



ASSESSMENT REPORT

ON THE

TAN 1-96 MINERAL CLAIMS

WATSON LAKE MINING DISTRICT

N.T.S. 105-H-12

61° 36' N 129° 52' W

YUKON TERRITORY



FOR

~~SOVEREIGN METALS CORPORATION~~

Pamicon Dev. Co.

BY

D. YEAGER - GEOLOGIST

T. C. SCOTT - GEOLOGIST

C. K. IKONA - P. ENG.

MAY, 1981

090807

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

\$ 11,400.00

R. Debicki A. Reg. Geol.

Resident Geologist or June 1/81
Resident Mining Engineer

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

[Signature]
Commissioner of Yukon Territory

FROM Mining Recorder at **WATSON LAKE**

TO Supervising Mining Recorder at Whitehorse, Y.T.

FOR ACTION ARE:

NEW APPL'N for PLACER LEASE to PROSPECT Name

RENEWAL APPL'N PLACER LEASE to PROSPECT Name

Lease No

AFFIDAVIT of EXPENDITURE on PLACER LEASE Name

Lease No

ASSIGNMENT of PLACER LEASE No

From

To

GROUPING APPL'N UNDER SEC. 52(2) PLACER MINING ACT.

Owner

DIAMOND DRILL LOGS

Claims

Claim sheet no

QUARTZ ASSESSMENT REPORT

Claims

TAN

Claim sheet no

105-11-12

Type of report

Geological, Geochemical

Submitted by


PAMICON DEVELOPMENT LIMITED
~~Sovereign Metals Ltd.~~

Cls. work performed on

TAN 1-96

\$ Req for ren application

\$ 11,400


Signature

REPLY ACTION

Date Ret

090807

Signature



TABLE OF CONTENTS

	<u>Page</u>
1.0 INTRODUCTION	1
2.0 LIST OF CLAIMS	1 - 2
3.0 LOCATION and ACCESS	2
4.0 TOPOGRAPHY and VEGETATION	2
5.0 GEOLOGY	2 - 3
6.0 GEOCHEMISTRY	
6.1 Introduction	3
6.2 Lead Geochemistry	3 - 4
6.3 Zinc Geochemistry	4
6.4 Silver Geochemistry	4
7.0 DISCUSSION and CONCLUSIONS	5
8.0 RECOMMENDATIONS	5 - 6

ILLUSTRATIONS

FIGURE 1	LOCATION MAP
FIGURE 2	CLAIM MAP
FIGURE 3	PROPERTY GEOLOGY
FIGURE 4	GRID AREA
FIGURE 5	Pb IN SOILS
FIGURE 6	Zn IN SOILS
FIGURE 7	Ag IN SOILS

APPENDICES

APPENDIX I	ENGINEER'S CERTIFICATE
APPENDIX II	LIST OF PERSONNEL
APPENDIX III	AFFIDAVIT OF EXPENDITURES
APPENDIX IV	CERTIFICATES OF ANALYSIS

1.0 INTRODUCTION

The TAN 1-72 mineral claims were staked by Pamicon Developments Ltd. and Mountaineer Mines Ltd. in March, 1978 to cover a geochemical anomaly in the Frances Lake area of the southeastern Yukon. The initial reconnaissance geochemical sampling was conducted under the supervision of R. Darney and indicated a number of streams having anomalous values for zinc in sediments. The TAN 73-96 mineral claims were staked adjacent to the northeast corner of the property to cover the barite showings reported by D. Yeager (1978) in the Preliminary Report on the TAN claims. Sovereign Metals Corporation subsequently acquired the claims.

During the latter part of March and early April, 1979, a D-7E bulldozer was used to construct a tote road from the Campbell Highway to the TAN claims, a distance of 12 road miles, and to expose some of the barite occurrences by means of trenches.

From July 13 to July 18, 1979 a hand trenching program was carried out by G. Stephen of Watson Lake to expose another barite occurrence in the northernmost part of the claims. During the period October 4 to October 12, 1979 the property was visited by D. Yeager for the purposes of investigating the newly exposed barite and to conduct a geologic evaluation of the base metal potential of the claims. It was recommended that a soil sampling survey be done in the southeast portion of the property. This survey was carried out by D. Caulfield and S. Seney under the supervision of T. C. Scott from June 14, 1980 to July 5, 1980.

2.0 LIST OF CLAIMS

<u>Claim Name</u>	<u>Grant No.</u>	<u>Anniversary Date</u>
TAN 1-72	YA 28319 to YA 28390	April 14, 1981
TAN 73-96	YA 36029 to YA 36052	March 15, 1981

Sovereign Metals Corporation is the sole owner of the claims. Records are maintained at the Mining Recorder's

