold and silver.

Silver was the only metal indicating anomalous conditions.

Varying degrees of high silver values were obtained in the southeastern portion of the property dispersed over an area of some 14 claims. Some of the higher copper and zinc values were also located in this area. The gold and lead values obtained were negligible.

The silver samples assayed from .3 ppm to 19.0 ppm. Some 55% of the samples assayed below 2.9 ppm. Some 9.5% of the samples assayed between 3.0 ppm and 3.9 ppm. Some 7.0% of the samples assayed from 4.0 ppm to 4.9 ppm and the remaining samples assayed from 5.0 ppm to 19 ppm. This is indicated on the silver histogram chart and on the plotted contoured plan. The areas considered anomalous are the areas with silver assaying 4.0 ppm or better.

The zinc samples assayed from 12 ppm to 182 ppm. There are some 80% of the samples that assayed below 80 ppm. Some 6% of the samples assayed from 100 ppm to 182 ppm. Although these assays from 100 ppm to 182 ppm are not very high they are considered in the anomalous range for this group and are all located in the southeastern portion of the property.

The copper samples assayed from 14 ppm to 209 ppm. Some 93% of the copper assays obtained were below 80 ppm. Some 2% of the samples assayed from 100 ppm to 209 ppm. Although these assays are not very numerous and very high they are considered in the anomalous area and are also

located in the southeastern portion of the property as are the considered silver and zinc anomalous values.

The lead and gold assays were negligible. The only gold value received of 240 ppb was on the north shore of Criss Creek near some old placer workings.

The geochemical survey indicates that silver is the only metal indicating anomalous conditions. Four fire assay silver bead tests were made by Core Laboratories Ltd with small portions of left over soil samples. The samples used and the assays were:

No.	Samples	Assays in ppm	Bead
1.	246	10.9)	
	250	5.0)	visible bead
	252	4.5)	
2.	171	1.5)	
	234	3.7)	visible bead
3.	206	5.3))	
	207	0.9)	visible bead
	214	1.0)	
4.	235	2.0)	
	230	1.0)	visible bead

A study of the geochemical silver assay results and a study of the G.S.C. bulletins on geochemistry of silver it is concluded that a detail geochemical survey should be conducted in conjunction with a rock chip survey to outline alterations zones on the southeastern 14 claims. This area also encompasses the major portion of the higher copper and zinc values. (Ref. (1) GSC Bulletin 160 The Geochemistry of Silver and its Deposits by R.W. Boyle, 1968; (2) G.S.C. Paper 67-35 Research in Geochemical Prospecting Methods for Native Silver Deposits, Cobalt Area, Ontario 1966, by R.W. Boyle, A.S. Daz, D. Church, G. Mikailov, C. Durham, J. Lynch, and W. Dyck, 1969; (3) GSC Bulletin 166, The Geology, Geochemistry and Origin of the Barite, Manganese, and Lead-Zinc Copper-Silver Deposits of the Walton-Cheverie Area, Nova Scotia, by R.W. Boyle, 1972.

PROPERTY WORKINGS

One bore hole was put down during the program to a depth of 100 feet. The location of the bore hole is some 400 feet northeasterly of initial claim post Split 35 and 36. The bore hole location was not determined by the geochemical survey but was spotted prior to the completion of the survey. The location selected was a site below some old workings to test the area geology and possible mineralization.

The core was andesitic and was sampled for copper, silver and gold. All the samples yielded .0 Cu/t and .003 Au/t. The silver assays ranged from .01 Ag/t to .05 Ag/t. Silver was the only indication of mineralization, per attached assay sheet.

The location of the bore hole was in an area of low silver geochemical response. The silver results obtained in the drilling were very low but also impressive as the soil samples of the area did not return any high silver assays.

The geologic mapping revealed the location of many pits cuts and a tunnel. These are all plotted on the geologic plan. Some older placer workings and a cabin are located some 400 feet below claim post Split 37-38. An old tunnel is located some six hundred feet west of claim post Split 33-34. The major portion of the workings are located to the east and west of the claim line from Split 31-32 to Criss Creek to the south in the vicinity of claim post Split 37-38.

CONCLUSIONS AND RECOMMENDATIONS

The work completed on the Andex Mines Ltd (NPL) property claims Split 1-40 indicates a silver geochemical anomaly. The anomalous area extends over a surface area of some 14 claims. The silver geochemical values considered anomalous in this survey are from 4.0 ppm silver to 19.0 ppm silver. The few anomalous copper and zinc assays received in the survey are also located in this area. The area should be thoroughly examined by a detail geochemical survey and a rock chip alteration study prior to any geophysical surveys or diamond drilling. This area should be tested with a complete close grid geochemical survey with line spacing at 200 foot and soil sampling at 200 foot intervals. In conjunction with the geochemical survey a rock chip survey and study should be conducted to determine any alteration pattern of the area. An allowance should be made also for a minimum of 2000 feet of diamond drilling. The program should be carried out in two phases. The first phase would consist of the geochemical survey and the rock chip survey and study.

The monies required would be:

PHASE I

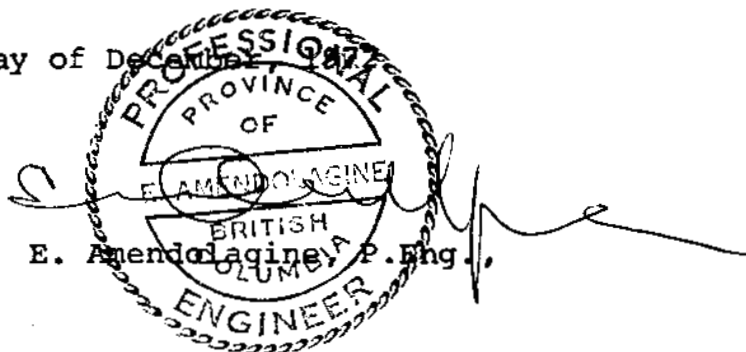
1.	Linecutting	\$3,000.00
2.	Geochemical Survey	5,000.00
3.	Rock Chip survey and study	4,000.00

CERTIFICATION

I, Emanuel Amendolagine, of the City of Vancouver, in the Province of British Columbia, hereby certify:

1. That I am a geologist and reside in Vancouver, British Columbia.
2. That I am a graduate of Hunter College of the City of New York, and Columbia University, with a B.A. and M.A. respectively, and that I have been practising my profession as a geologist for 18 years.
3. That I am a registered professional engineer in the Province of British Columbia.
4. That this report is based on a field examination on May 31, 1972, work completed on the property during the period of July-September 1972, on the study of geologic reports of the area, and work and knowledge of the area since 1964.
5. That the writer does not have, nor does he expect to receive either directly, or indirectly, any interest in Andex Mines Ltd (NPL) or any affiliate of it.
6. That this report may be used for the purpose of a Prospectus if so desired, or for filing with the Vancouver Stock Exchange.

Dated this 5th day of December 1972



MANNY CONSULTANTS LTD

4550 Harriet Street
Vancouver 10, B.C.

Andex Mines Ltd (N.P.L.)
305-543 Granville Street,
Vancouver 1, B.C.

