

84-#112 - 12037

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12,037

ARK ENERGY LTD.

3/85

1103 - 675 W. Hastings Street
Vancouver, B.C. V6B 1N2

GEOCHEMICAL AND GEOPHYSICAL

REPORT

on the

LORI #3 Mineral Claim

Similkameen M.D.

NTS 92H/16W

N. Lat. 49°45'30"

W. Long. 120°19'

by

R.J. Englund, B.Sc.

Strato Geological Engineering Ltd.

103 - 709 Dunsmuir Street

Vancouver B.C.

V6C 1M9

July 15, 1983



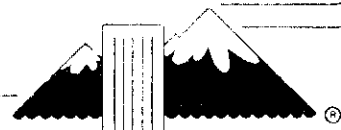
SUMMARY

The LORI 1-4 mineral claims are located in the Siwash Creek area of the Similkameen Mining Division, some 35 road miles north of Princeton, B.C.

Ark Energy Ltd. is the beneficial owner of the claim group and, at the request of the company, a soils geochemistry program was conducted over the LORI #3 claim. Soil samples were analysed for gold, silver, arsenic, copper, lead and zinc. Geological mapping was carried out in conjunction with the soils program and a review of magnetometer survey work over the claims area was completed.

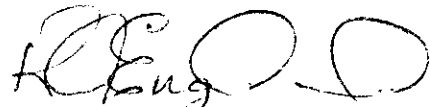
Geochemical results from the soil sampling program indicate several zones of anomalous gold values in the western claim area and a coincident Pb, Zn, Ag and weak Au anomaly in the northeast corner of the claim.

A program of detail soil sampling along with detail magnetic survey work is recommended to further define the anomalous gold areas. The geochemical soils program should also be expanded to cover the rest of the claim group.



Anomalous gold areas should be detailed and trenched to enable bedrock sampling in preparation for diamond drill testing of any zones deemed to have economic mineral potential.

Respectfully submitted,
Strato Geological Engineering Ltd.



Ralph J. Englund, B.Sc.
Geophysicist

July 15, 1983

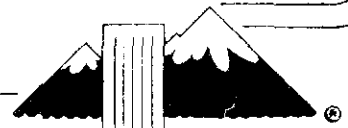


TABLE OF CONTENTS

Introduction page 1
Property 1
Location, Access, Physiography 2
Survey Procedure 3
Geology 4
Soil Geochemistry Results 7
Magnetometer Survey 11
Conclusions and Recommendations 13
References 15
Certificate 16
Time - Cost Distribution 17
Geochemical Analysis Results Appendix A

LIST OF FIGURES

Figure 1 Location Map follows page 1
Figure 2 Topographic Claim Map follows page 2
Figure 3 Regional Geology Map follows page 4
Figure 4 Soil Geochemistry and Geology leaflet
Figure 5 Magnetometer Survey "



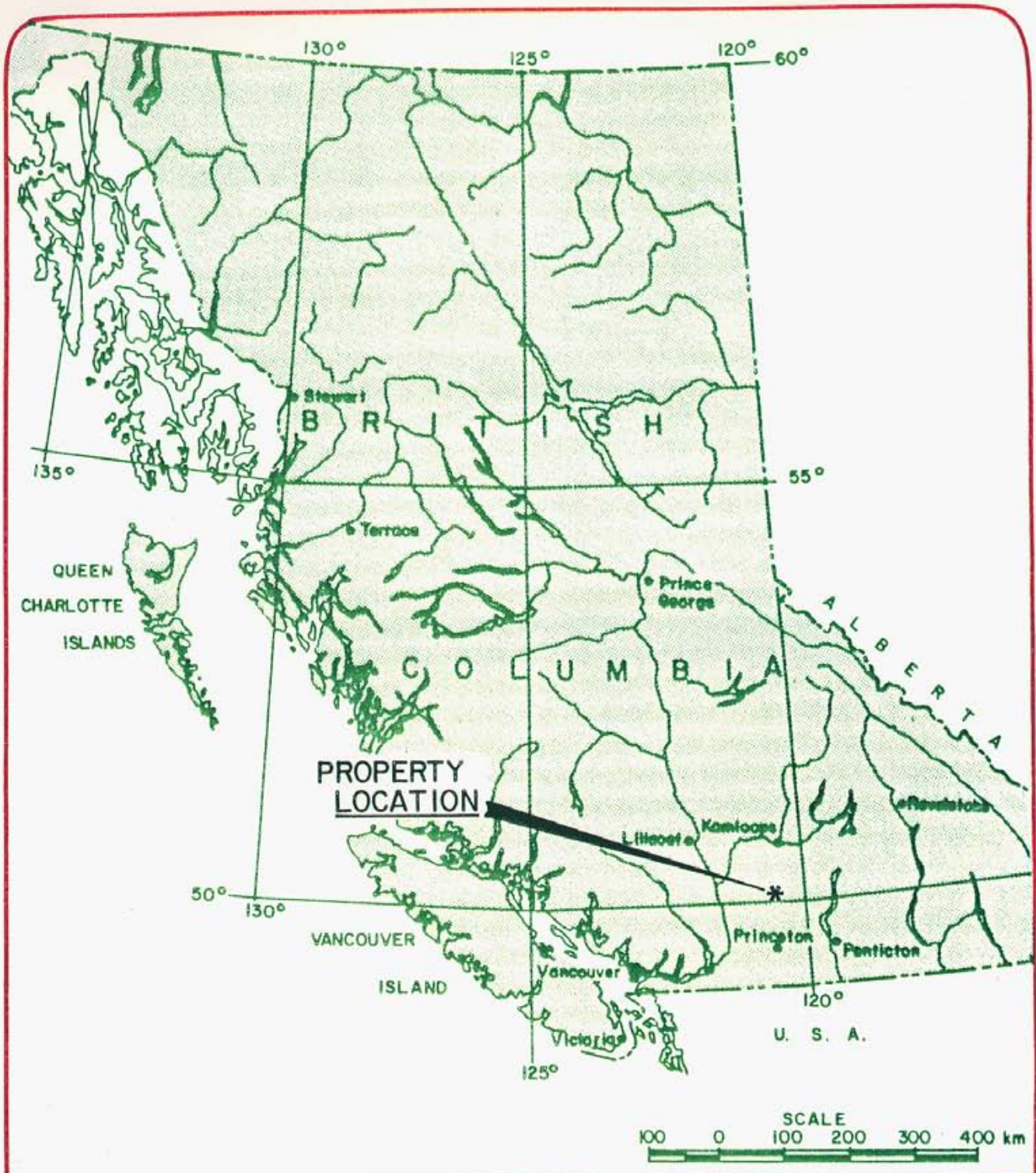
INTRODUCTION

Pursuant to a request by Mr. Harry Williams, President of Ark Energy Limited, a geological mapping and geochemical soil sampling program was conducted over the LORI #3 claim near Princeton, B.C., during the period May 10 to May 16, 1983. The intent of this program was to investigate the mineral potential of anomalous magnetic zones which were previously mapped within the claim, and which, on the basis of earlier established correlations between mineralization and high magnetic readings, warranted further investigation. A review of previous magnetic survey work forms a part of this report.

PROPERTY

The LORI claims were staked under the two post system provided for in the regulations of the B.C. Department of Mines. The claim is registered as follows:





ARK ENERGY LTD.
LORI CLAIMS
LOCATION MAP

FIGURE I
JUNE 28, 1983



Claim Name: LORI #3

Registered Owner : Harry L. Williams

Record Number : 418

Expiry Date: August 29, 1987.

The claim is located in the Similkameen Mining Division and is shown on B.C. Department of Mines map 92H/16W.

The LORI #3 claim line, as discovered on the property, closely parallels Siwash Creek at varying orientations, but has a direct line orientation between the initial and final posts of 013 degrees.

LOCATION, ACCESS, PHYSIOGRAPHY

The property is located approximately 56 kilometers by road north of Princeton, B.C., on the lower part of Siwash creek. The claim is located at longitude 120 degrees 19'W, and latitude 49 degrees 45' 30"N. The property area is covered by topographic map sheet 92H/16, Paradise Lake, in the 1:50,000 series.