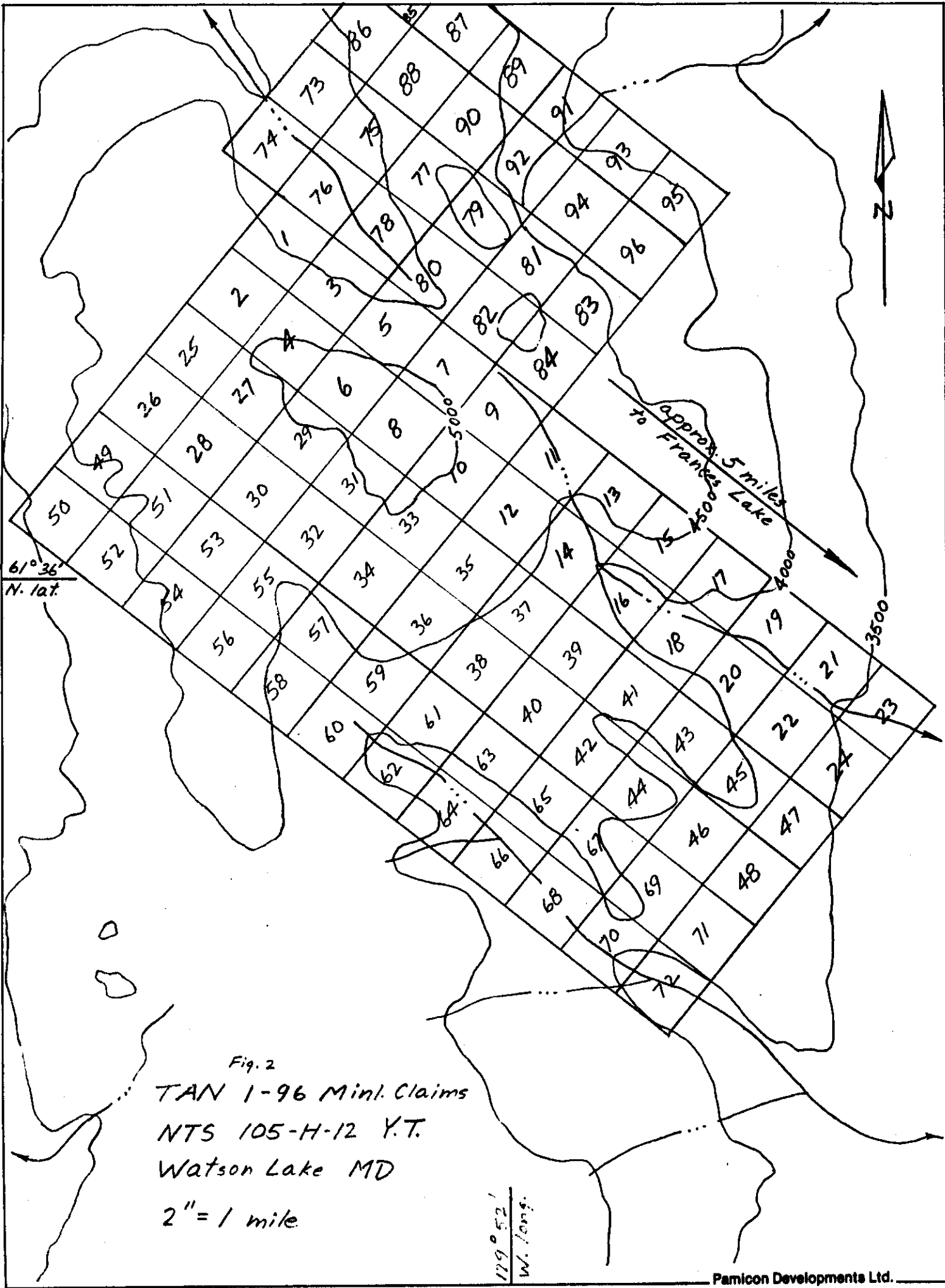


Fig. 2
 TAN 1-96 Minl. Claims
 NTS 105-H-12 Y.T.
 Watson Lake MD
 2" = 1 mile

office in Watson Lake.

Claim posts examined by the author appear to conform with the requirements of the Yukon Quartz Mining Act.

3.0 LOCATION and ACCESS

The TAN 1-96 claims are located on N.T.S. Sheet 105-H-12 approximately 5 miles northwest of Frances Lake in the southeastern Yukon Territory. The approximate N.T.S. coordinates of the claim group are $61^{\circ} 36'$ N latitude and $129^{\circ} 52'$ W longitude.

Access to the property is by helicopter from the Robert Campbell Highway, situated 5 miles to the southwest at its closest point. In addition, a recently constructed tote road, from the Highway to the claims, can be traversed by bulldozer sloop to facilitate movement of equipment to and from the property - ground conditions permitting.

Both helicopter and fixed wing aircraft, as well as full expediting services are available in Ross River, approximately 88 miles to the west-northwest. Daily jet service and all essential supply services are also available at Watson Lake, some 122 road miles to the south.

4.0 TOPOGRAPHY and VEGETATION

The property covers a high, plateau topped mountain on the west side of the Frances Lake Valley and lies between elevations of 3,500 feet and 5,000 feet A.S.L. Topography ranges from gentle to steep. The claims area is cut by a number of deeply incised southeasterly trending creek canyons.

Treeline is at the 4,000 foot elevation level where birch, poplar, and black spruce give way to scattered scrub balsam, lichen and grasses typical of an arctic-alpine environment.

5.0 GEOLOGY

The geology of the entire area has been mapped by the Geological Survey of Canada at 1:250,000 scale and is

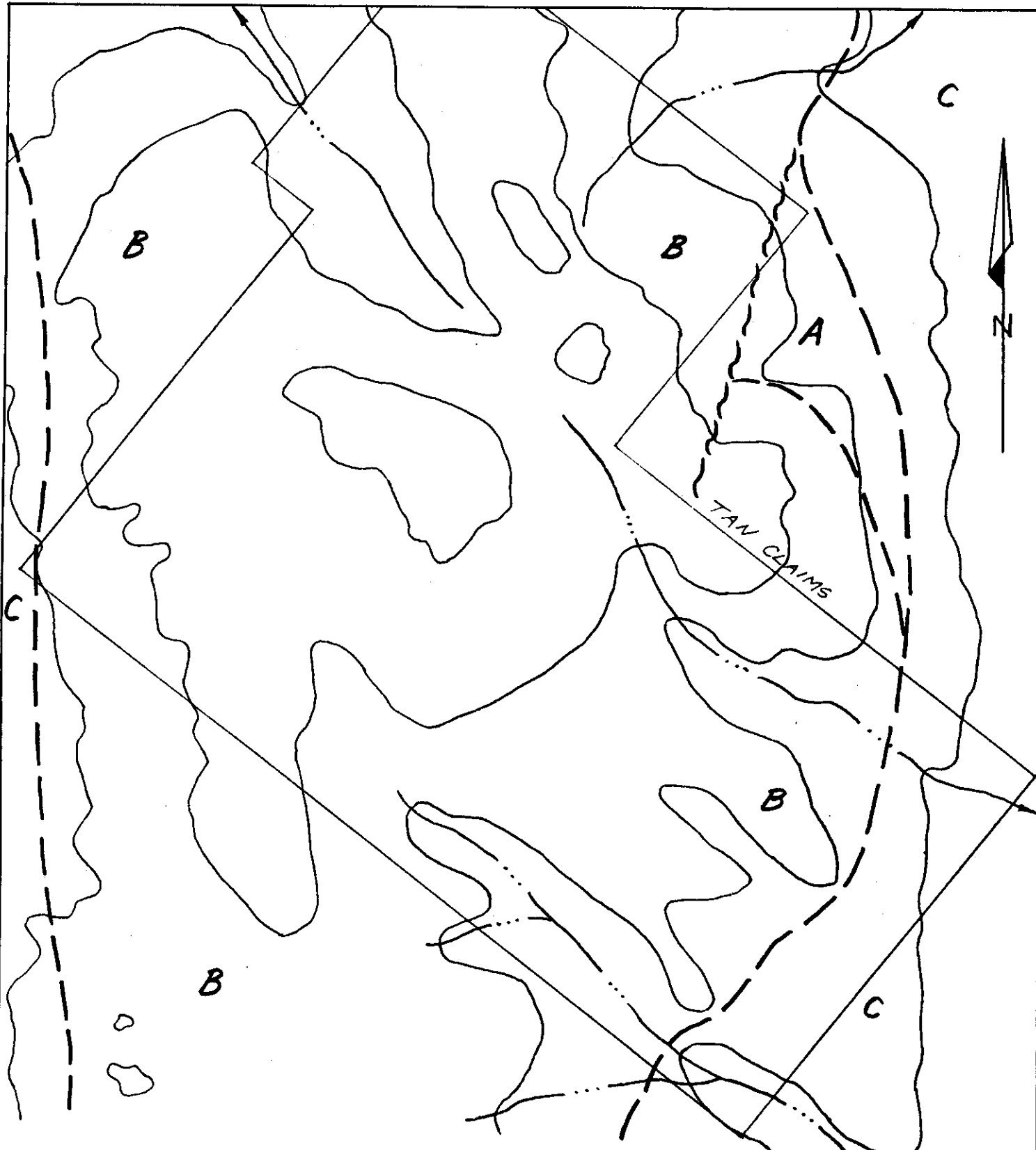
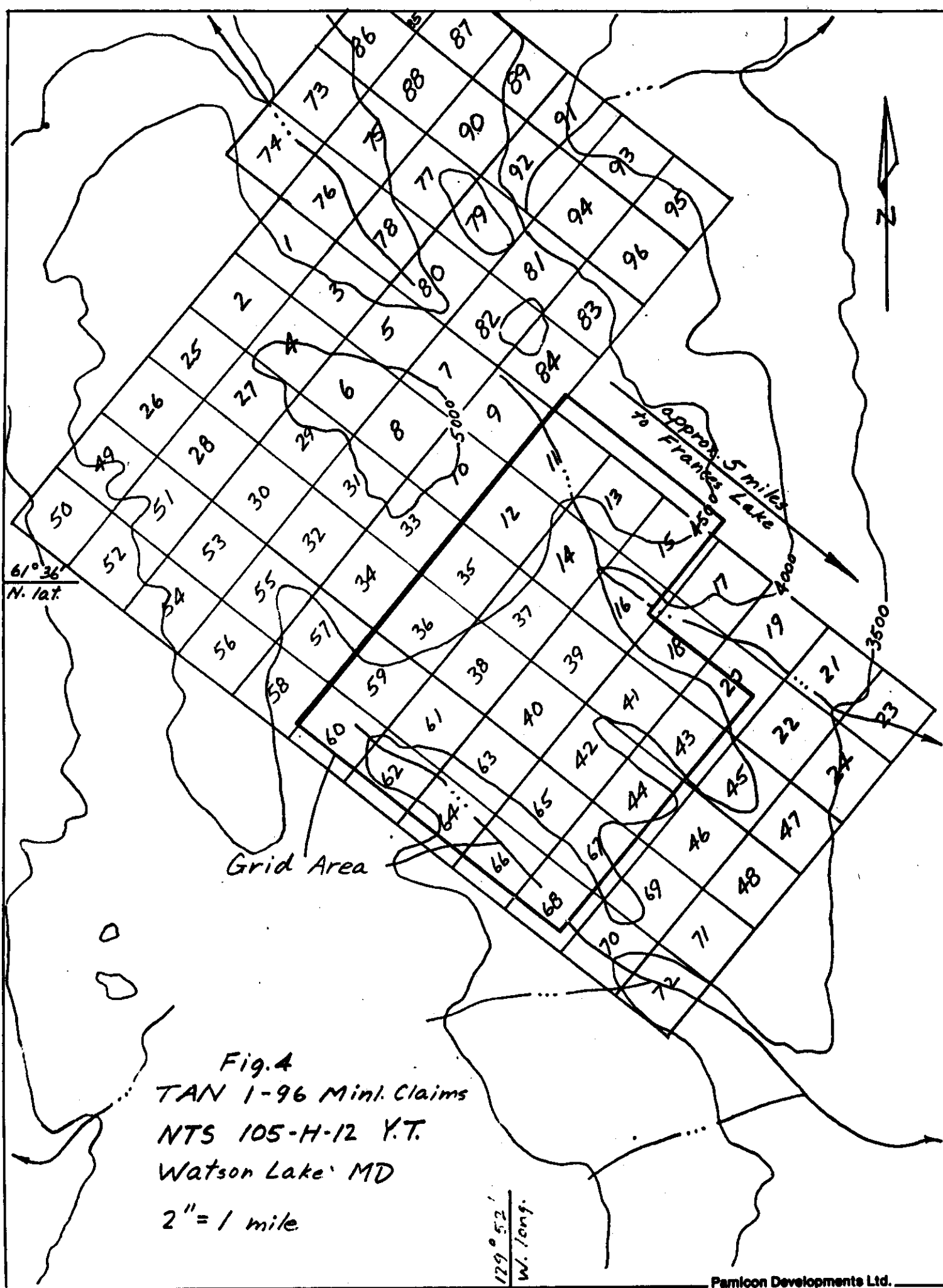


