

5843

GEOCHEMICAL REPORT
ON THE
SUSIE CLAIMS
OMINECA MINING DIVISION
56° 30' N, 125° 50' W

FOR
SUSIE GOLD MINES LTD.

BY
ROBERT G. POTTER, MSc., P. ENG.
CONSULTING GEOLOGIST

APRIL 5, 1976

Filmed

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 5843 MAP

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GEOCHEMICAL REPORT ON THE SUSIE MINERAL CLAIMS

LOCATED SIX MILES NORTH-WEST OF AIKEN LAKE

OMINECA MINING DIVISION

CO-ORDINATES 56° 30' N, 125° 5' N

SUMMARY AND RECOMMENDATIONS

The Susie claim group comprises a contiguous block of seven full sized claims and three fractions. Gold mineralization is known to occur within the claims in zones of pyritized volcanic and intrusive rocks.

During October of 1975 Susie Gold Mines Ltd. carried out a program of detailed soil geochemistry over an area lying to the east of the mineralized showings.

Geochemical results show erratic areas which are anomalous in copper, gold and silver. The chaotic distribution of high values for these three elements reflects differences in chemical mobility and active movement of material on a steep slope. These anomalous areas indicate probable strike extensions of the known zones of mineralization for at least 2000 feet to the east.

Expenditures for the above program totalled \$3,255.52. Two years of assessment credits are requested for the claims and fractions of this group.

It is recommended that further work on the property be primarily geological in nature including detailed mapping and sampling.

PROPERTY

The Susie group comprises a contiguous group of seven full-sized mineral claims and three fractions; the details of which are as follows:

<u>NAME OF CLAIM</u>	<u>RECORD NO.</u>	<u>DATE RECORDED</u>
Susie 1 to 6 inclusive	113402 to 113407 res.	July 17, 1972
Susie 8	113409	July 17, 1972
Susie 21 to 23 inclusive	121916 to 121918 res.	April 3, 1973

These claims are held in the name of Susie Gold Mines Ltd. of #906-675 West Hastings Street, Vancouver, British Columbia. The writer has checked several of the location posts and lines and found the claims to be staked in accordance with the requirements of the British Columbia Mineral Act.

LOCATION AND ACCESS (fig. 1)

The property is located some six miles north-west of Aiken Lake in the Omineca Mining Division (NTS 94-C-5W). Approximate geographical coordinates are: $56^{\circ} 30' N.$ $125^{\circ} 50' W.$ It covers steep terrain on the south side of Lay Creek between elevations 4000 and 6000 feet.

Access is gained by four wheel drive vehicle along 3 miles of newly constructed road from the Omineca road.

HISTORY

Significant work on what is now the Susie group was carried out by the Consolidated Mining and Smelting Company in the 1930's. The property was then known as the Granite Basin Group. Work done included surface trenching and a reported 379 feet of subsurface workings on two levels. The portals to the two adits have since caved, but these workings could likely be re-

opened with minor excavation and retrimbering.

Gold values of up to 1/3 ounce per ton across thirty feet are reported from underground sampling by CM&S (Roots; Geology of the Aiken Lake Map Area, GSC Mem. 274, 1954).

Stellac Explorations acquired the property in 1972. Following the recommendations of Dr. D.L. Cooke, P. Eng., Stellac carried out a program of rock chip sampling and soil geochemistry over selected parts of the property. This work was described by the writer in a report dated 10 July, 1973, which was submitted for assessment credits.

In 1975 further detailed soil geochemistry was conducted over a 1000 foot by 2000 foot area lying to the east of the mineralized showings along the possible strike extensions of mineralization.

This report covers the results of the 1975 program.

GEOLOGY

The property is underlain by volcanics and sediments of Takla Group (Triassic) and by small dioritic masses related to the Omineca Intrusions (Jurassic-Cretaceous). The rocks are well exposed on a steep cirque face above timberline. Figure 2, which is taken from GSC Memoir 274, shows the approximate distribution of lithologic units present in this area. It also shows the spatial distribution of roughly conformable mineralized zones, which carry up to several per cent of fine disseminated pyrite. The pyritic zones carry gold values which reach as high as 1/3 ounce per ton in parts of the subsurface workings. No detailed information is available on the distribution or continuity of the gold.

GEOCHEMISTRY

I. COLLECTION

The area sampled is shown on figure 3. It covers relatively steeply sloping ground (10° to 30°) with a northerly aspect lying to the east of known mineralization. The ground here comprises talus rubble which is overlain by poorly developed soil horizons. Every effort was made to collect sample from the local equivalent of a "B" horizon.

In all some 360 samples were taken at 50 foot intervals on lines spaced 100 feet apart. The grid lines run north-south (generally down slope). Samples were packed in Kraft envelopes and sent to Min-En Laboratories Ltd., North Vancouver, for analysis.

II. SAMPLE PREPARATION AND ANALYSIS

Gold, copper and silver determinations were carried out on the minus 80 mesh fraction of each sample by Min-En Laboratories as follows:

Extraction	- Gold - Aqua Regia
	Copper and Silver - Perchloric acid
Analysis	- Atomic Absorption

III. RESULTS

Figures 4, 5 and 6 show the frequency distributions of the 3 considered elements. Threshold and anomalous levels as indicated by the frequency curves are as follows:

<u>ELEMENT</u>	<u>THRESHOLD</u>	<u>ANOMALOUS LOWER LIMIT</u>
Gold	50 ppb	120 ppb
Copper	80 ppm	200 ppm
Silver	2.3 ppm	3.0 ppm

Figures 7, 8 and 9 are plots of the geochemical values for the three elements. The south-west corner of the survey area is largely anomalous

in gold. Anomalous copper is generally found downslope from the gold (i.e. to the north). This probably reflects greater mobility of the copper in the local environment. The silver anomaly is largely coincident with that of gold.

The anomalous areas cannot be considered as direct reflections of sub-surface mineralization, but the results do indicate a probable extension of mineralization for a distance of at least 2000 feet east from the exposed showings.

A handwritten signature in black ink, appearing to be 'A. H. R.', written in a cursive style.

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The anomalous areas cannot be considered as direct reflections of sub-surface mineralization, but the results do indicate a probable extension of mineralization for a distance of at least 2000 feet east from the exposed showings.

A handwritten signature in cursive script, appearing to read "Robert H. Allen". The signature is fluid and somewhat stylized, with a large initial "R" and "A".

