

CANADIAN OCCIDENTAL PETROLEUM LTD.

MINERALS DIVISION



GEOLOGY AND GEOCHEMISTRY

OF THE

WOX CLAIM GROUP

AND

NISU CLAIM GROUP



Claim Sheet No. 105F/1 and 105F/2

Lat.: 61°10'W
Long.: 132°30'N

Claims: NISU 1-16
WOX 1-72

WATSON LAKE MINING DISTRICT
YUKON TERRITORY

090838

By:

C.J. Richardson

Work Completed: Summer 1980

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 \$ 4,800.00

R. Delbrick A. Reg. Geol.
Resident Geologist or July 2/81
Resident Mining Engineer

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

Commissioner of Yukon Territory

628000

FROM: Mining Recorder at Watson Lake

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: _____

AFFIDAVIT of EXPENDITURE on PLACER LEASE. Name: _____

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: NISU 1-16 Claim sheet no. 105-F-1/2

Type of report: Geological & Geochemical Submitted by: Canadian Occidental Petroleum

Cls. work performed on: NISU 1-16 \$ Req. for ren. application \$4800.00

[Signature]
Signature

* Receipts held in Watson Office

REPLY ACTION

Date Ret.

090838

Signature



Department of Indian Affairs and Northern Development

YUKON QUARTZ MINING ACT

FORM "C" - APPLICATION FOR A CERTIFICATE OF WORK

(This form required in duplicate with sketch showing location of work.)



I (Name) ROGER H. WALLIS Occupation Chief Geologist

(Postal Address) Unit 311 - 215 Carlingview Dr., Rexdale, Ont. M9W 5X8

OFFICE DATE STAMP

MAKE OATH AND SAY, THAT:-

- 1. I am the owner, or agent of the owner, of the mineral claim(s) to which reference is made herein.
2. I have done, or caused to be done, work on the following mineral claim(s):
(Here list claims on which work was actually done by number and name)

NISU 1-16 YA 55580 - YA 55595

situated at 61°10'N, 132°30'W Claim Sheet No. 105/F1 and 105/F2

in the Watson Lake Mining District, to the value of at least 6,644.33

dollars, since the 23rd day of July 19 80

to represent the following mineral claims under the authority of Grouping Certificate No.
(Here list claims to be renewed in numerical order, by grant number and claim name, showing renewal period requested).

NISU 1-16 YA 55580 - 55595

To be renewed for a period of 3 years.

- 3. The following is a detailed statement of such work: (Set out full particulars of the work done indicating dates work commenced and ended in the twelve months in which such work is required to be done as shown by Section 53.)

Geological survey, geochemical survey, geophysical survey.
See report by C.J. Richardson, B.Sc.
See accompanying financial statements and cost breakdowns.

Sworn before me at Toronto
this 12 day of June 19 81

[Signature]
Notary Public

[Signature]
Applicant.

Robert John Evans, Notary Public,
... work, limited to the attestation
... and the taking of affidavits, for
Canadian Occidental Petroleum Ltd.
Expires February 7, 1984.

PROJECT WATSU

1980

Statement of Expenditures

Claims NISU

Record Numbers YA55580-YA55595



1) Salaries & Benefits	\$3,144.00 ¹
2) Helicopter flying - <u>8.3</u> hours @ \$315/hour	2,115.00 ²
3) Scintillometer rentals (Urtec)	416.00 ³
4) Geochemical Analyses - <u>15 9</u>	365.30 ⁴
Sub Total	6,040.30
5) Administration @ 10%	604.03
Total	\$ <u>6,644.33</u>

Notes:

¹ Pro-rated on basis of 12 man-days worked on claims conducting geological/geochemical/geophysical surveys out of a total of 511 man-days spent on Project Watsu surveys (see attached breakdown on following sheet), unit cost @ \$262/man-day.

² Helicopter flying completed by Northern Mountain Helicopters Inc., Prince George, B.C., unit cost @ \$315/hr.

³ Pro-rated on basis of 12 man-days worked on claims conducting geophysical surveys out of a total of 461 man-days spent on Project Watsu surveys (see attached breakdown on following sheet), unit cost @ \$34.70/man-day.

⁴ Geochemical analyses completed by Chemex Labs of Vancouver, B.C. (see attached cost breakdown), unit cost @ \$2.30 /sample.

PROJECT WATSU
Salaries & Benefits Costs - 1980

<u>Claim Group</u>	<u>No. of Man-Days</u>	<u>@ \$262/m.d.</u>
<u>B.C.</u>		
ALLEN	9	\$ 2,358
KAZ	10	2,620
NEED	37	9,694
PLATE 1-2	26.4	6,917
PLATE 3-4	16.2	4,245
RAN	48	12,576
SHAR 1-2	14	3,668
SHAR 10	4	1,048
SHAR 3, 4, 9, 11	9.7	2,541
SHAR 5-6	16	4,192
SHAR 7-8	37.7	9,877
	#####	
<u>YUKON</u>		
GOAT 1-36	18.5	4,847
BORDER	5	1,310
BIG OX 1-72	54	14,148
CO	9	2,358
GOAT 37-84	25	6,550
ICE	13.1	3,432
LICK	27.7	7,257
MOX	33	8,646
OXY	10.8	2,830
PISA	13	3,406
SAL	19	4,978
TIER	16.8	4,401
WOX	26.8	7,022
NISU	12	3,144
BIG OX 73-76	<u>2</u>	<u>524</u>
TOTALS	<u>511</u>	<u>\$134,099</u>

PROJECT WATSU

Scintillometer Rentals - 1980

<u>Claim Group</u>	<u>No. of Man Days</u>	<u>@ \$34.7/m.d.</u>
<u>B.C.</u>		
ALLEN	9	\$ 312
PLATE 1-2	26.4	916
PLATE 3-4	16.2	562
RAN	48	1,666
SHAR 1-2	14	486
SHAR 10	10	347
SHAR 5-6	16	555
SHAR 7-8	37.7	1,308

#####

YUKON

GOAT 1-36	18.5	642
BORDER	5	174
BIG OX 1-72	54	1,874
CO	9	312
GOAT 37-84	25	868
ICE	13.1	455
LICK	27.7	961
MOX	33	1,145
OXY	10.8	375
PISA	13	451
SAL	19	659
TIER	16.8	584
WOX	26.8	930
NISU	<u>12</u>	<u>416</u>
TOTALS	<u>461</u>	<u>\$16,004</u>

THE NISU CLAIM GROUP

1980

Geochemical Cost Breakdown

<u>Invoice #</u>	<u>Certificate #</u>	<u>Amount</u>
38231	55567	\$153.44
38968	55567	71.60
38595	69941	48.00
40215	A8010016-001-A	78.26
40430	-B	<u>14.00</u>
	TOTAL	\$365.30

TABLE OF CONTENTS

	<u>Page</u>	
I	Introduction	
II	Location and Access	
III	Physiography and Vegetation	
IV	Previous Work	
V	Claim Status	
VI	Work Completed - 1980	
	6.1 Claim Staking	
	6.2 Geological Mapping	
	6.3 Geochemistry	
	6.4 Radiometric Survey	
	6.5 Summary of Work Completed	
	6.6 Names and Addresses of Personnel	
VII	Geology	
	7.1 General Geology	
	7.2 Table of Formations	
	7.3 Description of Rock Units	
	7.4 Structure	
	7.5 Metamorphism	
	7.6 Alteration	
	7.7 Economic Geology	
VIII	Soil Geochemistry	
	8.1 Sampling and Laboratory Procedure	
	8.2 Standard Samples	
	8.3 Statistical Treatment of Results	
	8.4 Summary of Anomalies	
IX	Rock Geochemistry	
X	Stream Sediment Geochemistry	
XI	Heavy Mineral Geochemistry	
XII	Radiometrics	
XIII	Conclusions	
XIV	Recommendations	
XV	References	

APPENDICES

Appendix I	- Analytical Results
Appendix II	- Rock Descriptions and Trace Element Contents
Appendix III	- Sampling and Laboratory Procedures
Appendix IV	- Descriptions of MOLLY Claims - NTS 105 F/1

TABLES

Table I	- Reproducibility of Standard Samples
II	- Probably anomalous, Anomalous levels and Range of Values for Soils
III	- Anomalous levels of Metal Values in Rock Units
IV	- Metal Content of Rock Units
V	- Probably Anomalous and Range of Values for Stream Sediments
VI	- Probably Anomalous and Range of Values for Heavy Minerals.....

Table VII	- Specific Conductibility and pH of Stream Waters
VIII	- Median, Probably Anomalous, Anomalous Levels and Range of Values for Radiometrics
IX	- Frequency Distribution for Molybdenum
X	- Frequency Distribution for Tungsten
XI	- Frequency Distribution for Copper
XII	- Frequency Distribution for Lead
XIII	- Frequency Distribution for Zinc
XIV	- Frequency Distribution for Uranium
XV	- Frequency Distribution for Radiometrics

LIST OF FIGURES

Figure 1	- Location Access of WOX and NISU Claims
Figure 2	- Claim Locations
Figure 3	- Geology Map of MOLLY showing (NISU CLAIMS)
Figure 4	- Frequency Distribution and Cumulative Frequency Graphs for Mo (soils)
Figure 5	- Frequency Distribution and Cumulative Frequency Graphs for W (soils)
Figure 6	- Frequency Distribution and Cumulative Frequency Graphs for Cu (soils)
Figure 7	- Frequency Distribution and Cumulative Frequency Graphs for Pb (soils)
Figure 8	- Frequency Distribution and Cumulative Frequency Graphs for Zn (soils)
Figure 9	- Frequency Distribution and Cumulative Frequency Graphs for U (soils)
Figure 10	- Frequency Distribution Graph for Radiometrics
Figure 11	- Cumulative Frequency Graph for Radiometrics
Figure 12	- Scatter Diagram of Uranium versus Thorium for WOX and NISU Rocks
Figure 13	- Frequency Distribution of Metal Values in Rock Units

PLANS (in back pocket)

Plan 0a	- Base Map - WOX East
Plan 0b	- Base Map - WOX West
Plan 1a	- Geology and Rock Geochemistry - WOX East
Plan 1b	- Geology and Rock Geochemistry - WOX West
Plan 2a	- Soil Geochemistry - contoured Mo values - WOX East
Plan 2b	- Soil Geochemistry - contoured Mo values - WOX West
Plan 3a	- Soil Geochemistry - contoured W values - WOX East
Plan 3b	- Soil Geochemistry - contoured W values - WOX West
Plan 4a	- Soil Geochemistry - contoured Cu values WOX East
Plan 4b	- Soil Geochemistry - contoured Cu values - WOX West
Plan 5a	- Soil Geochemistry - contoured Pb values - WOX East
Plan 5b	- Soil Geochemistry - contoured Pb values - WOX West
Plan 6a	- Soil Geochemistry - contoured Zn values - WOX East
Plan 6b	- Soil Geochemistry - contoured Zn values - WOX West

	<u>Page</u>
Plan 7a - Soil Geochemistry - contoured U values - WOX East	
Plan 7b - Soil Geochemistry - contoured U values - WOX West	
Plan 8a - Scintillometer Survey - contoured values - WOX East	
Plan 8b - Scintillometer Survey - contoured values - WOX West	
Plan 9 - Stream Sediment and Heavy Mineral Geochemistry - WOX East	
Plan 10 - Geological and Soil Geochemical Profile A-A"	
Plan 11 - Geological and Soil Geochemical Profile B-B"	
Plan 12 - Compilation of Geology and Geochemistry	

SUMMARY

The WOX Claim group is located at 61° 10'N, 132° 30'W and comprises 72 individual Claims within N.T.S. map sheet 105F/1 and 2, Watson Lake Mining District, Yukon Territory. The Claims were staked on June 21st, 1979 to cover high U-Mo-W values detected at multi-site G.S.C. - Uranium Reconnaissance Program stream sediment locations released in Open File Report 564 on June 15th, 1979.

The NISU 1-16 Claim group was staked on July 18, 1980 on to the east side of the WOX Claims to cover a known Mo-skarn occurrence (MOLLY Showing). This showing and surrounding area have been examined several times since 1962 and also has been drilled.

The WOX and NISU Claims are underlain by shallowly south-east dipping Silurian hornfels, limestones and quartzites which have been intruded and metamorphosed by granitic rocks of Cretaceous age (Nisutlin Batholith). Carboniferous to Permian greenstone has been thrust over the assemblage from the south west.

The intrusive consists of a porphyritic biotite granite which is gradational into a narrow zone of siliceous biotite-muscovite quartz monzonite at the metasediment-intrusive contact.

Skarns and skarn bands within calc-silicate hornfels were probably developed metasomatically during the intrusive event.

Numerous faults cut the metasediments in the south east portion of the WOX Claims and may be part of the regional structural feature.

The MOLLY showing is a Mo-W skarn-quartz monzonite mineralized zone with visible molybdenite (up to 0.5% Mo) and scheelite (400 ppm W). The skarn is only 10 meters long and 2 meters thick, consequently the economic potential is low. Similarly, nearby mineralized quartz monzonite gave values up to 1.86% Mo and 400 ppm W.

Small skarns (2 cm - 5 cm wide) and skarn bands within hornfels, south of the MOLLY showing, contain visible scheelite with up to 375 ppm W. The black quartzite rocks contain localized galena, sphalerite and pyrrhotite mineralization with up to 780 ppm Zn, 525 ppm Pb and 86 ppm Cu. However, all of the above mineralized zones are economically unfavourable due to their small size, low grades and scarcity.

Strong Mo-W-soil, stream sediment and heavy mineral anomalies are present on the NISU Claim group. One 1200 meter x 100 meter strong W anomaly is present to the south with other smaller soil anomalies located throughout the area. These soil, stream sediment and heavy mineral anomalies are derived from localized MOLLY type mineralized zones. A moderately strong 1400 meter long Pb-Zn soil anomaly is present in the central eastern portion of the WOX Claims and originates from galena, sphalerite and pyrrhotitic quartzites. A very strong U soil anomaly (700 m x 200 m) is present in a swamp south of the Pb-Zn soil anomaly. Its source is not known.

The radiometric survey defined two anomalous areas

(>500 cps) where sheared granite and siliceous quartz monzonite occur. Small uranium anomalies are coincident within the larger radiometric anomalies.

Further detailed geological mapping, prospecting and trenching (blasting) are recommended on the NISU Claims. Optioning of the JOA Claims should be considered and all assessment data examined prior to further work. Detailed soil grids on the NISU Claims along with VLF and/or magnetometer surveys should be carried out. Open soil anomalies on the WOX and NISU Claims should be closed off and soil pits dug in the uranium soil anomaly (Area B).

I. INTRODUCTION

The WOX 1-72 Claims were staked on June 21st, 1979 to cover the headwaters of a multi-site, Geological Survey of Canada high U-W-Mo stream sediment values, released on June 15th, 1979 in Open File Report 564. On July 25th, 1979, CanadianOxy conducted reconnaissance geological mapping, prospecting and geochemical surveys over the WOX Claim group. On July 18th, 1980, the NISU 1-16 Claims were staked on the east side of the WOX Claims to cover a Mo-W skarn area on the lapsed MIJ Claims. From July 23rd to August 2nd, 1980, detailed geological mapping, prospecting and geochemical surveys were done on the WOX and NISU Claim groups.

II. LOCATION AND ACCESS

The WOX and NISU Claim groups, which comprises 88 individual claims, are located at 132°30'W, 61°10'N, within N.T.S. map sheets 105F/1 and 105F/2, Watson Lake Mining

District, Yukon Territory. The WOX Claim Group covers an area of 5.8 mi² (14.9 km²) and the NISU Claim Group covers an area of 1.3 mi² (2.1 km²). (Figures 1, 2)

The Claim group is situated approximately 18 mi (30 km) east of the Canol Road at Quiet Lake, and south of Nisutlin River at the head of Wolf Creek. Access to the claims is via helicopter, approximately 20 to 30 minutes from Quiet Lake.

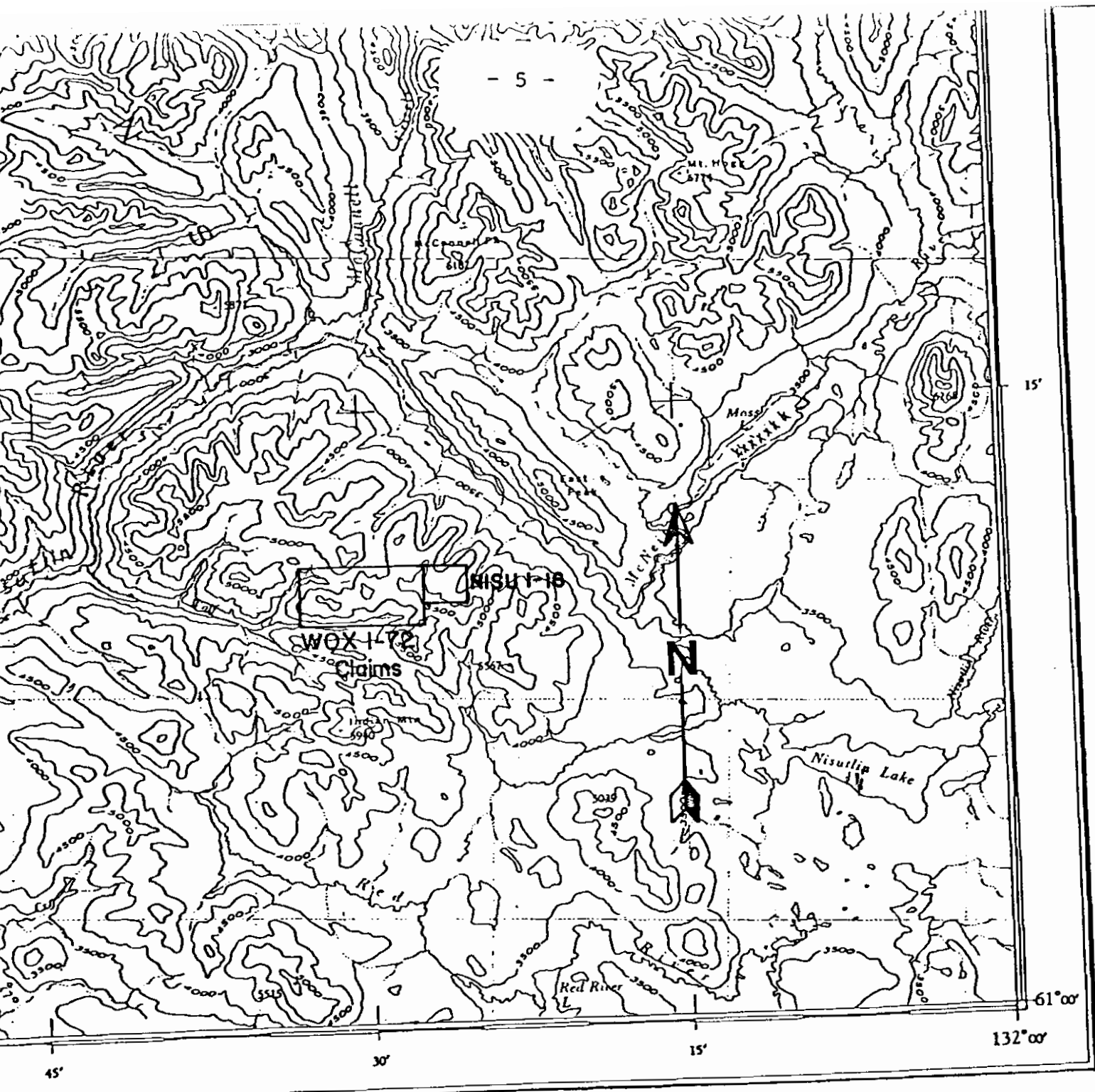
III. PHYSIOGRAPHY AND VEGETATION

The topography of the WOX and NISU Claims consists of a main mountainous ridge (5500') which runs roughly through the middle of the property from east to west. To the south side of the ridge is a gently sloping, broad U shaped valley, which runs down into a swampy area with a small creek. The other side of the valley is much steeper due to outcrop exposed in cirques. The bottom of the north valley also has small scrub and conifers.

To the north of the main ridge a series of fairly steep cirques is present, with minor north-south spurs protruding from the main ridge. There is abundant talus in these cirques and further into the cirques, the valleys are filled with small scrub, bush and swamps.

IV. PREVIOUS WORK

Old claim posts are found in the central portion of the WOX Claims. Those posts probably belong to the now defunct MOLLY Claims. These claims were originally staked by Conwest Explorations Ltd., in September 1962, to cover a



- 3 -

Figure 1

Location and Access of WOX 1-72 Claims
and NISU 1-16 Claims
N.T.S. 105F/1 & 2

Scale: 1: 250,000

molybdenite showing. Conwest subsequently carried out detailed mapping, trenching, and diamond drilling over the showing, plus prospecting over a wider area (See Appendix IV). The best intersection returned 1.08% Mo S₂ over 13.3 ft. The claims were restaked in various parts several times, the last being Archer, Cathro and Associates in 1975, who carried out reconnaissance radiometric and geochemical surveys and subsequently dropped the claims. Until early July, 1980 the showing itself was staked as the MIJ Claims held by J. Irwin of Kamloops, B.C.; it lies within CanadianOxy's NISU 1-16 Claims, adjacent to the northeast corner of the WOX Claims (Figure 2).

The Quiet Lake (105F) map sheet was geologically mapped by the Geological Survey of Canada from 1956 to 1977 (Tempelman-Kluit, 1977). In 1978 the Geological Survey of Canada conducted reconnaissance stream sediment and water sampling over the Quiet Lake sheet. The results were released on June 15th, 1979, as Open File Report 564 and the WOX Claims were staked on June 21st, 1979 to cover multi-site, high U-Mo-W values (24.9 to 47.7 ppm U, 22 to 80 ppm W, 4 to 6 ppm Mo).