Fig. 3
 TAN 1-96 MINL. CLAIMS
 GEOLOGY
 N.T.S. 105-H-12 Y.T. 2" = 1 mile

- Quaternary
- C** Gravel & Alluvial deposits
- CANOL equivalent?
- Devonian (?) & Mississippian
- B** Shale, chert, quartzite, greywacke, conglomerate, limestone, dolomite.
- ROAD RIVER equivalent
- Silurian & Devonian (?)
- A** dolomite, quartzite, silty dolomite



presented in Map 6 - 1966, Geology of Frances Lake, Yukon Territory and District of Mackenzie, by E. F. Roots (1953), L. H. Green and J. A. Roddick (1960) and S. L. Blusson (1962, 1965).

The property geology is presented in Figure 3 of this report.

6.0 GEOCHEMISTRY

6.1 Introduction

A reconnaissance style grid was established on the property using handheld Silva compasses to control line direction and Hip chain distance meters for measurements. Stations were marked with flagging tape tied to vegetation. A 2,800 metre baseline was run at 219° with crosslines established every 200 metres. Stations were marked on the crosslines at 60 metre intervals. Crosslines were up to 2,220 metres long.

A total of 465 soil samples were taken at grid stations from B-horizon material where possible. The samples were placed in kraft envelopes numbered with the grid co-ordinates. The samples were analyzed for lead, zinc and silver by Chemex Labs Ltd. of North Vancouver, B. C.

6.2 Lead Geochemistry

Lead in soil values ranged from 2 parts per million to 142 parts per million. An analysis of the values shows a normal distribution from 0 ppm to 28 ppm; an anomalous population 28 ppm to 38 ppm; and a very anomalous population above 38 ppm. The results are plotted on figure 5 of this report at a scale of 1:12,000.

A large zone of anomalous areas exists from line 16 W to line 24 W between 4 + 80 S and 22 + 20 S. An anomalous area at 22 + 20 S indicates that the zone is open to the grid south. Four of the anomalous areas

stretch across two or more lines and include two or more stations. Another sixteen locations exhibit "single station" highs.

6.3 Zinc Geochemistry

Zinc in soil values ranged from 6 parts per million to 770 parts per million. An analysis of the values shows a normal distribution from 0 ppm to 140 ppm; an anomalous population from 140 ppm to 250 ppm; and a very anomalous population above 250 ppm. The results are plotted on figure 6 of this report at a scale of 1:12,000.

A number of anomalous areas occur in the map area. Zones including several stations and/or reaching across two lines occur at approximately 24 W 0 S; 24 W 19 S; 18 W 20 + 80 S; 16 W 9 + 60 S; 10 W 15 S; 8 W 18 + 40 S; 6 W 3 + 60 S; 0 W 13 + 20 S. Another sixteen locations exhibit one or two station highs.

6.4 Silver Geochemistry

Silver in soil values ranged from 0.1 parts per million (many samples) to 6.2 parts per million. An analysis of the values shows a normal distribution from 0 ppm to 1.1 ppm; an anomalous population from 1.1 ppm to 1.7 ppm; and a very anomalous population above 1.7 ppm. The results are plotted on figure 7 of this report at a scale of 1:12,000.

A large zone of anomalous areas exists from line 18 W to line 24 W between 0 S and 10 + 20 S. Values at 0 S 22 W and 0 S 24 W indicate that the zone may be open to the grid north. Other relatively large anomalies occur at 18 W 14 + 14 S and 18 W 21 + 60 S. Another eight locations exhibit single or double stations high.

7.0 DISCUSSION and CONCLUSIONS

A comparison of the distribution of lead, zinc and silver in soils in the grid area shows a number of coincident anomalies.

Anomaly A (high Ag, moderate Pb, Zn): This zone is defined by the large silver anomaly centred on 22 W 3 S. The best values cover an area 800 metres by 600 metres in size with slightly lower values over a larger area. There are four single or double station zinc anomalies within the silver area as well as two single station lead highs.

Anomaly B (high Ag, moderate Pb, Zn): This zone lies immediately to the south of anomaly A and is outlined by a silver anomaly centred on 22 W 8 + 40 S. The anomaly is associated with several single station lead and zinc highs.