APPENDIX A

PERSONNEL AND EXPENDITURES

SUSIE MINERAL CLAIMS

OMINECA MINING DIVISION

GEOCHEM SURVEY: October 5, 6, 13, 14, 15, 1975

Roy Phendler - Geologist

J.P. Stevenson - Germansen Landing
Mining Technician and contractor

D. Stelling - Germansen Landing
Prospector

Soil sampling - 10 man days @ \$75.00 \$ 750.00

Truck Rental 270.52

Camp - 5 days @ \$20.00 100.00

Geochemical Analysis 1,785.00

Geological Consultation (Phendler) 150.00

\$3,055.52

ASSESSMENT REPORT: (R. Potter, P. Eng.) 200.00

TOTAL EXPENDITURES \$3,255.52

APPENDIX C

CERTIFICATE

I, ROBERT GARY POTTER, of P.O. Box 3, Fulford Harbour, British Columbia
Canada,

HEREBY CERTIFY

1. That I am a practicing Geological Engineer.
2. That I hold the degrees of B.A.Sc. in Geological Engineering from the
University of British Columbia (1961) and M.Sc. (Applied) from McGill
University (1972).
3. That since graduation I have practiced my profession in Canada and
Europe.
4. That I am a member in good standing of the Association of Professional
Engineers of the Province of British Columbia.
5. That the accompanying report is based on a visit to the Susie property
on 8th July, 1973, on personal knowledge of the area, and on survey
results which I believe to be accurate.
6. That I have no interest, financial or otherwise, in any of the properties
or securities of Susie Gold Mines Ltd.

Dated this 5th day of April, at Ganges, British Columbia.


Robert Potter, P. Eng.

Canada

Province of British Columbia

In Wit:

In the Matter of

Work done on the Susie 3, Susie 5, Susie 6 and Susie 22 Fr. , during the period of October 5, 6, 13, 14, 15 1975

I, Douglas Stelling, of Germansen Landing, b. in the Province of British Columbia.

Do Solemnly Declare that

the following personnel worked on the Susie Claims:

- Roy Phendler - Geologist
J.P. Stevenson - Mining technician and contractor
D. Stelling - Prospector
R. Potter - Engineer

and that the following costs were incurred:

Table with 2 columns: Description of cost and Amount. Includes items like Soil sampling, Truck Rental, Camp, Geochemical Analysis, Geological consultation, and Assessment report. Total expenditures: \$3,255.52

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 Vancouver in the Province of British Columbia. this VANCOUVER, B. C. day of

APR 26 1976 A.D. 19 76 Sub-Mining Recorder

Handwritten signature of the Sub-Mining Recorder.

APPENDIX C

CERTIFICATE

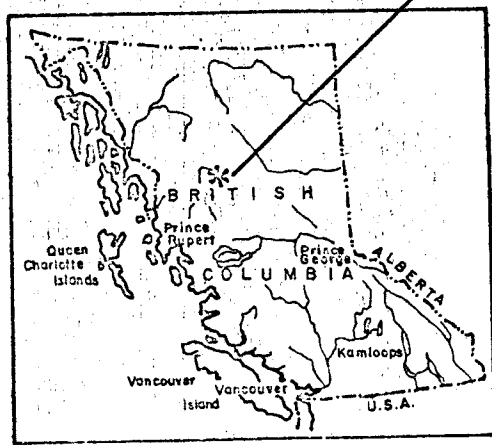
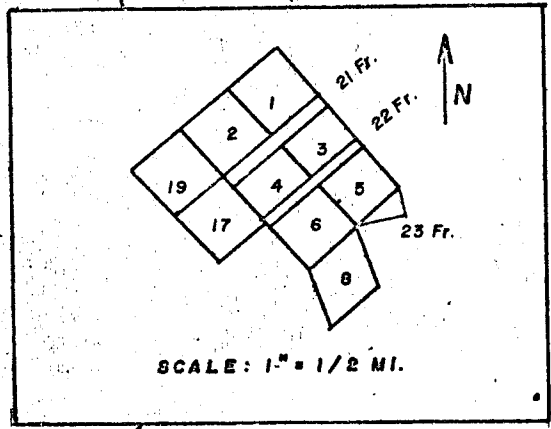
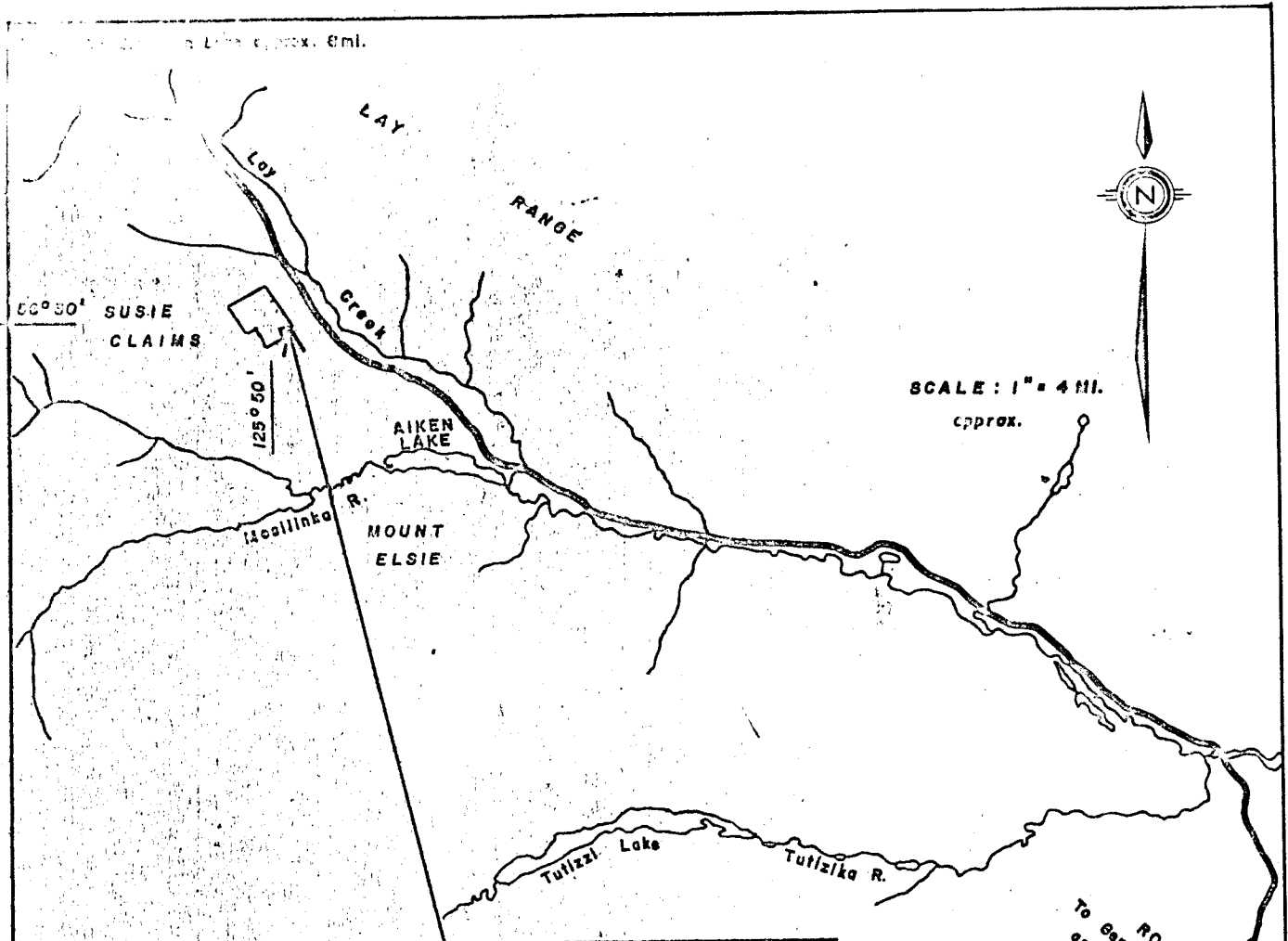
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2. That I hold the degrees of B.A.Sc. in Geological Engineering from the
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or securities of Susie Gold Mines Ltd.