On July 25, 1979, CanadianOxy conducted geochemical sampling (ie. soil, silt, rock, and heavy mineral) across the WOX Claim group. Rock geochemistry revealed anomalous U, Mo and W accompanied by high radioactivity within the muscovite-quartz monzonite and dolomitic quartzite. Stream and soil geochemistry reveal strong W, U, Cu, Pb, Zn, and

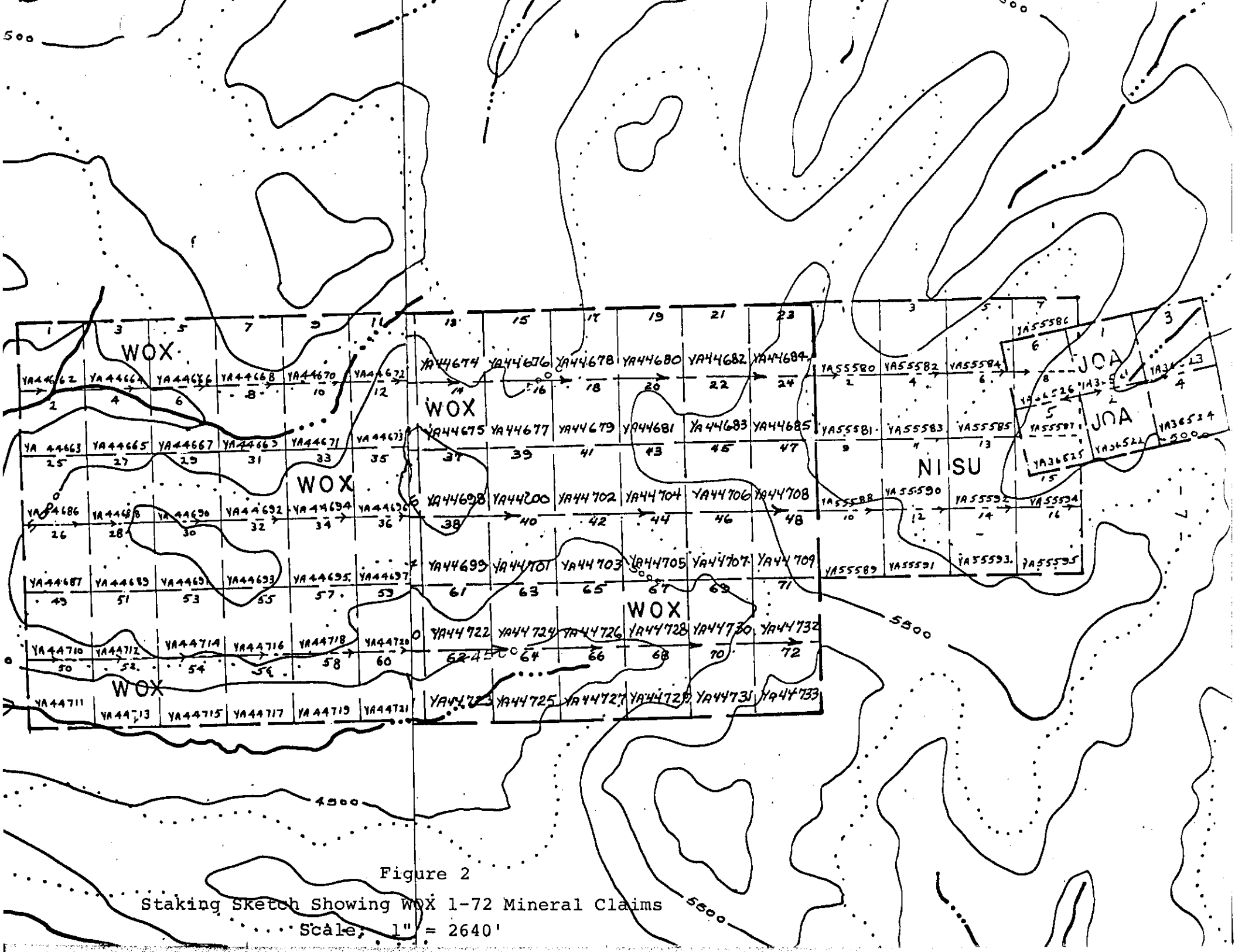


Figure 2

Staking Sketch Showing WOX 1-72 Mineral Claims

Scale, 1" = 2640'

Mo anomalies originating from skarnified quartzite and quartz-monzonite units in the southeast quarter of the claim group.

The JOA Claim group held by J. Irwin, which lies just to the east of the NISU 1-16 Claim, is still in good standing. There are about 6 trenches located on the property. However, the position of the JOA Claims is uncertain with respect to the NISU Claim boundary.

V. CLAIM STATUS

The WOX 1-72 Claims, recorded on July 6, 1979, have been filed for assessment work credit for one year based on work done in 1979. Work done on NISU 1-8 and NISU 9-16, staked on July 18, 1980 and recorded on July 28, 1980, has not yet been filed. Work done on the WOX 1-72 Claims has not been filed for the 1980 assessment work credit.

<u>Claim</u>	<u>No.</u>	<u>Date Staked</u>	<u>Date Recorded</u>	<u>Expiry Date</u>
WOX 1-72	YA44662-733	June 21st, 1979	July 6, 1979	July 6, 1981
NISU 1-8	YA55580-87	July 18, 1980	July 28, 1980	July 28, 1981
NISU 9-16	YA55588-95	July 18, 1980	July 28, 1980	July 28, 1981

VI. WORK COMPLETED - 1980

6.1 Claim Staking (Plan 2)

The NISU Claims were staked on July 18, 1980 by R. Kuehnbaum and F. Gittings. The NISU Claims adjoin onto the east side of the WOX Claims and overlap the area of the previous MIJ Claim group. A total of 16 claims cover an area of 1.3 mi² (2.1 km²). The claims were recorded at Watson Lake District Mining Recorder on July 28, 1980. All claim posts on the

WOX Claim group were located and tagged.

The NISU 1-16 Claims are thought to partially overlap the JOA Claims. The position of the NISU Claims on the claim map is thought to be incorrectly located with respect to the JOA Claims. The above information was pointed out to the Mining Recorder and subsequently CanadianOxy was granted all of the NISU 1-16 Claims pending survey if it is ever needed.

6.2 Geological Mapping (Plans 1a, 1b)

Richardson, Leonard and Kuehnbaum carried out geological mapping and prospecting from July 23 - 29, 1980, and from July 31 - August 2, 1980, on both the WOX and NISU Claim groups. A total of 15.8 man days of work was performed. Detailed mapping of the NISU Claim group was done by Richardson on August 2nd, 1980.

Also a visit was made by R.M. Kuehnbaum, R.H. Wallis, C.F. Gleeson and G. Tetu to the WOX Claim group on June 5, 1980 for a total of 0.8 man day.

6.3 Geochemistry (Plans 2a - 9)

An east-west baseline, with pickets at 125 m intervals for a distance of 4500 meters, was established across the WOX and NISU Claim groups. Detailed sampling was carried out north and south of the baseline on a 250 m x 125 m grid. Mattiacci, Oberc, Jarvis, McNeill and Hauseux, all of CanadianOxy, collected a total of 470 soil samples, 24 stream sediment, 24 stream water and 7 heavy mineral samples over the WOX and NISU Claims from July 23rd - August 2nd, 1980. Richardson, Leonard and Kuehnbaum collected 57 rock samples during the

mapping survey. All samples were sent to Chemex Labs Ltd., Vancouver, B.C., for geochemical analysis of U, W, Mo, Pb, Zn, and Cu. Rock samples analyzed for U were consequently analyzed for Th as well. A total of 23 man days of work was performed.

6.4 Radiometric Survey (Plans 8a, 8b)

Scintillometer readings were taken concurrently with the soil geochemistry on a 250 m x 62.5 m grid across the WOX and NISU Claim groups. The Urtec UG-130 scintillometer was used for the survey. All readings were taken on TC₁ channel for 10 second intervals at ground level.

6.5 Summary of Work Completed - 1980

WOX CLAIM GROUP

<u>Type of Work</u>	<u>Man Days</u>	<u>No. of Samples</u>	<u>Cu</u>	<u>No. of Analyses</u>					<u>W</u>	<u>Total</u>
				<u>Mo</u>	<u>Pb</u>	<u>Zn</u>	<u>U</u>	<u>Th</u>		
Geological Mapping	10.8									
Claim Post Tagging	3									
Geochemistry	16									
i) Rock		33	30	25	23	31	33	33	25	200
ii) Soil		366	366	366	366	366	366	366	366	2,196
iii) Standards		15	15	15	15	15	15	15	15	105
Helicopter (Bell 206-B)	(10.7 hrs)									
TOTAL	29.8	414	411	406	414	412	414	414	406	2,411

NISU CLAIM GROUP

<u>Type of Work</u>	<u>Man Days</u>	<u>No. of Samples</u>	<u>Cu</u>	<u>No. of Analyses</u>					<u>W</u>	<u>Total</u>
				<u>Mo</u>	<u>Pb</u>	<u>Zn</u>	<u>U</u>	<u>Th</u>		
Geological Mapping	5									
Staking	7									
Geochemistry	7									
i) Rock		24	21	23	20	20	24	24	24	156
ii) Heavy Min.		7	7	7	7	7	7	7	7	42
iii) Sediment		24	24	24	24	24	24	24	24	144
iv) Soil		104	104	104	104	104	104	104	104	624
Helicopter (Bell 206-B)	(8.3 hrs)									
TOTAL	19	159	156	158	155	155	159	159	159	966

Total

Total Analyses

(WOX + NISU) 48.8 573 567 564 559 567 573 565 3,377

Helicopter (19.0 hrs)

6.6 Names and Addresses of Personnel

R.H, Wallis Canadian Occidental Petroleum Ltd. Minerals Division Ste. 311 - 215 Carlingview Drive Rexdale, Ontario M9W 5X8	Chief Geologist
R.M. Kuehnbaum Same address as above	Project Supervisor
G. Tetu Same address as above	Project Geologist
Kevin Leonard Same address as above	Geologist
Chris Richardson Same address as above	Senior Assistant
Mathew Oberc Same address as above	Junior Assistant
Mike Mattiaci Same address as above	Junior Assistant
Brain McNeill Same address as above	Junior Assistant
Raymond Hauseux Same address as above	Junior Assistant
C.F. Gleeson; C.F.G. Gleeson & Assoc. R.R. #1, Iroquois Falls, Ontario	Consultant

II. GEOLOGY

7.1 General Geology (Plans 1a, 1b)

Tempelman-Kluit (1977) shows the WOX Claims to be underlain by easterly trending and shallowly south-dipping Silurian dolomitic siltstone, silty dolomite and orthoquartzite with dolomitic cement and their thermally metamorphosed equivalents. These have been intruded by Cretaceous porphyritic, biotite quartz-monzonite of the Nisutlin Batholith. The Nisutlin intrusive is responsible for the contact metamorphism. Carboniferous and Permian greenstone and amphibolites were thrust over the hornfels and intrusives from the southwest sometime

after the Mesozoic era.

Mapping by CanadianOxy shows the Claims to be underlain by shallowly south-east dipping Silurian metasediments trending north-easterly. Three distinct, mappable units were noted in the metasediments in the central and eastern areas of the WOX and NISU Claim groups. These units consists of carbonates overlying quartzites which in turn overlie calc-silicate hornfels. Mineralized Mo-W skarn bands were found within the calc-silicate hornfels unit. The sedimentary pile has a greater thickness in the southpart of the claims (210 m) as compared to the north (100 meters). Thermal metamorphism and skarnification are the result of the emplacement of the Cretaceous quartz monzonite.

Carboniferous to Perian greenstone has been thrust over the assemblage from the southwest after the intrusion of the quartz monzonite of the Nisutlin Batholith. A shear zone at the greenstone-quartz monzonite contact, presumably the trust fault of Tempelman-Kluit, was mapped. Mineralized skarn (Mo-W) at the igneous-metasedimentary contact was found on the NISU Claim group.

7.2 Table of Formations (Plans 1a, 1b)

CRETACEOUS (NISUTLIN BATHOLITH)

<u>Unit</u>	<u>Description</u>
7 7a	Granite, coarse-grained to porphyritic
7b	Quartz Monzonite, fine to coarse-grained

CARBONIFEROUS AND PERMIAN

6 6a	"Greenstone", metasilstone
6b	Metasilstone (schist), Quartzite, calc-silicate hornfels

SILURIAN

- 5 Calc-silicate hornfels with remnant metapelite, cherty, finely laminated
- 4 Banded Skarn in calc-silicate hornfels
- 3 3a "Wavy Banded" Limestone; interlaminated chert and carbonate
- 3b Massive, slightly recrystallized limestone
- 2 2a Sandy Quartzites
- 2b Black Quartzites with calcite veins and pods
- 2c Black Micaceous laminated Quartzites with pyrrhotite
- 2d White massive, crystalline, Quartzites
- 1 Hornfelsed Metapelite, brown phyllite

7.3 Description of Rock Units (Plans 1a, 1b)

All granitic rock samples were stained with Sodium Cobaltinitrate after immersion in concentrated HF; K-feldspar was thus stained a bright yellow and could easily be distinguished from plagioclase, allowing identification of the rock type. The Colorado School of Mines, Classification of Rocks system was used (Travis, 1955). Rock descriptions and trace element contents are listed in Appendix II.

Unit 1 Hornfelsed Metapelite

This unit, which is located in the central eastern area, consists of a brown, fine-grained, finely laminated metasilstone-phyllite (17566R). The rock has been slightly thermally metamorphosed and/or metasomatized (or bleached), as evidenced by the presence of minor calc-silicate hornfelsed bands along fractures and "bedding planes" in the phyllite. Scintillometer response is 150 cps.

Unit 2a, 2b, 2c, 2d Quartzites

This unit, which is located in the eastern-central portion of the claims, consists of four mappable quartzites.

The sandy quartzites (2a), located in the eastern area of the claims, form a "cap" on the mountain peaks. They are fine-grained, light grey-white, massive and sandy textured. The sandy quartzites also exhibit an exceptionally clean, fractured appearance.

There are two distinct black quartzitic units. The first unit (2b) is a fine-grained, very massive, siliceous, quartzite characterized by orange-yellow weathered calcite pods and veins (17580R). The black, calcitic quartzites are 15-30 meters thick and appear to have sharp contacts with the underlying calc-silicate hornfels unit (5) and the overlying sandy quartzite (2a) and/or limestone units (3a, 3b). Calcite veins ranging from 2 cm to 0.6 meter thick over a distance of up to 10 meters are common in this unit. Occasionally the calcite veining occurs in brecciated quartzite.

Unit 2c is a rusty-black, micaceous, fine-grained, massive quartzite with local disseminated pyrrhotite and pyrite (17569R-17562R). This unit (2c) ranges from 20 to 40 meters thick and contains moderately high geochemical values of Cu, Pb and Zn related to locally visible pyrrhotite. A strong black-reddish stain on the quartzites is probably the result of the oxidation of pyrrhotite.

The white, massive quartzite (Unit 2d) is located in the southeastern portion of the WOX Claims. This unit is extremely siliceous with clear-transparent, homogeneous quartz. The rock is locally highly fractured and some calcite pods were noted. The unit is not found elsewhere on the property and it is interpreted to be faulted into its present position (Plans 1a, 12).

The radiometric response for quartzites is about 160 pps.

Unit 3a, 3b Limestone

Carbonate rocks, which outcrop in the eastern portion of the WOX Claims, and on the NISU Claims, consist of a wavy banded (3a) and recrystallized limestone (3b). The limestone units appear to be gradational into each other via lateral facies change. The wavy banded limestone consists of contorted and folded, regularly interlaminated chert and limestone. The limestone is not metasomatized although it is slightly dolomitic and has small "en echelon" folds. The softer, white, medium-grained, carbonate beds have been weathered out to leave the fine-grained, grey, cherty layers protruding. Limestone beds are approximately 5 to 20 cm thick and the chert layers are approximately 5 cm throughout the interlaminated sequence. The recrystallized limestone consists of white, massive, medium-grained slightly siliceous beds separated by thin argillaceous layers and are slightly dolomitic. The scintillometer response is 150 cps.

Unit 4 Skarn in Calc-silicate Hornfels

This unit, which is located in the eastern portion of the WOX Claim group and on the NISU Claims, consists of banded skarns ranging from 2 cm to 3 meters thick in calc-silicate hornfels. None have been traced along strike for more than 5 meters. The skarn bands consist of vesuvianite, garnet, actinolite, diopside and epidote. Molybdenite, scheelite-powellite and minor pyrrhotite mineralization were noted in most skarn bands, especially on the NISU Claims (17543R). The skarn bands are brown-red and very siliceous. Scintillometer response is 150-250 cps except at the MOLLY trench on the

NISU Claims (17543R) where it is 1400 cps.

Skarn mineralization with molybdenite and scheelite-powellite also occurs at the MOLLY showing on the NISU Claims; this is discussed in detail in Section 7.7. Two other skarns occur on the ridge and are similar to the MOLLY showing.

Unit 5 Calc-silicate hornfels

This unit, which is confined to the eastern portions of the WOX Claims and the NISU Claims, is a very fine-grained, finely banded, green and white, highly siliceous rock. The green banding probably reflects original bedding and minor folding and crenulations were observed. Remnant fragments of hornfelsed meta-pelite occur within the calc-silicate hornfels, and small fractures in the metapelite have bleached margins. The metapelite (brown phyllites) are rarely a mappable unit and are probably the original meta-sediments which have been altered to calc-silicate hornfels by large-scale metasomatic replacement involving the metapelites and overlying carbonate rocks. The development of small skarn bands 1 to 2 meters thick along fractures and bedding planes in the calc-silicate hornfels (17543R) is thought to reflect the skarnification of carbonate during this process.

Scintillometer response is 150 cps.

Unit 6a, 6b Greenstone, phyllite

This unit, which outcrops in the western portion of the claims, consists of a black, fine-grained, chloritized "greenstone" (17569R) in the far western area. It grades into a brown fine-grained, finely laminated, metapelite-

phyllite (17570R). Both units are uniform and strike northwest to south-east and dip approximately 60° to the southwest. These rocks are of Carboniferous to Permian in age, according to Tempelman-Kluit, and are part of a major allochthonous thrust sheet. The probable fault zone is indicated on the geology map (Plan 1). Minor visible pyrrhotite and sphalerite mineralization is present in the rocks.

Scintillometer response is very low (35 cps) but is higher in the east area (150 cps).

Unit 7b Quartz Monzonite

This unit which occurs in the central and eastern portions of the WOX Claims and on the NISU Claims, is a very siliceous leucocratic, fine-to-medium grained quartz monzonite with very minor biotite and muscovite. The quartz monzonites define a narrow zone between the overlying metasediments and the lower granitic unit; the contact between the quartz monzonite and granite is gradational. Dykes of biotite-hornblende (muscovite) quartz monzonite cut the metasediments. A pink, soft, clayey secondary mineral, (rhodochrosite?) is fairly prevalent in the quartz monzonite and appears to be a product of weathering on exposed surfaces and fractures (17565R). Molybdenite was found at the contact of the quartz monzonite and metasediments on the NISU Claim group. It is possible that the quartz monzonite and its contained molybdenite and rhodochrosite (?) are the result of marginal contamination of the granite.

Scintillometer response ranges from 350 cps to

400 cps with a high reading of 1400 cps at the MOLLY trench on the NISU Claims.

Unit 7a Granite

This unit, which occurs in the north central area of the WOX Claims, is a coarse-grained to locally porphyritic (3-6 cm), pinkish, crystalline, hornblende-biotite granite (17574R). The granite is more fine-grained near the quartz monzonite. In the northeastern portion of the WOX Claims pegmatitic intrusions, consisting of large microcline crystals and platy biotite were observed (17573R). Minor kaolin and rhodochrosite (?) are present in the coarse-grained granite. Minor quartz veining is usually associated with shear zones in the granite. Scintillometer response ranged from 400-500 cps with the pegmatites reading from 600-650 cps; this is probably due to increased K-feldspar content. A high reading of 925 cps was found on a granitic fracture surface in an area of pegmatite intrusives. The amount of biotite is extremely low in the granites.

7.4 Structure (Plans 10, 11)

The contact between the quartz monzonites and overlying metasedimentary sequence is sharp with some apophyses and dykes cutting up into the metasediments. In the western area there appears to be a fault or large shear zone noted by the presence of sheared and highly altered rocks at the contact of the metasediments and the quartz-monzonites; this is the thrust fault of Tempelman-Kluit (1977). In the north central area three shear zones trending 264° to 223° were observed. These shears consist of quartz veins (10 cm wide, which are rusty due to the presence of pyrrhotite. The shear zones are surrounded by strongly kaolinized, eqidotized cataclastic granite. The

shear zones are about 10 m wide.

In the southeast corner of the WOX Claims, the sedimentary sequence of carbonate rocks and quartzites is repeated on two different slopes at different elevations; because of the southeast dip of the sediments, the sequence is interpreted to be faulted northside down. This fault has been cut by a later fault which is subparallel to Tempelman-Kluit's (1976) trust fault in the western part of the WOX Claims. The white quartzites of unit 2d have been faulted into their present position.

There are two major, very noticeable joint sets within the granite and quartz monzonite intrusive which can be resolved into: 0° to 40° T/ 45° E to 90° and; 70° to 90° T/ 68° N to 90° .

