

Geochemical and Physical (linecutting) Report
on the
ANGUS GROUP

Cassiar District
Liard Mining Division
British Columbia

Owner and Operator
AJM Explorations Limited

COVERING : Angus (3 units), Murrey #1 to #4 incl.

WORK PERFORMED: September 12 to September 30, 1981

LOCATED: $59^{\circ}17'N$ $129^{\circ}47'W$, NTS
MAP 104P/5W
4000m East of the town of Cassiar.

Prepared by: R. Basnett, Geologist
Supervised by: R. Somerville, P. Eng.

November 1981

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
9816
NO. _____

Table of Contents

	Page No.
List of Claims.	2
Introduction.	4
Location and Access	4
Topography	4
History	5
Summary of Work	5
Purpose	6
Geology	6
Linecutting	6
Soil Geochemistry	8
1. Field Procedure	8
2. Laboratory Procedures	8
3. Statistical Analyses.	10
4. Interpretation of Anomalies	15
Conclusions	18
Costs	19
Statement of Qualifications	20

Enclosures

Figure 1 Property Claim Location Map	1
Figure 2 Property Location Map	3
Figure 3 Property Map showing lines cut and sampled by soil geochemistry.	7
Figure 4 Histogram showing the distribution of Au in soils	11

Table of Contents cont'd.

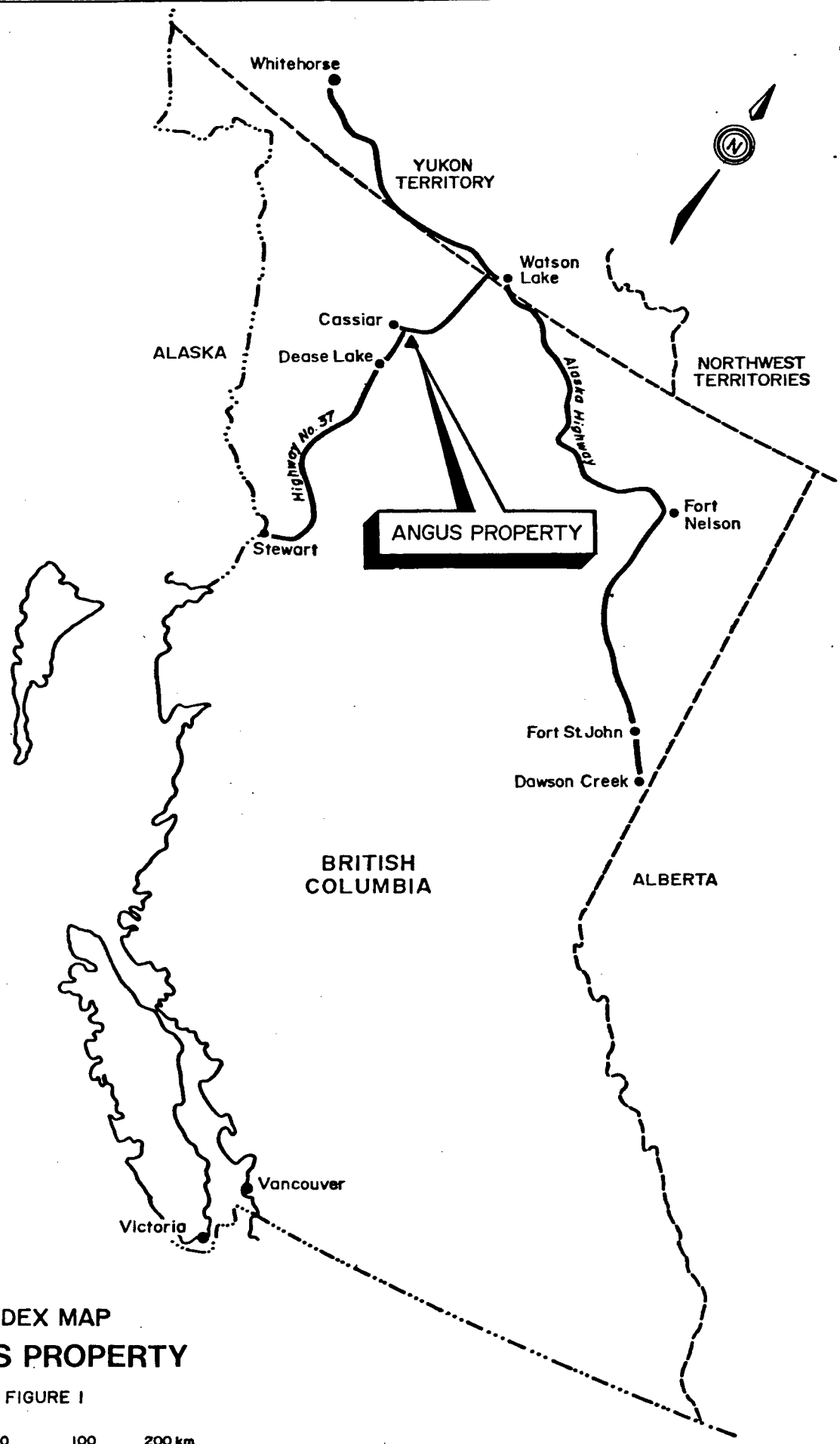
	Page No.
Figure 5 Percent cumulative frequency plot showing distribution of Au in soils . .	12
Figure 6 Logarithmic cumulative frequency plot showing distribution of Au in soils . .	13
Figure 7 Histogram showing the distribution of Ag in soils	14
Figure 8 Percent cumulative frequency plot showing distribution of Ag in soils . .	16
Figure 9 Logarithmic cumulative frequency plot showing distribution of Ag in soils . .	17
Envelope 1 Soil Geochemical Map for Au	1A
Soil Geochemical Map for Ag	2A

INDEX MAP
ANGUS PROPERTY

FIGURE 1



SCALE 1:7,500,000



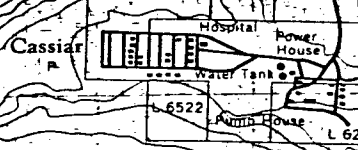
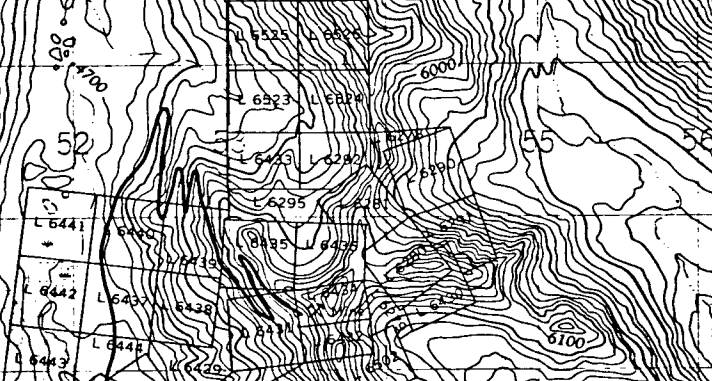
ANGUS GROUP

<u>Claim Name</u>	<u># of Units</u>	<u>Record #</u>	<u>Record Date</u>	<u>Owner</u>	<u>FMC#</u>
Angus	3	1259	Apr. 18, 1980	AJM Explorations Limited	20858
Murrey	1	1172	Dec. 06, 1979	AJM Explorations Limited	20858
Murrey	1	1173	Dec. 06, 1979	AJM Explorations Limited	20858
Murrey	1	1174	Dec. 06, 1979	AJM Explorations Limited	20858
Murrey	1	1175	Dec. 06, 1979	AJM Explorations Limited	20858

The operator is AJM Explorations Limited, F.M.C. #208588.