Dated this 5th day of April, at Ganges, British Columbia.


Robert Potter, P. Eng.



British Columbia
SUSIE GOLD MINES LTD.
SUSIE GROUP
MINING DIVISION: OMINECA
PROPERTY LOCATION MAP
MAP REFERENCE: 94C/5W
COORDINATES: 56° 30' N, 125° 50' W
FIGURE 1

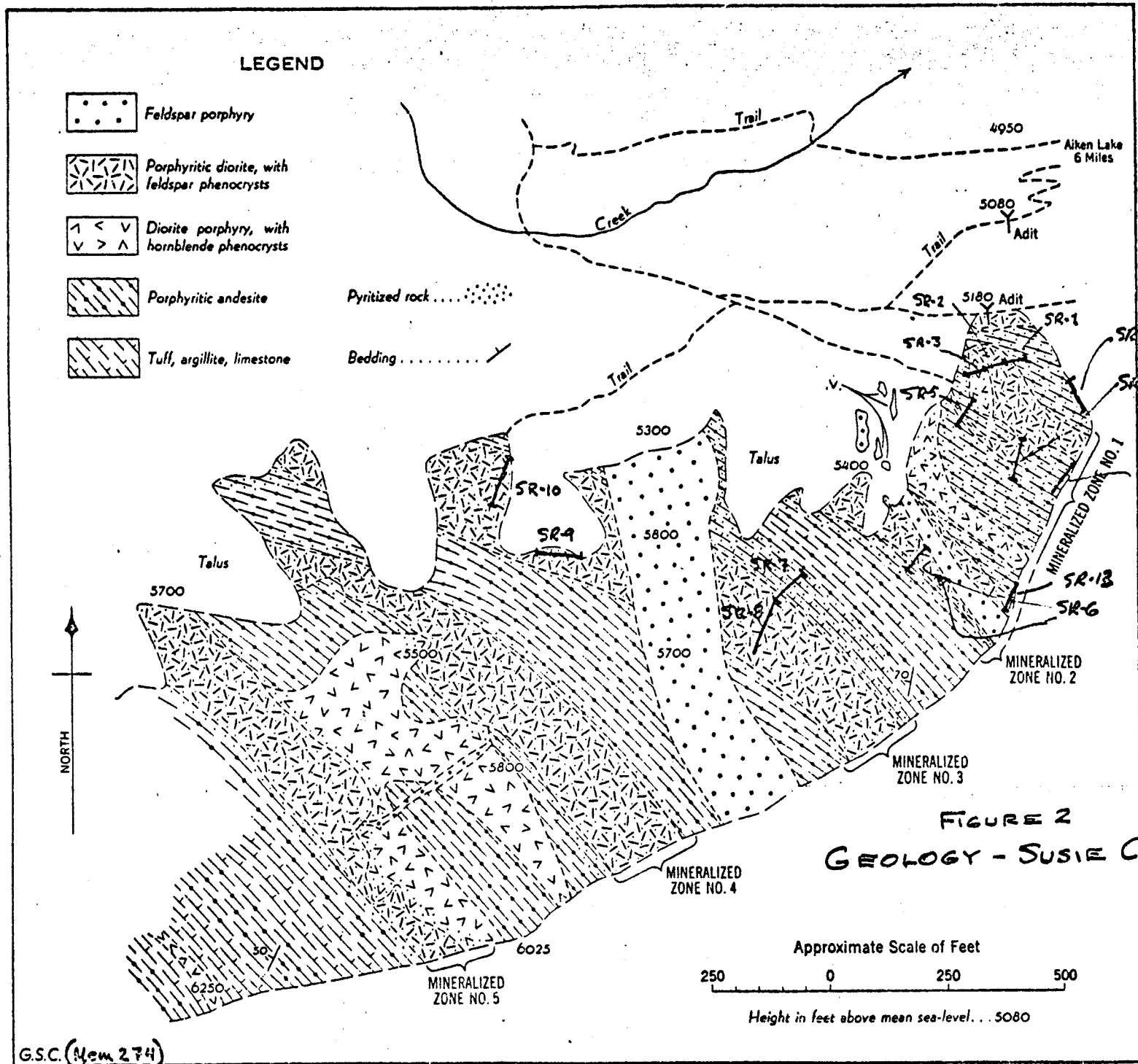


Figure 16. Sketch plan of surface geology on cirque headwall, Granite Basin mineral claim.
Fig 2 (Susie Claims)