August 3, 1972

Dear Sirs:

RE: PRELIMINARY PROGRESS REPORT ON THE
SPLIT 1-40 CLAIMS TO JULY 31, 1972

At the request of Andex Mines Ltd (N.P.L.) a limited geochemical survey was conducted on July 14 and 23, 1972 on their property, Split 1-40 Claims in the Afton-Kamloops area in the Kamloops Mining Division of British Columbia.

The survey was conducted with the intention of testing the area around some old showings and to determine the scope of the immediate program required to test the property.

The geochemical survey consisted of 37 samples taken on three north-south lines with samples taken at 100-foot intervals and assayed for copper, silver and gold. The area surveyed was in the vicinity of some old workings along the north-south claim line on the eastern portion of the property.

Although the area covered was relatively small and the extent of the survey was only 37 soil samples, the results obtained indicate the possibility of anomalous areas developing on the property.

A statistical frequency analysis of the samples, plus the contour presentation indicates weak anomalous trends of copper, silver and gold.

It is recommended that a series of pack sack test holes be put down in the area of the pits to test the geology and possible mineralization. This should be done in conjunction with a complete property reconnaissance soil sampling survey and geological prospecting.

This portion of the survey would require some \$15,000.00

SOIL SAMPLE DISCUSSION

37 soil samples were taken along some 3,300 feet of lines. They were taken in the vicinity of some old pits which straddle the eastern claim line in the vicinity of the claim post of final post of claims 31 and 32 and initial post of claims 33 and 34. The claim line was sampled at 100-foot intervals from the claim post to 9 + 00N. And from the claim post to 3 + 00S. The same distance was sampled on a parallel line 100 feet to the east and a line 200 feet to the east was sampled only to 900 feet north.

METHOD OF SAMPLING

The sampling was performed with a 6-inch spade. Holes were dug to some 6 inches with samples taken of the horizon below the humus and organic material. The surface A horizon consisted of 1-2 inches of pine needles and matting and 2-3 inches of matting and brown earth material. Generally this material was underlain by an earthy material and an ashy grey clay material with rock chips. The horizon sampled was not always uninformed composition and generally intermixed with earthy material.

The samples were taken with a spade and put into plastic bags, marked, packaged and delivered to professional assayers "Core Laboratories Ltd" in Vancouver, B.C. for analysis.

The samples were analyzed for copper, silver and gold by taking a 5 mg sample digesting it in Aqua Regia and analyzed by Atomic Absorption. Gold was extracted by MIDK. Copper and silver were measured in ppm and the gold was measured in ppb.

Copper assayed from 22 ppm to 175 ppm with 84% of the assays being below 69 ppm, and 10% of the samples assaying between 100 and 175 ppm. The 100-175 ppm assays indicate the anomalous areas.

Silver assayed from .3 ppm to 1.3 ppm with 46% of the assays below .7 ppm and 27% of the assays from 1.00 ppm to 1.3 ppm. The assays from 1.00 ppm to 1.3 ppm are considered in the anomalous area.

Gold assays were from less than 30 ppb to 120 ppb with 75% of the samples assaying below 60 ppb and some 12% of the samples assaying from 100 ppb to 120 ppb.

The following is a statistical frequency analysis:

Cu from 22 ppm to 175 ppm

<u>Cu in ppm</u>	<u>No. of Samples</u>	<u>Percentage of Samples</u>	
22 - 49	16	43%	: 84% from 22 ppm to 69 ppm
50 - 59	8	22%	
60 - 69	7	19%	
70 - 79	1	3%	
80 - 89	1	3%	
90 - 99	0	0%	
<u>100 - 175</u>	<u>4</u>	<u>10%</u>	: Anomalous 10% from 100 ppm to 175 ppm

Ag from .3 ppm to 1.3 ppm

<u>Ag in ppm</u>	<u>No. of Samples</u>	<u>Percentage of Samples</u>
.3 - .5	14	38%
.6 - .7	3	8%
.8	7	19%
.9	3	8%
1.0	2	6%
1.1	4	10%
1.2	3	8%
1.3	1	3%

46% from .3ppm to .7 ppm

Anomalous 27% from 1.0 ppm to 1.3 ppm

Au from 30 ppb to 120 ppb

<u>Au in ppb</u>	<u>No. of Samples</u>	<u>Percentage of Samples</u>
30	14	38%
40	5	13%
50	5	13%
60	4	11%
70	3	8%
80	2	5%
90	0	
100	1	3%
110	1	3%
120	2	6%

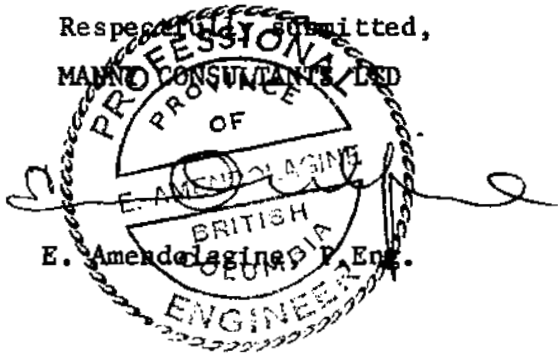
75% from 30 ppb to 60 ppb

Anomalous 12% from 70 ppb to 120 ppb

The statistical frequency analysis and study of the contouring indicate weak anomalous areas. These results indicate the possibility of economic minerals being present in the area and that the property should be fully

explored. The program should consist of a complete reconnaissance geochemical survey in conjunction with some geological prospecting and some pack sack drilling to test for geology and possible mineralization. This should later be followed by a reconnaissance induced polarization survey to further prepare the property for diamond drilling.

Respectfully submitted,
MANN CONSULTANTS LTD
PROFESSIONAL ENGINEERS
OF
E. AMENDOLA ENGINEERING
BRITISH ENGINEERS
E. Amendola P. Eng.

A circular professional seal for the Province of Ontario. The outer ring contains the text "PROFESSIONAL ENGINEERS OF THE PROVINCE OF ONTARIO". The inner circle contains the name "E. AMENDOLA ENGINEERING" and "BRITISH ENGINEERS". The seal is stamped over a handwritten signature.