Relatively undisturbed sediments in the southeast corner of WOX have a consistent bedding attitude of southwest strike and moderate southeast dip. On the main ridge in NISU, bedding in the same sediments is somewhat irregular and generally strikes east to northeast and dips to the south to southwest. A fault, related to the emplacement of unit 2d in southeast WOX, is interpreted in the valley between the two ridges. Bedding irregularities on the main NISU ridge are thought to be due to emplacement of the granite. The contact between the Nisutlin Batholith and the metasediments is probably very shallow (subparallel to the metasediments). In fact, the metasediments in the area of the MOLLY showing probably represent the bottom parts of xenoliths or roof zones within the granite. Minor folding and crenulations are present

throughout the metasediments, especially in the wavy-banded limestones and calc-silicate hornfels.

7.5 Metamorphism

Regional metamorphism, of probably the greenschist facies, in the western portion of the WOX Claims has affected the greenstone units, with the development of a fine laminated banding or foliation and subsequent crenulation.

In the eastern portion of the WOX Claims and NISU Claims the Silurian sediments are slightly metamorphosed to quartzites, metapelites and slightly recrystallized limestone.

Intrusion of the Cretaceous Nisutlin Batholith (Unit 7b) caused thermal metamorphism and metasomatism which resulted in the local skarnification of carbonate rocks and the formation of calc-silicate hornfels from the metapelites. The development of calcitic pods and veins up to 1 meter in quartzites is also attributable to thermal metamorphism.

7.6 Alteration

Strong reddish limonite surface alteration after pyrrhotite is present in the black quartzites.

Alteration in the granites is confined to the shear and fault zones, where strong kaolin, manganese minerals and minor epidote occur. Altered biotite and muscovite occur in the quartz monzonites at the metasedimentary contact, along with pink rhodochrosite (?). The percentage of muscovite + biotite is very low (<2%) in the siliceous quartz monzonite. Most of the granitic unit is fresh except for some of the pegmatitic veins and pods which have been slightly leached of biotite. Limonite alteration is present locally in some

quartz monzonites which are adjacent to the metasedimentary contact.

7.7 Economic Geology (Figure 3, Plans 1b, 12)

The MOLLY trench on the NISU Claims has the most impressive mineralization found on the two properties. Rosettes of molybdenite and powellite-scheelite were noted at a intrusive-skarn contact within the trench. Values in hand specimen range from 0.068% to 0.596% Mo, 3 ppm to 400 ppm W, and 2 ppm to 86 ppm U (17586R - 17597R). Mineralization (Mo-W-U) is prevalent in both rock types although the tungsten values are much higher in the skarn. The skarn consists of garnet, vesuvianite, actinolite, pyroxene and epidote and, as exposed, is 10 meters long and 2 meters thick. The sedimentary rocks overlying the intrusive are probably very thin (several meters?). Consequently the potential for mineable tonnage of skarn is remote.

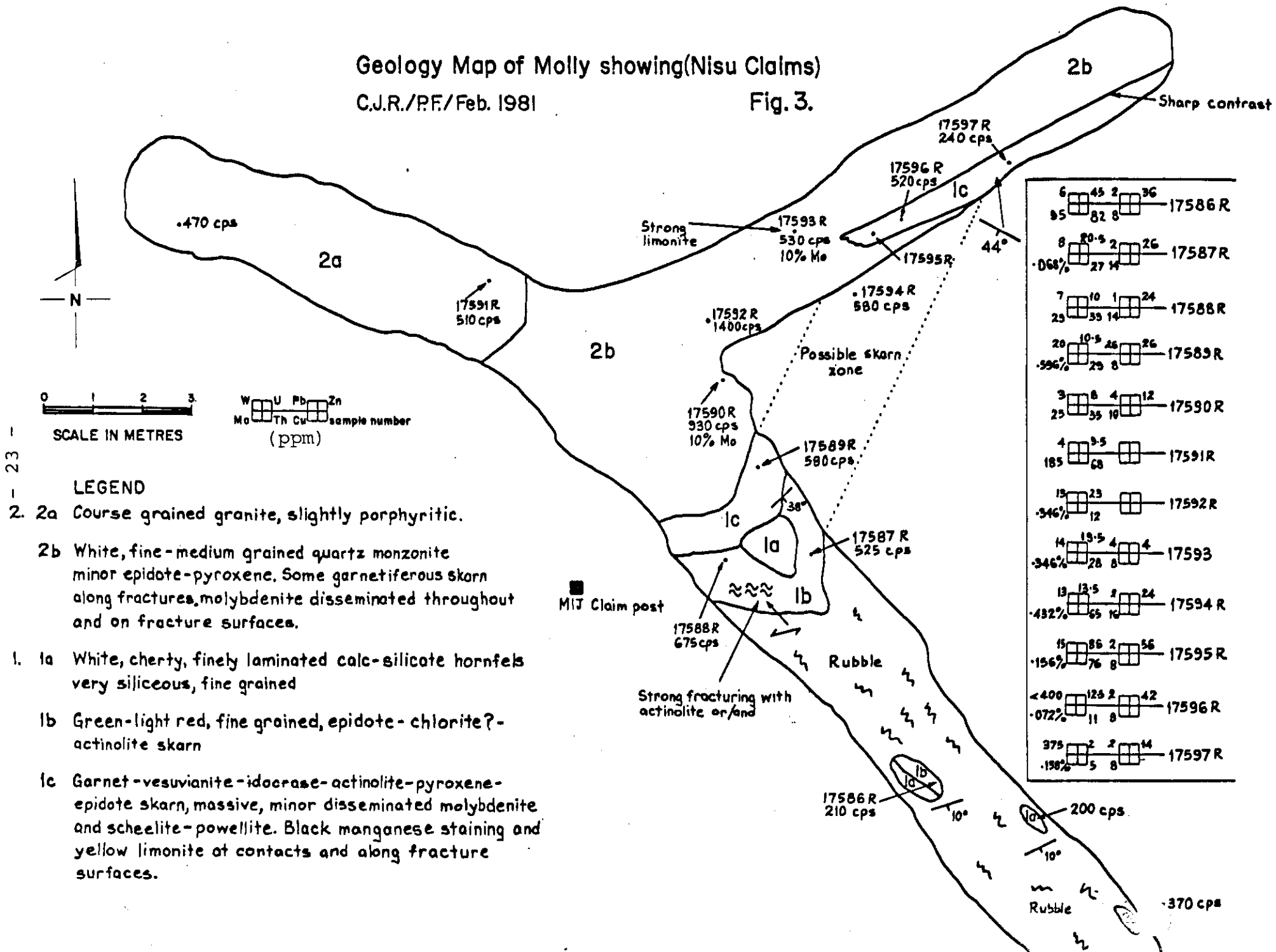
Two skarns with dimensions of 1 to 5 meters thick and 10 meters long are similar to and just north of the MOLLY showing. The skarns contain visible scheelite and geochemical values range from 84 ppm to 90 ppm Mo and 140 ppm to 400 ppm W (17584R, 17585R).

Two smaller occurrences of molybdenite mineralization, just south of the MOLLY trench, occur in siliceous quartz monzonite at the metasedimentary contact. The metasediments are calc-silicate hornfels and skarnified rock was not observed. Values from hand specimen range from 0.490% Mo to 1.86% Mo, 20 ppm to 35 ppm W and 17 ppm to 24.5 ppm U (17582R, 17583R).

Geology Map of Molly showing(Nisu Claims)

C.J.R./P.F./Feb. 1981

Fig. 3.



23

The mineralized areas are 1 meter thick and the northern occurrence may be an extension of the MOLLY showing. Another occurrence of molybdenite, coating a granitic fracture surface, was found in float in the northeastern portion of the WOX Claims (17572R). Minor skarn mineralization is present on the main ridge on the eastern portion of the WOX Claims and the NISU Claims. The skarn bands usually contain visible molybdenite and powellite-scheelite along with garnet vesuvianite, and diopside. The skarn bands are 5 cm to 2 meters wide and traceable for 5 meters and contain 75 ppm Mo and 375 ppm W (17543R). The skarns are found usually within the calc-silicate hornfels unit. The scarcity, small dimensions and low grades of mineralization preclude any economic potential in this area.

The black pyrrhotitic quartzite (2c) in the northeast area of the WOX Claims locally contain significant amounts of Pb, Zn and Cu (sample 17562R with visible galena, sphalerite and pyrrhotite) 525 ppm Pb, 780 ppm Zn and 86 ppm Cu. This area is overlain by a Pb-Zn soil anomaly (see section 8.4).

The shear zones and faults in the north central portion of the WOX Claims cut late phase biotite-hornblende quartz monzonite. Hand specimens contain up to 87 ppm U, 48 ppm Mo and 850 ppm Zn (17550R, 17551). The 1 meter wide shear zones consist of a 10 cm quartz vein in the middle with strong manganese, limonite and kaolin alteration on both sides.

VIII. SOIL GEOCHEMISTRY

8.1 Sampling Procedure

A 4500 meter east-west baseline, with pickets at 125 m intervals was located across the WOX and NISU Claim groups. Detailed soil sampling and scintillometer surveys were carried out north and south of the baseline, by pace and compass on a 250 m x 125 m grid. Where the terrain was much steeper, contour soil sampling was conducted, as in cirques. The "B" horizon was usually sampled. A total of 470 soil samples were collected. Analytical data and laboratory procedures are outlined in Appendix I and II, respectively

8.2 Standard Samples

To check reproducibility and quality of the analytical work, splits from randomly selected field soil samples were used as duplicates. The duplicate samples were made by roughly taking half of the original sample without homogenizing. Table I presents the comparisons of the original field samples versus the duplicate samples. A check of the results shows most of the figures (75%) appear to be within acceptable limits of reproducibility. The values for Mo-W-U have the largest discrepancies, probably due to non-homogenized samples and low content

8.3 Statistical Treatment of Results

Soil analyses for each element were statistically treated to determine mean and anomalous values. A frequency distribution graph (histogram) was plotted for all soil values for each element and the contour levels were arbitrarily determined from the histograms (Figures 4-9). The anomalous

TABLE I
REPRODUCIBILITY OF DUPLICATE SAMPLES

Duplicate/Original	Mo (ppm)	%Δ	Cu (ppm)	%Δ	Pb (ppm)	%Δ	Zn (ppm)	%Δ	W (ppm)	%Δ	U (ppm)	%Δ
17000/17039	1/1	0	82/80	1	10/8	11	230/260	6	3/5	25	2/2	0
17001/17068	2/4	33*	20/18	5	8/8	0	36/32	6	5/3	25	4/3	14
17002/17100	1/1	0	18/18	0	8/8	0	52/46	6	2/1	33*	1/2.5	43*
17003/17129	1/1	0	6/6	0	10/16	23*	22/32	19	3/1	50*	4/4	0
17004/17196	1/2	33*	6/4	20	12/12	0	26/24	4	4/2	33*	0.5/2	60*
17005/17231	1/1	0	2/1	33*	8/8	0	8/4	33*	4/1	60*	1.5/1.5	0
17006/17261	1/1	0	4/4	0	16/14	6	32/36	6	2/2	0	110/95	7
17007/17292	2/1	33*	6/4	20	16/16	0	24/32	14	14/12	8	5.5/8	17
17008/17169	3/3	0	6/4	20	4/6	20	24/30	11	4/8	33*	1.5/1.5	0
17009/17325	4/2	33*	6/10	25	6/10	25	24/38	23	1/3	50*	4/8.5	36*
17010/17360	2/1	33*	18/28	22	6/8	14	66/60	5	1/1	0	1.5/2.5	50*
17011/17393	1/4	60*	10/8	11	4/6	20	44/36	15	2/1	33*	2/2.5	11
17012/17421	5/3	25	4/4	0	10/12	9	38/24	23	23/25	4	4.5/6/0	14
17013/17448	1/2	33*	8/8	0	10/8	11	46/38	10	4/12	100*	14.5/14.5	0
17015SS/17496SS	7/6	8	20/18	5	12/12	0	98/94	2	15/14	3	48/34	17

%Δ = % difference of original and control values from the average

* indicates values not within accepted figures of reproducibility:

1-10 ppm 30%
10-50 ppm 20%
+50 ppm 10%

level for each element was determined from the histograms by the freehand drawing of a normal distribution curve; the anomalous level was defined as the intersection of the curve with the abscissa. A cumulative frequency graph of the nonanomalous population was plotted to define the probably anomalous (97th percentile), and the median (50th percentile) levels for each element (Figures 4-9).

The contour levels, anomalous and probably anomalous values are then plotted for each element on the geochemical maps (Plans 2a-7b). Table II summarizes the statistical results.

TABLE IX

FREQUENCY DISTRIBUTION FOR MOLYBDENUM

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
0 - 1	240	240	54
1 - 2	88	328	64
2 - 3	39	367	83
3 - 4	25	392	89
4 - 5	14	406	92
5 - 6	8	414	94
6 - 7	13	427	97
7 - 8	4	431	98
8 - 9	7	438	99
9 - 10	3	441	100
10 - 11	8		
11 - 12	2		
12 - 13	4		
13 - 14	0		
14 - 15	4		
15 - 16	1		
16 - 17	1		
17 - 18	0		
18 - 19	1		
19 - 20	1		
20 - 21	2		
21 - 22	1		
22 - 23	0		
23 - 24	2		
24 - 25	1		
+25	2		

WOX AND NISU CLAIM GROUPS

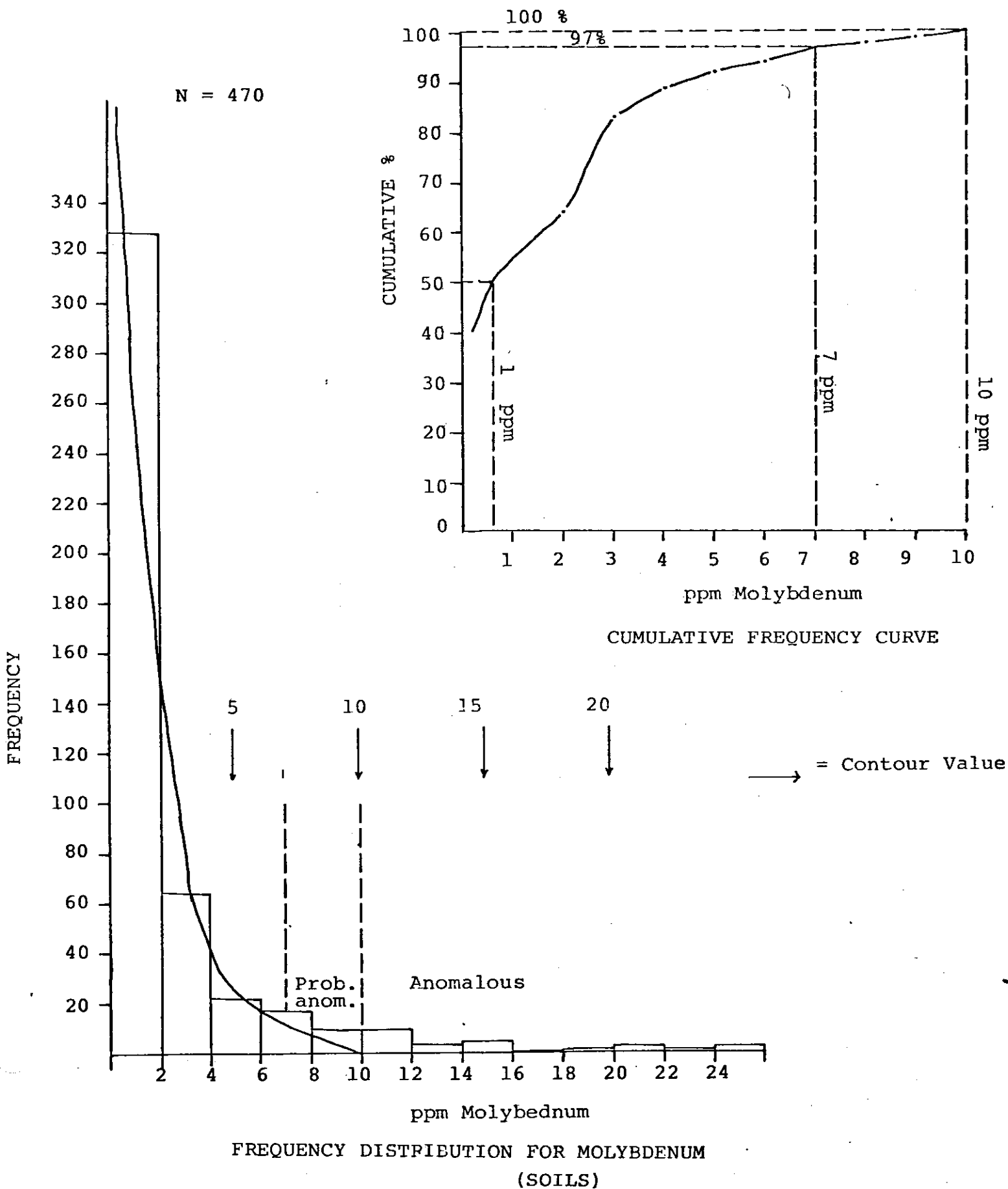


TABLE X

FREQUENCY DISTRIBUTION FOR TUNGSTEN

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
0 - 1	135	135	43
1 - 2	40	175	56
2 - 3	19	194	62
3 - 4	27	221	71
4 - 5	35	256	82
5 - 6	12	268	86
6 - 7	26	294	94
7 - 8	18	312	100
8 - 9	17		
9 - 10	17		
10 - 11	11		
11 - 12	20		
12 - 13	13		
13 - 14	9		
14 - 15	12		
15 - 16	0		
16 - 17	3		
17 - 18	3		
18 - 19	0		
19 - 20	10		
+20	43		

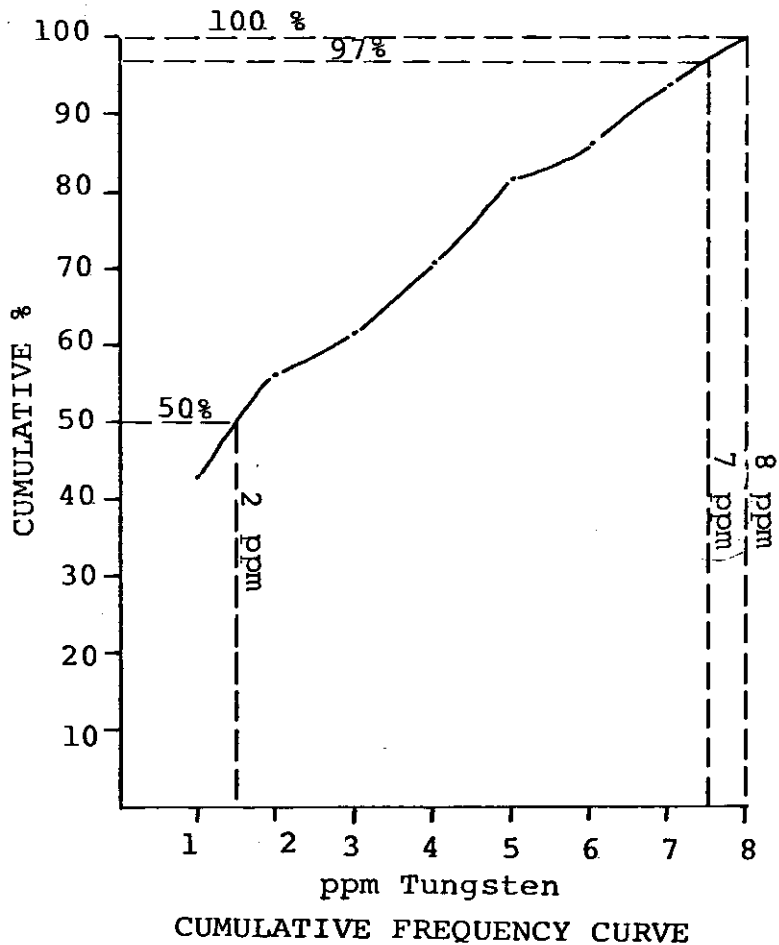
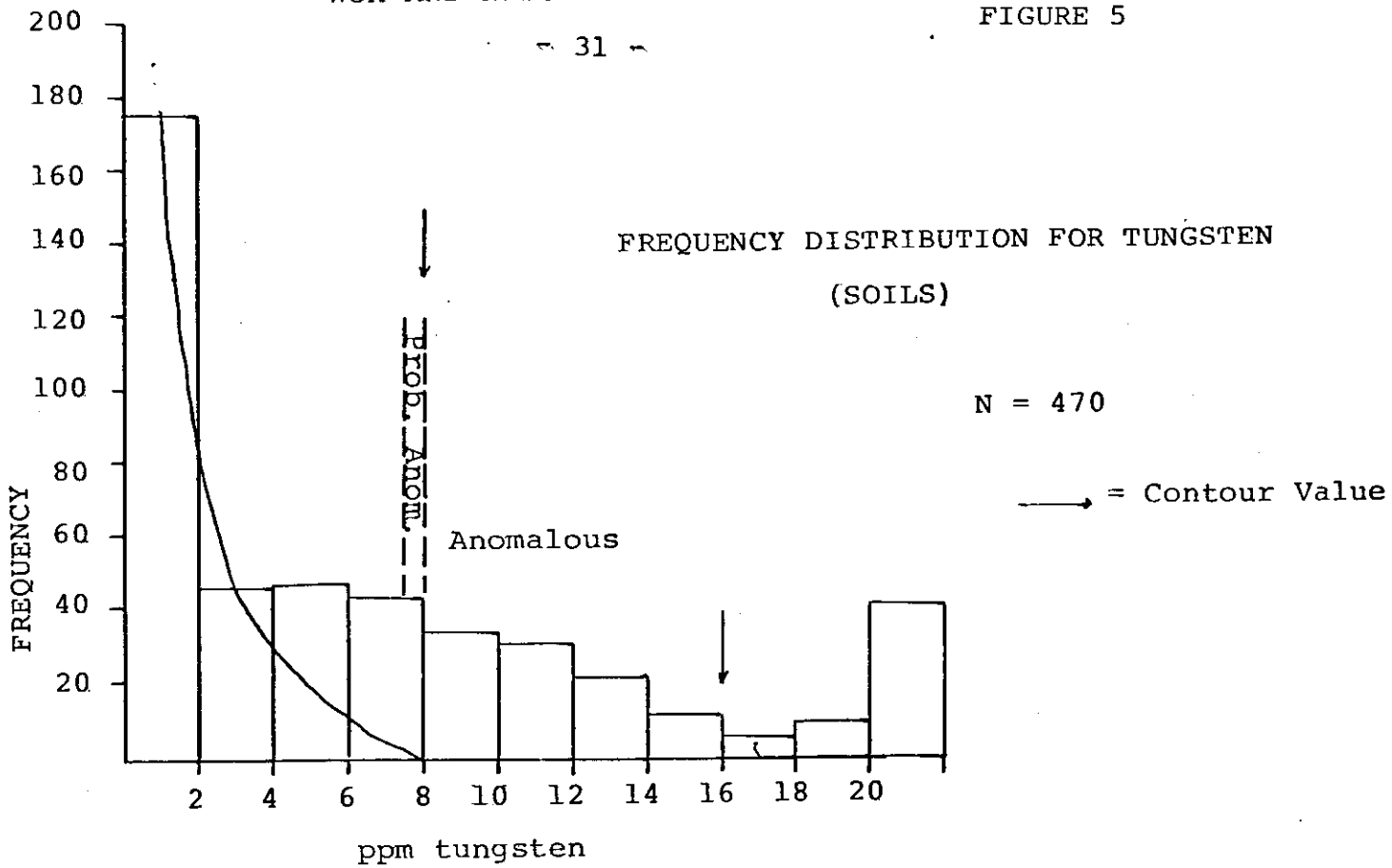