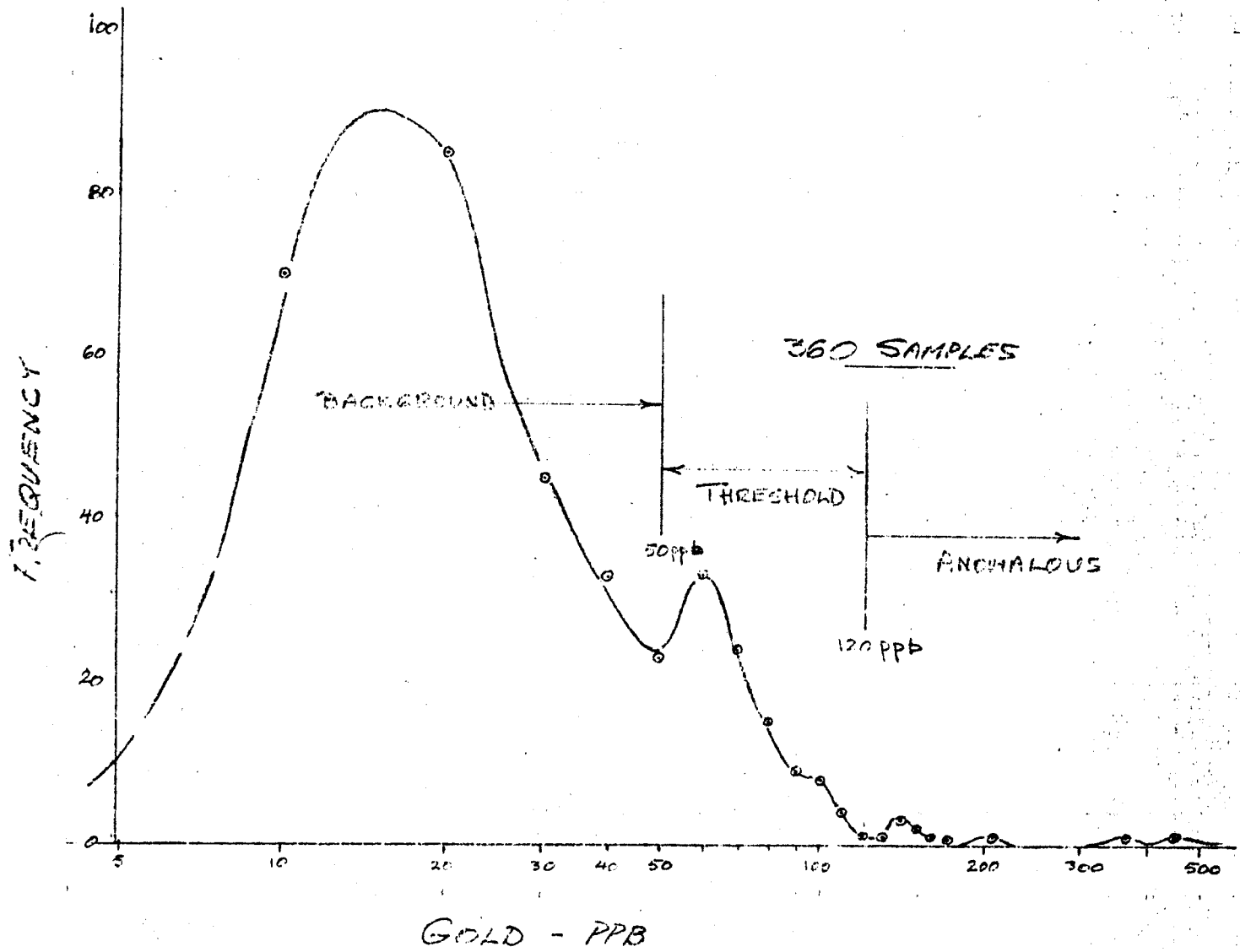


FIG. 4

NORMALIZED FREQUENCY DISTRIBUTION
GOLD IN SOILS

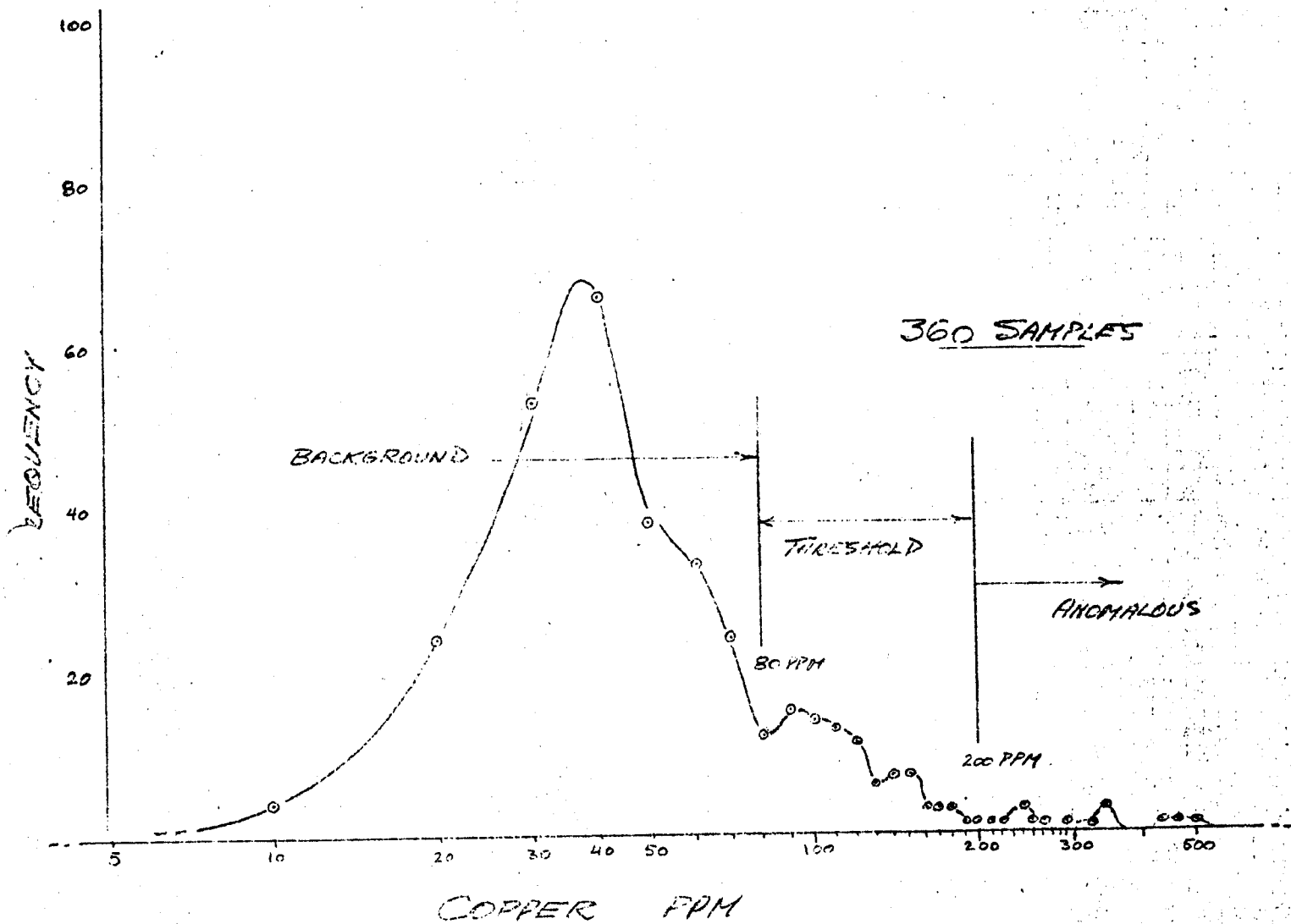


FIG. 5
 NORMALIZED FREQUENCY DISTRIBUTION
