82-224-10289

ASSESSMENT REPORT

PAUL 1, PAUL 2, PAUL 3, DARCY 1, DARCY 2,
DARCY 3, DARCY 4, DARCY 5, AND DARCY 6 CLAIMS.

FORT STEELE MINING DIVISION

N.T.S. 82 G/11
82 G/12
82 G/13

LAT: Between 49°50' N and 49°50' N
LONG: Between 115°20' W and 115°30' W

OWNER: C. FIPKE
OPERATOR: C.F. Mineral Research Ltd.

KELOWNA, B.C.
March 29, 1982

Consultant: C. Fipke
Author: R. Capell

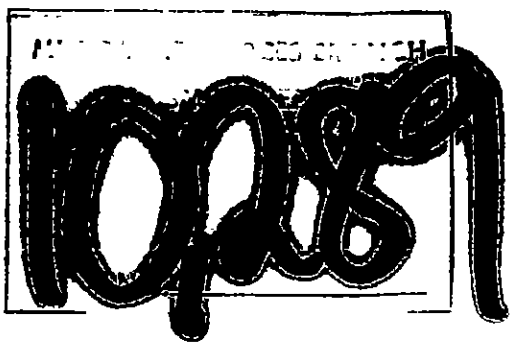

TABLE OF CONTENTS

INTRODUCTION

The Paul and Darcy claim groups are located in the western Rocky mountains of southeastern B.C. (refer to index map figure 1). The Paul claims are accessible by driving two km east on the good gravel Lewis Creek road that intersects the Wasa - Fort Steele - Jaffray highway one km south of Wasa. The Darcy claims are accessible by driving 36 km north east on the good gravel Bull River road that intersects the Wasa - Fort Steele - Jaffray highway 27 km south east of Fort Steele. At 36 km one proceeds an additional 15 km west on the moderately good Tanglefoot Creek logging road to the Darcy claims. In the winter these roads are for the most part unplowed.

The Paul claims occur in a flat, lightly-conifer wooded area of the Rocky mountain trench between the Kootenay River and the Hughes Range of the Rocky Mountain belt. The claims are predominently underlain by probable thick sequences of pliestocene glacial deposits.

The Darcy claims occur in a setting of steep Rocky Mountain topography cut by the Tanglefoot Creek valley which is underlain by thick sequences of alpine glacial and alluvial deposits. The valley and many of the gentle to steep slopes are thickly wooded with coniferous trees and logging deadfall reaching several feet in thickness. Outcrops northeast of the Boulder Creek fault (along Tanglefoot Creek) tend to be Paleczoic marine sediments; whilst outcrops southwest of the fault are Precambrian marine sediments.

The claims were staked in the winter of March, 1981 with the objective of completing geochemical-geophysical surveys to assess if the area contains base metal potential. C. Fipke of C.F. Mineral Research Ltd. is currently the owner and operator of the claims.

This report summarizes the geochemical work completed on the Paul claims group as well as the grid line work completed on the Darcy claims group during the period July 18 to August 10, 1981.

GEOCHEMICAL METHODOLOGY

i) Paul Claims

Previous heavy mineral orientation work on deposits of high total volume % sulfides within the Purcell Supergroup rocks indicated that favourable overall geochem contrast could be achieved by concentrating limonite products of erosion of primary ore minerals.

As a consequence sixty unsieved 15 kg heavy mineral reconnaissance samples of glacial drift were collected along the east-west claim lines of the Paul claims. The bulk samples were collected from the B horizon immediately beneath about one foot of A horizon soils. The sampling was completed by C.F. Mineral Research sampling technicans Paul Derkson, Dave Alguire, Brent Carr and Blake Rasmussen under the supervision of geologists Larry Johnson and C. Fipke. The technicans filled in the 2-3 foot deep holes and carried the samples to the road for truck pick-up.

The ±15 kg samples were truck transported to the C.F. Mineral Research laboratory located in Kelowna. At the lab the samples were wet sieved, washed and jigged into -20+35, -35+80 and -80 mesh concentrates. Up to 1000ml of -20+35, 1200ml of -35+80 and all -80 concentrates were subsequently submitted to tetrabromethene and then to diluted methylene iodide separations. The resultant specific gravity fractions intermediate to tetrabromethene (S.G.2.96) and methylene (S.G.3.3) were submitted to three electromagnetic separations so that a concentrate would be produced that would contain any relatively light jarositic limonites. The object was to make a concentrate of any such limonite supergene products after ore minerals that might be sparsely intermixed with glacial sediments of the samples collected.

The resultant $-35+80$ mesh and -80 mesh intermediate specific gravity concentrates were then submitted to Bondar-Clegg laboratories for geochemical analyses designed to detect small amounts of residual base and trace metals in any intermediate S.G. limonite minerals contained in the concentrates. At the Bondar-Clegg laboratory each of the -35+80 samples was ground to -80 mesh. One half gram of each -80 mesh sample was then digested in a mixture of nitric and hydrochloric acids and sprayed on an AA for Cu-Pb-Zn-Mo-Mn-Ag-Cd. Two tenths of a gram of each ground sample was digested in a mixture of perchloric and nitric acids and tested using Bondar-Clegg specific method for As.

ii) Darcy Claims

a) Geochemistry

Under the supervision of geologist, C.Fipke thirteen ±9 kg bulk samples of -20 mesh stream sediments were collected from streams draining the claim groups.

The bulk samples were submitted to analogous processing as for the glacial drift samples of the Darcy claims. However, owing to the abundance of marine carbonate rock on the claims the heaviest rather than intermediate specific gravity fractions were fractionated electromagnetically. The resultant heavy non magnetic fraction of the -60 mesh and -20+60 mesh size range were inspected by geologist C. Fipke using a binocular microscope. The -60 mesh heavy non magnetic concentrates were sent to the Bondar-Clegg laboratory. As for the Paul samples, the concentrates were crushed to -80 mesh and 0.5 gms was subsequently digested in perchloric-nitric acids and sprayed on an AA for Cu-Pb-Zn.

b) Grid Line Cutting Survey

Geologist C. Fipke planned and superivsed a line grid cutting survey that would be needed for in preparation for subsequent detailed geophysics, geochemistry and geology.

The lines for cutting were flagged by geologist L. Johnson using a compass and a topofil distance measuring device.

The lines were then cut over the sparsely to heavily wooded areas using chain saws and axes by local and Kelowna residents: Wade Cook, Mike Widdel, Paul Derkson, Blake Rasmussen, Dave Alguire, Brent Carr, and Mark Fipke periodically assisted by C. Fipke and L. Johnson. The base line was cut to about 5 feet thickness whilst the NE traverse lines to 3 feet thickness. Owing to the large trees and deadfall additional chainsaws of large blades had to be rented.

As C. Fipke unknowingly failed to file a preliminary notice of work form, D. Henderson of Fernie ordered the work stopped. As a consequence the grid line cutting was not completed. Our prereserved schedule did not allow us to restart the cutting and rehiring the workers 5 or 6 weeks later.

RESULTS & CONCLUSIONS

i) Paul Claims

The Bondar-Clegg analytical results for Cu-Pb-Zn-Mn & As are plotted on frequency distribution diagrams (figure 2). All results were plotted on a 1:25,000 scale grid plan illustrating the sample locations with respect to the boundaries of the Paul claims (figure 3). Anomalous values above estimated threshold are contoured on the grid maps.

The maps illustrate that some weak highs occur in Cu-Pb-Zn-Mn-As-Ag-Cd. Samples 12 & 23 collected on the NE parts of the claim in particular appear anomalous. However, the anomalies are at unexcitingly low levels for heavy mineral geochemistry.

During the sample collection carbonate boulders were infrequently noted in the tills sampled. Thus, the pH of meteoric waters could be more basic then on the Purcell anticlinorium where orientation samples were collected. If these contentions are correct base metals could be present in the tills within heavy base metal limonites, carbonates and sulfides. Thus the heaviest -20 mesh S.G. fractions should be fractionated electromagnetically and tested for base metals.

ii) Darcy Claims

The -60 mesh heavy mineral concentrates analytical results are plotted on the 1:50,000 scale map (figure 4). The microscope work indicated that the high Cu-Pb-Zn base metal geochemistry which is for the most part restricted to the Boulder Creek fault area covered by Pliestocene sedimentation is attributable to the presence of chalcopyrite - malacite - galena and probably sphalerite. These are present as discrete, insome cases fresh, grains in the anomalous concentrates.

Quartz veins containing chalcopyrite mineralization are observed to be present in the Boulder Creek fault area by geologist C. Fipke.

The grid survey outlined in figure 5 will form a basis forsuccceeding work designed to test whether the base metal mineralization present in the stream sediments is attributable to potentially uneconomic quartz veins or to some other source that could be covered by the thick sequences of alpine glacial and alluvial sediments in the Tanglefoot Creek Valley.

APPENDIX A

Statement Of Expenditures & PAC Withdrawals

1) Paul Claims

Professional geologists salaries (including report writing, completing of result diagrams, transportation and field sampling	$1350.00
Technical salaries (field & travel) Blake Rasmussen, Dave Alguire, Brent Carr & Paul Derkson	563.00
Hotels & meals	336.35
Truck rental & gas	135.00
Truck transport of samples to Kelowna	60.00
Heavy mineral sample processing	5310.00
Courier to Bondar-Clegg	22.00
Bondar-Clegg geochem analysis	1152.75
TOTAL	$8929.70

Please withdraw balance for 2 years assessment ($10,800.00 - $8929.70 = $1870.30) from the PAC account of C. Fipke.

2) Darcy Claims

a) Grid Line Work

Total professional salaries (L. Johnson 22 days @ $150.00, C. Fipke 4 days @ $300.00/day) includes report & map plotting & field work	4500.00
Total technical salaries & benifits (Wade Cook, Mike Widdel, Paul Derkson, Blake Rasmussen, Dave Alguire, Brent Carr & Mark Fipke	7414.63
Total accomodation allowance, meals & used supplies (chainsaws,oil etc.)	8343.02
Total gas	630.96
Total vehicle rental	1632.00
Vehicle repairs	258.02
Total chainsaw rental cost	1042.00

Long distance telephone to Kelowna	153.08
Drafting & typing	40.00
TOTAL	$24,013.71

b) Geochemical Survey

Geologist 3 days (travelling, sample collection, microscope examinations, report writing) @ $300.00/day	900.00
Assistant technicans 2 days (collection & travelling) @ $65.00/day	130.00
Hotel accomodation & meals 4 man days @ $30.00/day	120.00
4 wheel drive rental & gas	77.50
2 R.T. airfares Kelowna-Cranbrook	246.20
Truck transport of samples to Kelowna	35.00
Secretary typing & drafting of report	120.00
Heavy mineral processing costs	1150.50
Bondar-Clegg analytical	54.60
Courier of samples to Bondar-Clegg	6.75
TOTAL	$2840.55

Total a) Grid & b) Geochem onDarcy Claims = $26,854.26
Please apply any approved excess credits to a PAC account

APPENDIX B

STATEMENT OF QUALIFICATIONS

The accompanying report and geochemical analysis was completed by geologists R. Capell and C. Fipke of C.F. Mineral Research Ltd.

Mrs Rosemary Capell is a 1965 BSc graduate of University College of Rhodesia. Between 1966 and 1975 Mrs Capell worked for Anglo American in Rhodesia chiefly on base metal geochemistry.

C. Fipke is a BSc Honors Geology graduate of the University of British Columbia. Between 1970 and 1977, C. Fipke worked as a geologist involved to a large extent in heavy mineral exploration and research for Kennecott Copper in New Guinea, Samedan Oil in Australia, Johannesburg Consolidated Investments in Southern Africa and Cominco Ltd. in Brazil and British Columbia. C. Fipke and L.M. Fipke organized C. F. Mineral Research Ltd. in 1977. Currently the C.F. Mineral Research heavy mineral laboratory which employes 25 to 35 people is involved in heavy mineral exploration and processing on behalf of many international companies.

C. F. MINERAL RESEARCH LTD.
263 LAKE AVENUE • KELOWNA, B.C. V1Y 5W6

No. 0597

February 10 1982

MINISTER OF FINANCE

PAY TO THE ORDER OF The Receiver General For British Columbia $1200.00

one thousand & two hundred dollars 00 DOLLARS

KELOWNA & DISTRICT CREDIT UNION
1475 ELLIS STREET
BOX 636, KELOWNA, B.C. V1Y 7P2
MEMBER OF B.C. CENTRAL CREDIT UNION

C. F. Mineral Research Ltd. Acct. No. 28722-7

45020

Per:

⑈000400⑈809⑈ 10⑈028⑈722⑈7⑈ ⑆0000120000⑆

C. F. MINERAL RESEARCH LTD.
263 LAKE AVENUE • KELOWNA, B.C. V1Y 5W6

No. 0596

February 10 1982

MINISTER OF FINANCE

PAY TO THE ORDER OF The Receiver General For British Columbia $540.00

five hundred & forty 00/100 dollars DOLLARS

KELOWNA & DISTRICT CREDIT UNION
1475 ELLIS STREET
BOX 636, KELOWNA, B.C. V1Y 7P2
MEMBER OF B.C. CENTRAL CREDIT UNION

C. F. Mineral Research Ltd. Acct. No. 28722-7

45020

Per:

⑈000400⑈809⑈ 10⑈028⑈722⑈7⑈ ⑆0000054000⑆

For Deposit To The Credit Of
The Government of British Columbia
Acct. No. 691 290 176

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DEPOSIT TO MINISTER OF FINANCE
PROVINCE OF BRITISH COLUMBIA

0470 61543

FEB 23 1982
FEB 26 82
B.C. CENTRAL CREDIT UNION
VANCOUVER

For Deposit To The Credit Of
The Government of British Columbia
Acct. No. 691 290 178

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0470 61544

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B.C. CENTRAL CREDIT UNION
VANCOUVER

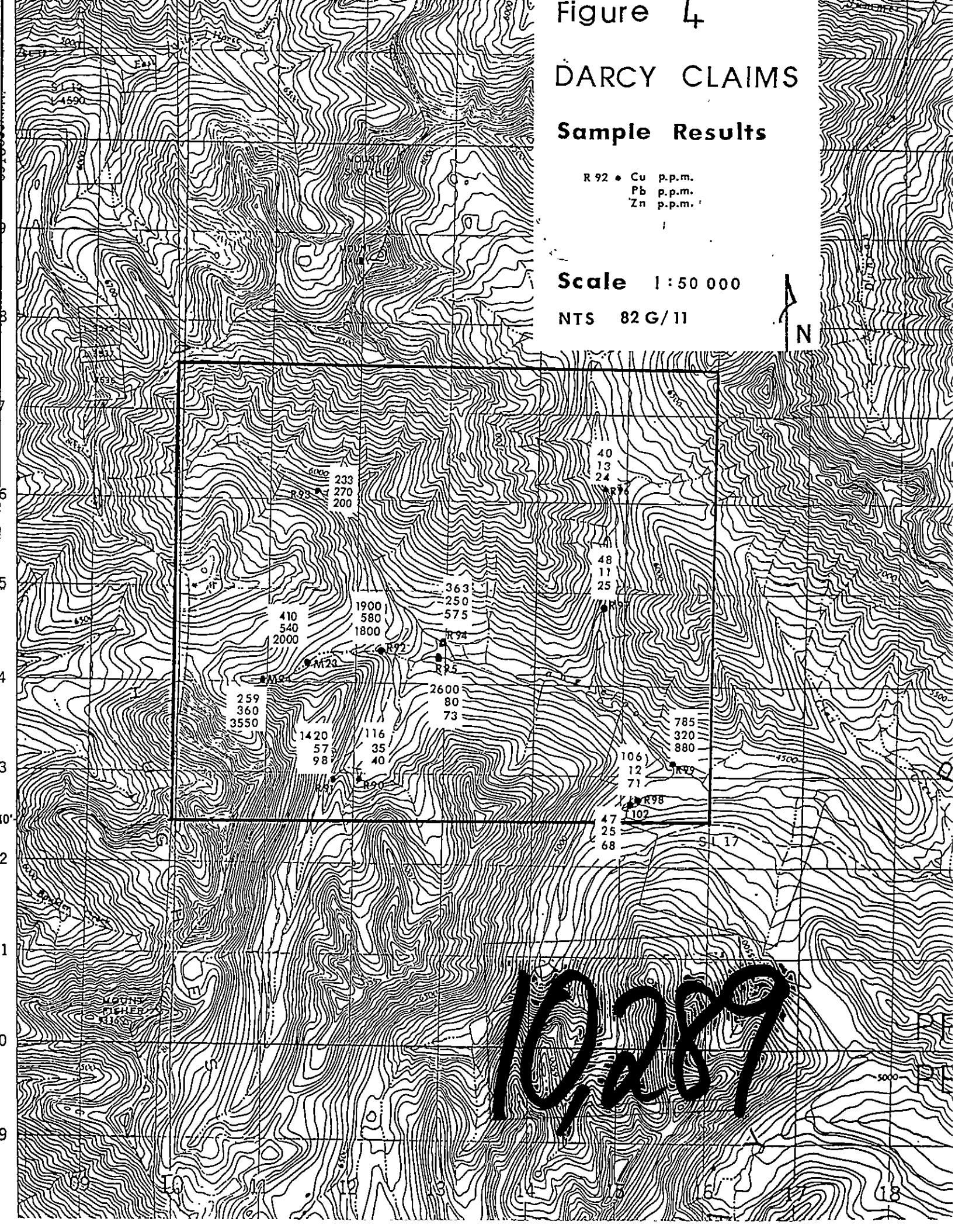


Figure 4
DARCY CLAIMS
Sample Results
R 92 • Cu p.p.m.
Pb p.p.m.
Zn p.p.m.
Scale 1:50 000
NTS 82 G/11
N
233
270
200
R93
40
13
24
R96
48
11
25
M97
363
250
575
R94
410
540
2000
1900
580
1800
R92
M20
M21
R95
2600
80
73
259
360
3550
1420
57
98
116
35
40
R91
R90
785
320
880
106
12
71
R99
R98
102
47
25
68
MOUNT FISHER
10,289