August 3, 1972

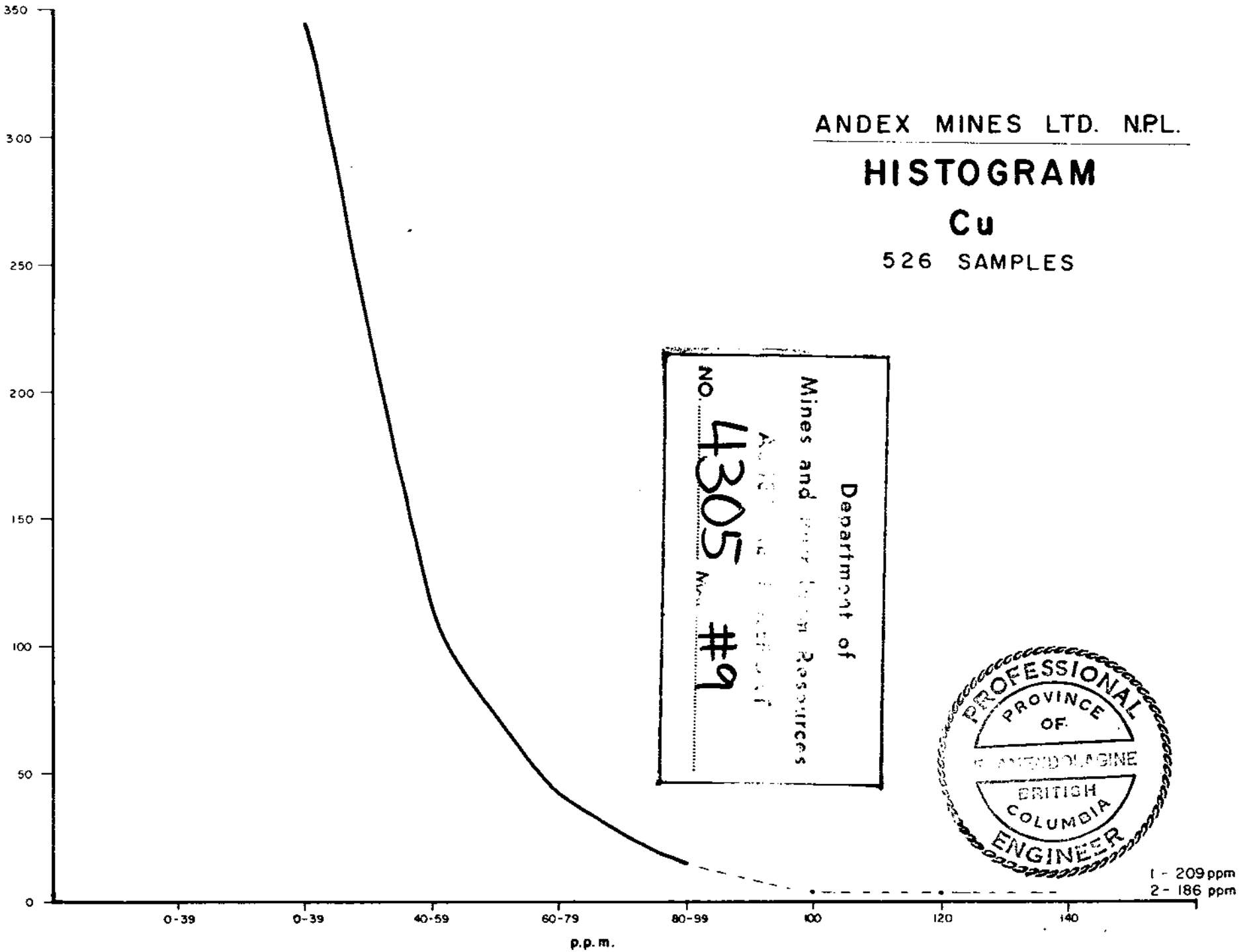
No. of Samples

ANDEX MINES LTD. N.P.L.

HISTOGRAM

Cu

526 SAMPLES



Department of
Mines and Geotechnical Resources
ANDEX MINES LTD. N.P.L.
No. 4305
M. #9



1 - 209 ppm
2 - 186 ppm

FIG. 1

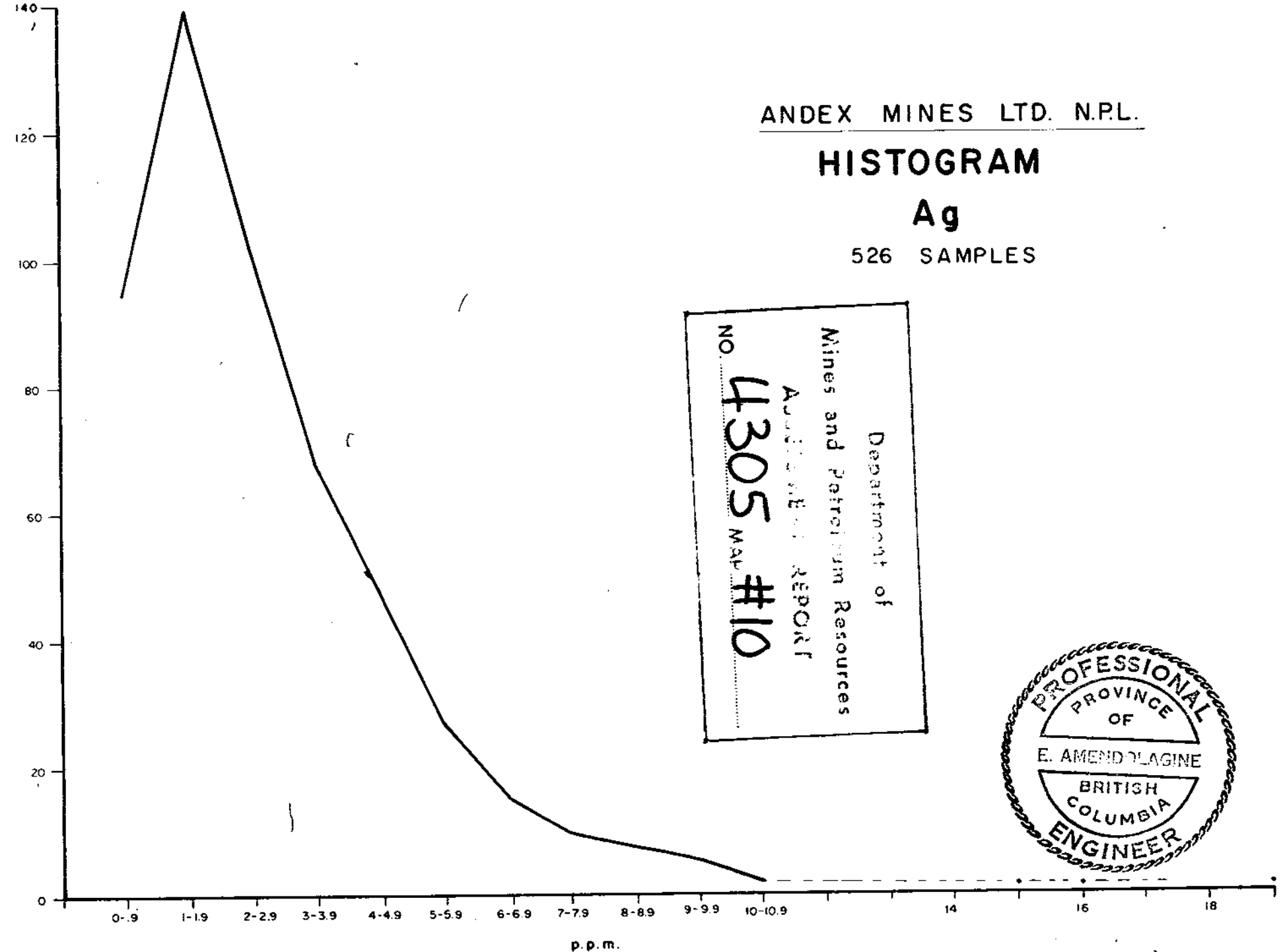
No of Samples

ANDEX MINES LTD. N.P.L.