Access to the claim is by logging roads from Bankier (on the Kettle River railroad line) for a distance of



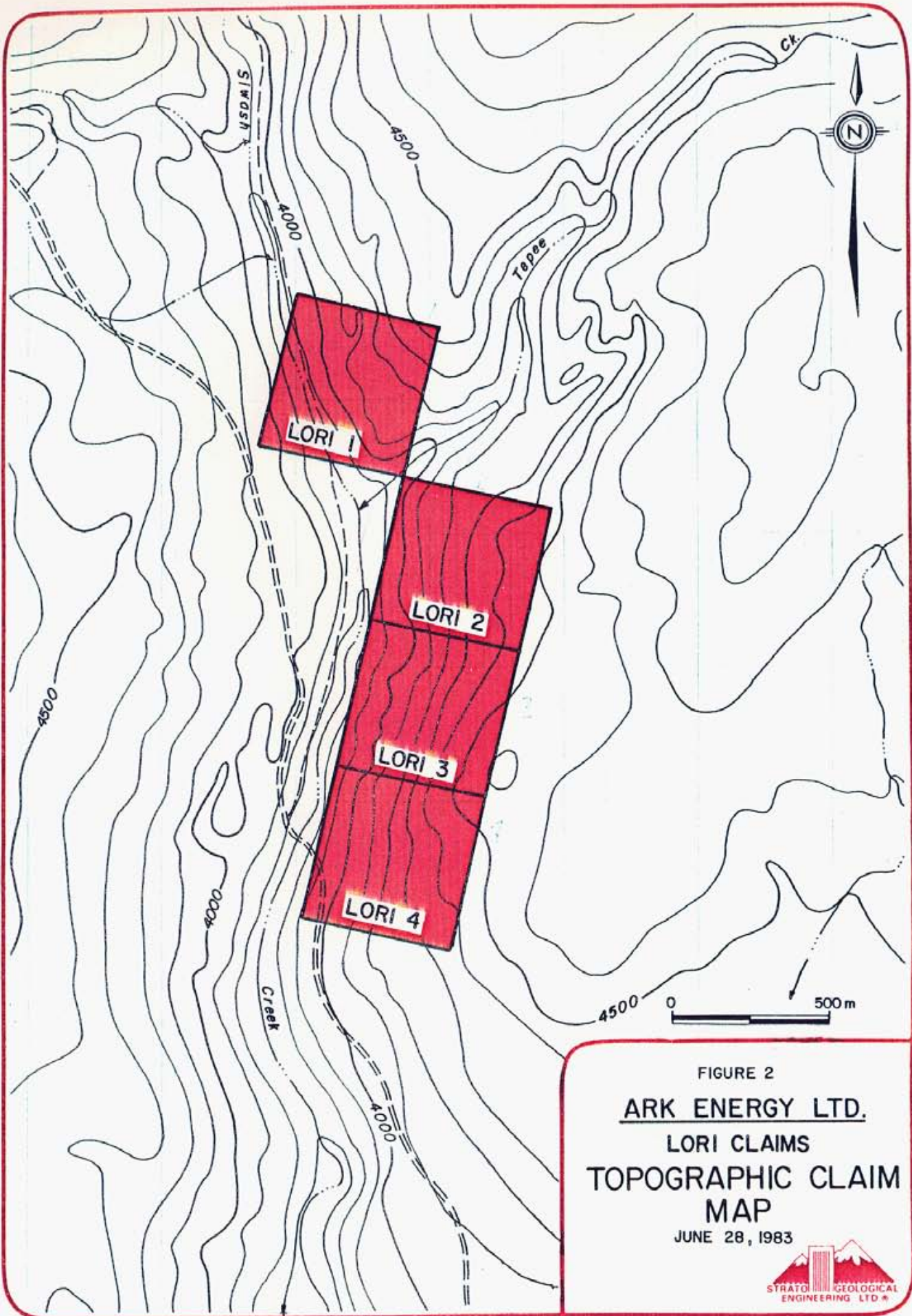


FIGURE 2
ARK ENERGY LTD.
LORI CLAIMS
TOPOGRAPHIC CLAIM
MAP

JUNE 28, 1983



approximately 9 kilometers in a northwest direction. Logging is currently active in the area, and as a result, many new, more direct access roads are being developed.

The claims lie within the intermontane physiographic system and are well forested with a mixed cover of spruce, pine, and some deciduous trees. Relief in the area is quite gentle with elevations ranging from about 3800 feet to 4500 feet above sea level at the eastern claim boundary. Rock outcrops are quite plentiful at the higher elevations and are more sparse in the valleys. Previous trenching in the area indicates overburden depths have been found to be quite shallow.

SURVEY PROCEDURE

The geochemical survey grid was started using pre-existing grid lines from the apparent northern claim post of the Lori #3 claim. Because this old grid was found to run about 10 degrees north of east it was abandoned and a new grid was established from the southern claim post. As a result, samples for lines 3+00N and 2+50N are shown as lines 0S and 0+50S in Appendix A (I.C.P. Geochemical Analysis). The claim line direction, from the southern claim post, was checked and found to have a true heading of 013 degrees.



The soil samples were collected on an approximate 50 meter by 50 meter grid over the claim area. A total of 99 samples were taken from "b" horizon soils at depths of 8 to 12 inches. Geological mapping was carried out by P.B. Grunenberg, Geologist, in conjunction with the completion of the soils grid.

GEOLOGY

Geological mapping was completed over the Lori #3 claim in conjunction with the geochemical survey and the Geological section, as reported by P.B. Grunenberg, B.Sc., Geologist, is as follows:

Regional Geology

" The property is within the Princeton map sheet area which was mapped by H.M.A. Rice and published as G.S.C. Map 888A with accompanying G.S.C. Memoir 243, Geology and Mineral Deposits of the Princeton Map Area, British Columbia.

The property area is generally underlain by intrusive rocks of the Coast Intrusions which are composed predominantly



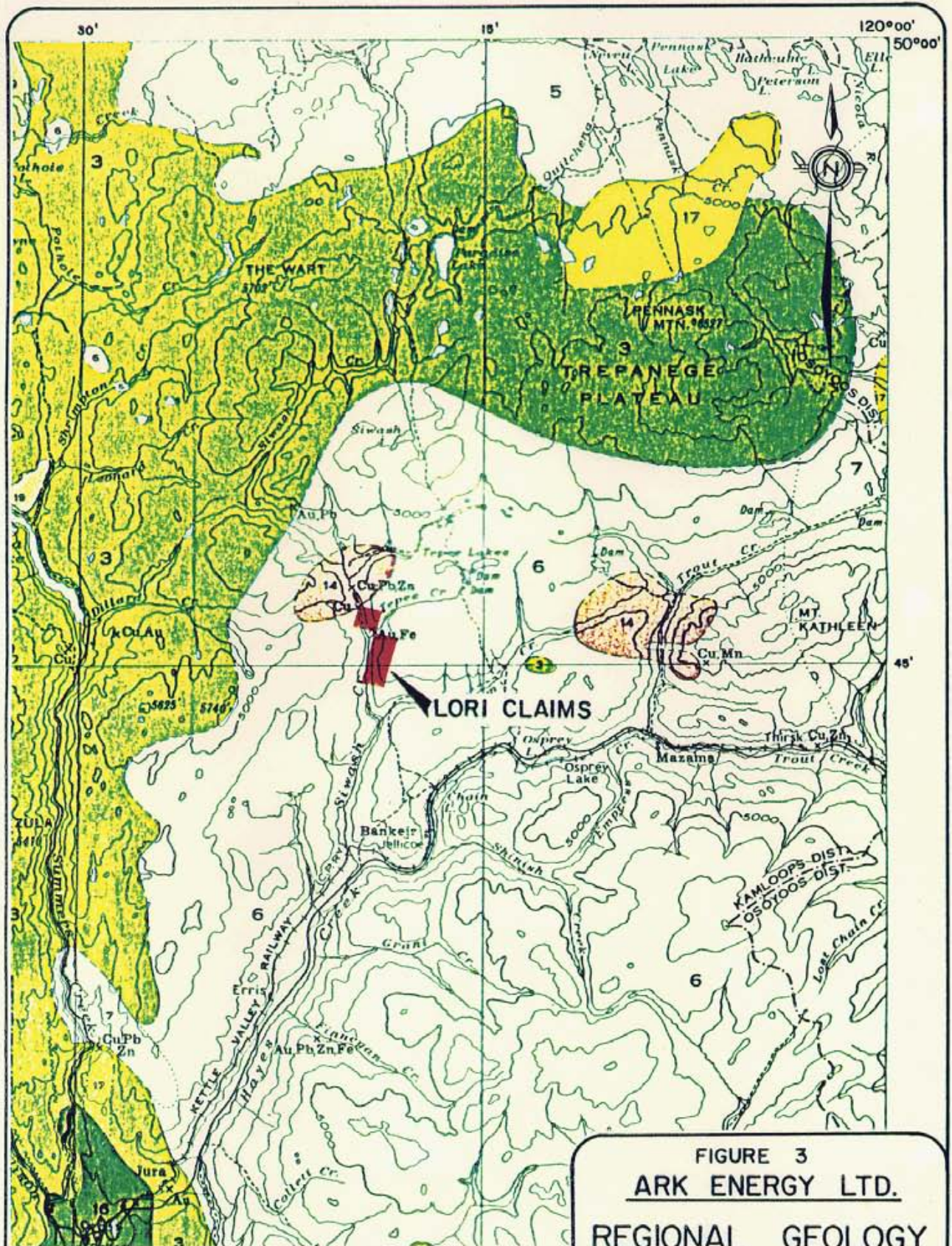
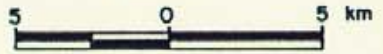