M O U N T A I N



ANGUS PROPERTY

CASSIAR DISTRICT
LIARD MINING DIVISION
104 P/5

SURVEYED BY B.C.L.S.
SCALE 1:50,000

INTRODUCTION

This report describes the results of the soil geochemistry and linecutting carried out during the 1981 field season. Maps showing the property location, claims and location of cut lines and soils are included.

LOCATION AND ACCESS

The property is located in northern British Columbia, 4 km east of the town of Cassiar. The geographic coordinates are $59^{\circ}17'$ north latitude and $129^{\circ}47'$ west longitude.

Access is by road from Watson Lake, Yukon Territory, which is approximately 150 km to the NNE of the property or from Kitwanga which is 655 km south of the property. The Cassiar highway cuts across the southern boundaries of both the Angus and Murrey 1 and 2 claims.

TOPOGRAPHY

Located on the north slope of the east-west Cassiar valley, the claims are between 1160m and 1525m in elevation. The average slope is 25° . Angus and Murrey 1 and 2 are below treeline and covered by spruce and fir trees with intermittent snow slide areas where thick alders have grown.

The upper borders of Murrey 3 and 4 are above treeline with an alpine covering of shrubs and moss. No outcrop has been found below treeline.

HISTORY

The Cassiar District has been prospected since the 1800's and the interest was stimulated after 1874 when placer gold was first discovered on McDame Creek. Because the town of Cassiar is only 4 km from the Angus Group, the property has undoubtedly been staked a number of times in the latter half of this century but other than the blazes left from staking there is little evidence of previous work on the Angus Group.

In the mid '70's, Daniel McPherson staked the area after finding quartz float which is located along the present day Murrey 1 and 2 claim boundary. After the claims lapsed he staked the Murrey Claims in December, 1979 and the Angus claim in April 1980.

AJM Explorations Limited purchased these in 1981.

SUMMARY OF WORK

In the 1981 field season 1048m of line was cut with a width of 1m and 71 soil samples were taken at 20m

intervals along the new line as well as along pre-existing line.

PURPOSE

The purpose of the 1981 survey was to establish lines and determine if high gold and silver values could be located in the soil along these lines.

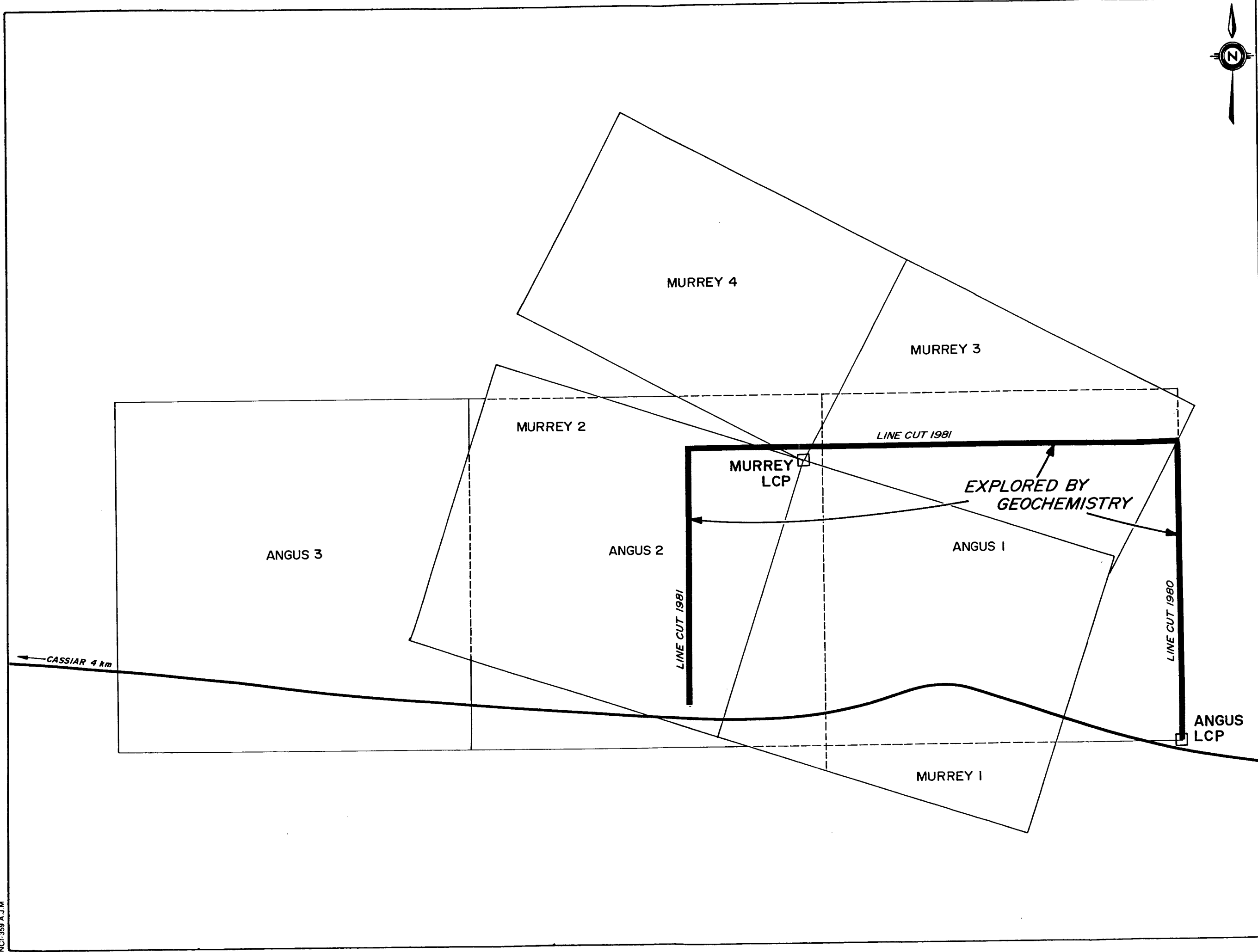
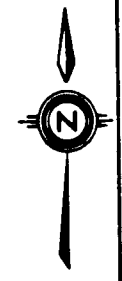
GEOLOGY

The Angus Group is underlain by greenstones, argillites and cherts of the Sylvester Group, Upper Devonian and Lower Mississippian in age and sandstones and dolomites of the Sandpile Group, Ordovician, Silurian and (?) Devonian in age. The contact of the Sylvester Group and Sandpile Group is thought to run east-west and be in the upper portion of the claims but because of the extensive cover of overburden the precise location of this contact is not known.