 COPPER IN SOILS

RGP

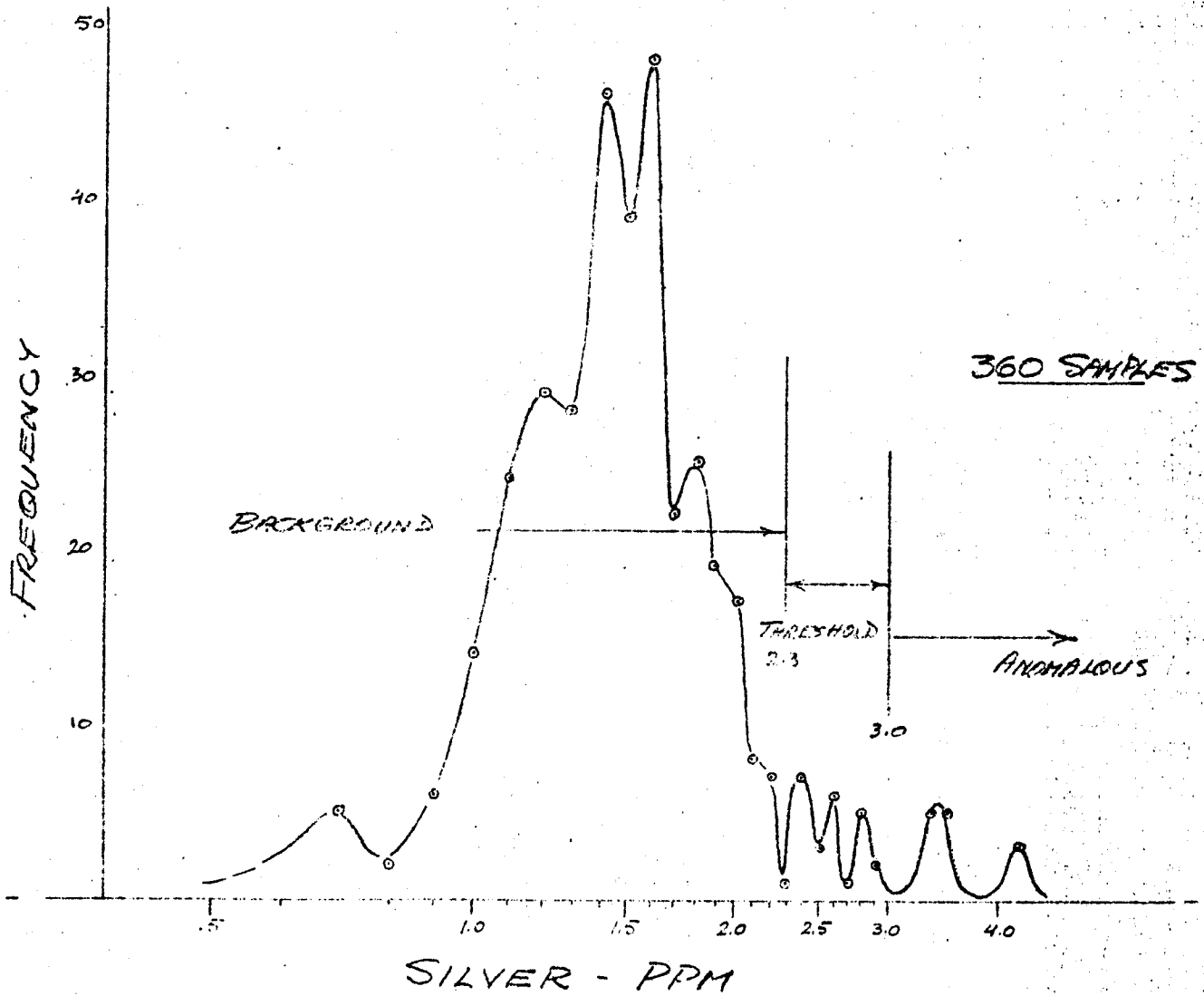


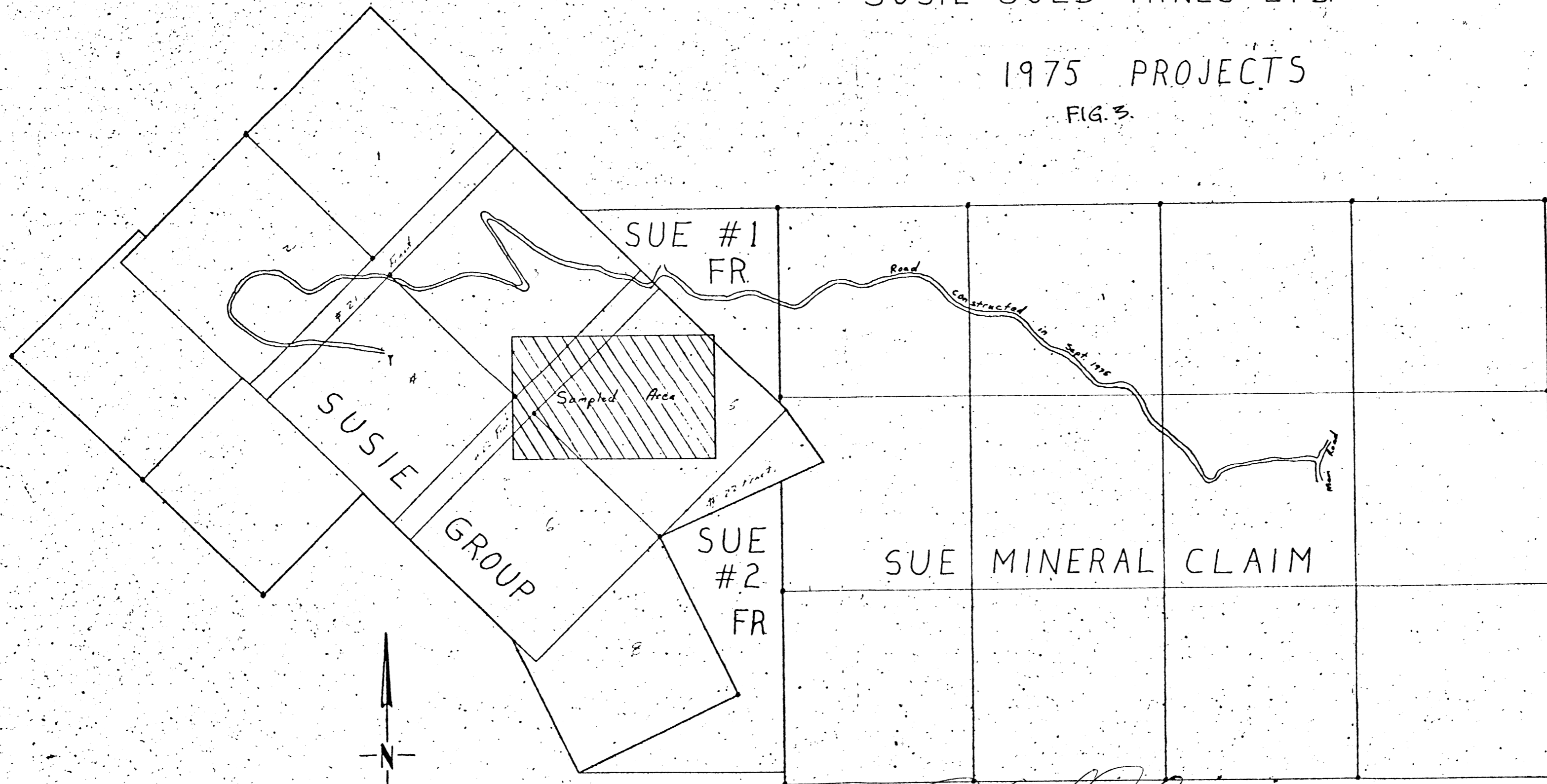
FIG 6
 NORMALIZED FREQUENCY DISTRIBUTION
 SILVER IN SOILS

RED

SUSIE GOLD MINES LTD