FIGURE 3
 ARK ENERGY LTD.
 REGIONAL GEOLOGY
 MAP



- LEGEND**
- | | |
|-----------------------|------------------------|
| 16,17 Princeton group | 5,6,7 Coast intrusions |
| 14 Otter intrusions | 3 Nicola group |

NOTE: AFTER H.M.A RICE, 1947 PRINCETON MAP 888A

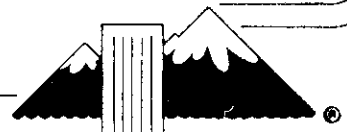
JUNE 28, 1983



of siliceous granite and granodiorite. These rocks intrude Upper Triassic Nicola Group volcanics and associated sediments, and are themselves cut by younger (Upper Cretaceous or Tertiary) intrusions of similar granitic composition. The younger Otter intrusives, although similar in composition, have a different appearance than the older Coast Intrusives, being generally pink in color, with quartz occurring as well formed phenocrysts.

Mineral deposits in the map area generally include gold telluride in brecciated Nicola rocks and gold with arsenopyrite and other sulphides in altered limestones. These deposits occur in the Grasshopper Mountain and Hedley areas respectively. Lead-zinc deposits are found near the contact of the Eagle grano-diorite in the Similkameen River - Whipsaw Creek area and placer gold and platinum is found in the Tulameen and Similkameen River systems.

Several mineralized breccia zones have been discovered directly to the north of the Lori #3 claim. Specimens from these areas, collected by Mr. George McAusland showed heavy, diversified mineralization including sphalerite, galena, pyrite, chalcopyrite, and bornite. The source of distribution for some of these zones is proposed to be a sheared fault zone which may follow the north-south lineament which is followed by Siwash Creek. "



Claim Geology

" The claim was found to wholly consist of outcrops of granitic rock which belong to the Jurassic or later Coast Intrusions. This is a holocrystalline, coarse grained granite characterized by large pink feldspar phenocrysts. An average hand specimen description is as follows:

- 50% pink potash feldspar phenocrysts to 2 cm length.
- 30% quartz, including up to 5% quartz "eye" phenocrysts of about 1 cm diameter.
- 15% mafic minerals including biotite and hornblende.
- 5% plagioclase.

A few outcrop and float specimens showed mild brecciation with broken feldspar phenocrysts, and crushed, sandy looking matrix material. Chloritic alteration, in some places associated with mild propylitic alteration, was common within the mafic constituents of some specimens.

Sulphides on the property were found only in a few specimens of float of the brecciated granite. This was a fine grained, evenly disseminated pyrite accumulated to a low percentage (about 1%). "



SOIL GEOCHEMISTRY RESULTS

Soil geochemistry samples were taken at 50 meter intervals on lines spaced 50 meters apart. A total of 99 soil samples were collected from the "b" soil horizon at some 8 to 12 inches depth, placed in kraft waterproof envelopes, and sent to Acme Analytical Laboratories Ltd., in Vancouver, B.C. for geochemical analysis.

Analyses for silver, arsenic, copper, lead, and zinc were done by the ICP method, and results given in parts per million (ppm). Gold analyses were made from a 10 gram sample by atomic absorption, and results are given in parts per billion (ppb). All samples were sieved to a - 80 mesh fraction.

A statistical analysis was made for each element using the method of Lepeltier (1969). Results are as follows:

Gold

| <u>No. Samples</u> | <u>Background</u> | <u>Threshold</u> | <u>b+3s</u> |
|--------------------|-------------------|------------------|-------------|
| 99 | 5.5 ppb | 20 ppb | 37 ppb |

The large number of analyses with a reported value of 5 ppb (76 of 99) prevents easy statistical analysis. The



log-probability plot does show a break (departure from lognormal distribution) at 20 ppb which is taken as the threshold value to establish anomalous results. Because of the significant number of low results, all analyses showing greater than background are considered significant and 10 ppb (twice background) has been contoured as above background results (Figure 4c).

Several very significant gold anomalies are located in the northwest corner of the claim and an easterly trend in this area is postulated. Two very high gold anomalies, L3+50N - 0+00E and L 2+50N - 0+50E, are located at lower elevation near Siwash Creek. Several other anomalous gold results are found on or near the flanks of magnetic high anomalies (L0+00 - 1+00E, L 4+50N - 2+00E, and L 1+50N - 2+50E). Spatial correlation between gold and other elements analysed is not clearly established within the survey area.

Arsenic

| <u>No Samples</u> | <u>Background</u> | <u>Threshold(b+2s)</u> | <u>b+3s</u> |
|-------------------|-------------------|------------------------|-------------|
| 99 | 4 ppm | 8.4 ppm | 9.5 ppm |

Statistical analysis shows a lognormal distribution with an excess of low values. There were essentially no anomalous



results in the sample distribution. Values of 8 ppm have been contoured as twice background (Figure 4c).

Silver

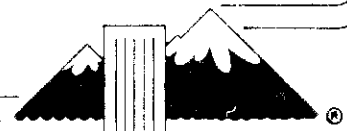
| <u>No. Samples</u> | <u>Background</u> | <u>Threshold(b+2s)</u> | <u>b+3s</u> |
|--------------------|-------------------|------------------------|-------------|
| 99 | 0.20 ppm | 0.72 ppm | 1.05 ppm |

Two statistical populations were derived graphically; a low background population and a high background population. The higher background population shows a lognormal distribution. Three anomalous samples are found in the northeastern claim area and spatial correlation with lead and zinc suggests silver is likely associated with these minerals.

Copper

| <u>No. Samples</u> | <u>Background</u> | <u>Threshold(b+2s)</u> | <u>b+3s</u> |
|--------------------|-------------------|------------------------|-------------|
| 99 | 10 ppm | 24 ppm | 28 ppm |

Results of the copper analyses show a distribution similar to silver and lead with a low background and a lognormal higher background population. Several anomalous



values are located in the northwest area and correlate relatively well with anomalous gold values.

Lead

| <u>No. Samples</u> | <u>Background</u> | <u>Threshold(b+2s)</u> | <u>b+3s</u> |
|--------------------|-------------------|------------------------|-------------|
| 99 | 20 ppm | 53 ppm | 68 ppm |

Two statistical populations can be inferred from the log-probability plot; a low background and a lognormal high background population. A significant lead anomaly correlates well with a zinc, silver, and a weak gold anomaly in the northeast corner of the property (Figure 4b).