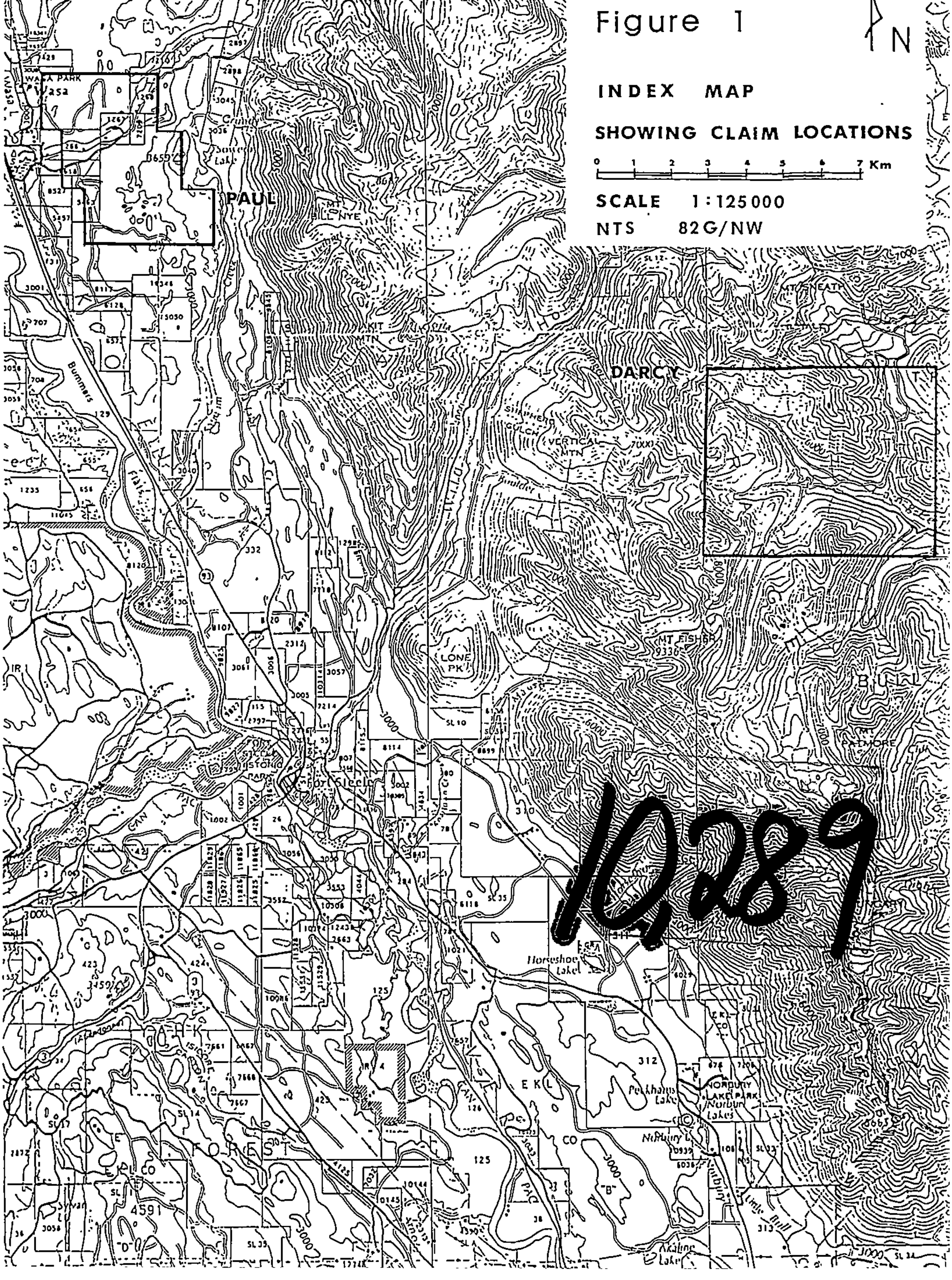


Figure 1

INDEX MAP

SHOWING CLAIM LOCATIONS

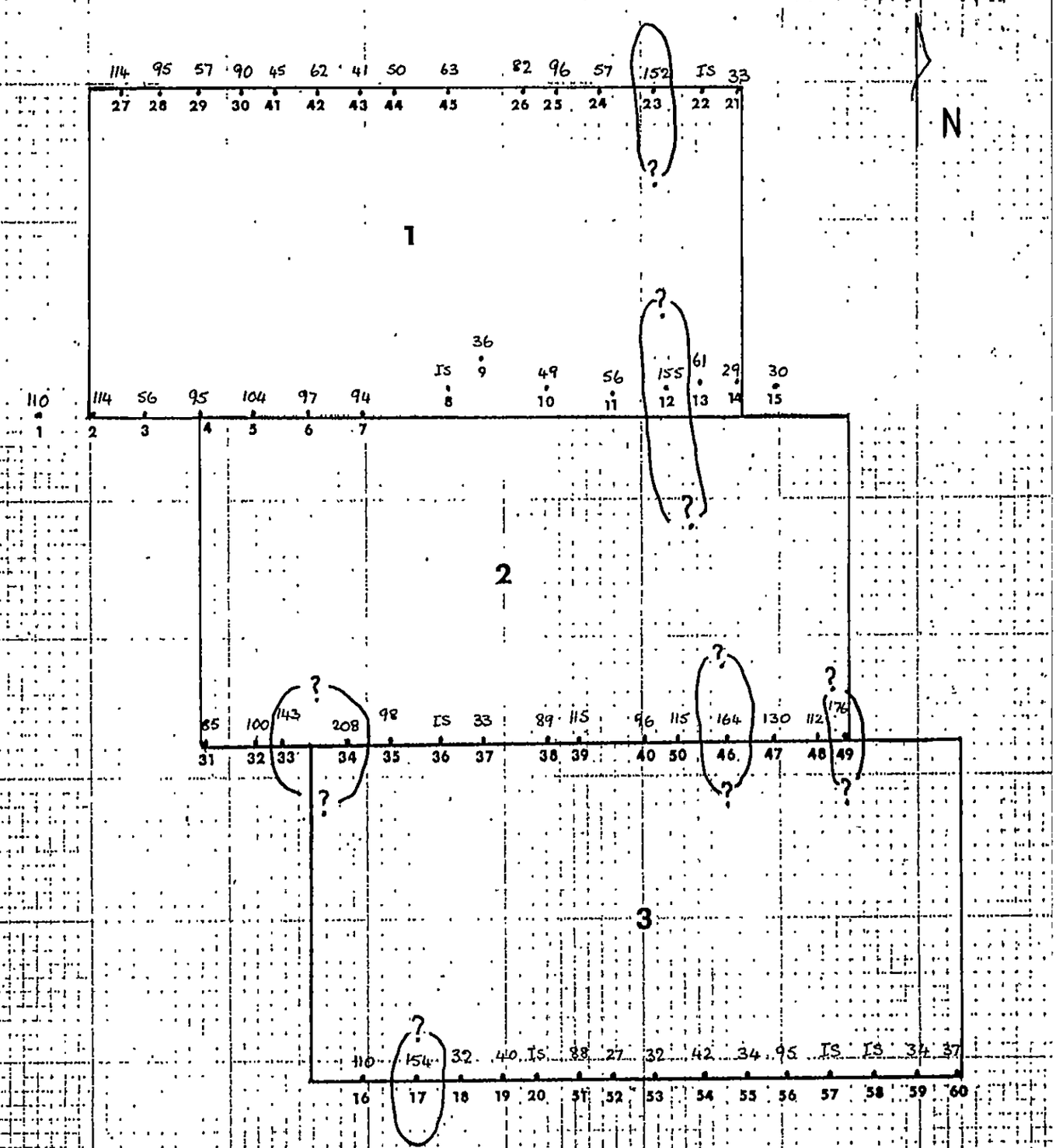
SCALE 1:125000

NTS 82G/NW

PAUL CLAIMS

Geochemical Results

Figure 3a



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Cu Geochemical Results (p.p.m.)

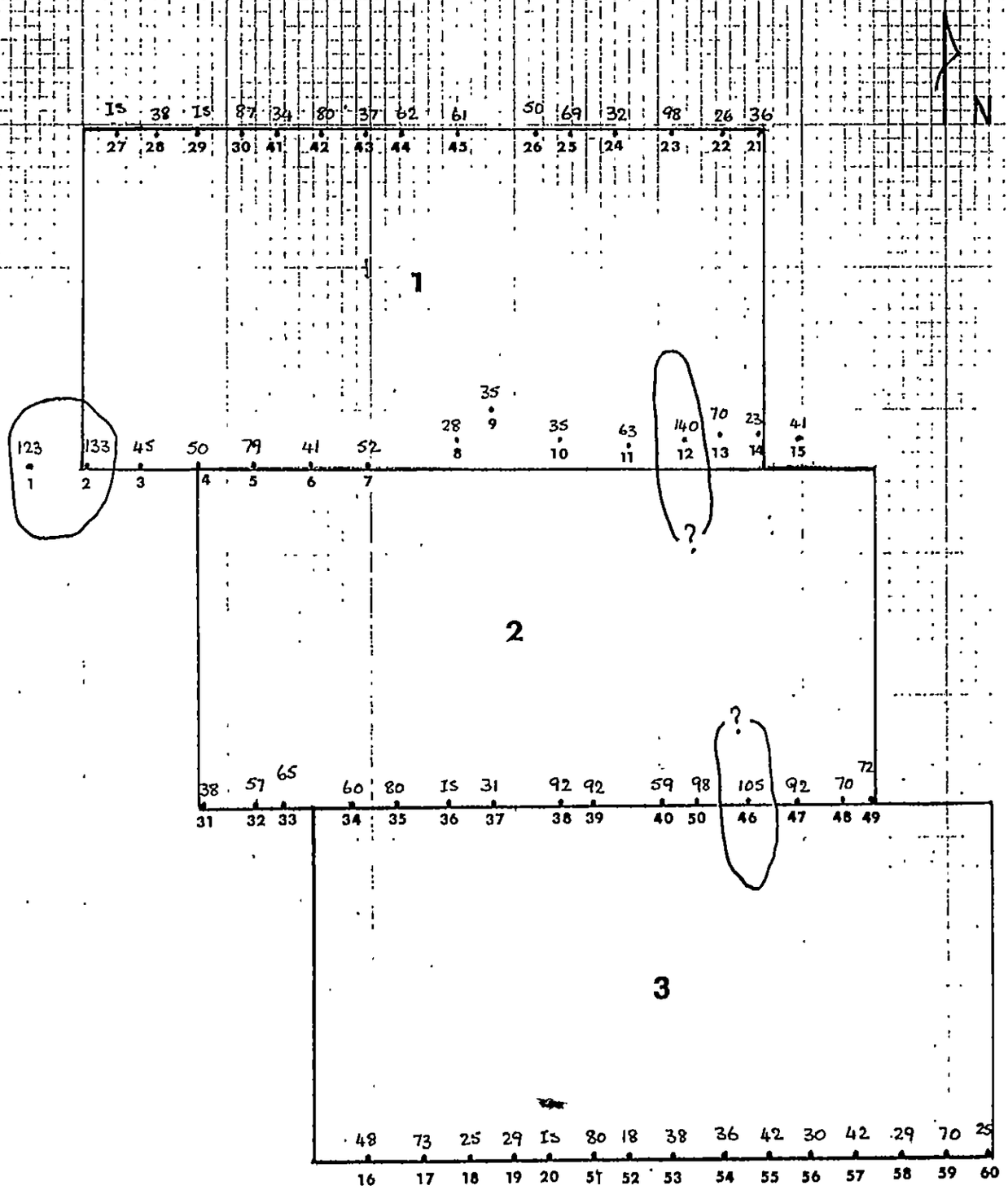
Result
Sample No.

Scale 1:25 000

Figure 3 b

PAUL CLAIMS

Geochemical Results



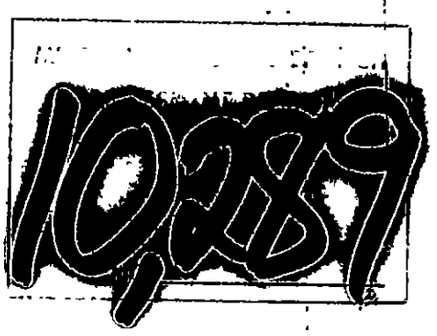
- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Cu Geochemical Results (p.p.m.)

Result
•
Sample No.

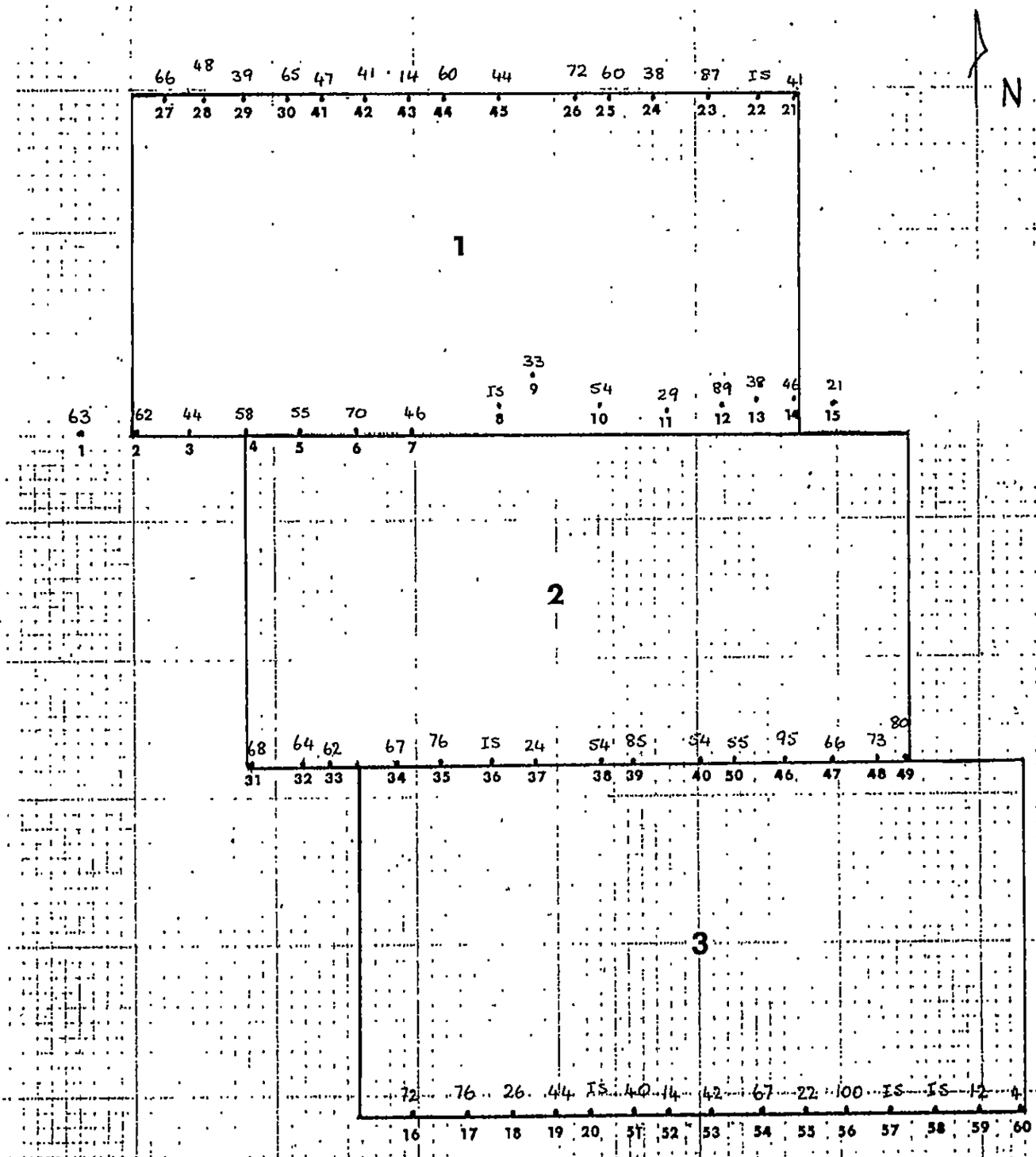
Scale 1 : 25 000



PAUL CLAIMS

Geochemical Results

Figure 3c



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Pb Geochemical Results (p.p.m.)