HISTOGRAM

Ag

526 SAMPLES



Department of
Mines and Petroleum Resources
ANNUAL REPORT
NO 4305 MAR #10



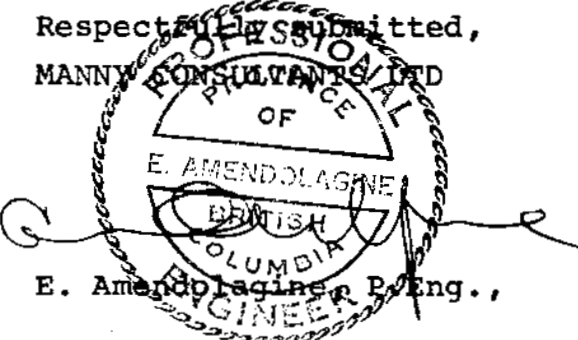
FIG 2

4.	Engineering and supervision	\$2,500.00
5.	Transportation and communication	2,000.00
6.	Miscellaneous	<u>2,000.00</u>
		\$18,500.00

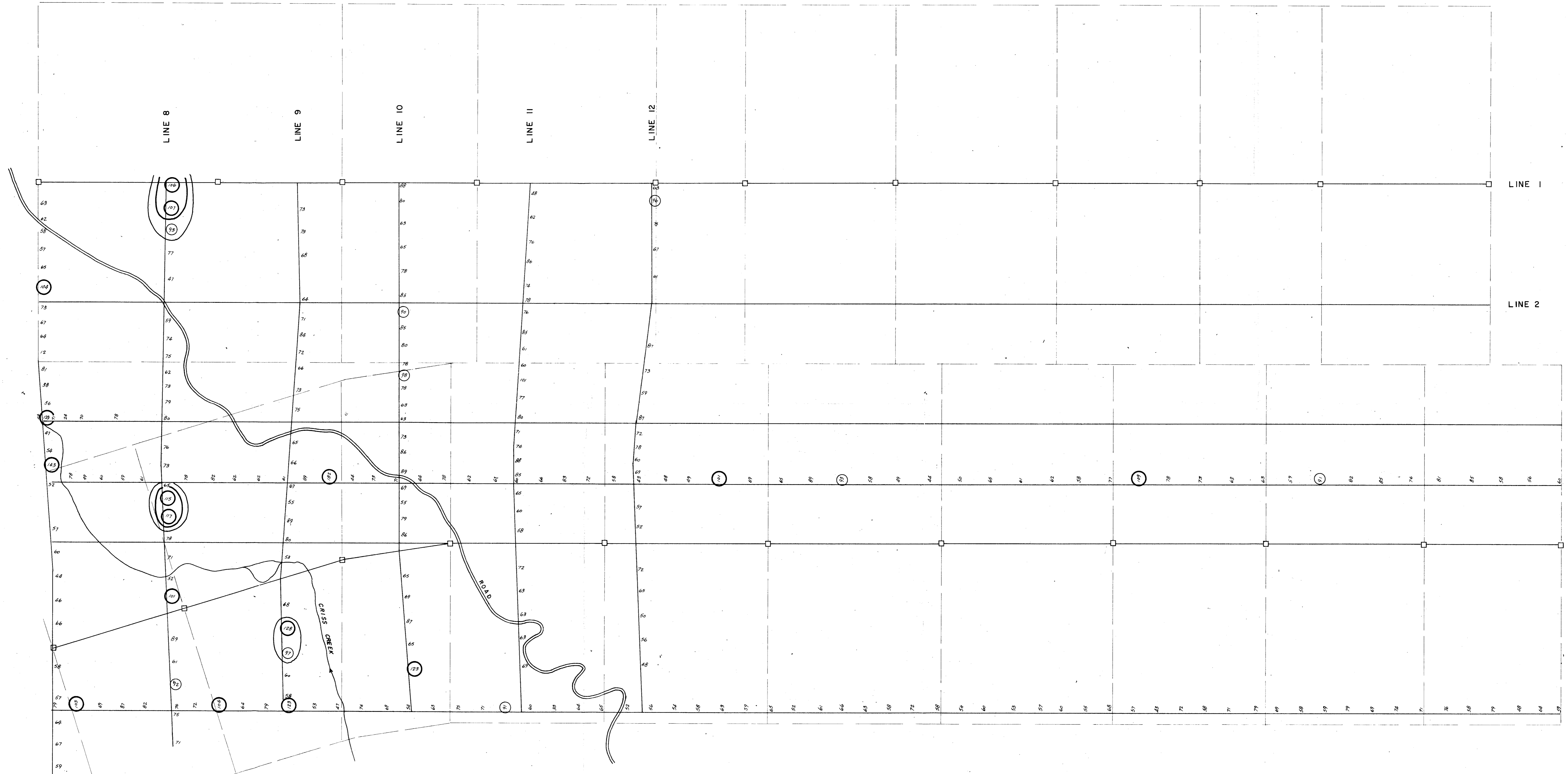
PHASE II

1. Either possible geophysics or
Diamond Drilling minimum 2,000 feet \$20,000.00

Respectfully submitted,
 MANNING CONSULTANTS LTD
 OF
 E. AMENDOLAGNE
 BRITISH
 COLUMBIA
 E. Amendolagne P. Eng.,
 ENGINEER