Zinc

| <u>No. Samples</u> | <u>Background</u> | <u>Threshold(b+2s)</u> | <u>b+3s</u> |
|--------------------|-------------------|------------------------|-------------|
| 99 | 140 ppm | 400 ppm | 470 ppm |

The log-probability plot of zinc analyses shows a single population, lognormal statistical distribution. The single anomalous result is found in the NE corner of the claim and is spatially related to anomalous lead and silver values.

Analysis of soil geochemistry results indicates a



possible zone of potential economic interest in the northwestern areas of the claim. Overburden cover at the lower elevations in this area however prevents any geological explanation for the anomalous gold results and the possibility of some placer in the soils here must be considered. Several other anomalous gold results in the southern claim area also require more detail investigation.

A coincident Pb, Zn, Ag, and weak Au anomaly is located in the northeast corner of the claim where several outcrops suggest the area is generally underlain by granitic rocks of the Jurassic or later Coast Intrusions.

MAGNETOMETER SURVEY

A magnetometer survey was conducted over the LORI #2, #3, and #4 mineral claims by Strato Geological Ltd. during May 1980 with results assessed by J.P.B. Sawyer, P.Eng. in his Geophysical and Geochemical Report on the LORI 1 - 4 Mineral Claims dated August 25, 1980.

This work has been replotted to scale and reviewed as a part of the present exploration program on the LORI #3 claim. Magnetic work has been tied in to the present survey grid from



the LORI #3 AND LORI #4 claim posts. Although magnetic station positions are estimated they are considered accurate for purposes of this review. Magnetic survey results are reproduced as Figure 5.

Magnetic high features show a generally north-south trend with discontinuities occurring in the west-central areas of the LORI #3 claim. Results suggest the property is generally underlain by the granitic intrusive complex in the eastern claim areas and probably Nicola volcanics or associated sediments in the west-central area. Magnetic results do not clearly establish a geological contact between these rock units and geological information is sparse due to lack of outcrop at lower elevations.

The magnetic survey results show a northerly trending lineament (possible shear zone or fault) paralleling Siwash Creek through the central claim area (Figure 5). An easterly trending magnetic lineation in the northwest corner of the claim is postulated as representing a geological contact which may or may not be associated with shearing. Gold geochemical anomalies are found near this magnetic trend. Another magnetic discontinuity, a postulated fault or shear zone, trends near easterly just south of the LORI #3 claim.

Correlation between mineralization and magnetic highs has been previously established (Sawyer et al, 1983). On the LORI



#3 claim, geochemical anomalies are generally found associated with magnetic gradients on the flanks of magnetic high zones.

CONCLUSIONS AND RECOMMENDATIONS

The geochemical program has indicated several significant gold anomalies in the western areas of the claim. The initial survey results require follow-up exploration be carried out to establish the economic potential of these anomalies. A coincident Pb, Zn, Ag and weak Au anomaly located in the northeast corner of the claim also warrants more detailed investigation. A spatial correlation between gold and other elements analysed for this survey has not been established.

Preliminary geological mapping has indicated the claim is generally underlain by granitic rocks of the Coast Intrusions in the eastern claim area with much of the claim area being overburden covered. Magnetic results suggest the probability of Nicola group rocks underlying the west-central claim area. A review of previous magnetometer survey work indicates anomalous geochemical results are generally associated with the flanks of magnetic high anomalies. Previous magnetic work indicates geochemical soil sampling should be carried out over

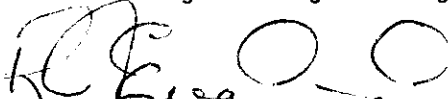


the rest of the claim group and that very detail magnetic survey work may be useful in defining areas within the geochemically high zones for bedrock sampling by trenching and/or overburden drilling.

The following action is recommended to further define potential mineralization underlying the LORI #3 claim:

1. Detail geochemical soil sampling and detail magnetometer work should be carried out on an 10 m. by 10 m. grid over the gold anomalies outlined in this report.
2. Based on further definition of anomalous zones, backhoe or bulldozer trenching should be carried out to enable bedrock sampling and geological mapping of bedrock. Bedrock samples should be assayed for gold, silver, lead, and zinc.
3. Contingent upon an engineering evaluation of the results of bedrock sampling, all mineral targets deemed to be of economic merit should be diamond drill tested.

Respectfully submitted,
Strato Geological Engineering Ltd.,


Ralph J. Englund, B.Sc.
Geophysicist

July 15, 1983



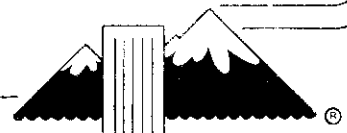
REFERENCES

Geological Survey of Canada, Memoir 243 and Map 888A (Princeton), H.M.A. Rice, 1960.

Report on the LORI #1,2,3,4 Mineral Claims, Siwash Creek Area, Similkameen, M.D. by Donald W. Tully, P.Eng., dated September 12, 1978.

Geophysical and Geochemical Report on the LORI 1 - 4 Mineral Claims, Similkameen M.D. by J.B.P. Sawyer, P.Eng., dated August 25, 1980.

Report on the LORI Claims, Similkameen M.D., by J.B.P. Sawyer, P.Eng., dated January 27, 1983.




CERTIFICATE OF QUALIFICATIONS

I, Ralph J. Englund, do hereby certify that:

1. I am a practising geophysicist with offices at 103-709 Dunsmuir Street, Vancouver B.C. Canada, V6C 1M9.
2. I am a graduate of the University of British Columbia where I obtained my B.Sc. (Physics) in 1971.
3. I am a member in good standing of the following professional organizations:(a) B.C. Geophysical Society.
4. I have been engaged in the study, teaching, and practice of exploration geophysics continuously for a period of 10 years. I have worked as a geophysical consultant on numerous projects in Western North America since 1972.
5. The field work and the interpretation of results in this report were done under my direct supervision.
6. I have no direct, indirect, or contingent interest in the LORI Claims, or in the shares of Ark Energy Ltd. nor do I expect to receive any such interest.

Dated in Vancouver, B.C. this 15th day of July 1983.


Ralph J. Englund, B.Sc.
Geophysicist



TIME-COST DISTRIBUTION

The geochemical and geological field work was completed by Strato Geological Engineering Ltd. during the period May 10 to May 16, 1983 inclusive. A listing of personnel and distribution of costs are as follows:

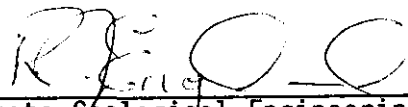
Personnel

| | |
|------------------------|--------------------------------|
| P.B. Grunenberg, B.Sc. | Geologist, Project Supervisor. |
| J.F. Gibson | Field Assistant. |

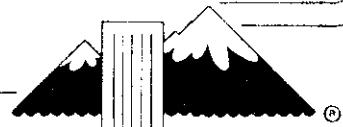
Cost Distribution

| | |
|--|--------------------|
| Labour - Geologist and Field Assistant | \$ 2,130.00 |
| Room & Board - 40/man/day | 560.00 |
| Transportation - 4WD truck | 549.69 |
| Field Supplies | 117.87 |
| Geochemical analysis | 1,188.00 |
| Report - geochem. statistics, geology, magnetic interpretation, etc. | 1,200.00 |
| Report - drafting, typing, copying, etc. | 813.00 |
| Total | <u>\$ 6,558.56</u> |

Signed



Strato Geological Engineering Ltd



Appendix A

May 24/83

ICP GEOCHEMICAL ANALYSIS

A .500 GRAM SAMPLE IS DIGESTED WITH 3 ML OF 3:1:3 HCL TO HNO3 TO H2O AT 90 DEG.C. FOR 1 HOUR.
 THE SAMPLE IS DILUTED TO 10 MLS WITH WATER.
 THIS LEACH IS PARTIAL FOR: Ca, P, Mg, Al, Ti, La, Na, K, W, Ba, Si, Sr, Cr AND B. Au DETECTION 3 ppm.
 AU* ANALYSIS BY AA FROM 10 GRAM SAMPLE.
 SAMPLE TYPE - SOIL