Result
•
Sample No.

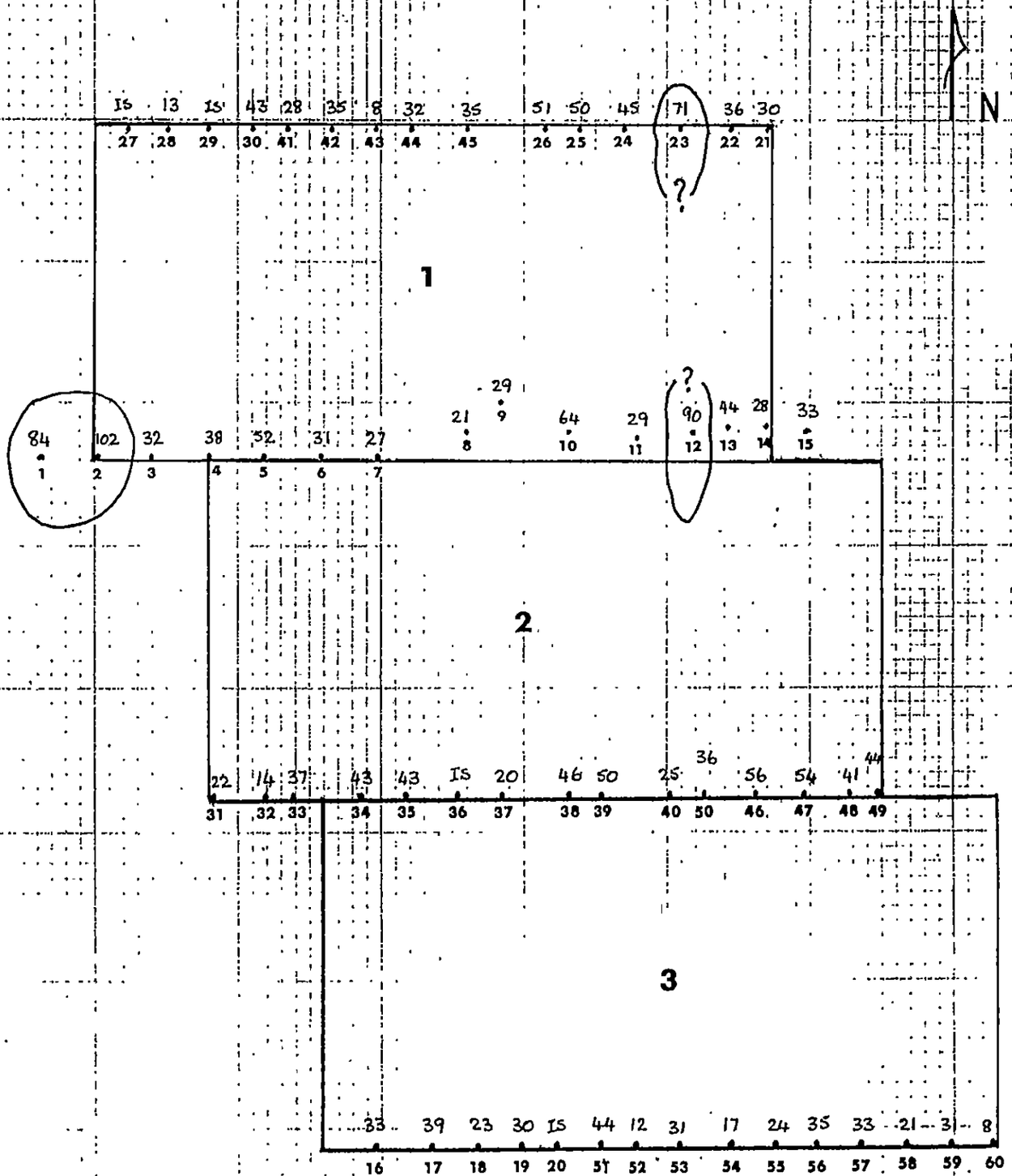
Scale 1 : 25 000

10287

PAUL CLAIMS

Figure 3d

Geochemical Results



- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Pb Geochemical Results (p.p.m.)

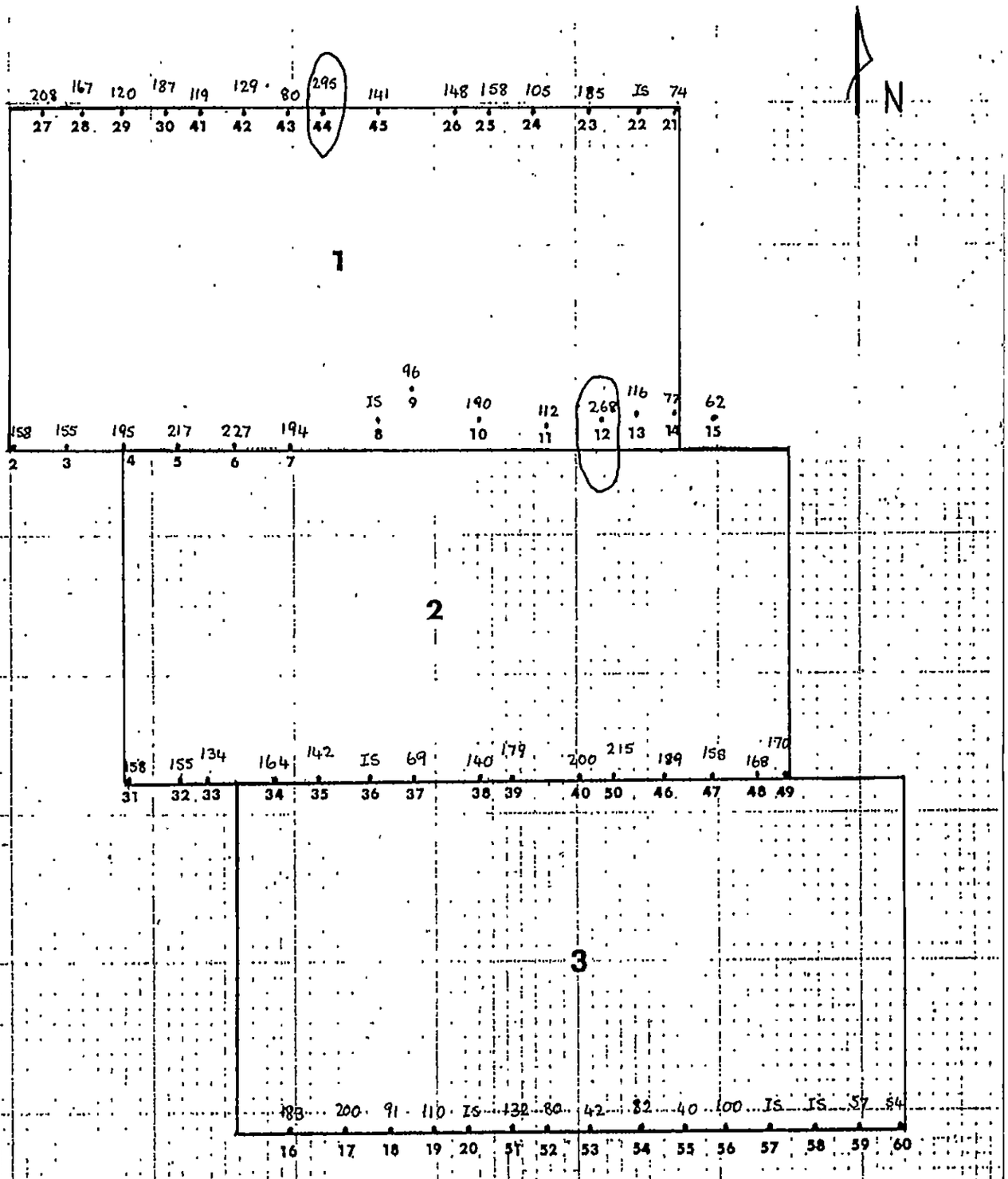
Result
Sample No.

Scale 1 : 25 000

PAUL CLAIMS

Figure 3e

Geochemical Results



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Zn Geochemical Results (p.p.m.)

Result
Sample No.

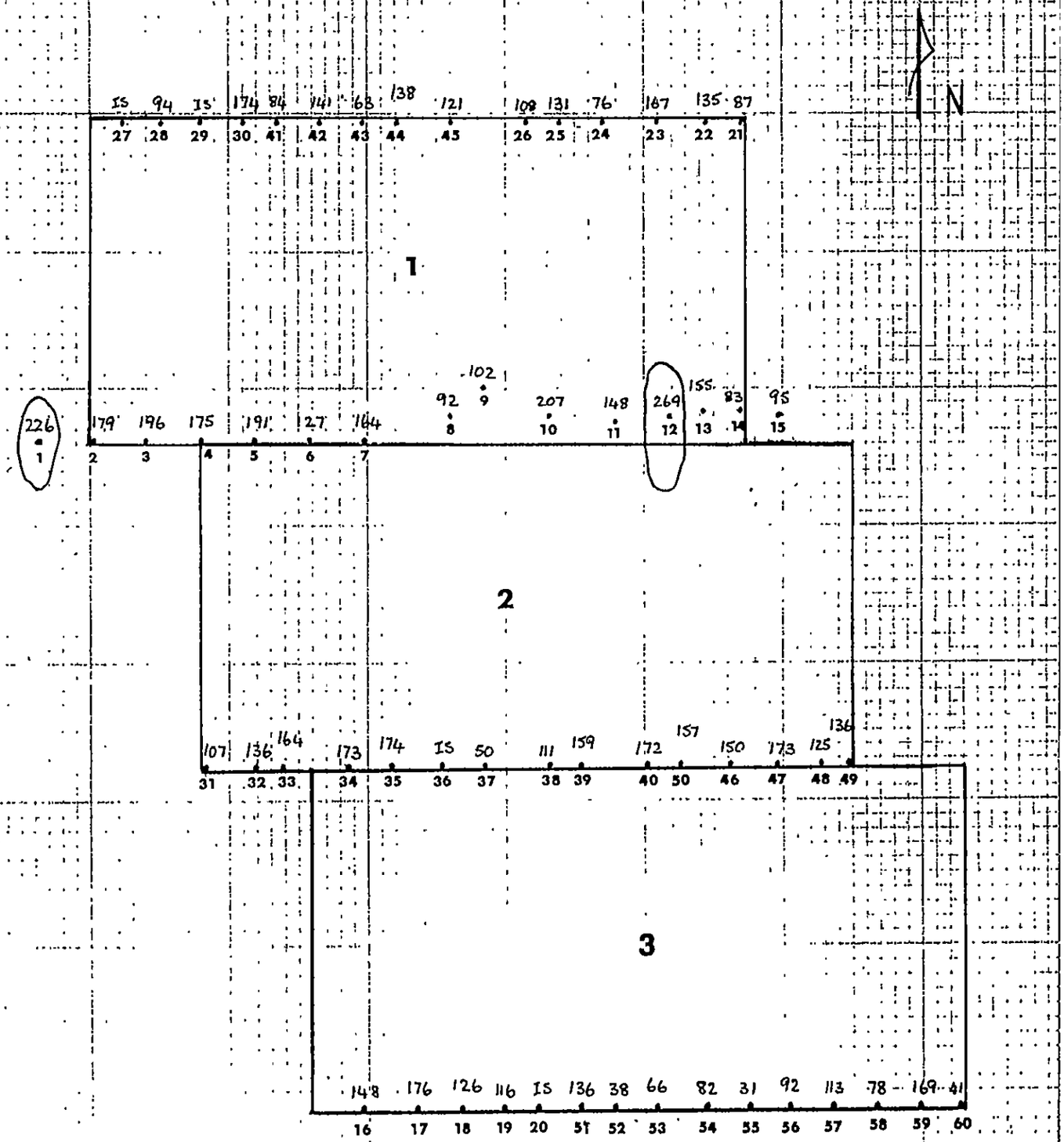
Scale 1:25 000

10 Dec 71

PAUL CLAIMS

Geochemical Results

Figure 3 f



– 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Zn Geochemical Results (p.p.m.)

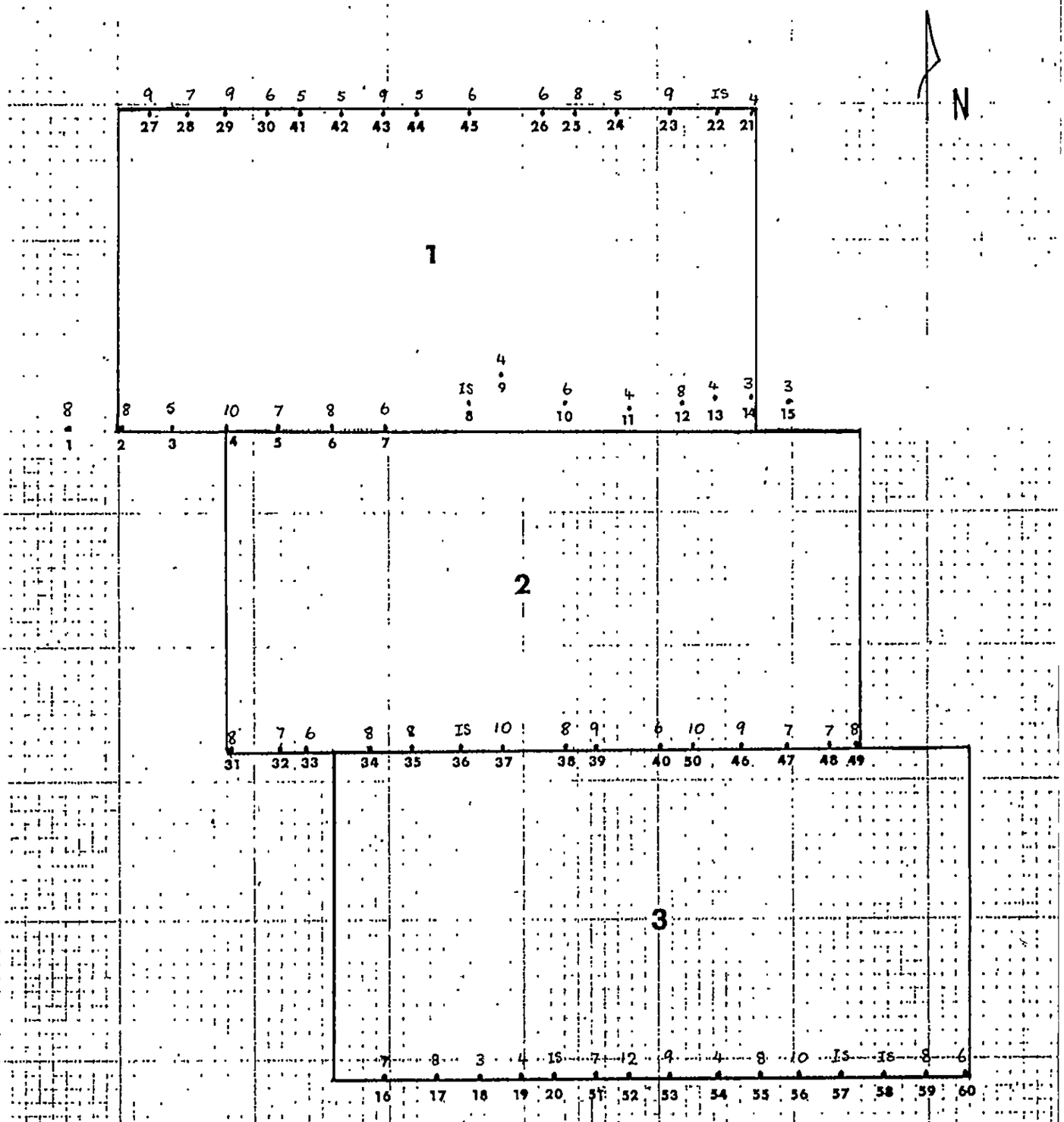
Result
•
Sample
No.