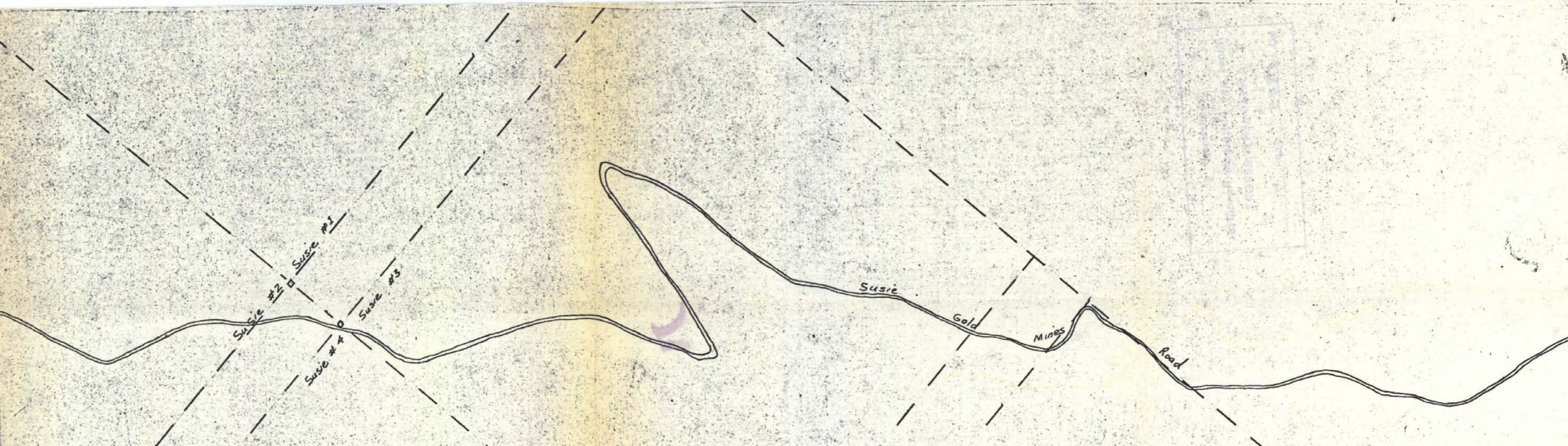
1975 PROJECTS

FIG. 3.



Drawn By: D. Stelling
Date: Nov. 16, 1975
Scale: 1" = 800'
Map: M.T.S. 94C/SW

John Stelling
5843 M-3



SUSIE GOLD MINES LTD.