ASSAYER *D. Toye* DEAN TOYE, CERTIFIED B.C. ASSAYER

STRATO FILE # 83-0568 PROJECT # LORI CLAIM PAGE# 1

| SAMPLE | CU ppm | PB ppm | ZN ppm | AG ppm | AS ppm | Au* ppb |
|-------------|-----------|-----------|-----------|-----------|-----------|------------|
| 4+50N 0E | 17 | 25 | 137 | .2 | 4 | 5 |
| 4+50N 0+50E | 9 | 16 | 73 | .2 | 5 | 5 |
| 4+50N 1E | 22 | 26 | 99 | .1 | 2 | 10 |
| 4+50N 1+50E | 12 | 19 | 67 | .2 | 2 | 5 |
| 4+50N 2E | 10 | 17 | 46 | .2 | 4 | 65 |
| 4+50N 2+50E | 6 | 13 | 72 | .2 | 4 | 10 |
| 4+50N 3E | 7 | 39 | 229 | .2 | 2 | 5 |
| 4+50N 3+50E | 6 | 23 | 146 | .2 | 2 | 5 |
| 4+50N 4E | 6 | 19 | 127 | .2 | 2 | 5 |
| 4+50N 4+50E | 10 | 78 | 428 | .7 | 2 | 5 |
| 4+50N 5E | 11 | 21 | 196 | .4 | 4 | 5 |
| 4N 0E | 26 | 41 | 171 | .3 | 3 | 5 |
| 4N 0+50E | 10 | 18 | 57 | .2 | 4 | 10 |
| 4N 1E | 6 | 11 | 84 | .2 | 2 | 5 |
| 4N 1+50E | 33 | 27 | 110 | .1 | 5 | 5 |
| 4N 2E | 14 | 17 | 93 | .2 | 2 | 10 |
| 4N 2+50E | 6 | 13 | 64 | .2 | 2 | 5 |
| 4N 3E | 6 | 10 | 76 | .2 | 2 | 5 |
| 4N 5E | 12 | 21 | 130 | .3 | 2 | 5 |
| 3+50N 0E | 18 | 24 | 87 | .2 | 2 | 290 |
| 3+50N 0+50E | 9 | 13 | 90 | .2 | 4 | 5 |
| 3+50N 1E | 13 | 29 | 115 | .1 | 2 | 5 |
| 3+50N 1+50E | 8 | 15 | 65 | .1 | 2 | 5 |
| 2N 0E | 8 | 19 | 144 | .1 | 2 | 5 |
| 2N 0+50E | 10 | 54 | 157 | .2 | 6 | 5 |
| 2N 1E | 15 | 16 | 61 | .1 | 4 | 5 |
| 2N 1+50E | 9 | 23 | 105 | .2 | 2 | 5 |
| 2N 2E | 7 | 16 | 80 | .1 | 2 | 5 |
| 2N 2+50E | 5 | 13 | 97 | .2 | 5 | 5 |
| 2N 3E | 8 | 17 | 176 | .1 | 4 | 5 |
| 2N 3+50E | 13 | 21 | 229 | .1 | 2 | 5 |
| 2N 4E | 12 | 42 | 264 | .3 | 2 | 5 |
| 2N 4+50E | 17 | 34 | 251 | 1.1 | 5 | 5 |
| 2N 5E | 14 | 28 | 134 | .3 | 3 | 5 |
| 1+50N 0E | 6 | 21 | 128 | .2 | 3 | 5 |
| 1+50N 0+50E | 9 | 22 | 131 | .1 | 2 | 5 |
| STD A-1 | 31 | 41 | 181 | .3 | 11 | 5 |

| SAMPLE | CU ppm | PB ppm | ZN ppm | AG ppm | AS ppm | Au* ppb |
|-------------|-----------|-----------|-----------|-----------|-----------|------------|
| 1+50N 1E | 25 | 28 | 104 | .2 | 5 | 10 |
| 1+50N 1+50E | 12 | 22 | 100 | .1 | 4 | 15 |
| 1+50N 2E | 9 | 20 | 110 | .1 | 3 | 15 |
| 1+50N 2+50E | 6 | 24 | 176 | .1 | 6 | 25 |
| 1+50N 3E | 11 | 30 | 209 | .1 | 2 | 5 |
| 1+50N 3+50E | 11 | 31 | 321 | .1 | 4 | 5 |
| 1+50N 4E | 11 | 46 | 267 | .2 | 7 | 5 |
| 1+50N 4+50E | 8 | 17 | 241 | .1 | 4 | 10 |
| 1+50N 5E | 6 | 22 | 131 | .2 | 3 | 5 |
| 1N 0E | 14 | 42 | 214 | .1 | 5 | 5 |
| 1N 0+50E | 15 | 28 | 108 | .4 | 8 | 10 |
| 1N 1E | 8 | 19 | 96 | .2 | 3 | 5 |
| 1N 1+50E | 6 | 17 | 168 | .1 | 4 | 5 |
| 1N 2E | 12 | 30 | 169 | .1 | 6 | 10 |
| 1N 2+50E | 8 | 31 | 263 | .1 | 4 | 20 |
| 1N 3E | 15 | 24 | 318 | .1 | 4 | 5 |
| 1N 3+50E | 14 | 25 | 189 | .2 | 5 | 15 |
| 1N 4E | 18 | 35 | 179 | .5 | 8 | 5 |
| 1N 4+50E | 9 | 22 | 192 | .1 | 5 | 5 |
| 1N 5E | 7 | 24 | 382 | .2 | 6 | 5 |
| 0+50N 0E | 7 | 26 | 247 | .1 | 3 | 5 |
| 0+50N 0+50E | 11 | 22 | 108 | .1 | 5 | 5 |
| 0+50N 1E | 8 | 22 | 133 | .1 | 6 | 5 |
| 0+50N 1+50E | 5 | 15 | 90 | .1 | 5 | 5 |
| 0+50N 2E | 6 | 24 | 225 | .1 | 4 | 5 |
| 0+50N 2+50E | 11 | 32 | 172 | .3 | 6 | 5 |
| 0+50N 3E | 6 | 18 | 307 | .1 | 8 | 5 |
| 0+50N 3+50E | 8 | 23 | 213 | .2 | 5 | 5 |
| 0+50N 4E | 14 | 21 | 136 | .1 | 6 | 5 |
| 0+50N 4+50E | 8 | 16 | 126 | .2 | 6 | 5 |
| 0+50N 5E | 7 | 15 | 233 | .2 | 3 | 5 |
| 0N 0+50E | 12 | 22 | 137 | .1 | 2 | 5 |
| 0N 1E | 9 | 26 | 132 | .1 | 8 | 25 |
| 0N 1+50E | 7 | 19 | 98 | .1 | 3 | 5 |
| 0N 2E | 6 | 15 | 132 | .1 | 5 | 5 |
| 0N 2+50E | 9 | 28 | 209 | .2 | 5 | 10 |
| 0N 3E | 7 | 27 | 165 | .1 | 2 | 10 |
| STD A-1 | 30 | 39 | 184 | .3 | 11 | 5 |