Anomaly C (high Pb, Zn, Low Ag): This zone is defined by a coincident lead/zinc anomaly centred on 24 W 19 S. There are no anomalous silver values associated with the zone.

Anomaly D (high Pb, Zn, Ag): This zone is defined by a lead in soil anomaly with highest value at 18 W 21 S. The zone extends approximately 400 metres to the grid west and is approximately 200 metres wide. The high silver and zinc values were located at the (grid) eastern end of the anomaly.

The four anomalous zones listed above are of particular interest and should be followed up. Several of the zones are very large and could indicate significant exploration targets. If possible, the sites of all the rest of the anomalies should be briefly inspected to try to determine the source of the high metal values.

8.0 RECOMMENDATIONS

- 1) The four anomalous areas should be inspected on the ground. If there is sufficient outcrop, prospecting should be carried out. If no outcrop is available, additional grid lines should be run and fill-in soil sampling completed.

- 2) Trenching should then be carried out if any areas of interest are outlined by the prospecting and/or soil sampling programs. A two man trenching crew using a portable drill and explosives is recommended for a first stage of trenching. If any targets are developed, the area should be geologically mapped and a more extensive trenching program carried out.
- 3) A continuation of the assessment of the barite deposits in the northeast portion of the claims is recommended. The Assessment Report by Yeager and Ikona (1980) indicated the presence of a barite lens with surface indications of 200 tons per vertical foot (725 tonnes/vertical metre) of up to 95% barite. The lens appears to extend along strike under overburden and requires more surface trenching to test these strike extensions. In addition, deeper surface trenching should be carried out on the central part of the lens to determine attitudes of hanging wall and footwall where possible. This information is necessary for tonnage calculations.

If trenching along strike on the vein indicates continuity of mineralization, the tonnage per vertical foot would thereby be considerably increased and production of barite from the property would be studied.

A two man trenching crew equipped with a lightweight compressor and jackleg, drill steel, and explosives should be mobilized to the property early in the 1981 season. Trenching should be carried out on strike extensions of the "A" barite zone described in the 1980 report.

Respectfully submitted,

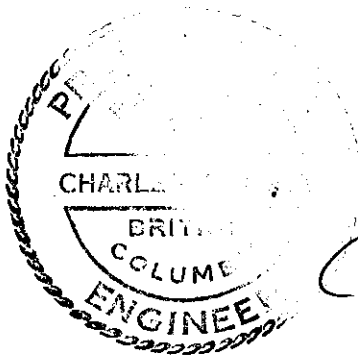
D. A. Yeager - Geologist

David A. Yeager

T. C. Scott - Geologist

T. C. Scott

C. K. Ikona - P. Eng.



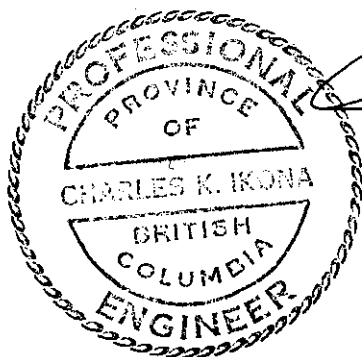
C. K. Ikona

ENGINEER'S CERTIFICATE

I, CHARLES K. IKONA, of 5 Cowley Court, Port Moody, in the Province of British Columbia, DO HEREBY CERTIFY THAT:

1. I am a Consulting Mining Engineer with offices at 208-850 West Hastings Street, Vancouver, B.C.
2. I am a graduate of the University of British Columbia with a degree in Mining Engineering.
3. I am a member in good standing of the Association of Professional Engineers of the Province of British Columbia.
4. I personally inspected the property on June 12, 1977.
5. The work reported herein was conducted during a program under my supervision and under the supervision of a Geologist, T. Cameron Scott, whom I have known for a period of years and in whom I have every confidence.

DATED at Vancouver, British Columbia this 3 day of MAY, 1981.




Charles, K. Ikona, P. Eng.

STATEMENT OF PERSONNEL
SOVEREIGN TAN PROPERTY 1980

C.K. IKONA, P. ENG.
208-850 West Hastings Street
Vancouver, B.C.

May	1.00 days @ \$100.00/day	\$100.00	
June	.25 days @ \$150.00/day	37.50	

T. CAMERON SCOTT, GEOLOGIST.
208-850 West Hastings Street,
Vancouver, B.C.

May	.45 days @ \$100.00/day	\$ 45.00	
June	7.00 days @ \$ 95.00/day + Burden	668.77	

DAVID CAULDFIELD, HELPER
208-850 West Hastings Street,
Vancouver, B.C.

June	16.00 days @ \$50.00/day + Burden	\$920.00	
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STANLEY SENEY, HELPER.
208-850 West Hastings Street,
Vancouver, B.C.

June	17.00 days @ \$50.00/day + Burden	<u>\$977.50</u>	\$2,748.77
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DAVID A. YEAGER, GEOLOGIST.
208-850 West Hastings Street,
Vancouver, B.C.

Report preparation during March 1-13, 1981

6.00 days @ \$250.00/day	\$1,500.00	<u>\$1,500.00</u>	
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TOTAL		<u>\$4,248.77</u>	
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CANADA) In the matter of GEOCHEMICAL SURVEY of the TAN 1-96
) Mineral Claims in the Watson Lake Mining District.
)
)
)

TO WIT) On behalf of SOVEREIGN METALS CORPORATION

I, DAVID YEAGER for Pamicon Developments Ltd., of 208,
 850 West Hastings Street, Vancouver, B.C. do solemnly declare that a
geochemical soil sample survey was conducted on the property
as reported herein.

The following expenses were incurred during the course of this work and in the compilation and reporting of the results:

Equipment Rentals	\$
Expendible Field Supplies	<u>417.66</u>
Office Supplies, Maps, Photos	
Drafting and Reproduction	
Equipment and Machinery	<u>414.40</u>
Supplies	<u>81.85</u>
Food	<u>572.36</u>
Expediting	
Freight	<u>84.10</u>
Travel and Accommodation	<u>1,917.84</u>
Prepaid Expenses	
Sundry	<u>15.00</u>
Camp and Miscellaneous Fuels	<u>232.10</u>
Camp Fixed Wing Support	
Overhead	<u>215.90</u>
Wages	<u>2,748.77</u>
Helicopter Support	<u>2,327.63</u>
Assaying and Geochemistry	<u>1,340.13</u>
Trenching	
Contracting Fees	<u>1,036.77</u>
Report Preparation	<u>1,995.00</u>
Not Assigned	
 TOTAL	 <u>\$ 11,404.50</u>

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)
4 day of May, 1981) David A Yeager

H.S. [Signature]

A Commissioner for Oaths for,
 or Notary Public for the Yukon Territory.