Sylvester Group volcanics are the host for the gold deposits in the Cassiar Valley.

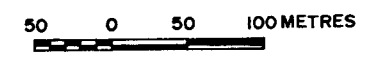
LINECUTTING

A baseline 1m wide and 668m long was cut in an



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- SURVEYED BY B.C.L.S.
- Contours — 2500 —
 - Stream or creek (Perennial, intermittent)
 - Marsh
 - Lake
 - Road
 - Jeep Road
 - Trail
 - Trees



AJM EXPLORATIONS LTD.

ANGUS PROPERTY

Project No. 1019
 Mining Division LIARD
 Latitude 59°17'
 Longitude 129°47'
 NTS 104 P 5
 To Accompany a Report By
 R. BASNETT
 Dated OCT, 1981
 Map No. 3

east-west direction 13m north of the Murrey 1 and 2 final post. At the west end of the baseline (160m west of Murrey 1 and 2 final post) an adjoining line was cut 380m south to the Cassiar Highway.

SOIL GEOCHEMISTRY

1. Field Procedure

Soil samples were taken at 20m intervals along newly cut lines as well as along the Angus claim line between the base line and the Angus legal corner post. At each sample site a hole approximately 30cm deep was dug with a mattock and soil from the B horizon was placed in a Kraft sample envelope with a garden trowel. Sample material was glacial till brown to red brown in color. Where the B horizon was not present the bottom of the A horizon was sampled. A total of 71 samples were taken and sent to Min-En Laboratories Limited, North Vancouver, B.C. to be analysed for Au and Ag.

2. Laboratory Procedures

2a) Analytical Procedure for Au

After drying the samples at 95°C soil and stream sediment samples were screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis.

A suitable sample weight 5.0 or 10.0 grams was pretreated with HNO_3 and HClO_4 mixture.

After pretreatments the samples were digested with Aqua Regia solution, and after digestion the samples were taken up with 25% HCL to suitable volume.

Further oxidation and treatment of at least 75% of the original sample solutions were made suitable for extraction of gold with Methyl Iso-Butyl Ketone.

With a set of suitable standard solution gold was analysed by atomic Absorption instruments. The obtained detection limit is 5 ppb.

2b) Analytical Procedure for Ag

After drying the samples at 95°C soil samples were screened by 80 mesh sieve to obtain the minus 80 mesh fraction for analysis.

1.0 gram of the samples was digested for 6 hours with HNO_3 and HClO_4 mixture.

After cooling the samples were diluted to standard volume. The solutions were analysed by Atomic Absorption Spectrophotometers.

Silver was analysed using the CH_2H_2 -Air Flame combination.

3. Statistical Analysis

A histogram, a cumulative frequency curve and a cumulative frequency plot using a logarithmic interval and extreme value probability paper were constructed for each element analysed.

Gold

The histogram for Au (Fig. 4) shows a steep background curve and three smaller curves that indicates three populations. The logarithmic cumulative frequency plot (Fig. 6) also indicates three populations above background while the percent cumulative frequency plot (Fig. 5) has two distinct populations.

Anomalous distributions taken from the three graphs are: 35-59 ppb, possibly anomalous; 60-109 ppb, probably anomalous; ≥ 110 ppb, anomalous.

Silver

The histogram for Ag (Fig. 7) is not a classical bell-shaped curve. From this graph the mode is shown to be 1.35 ppm and values ≥ 2.0 ppm are indicated to be anomalous.