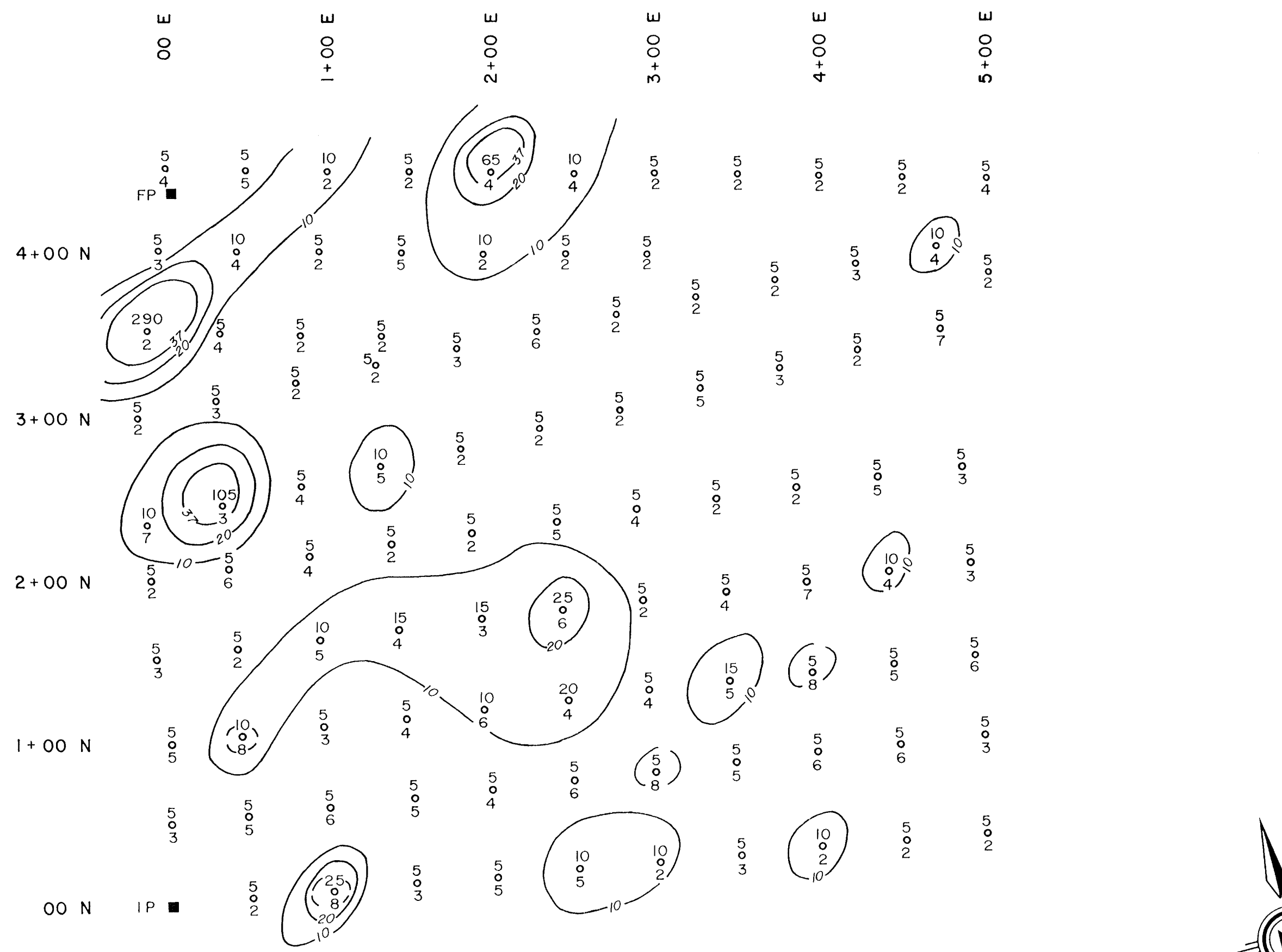
STRATO

FILE # 83-0568

PROJECT # LORI CLAIM

PAGE# 3

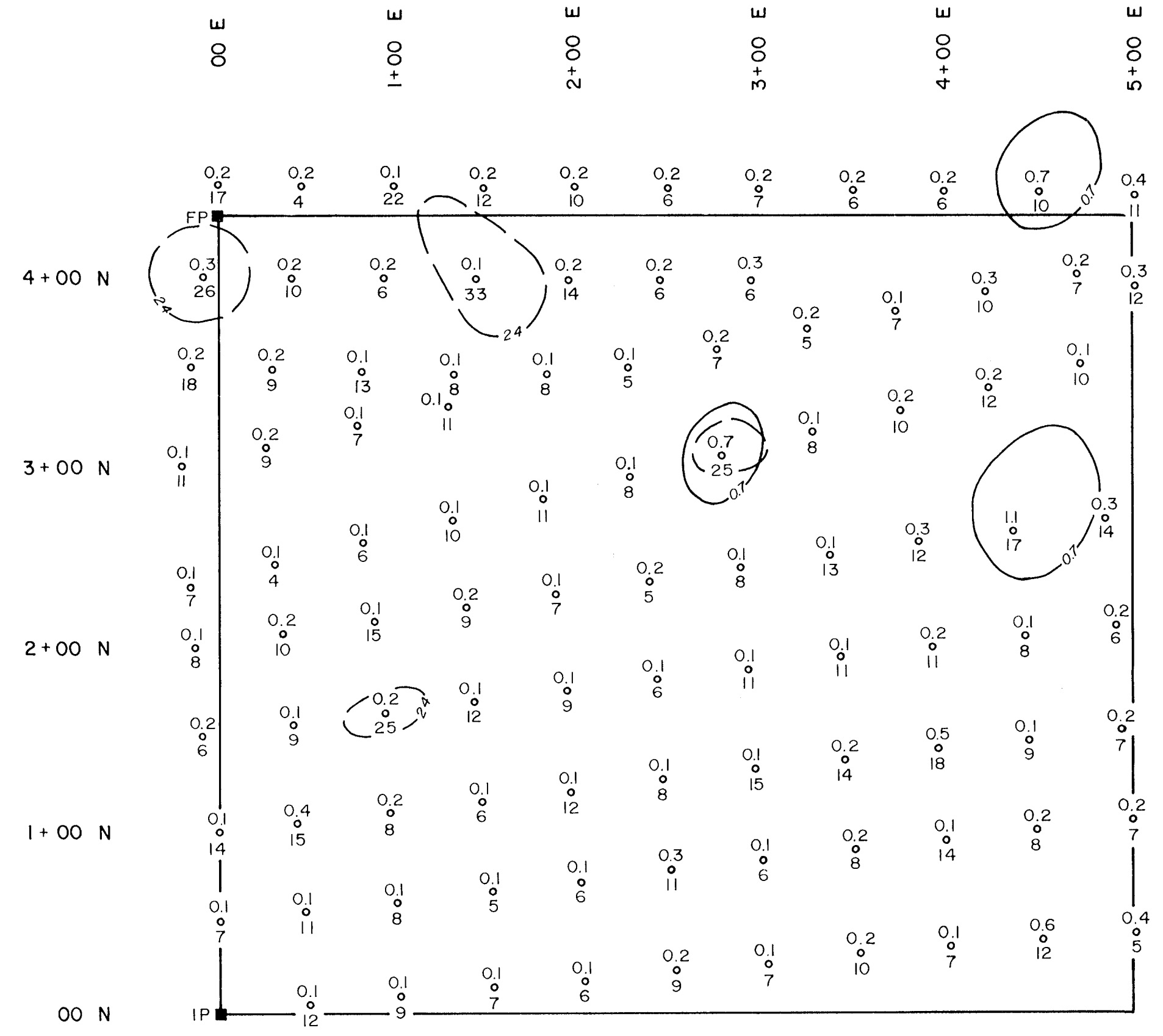
| SAMPLE | CU ppm | PB ppm | ZN ppm | AG ppm | AS ppm | Au* ppb |
|-------------|-----------|-----------|-----------|-----------|-----------|------------|
| ON 3+50E | 10 | 40 | 360 | .2 | 3 | 5 |
| ON 4E | 7 | 17 | 125 | .1 | 2 | 10 |
| ON 4+50E | 12 | 16 | 122 | .6 | 2 | 5 |
| ON 5E | 5 | 33 | 252 | .4 | 2 | 5 |
| OS 0E | 11 | 15 | 127 | .1 | 2 | 5 |
| OS 0+50E | 9 | 15 | 85 | .2 | 3 | 5 |
| OS 1E | 7 | 15 | 69 | .1 | 2 | 5 |
| OS 1+50E | 11 | 14 | 57 | .1 | 2 | 5 |
| OS 2E | 8 | 14 | 64 | .1 | 3 | 5 |
| OS 2+50E | 5 | 13 | 60 | .1 | 6 | 5 |
| OS 3E | 7 | 15 | 142 | .2 | 2 | 5 |
| OS 3+50E | 5 | 11 | 265 | .2 | 2 | 5 |
| OS 4E | 7 | 23 | 240 | .1 | 2 | 5 |
| OS 4+50E | 10 | 88 | 345 | .3 | 3 | 5 |
| OS 5E | 7 | 55 | 286 | .2 | 4 | 10 |
| 0+50S 0E | 7 | 20 | 139 | .1 | 7 | 10 |
| 0+50S 0+50E | 4 | 17 | 92 | .1 | 3 | 105 |
| 0+50S 1E | 6 | 11 | 42 | .1 | 4 | 5 |
| 0+50S 1+50E | 10 | 14 | 57 | .1 | 5 | 10 |
| 0+50S 2E | 11 | 17 | 84 | .1 | 2 | 5 |
| 0+50S 2+50E | 8 | 17 | 136 | .1 | 2 | 5 |
| 0+50S 3E | 25 | 29 | 375 | .7 | 2 | 5 |
| 0+50S 3+50E | 8 | 16 | 241 | .1 | 5 | 5 |
| 0+50S 4E | 10 | 32 | 215 | .2 | 3 | 5 |
| 0+50S 4+50E | 12 | 16 | 171 | .2 | 2 | 5 |
| 0+50S 5E | 10 | 18 | 207 | .1 | 7 | 5 |
| STD A-1 | 30 | 36 | 182 | .2 | 9 | 5 |