Scale 1 : 25 000

PAUL CLAIMS

Geochemical Results

Figure 3g



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Mo Geochemical Results (p.p.m.)

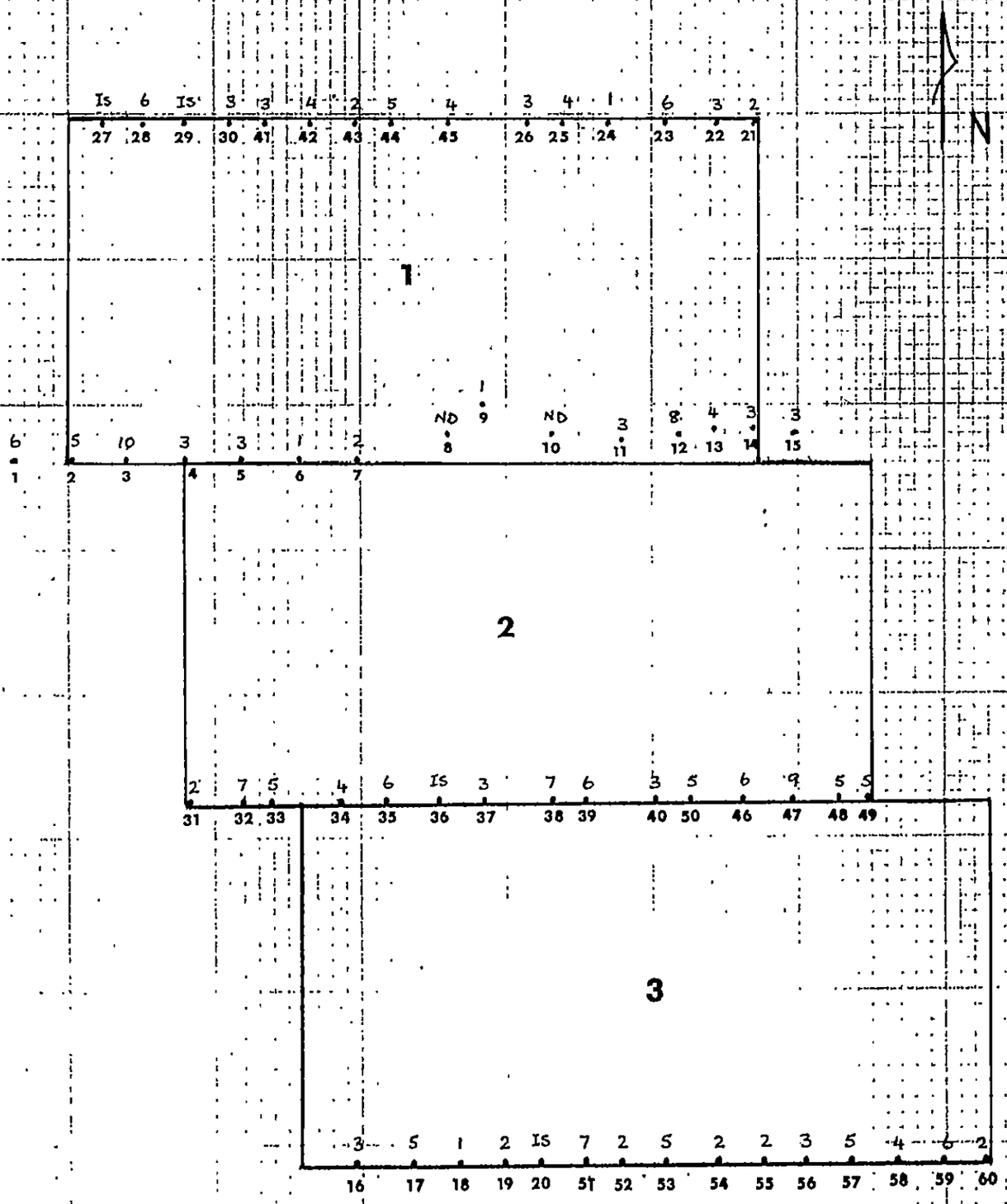
Result
Sample No.

Scale 1 : 25 000

PAUL CLAIMS

Geochemical Results

Figure 3 h



- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Mo Geochemical Results (p.p.m.)

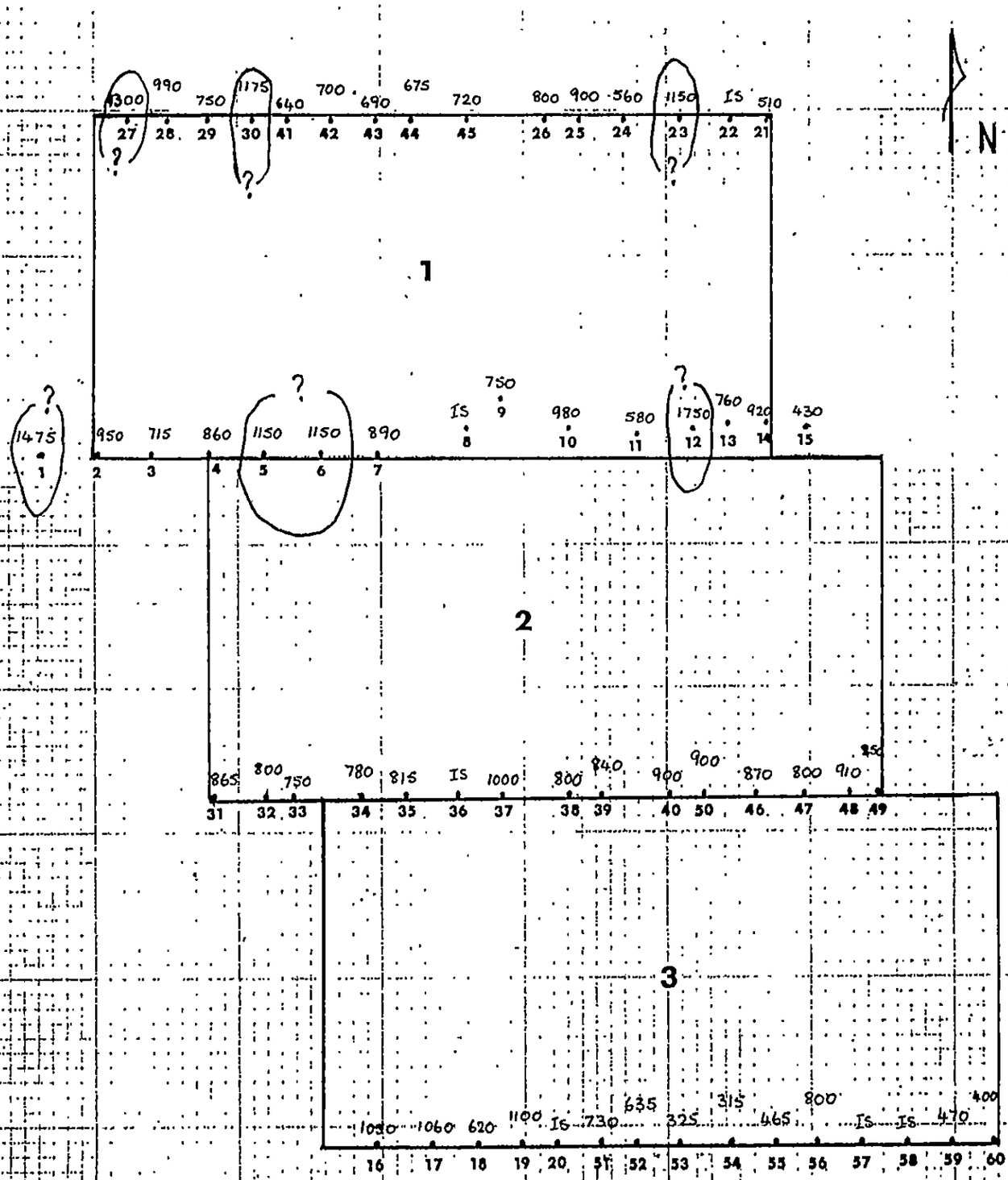
Result
•
Sample No.

Scale 1 : 25 000

PAUL CLAIMS

Figure 3

Geochemical Results



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Mn. Geochemical Results (p.p.m.)

Result
Sample
No.

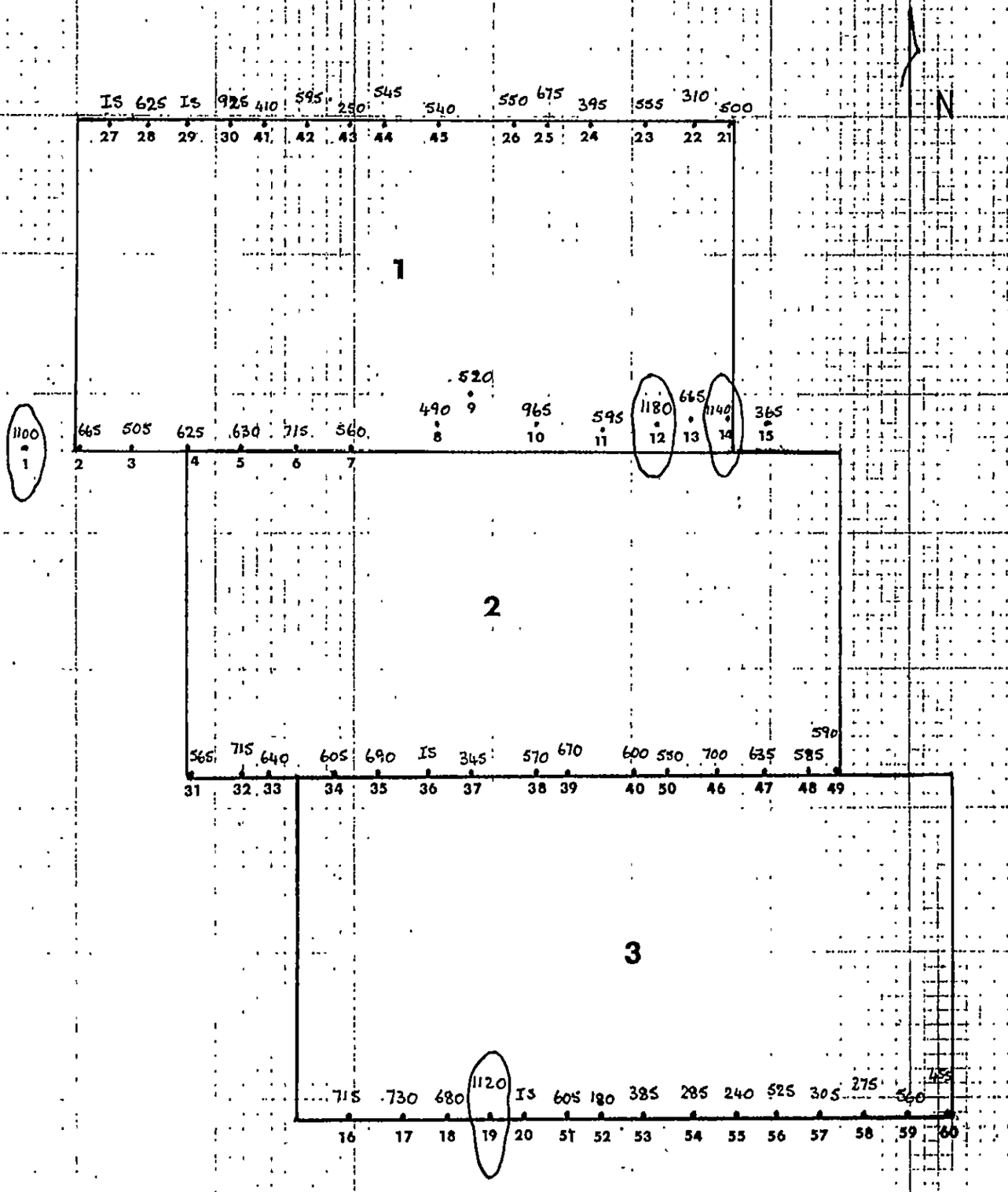
Scale 1:25 000

10284

PAUL CLAIMS

Geochemical Results

Figure 3j



- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Mn Geochemical Results (p.p.m.)

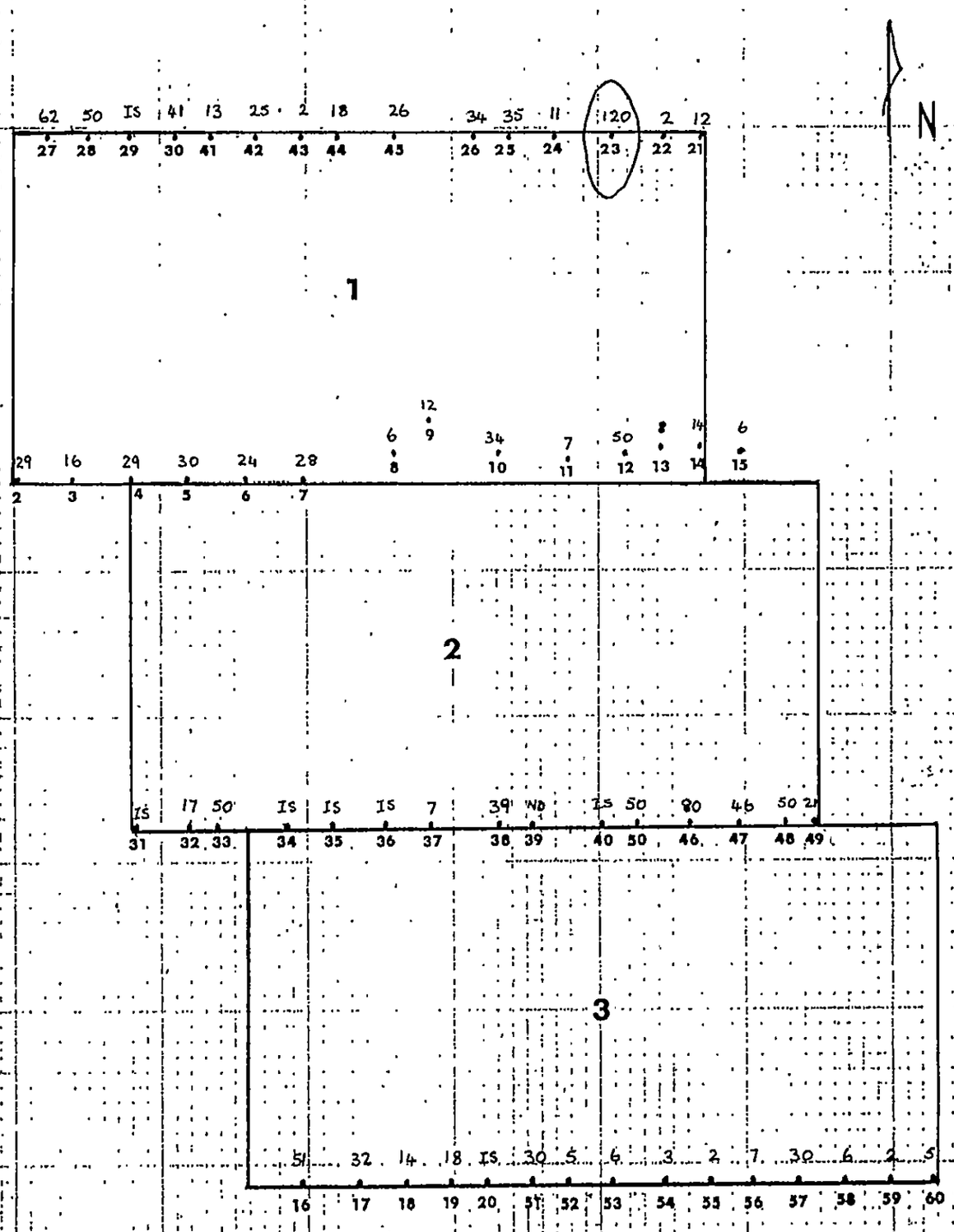
Result
•
Sample No.

Scale 1 : 25 000

PAUL CLAIMS

Geochemical Results

Figure 3k



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite As Geochemical Results (p.p.m.)

Result
•
Sample No.