Soil Geochemical Survey

GOLD GEOCHEMISTRY IN PPB

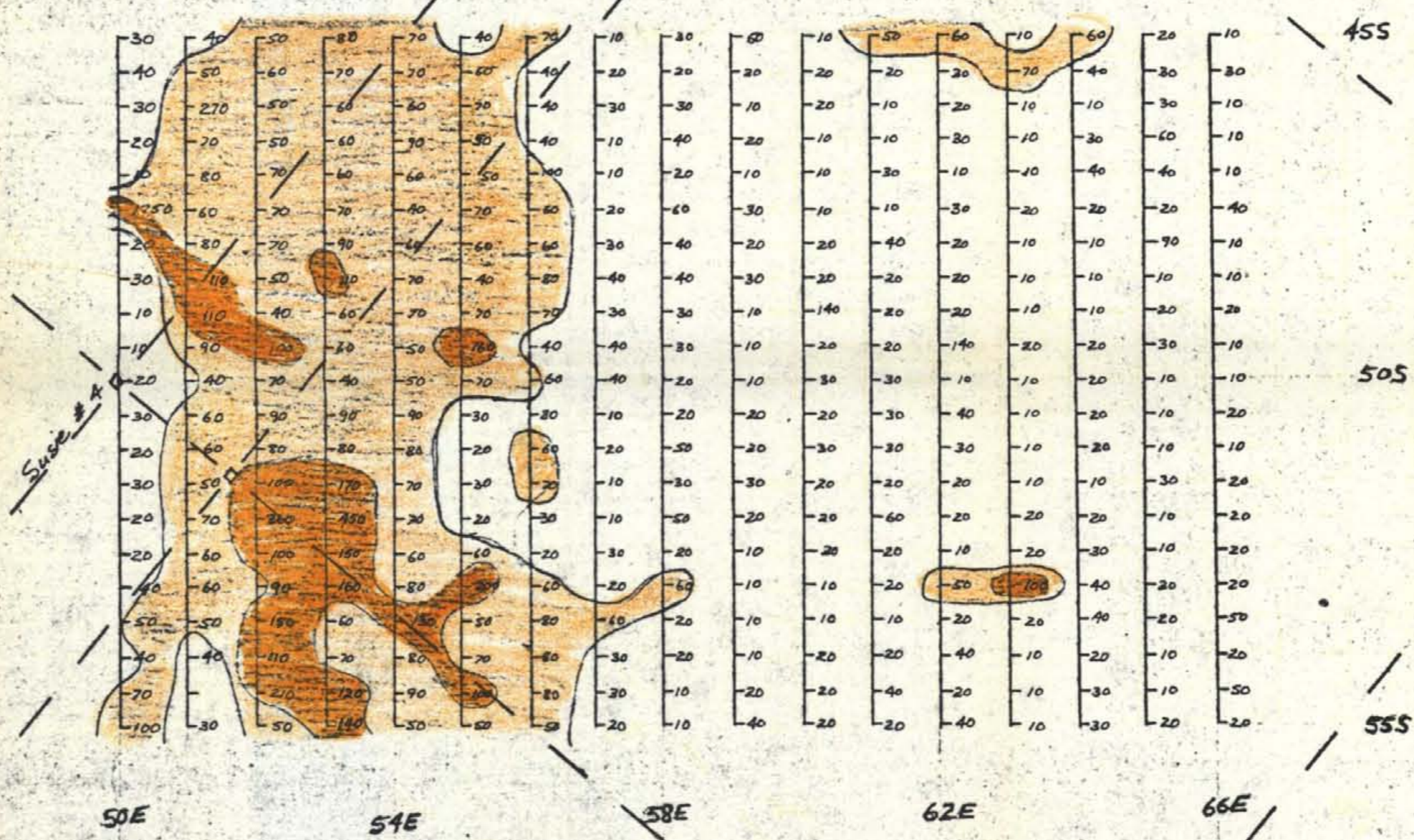
SG Series

FIG. 7

Drawn By: D. Stelling

Date: Nov. 4, 1975

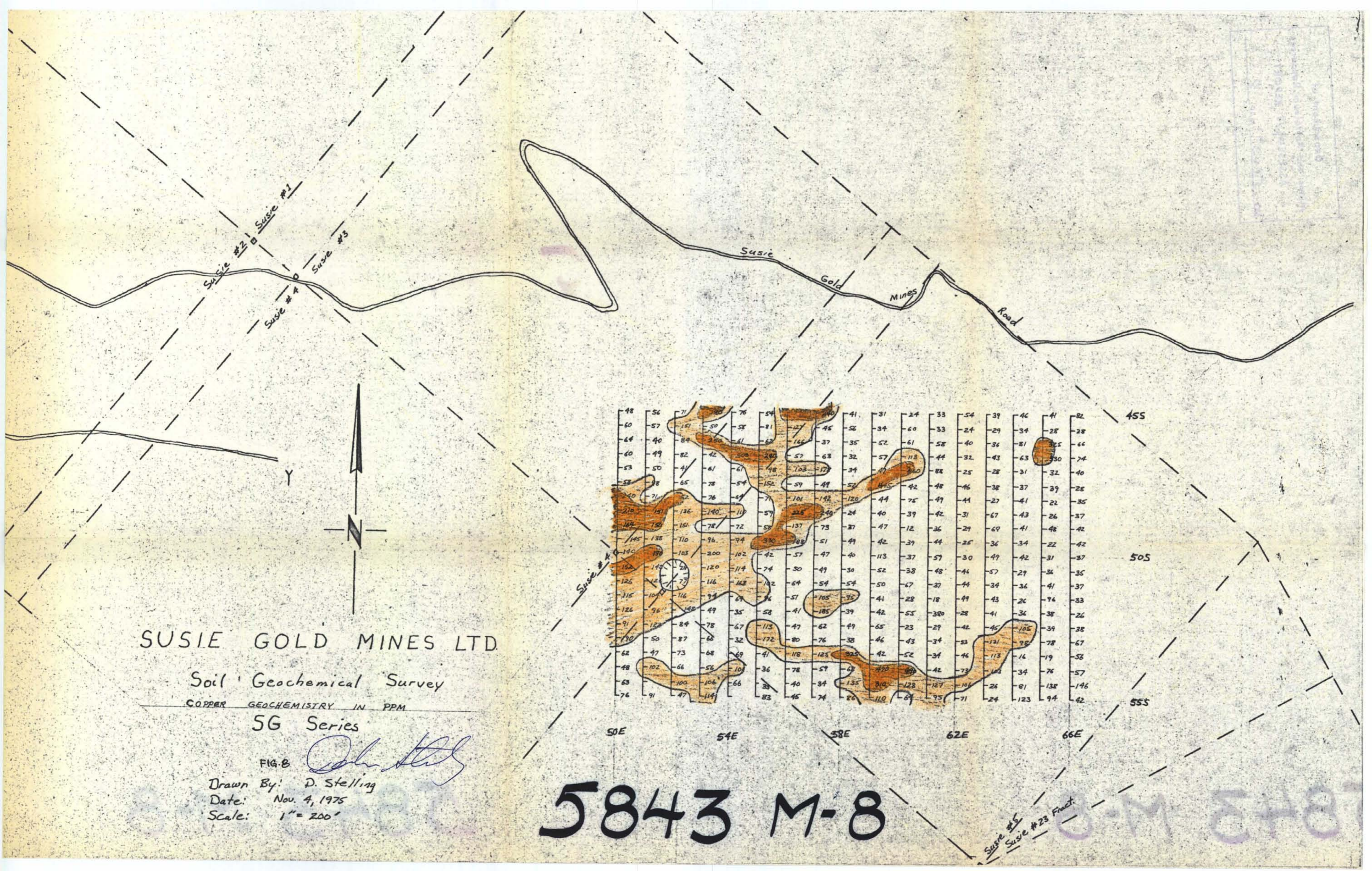
Scale: 1" = 200'



5843 M-7

Susie #6
Susie #23 Fract.

872 W.



SUSIE GOLD MINES LTD.

Soil Geochemical Survey

COPPER GEOCHEMISTRY IN PPM

SG Series

FIG. 8

[Handwritten Signature]

Drawn By: D. Stelling

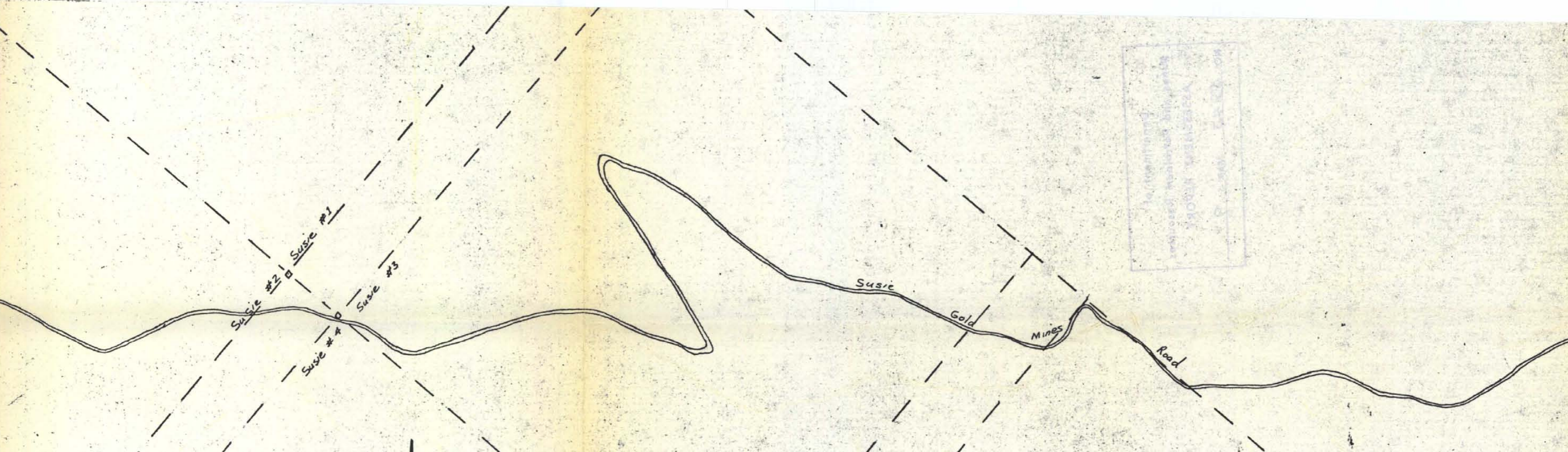
Date: Nov. 4, 1975

Scale: 1" = 200'

5843 M-8

Susie #5
Susie #23 Fract.