SOIL GEOCHEMISTRY (Au,As) FIGURE 4c

15 Au ppb
 3 As ppm

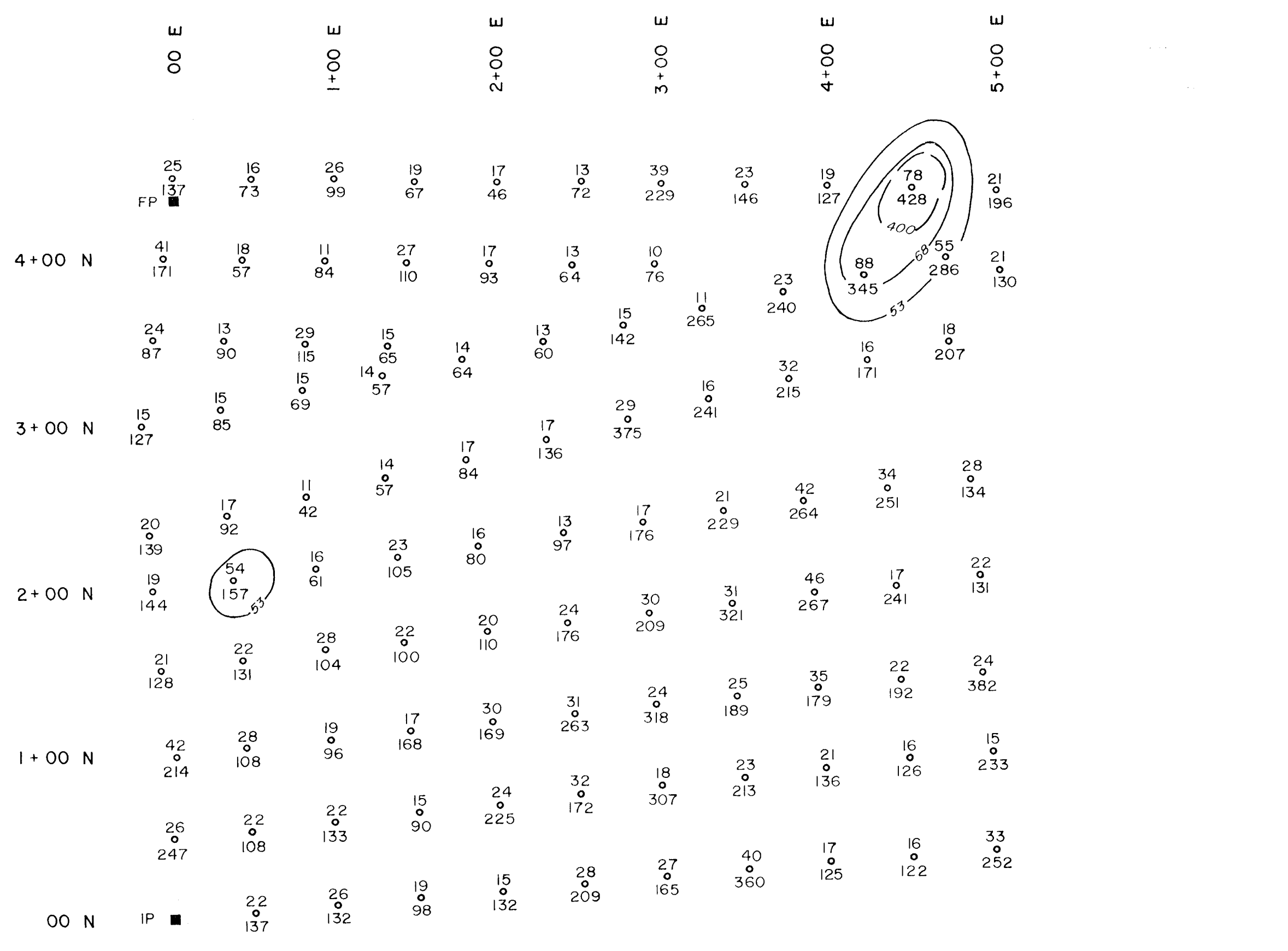
— Au ppb, contour intervals at 10,20,37 (Anomalous values ≥ 20 ppb)
 — As ppm, contour interval 8 (Anomalous values ≥ 8 ppm)



SOIL GEOCHEMISTRY (Ag,Cu) FIGURE 4d

0.4 Ag ppm
 15 Cu ppm

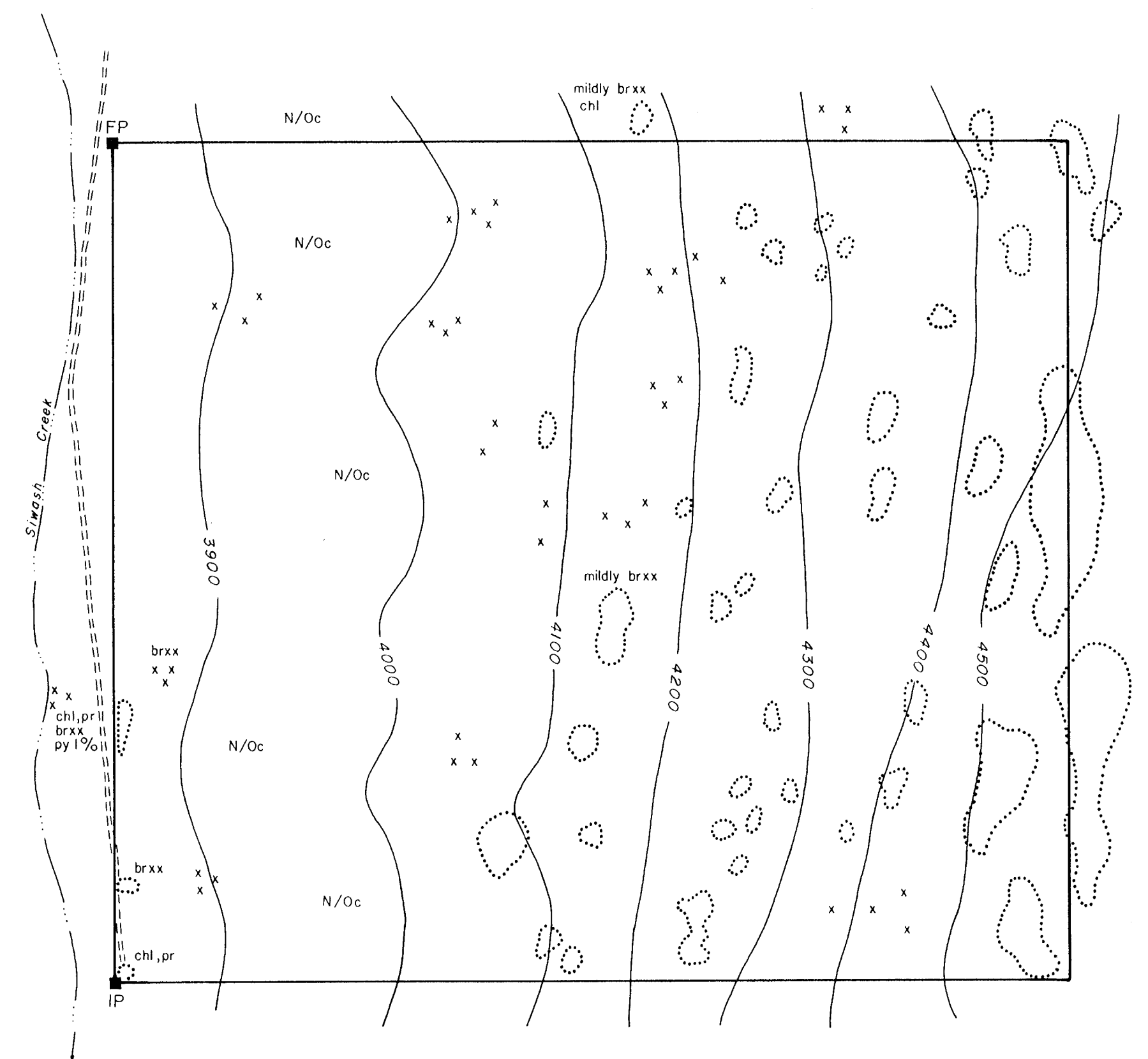
— Ag ppm, contour interval 0.7 (Anomalous values ≥ 0.7 ppm)
 — Cu ppm, contour interval 2.4 (Anomalous values ≥ 2.4 ppm)