TABLE XI

FREQUENCY DISTRIBUTION FOR COPPER

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
0 - 5	113	113	31
6 - 10	163	276	76
11 - 15	47	323	89
16 - 20	38	361	100
21 - 25	20		
26 - 30	23		
31 - 35	10		
36 - 40	17		
41 - 45	8		
46 - 50	9		
51 - 55	3		
56 - 60	1		
61 - 65	1		
66 - 70	2		
71 - 75	1		
76 - 80	7		
81 - 85	2		
86 - 90	1		
91 - 95	0		
96 - 100	0		
+100	4		

WOX AND NISU CLAIM GROUP

FREQUENCY DISTRIBUTION FOR COPPER
(SOILS)

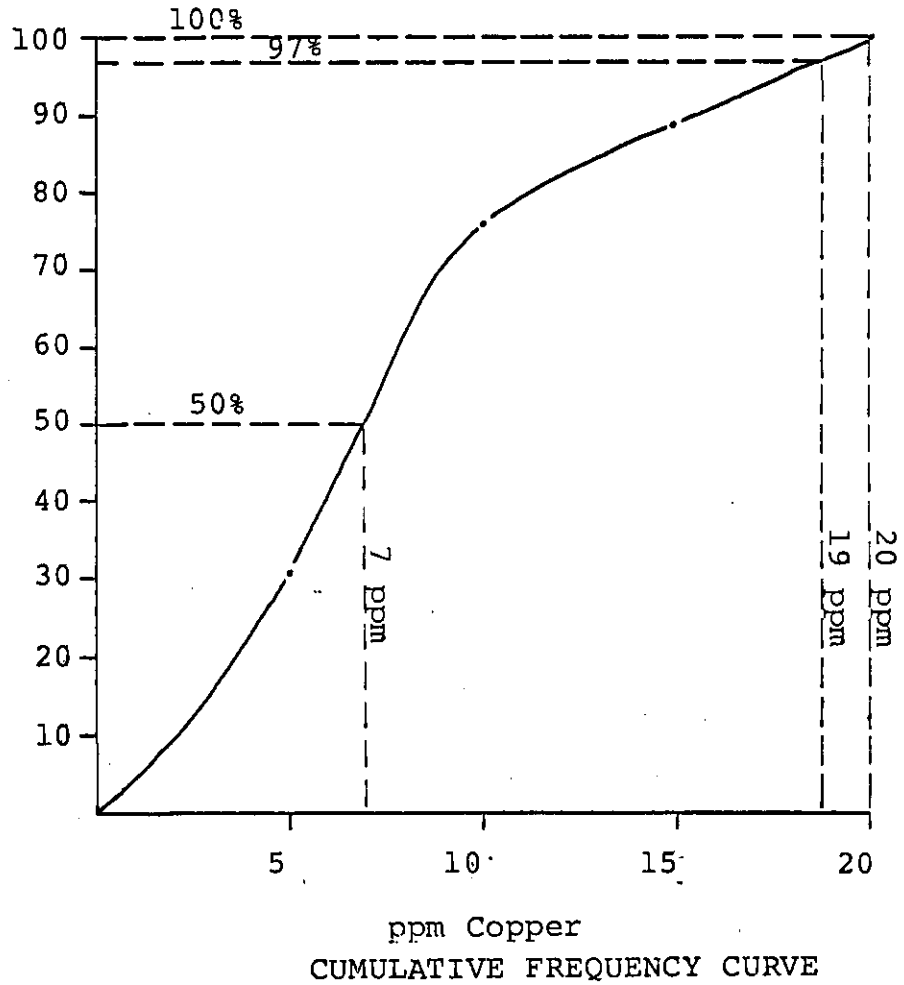
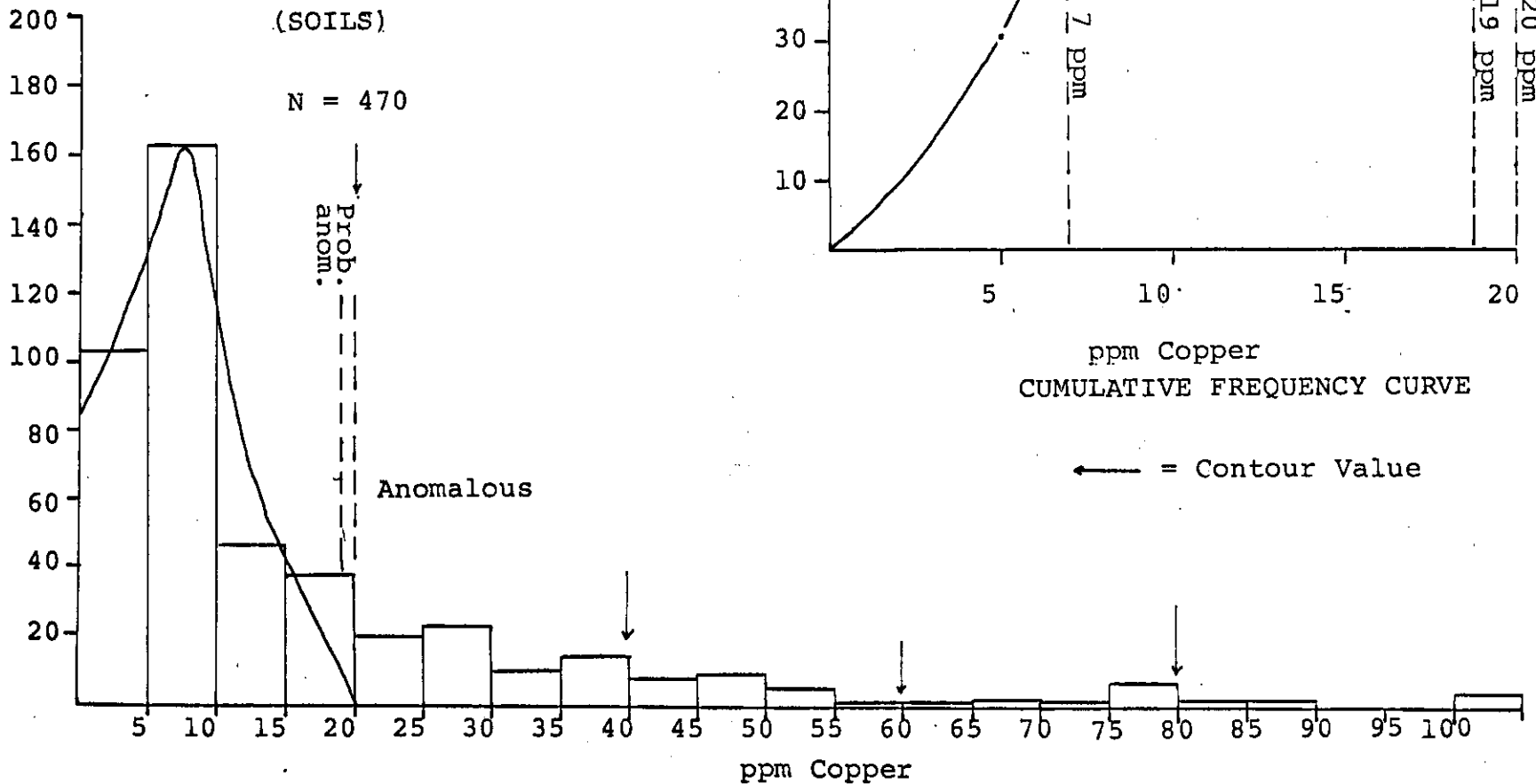


FIGURE 6

TABLE XII

FREQUENCY DISTRIBUTION FOR LEAD

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
0 - 5	97	97	23
6 - 10	188	285	68
11 - 15	64	349	84
16 - 20	41	390	94
21 - 25	19	409	98
26 - 30	8	417	100
31 - 35	10		
36 - 40	4		
41 - 45	3		
46 - 50	8		
51 - 55	4		
55 - 60	1		
+60	23		

WOX AND NISU CLAIM GROUPS

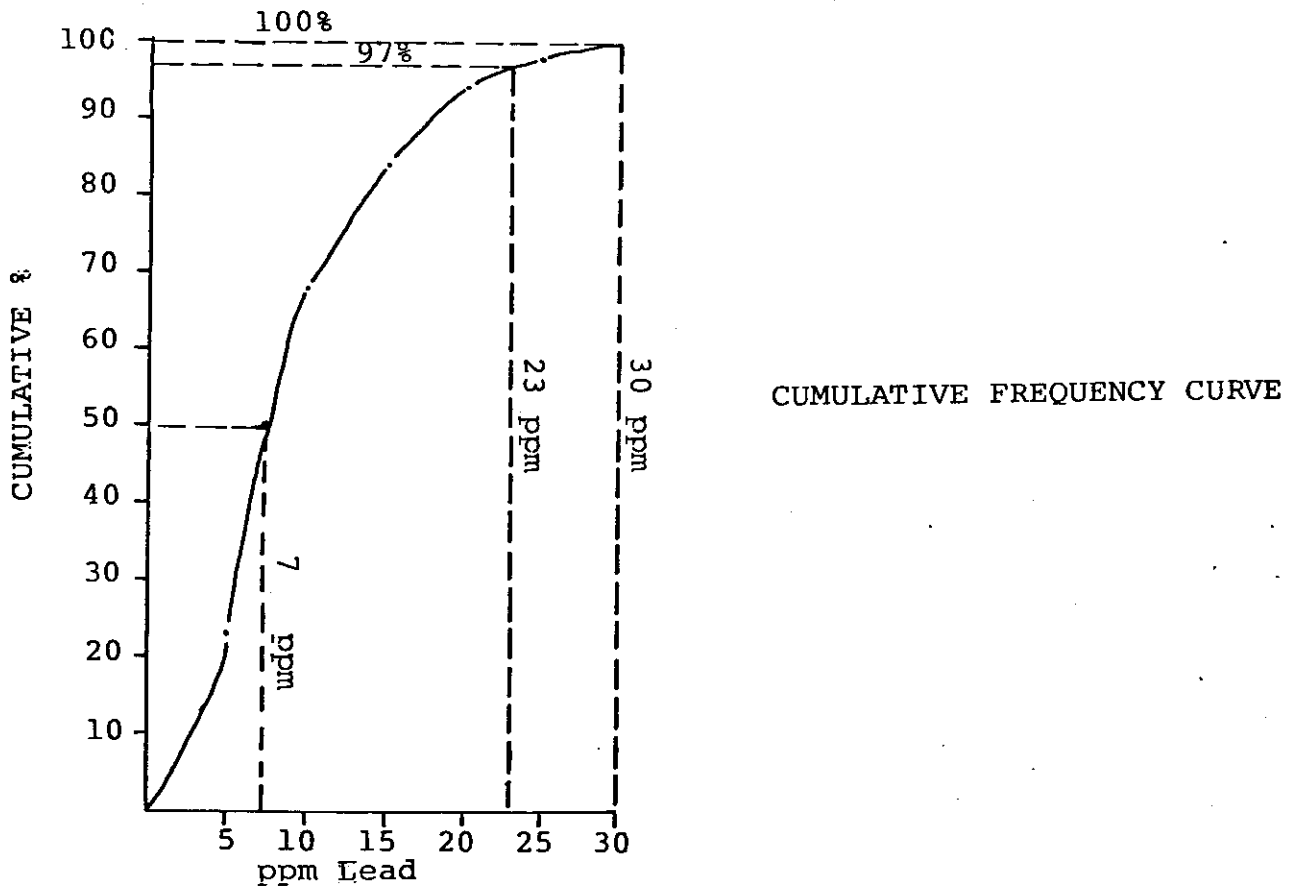
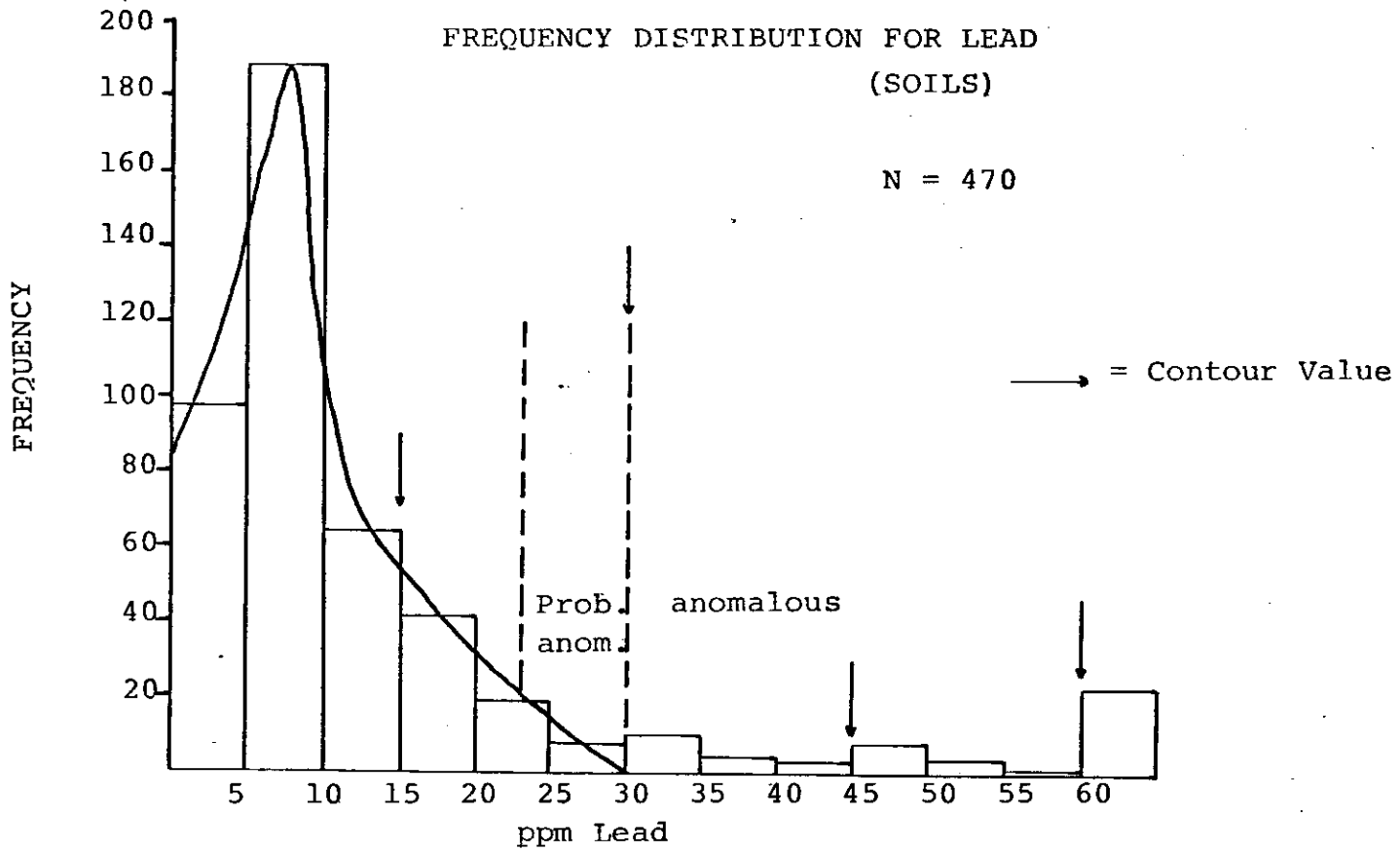
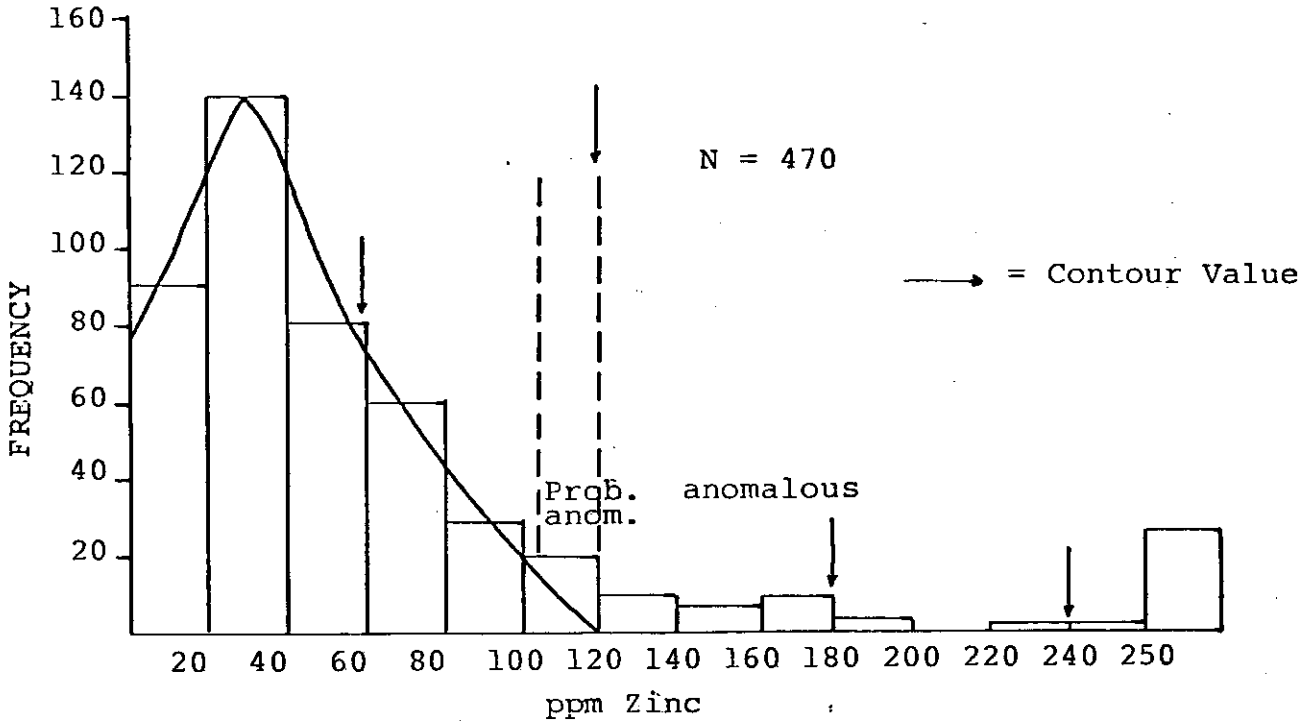