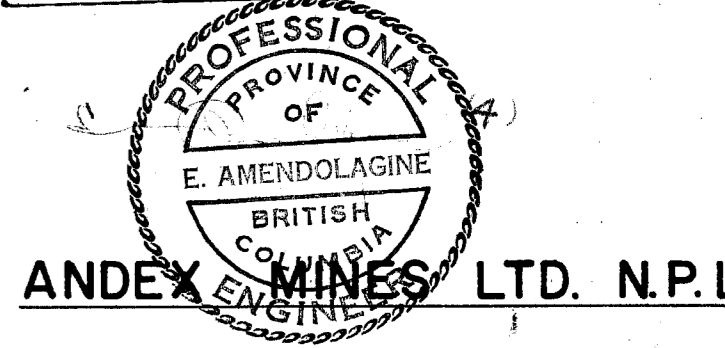
December 5, 1972



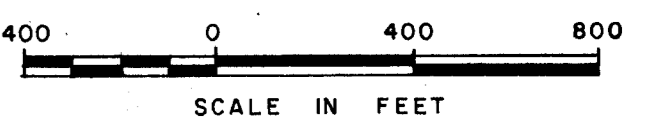
LEGEND

- | 89 - Zn (ppm)
- CLAIM LINE
- - Zn ≥ 100 ppm
- - Zn 80 - 99 ppm
- CONTOURS

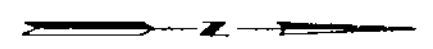
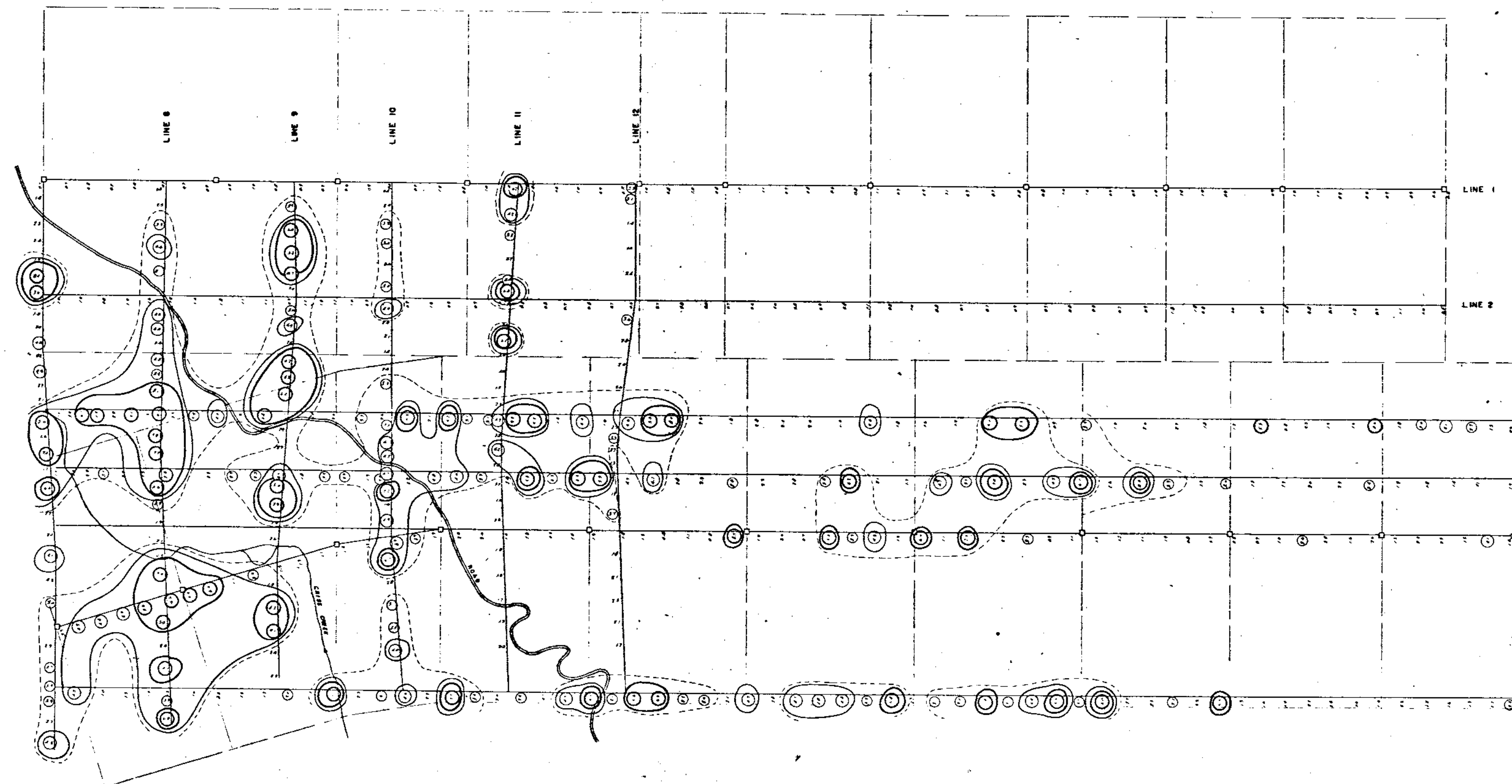
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4305** MAP #4



ANDEX MINES LTD. N.P.L.
SPLIT CLAIMS
1-40
GEOCHEMICAL SURVEY
ZINC - ppm

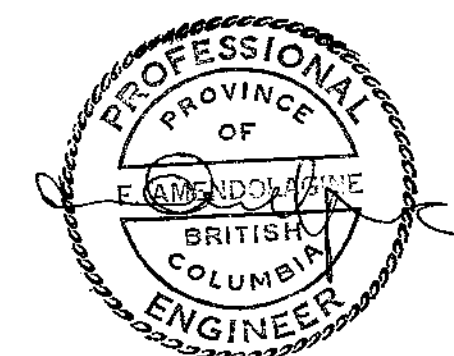


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 NO. 4305 MAP #6



LEGEND

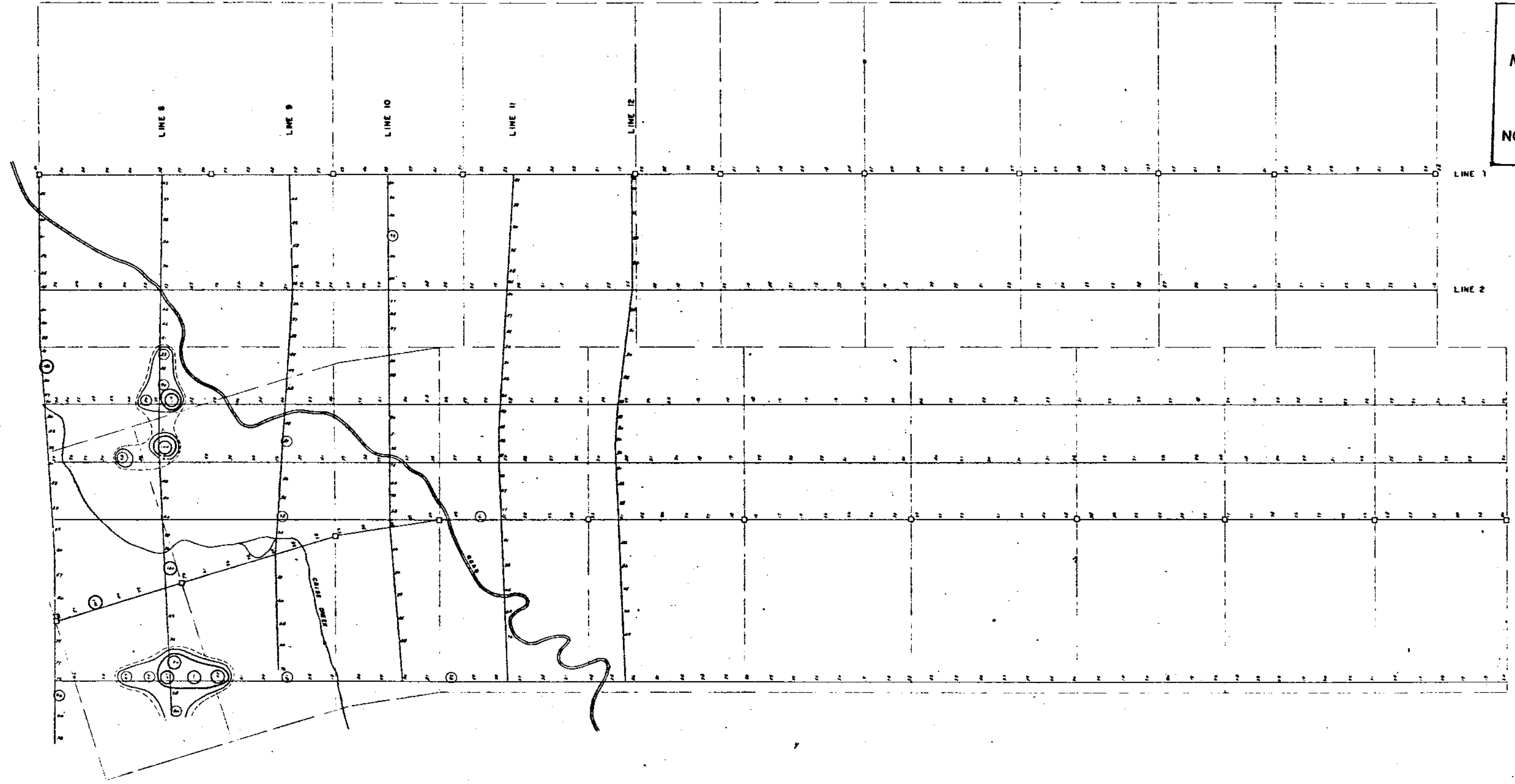
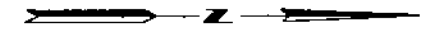
- ⊙ - Ag 50 ppm
- ⊙ - Ag 40-49 ppm
- ⊙ - Ag 30-39 ppm
- CLAIM LINE
- CONTOURS