SOIL GEOCHEMISTRY (Pb,Zn) FIGURE 4b

23 Pb ppm
 213 Zn ppm

— Pb ppm, contour intervals at 53,68 (Anomalous values ≥ 53 ppm)
 — Zn ppm, contour interval 400 (Anomalous values ≥ 400 ppm)



GEOLOGY FIGURE 4a

LEGEND

- Outcrop; Granite porphyry (Jurassic)
- pr Propylitic alteration
- brxx Brecciated
- chl Chlorite alteration
- py Pyrite
- x x Float
- N/Oc No outcrop
- ==== Road

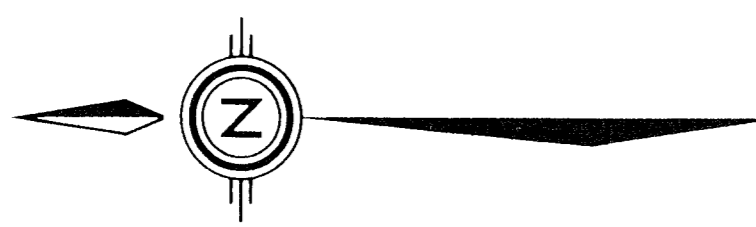
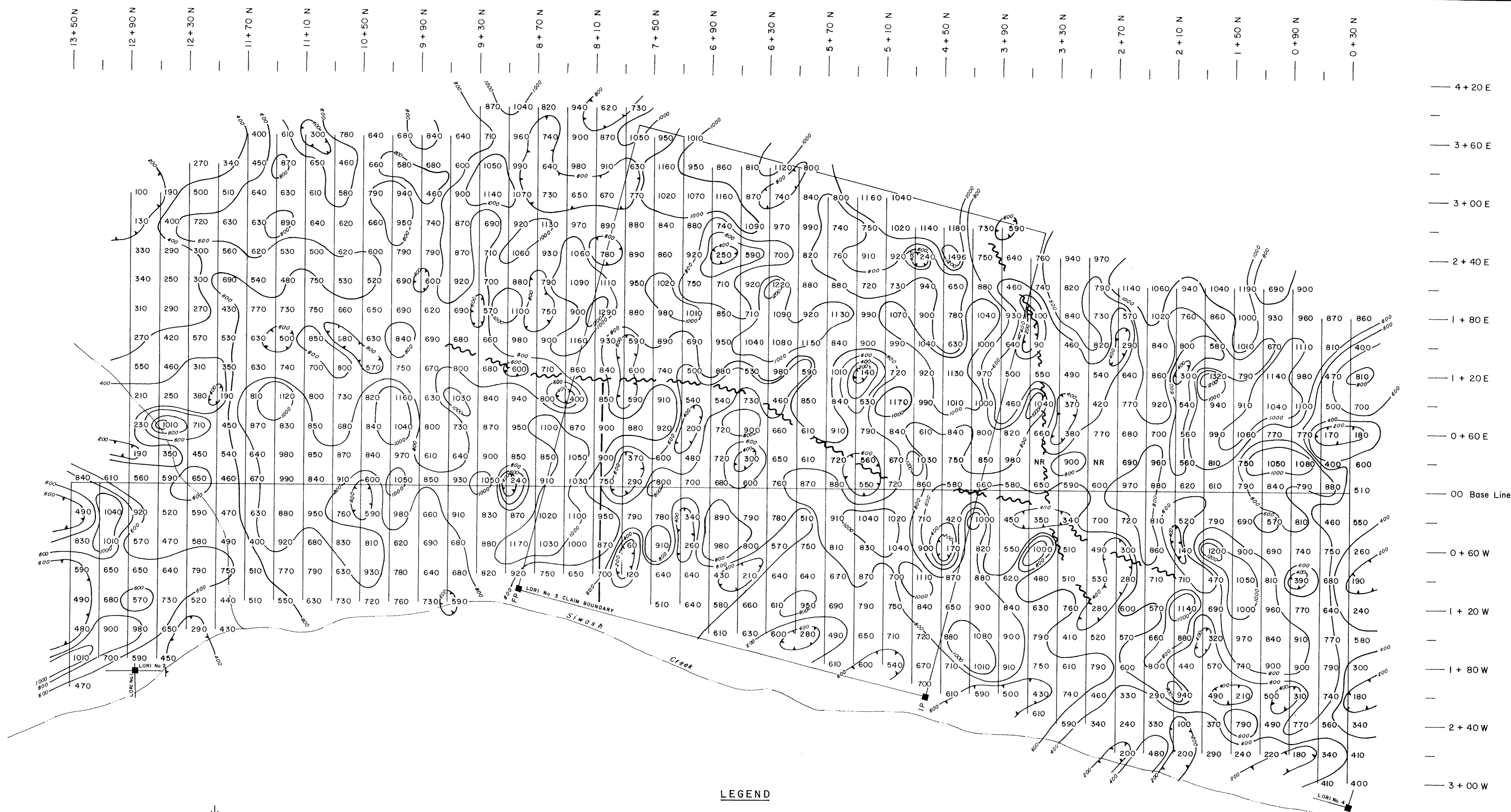
NOTE: — Compass bearing from IP to FP N13°00'E

GEOLOGICAL BRANCH
ASSESSMENT REPORT
12.037

ARK ENERGY LTD.
 LORI 3 CLAIM - SIMLKAMEEN M.D., B.C.
SOIL GEOCHEMISTRY & GEOLOGY

100 0 100 metres
 JUNE 28, 1983

To accompany a report by R.J. ENGLUND
 STRATO GEOLOGICAL ENGINEERING LTD.



NOTE: Add 54,000 gammas to all numbers plotted to get actual gamma values of magnetic field

: After J.B.P. SAWYER, P. Eng., August 25, 1980

: Contour interval 200 gammas

Legend

~~~~~ Postulated fault or shear zone

--- Postulated geological contact

GEOLOGICAL BRANCH  
ASSESSMENT REPORT

12.037

Handwritten initials and date: RJE 7/15/83

FIGURE 5

**ARK ENERGY LTD.**

LORI No. 3 CLAIM  
SIMILKAMEEN MINING DIVISION, B.C.

**MAGNETOMETER SURVEY**

100 50 0 100 m

To accompany a report by R. J. ENGLUND  
STRATO GEOLOGICAL ENGINEERING LTD.

JUNE 28, 1983