DISTRIBUTION OF Au IN SOIL SAMPLES

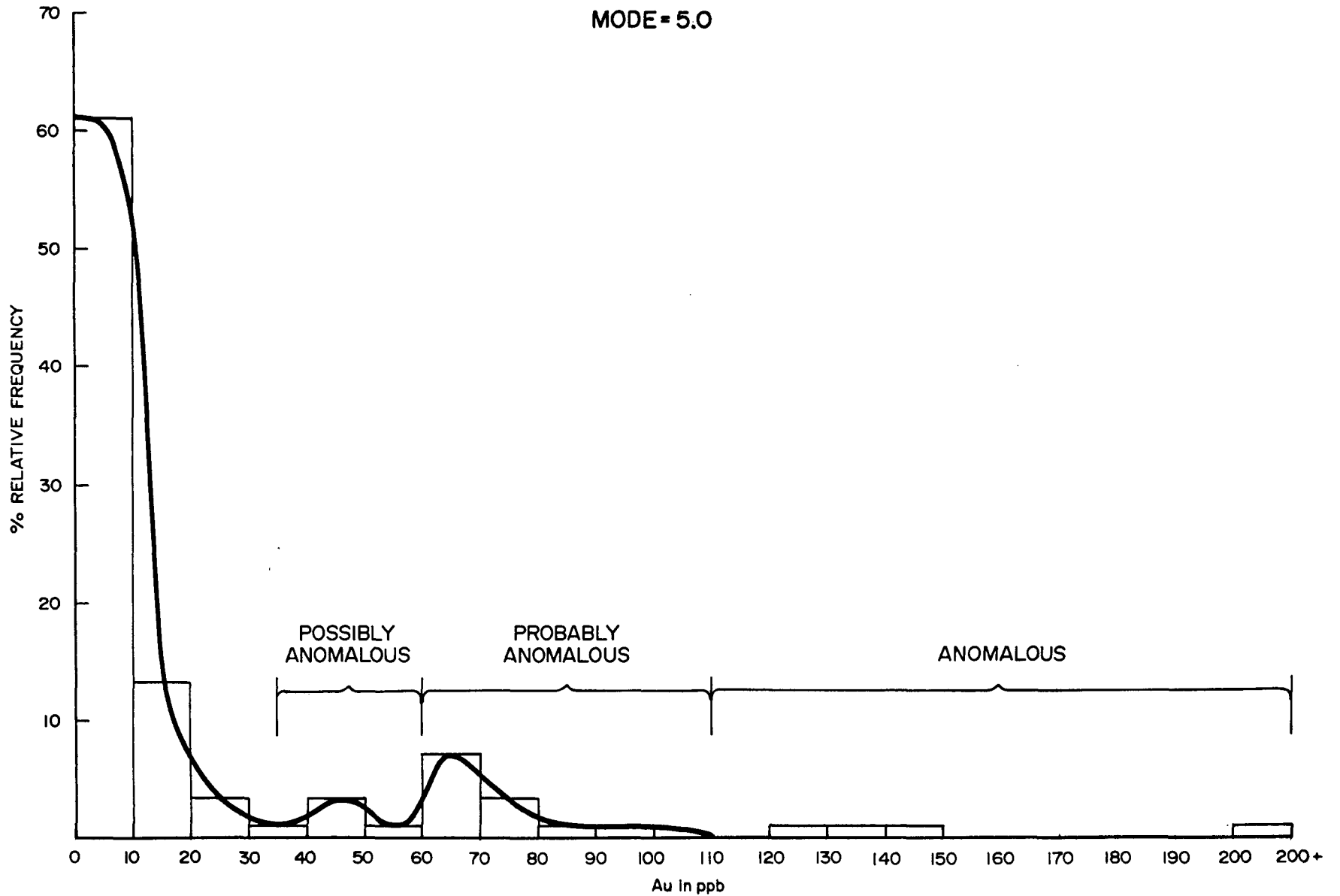


FIG. 4

DISTRIBUTION OF Au IN SOIL SAMPLES

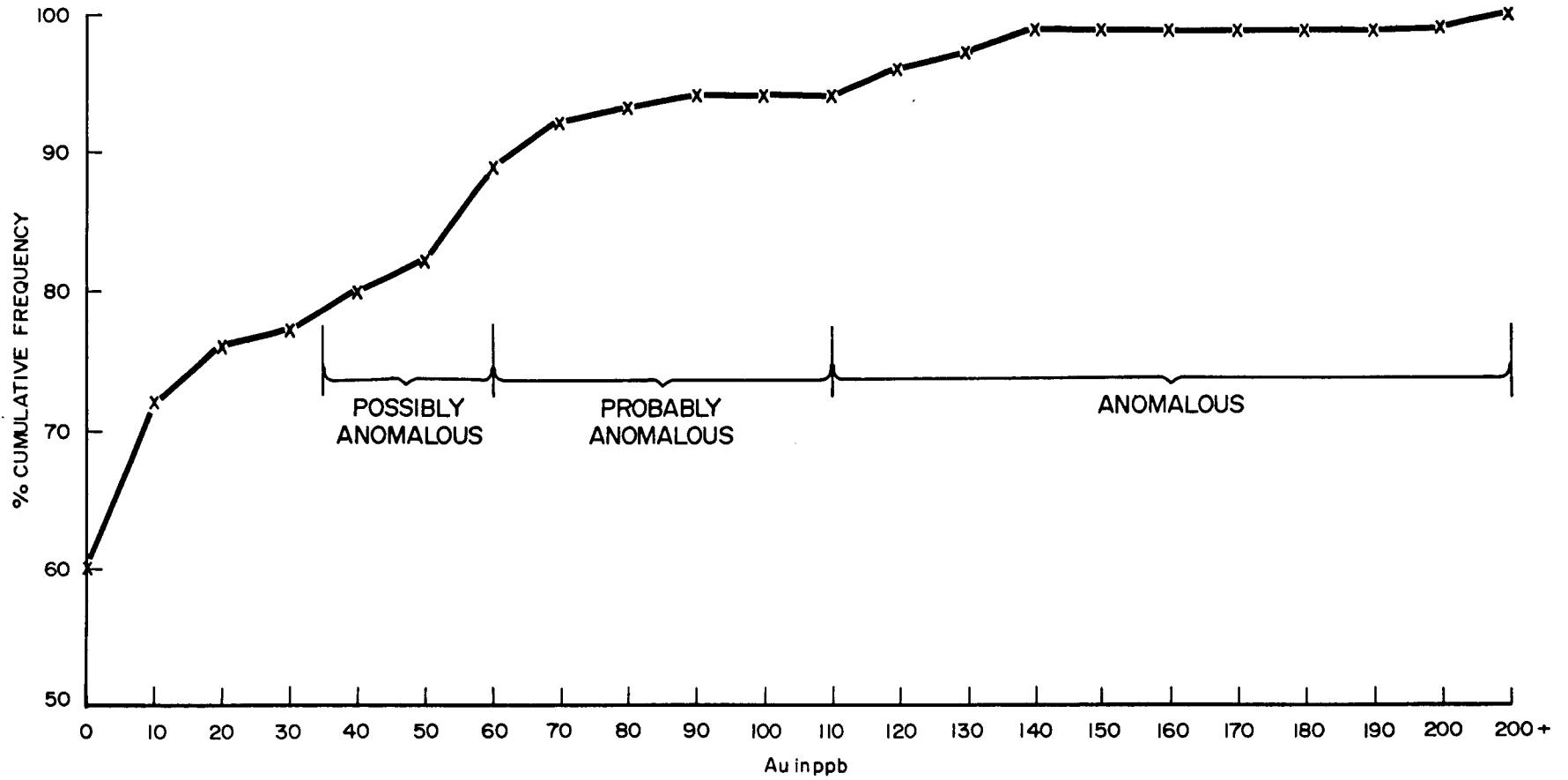


FIG. 5

LOGARITHMIC CUMULATIVE FREQUENCY PLOT

Au IN SOIL SAMPLES

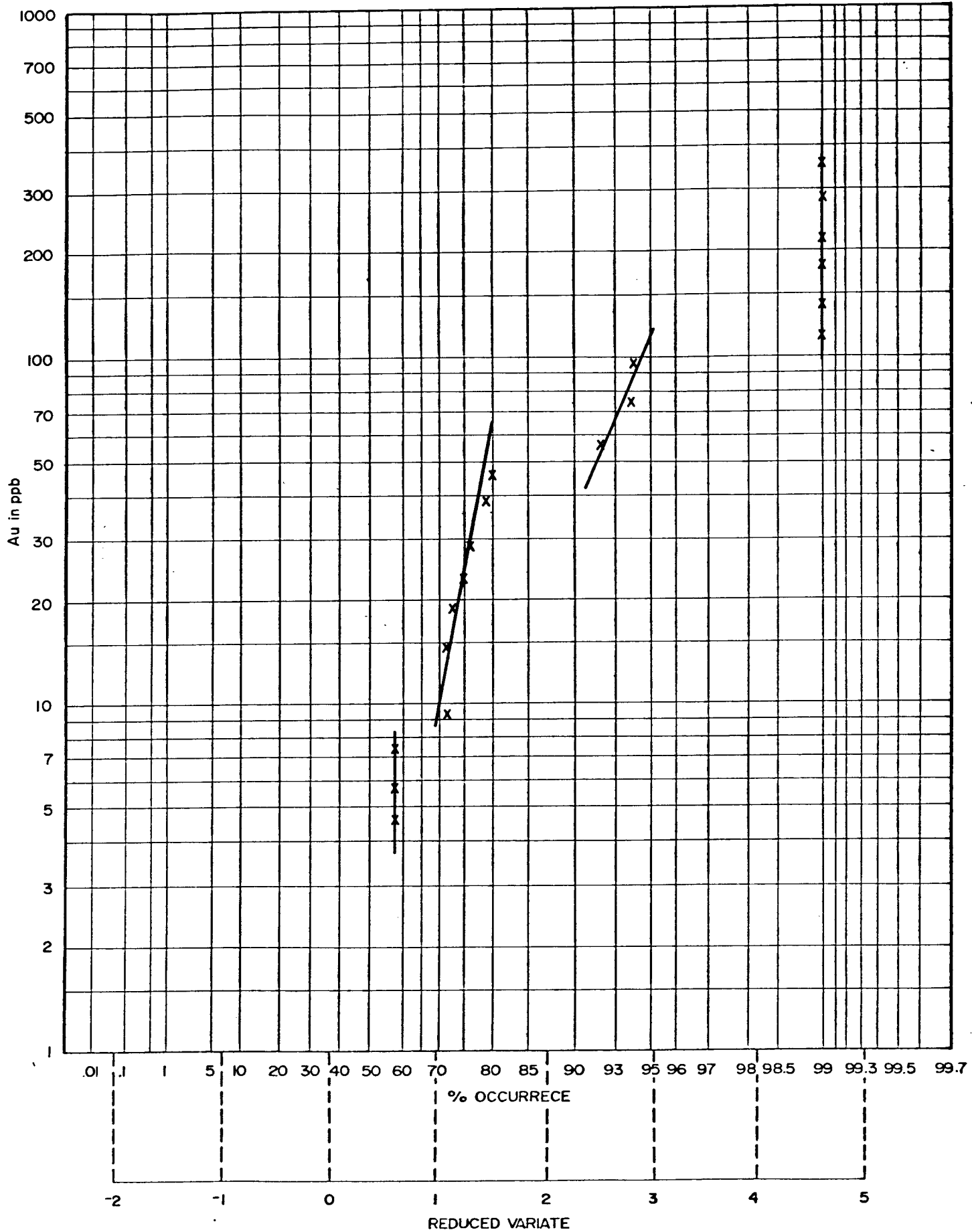


FIG.6

DISTRIBUTION OF Ag IN SOIL SAMPLES