ANDEX MINES LTD. N.P.L.
 SPLIT CLAIMS
 1-40
 GEOCHEMICAL SURVEY
 SILVER - ppm

SCALE IN FEET

Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. **4305** MAP **#7**



LEGEND

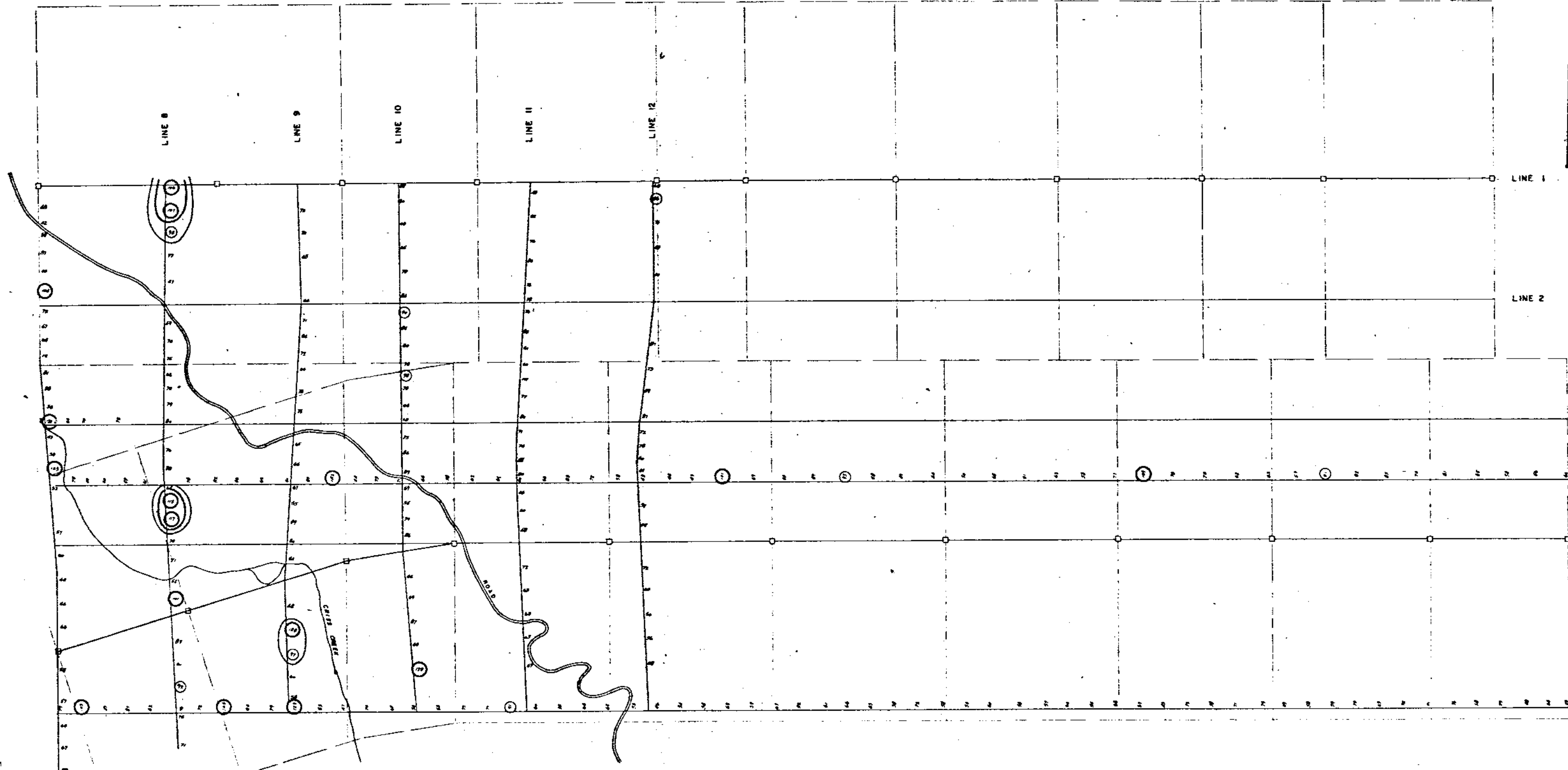
- - Cu 5-100 ppm
- ⊙ - Cu 80-99 ppm
- ○ CONTOURS
- CLAIM LINE