TABLE XIII

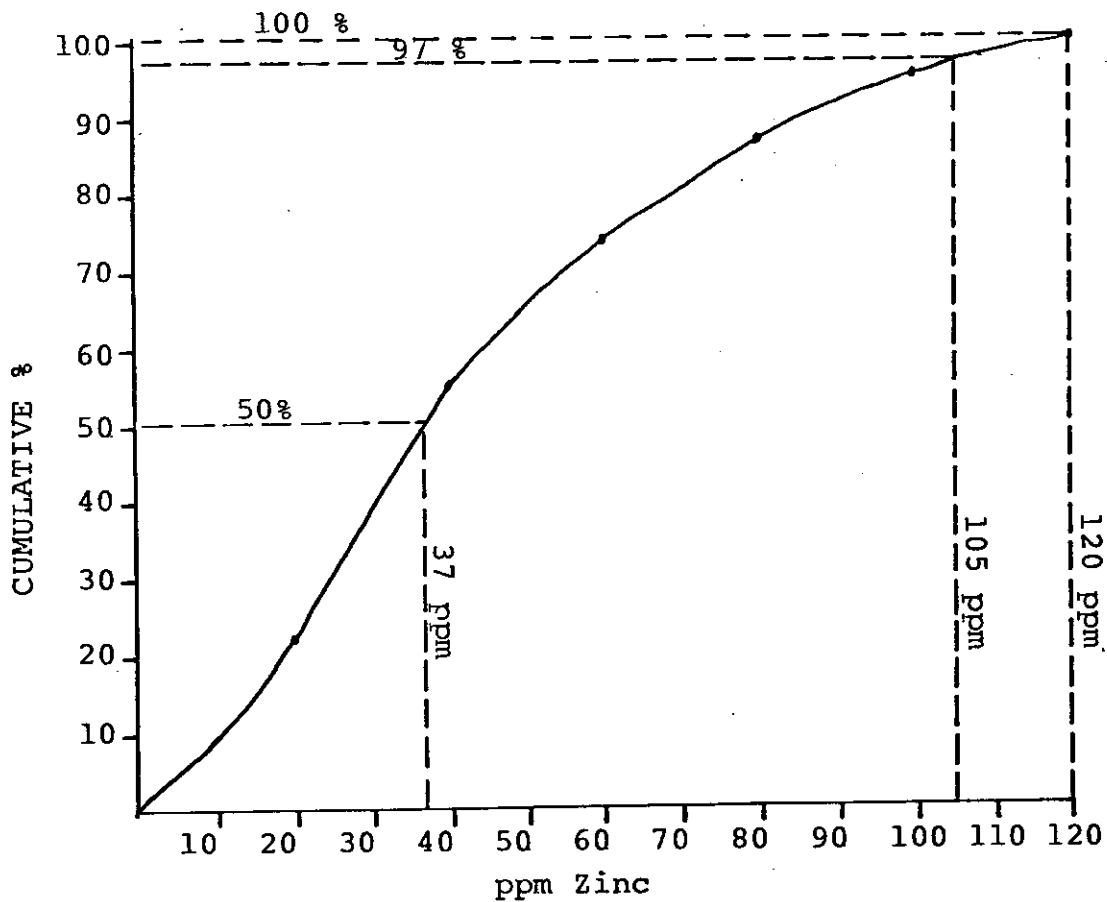
FREQUENCY DISTRIBUTION FOR ZINC

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
0 - 21	90	90	22
21 - 40	139	229	55
41 - 60	180	309	74
61 - 80	59	368	87
81 - 100	28	396	95
101 - 120	19	415	100
121 - 140	9		
141 - 160	6		
161 - 180	9		
181 - 200	3		
201 - 240	0		
221 - 240	1		
+240	26		

WOX AND NISU CLAIM GROUP



FREQUENCY DISTRIBUTION FOR ZINC (SOILS)



CUMULATIVE FREQUENCY CURVE

TABLE XIV

FREQUENCY DISTRIBUTION FOR URANIUM

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
0 - 2	151	151	39
2 - 4	121	272	70
4 - 6	54	326	84
6 - 8	28	354	91
8 - 10	20	374	96
10 - 12	14	388	100
12 - 14	17		
14 - 16	8		
18 - 20	4		
20 - 22	4		
22 - 24	2		
24 - 25	2		
+25	40		

WOX CLAIM AND NISU CLAIM GROUP

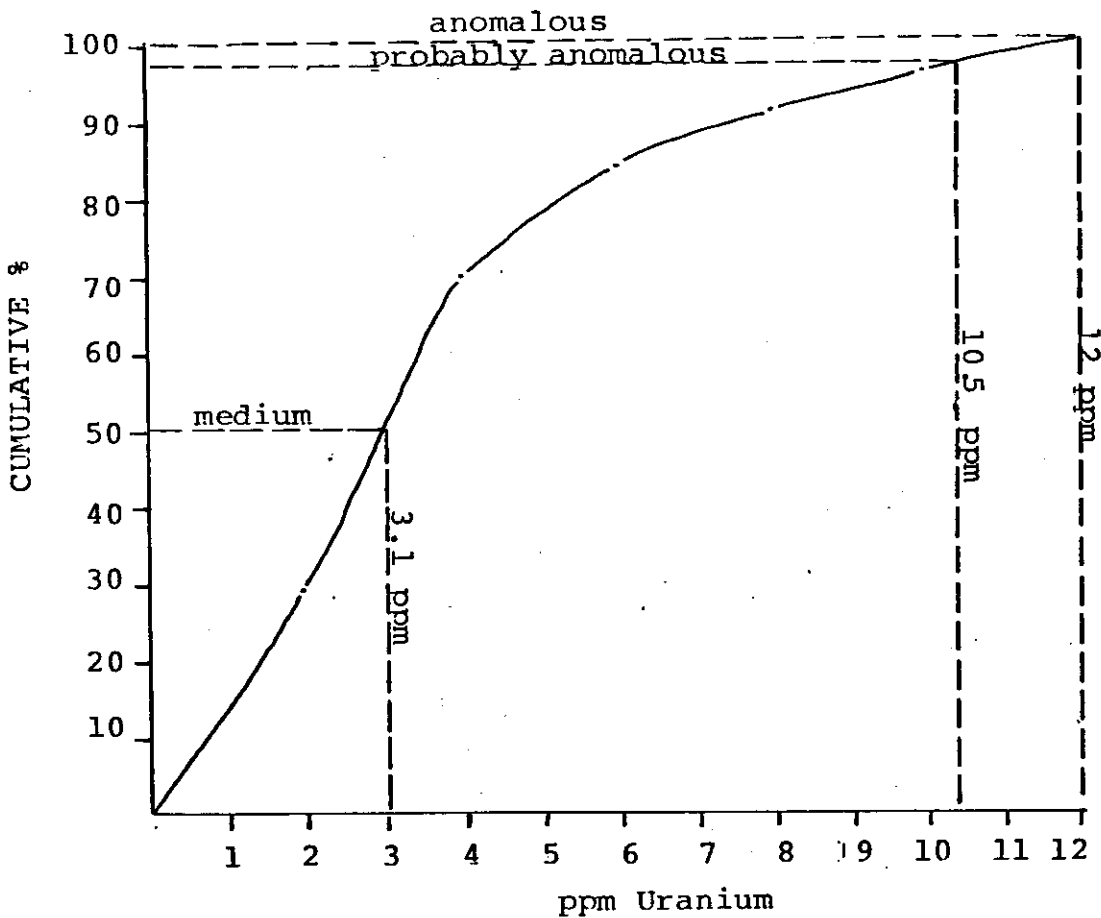
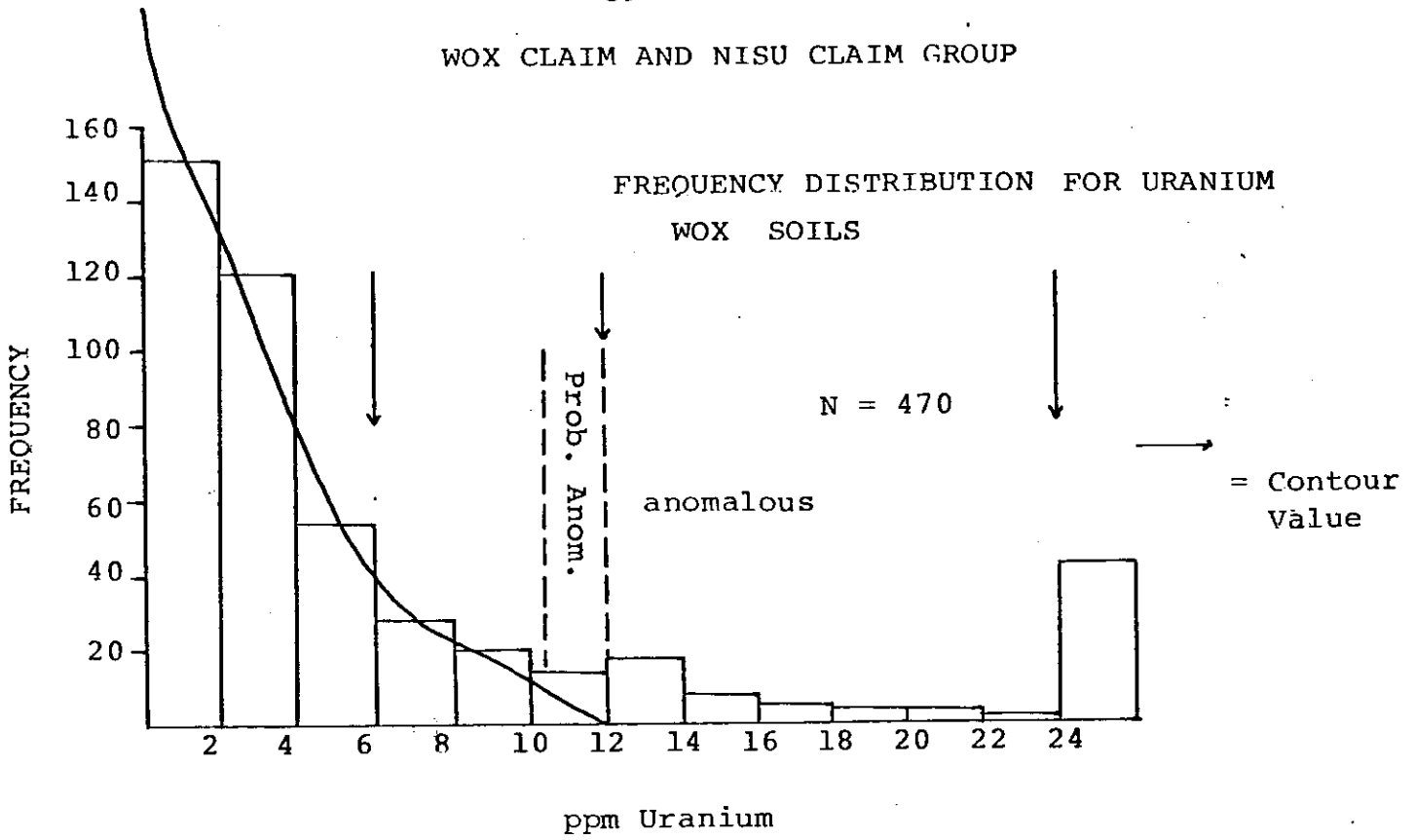


TABLE II

Median, Probably Anomalous, Anomalous Levels and

Range of Values for Soils (all values ppm)

	<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>
Median	1	7	7	37	2	3
Probably Anomalous	7-10	19-20	23-30	105-120	7	10.5-12
Anomalous	>.10	>20	>30	>120	>8	>12
Range of Values	1-88	5-170	5-300	5-1200	1-250	1-189

8.4 Summary of Anomalies (Plan 2a-12)

AREA A

Area A is located in the southeastern portion of the WOX Claim group (Soil Grid 27+50S-13+75W) just below a talus slope from a high mountainous cliff to the south. The anomalous Mo-W-Pb-Zn area has an irregular shape with no apparent trend. The anomaly is about 500 m long and approximately 200 m wide. The W values range from 20 to 65 ppm Mo from 15 to 88 ppm; Pb from 70 to 148 ppm and; Zn from 280 to 590 ppm.

The bedrock is probably quartzite and hornfels as suggested by the outcrop and talus just to the south. One sample of quartzitic rock on the mountain to the south gave a Zn value of 108 ppm. Stream sediments in the creek to the west contained up to 420 ppm Zn and 400 ppm Pb. The Mo-Pb-Zn anomalies overlap. The W anomaly is open to the south and therefore shows a dispersion pattern away from the talus area. The W and Mo values are of greater interest than Pb and

Zn. The Mo-W anomaly is likely derived from skarn bands and the Pb and Zn from pyrrhotitic quartzites. A soil pit should be dug in the highest anomaly area where the highest values for each element coincide. Also detailed prospecting should be carried out over the talus and mountainous outcrop to the south of the anomalous area.

Anomalous area A1, just to the east in a cirque has a strong 2-station tungsten anomaly (25-65 ppm W) and a minor one-station Zn anomaly (510 ppm). The W anomaly is very small, open to the south, and may have the same source area as anomalous area A, and should be thoroughly prospected.

AREAS B and B1

Area B is located in a broad, swampy creek valley on southern WOX. It consists of eleven stations with 56-189 ppm U. There is a northerly, uphill trend to part of the anomaly, suggesting a possible source area on the southern slope of the main WOX ridge. There is a moderate radiometric anomaly (413-580 cps) west of the north end of the soil anomaly.

Area B1 consists of two separate zones of coincident Mo and U anomalies. The northern zone contains five high Mo values (10-22 ppm) and three uranium values (36-109 ppm). It covers a total area of 550 m x 200 m. The southern zone is east-west trending and consists of four stations with high Mo values (11-42 ppm Mo) and three high uranium values (29-48 ppm U), covering an area of 800 m x 200m.

High uranium in stream sediments (up to 165 ppm U) are all located downstream from anomaly Area B which is therefore considered the source.

The underlying bedrock in the region of anomalies B and B1 is unknown but could consist of either granitic or sedimentary rocks, or both.

The two anomalies are suspected to be due in large part to environmental factors, since both are in somewhat low, wet, heavily treed areas. The uphill lobe of area B and its nearby radiometric anomaly should be prospected and any seeps sampled.

AREA C

Anomalous area C is located in the central portion of the WOX Claims (Soil Grid 15+00E - 75+25N) around the main ridge. The south side of the ridge from its crest is covered with overburden while the north side consists of a steep rocky cliff with talus at its base. A scintillometer anomaly trends along the ridge (See section 12). The two-station Pb values are 68 ppm and 180 ppm with a coincident one-station Zn value of 420 ppm. The high Pb and Zn values, are located on or near areas of shear zones in the granite. Rocks from these zones gave values of 87 ppm U, 48 ppm Mo, 850 ppm Zn and 44 ppm Pb. Further rock sampling and prospecting for mineralization is proposed.

Area C2 consists of a two-station uranium anomaly (63 and 115 ppm U). This area is on outcrop and/or talus of granitic rocks and should be prospected.

AREA D

Area D is a large Pb-Zn anomaly, which trends along the main ridge to the east of area C. The Zn values range from 250 ppm to 1200 ppm and the coincident and larger Pb

anomaly consists of values which range from 34 ppm to 300 ppm. The anomaly area is approximately 1200 meters long and 400 meters wide and is underlain by quartzite and quartz monzonite /granite. One hand specimen of quartzite (float) with visible pyrrhotite from the anomaly area contains 525 ppm Pb and 780 ppm Zn. Other quartzites contain 86 ppm Zn. The soil anomalies appear to be originating from metasediments (pyrrhotitic quartzites) near the metasediment-intrusive contact. The Pb anomaly tails off along the west part of the main ridge, which is mainly underlain by granite, and may indicate a dispersion of Pb down hill from the main Pb-Zn anomaly. Area D has the strongest Pb-Zn anomaly on the claims and further rock sampling and prospecting are recommended. At the west end of anomaly D, a one-station U anomaly (124 ppm U) and a one-station W anomaly (85 ppm U) occur. Both are situated over presumed intrusive rock.

AREA E

Area E is a Uranium-scintillometer anomaly consisting of 3 separate uranium anomalies (Areas E1, E2, E3) and a 2200 meter long radiometric anomaly. The uranium anomalies were tied together because they are along the same linear trend as the radiometric anomaly (see section XII).

Uranium anomaly area E1 is located at 30+00E and 10+00N and is a single station. A high value of 33 ppm U and a high radiometric value of 507 cps were detected. The anomaly is located at the intrusive-metasediment contact and is probably the result of uranium enrichment in the contact area such as discussed at the MOLLY showing.

Area E2 is a double station uranium anomaly located at 37+50E and 05+00N. It is open to the northeast and the uranium values range from 30 ppm to 34 ppm. An adjacent radiometric anomaly (683 cps) is 60 meters to the north and may possibly be related to the uranium anomaly. The uranium anomaly, similar to area E1, is near the intrusive-metasediment contact.

Area E3 consists of double and single station uranium anomalies located at 22+50E-25+100E and 11+25N. The uranium values range from 69 ppm to 80 ppm. There is no corresponding radiometric anomaly, although area E3 is along the same trend as the main radiometric anomaly. A coincident single station Mo anomaly (12 ppm) occurs in area E3. Area E3 is underlain by overburden and/or talus and the higher radiometric values (>500 cps) found in areas E1 and E2 could be masked. A similar source either as outcrop or float for areas E1 and E2 is proposed for area E3. Radiometric prospecting and rock sampling are proposed for areas E1, E2 and E3.

AREA F

Area F is a moderate, non-coincident Mo-W anomaly at the talus base of the main ridge on the NISU Claim Group (Soil Grid location approximately 40+00E and 05+00N). The anomalies are small, two-station areas with Mo values ranging from 11 ppm to 15 ppm and W ranging from 30 ppm to 35 ppm. Hornfels, quartzites and skarns are exposed on the cliff face above the anomalous area. Hand specimens of skarn from the ridge returned values of 125 ppm W to 0.1% W_3 which explains the W anomaly. On the other hand, the molybdenum anomaly trends along the bottom of the cliff and may reflect

mineralization from the metasediment-quartz monzonite contact which is thought to underlie the talus in area F. The mineralization would be similar to that seen at the MOLLY showing. It is also possible the Mo anomaly could be related to the tungsten skarn bands although actual rock values from outcrop are low in these zones. The anomalies are not extensive. Rock sampling and prospecting for float are recommended for area F.

AREA G

Area G is a Mo-W-Pb-Zn anomaly located at the base of the mountain in the extreme south-east portion of the WOX Claim group (Soil Grid location: 42+50E and 6+25S). The anomalies are open to the east, are very irregular in shape and "tail-off" away from the mountain as is characteristic of mechanical dispersion in talus. The 900 meter long W anomaly trends east-west. The Mo and W values are moderate, ranging from 22 ppm to 55 ppm for W and 15 ppm for Mo. Zn values range from 200 ppm to 580 ppm (4 stations) and Pb from 74 ppm to 225 ppm (3 stations). The underlying rocks are quartzite and limestone. No rock samples were collected from the outcrop but rusty weathered zones were observed in the quartzites. The anomalies are mostly non-coincident except for weak Pb-Zn and Zn-Mo associations. The linear trend of the W anomaly is puzzling since high values are restricted to low areas, but the trend may be fortuitous. Further soil sampling to the east and prospecting are recommended. The Pb-Zn anomalies are mostly likely associated with the mineralized black pyrrhotite quartzites which were observed on the mountain

slopes. The coincident Zn-Mo-Cu anomaly is located in a cirque and is open to the east. Detailed prospecting should be conducted to locate the source which may be a skarn or quartzite on the cliff face of the cirque. It is suggested that the east side of the mountain in area G should be geologically mapped, prospected and soil sampled.

AREA H

Area H is a coincident Mo-W-Cu anomaly with a minor Zn anomaly located near the talus base of the main ridge on the south central part of the NISU Claim group. The anomaly is in two small cirques and trends east-west for about 1100 m parallel to the ridge crest. The W values range from 35 ppm to 250 ppm (6 stations), Mo from 20 ppm to 24 ppm (2 stations) and Cu from 78 to 124 ppm (2 stations). The anomaly is underlain by quartzite, hornfels and skarn; a sample of quartzite from the ridge gave values of 50 ppm Mo, 825 ppm Cu and 184 ppm Zn, and a sample of skarn contains 0.10% W_3 . The main anomaly is near the metasediment/igneous rock contact; a sample of molybdenite-bearing intrusive gave a value of 0.49% Mo at one nearby outcrop. The anomaly is strong and may be related to skarn bands in the metasediments or to mineralization along the contact. The copper anomaly may also have arisen from skarns. Prospecting and rock sampling should be done in the area to determine if area H is an extension of the MOLLY showing located just to the north.

AREA I

Area I is three coincident Mo-W anomalies around the Molly showing.

Contour soil sampling was done around the ridge. The Mo values range from 11 ppm to 24 ppm and W ranges from 18 ppm to 125 ppm. The anomaly area is underlain by a thin layer of quartzite, hornfels, and skarn above siliceous quartz monzonite which grades down into a coarse grained granite. Hand specimens of skarn and intrusive rocks from the trench at the MOLLY showing and other skarn zones have values of 140 ppm to 400 ppm W and 84 ppm to 1.86% Mo (See Figure 3). The Mo-W anomalies correlate exactly with skarn zones and MOLLY showing and the Mo-W mineralization found at these areas. The Mo-W anomaly is the strongest soil anomaly of its type on the property and probably is due to the fact that the contact area has greater surface exposure than elsewhere; the skarns subcrop. More soil sampling and prospecting would help to delineate the zone because it is still basically open to the west and east.

AREA J

Area J consists of separate Mo, Cu, W anomalies and a coincident Pb-Zn anomaly which are located in a valley north of the main ridge in the western portion of the WOX Claims. (Soil Grid Location: 00+00 BL between 0+00 and 10+00N). The Cu anomaly (6 stations) consists of values from 82 ppm to 104 ppm and trends along the exposed north cliff face and talus of the main ridge for a distance of 400 meters. The anomaly is open to the west and is underlain by massive chloritized "greenstone" which contains minor pyrrhotite. The anomaly is probably due to the higher clark of Cu in metavolcanic rocks compared to other rocks on the property. The Mo-W-Pb-Zn anomalies (each of two station), which trend northwest and parallel to the bedding (130°) of the greenstones,

are 400 to 500 meters long and open to the west. The W values range from 17 ppm to 20 ppm; Pb from 70 ppm to 130 ppm; Zn from 260 ppm to 275 ppm and Mo from 13 ppm to 25 ppm. The anomalies are thought to be underlain by massive greenstones but one rock taken from the area gave no significant geochemical values. The Pb and Zn anomalies may be derived from pyrrhotitic mineralization in the greenstones. The W and Mo anomalies have distinctive, parallel trends and they remain unexplained.

It should be mentioned that the anomalous values are consistent across the trends and do not drop off, as with a dispersion pattern. A stream sediment sample close to the Mo anomaly gave values of 45 ppm W, 15 ppm Mo and 273 ppm U (Plan 12). Further soil sampling to the west to close off the anomalies and rock sampling-prospecting are recommended. Soil pits should be dug to determine if the high values are environmentally controlled.