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54038
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
OW + OS	8	54	0.1
.6	14	64	0.1
1.2	10	60	0.1
1.8	10	70	0.1
2.4	10	76	0.1
3.0	8	50	0.1
3.6	10	54	0.1
4.2	4	24	0.1
4.8	10	72	0.1
5.4	6	60	0.1
6.0	14	76	0.1
6.6	6	52	0.1
7.2	4	30	0.1
7.8	24	80	0.1
8.4	6	36	0.1
9.0	24	360	0.1
9.6	8	78	0.1
10.2	20	30	0.1
10.8	8	76	0.1
11.4	6	96	0.1
12.0	10	194	0.1
12.6	4	184	0.1
OW + 13.2S	2	315	0.1
2W + OS	12	66	0.1
0.6	6	64	0.1
1.2	14	108	0.1
1.8	24	84	0.1
2.4	26	168	0.1
3.0	14	80	0.1
3.6	8	64	0.1
4.2	14	50	0.1
4.8	8	58	0.1
5.4	4	18	0.1
6.0	24	64	0.1
6.6	12	70	0.1
7.2	12	54	0.1
7.8	12	72	0.1
8.4	8	62	0.1
9.0	6	56	0.1
2W + 9.6S	12	96	0.1



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Har. Bielle*



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 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54039
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
2W + 10.2S	14	68	0.1
10.8	8	82	0.1
11.4	8	104	0.1
12.0	8	114	0.1
12.6	6	118	0.1
2W + 13.2S	4	88	0.1
4W + 0S	8	36	0.1
0.6	16	176	0.1
1.2	12	124	0.1
1.8	14	162	0.1
2.4	12	110	0.1
3.0	16	102	0.1
3.6	14	106	0.4
4.2	22	72	0.1
4.8	8	66	0.1
5.4	10	62	0.1
6.0	10	70	0.2
6.6	10	94	0.1
7.2	12	86	0.1
7.8	14	122	0.4
8.4	10	70	0.1
9.0	8	100	0.1
9.6	14	118	0.1
10.2	10	70	0.1
10.8	4	54	0.1
11.4	4	46	0.1
12.0	2	28	0.1
12.6	4	48	0.1
4W + 13.2S	6	62	0.1
6W + 0S	12	100	0.1
0.6	10	52	2.4
1.2	10	88	0.1
1.8	16	134	0.1
2.4	10	76	0.1
3.0	16	140	0.1
3.6	20	162	0.1
4.2	18	156	0.1
4.8	18	122	0.2
5.4	20	148	0.1
6W + 6.0S	14	136	0.1



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Hart Bielle*



CHEMEX LABS LTD.

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 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 54040

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

INVOICE NO. 36774

RECEIVED July 2, 1980

ATTN: T.C. Scott

ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
6W + 6.6S	12	94	0.2
7.2	12	122	0.1
7.8	10	82	0.1
8.4	10	56	0.1
9.0	6	40	0.1
9.6	4	18	0.1
10.2	6	58	0.1
10.8	4	88	0.1
11.4	6	74	0.2
12.0	8	88	0.2
12.6	8	102	0.2
6W + 13.2S	8	182	0.1
8W + 0S	8	80	0.1
0.6	8	90	0.4
1.2	4	54	0.1
1.8	20	54	1.0
2.4	24	80	0.4
3.0	30	48	0.8
3.6	8	68	0.4
4.2	10	78	0.2
4.8	12	46	0.2
5.4	12	64	0.1
6.0	8	82	0.1
6.6	12	94	0.1
7.2	10	86	0.1
7.8	10	122	0.1
8.4	14	116	0.1
9.0	8	74	0.4
9.6	4	124	0.1
10.2	20	120	0.1
10.8	8	146	0.4
11.4	8	142	0.1
12.0	8	38	0.1
12.6	2	54	0.2
13.2	4	52	0.2
13.8	4	50	0.8
14.4	2	28	0.4
15.0	4	72	0.1
15.6	10	92	0.1
8W + 16.2S	8	146	0.1



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Starrselle*



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54041
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
8W + 16.8S	4	54	0.1
17.4	12	265	0.4
18.0	1	72	0.1
18.6	2	128	0.1
19.2	4	98	0.1
17.8	1	52	0.1
20.4	1	24	0.1
21.0	2	110	0.1
21.6	6	770	0.1
8W + 22.2S	8	76	3.0
10W + 0S	20	140	0.1
0.6	6	56	0.1
1.2	16	84	0.1
1.8	14	68	0.1
2.4	12	28	0.1
3.0	8	36	0.1
3.6	6	26	2.0
4.2	34	18	2.6
4.8	6	38	0.1
5.4	14	94	0.2
6.0	10	74	0.1
6.6	6	48	0.1
7.2	16	92	0.1
7.8	14	90	0.1
8.4	12	68	0.1
9.0	14	62	0.1
9.6	6	44	0.1
10.2	12	82	0.1
10.8	6	30	0.1
11.4	6	38	1.4
12.0	8	44	0.2
12.6	10	168	0.1
13.2	12	106	0.1
13.8	10	58	0.2
14.4	10	230	0.8
15.0	16	410	0.2
15.6	14	86	0.1
16.2	16	88	0.1
16.8	18	110	0.6
10W + 17.4S	10	84	0.1



MEMBER
 CANADIAN TESTING
 ASSOCIATION

CERTIFIED BY: *Hart Bielle*



CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

• ANALYTICAL CHEMISTS • GEOCHEMISTS • REGISTERED ASSAYERS

CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54042
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
10W + 18.0S	6	190	0.1
18.6	4	48	0.1
19.2	8	104	0.2
19.8	4	44	0.1
20.4	30	46	0.1
21.0	10	86	0.2
21.6	8	118	0.1
10W + 22.2S	2	58	0.1
12W + 0S	10	58	0.2
0.6	12	58	0.2
1.2	10	50	0.1
1.8	10	74	0.1
2.4	8	56	0.1
3.0	12	74	0.1
3.6	16	60	0.1
4.2	16	34	0.4
4.8	16	68	0.1
5.4	10	64	0.1
6.0	16	52	0.1
6.6	10	30	0.1
7.2	12	46	0.1
7.8	12	32	0.1
8.4	12	48	0.6
9.0	8	22	0.1
9.6	12	34	0.1
10.2	16	48	0.1
10.8	8	26	0.1
11.4	10	44	0.1
12.0	8	68	0.1
12.6	12	56	0.4
13.2	10	46	0.1
13.8	8	52	0.2
14.4	8	46	0.1
15.0	14	56	0.6
15.6	8	14	0.2
16.2	4	12	1.0
16.8	16	92	1.4
17.4	14	92	0.2
18.0	10	78	0.6
10W + 18.6S	10	66	0.2



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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
 NORTH VANCOUVER, B.C.
 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54043

INVOICE NO. 36774

RECEIVED July 2, 1980

ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
12W + 19.2S	12	74	0.6
12W + 19.8S	12	54	0.2
14W + 0S	12	68	0.1
1.2	8	48	0.1
1.8	14	64	0.1
2.4	14	88	0.1
3.0	22	54	0.1
3.6	18	52	0.1
4.2	22	44	0.4
4.8	16	40	0.1
5.4	14	64	0.1
6.0	8	40	0.6
6.6	4	26	0.1
7.2	16	64	0.1
7.8	10	78	0.4
8.4	12	280	0.4
9.0	10	34	0.1
9.6	10	30	0.1
10.2	10	32	0.1
10.8	14	84	0.1
11.4	16	76	0.2
12.0	4	42	0.1
12.6	10	92	0.1
13.2	10	52	0.4
13.8	18	68	0.4
14.4	8	50	0.1
15.0	6	64	0.1
15.6	12	44	0.6
16.2	8	76	0.1
16.8	10	36	0.2
17.4	8	52	0.2
18.0	12	72	0.1
18.6	6	72	0.1
19.2	10	68	0.1
19.8	12	64	0.1
20.4	10	66	0.1
21.0	10	320	0.1
14W + 21.6S	12	64	0.1
16W + 0S	8	64	0.1
0.6	12	62	0.1
16W + 1.2S	12	36	0.1