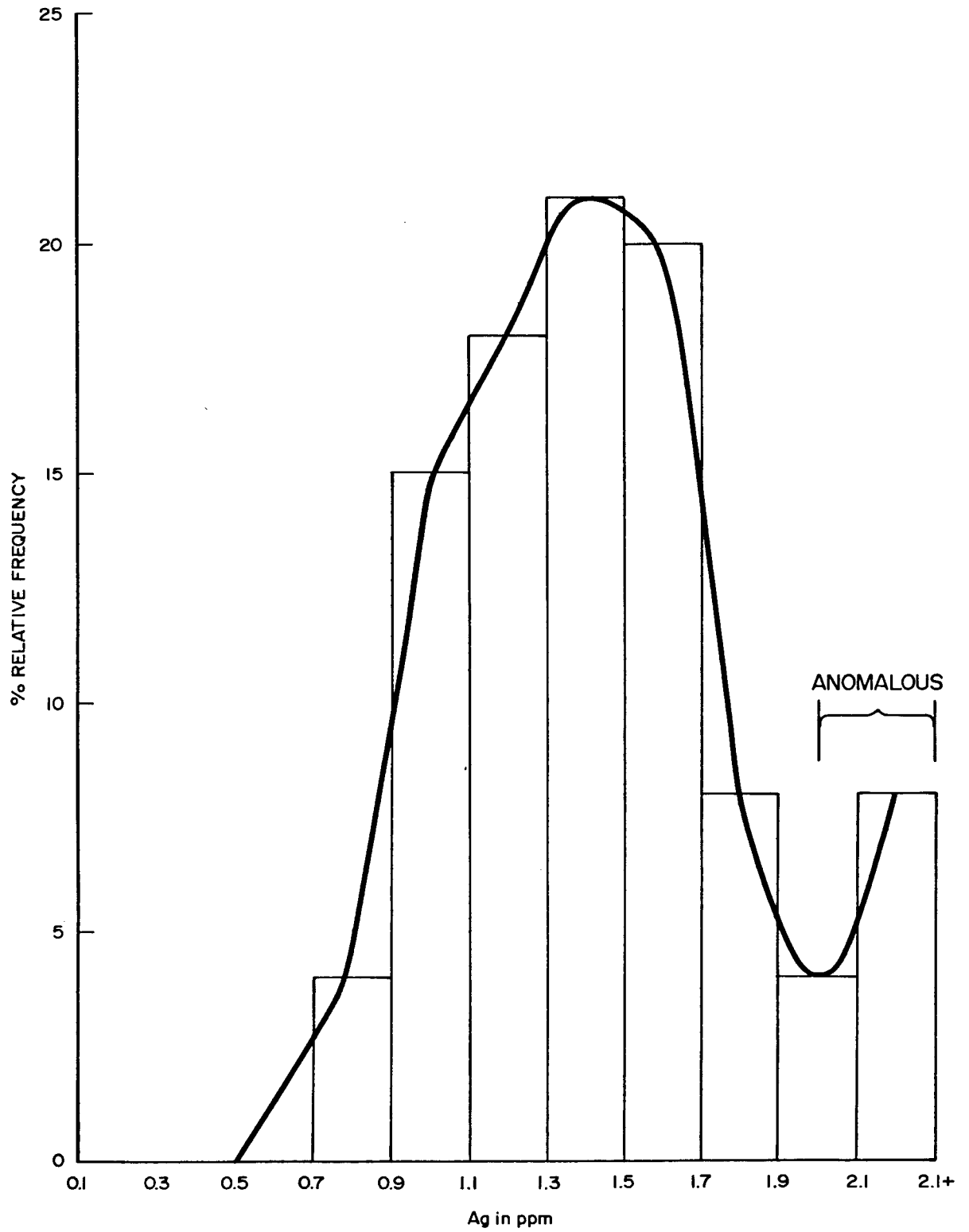


FIG. 7

The percent cumulative frequency plot (Fig. 8) clearly has a change in slope from 1.6 ppm to >2.2 ppm where the slope flattens, curves upwards then flattens again. Distributions taken from this curve are: 1.6 - 1.79 ppm, possibly anomalous; 1.8 - 1.99 ppm, probably anomalous; and ≥ 2.0 ppm, anomalous.