AREA K1

Area K1 is a large 4 station W anomaly located in the creek valley of the south central portion of the WOX Claim group. (Soil Grid Location: 10+00S between 15+00E and 17+50E). The W values range from 17 ppm to 70 ppm and a G.S.C. stream sediment sample in area K1, gave a value of 80 ppm W. The underlying geology is unknown but the anomaly is very close to the extension of Tempelman-Kluit's thrust fault. A skarn type source, however, is plausible. Further geological mapping, soil sampling and prospecting along with soil pits are recommended to determine the source of the anomaly.

AREA K2

Area K2 is a 3 station W anomaly located north of anomaly E3 (Soil Grid Location: 22+50E and 13+75N) in the north central portion of the WOX Claim group. Values range from 20 ppm to 33 ppm W. The anomaly is 500 m long and is probably underlain by quartz monzonite. The source of the anomaly is not known but there may be xenoliths of metasediment in the area. Prospecting and soil pits are recommended.

AREA K3

Area K3 is a 3 station W anomaly located in the central western portion of the WOX Claim group (Soil Grid Location: 2+65S between 5+00E and 7+50E). The anomaly is irregular in shape, approximately 300 m x 150 m, with W values ranging from 20 ppm to 25 ppm. The underlying geology is probably greenstones, (Plan 2). Prospecting is recommended to determine the actual cause of the anomaly. An explanation for the anomaly may be mineralized boulders and rocks transported by glaciation.

AREA K4

Area K4 is a W anomaly located in the extreme north eastern portion of the WOX Claims in a large cirque. (Soil Grid Location: 35+00E a 10+00N). The anomaly has a weak north-south trend of about 400 meters with values ranging from 25 ppm to 35 ppm W. The anomaly is just below the metasediment-granite contact and one granitic float sample in the area gave values of 45 ppm W and 28 ppm Mo. The anomaly may also be due to skarn mineralization from the contact zone. Further

rock sampling and prospecting are recommended.

AREA K5

Area K5 is a Cu anomaly in the south-western portion of the WOX Claims. The anomalous area is 400 m x 200 m with Cu values ranging from 76 ppm to 170 ppm. The anomaly is just north of Wolf Creek and is open to the west and south. The underlying geology in the area is not known but is likely greenstone. Stream sediment samples taken from Wolf Creek in 1979 did not reveal any anomalous Cu values. The highest Cu soil values on WOX/NISU come from this anomaly. As with anomaly J it is suspected that the high clark of Cu in the greenstone is the source of the anomaly.

IX. ROCK GEOCHEMISTRY (Plans 1a, 1b)

Outcrop and float rock samples were collected from the WOX and NISU Claim groups to compare the underlying bedrock geology with the soil geochemistry anomalies. Rocks were collected from the main rock units on the property including mineralized, stained and altered samples and were analyzed geochemically for Mo, Cu, Pb, Zn, W and Th. (see Appendix III for sampling and laboratory procedures). A total of 57 rock samples were collected. Where geochemical values exceeded the geochemical limits assays were also determined for those elements. Details of rock samples and analyses are in Appendix II.

To determine anomalous levels for Mo, Cu, Pb, Zn, W, U and Th in (i) quartz monzonite-granite, (ii) calc-silicate hornfels-skarn and (iii) quartzites-metapelites;

frequency distribution graphs were constructed (Figure 13). The anomalous levels were visually estimated from the graphs and are summarized below in Table III.

TABLE III

	<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
Quartz Monzonite & granite	>2	>25	>20	>40	>16	>10	none >35
Calc-silicate hornfels-skarn	>2	>20	>30	>120	>20	>10	none >20
Quartzites-metapelites	>3	>35	>15	>80	>12	>10	none >20

The frequency distribution graphs show a bimodal distribution of metals analyzed (Mo, Cu, Pb, Zn, W). However, the mineralized samples were not included in the data so that the apparent bimodal distributions appears to be real. From the graphs it shows that Mo and Cu are slightly enriched in the quartzitic rocks and Pb, Zn, U and Th in the quartz monzonite. Tungsten shows a minor enrichment in the calc-silicate hornfels-skarn and the quartzites.

Table IV presents the metal contents of the various lithologies and mineralized samples, along with the average metal content. The data indicates some minor enrichment of Mo (up to 48 ppm), Zn (up to 1100 ppm), W (up to 22 ppm) and U (up to 87 ppm) in quartz monzonites. The high Mo, Zn, W, and U values are present in locally altered shear zones cutting quartz monzonite (17548R, 17551R).

WOX-NISU CLAIM GROUPS

FREQUENCY DISTRIBUTION OF METAL VALUES IN ROCK UNITS

Figure 13

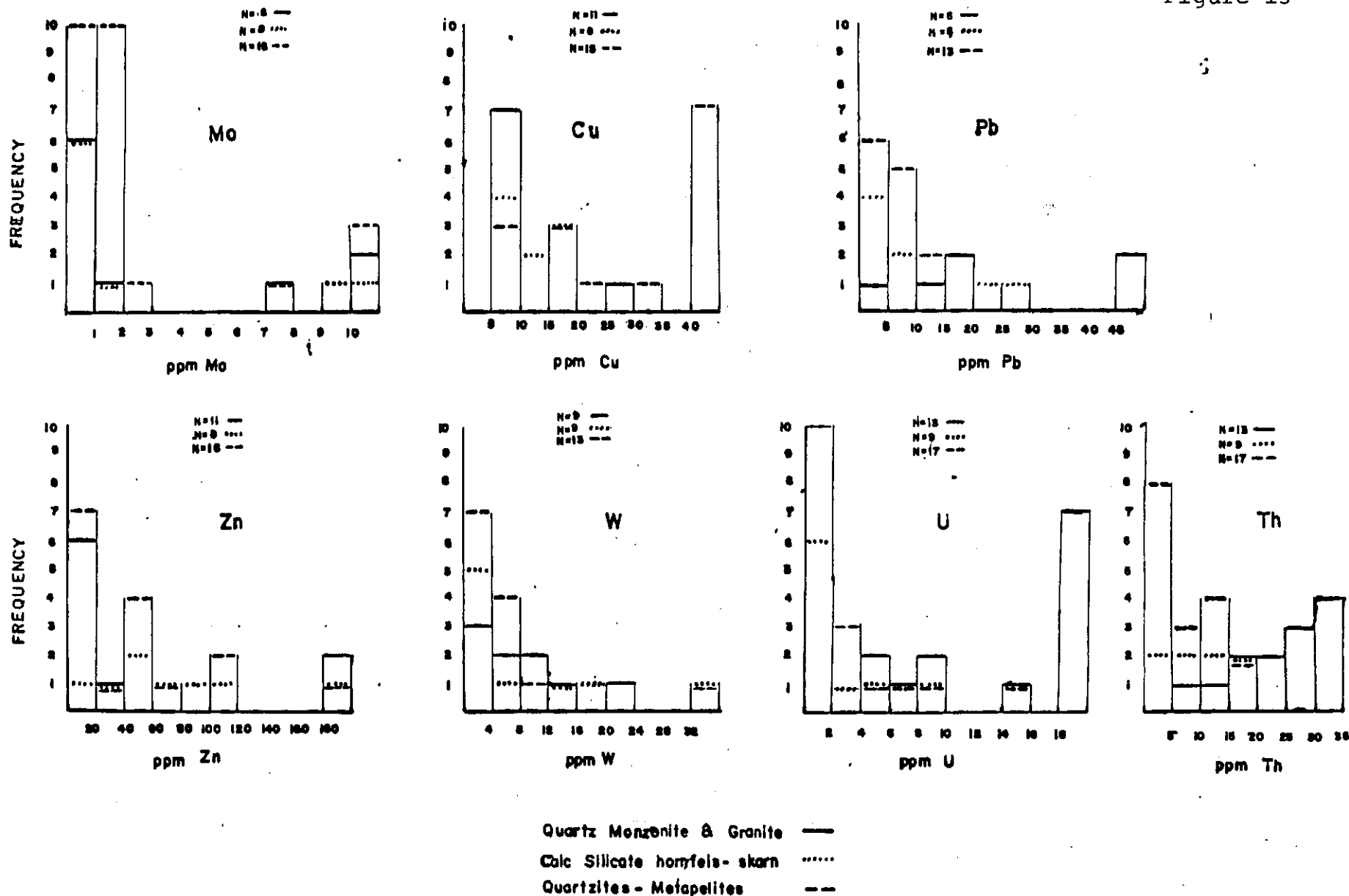


TABLE IV

Metal Content of Rock Units

Rock Type	Sample #	Mo	Cu	Pb	Zn	W	U	Th	U/Th
Quartz Monzonite and Granite	17546R	1			34		4.5	21	0.21
	17547R		10		6		<u>35</u>	31	1.1
	17548R				<u>1100</u>	<u>22</u>	<u>18.5</u>	26	0.7
	17549R		6			1	<u>15.5</u>	35	2.3
	17550R		<u>26</u>		<u>850</u>		87	27	3.2
	17551R	<u>48</u>	12	<u>44</u>	<u>112</u>	8	<u>64</u>	23	2.7
	17555R	<u>8</u>	10	<u>46</u>	<u>116</u>	9	10	20	0.5
	17564R	1	6	16	12	10	5	17	0.3
	17568R	1				5	7.5	31	0.24
	17590R	<u>25</u>	10	4	12	3	8	35	0.2
AVERAGE		10	10	23	206	8	27	24	1.125
Calc- silicate hornfels and skarn- carboante	17540R	1	18	2	<u>390</u>	18	1	17	0.06
	17541R	1	8	4	42	<u>125</u>	1.0	4	0.25
	17557R	1	10	4	108	1	3.5	10	0.4
	17560R	<u>10</u>	8	24	52	1	6	6	1.0
	17561R	2	18	26	86	13	1.5	12	0.1
	17570R	1	18	8	10	1	1.5	14	0.1
	17571R	<u>28</u>	<u>64</u>	6	76	<u>45</u>	15	10	1.5
	17578R	1	12			2	1.5	16	0.09
	17581R	1	10	6	78	1	1.0	5	0.2
	17588R	29	14	1	24	7	10	33	0.3
AVERAGE		5	13	9	99	19	59	13	4.5
Quartzites and Metape- lites	17542R	1	<u>78</u>	2	10	1	1	15	0.7
	17544R	1	<u>475</u>	4	56	1	2	19	0.1
	17545R	1	<u>230</u>	6	14	1	2.5	17	0.14
	17552R	2	<u>46</u>	10	<u>112</u>	7	2.5	9	0.3
	17553R		18	4	<u>110</u>	9	7.5	4	1.8
	17554R		8		12		1.0	3	0.3
	17558R	1	<u>164</u>	4	14	3	2	12	0.2

Metal Content of Rock Units (continued)

Rock Type	Sample #	Mo	Cu	Pb	Zn	W	U	Th	U/Th	
Quartzites and Metapelites	17559R		18		52		6.5	2	3.3	
	17563R	1	<u>86</u>	12	18	1	2	4	0.5	
	17566R	1	22	6	60	7	1	12	0.08	
	17567R	1	34	14	8	5	1.0	14	0.07	
	17569R	1	10	2	42	1	1.0	<1.0	1.0	
	17572R	1	8	<u>18</u>	4	<u>14</u>	<u>34</u>	7	4.9	
	17573R	1	6	12	10	3	<u>34</u>	29	1.2	
	17574R	1				14		<u>32</u>	14	2.3
	17575R		8			26		1.5	<1.0	1.5
	17575R	1	16	6	12	4	3.5	15	0.23	
	17577R	1	10				0.5	4	0.13	
	17580R	13	16	4	<u>186</u>	5	9.0	7	1.3	
AVERAGE		5	85	6	50	7	3.5	8	0.49	
Mineralized Rocks	17543R	15	10	1	54	375	3.5	12	0.3 skarn	
	17562R	1	32	525	780	14	16	7	2.3 qtz.ite	
	17565R	2	8	6	82	0.1%	10	4	2.5 skarn	
	17579R	50	825	10	184	12	101	7	14.4 qtz.ite	
	17582R	0.490%	38	24	22	35	17	36	0.5 qtz monz.	
	17583R	1.86%	30	20	16	20	24.5	90	0.3 "	
	17585R	90	8	4	38	140	15	2	7.5 skarn	
	17586R	95	8	2	36	6	45	82	0.5 skarn	
	17587R	0.086%	14	2	26	8	20.5	27	0.8 skarn	
	17589R	0.596%	8	26	26	20	10.5	29	0.46 skarn	
	17591R	185				4	9.5	68	0.1 qtz monz.	
	17592R	0.346%				13	23	12	1.9 qtz monz.	
	17593R	0.432%	8	4	4	14	19.5	28	0.7 "	
	17594R	0.432%	16	2	24	13	13.5	65	0.2 "	
	17595R	0.156%	8	2	56	86	86	76	1.1 skarn	
17596R	0.072%	8	2	42	400	12.5	11	1.1 skarn		
17597R	0.138%	8	2	14	375	2	5	0.4 skarn		

— underscoring indicates anomalous levels.

The calc-silicate hornfels with minor skarn have elevated values up to 28 ppm Mo, 64 ppm Cu (17571R), 390 ppm Zn (17540R) and 125 ppm (17541R). These samples do contain minor visible pyrrhotite (17571R), sphalerite (17540R) and scheelite (17541R), although they are from local skarn bands within the calc-silicate hornfels.

The quartzite and metapelite contain minor enrichment of Cu (up to 475 ppm), Zn (up to 186 ppm), W (up to 14 ppm) and U (34 ppm). These samples are coated by a black manganese stain and contain localized zones of visible pyrrhotite. These rocks are generally not very enriched in Mo, Cu, Pb, Zn, W, U or Th, although some Cu values are high.

Mineralized quartz monzonite contains molybdenite-scheelite with values up to 1.86% Mo and 35 ppm W (17583R). These rocks were taken from the MOLLY showing and from the local area. Similarly, skarn from the same area has visible molybdenite and scheelite with values up to 0.156% Mo and 0.1% W. Minor Pb, Zn, Cu, U values were detected in quartzites with visible pyrrhotite. The mineralized quartzites had values up to 525ppm Pb, 780 ppm Zn, 825 ppm Cu, and 101 ppm U (17562R, 17579R) and are located in the east portion of the WOX Claims.

The scatter graph of the uranium-thorium ratios (Figure 12) clearly shows two distinct populations. The one population includes the metasediments (ie. hornfels and quartzites) with a low U/Th ratio (0.44/1) and the other outlines the quartz monzonites with a higher U/Th ratio (1.13/1). The inference is that the uranium and thorium are relatively stable within the rocks except for some samples such as a quartzitic rock with

a U/Th ratio of 14.4/1 (17579R).

In summary the rock geochemistry indicates minor enrichment of Mo, Zn, W, U in altered shear zones cutting quartz monzonite, slightly elevated Mo, Cu, Zn, W values from skarn bands within calc-silicate hornfels and some high Cu values in quartzites. Mineralized quartz monzonite and skarns contain economic Mo-W values, while selected mineralized quartzitic samples have significant Pb, Zn, Cu and U values.

X. STREAM SEDIMENT GEOCHEMISTRY (Plan 9, 12)

The WOX Claim group was staked to cover multisite G.S.C. - Uranium Reconnaissance Program stream sediments, with high U-Mo-W values, released in Open File Report 564 on June 15th, 1979 (Plan 20). The best values were found in the north eastern stream, which contains 40.6 ppm U, 35 ppm W and 5 ppm U, 80 ppm W and 5 ppm Mo. Two streams draining north on either side of the MOLLY showing (Plan 9), were sampled for silts. A total of 24 stream sediment samples were collected and analyzed for Mo, Cu, Pb, Zn, W and U. Analytical results are listed in Appendix I. Because of insufficient sample population, a statistical treatment of results was not carried out. Values were compared with the 'probably anomalous' levels (97th percentile) of all stream sediment samples taken during the 1979 CanadianOxy WATSU regional program (Sacks, 1979). The data is listed in Table V below.

TABLE V

Probably Anomalous Levels, and
Range of Values for Stream Sediments

	ppm <u>Cu</u>	ppm <u>Pb</u>	ppm <u>Zn</u>	ppm <u>Mo</u>	ppm <u>W</u>	ppm <u>U</u>
Prob. Anom. (Sacks (1979))	>54	>59	>320	>11	>16	>38
Range of Values Wox, (1980)	10-52	6-22	48-730	1-25	2-85	1.5-90

Data from 1980 sampling reveals the following:

- (1) The west stream on the NISU Claim group is anomalous in tungsten and uranium. The 3 anomalous W values

occur over a length of 250 meters (20 ppm W to 45 ppm W) and are present downstream from the MOLLY showing. These samples also have anomalous U (62 ppm to 90 ppm). The W-U anomalies are probably caused by the mineralization at the MOLLY showing and mineralized skarn bands in the area (Figure 3).

(2) The east stream draining the NISU Claim group is anomalous in molybdenum, zinc, tungsten, and uranium. A coincident 725 meter Mo-W anomaly is present at the upstream end and values of both elements gradually decrease downstream. The stream sediments contain from 11 ppm to 25 ppm Mo and 22 ppm to 85 ppm W. The stream sediment anomaly appears to be originating from a Mo-W-Zn soil anomaly (H, Plan 12) at the head of the stream. This soil anomaly (Area H) is thought to be caused by a MOLLY type mineralization. Local zinc anomalies probably originate from the same area but high values are more dispersed downstream and irregular, due to environmental conditions. Zinc values range from 340 ppm to 730 ppm.

A 250 meter long uranium anomaly occurs and is coincident with the Mo-W-Zn soil anomaly. The uranium values range from 38 ppm to 61 ppm and are probably related to the Mo-W-Zn soil anomaly although soil geochemistry did not indicate a U anomaly. Rock geochemistry however did detect one quartzitic rock with 101 ppm U (17579R) found at the crest of a cirque which the stream drains.

In 1979 CanadianOxy performed detailed stream sediment sampling along the two creeks with high sediment values. In the north stream anomalous values of 70 ppm W, 15 ppm Mo and 369 ppm U were obtained; values decrease downstream. The

369 ppm U stream sediment anomaly is just below a uranium soil anomaly (CanOxy, 1980) thought to be the source. In the main south creek anomalous values of 95 ppm W, 4 ppm Mo, 165 ppm U, 420 ppm Zn and 400 ppm Pb were found; these usually decrease in value downstream. The anomalous Pb-Zn stream silt sample is near a Pb-Zn soil anomaly (1980) which may be the source area. A coincident W soil anomaly (1980) and an 80 ppm W stream sediment anomaly on the same stream appear to be related. A strong stream sediment anomaly (165 ppm U) is just downstream from an extremely strong uranium soil anomaly (1980). In the two streams some elements increase downstream in value due to metal sources from connecting tributaries. Tungsten values are especially affected by the sources from the tributaries. No high anomalous molybdenum values were detected in the southern stream. Anomalous Cu-Zn soil anomalies (CanOxy 1980) were weakly detected by the 1979 stream sediment sampling.

XI. HEAVY MINERAL GEOCHEMISTRY (Plan 17)

A total of 7 heavy minerals were collected and analyzed for Cu, Mo, Pb, Zn, Ag, U, W, Sn, and Th. Because of insufficient sample population, a statistical treatment of results was not carried out. Values were compared with the 'probably anomalous' levels (97th percentile) of all heavy mineral samples taken during the 1979 CanadianOxy WATSU regional program (Sacks, 1979). The data is summarized in Table VI.

TABLE VI

Probably Anomalous Levels from Sacks (1979)
and 1980 Range of Values for Heavy Minerals
(all values in ppm)

	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>Ag</u>	<u>Mo</u>	<u>Sn</u>	<u>W</u>	<u>U</u>	<u>Au</u>	<u>Th</u>
Prob. Anom. (1979)	165	280	440	.95	8.5	300	160	120	3150	1200
Range of Values	18-	8-	68-	0.1	12-	2-11	50	16.5	10	21-
Wox (1980)	34	102	200		26		ppm -589			308
							-0.21%			

In the west stream draining the NISU Claim group there are coincident Mo-W-U anomalies. The Mo values range from 12 ppm to 26 ppm; tungsten from 275 ppm to 0.21% and; uranium 328 ppm to 589 ppm. These outline an anomalous zone over 600 meters along the stream. The tungsten and uranium anomalies are very strong with a moderately strong molybdenum anomaly probably originating from the MOLLY showing and related skarn type mineralized areas on the NISU ridge (Figure 3). The anomalous Mo values were not replicated in the stream sediments.

In the east stream there is a Mo-W anomaly with molybdenum ranging from 12 ppm to 24 ppm over 1500 meters and tungsten ranging from 250 ppm to 0.07% (Plan 12). The Mo-W anomaly probably originates from either the Mo-W soil anomaly (Area H) or the MOLLY showing. The heavy mineral samples replicated the stream sediment results for molybdenum and tungsten but uranium and zinc were not replicated in the heavy minerals probably due to differences in dispersion characteristics.

Uranium/Thorium ratios for the heavy minerals are generally close to the average (1.2:1). However, in two samples very high uranium and thorium values occur with a

slightly greater ratio above the average.

Stream water samples were collected at heavy mineral sites and analysed in the field for pH and specific conductivity (S.C.). In the west stream moderate pH (6.5 to 7.7) is accompanied by low S.C. (15 to 22 m. mohs/cm.). The pH and S.C. tend to increase downstream.

In the east stream the pH is constant at 7.2 while the S.C. (35 to 62 m mohs/cm) decreases downstream with decreasing metal content in the heavy mineral and stream sediment samples.

TABLE VII

Specific Conductivity and pH of Stream Waters

Sample No.	West Stream S.C.	pH		Sample No.	East Stream S.C.	pH
17492HM	22	6.5	↓ Downstream	17477HM	60	7.2
17495HM	21	7.6		17511HM	58	7.2
17498HM	15	7.7		17512HM	62	7.2
				17516HM	35	7.3
						↓ Downstream

XII. RADIOMETRICS (Plans 7a, 7b)

The radiometric survey was done with the soil sampling on a 60m x 250m grid. The Urtec scintillometer was used for the survey. All readings were taken on TC-1 channel for 10 second intervals at ground level.