ANDEX MINES LTD. N.P.L.
 SPLIT CLAIMS
 1-40
 GEOCHEMICAL SURVEY
 COPPER - ppm

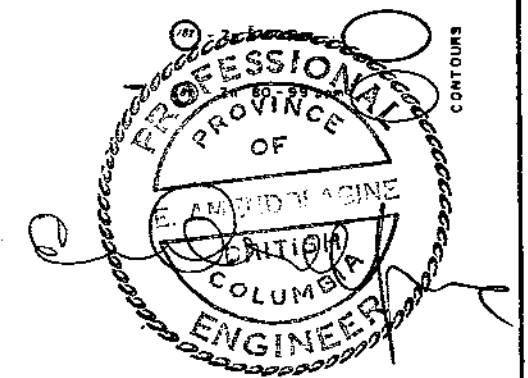


Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 4305 MAP #8



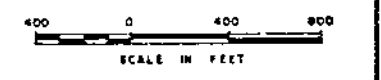
LEGEND

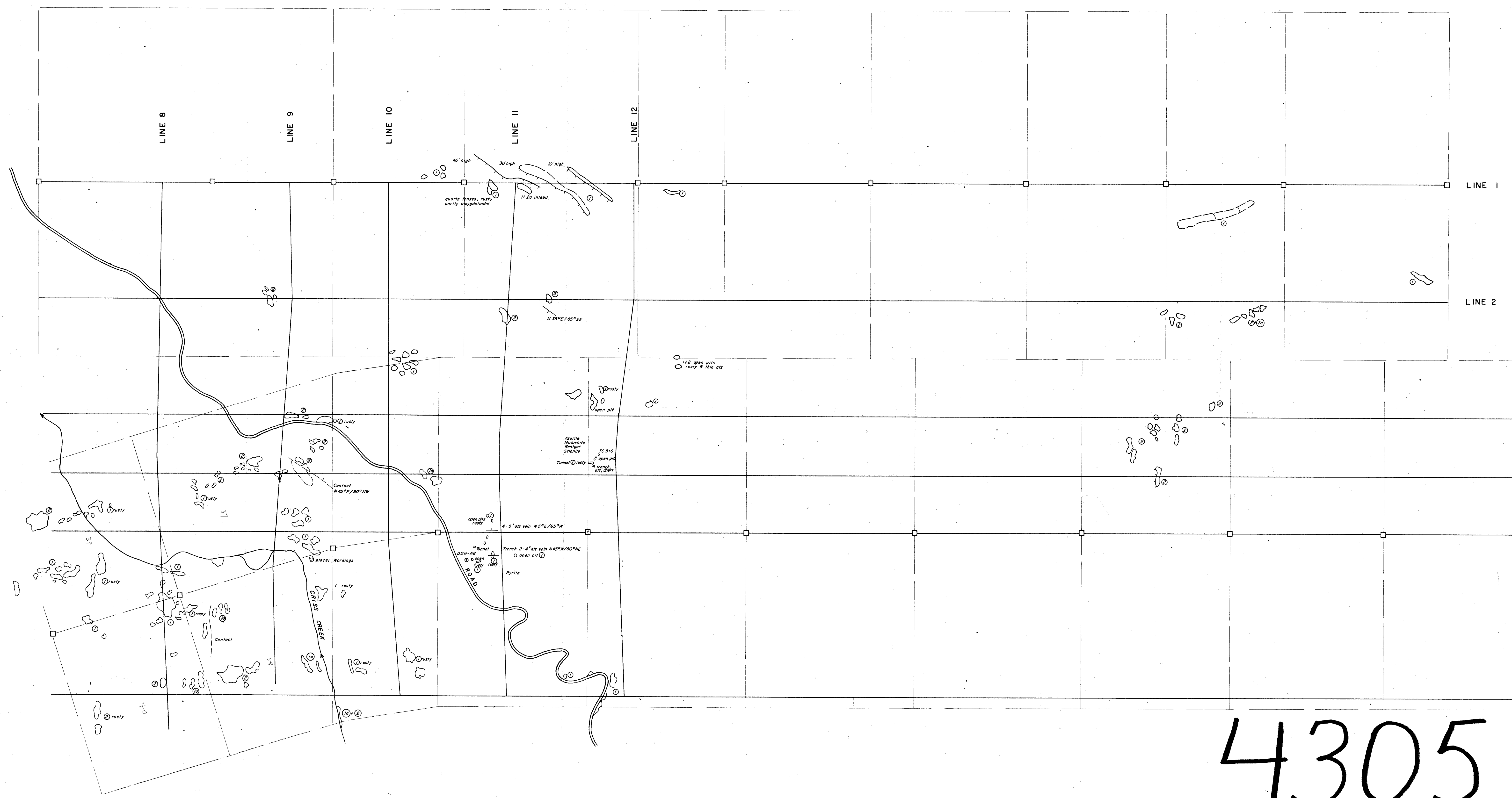
- 27-28 ppm
- CLAIM LINE



ANDEX MINES LTD. N.P.L.

SPLIT CLAIMS
 1-40
 GEOCHEMICAL SURVEY
 ZINC - ppm

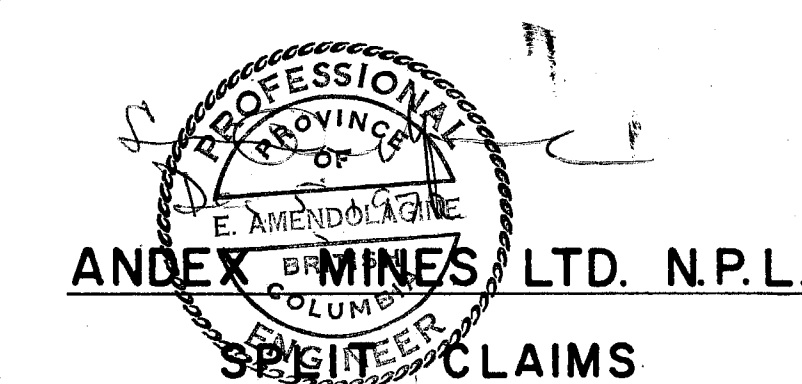




LEGEND

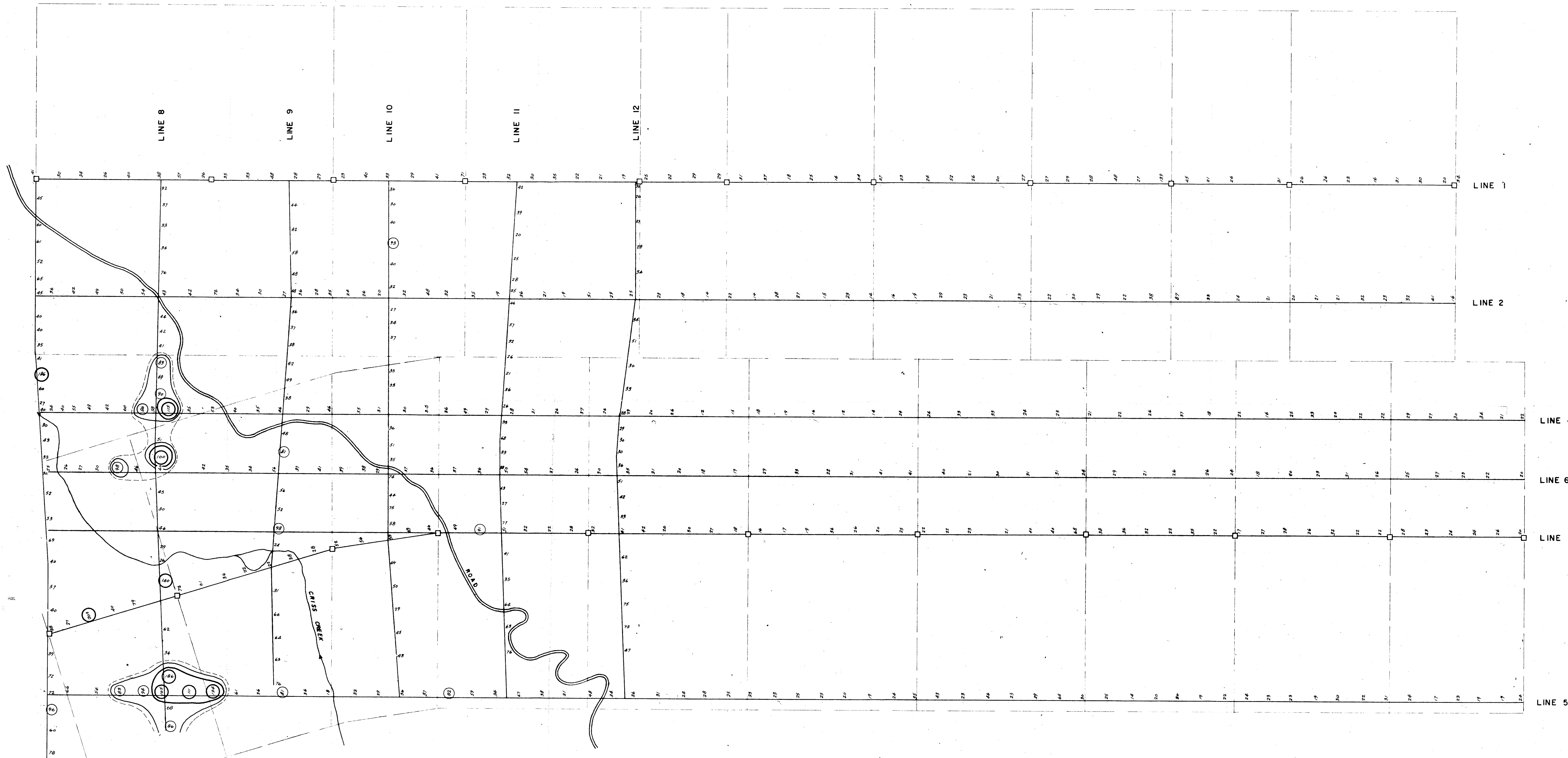
- ① ANDESITE
Light - med green grey - purple, occasionally rusty, fine textured, altered, usually badly fractured.
- ② ANDESITE
Med - dark grey, fine textured, contains minor light green epidote.
- ③ BASALT
Dark green - dark brn grey, med - coarse textured, crystalline in part, massive.
- ④ VESICULAR BASALT
Dark grey - black, fine - med textured, with numerous vesicles 1/2" to pin point, often filled with rounded, white colored omygdaloids.
- ⑤ SCHIST
Light green grey, micaceous, foliated, friable.