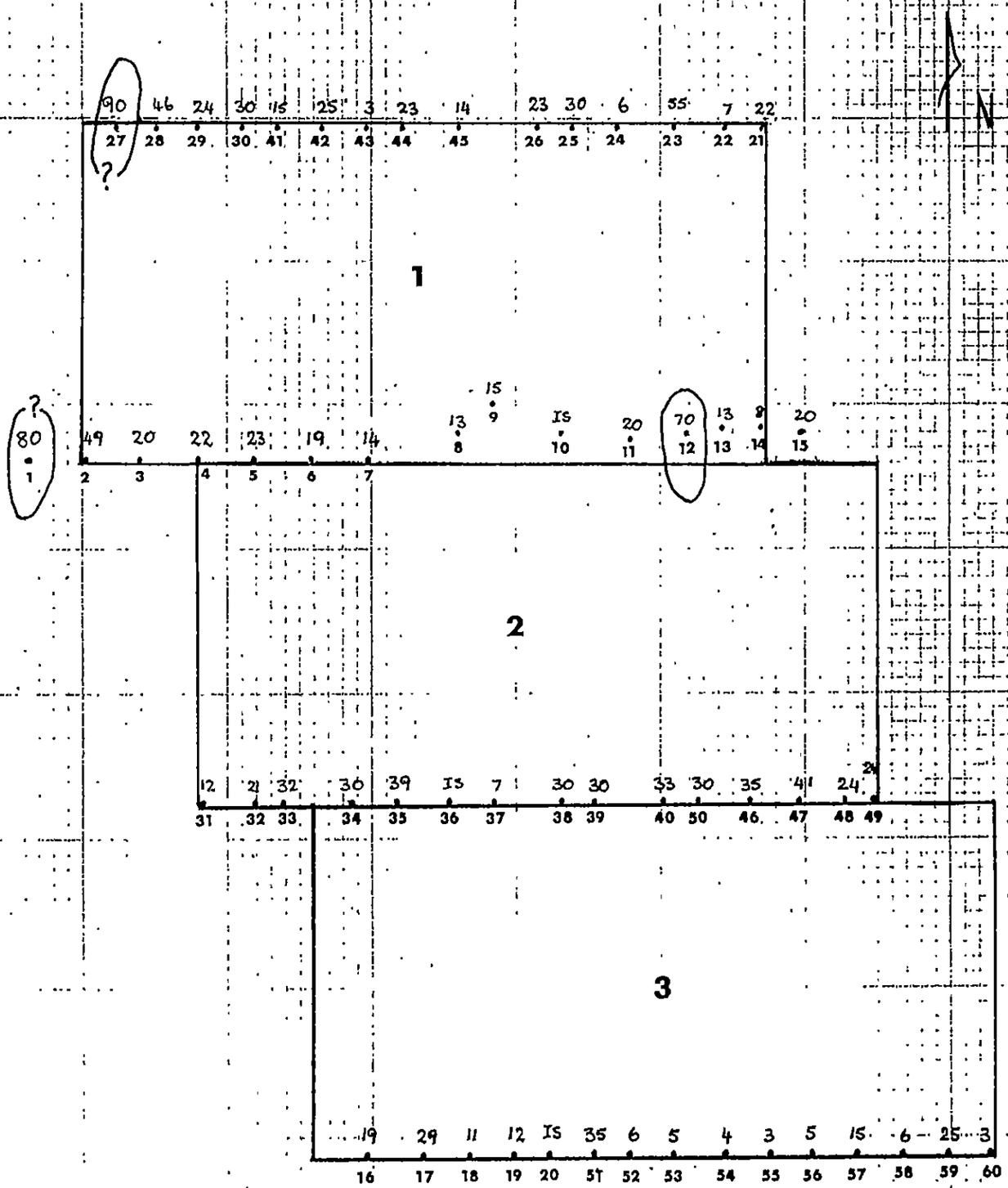
Scale 1:25 000

10,231

PAUL CLAIMS

Geochemical Results

Figure 31



- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite As Geochemical Results (p.p.m.)

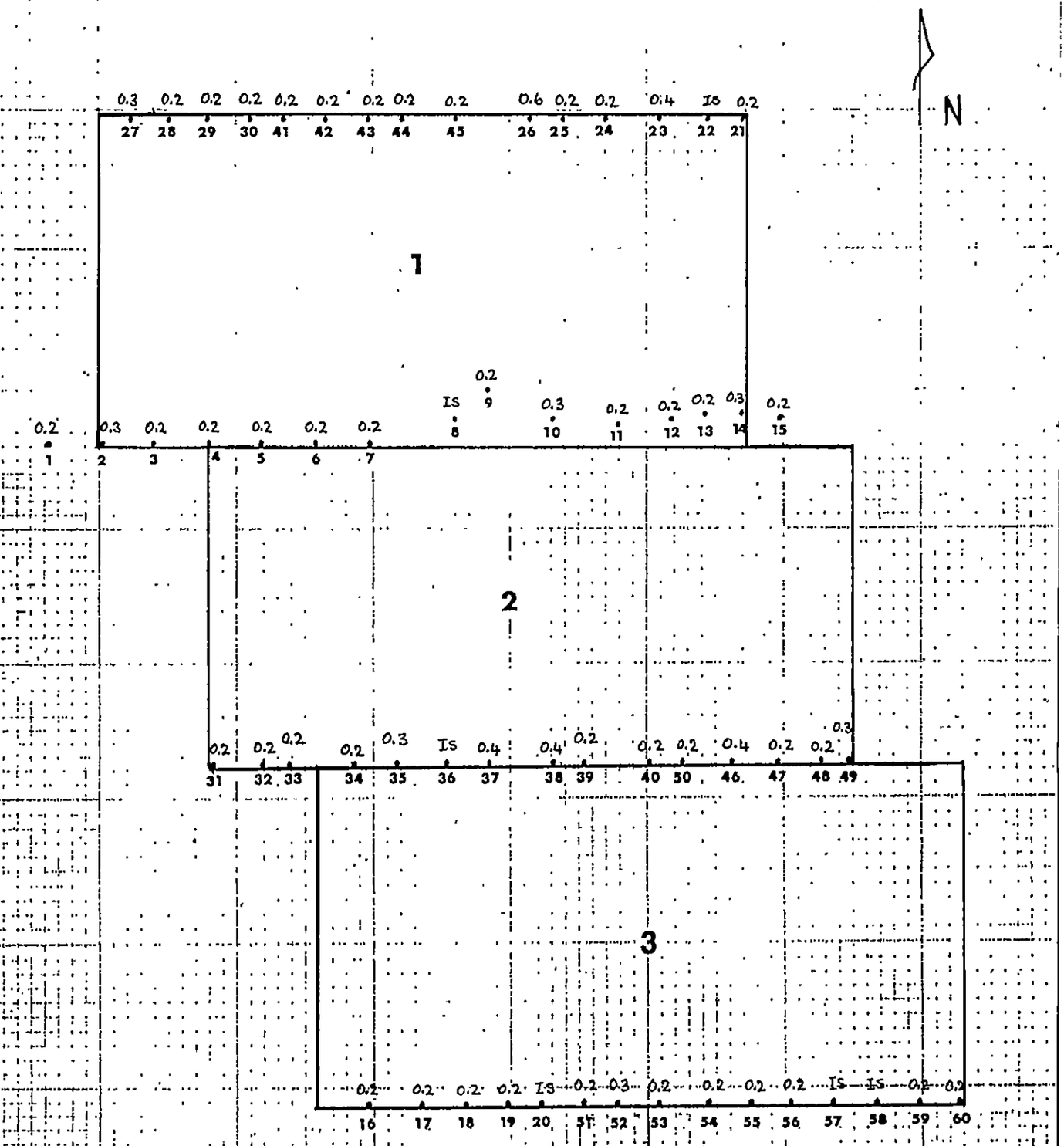
Result
•
Sample No.

Scale 1 : 25 000

PAUL CLAIMS

Geochemical Results

Figure 3m



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Ag Geochemical Results (p.p.m.)

Result
Sample No.

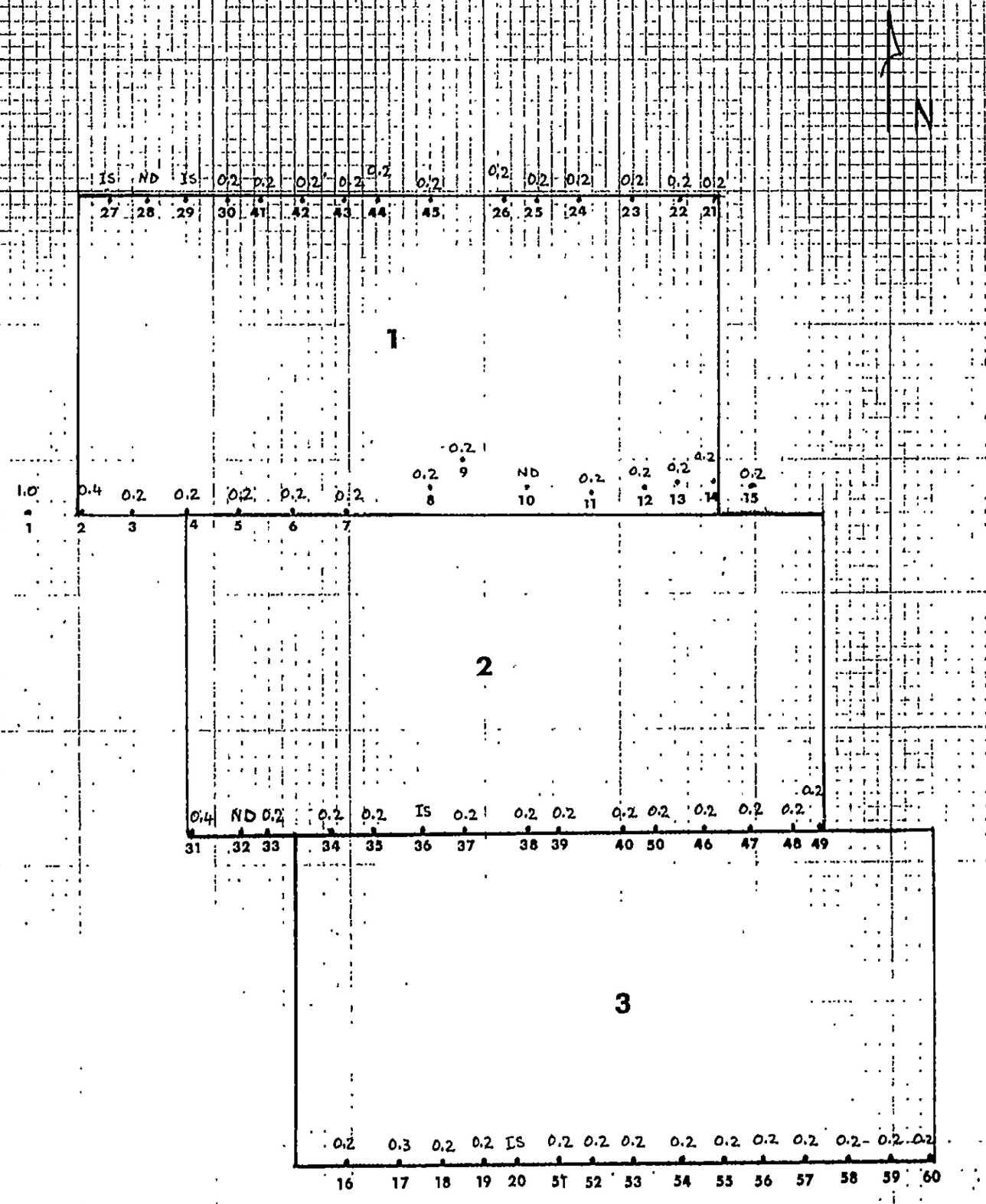
Scale 1 : 25 000

4287

PAUL CLAIMS

Geochemical Results

Figure 3 n



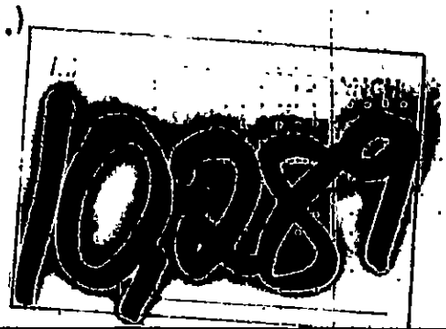
- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Ag Geochemical Results (p.p.m.)

Result
Sample No.

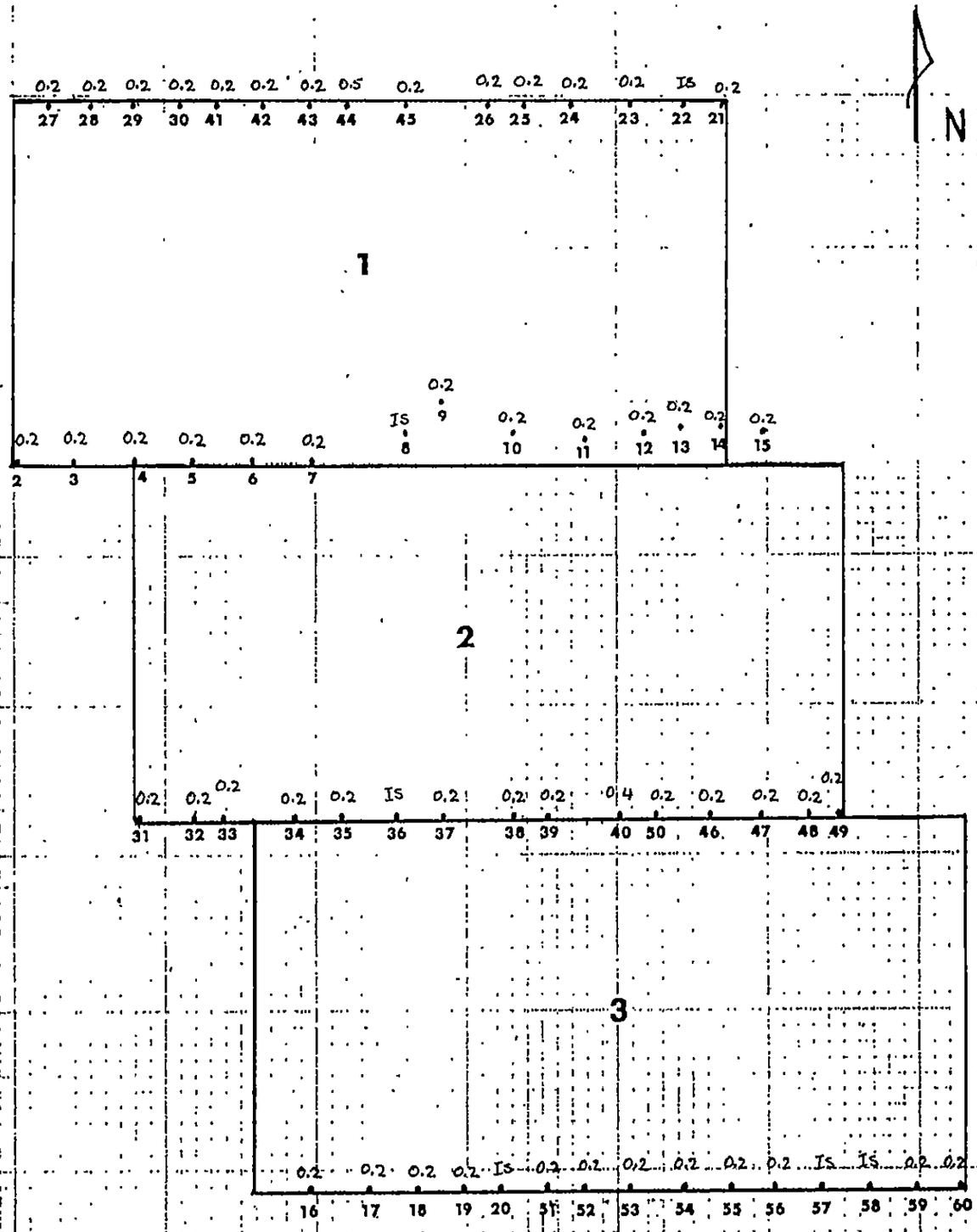
Scale 1 : 25 000



PAUL CLAIMS

Figure 30

Geochemical Results



-35+80 Mesh

Intermediate Specific Gravity Fractions

Limonite Cd Geochemical Results (p.p.m.)

Result
Sample No.