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 CANADA V7J 2C1
 TELEPHONE: 984-0221
 AREA CODE: 604
 TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54044
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
16W + 1.8S	10	44	0.8
2.4	10	44	0.1
3.0	12	52	0.1
3.6	8	10	0.1
4.2	12	52	0.4
4.8	12	42	0.1
5.4	70	46	0.4
6.0	6	6	0.8
6.6	42	56	0.4
7.2	20	40	0.4
7.8	24	48	0.1
8.4	8	38	0.1
9.0	6	265	0.6
9.6	18	172	0.8
10.2	30	350 ✓	1.6
10.8	18	72	0.2
11.4	32	180	0.2
12.0	18	100	0.1
12.6	22	106	0.4
13.2	12	108	0.1
13.8	12	82	0.1
14.4	10	80	0.1
15.0	6	32	0.1
15.6	14	122	0.1
16.2	14	102	0.1
16.8	10	98	0.6
17.4	14	140	1.4
18.0	10	124	1.2
18.6	12	102	0.4
19.2	10	160	0.1
19.8	16	134	0.1
20.4	12	78	0.1
21.0	18	116	0.1
16W + 21.6S	6	22	0.1
18W + 0S	14	82	0.1
0.6	16	66	0.1
1.2	12	66	1.0
1.8	10	62	0.6
2.4	16	54	0.4
18W + 3.0S	20	96	2.6



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 AREA CODE: 604
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TO: Pamicon Developments Ltd.
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 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54045

INVOICE NO. 36774

RECEIVED July 2, 1980

ANALYSED July 10, 1980

SAMPLE NO. :	PPM	PPM	PPM
	Pb	Zn	Ag
18W + 3.6S	14	74	1.4
4.2	14	80	0.1
4.8	6	16	0.1
5.4	16	62	0.6
6.0	30	58	0.4
6.6	42	64	0.2
7.2	16	58	2.0
7.8	14	54	0.6
8.4	16	88	0.4
9.0	10	36	1.0
9.6	10	84	0.2
10.2	12	68	0.1
10.8	6	62	0.1
11.4	22	68	0.4
12.0	4	74	0.1
12.6	18	96	1.4
13.2	32	34	2.2
13.8	8	44	0.2
14.4	14	66	3.0
15.0	12	62	0.1
15.6	30	110	0.1
16.2	8	86	0.1
16.8	4	98	0.1
17.4	6	98	0.6
18.0	14	68	0.1
18.6	16	114	0.1
19.2	38	330 ✓	2.6
19.8	42	360 ✓	2.4
20.4	26	184	1.6
21.0	54	142	0.4
21.6	26	182	2.0
18W + 22.2S	24	108	0.8
20W + 0S	10	76	0.2
0.6	12	56	0.1
1.2	6	48	0.1
1.8	8	64	0.2
2.4	4	44	0.4
3.0	8	86	1.8
3.6	10	114	3.2
20W + 4.2S	16	168	2.0



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 AREA CODE: 604
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CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
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 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

CERTIFICATE NO. 54046

INVOICE NO. 36774

RECEIVED July 2, 1980

ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
20W + 4.8S	18	92	1.6
5.4	16	82	1.4
6.0	18	72	0.2
6.6	18	70	1.0
7.2	14	58	0.6
7.8	8	38	0.8
8.4	48	94	0.8
9.0	26	295 ✓	1.0
9.6	24	68	1.8
10.2	18	70	0.6
10.8	14	70	0.4
11.4	22	44	0.2
12.0	30	66	0.1
12.6	18	90	0.1
13.2	12	74	0.8
13.8	10	72	0.8
14.4	18	54	0.1
15.0	20	112	0.1
15.6	16	142	0.1
16.2	8	48	0.1
16.8	12	94	0.1
17.4	12	106	0.1
18.0	8	18	0.1
18.6	18	78	0.1
19.2	26	72	0.1
19.8	30	76	1.0
20.4	28	82	0.4
21.0	28	88	1.4
21.6	28	114	1.6
20W + 22.2S	42	78	0.8
22W + 0S	10	78	2.0
0.6	6	116	1.0
1.2	4	86	4.4
1.8	18	128	4.6
2.4	2	158	4.8
3.0	22	58	2.4
3.6	20	74	2.0
4.2	12	166	1.8
4.8	28	98	3.4
22W + 5.4S	12	82	0.1



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 TELEPHONE: 984-0221
 AREA CODE: 604
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CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
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ATTN: T.C. Scott

CERTIFICATE NO. 54047
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
22W + 6.0S	16	98	1.4
6.6	22	72	1.6
7.2	14	82	2.0
7.8	28	92	1.0
8.4	20	72	6.2
9.0	20	86	3.0
9.6	94	110	1.4
10.2	8	48	1.2
10.8	142	80	0.4
11.4	36	100	0.1
12.0	32	94	0.1
12.6	24	84	0.1
13.2	30	102	1.2
13.8	8	86	0.2
14.4	8	58	0.4
15.0	18	78	0.4
15.6	14	82	0.1
16.2	18	72	0.1
16.8	42	68	0.2
17.4	28	40	0.1
18.0	12	32	0.1
18.6	26	98	0.2
19.2	28	108	0.1
19.8	12	58	0.1
20.4	30	58	0.1
21.0	16	100	0.1
21.6	32	76	0.1
22W + 22.2S	32	96	0.4
24W + 0S	30	158	1.4
0.6	16	154	0.2
1.2	16	106	0.2
1.8	16	80	1.0
2.4	16	92	1.8
3.0	14	118	3.6
3.6	10	102	2.8
4.2	12	84	1.0
4.8	8	104	0.6
5.4	14	74	0.4
6.0	14	112	2.0
24W + 6.6S	14	86	0.2



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CHEMEX LABS LTD.

212 BROOKSBANK AVE.
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 TELEPHONE: 984-0221
 AREA CODE: 804
 TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 54048

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

INVOICE NO. 36774

RECEIVED July 2, 1980

ATTN: T.C. Scott

ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
24W + 7.2S	20	94	0.1
7.8	14	88	1.0
8.4	16	82	0.1
9.0	14	106	0.2
9.6	14	72	0.2
10.2	10	94	0.1
10.8	12	102	0.1
11.4	10	78	0.1
12.0	16	70	0.2
12.6	16	78	0.1
13.2	12	90	0.1
13.8	20	82	0.1
14.4	22	134	0.1
15.0	34	72	0.4
15.6	14	68	0.2
16.2	28	110	0.1
16.8	22	118	0.2
17.4	54	300	0.4
18.0	36	380	0.2
18.6	62	265	0.6
19.2	74	186	0.4
19.8	14	126	0.4
20.4	28	176	0.2
21.0	16	66	0.1
21.6	22	118	0.1
24W + 22.2S	20	78	0.1
28W + 0S	14	74	0.1
0.6	32	124	0.1
1.2	16	96	0.1
1.8	8	28	0.1
2.4	12	76	0.1
3.0	10	64	0.1
3.6	12	68	0.2
4.2	10	66	0.1
4.8	14	72	0.1
5.4	12	82	0.1
6.0	16	96	0.4
6.6	12	58	0.2
7.2	6	36	0.1
28W + 7.8S	16	98	0.1