The logarithmic cumulative frequency plot (Fig. 9) shows two populations with values above 1.4 considered to above background.

4. Interpretation of Anomalies

Sample values are plotted on 1:1000 scale maps and contoured at intervals determined by statistical analyses (Envelope 1).

High gold and silver values are located in an area approximately 120m wide in the northwest corner of the grid (maps 1A and 2A). The zone strikes at an azimuth of 035° to 045° . Within this area are two anomalous planar features with values ≥ 110 ppb Au and ≥ 2.0 ppm Ag. These zones are enhanced by possibly anomalous and probably anomalous areas.

The two anomalous planar features may have formed over two northeast - southwest striking gold-silver rich

DISTRIBUTION OF Ag IN SOIL SAMPLES

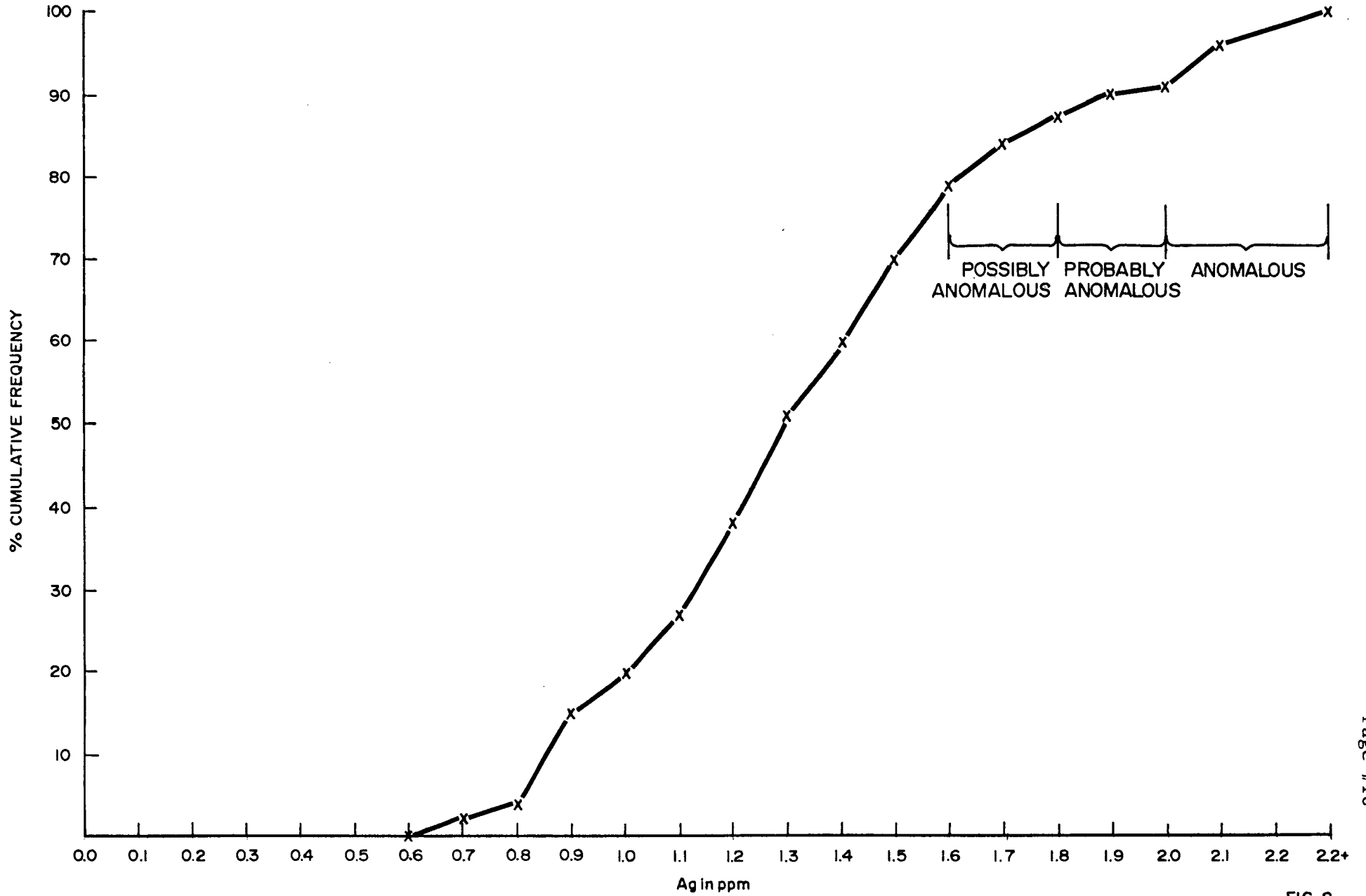


FIG. 8

LOGARITHMIC CUMULATIVE FREQUENCY PLOT Ag IN SOIL SAMPLES

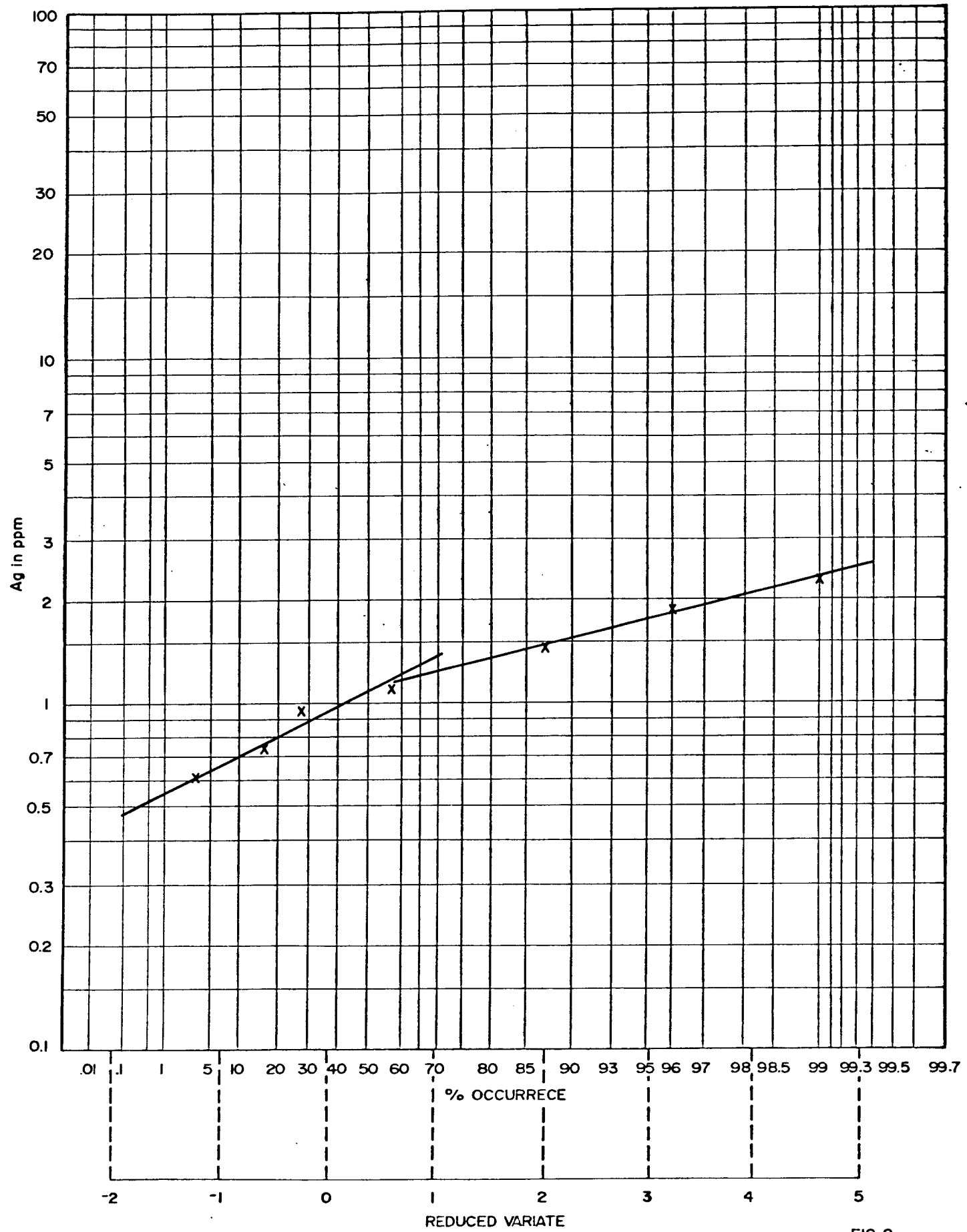


FIG. 9

veins or one vein could have caused a dispersion of values downslope giving the appearance of two structures.

CONCLUSIONS

A large gold - silver anomaly 120m wide and striking 35° to 45° is located in the northwest corner of the grid. Soils must be taken in the central area of this anomaly and to the southwest and northeast to confirm its size and direction.