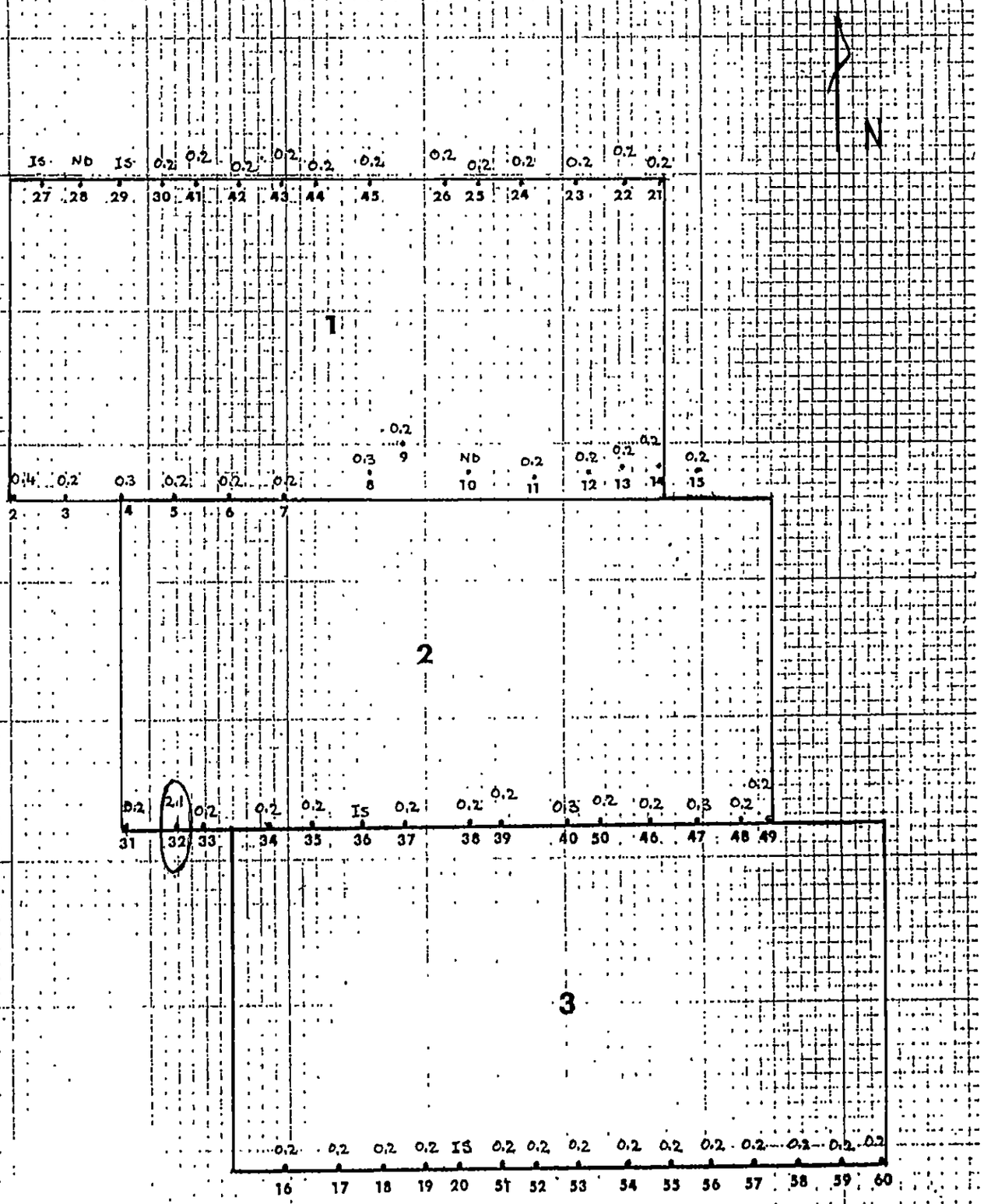
Scale 1:25 000

10,287

PAUL CLAIMS

Figure 3 p

Geochemical Results



- 80 Mesh

Intermediate Specific Gravity Fractions

Limonite Cd. Geochemical Results (p.p.m.)

Result
•
Sample
No.