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 AREA CODE: 604
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CERTIFICATE OF ANALYSIS

TO: Pamicon Developments Ltd.
 208 - 850 W. Hastings Street
 Vancouver, B.C. V6B 1P1

ATTN: T.C. Scott

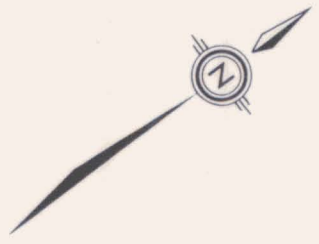
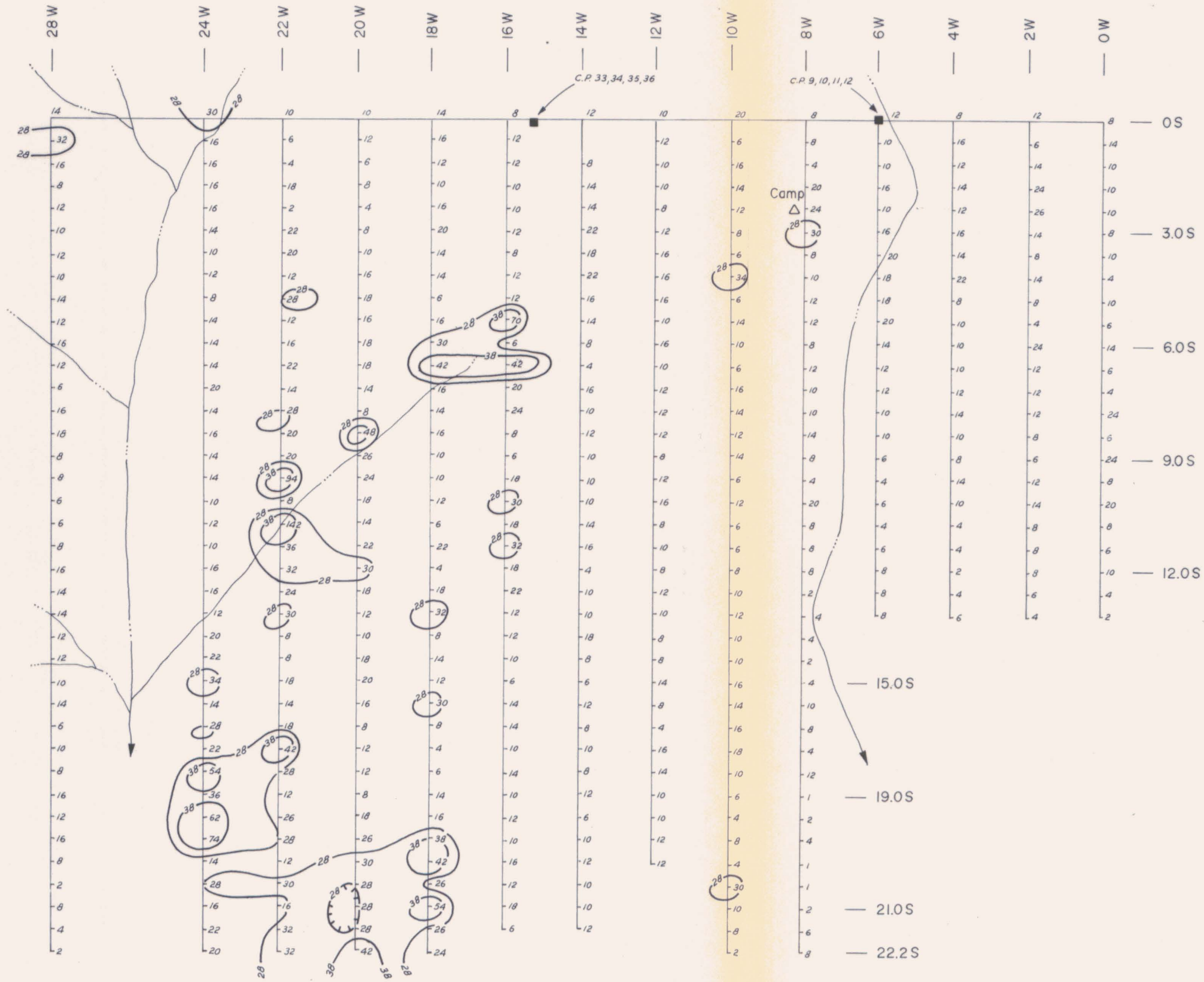
CERTIFICATE NO. 54049
 INVOICE NO. 36774
 RECEIVED July 2, 1980
 ANALYSED July 10, 1980

SAMPLE NO. :	PPM Pb	PPM Zn	PPM Ag
28W + 8.4S	18	82	0.1
9.0	8	80	0.1
9.6	8	38	0.1
10.2	6	38	0.1
10.8	6	40	0.1
11.4	8	66	0.1
12.0	16	78	0.1
12.6	14	68	0.1
13.2	14	80	0.1
13.8	12	96	0.1
14.4	12	100	0.1
15.0	10	88	0.1
15.6	14	116	0.1
16.2	6	68	0.1
16.8	10	46	0.1
17.4	8	42	0.1
18.0	16	98	0.1
18.6	12	76	0.1
19.2	16	78	0.1
19.8	8	68	0.1
20.4	2	48	0.1
21.0	8	88	0.1
21.6	4	34	0.1
28W + 22.2S	2	34	0.1