The unmineralized quartz float that is located on the boundary of Murrey 1 and 2 is thought to be insignificant. Limestone wallrock on the quartz boulders indicates that they had a sedimentary host not the favorable Sylvester volcanics.

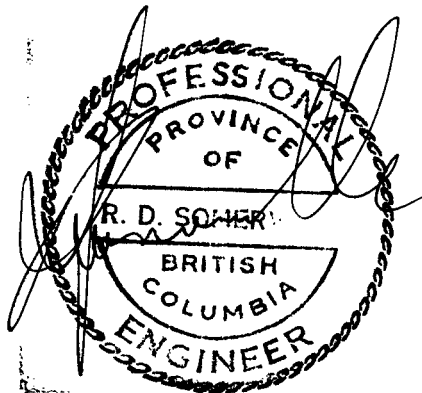
COSTS

Geochemical analyses 71 soils @ \$7.85/sample	\$ 557
Room and Board 1 man @ \$50/day for 5 days	250
Field Supplies	100
Vehicle Rentals 8 days @ \$35/day	280
Report Preparation	100

WAGES

Geologist Sept. 12, 14, 15, 16, 22, 24, 26, + 30, Oct. 22, 23, 26, 27 \$125/day for 12 days	1500
Assistant Sept. 15, 16, 22, 24, 30 \$80/day for 5 days	400
Travel Expenses	<u>353</u>

<u>Total</u>	<u>\$3540</u>
--------------	---------------



R. Basnett
R. Basnett
Geologist

R. Somerville
P. Eng.

Statement of Qualifications

I, Richard Basnett, of 7819 14th Avenue, Burnaby, B.C. do hereby certify that:

(1) I am a graduate of the University of British Columbia B.Sc. 1975, a fellow of the Geological Association of Canada and a member of the Canadian Institute of Mining and Metallurgy. I have practised my profession for 6 years.

(2) I am author of this report which is based upon work under my personal supervision during 1981 on the Angus property of AJM Explorations Limited near Cassiar, B.C.

(3) While supervising the Angus property work I was under the direction of R. Somerville, P. Eng., director of Geological Services to AJM Explorations Limited.