Scale 1 : 25 000

Figure 2 a

10289

Frequency Distribution of
Cu in −35 +80 Mesh
PAUL CLAIMS

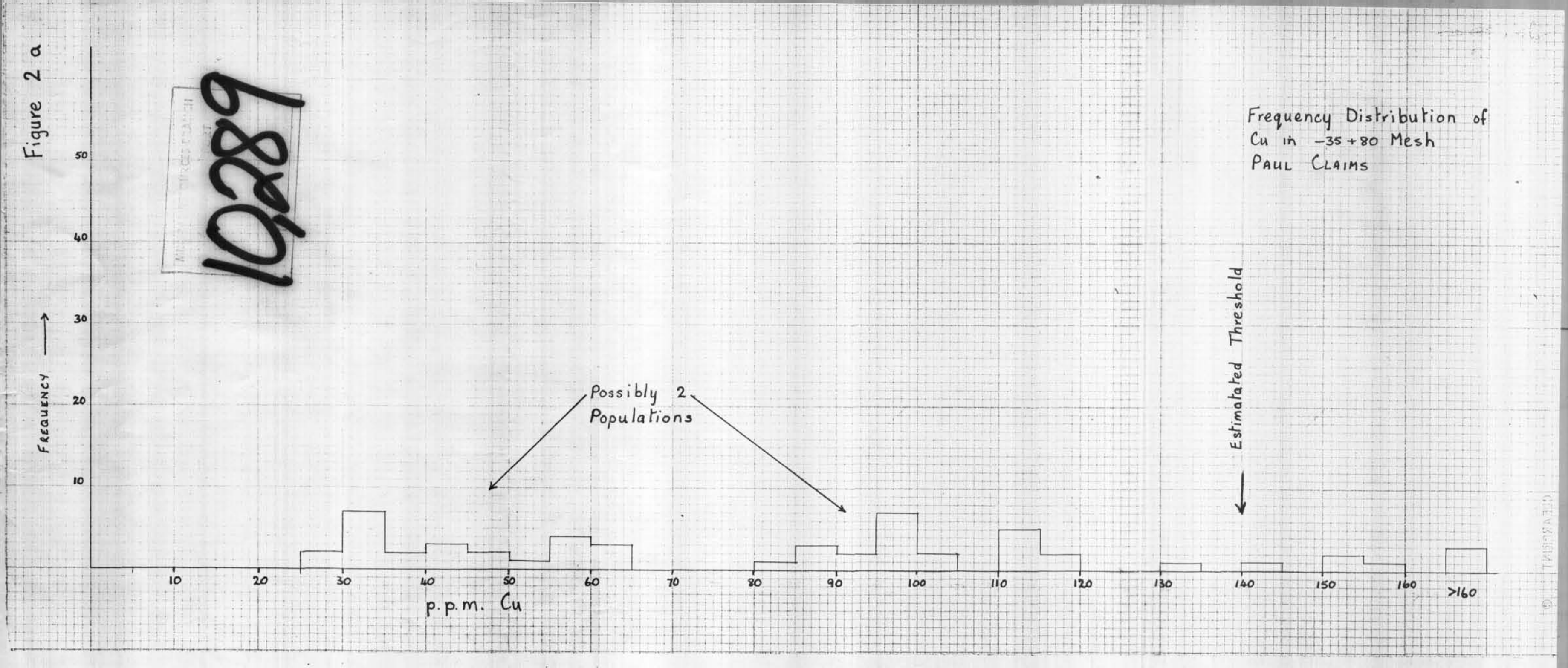


Figure 2j

Frequency Distribution of
Mn in -80 mesh
PAUL CLAIMS

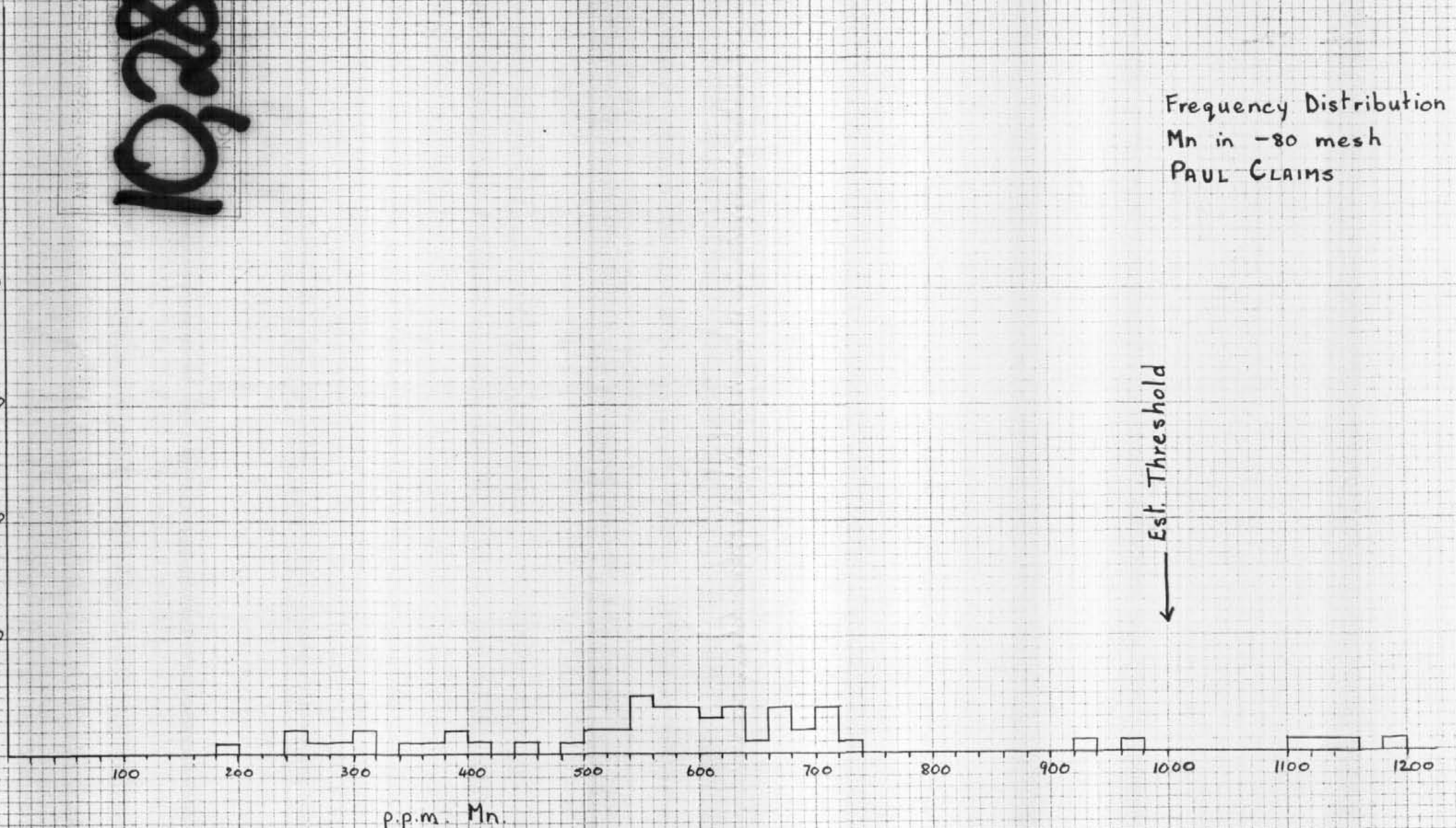


Figure 2k

10,289

Frequency Distribution of
As in −35 + 80 Mesh
PAUL CLAIMS

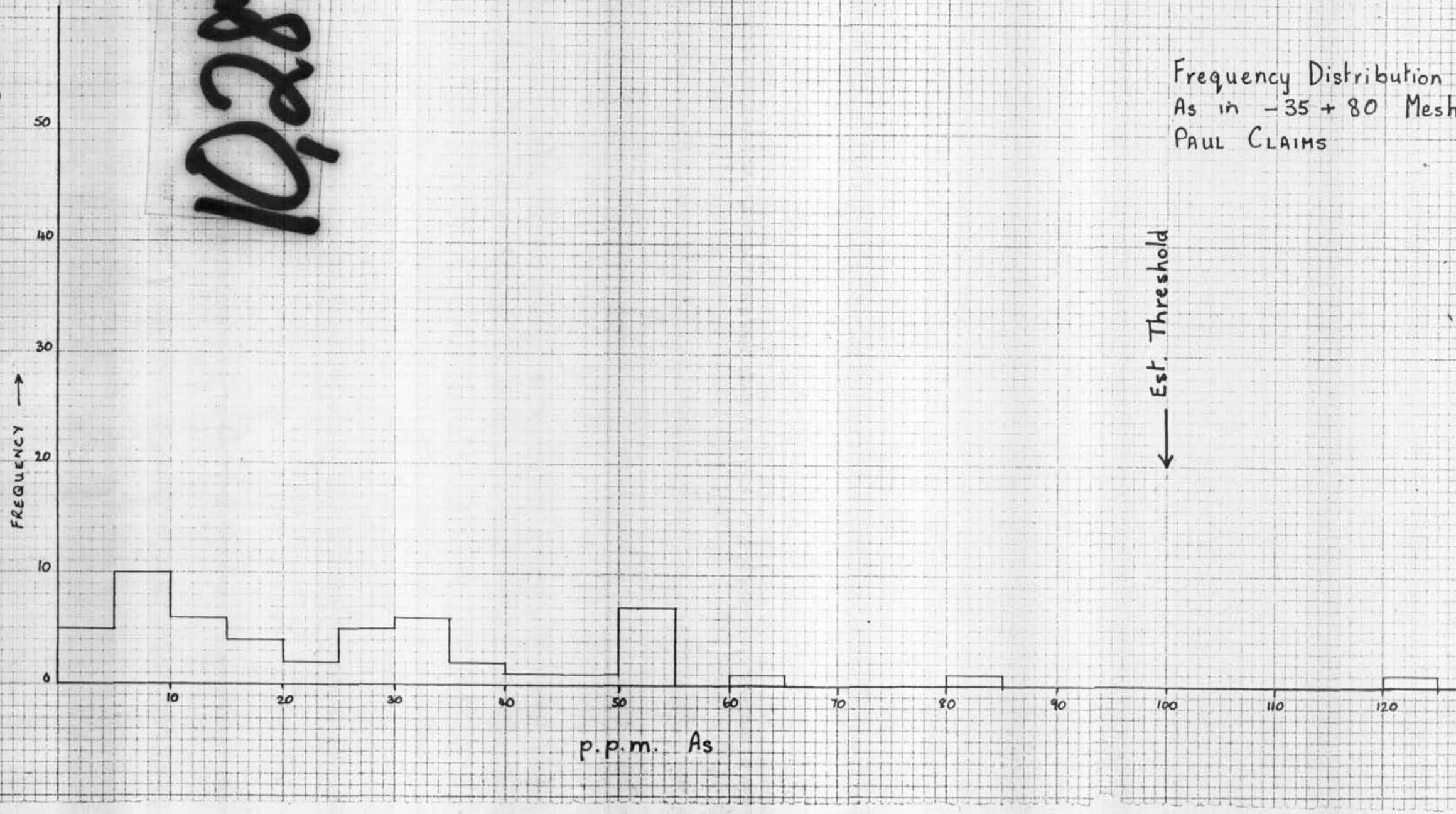


Figure 21

10,288

Frequency Distribution of
As in -80 Mesh
PAUL CLAIMS

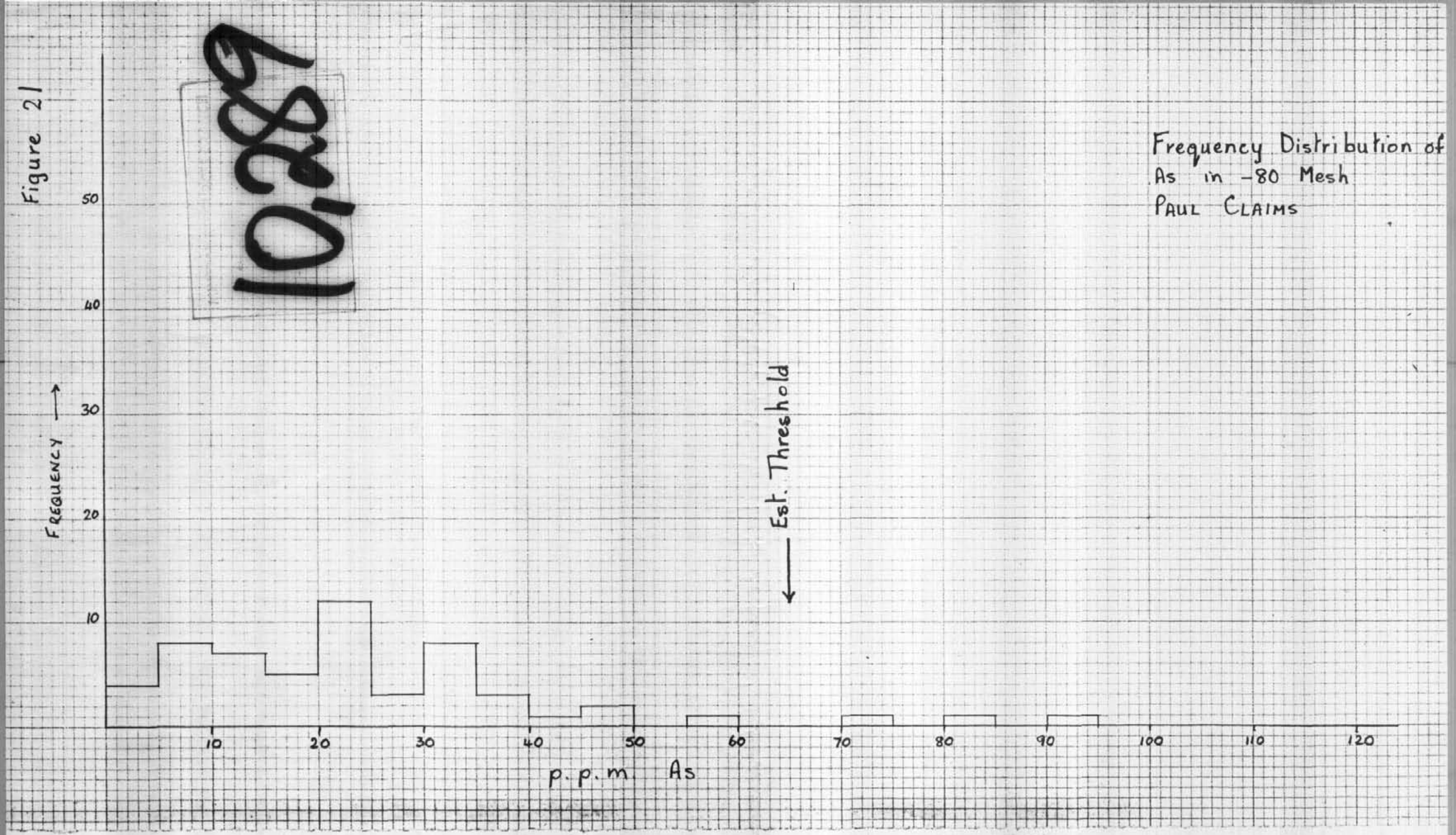
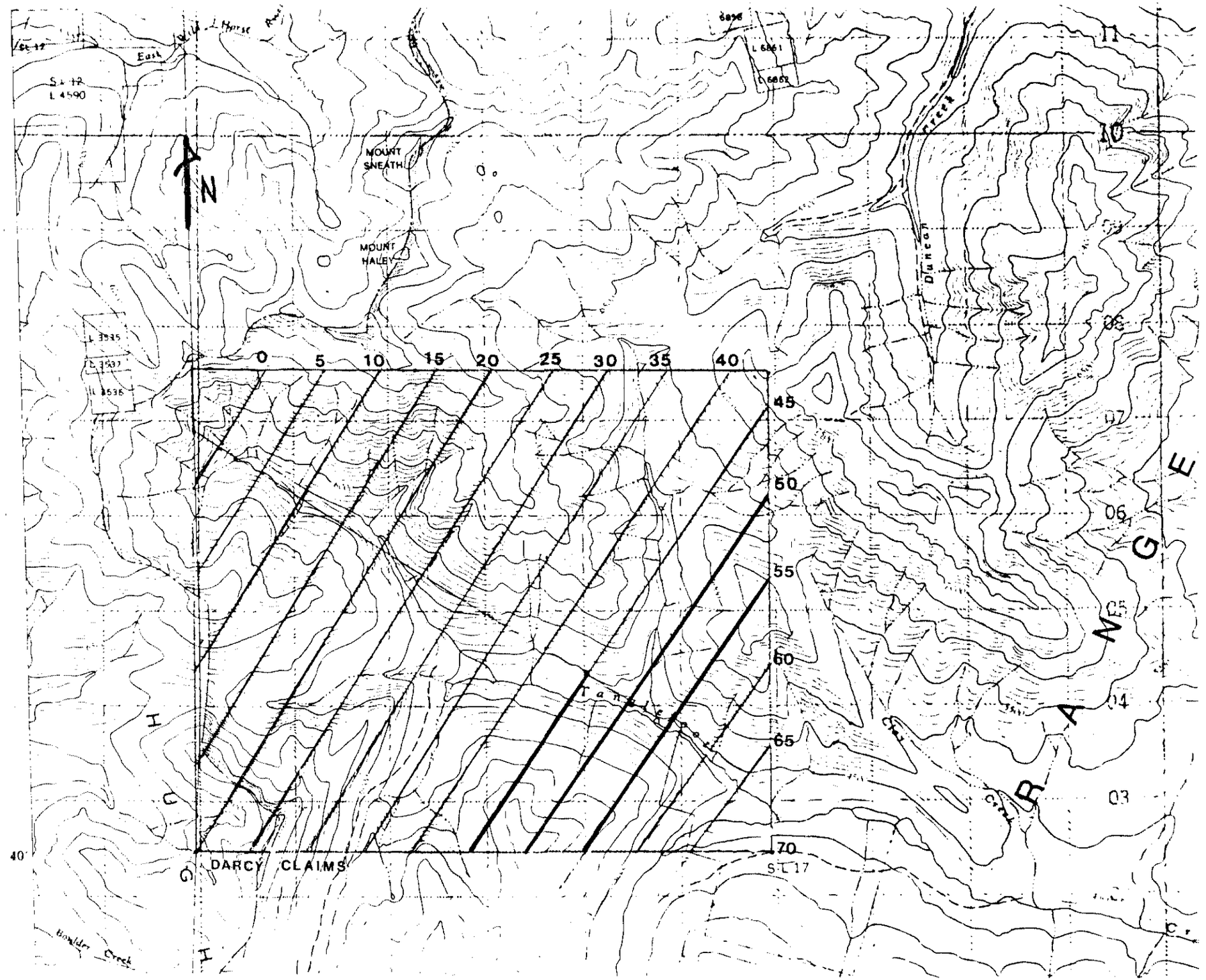


Figure 5



10,289

Figure 26

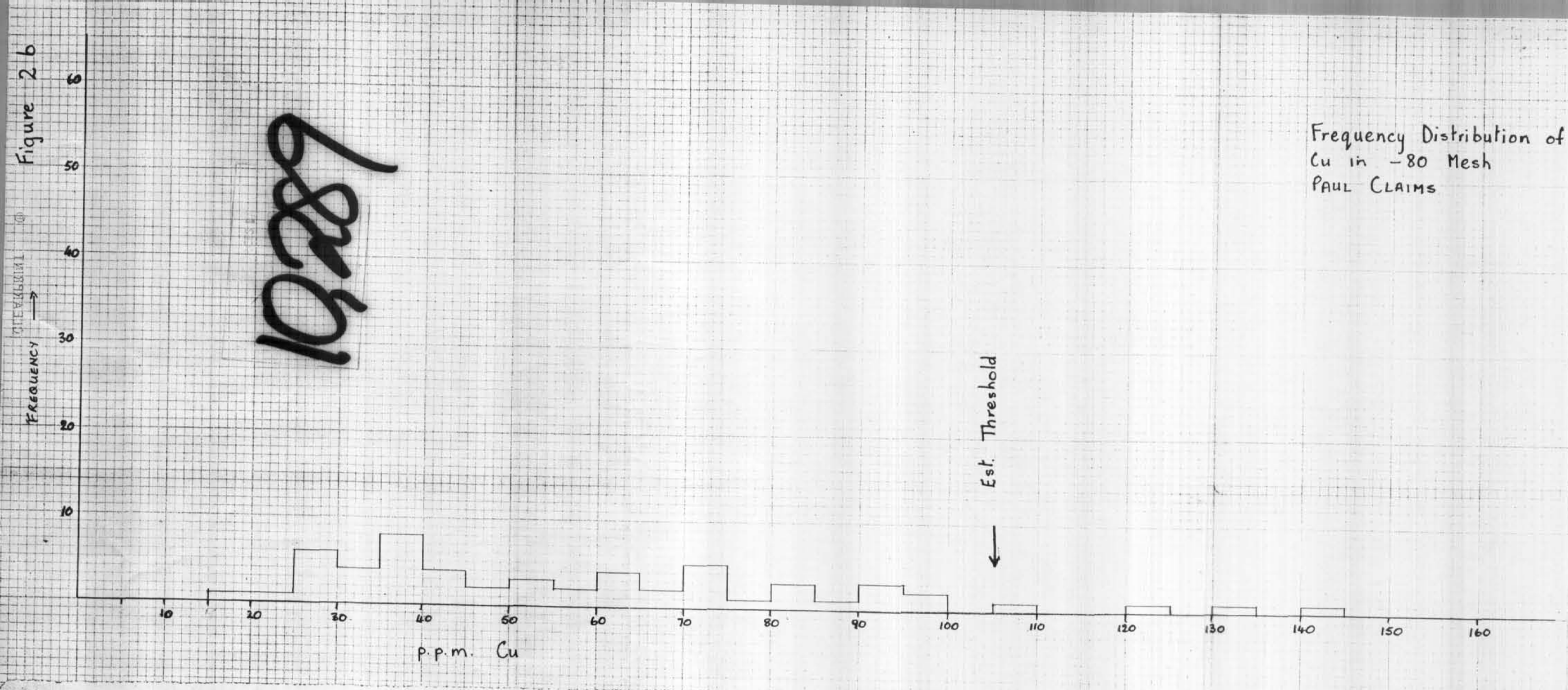

Frequency Distribution of
Cu in -80 Mesh
PAUL CLAIMS
FREQUENCY
60
50
40
30
20
10
Est. Threshold
10
20
30
40
50
60
70
80
90
100
110
120
130
140
150
160
p.p.m. Cu

Figure 2c

Frequency Distribution of Pb in -35 +80 Mesh
PAUL CLAIMS

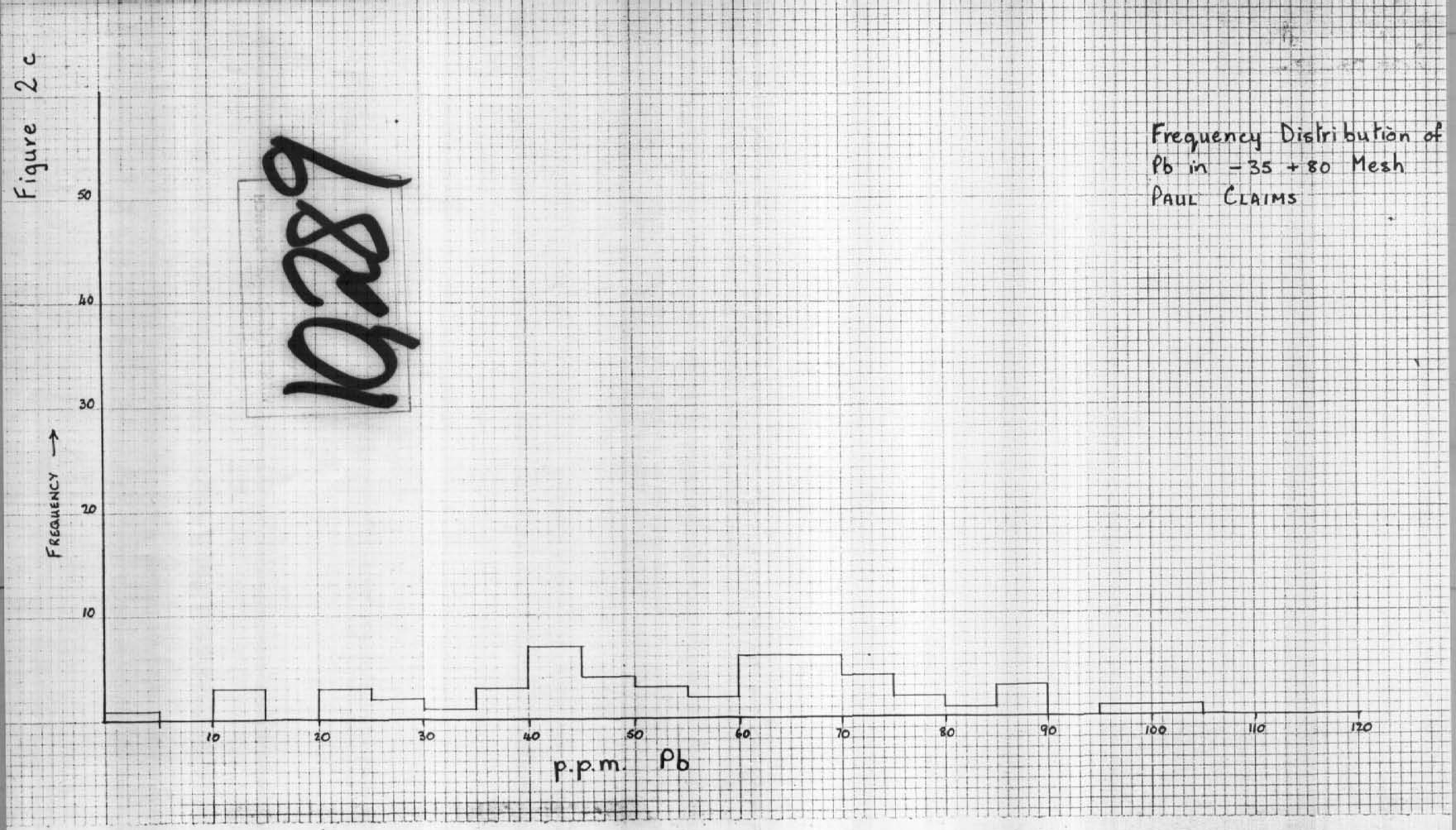
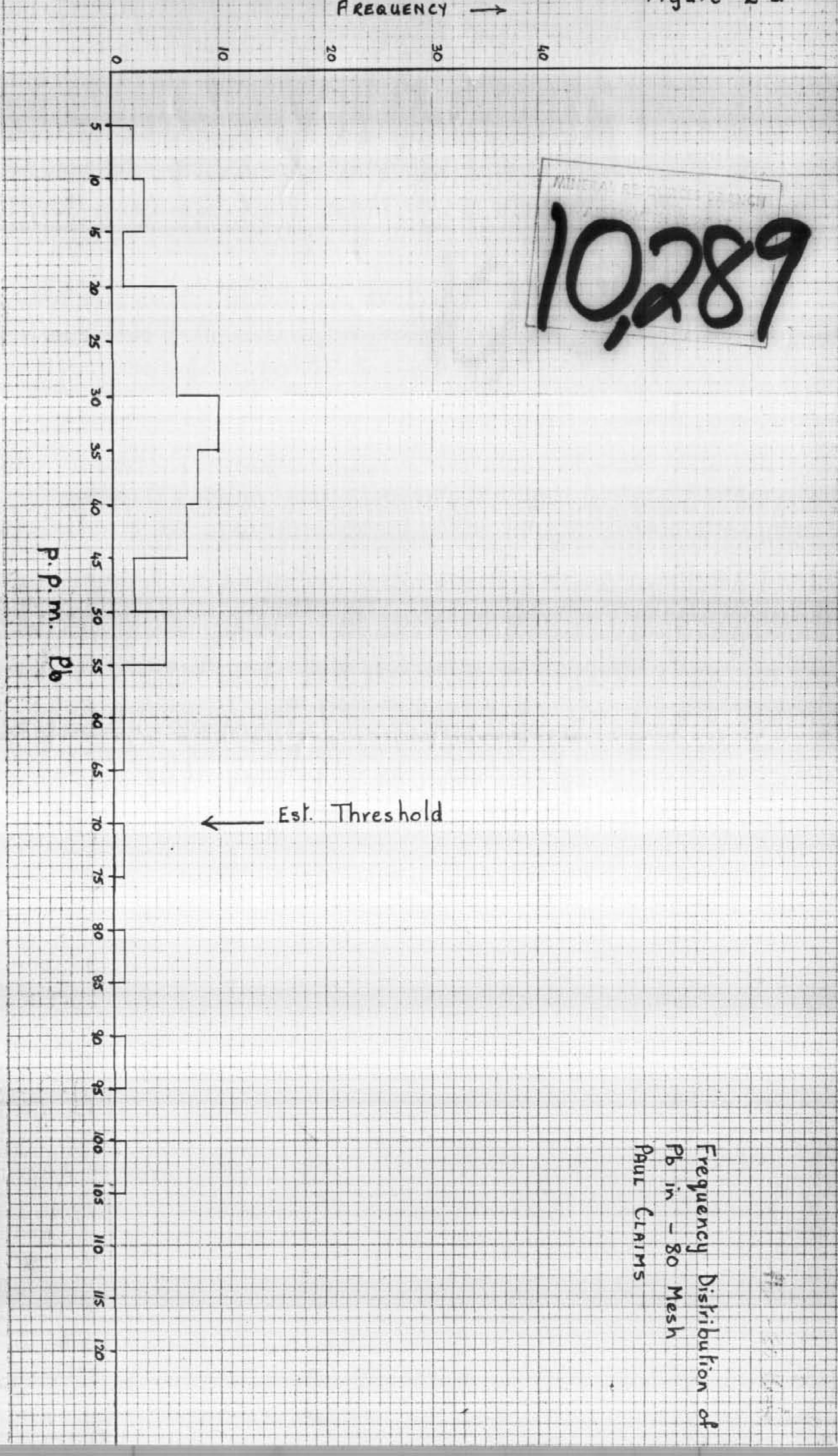