The same statistical treatment used for the soil sampling was also applied to the radiometric results (Figs. 10 & 11). Statistical data is summarized in Table VIII.

TABLE VIII

Median, Probably Anomalous, Anomalous Levels and
Range of Values - Radiometrics

Median	Probably Anomalous	Anomalous	Range of Values
180 cps	290-300 cps	7300 cps	20-760 cps

The distribution of radiometric response reflects the relative degree of exposure as well as lithology. Values over 300 cps generally reflect areas of outcrop, talus and felsenmeer, and values over 500 cps correspond to areas of granitic rocks in the northern half of the WOX and NISU Claims.

AREA C

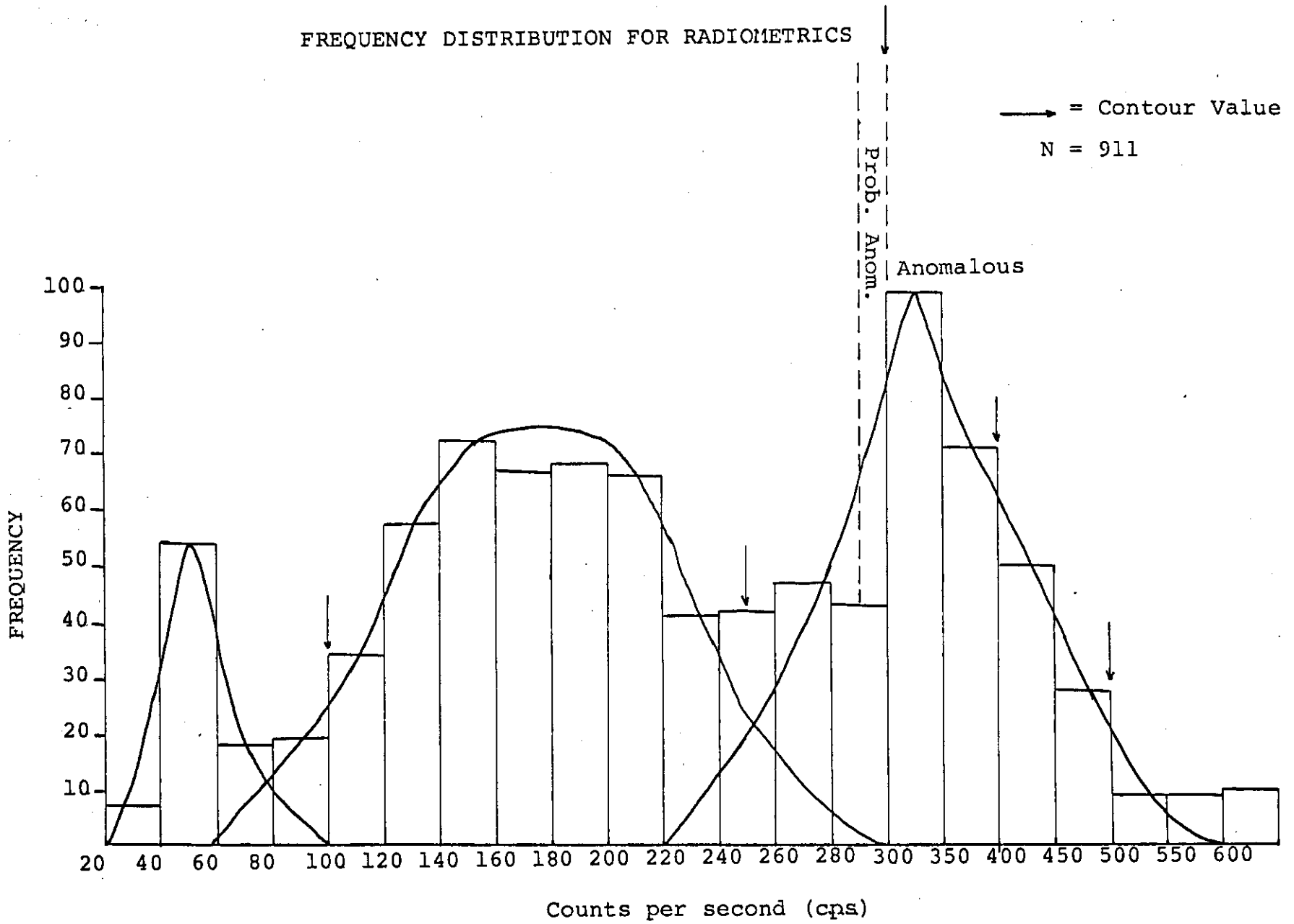
One strong (500 cps) radiometric anomaly (Soil Grid Location: 15+00E - 17+50E and 7+50N - 13+00N) ranges from 500 cps to 760 cps. The 750 meter long anomaly has a curved shape which follows exposed porphyritic granite outcrop and talus. Rock samples from shear zones in the area gave values of 64 ppm to 87 ppm U and 23 ppm to 27 ppm Th. Uranium soil values in the area are anomalous (13.5 -124 ppm U), with two of the higher values near the uraniferous shear zones (Plan 12). Soil sample density in the area is low, but the radiometric anomaly may be due to other as yet undiscovered shear zones.

AREA E

Area E is a east-west trending uranium-in-soil and scintillometer anomaly which is approximately 2200 meters long and 100 meters wide, located approximately along line 8+75N on the soil grid and between lines 18+00E and 40+00E. Anomalous area E trends along the talus base of the main east-west ridge.

WOX AND NISU CLAIM GROUPS

FREQUENCY DISTRIBUTION FOR RADIOMETRICS



CUMULATIVE FREQUENCY CURVE
RADIOMETRICS

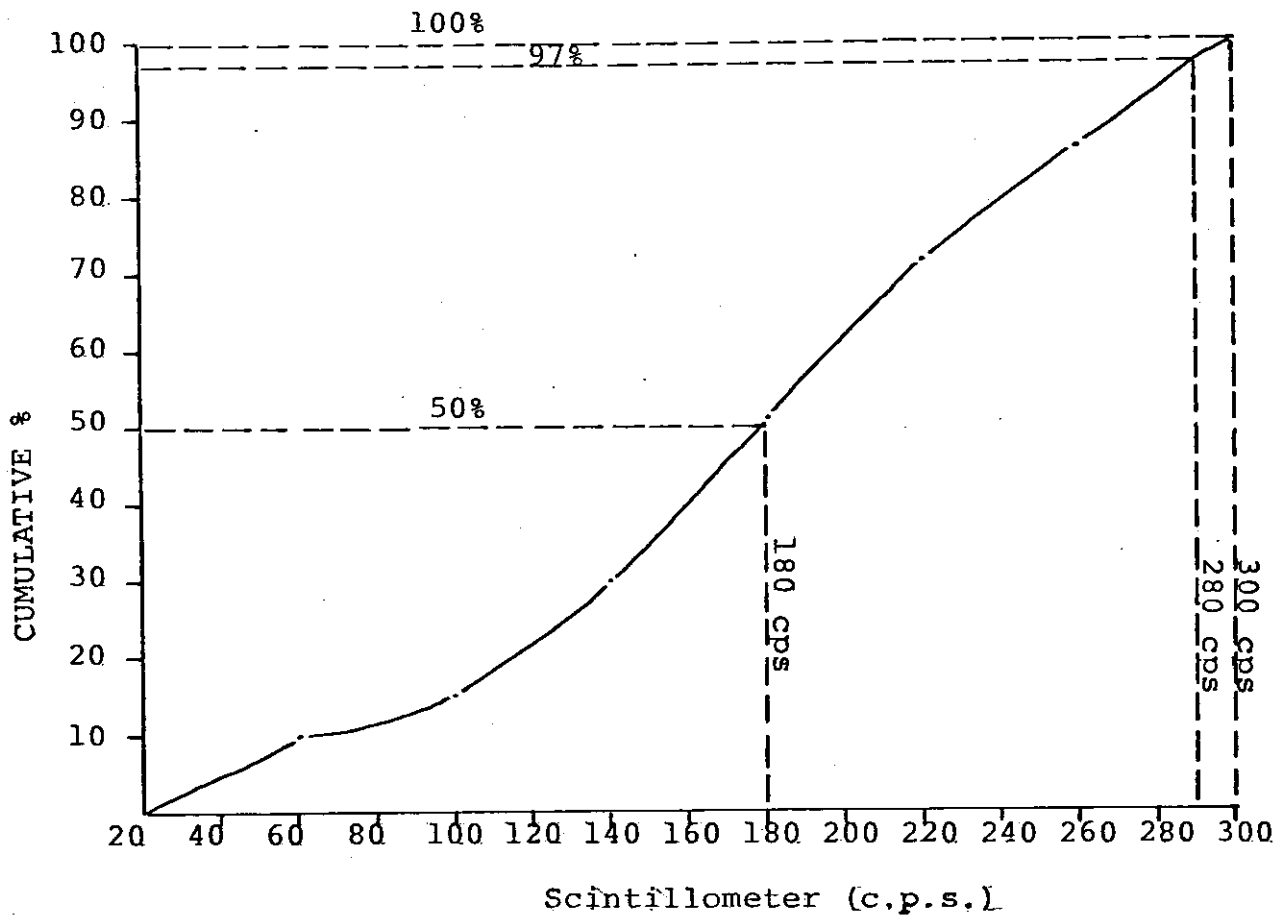


TABLE XIII

FREQUENCY DISTRIBUTION FOR RADIOMETRICS

<u>Interval (ppm)</u>	<u>Frequency</u>	<u>Cumulative Frequency</u>	<u>Cumulative Percentage</u>
20 - 60	61	61	10
61 - 100	37	98	15
101 - 140	91	189	30
141 - 180	139	328	52
181 - 220	134	462	73
221 - 260	83	545	86
261 - 300	90	635	100
301 - 350	99		
351 - 400	71		
401 - 450	50		
451 - 500	28		
501 - 550	9		
551 - 600	9		
+600	10		

The scintillometer values range from 502 cps to 683 cps. The U-soil anomalies (Section 8.4) consists of three isolated areas overlapping the radiometric anomaly and its projection to the west. The scintillometer anomaly is open to the east and may continue to the MOLLY showing (1400 cps). The anomaly appears to be underlain by quartz monzonite near the contact area. The U-soil and radiometric anomalies are over talus or outcrop and trend along the contact just below the metasediments. This may reflect higher uranium content of the thin quartz monzonite zone at the contact similar to that seen at the MOLLY showing. Alternatively, the uranium and radiometric anomalies may be due to localized, uranium-enriched shear zones similar to those in Area C.

XIII. CONCLUSIONS

(1) The WOX and NISU Claims are underlain by shallowly south east dipping Silurian hornfels, limestones and quartzite units which have been intruded and metamorphosed by granitic rocks of Cretaceous age (Nisutlin Batholith). Carboniferous to Permian greenstone has been thrust over the assemblage from the south west.

The intrusive consists of a hybrid porphyritic biotite granite which grades up into a narrow zone of siliceous biotite-muscovite quartz monzonite at the metasediment-intrusive contact. Local areas of the quartz monzonite contain visible Mo-W mineralization. Also mineralized Mo-Zn-U shear zones are present throughout the property cutting the quartz monzonite.

The basal section of the Silurian metasediments was

metamorphosed by the intrusion of the quartz monzonite with development of skarns and skarn bands within the calc-silicate hornfels. Minor W-Mo mineralization is associated with the skarns. Similarly, local Cu-Zn-Pb-W-U high geochemical values were found in pyrrhotitic quartzites near the intrusive contact.

(2) The metasediment in the south east corner of the WOX Claims is cut by faults which are subparallel to Templeman-Kluit's (1976) thrust fault in the western portion of the WOX Claims.

Bedding irregularities of the Silurian metasediments on the main NISU ridge are thought to be due to emplacement of the granites. The contact between the Nisutlin Batholith and the metasediments is probably very shallow (subparallel to the metasediments). In fact, the MOLLY showing probably represents the bottom parts of xenoliths or roof zones within the granite.

(3) The MOLLY showing (trench) on the NISU Claims has the most impressive mineralization. Visible molybdenite and scheelite are present at a intrusive-skarn contact with values up to 0.596% Mo, 400 ppm W, and 86 ppm U. The skarn is 10 meters long and 2 meters thick within a thin pendent sedimentary rocks. Consequently the potential for mineable tonnage is remote. A high radiometric value of 1400 cps is present in the MOLLY trench.

Other occurrences of sediment-intrusive type mineralization in the area were found in quartz monzonitic rocks with values up to 1.86% Mo and 400 ppm W. Similarly, small skarn

bands within calc-silicate hornfels to the south of the MOLLY showing contain visible scheelite with values up to 375 ppm W. These skarn bands vary from 5 cm to 2 meters wide for distances up to 5 meters. The scarcity, small dimensions and low grades of mineralization preclude any economic potential in this area.

Visible galena, sphalerite and pyrrhotite are present in black quartzites with significant amounts of Pb, Zn and Cu (up to 780 ppm Zn, 525 ppm Pb, 86 ppm Cu). However, the mineralization is extremely localized.

(4) Many soil anomalies occur throughout the WOX and NISU Claims due to the variety (ie. Mo, W, Pb, Zn, U) and localized features of the mineralized zones.

In the vicinity of the MOLLY showing small strong Mo-W soil anomalies correlate with the mineralized zones. A strong 1200 meter long Mo-W soil anomaly with minor Zn-U is present to the south of the MOLLY showing and may reflect mineralization from the sediment-intrusive contact. The other smaller Mo-W anomalies originate from similar mineralized zones as well as from skarn bands within the calc-silicate hornfels.

A moderately strong 1400 meter long Pb-Zn soil anomaly is present in the central portion of the WOX Claims. The anomaly is underlain by the sediment-intrusive contact and selected hand samples of pyrrhotitic quartzite contain significant values of Pb and Zn. Other weaker Pb-Zn soil anomalies on the Claims appear to originate from similar sources.

Copper soil anomalies are very weak and are usually associated with Mo-W or Pb-Zn soil areas.

A very strong uranium soil anomaly (up to 189 ppm) is present in a swamp in the central portion of the WOX Claims (700 m x 200 m). A radiometric anomaly up slope and west of the north end of the soil anomaly may possibly be the source. The high uranium values are probably due to environmental factors (ie. enrichment). Other uranium soil anomalies are related to Pb-Zn-U mineralized shear zones.

(5) Rock geochemistry indicates minor enrichment of Mo, Zn, W and U in altered shear zones cutting quartz monzonite, slightly elevated Mo, Cu, Zn and W values from skarn bands and some high Cu values in quartzites. Mineralized quartz monzonite and skarns contain economic Mo-W values (up to 1.86% Mo and 400 ppm W), while selected mineralized quartzitic samples have significant Pb, Zn, Cu and U values.

(6) Stream sediments and heavy minerals collected in 1980 on the NISU Claims have anomalous W-Mo-U-Zn values which correspond with the known mineralization and soil anomalies in the area.

The 1979 stream sediments and heavy minerals and the 1978 G.S.C stream sediments for the north and south streams on the WOX Claims have anomalous Mo-W-Pb-Zn-U-Cu values. These anomalies originate or correspond to the many 1980 soil anomalies or known mineralized areas on the WOX Claims.

(7) The radiometric survey reflects the relative degree of outcrop exposure as well as lithology. Two anomalous

areas were defined by the survey (>500 cps) where sheared granite and siliceous quartz monzonite occur. Small moderately strong uranium soil anomalies are present within the radiometric anomalies and may possibly be associated. The one anomaly (Area E) is 2200 meters long, and may reflect the higher uranium content of the narrow quartz monzonite zone at the contact similar to that seen at the MOLLY showing.

(8) Potential economic mineralization is best on the NISU Claims where Mo-W mineralization occurs. MOLLY showing skarn-intrusive contact type mineralization has the best potential but the small dimensions and low frequency of skarn showings in the area are not promising.

Minor W-Mo mineralization in skarn bands within the calc-silicate hornfels and Pb-Zn-Cu mineralization in pyrrhotitic quartzite rocks appears to have minor economic potential.

XIV. RECOMMENDATIONS

(1) Further detailed geological mapping and prospecting in the southeast corner of the WOX Claims and in the cirque to the southeast of the MOLLY showing is recommended.

(2) J. Irwin should be approached regarding the optioning of the JOA Claims and results of work performed on the claims.

(3) Trenching (blasting) where rock samples 17582R, 17583R, 17584R and 17585R were taken on the NISU Claims is recommended to determine the extent and depth of the mineralization.

(4) Open soil anomalies at the west end of the WOX

Claims and on the south portion of the NISU Claims should be closed off by extending the 250 m x 125 m grid. All samples should be analysed for Cu, Pb, Zn, Mo, W, and U.

Detailed soil grids (60 m x 60 m) in soil anomaly Areas H, F and I, along with possibly V.L.F. and/or magnetometer, is recommended.

(5) Selected rock samples from the MOLLY showing and shear zones should be petrographically or geochemically examined to determine the uranium mineral (ie. uranothorite or allanite).

(6) Soil pits (5) should be dug in a line upslope in Area B where a strong uranium soil anomaly exists. Soil pits may possibly be needed in Area J where W-Mo-Pb-Zn soil anomalies occur.

Chris Richardson B.Sc.

XV. REFERENCES

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7. Sacks, E.J. (1979): Geology and Geochemistry of the WOX Claim Group, Yukon Territory, Report of Canadian Occidental Petroleum Ltd.

APPENDIX I

ANALYTICAL RESULTS



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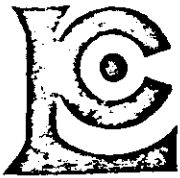
ATTN: WOX Soils, Proj. WATSU CC. Watson Lake

ANALYSED Aug. 8/80

SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
17000 80-WA	1	82	10	230	3	2.0
17001	2	20	8	36	5	4.0
17002	1	18	8	52	2	1.0
17003	1	6	10	22	3	4.0
17004	1	6	12	26	4	0.5
17005	1	2	8	8	4	1.5
17006	1	4	16	32	2	110
17030	1	40	8	68	1	2.0
17031	1	22	6	76	1	1.0
17032	1	44	8	52	1	1.0
17033	1	30	8	64	1	1.0
17034	1	26	8	60	1	0.5
17035	1	42	8	84	1	1.0
17036	1	14	4	32	1	1.0
17037	2	108	4	68	1	1.5
17038	1	64	4	112	5	1.0
17039	1	80	8	260	5	2.0
17040	1	76	6	34	3	2.5
17041	1	170	8	74	4	3.5
17042	1	14	6	46	2	0.5
17043	1	12	6	56	2	0.5
17044	1	16	6	48	1	1.0
17045	1	18	4	42	1	0.5
17046	1	24	8	44	2	1.5
17047	2	20	8	50	1	1.0
17048	1	14	6	30	1	1.0
17049	1	10	2	14	1	1.0
17050	1	46	6	96	1	1.0
17051	1	24	8	40	25	1.5
17052	2	20	4	20	1	0.5
17053	2	20	10	38	25	2.5
17054	1	42	6	24	1	0.5
17055	1	30	4	112	1	0.5
17056	1	16	6	22	1	0.5
17057	2	30	8	104	2	1.0
17058	1	24	8	66	7	1.5
17059	1	46	4	22	1	2.0
17060	2	16	14	50	10	1.5
17061	3	82	12	88	5	1.0
17062 80-WA	2	14	8	42	2	1.5



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SAMPLE NO. :	PPM	PPM	PPM	PPM	PPM	PPM
	Mo	Cu	Pb	Zn	W	U
17063 80-WA	1	8	36	42	9	14.0
17064	1	6	4	10	2	13.0
17065	1	18	8	58	4	1.5
17066	1	6	2	24	5	0.5
17067	1	18	10	60	20	2.0
17068	4	18	8	32	3	3.0
17069	1	34	6	44	1	0.5
17070	1	38	8	42	1	1.5
17071	1	6	1	14	1	1.0
17072	1	42	12	78	1	1.5
17073	1	54	12	32	1	1.5
17074	1	6	1	4	1	0.5
17075	2	14	12	130	9	7.0
17076	1	6	32	10	1	1.5
17077	1	14	16	66	13	2.5
17078	1	8	6	24	5	2.0
17079	2	6	10	64	3	13.0
17080	1	6	4	40	4	8.5
17081	1	8	8	22	5	1.5
17082	1	10	6	72	10	1.5
17083	1	2	1	6	1	1.0
17084	3	14	10	114	9	2.5
17085	2	6	10	40	2	5.5
17086	1	2	2	4	1	1.5
17087	7	6	12	28	15	54
17088	3	32	48	440	7	9.0
17089	2	14	10	144	12	12.0
17090	1	10	16	94	15	3.0
17091	3	26	4	36	2	34
17092	5	50	24	106	15	3.5
17093	1	2	2	6	2	1.0
17094	1	26	12	34	3	1.5
17095	3	78	16	158	13	2.0
17096	2	6	4	12	60	1.5
17097	3	6	6	106	35	4.5
17098	2	24	1	96	2	116
17099	4	14	4	126	7	126
17100	1	18	8	46	1	2.5
17101	1	104	6	112	2	1.5
17102 80-WA	1	86	4	100	1	1.5