Respectfully submitted,

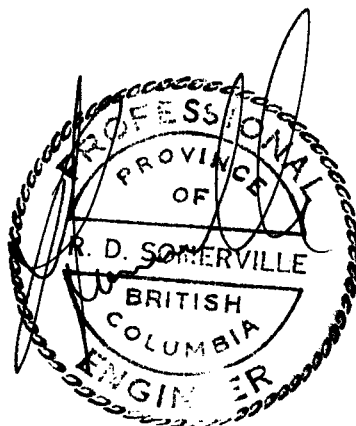


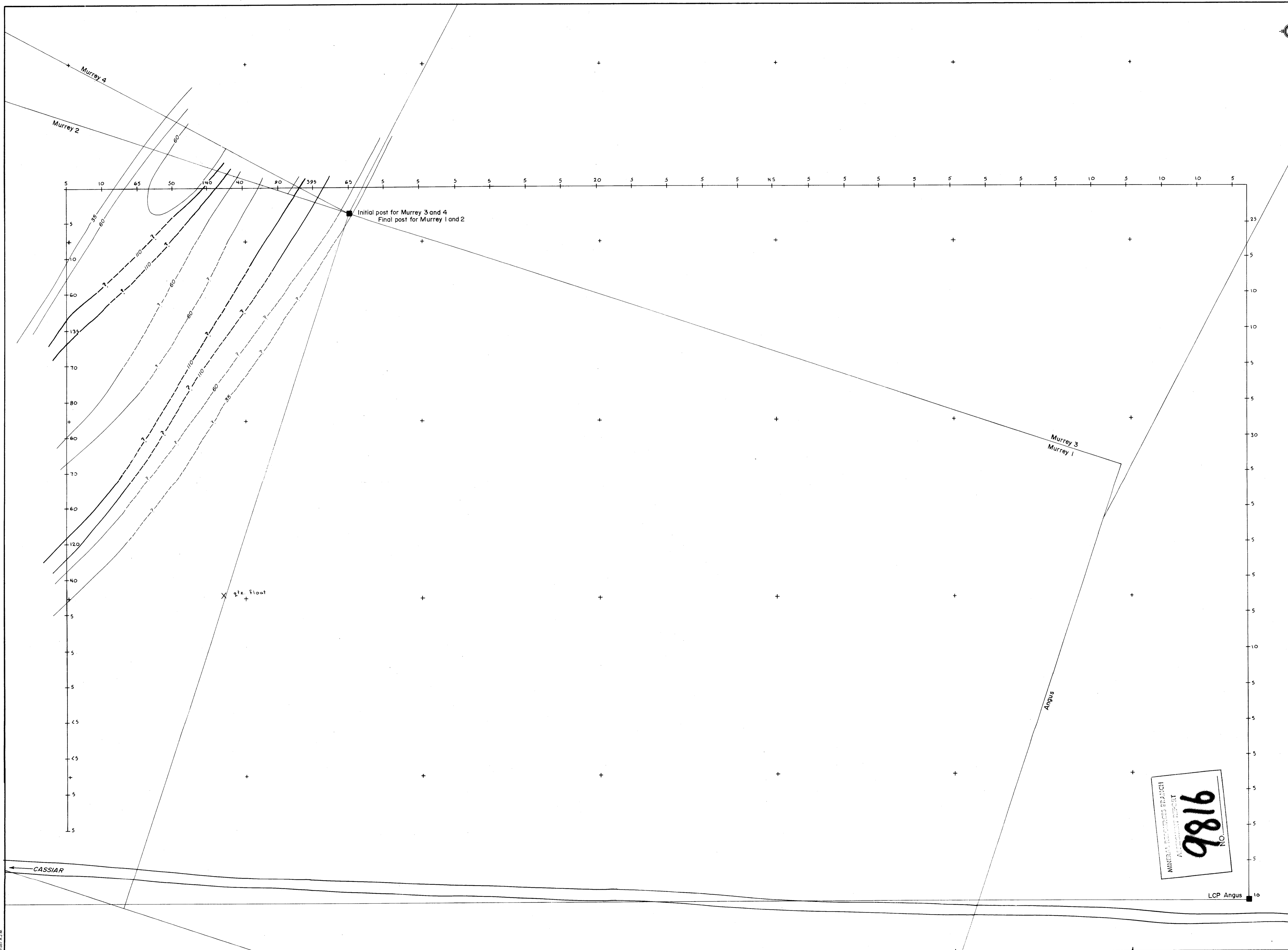
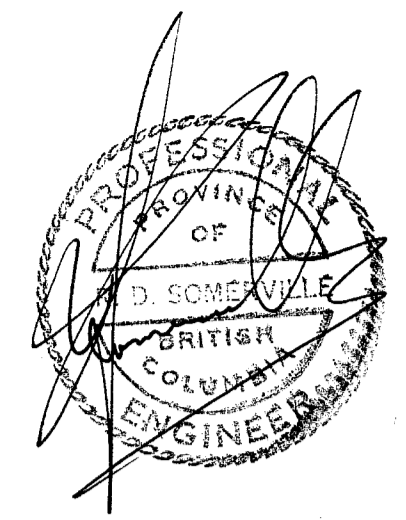
R. Basnett

Geologist

R. Somerville

P. Eng.





Au in ppb
 35-59 POSSIBLY ANOMALOUS
 60-109 PROBABLY ANOMALOUS
 ≥ 110 ANOMALOUS

CLAIMPOSTS LOCATED BY B.C.L.S.
 BOUNDARIES BY CHAIN AND COMPASS

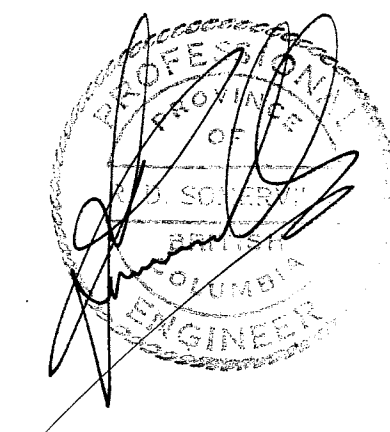
SYMBOLS

- Drift-covered area
- Rock outcrop, area of outcrop, float
- Geological boundary (defined, approximate interpreted)
- Bedding, tops known (horizontal, inclined, vertical, overturned, dip unknown)
- Bedding, tops unknown (inclined, vertical, dip unknown)
- Schistosity, gneissosity, cleavage, foliation (horizontal, inclined, vertical, dip unknown)
- Lineation, axes of minor folds (horizontal, inclined, vertical)
- Drag-fold (arrow indicates plunge)
- Fault (defined, approximate, interpreted)
- Fault (inclined, vertical)
- Fault (solid circle indicated downthrow side, arrows indicate relative movement)
- Thrust fault (approximate, interpreted)
- Shearing and dip
- Joint (horizontal, inclined, vertical, dip unknown)
- Syncline (defined, approximate)
- Anticline (defined, approximate)
- Anticline and syncline (overturned)
- Intensity (weak, moderate, strong)

- Trench
 - Adit or tunnel
 - Rock dump or tailings
 - Quarry or mine
 - Shaft, raise, winze
 - Diamond-drill hole
- Contours 2500 C.I.
 Stream or creek (Perennial, intermittent)
- Marsh
 - Lake
 - Road
 - Jeep Road
 - Trail
 - Trees
- 10 5 0 10 20 30 40 50 METRES
 SCALE 1:1,000

MINERAL RESOURCES BRANCH
 ANOMALOUS REPORT
9816
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AJM EXPLORATIONS LTD
ANGUS
 GEOCHEMICAL AND PHYSICAL (LINECUTTING) REPORT
 SOIL SAMPLING — Au in ppb
 Project No. 1019 Mining Division LIARD
 Latitude 59°17' Longitude 129°47'
 NTS 104 P/5
 To Accompany A Report By: R BASNETT
 Dated: OCT., 1981
 Map No. 1A



Ag in ppm
 1.6-1.7 POSSIBLY ANOMALOUS
 1.8-1.9 PROBABLY ANOMALOUS
 ≥2.0 ANOMALOUS

CLAIMPOSTS LOCATED BY B.C.L.S.
 BOUNDARIES BY CHAIN AND COMPASS

SYMBOLS

- Drift-covered area
- Rock outcrop, area of outcrop, float
- Geological boundary (defined, approximate interpreted)
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- Marsh
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SCALE 1:1,000
 10 5 0 10 20 30 40 50 METRES

AJM EXPLORATIONS LTD.

ANGUS

GEOCHEMICAL AND PHYSICAL (LINECUTTING) REPORT
 SOIL SAMPLING — Ag in ppm
 Project No. 1019 Mining Division LIARD
 Latitude 59°17' Longitude 129°47'
 NTS 104 P/5
 To Accompany A Report By: R. BASNETT
 Dated: OCT., 1981
 Map No. 2A

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