48	56	71	80	76	54	40	41	31	24	33	54	39	46	41	82	455
60	57	151	50	58	81	127	45	56	34	60	33	24	34	28	28	
64	40	84	250	61	62	166	37	35	52	61	58	40	36	81	66	
60	49	82	42	50	282	57	63	32	57	118	44	32	43	63	74	
53	50	41	61	61	48	103	177	34	47	260	88	25	28	31	40	
58	38	65	78	54	152	59	49	52	445	42	48	46	38	37	28	
20	71	52	76	49	71	101	142	120	44	75	49	41	27	41	21	35
210	151	136	140	110	59	225	249	24	40	39	42	31	67	43	26	37
104	150	151	78	72	58	137	73	37	47	12	36	29	69	41	48	42
145	138	110	96	74	330	88	51	49	42	39	44	25	36	34	22	42
140	170	103	200	102	42	57	47	40	113	37	57	30	49	42	31	37
150	140	120	114	74	50	49	30	52	38	48	44	57	29	36	35	
126	12	77	116	163	102	64	54	54	50	67	37	44	34	36	41	37
115	104	116	94	69	84	57	105	75	41	28	18	49	43	26	96	33
126	96	148	49	35	58	41	185	39	42	55	380	28	41	36	38	26
91	123	84	78	67	113	47	62	49	65	23	29	42	45	105	39	38
190	50	87	68	32	172	80	76	38	46	43	34	53	121	98	78	67
62	47	73	68	69	41	118	125	325	42	52	34	46	113	14	19	56
48	102	66	56	101	36	78	57	67	470	49	42	73	103	34	76	57
63	100	106	66	38	40	34	135	310	128	127	106	26	81	138	146	
76	91	47	114	83	45	74	86	110	69	95	71	24	123	94	42	555



SUSIE GOLD MINES LTD.
 10000 100th Street, Edmonton, Alberta
 T5C 1K6

SUSIE GOLD MINES LTD.
 Soil Geochemical Survey
 SILVER SOIL GEOCHEMISTRY IN PPM
 SG Series

FIG. 9 *[Signature]*
 Drawn By: D. Stelling
 Date: Nov. 4, 1975
 Scale: 1" = 200'

1.6	1.3	1.5	2.8	1.8	1.8	1.9	1.6	1.1	1.8	1.0	1.1	1.3	1.4	1.6	1.5	1.1	455
1.6	1.4	1.5	1.5	2.8	2.0	1.4	1.3	1.4	1.6	1.7	1.5	1.5	1.4	1.2	1.9	1.0	1.0
1.7	1.8	1.4	2.0	1.8	1.9	1.3	1.3	1.6	1.7	1.5	1.5	1.4	1.4	1.2	1.2	1.4	1.2
1.5	1.8	2.0	1.4	2.7	2.1	1.4	1.2	1.4	1.6	1.6	1.5	1.3	1.2	1.0	1.6	1.4	1.4
1.3	1.7	1.0	1.4	1.4	1.6	2.0	1.4	1.4	1.5	1.8	1.4	1.3	1.0	1.2	1.2	1.5	1.5
1.6	1.6	1.4	1.9	1.4	1.7	1.4	1.4	1.1	2.0	1.2	1.0	1.4	0.9	1.5	1.1	1.4	1.4
1.9	2.1	1.5	1.4	1.8	1.5	1.5	1.5	1.7	1.6	1.5	1.1	1.0	0.9	1.2	0.8	1.2	1.2
2.0	2.1	1.5	1.7	1.7	1.6	1.4	1.6	1.2	1.4	1.1	1.3	1.1	1.6	1.4	1.0	1.0	1.0
1.5	2.1	1.0	1.5	1.6	1.6	1.3	1.6	1.4	1.6	0.7	1.2	1.1	1.6	1.3	1.1	1.4	1.4
1.8	1.8	0.7	1.4	1.8	2.1	1.6	1.9	1.6	1.4	1.1	1.4	1.0	1.2	1.3	0.9	1.6	1.6
1.8	1.1	1.9	2.5	2.0	2.0	1.9	1.4	1.9	1.5	1.2	1.4	1.3	1.6	1.1	1.2	1.6	505
2.0	1.4	1.6	1.3	2.1	2.2	1.7	1.5	1.6	1.8	1.3	1.5	1.5	1.2	1.1	1.2	1.1	1.1
1.9	1.5	1.5	2.1	2.2	2.4	1.8	1.6	1.4	1.6	1.2	1.4	1.5	1.1	1.2	1.3	1.2	1.2
2.1	2.5	2.0	2.0	2.2	2.5	1.9	1.8	1.8	1.8	0.9	1.2	1.5	1.3	1.1	1.5	1.3	1.3
2.6	1.8	2.2	2.2	2.1	2.2	1.5	1.6	1.1	1.4	1.0	1.5	1.2	1.1	1.4	1.4	1.2	1.2
2.4	1.7	1.9	2.3	2.3	2.9	2.1	1.7	1.8	2.0	0.8	1.1	1.7	1.2	1.5	1.1	1.2	1.2
1.6	0.7	1.9	2.4	1.7	2.0	2.4	1.5	1.7	1.6	1.3	1.4	1.6	1.3	1.5	1.3	1.6	1.6
1.2	0.7	2.2	2.2	2.1	2.3	2.5	2.1	1.6	1.9	1.4	1.2	1.4	1.5	1.1	0.9	1.6	1.6
1.6	0.1	2.3	2.4	2.2	2.6	2.6	1.4	1.8	1.9	1.4	1.2	1.7	1.5	1.3	1.3	2.0	2.0
1.7	0.1	2.0	2.5	2.1	2.7	2.7	1.7	1.7	1.9	2.1	1.8	1.7	1.0	1.3	1.6	1.8	1.8
1.4	1.1	2.3	2.6	2.6	2.9	1.8	1.6	2.0	2.0	1.7	1.5	1.2	1.5	1.6	1.3	1.3	555

5843 M-9

Susie #5
 Susie #23 Fract.