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4305 MAP #1



4305 M-1

1-40
GEOLOGY
SCALE IN FEET
400 0 400 800



LEGEND

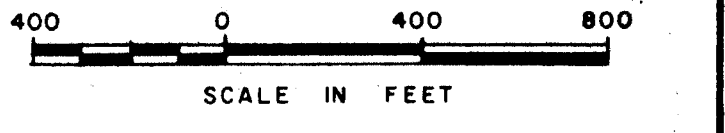
- Cu \geq 100 ppm
- Cu 80 - 99 ppm
- CLAIM LINE
- CONTOURS

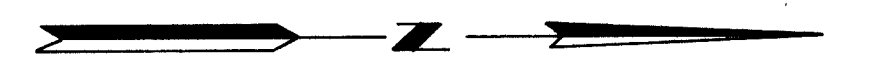
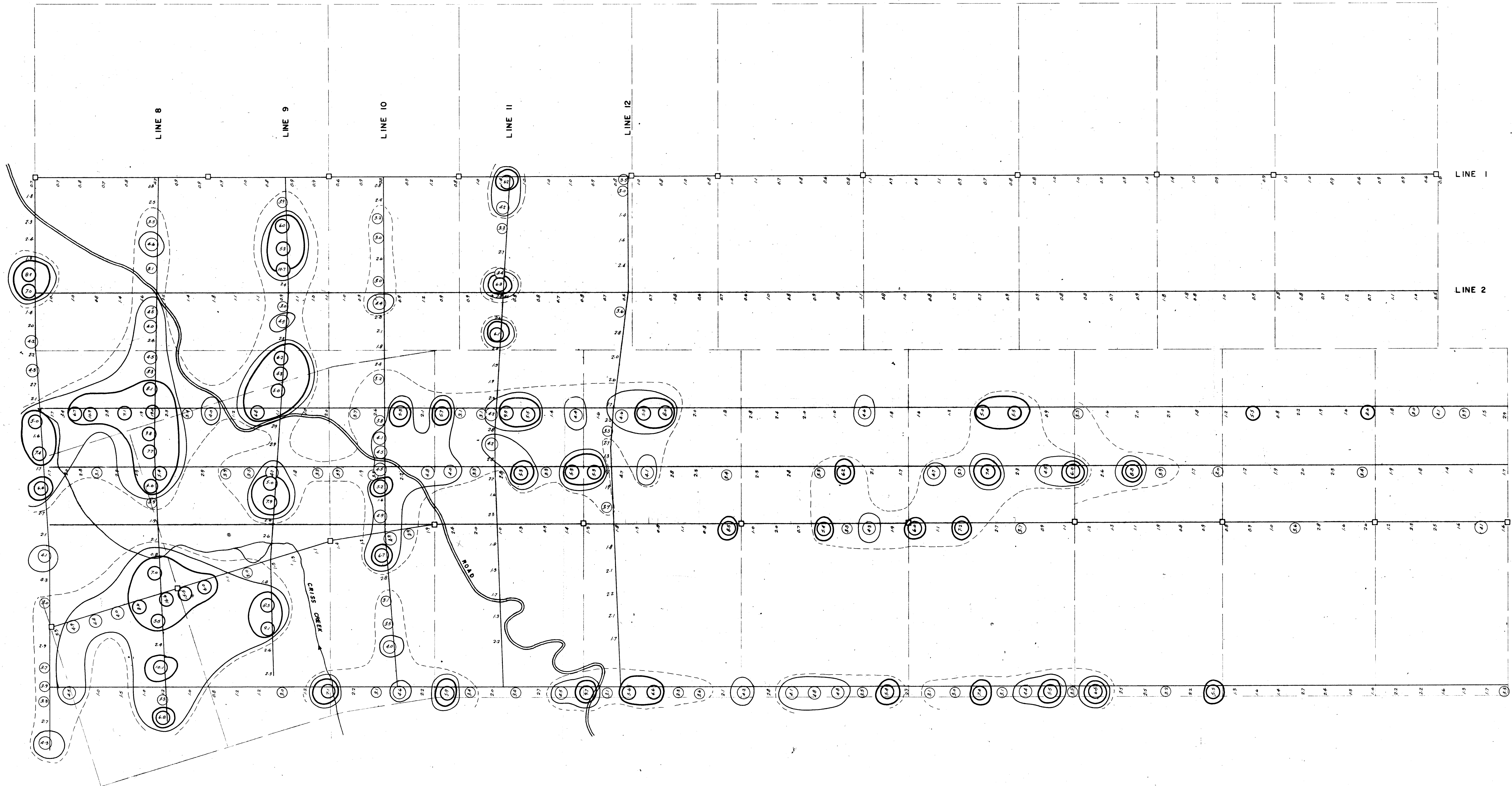
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. **4305** MAP # **3**



ANDEX MINES LTD. N.P.L.

**SPLIT CLAIMS
I-40
GEOCHEMICAL SURVEY
COPPER - ppm**





LEGEND

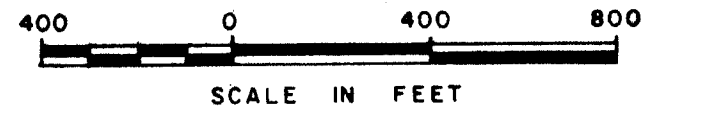
- - Ag \geq 5.0 ppm
- - Ag 4.0 - 4.9 ppm
- - Ag 3.0 - 3.9 ppm
- CLAIM LINE
- CONTOURS

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 4305 MAP #2



ANDEX MINES LTD. N.P.L.

**SPLIT CLAIMS
1-40
GEOCHEMICAL SURVEY
SILVER - ppm**



Department of
 Mines and Petroleum Resources
ASSESSMENT REPORT
 NO. **4305** MAP **#5**

LEGEND

- ① BEDDLE
See map and plan for location of
beddles and their orientation.
- ② BEDDLE
See map and plan for location of
beddles.
- ③ BEDDLE
See map and plan for location of
beddles.
- ④ BEDDLE
See map and plan for location of
beddles.
- ⑤ BEDDLE
See map and plan for location of
beddles.



ANDEX MINES LTD. N.P.L.
 SPLIT CLAIMS
 1-40
GEOLOGY