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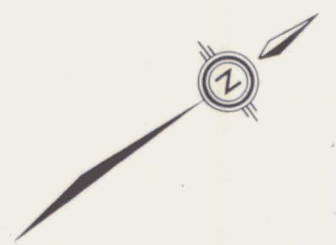
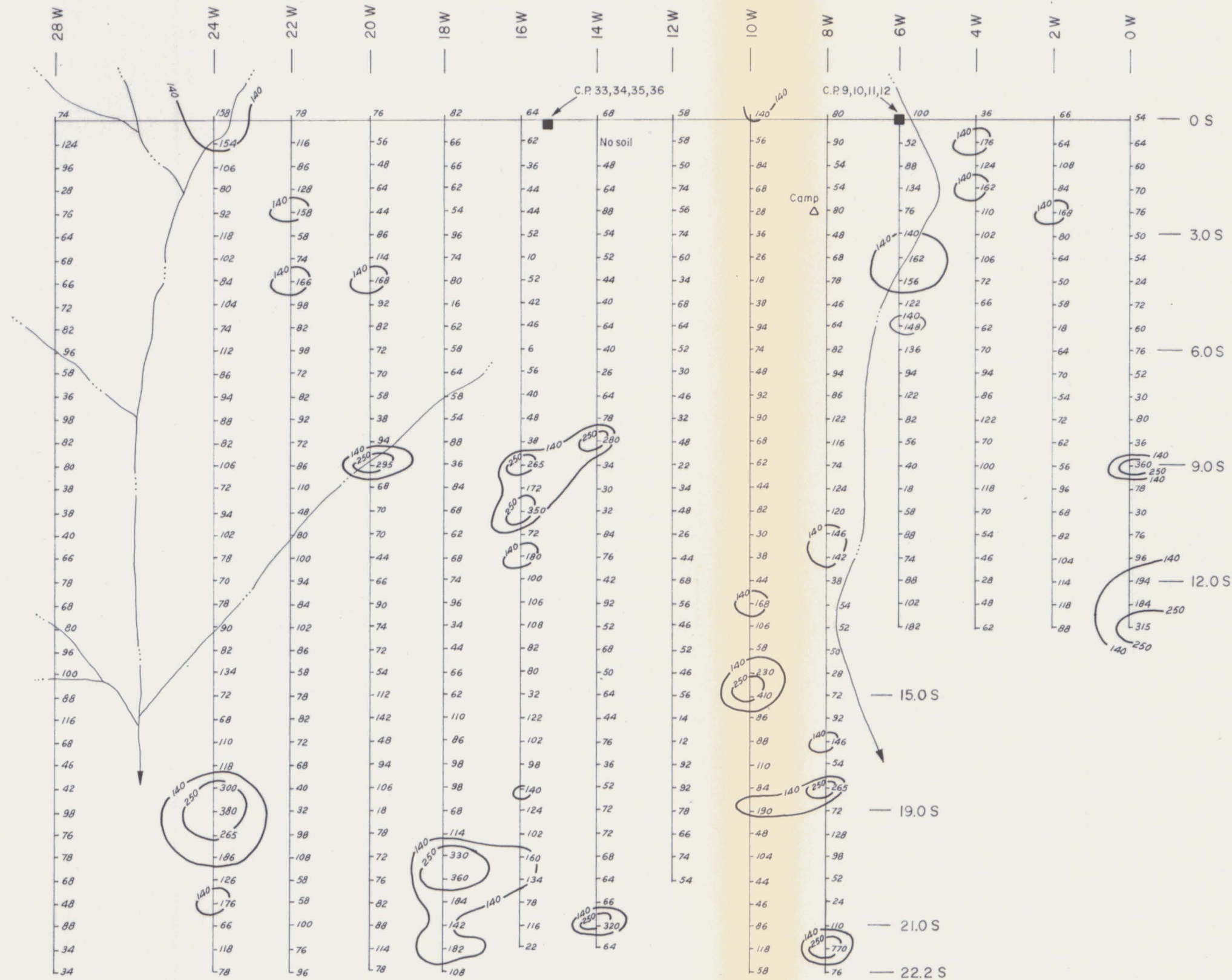
Values in parts per million

SOVEREIGN METALS CORP.
 TAN I-96 MINERAL CLAIMS
 N.T.S. 105-H-12
 YUKON TERRITORY
 Pb in Soils

m 200 100 0 200 400 600 m

PAMICON DEVELOPMENTS LTD.

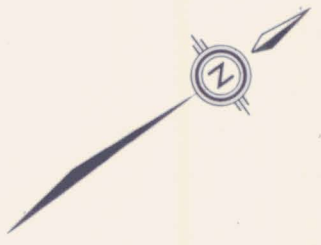
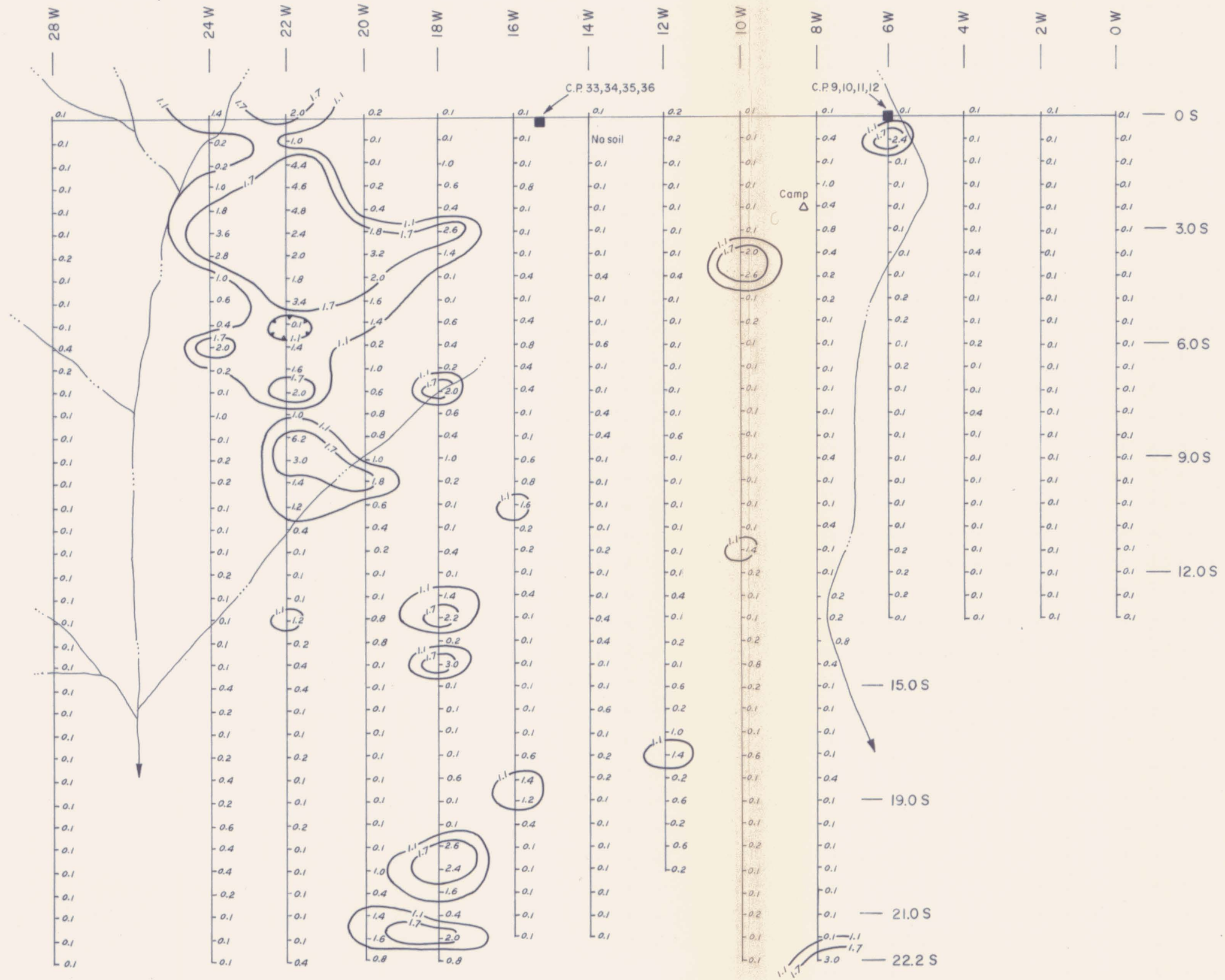
DRAWN: J.W. Drafting	PROJECT: TAN	DATE: March - 1981	FIG. 5
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Values in parts per million

SOVEREIGN METALS CORP.			
TAN I-96 MINERAL CLAIMS			
N.T.S. 105-H-12 YUKON TERRITORY			
Zn in Soils			
PAMICON DEVELOPMENTS LTD.			

DRAWN. J.W. Drafting	PROJECT. TAN	DATE. March - 1981	FIG. 6
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Values in parts per million

SOVEREIGN METALS CORP.
TAN 1-96 MINERAL CLAIMS
N.T.S. 105-H-12
YUKON TERRITORY
Ag in Soils

m 200 100 0 200 400 600

PAMICON DEVELOPMENTS LTD.

DRAWN JW Drafting	PROJECT TAN	DATE March - 1981	FIG. 7
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