Figure 2d



Frequency Distribution of Pb in -80 Mesh PAUL CLAIMS

Figure 2e

1089

Frequency Distribution of Zn in −35 + 80 Mesh
PAUL CLAIMS

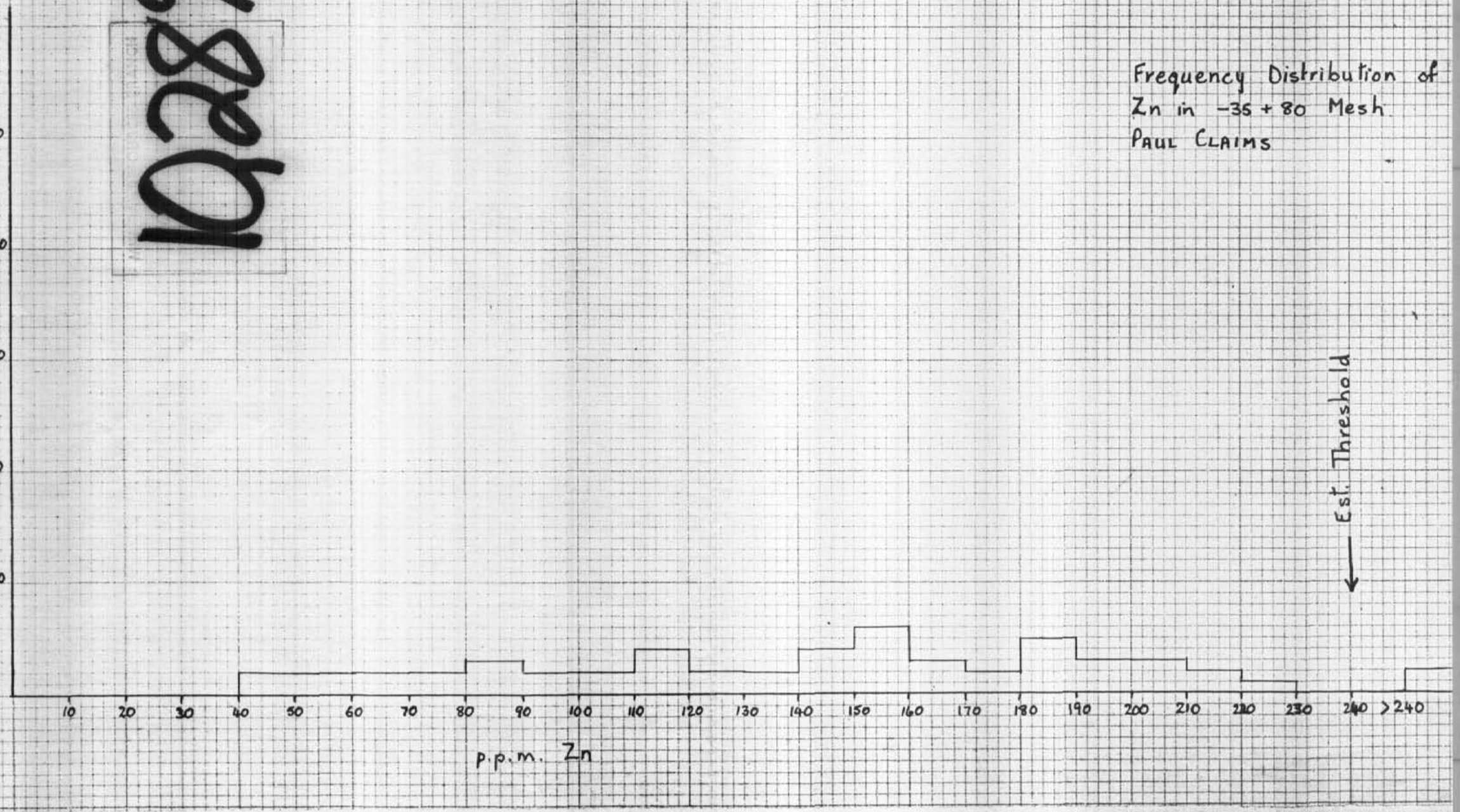


Figure 2f

10,289

Frequency Distribution of
Zn in -80 Mesh
PAUL CLAIMS

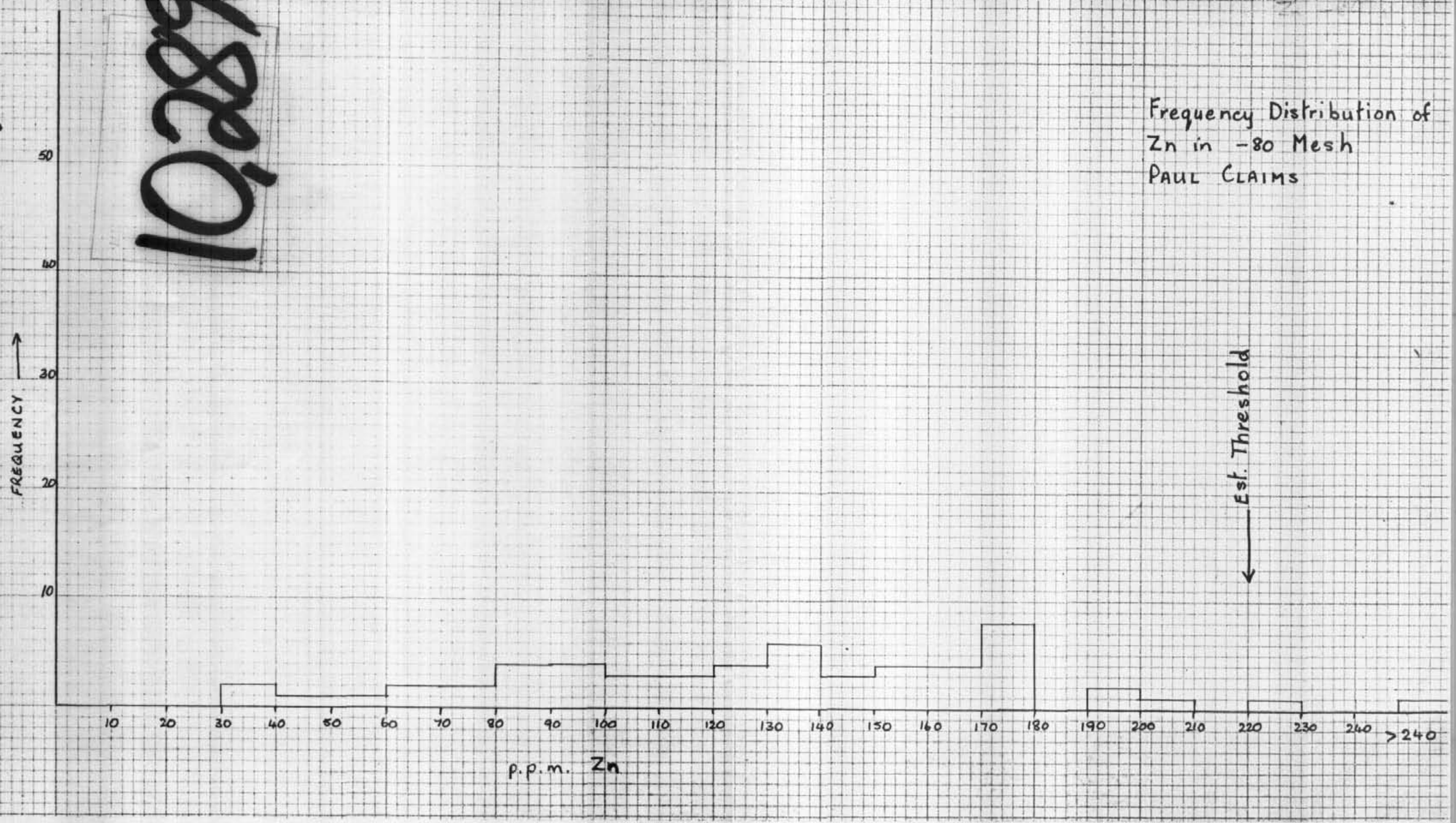


Figure 29

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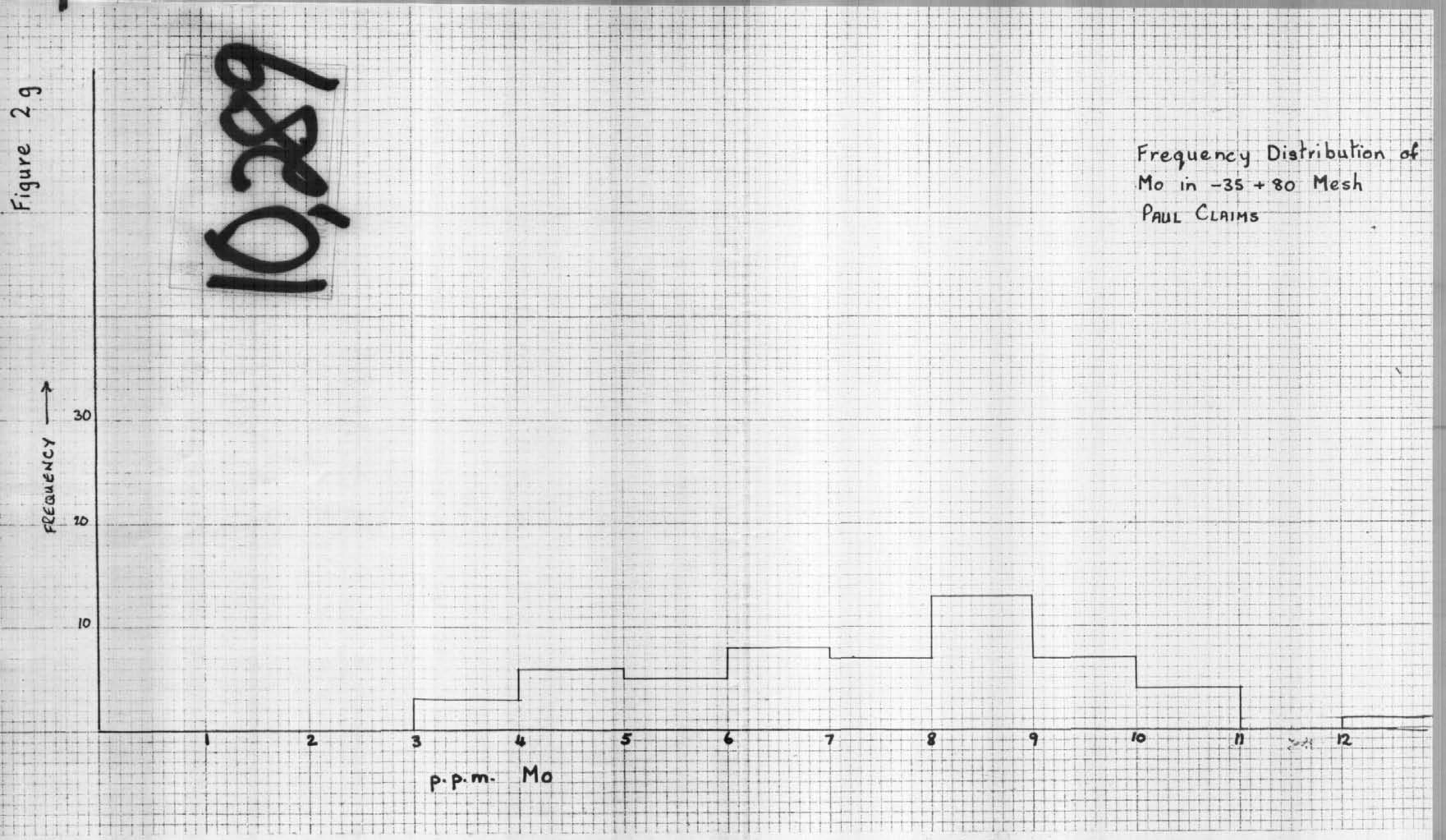
Frequency Distribution of
Mo in -35 + 80 Mesh
PAUL CLAIMS



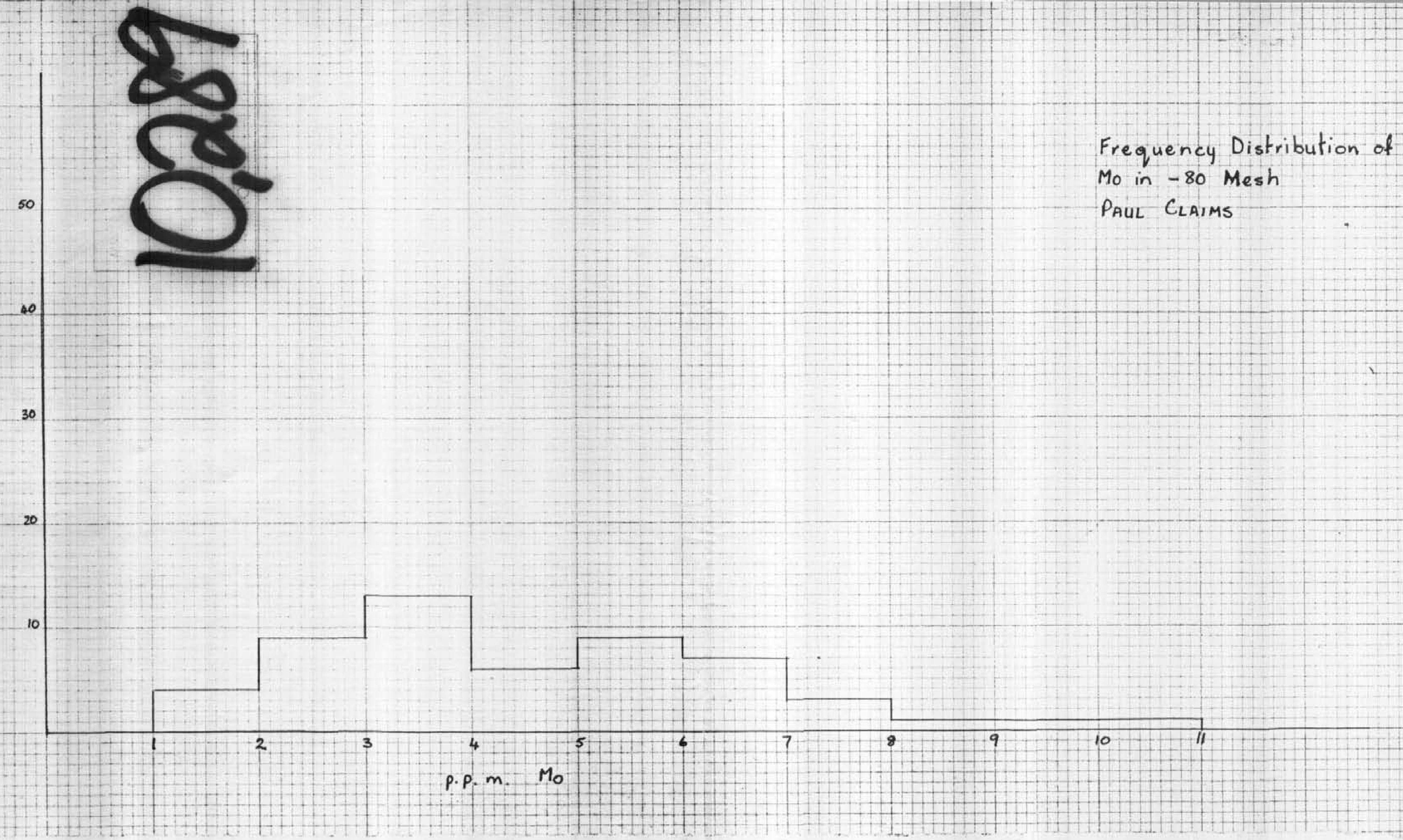

Frequency Distribution of
Mo in -80 Mesh
PAUL CLAIMS
FREQUENCY →
10
20
30
40
50
1
2
3
4
5
6
7
8
9
10
11
p.p.m. Mo
10287

Figure 2h

Figure 2:

10,000

Frequency Distribution of
Mn in -35 +80 Mesh
PAUL CLAIMS