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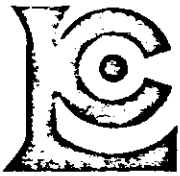
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17103 80-WA	1	70	2	66	2	1.5
17104	1	56	120	275	2	1.5
17105	1	24	10	66	1	2.0
17106	1	20	46	80	23	7.5
17107	13	20	22	36	12	2.5
17108	25	38	70	114	17	3.5
17109	2	6	24	52	5	4.0
17110	1	2	10	24	10	8.5
17111	1	2	12	14	5	2.0
17112	1	2	6	8	1	1.5
17113	2	4	14	62	2	5.5
17114	1	2	14	42	5	3.5
17115	1	2	8	20	1	3.0
17116	1	1	8	12	2	2.0
17117	1	4	18	36	5	4.5
17118	1	2	10	16	5	2.0
17119	5	22	18	124	5	17.5
17120	9	12	22	62	10	7.0
17121	3	8	10	46	20	1.0
17122	11	40	54	260	2	24.0
17123	6	28	66	56	5	1.0
17124	1	18	6	28	3	0.5
17125	3	22	4	34	5	0.5
17126	9	76	6	56	12	1.0
17127	7	12	8	72	7	3.0
17128	3	10	2	38	1	0.5
17129	1	6	16	32	1	4.0
17130	2	14	12	58	2	4.0
17131	4	2	130	26	1	4.0
17132	1	2	10	14	7	2.0
17133 80-WA	1	2	4	10	5	2.0



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SAMPLE NO. :	PPM	PPM	PPM	PPM	PPM	PPM
	Mo	Cu	Pb	Zn	W	U
17134 80-WA	1	6	6	18	4	2.0
17135	2	2	22	42	7	5.0
17136	2	1	24	28	5	4.0
17137	1	4	34	54	4	7.0
17138	1	2	12	24	7	4.0
17139	3	4	8	28	2	3.5
17140	1	2	12	30	1	12.5
17141	1	1	4	6	1	2.5
17142	5	6	14	38	2	63
17143	10	14	18	98	5	115
17144	8	10	4	44	7	7.5
17145	1	14	6	66	9	1.0
17146	2	36	4	104	17	1.0
17147	1	10	6	52	1	0.5
17148	2	16	6	68	5	0.5
17149	1	14	8	56	5	1.0
17150	1	2	8	12	1	1.5
17151	2	4	10	26	1	3.5
17158	3	6	8	24	20	1.5
17159	9	4	8	72	7	14.0
17160	1	2	6	6	1	1.5
17161	4	4	4	6	10	1.0
17162	2	6	14	36	4	6.5
17192	1	2	6	6	1	3.5
17193	5	4	10	24	4	3.5
17194	3	4	10	24	3	13.5
17195	2	4	8	30	1	2.0
17196	2	4	12	24	2	2.0
17197	1	4	18	36	2	16.5
17198	1	4	26	48	4	7.5
17199	1	2	20	62	7	8.5
17200	1	1	6	16	1	2.0
17201	1	2	6	12	4	1.5
17202	1	4	8	24	9	3.0
17203	1	2	48	36	9	14.0
17204	8	4	42	34	10	12.5
17205	2	6	16	42	7	4.5
17206	2	4	6	50	3	3.5
17207	2	6	14	34	2	5.5
17208	2	8	20	52	1	15.5

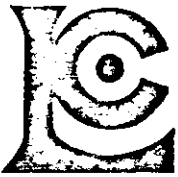
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SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
17209	1	8	16	42	2	7.5
17210	1	6	14	52	1	3.5
17211	1	8	8	76	1	8.5
17212	1	6	10	48	1	3.5
17219	1	10	10	40	2	2.5
17220	1	8	8	30	1	5.0
17221	1	6	18	30	1	4.0
17222	1	8	8	40	1	2.5
17223	1	6	180	420	5	25
17224	1	4	68	140	4	15.5
17225	1	8	34	110	7	32
17226	1	2	26	74	7	18.5
17227	1	1	6	4	1	0.5
17228	1	2	10	30	5	3.5
17229	1	4	8	10	12	6.5
17230	2	2	2	20	2	39
17231	1	1	8	4	1	1.5
17232	1	2	10	12	5	6.0
17233	1	1	4	8	10	3.5
17234	1	2	22	38	7	5.5
17235	4	4	14	30	5	3.5
17236	2	2	14	30	5	3.5
17237	1	6	18	30	7	3.5
17238	1	6	28	46	4	13.5
17239	1	8	46	56	1	4.0
17240	1	10	8	26	1	5.0
17241	1	6	8	8	1	2.5
17242	1	2	4	8	1	3.5
17243	1	10	16	30	2	13.5
17244	1	4	16	22	2	12.0
17245	1	2	4	14	1	35
17246	3	2	12	18	2	92
17247	1	8	8	112	9	26
17249	1	4	8	24	70	2.5
17250	4	8	10	40	50	2.0
17251	1	12	10	52	17	6.0
17252	3	4	6	14	10	1.0
17253	4	26	16	162	12	14.0
17254	6	72	14	88	10	71
17255	1	1	6	8	1	108

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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

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55019

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 37651

RECEIVED July 27/80

ATTN: WOX Soils, Proj. Watsu CC. Watson Lake

ANALYSED Aug. 8/80

SAMPLE NO. :	PPM	PPM	PPM	PPM	PPM	PPM
	Mo	Cu	Pb	Zn	W	U
17256 80-WA	1	6	10	24	1	189
17257	1	8	16	58	4	65
17258	1	4	14	30	1	118
17259	1	2	22	46	5	153
17260	3	6	20	38	2	56
17261	1	4	14	36	2	95
17262	1	2	8	10	1	5.5
17263	1	2	4	10	1	1.5
17264	1	2	8	12	4	5.5
17265	1	6	16	34	3	7.5
17266	1	2	6	6	1	2.0
17267	1	4	4	18	1	11.0
17268	1	2	14	22	9	15.0
17269	1	1	14	26	12	27
17270	1	4	12	28	5	3.0
17271	1	2	14	20	3	1.5
17272	3	2	10	32	2	2.5
17273	3	8	20	88	12	29
17274	2	6	12	40	5	1.5
17275	3	2	8	16	4	1.0
17276	2	8	24	54	13	3.5

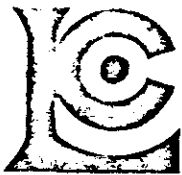
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Hart Biddle



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TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55229

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 37862

RECEIVED Aug. 3/80

ATTN: Wox Soils, Proj. Watsu CC, Watson Lake, Y.T.

ANALYSED Aug. 14/80

SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
17007 80-WA	2	6	16	24	14	5.5
17008	3	6	4	24	4	1.5
17009	4	6	6	24	1	4.0
17010	2	18	6	66	1	1.5
17011	1	10	4	44	2	2.0
17012	5	4	10	38	23	4.5
17163	4	8	4	32	8	7.0
17164	5	6	8	74	3	10.0
17165	10	4	8	40	1	20.0
17166	5	6	12	44	2	4.5
17167	3	4	10	66	5	3.5
17168	42	10	16	108	7	45
17169	3	4	6	30	8	1.5
17170	1	2	1	6	1	1.0
17171	7	4	16	28	4	3.0
17172	88	36	52	530	6	7.0
17173	3	38	148	590	45	2.0
17174	5	8	70	66	45	2.0
17175	4	10	16	280	50	1.5
17176	3	22	10	58	15	2.0
17177	2	10	32	54	13	5.0
17178	1	2	6	12	1	2.5
17179	15	24	18	130	14	7.5
17180	2	12	12	88	20	1.5
17181	4	2	4	16	1	5.5
17182	2	4	1	8	1	2.5
17183	11	4	4	18	2	29
17184	11	6	10	60	12	11.0
17185	3	6	12	64	11	1.5
17186	1	6	4	18	1	1.5
17187	2	12	16	54	1	2.5
17188	6	26	148	240	6	8.0
17189	2	14	8	26	6	2.5
17190	1	6	2	20	3	1.5
17191	2	4	6	52	14	5.0
17213	1	14	4	32	11	6.0
17214	1	6	14	28	10	3.0
17215	1	6	46	54	65	9.5
17216	1	10	18	76	5	5.5
17217 80-WA	1	6	96	88	8	4.5

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CERTIFIED BY:

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

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55230

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
StE. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 37862

RECEIVED Aug. 3/80

ATTN: Wox Soils, Proj. Watsu CC. Watson Lake, Y.T.

ANALYSED Aug. 14/80

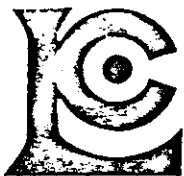
SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
17218 80-WA	1	6	18	24	5	3.5
17283	1	6	18	40	13	4.5
17284	1	4	12	20	13	3.0
17285	2	8	38	134	12	71
17286	1	4	2	10	20	2.5
17287	1	2	4	6	33	3.0
17288	1	2	4	8	30	3.5
17289	1	8	24	32	12	12.5
17290	1	6	10	14	6	4.5
17291	1	6	16	28	28	6.5
17292	1	4	16	32	12	8.0
17293	1	4	20	50	3	3.5
17294	2	16	184	430	8	11.5
17295	2	8	62	120	13	20.5
17296	1	8	26	62	7	18.0
17297	10	10	16	52	1	13.5
17298	7	8	10	42	1	15.5
17299	13	12	14	154	1	46
17300	22	10	18	62	8	36
17301	11	4	4	22	4	20.5
17302	12	6	22	78	1	69
17303	5	6	54	134	14	21.0
17304	3	2	36	70	9	41
17305	1	4	24	26	22	16.5
17306	2	10	4	82	1	3.0
17307	1	2	14	20	15	4.5
17308	1	4	8	20	17	4.5
17309	7	6	46	62	4	124
17310	1	2	72	44	12	31
17311 80-WA	3	4	18	62	6	8.5

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TELEPHONE: 984-0221
AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

ATTN: Wox Claim Soils, Proj. Watsu CC. Watson Lake, Y.T.

CERTIFICATE NO. 55237
INVOICE NO. 37926
RECEIVED Aug. 3/80
ANALYSED Aug. 18/80

SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
17373 80-WA	2	14	14	50	4	1.5
17374	4	12	8	50	12	1.5
17375	2	16	44	66	1	1.5
17376	2	24	6	46	1	1.0
17377	1	16	6	48	1	2.5
17378	1	6	300	1200	20	1.5
17379	1	30	74	330	8	5.0
17380	3	8	12	94	6	32
17381	7	6	10	34	8	1.5
17382	19	28	136	550	45	1.5
17383	4	12	30	78	70	5.5
17384	1	4	42	32	15	1.0
17385	2	14	8	52	2	1.5
17386	3	14	10	78	2	3.0
17387	2	8	6	22	1	1.0
17383	5	24	22	42	18	5.0
17389	2	32	4	32	15	2.5
17390	1	10	30	80	10	5.0
17391	2	8	14	34	7	10.5
17392	1	8	8	34	1	2.0
17393	4	8	6	36	1	2.5
17394	1	18	146	172	18	33
17395	1	2	24	72	7	15.0
17396	1	2	22	36	8	6.5
17397	1	1	14	14	8	5.5
17398	2	1	6	30	6	4.5
17399	1	4	10	20	4	2.0
17400	1	1	10	16	9	5.0
17401	3	4	14	30	5	13.0
17402	2	4	18	36	14	6.5
17403	2	10	66	138	12	19.0
17404	9	16	34	174	11	8.5
17405	7	38	100	420	13	10.5
17406	7	20	116	250	10	11.5
17407	6	36	12	82	12	10.5
17408	2	26	34	94	11	4.5
17409	1	18	8	56	2	3.0
17410	1	6	6	18	1	1.5
17415	1	8	12	34	3	13.0
17416	2	10	8	34	2	11.0

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

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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55231

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 37868

RECEIVED Aug. 3/80

ATTN: Wox Soils, Proj.watsu CC.N atson Lake, Y.T.

ANALYSED Aug. 15/80

SAMPLE NO.	PPM	PPM	PPM	PPM	PPM	PPM
	Mo	Cu	Pb	Zn	W	U
17013 80-WA	1	8	10	46	4	14.5
17411	3	10	8	52	25	10.0
17412	1	12	2	14	1	2.0
17413	2	38	8	72	5	2.0
17414	3	12	6	60	8	3.5
17422	2	8	6	36	11	2.5
17423	1	6	14	28	9	6.0
17424	4	48	1	54	10	2.0
17425	1	42	1	64	8	2.0
17426	1	20	1	40	9	1.5
17427	5	28	4	50	14	6.0
17428	8	26	4	150	65	2.5
17429	2	10	8	46	15	1.0
17430	3	38	2	88	4	2.0
17431	7	38	4	112	30	4.5
17432	5	34	8	74	7	7.5
17433	4	18	7	166	14	30
17434	2	6	12	34	1	7.0
17435	1	24	4	70	12	3.0
17436	11	32	24	174	22	5.5
17437	3	34	32	270	6	3.0
17438	1	8	2	32	1	1.0
17439	15	36	6	88	13	7.0
17440	7	20	10	64	9	9.5
17441	4	18	56	290	35	13.5
17442	3	10	32	66	7	22.5
17443	2	8	10	34	8	34
17444	1	2	2	6	1	3.5
17445	1	4	1	4	1	1.0
17446	1	4	6	18	4	9.5
17447	1	6	2	12	1	8.5
17448	2	8	8	38	12	14.5
17449	1	10	10	52	1	5.0
17450	1	2	1	6	1	1.5
17451	1	2	2	12	1	2.5
17452	1	8	6	8	1	3.0
17455	1	8	8	30	4	6.0
17456	1	10	12	30	1	5.0
17457	1	6	1	4	1	1.0
17458 80-WA	1	8	4	16	1	3.5

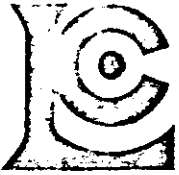
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AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
STe. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

ATTN: Wox Claim Soils, Proj. Watsu CC. Watson Lake, Y.T.

CERTIFICATE NO. 55233
INVOICE NO. 37868
RECEIVED Aug. 3/80
ANALYSED Aug. 15/80

SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
17312 80-WA	1	6	4	16	1	2.5
17313	1	8	4	24	1	24.5
17314	15	6	8	22	3	109
17315	9	10	10	82	4	41
17316	5	8	4	26	2	14.5
17317	2	6	6	14	4	3.0
17318	1	14	6	64	11	1.5
17319	1	6	6	16	1	5.5
17320	13	14	6	106	5	71
17321	1	6	1	10	3	2.5
17322	17	14	30	40	9	48
17323	7	8	10	38	8	3.0
17324	3	6	4	4	1	1.0
17325	2	10	10	38	3	8.5
17326	1	10	20	44	20	2.0
17327	6	8	4	14	3	2.5
17328	1	6	1	8	1	1.5
17329	4	14	6	42	15	2.5
17330	1	38	12	94	12	1.5
17331	1	6	4	12	5	1.0
17332	2	30	8	68	13	1.5
17333	4	14	6	78	4	11.5
17334	1	76	48	196	65	2.0
17335	1	54	6	78	1	1.5
17336	2	46	18	178	1	4.0
17337	1	44	2	510	25	6.0
17338	1	40	12	142	1	5.5
17339	1	44	22	196	1	16.5
17340	1	8	4	20	7	1.5
17341	1	16	14	74	9	4.0
17342	1	12	2	18	2	31
17343	1	6	2	10	1	1.5
17344	1	16	4	68	8	3.0
17345	1	82	6	90	6	2.0
17346	1	14	2	14	4	22.0
17347	1	10	2	42	12	3.0
17348	1	14	8	16	3	2.5
17349	1	10	1	16	1	1.0
17350	1	14	14	88	1	1.0
17351 80-WA	1	8	1	22	1	1.0

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AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

ATTN: Wox Claim Soils, Proj. Watsu CC. Watson Lake, Y.T.

CERTIFICATE NO. 55234
INVOICE NO. 37868
RECEIVED Aug. 3/80
ANALYSED Aug. 15/80

SAMPLE NO. :	PPM	PPM	PPM	PPM	PPM	PPM
	Mo	Cu	Pb	Zn	W	U
17352 80-WA	2	16	12	290	20	4.5
17353	2	8	2	38	1	3.0
17354	2	8	6	32	13	2.5
17355	1	26	4	164	1	7.0
17356	1	16	12	66	14	6.5
17357	1	32	132	320	1	13.5
17358	1	24	12	78	1	2.5
17359	1	26	22	68	1	2.5
17360	1	28	8	60	1	2.5
17361	1	46	4	62	1	2.0
17362	5	52	26	380	1	11.0
17363	15	76	16	570	1	19.0
17364	2	26	54	92	1	2.5
17365	1	28	225	360	1	2.5
17366	2	24	32	200	11	4.0
17367	2	38	46	580	55	32.0
17368	1	6	4	26	10	2.0
17369	1	20	10	108	22	4.0
17370	1	18	4	102	10	2.5
17371	2	28	2	50	14	2.0
17372 80-WA	1	18	1	38	1	2.0

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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. 55557

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 38189
RECEIVED Aug. 13/80
ANALYSED Aug. 25/80

ATTN: Wox Soils, Project Watsu CC. Watson Lake, Y.T.

SAMPLE NO. :	PPM	PPM	PPM	PPM	PPM	PPM
	Mo	Cu	Pb	Zn	W	U
80WA-17453	2	46	8	50	8	3.5
17454	3	14	6	54	7	3.0
17464	2	12	6	68	45	3.5
17465	2	30	14	96	9	3.0
17466	24	78	32	134	60	7.5
17467	20	124	16	360	250	7.5
17468	4	38	12	104	9	4.5
17469	3	14	6	78	7	2.0
17470	4	34	4	82	35	1.5
17471	7	22	10	118	40	3.0
17472	2	8	4	48	6	2.0
17473	2	16	6	72	1	10.0
17474	2	16	6	62	1	2.0
17475	4	24	6	64	1	2.5
17479	5	48	6	480	1	10.5
17480	3	14	8	48	35	3.0
17481	2	24	74	178	5	4.0
17482	2	44	40	410	1	3.0
17483	1	10	16	90	1	1.5
17484	2	6	4	46	1	1.5
17485	6	34	10	162	13	11.5
17486	7	32	6	100	50	11.5
17487	1	22	8	142	1	8.0
17488	2	26	6	360	8	10.0
17501	1	10	10	36	15	5.0
17502	4	8	8	32	25	3.5
17503	11	8	12	22	175	6.5
17504	13	14	8	42	37	5.0
17505	11	14	8	40	20	5.0
17506	9	16	10	48	11	10.0
17507	8	8	8	24	20	3.5
17508	11	16	14	32	125	7.0
17509	21	70	10	100	40	6.5
17519	16	24	6	100	15	4.0
17520	6	10	10	32	14	4.0
17521	12	46	12	56	50	8.5
17522	1	10	10	34	7	3.5
17523	1	8	12	34	8	3.5
17524	2	14	6	44	25	3.5
80WA-17525	4	10	8	40	11	3.5



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CERTIFIED BY:

Hart Biddle



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

CERTIFICATE NO. 55571

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 38233

RECEIVED Aug. 13/80

ATTN: Wox Rocks, Project Watsu CC. Watson Lake, Y.T.

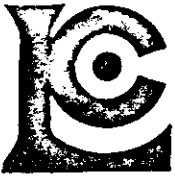
ANALYSED Aug. 25/80

SAMPLE NO. :	PPM No	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
80WA 17540R	1	18	2	390	18	1.0
17541	1	8	4	42	125	1.0
17542	1	78	2	10	1	1.0
17543	15	10	1	54	375	3.5
17544	1	475	4	56	1	2.0
17545	1	230	6	14	1	2.5
17546	1			34		4.5
17547		10		6		35
17548				1100	22	18.5
17549		6			1	15.5
17550		26		850		87
17551	48	12	44	112	8	64
17552	2	46	10	112	7	2.5
17553		18	4	110	9	7.5
17554		8		12		1.0
17555	8	10	46	116	9	10.0
17557	1	10	4	108	1	3.5
17558	1	164	4	14	3	2.0
17559		18		52		6.5
17560	10	8	24	52	1	6.0
17561	2	18	26	86	13	1.5
17562	1	32	525	780	14	16.0
17563	1	86	12	18	1	2.0
17564	1	6	16	12	10	5.0
17565	2	8	6	82	+400	10.0
17566	1	22	6	60	7	1.0
17567	1	34	14	8	5	1.0
17568	1				5	7.5
17569	1	10	2	42	1	1.0
17570	1	18	8	10	1	1.5
17571	28	64	6	76	45	15.0
17572	1	8	18	4	14	34
17573	1	6	12	10	3	34
17574	1			14		32
17575		8		26		1.5
17576	1	16	6	12	4	3.5
17577	1	10				0.5
17578	1	12			2	1.5
17579	50	825	10	184	12	101
80WA 17580R	13	16	4	186	5	9.0



MEMBER
CANADIAN TESTING
ASSOCIATION

CERTIFIED BY: *Hart Biddle*



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NORTH VANCOUVER, B.C.
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AREA CODE: 604
TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

ATTN: Nisu-Rocks Project Watsu CC. Watson Lake, Y.T.

CERTIFICATE NO. 55567

INVOICE NO. 38231

RECEIVED Aug. 13/80

ANALYSED Aug. 25/80

SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
80WA 17582R	+250	38	24	22	35	17.0
17583	+250	30	20	16	20	24.5
17584	84	8	4	32	400	3.0
17585	90	8	4	38	140	15.0
17586	95	8	2	36	6	45
17587	+250	14	2	26	8	20.5
17588	29	14	1	24	7	10.0
17589	+250	8	26	26	20	10.5
17590	25	10	4	12	3	8.0
17591	185				4	9.5
17592	+250				13	23.0
17593	+250	8	4	4	14	19.5
17594	+250	16	2	24	13	13.5
17595	+250	8	2	56	15	86
17596	+250	8	2	42	+400	12.5
80WA 17597R	+250	8	2	14	375	2.0



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TELEX: 04-352597

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CERTIFICATE OF ANALYSIS

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division
Ste. 311 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

CERTIFICATE NO. 55571
INVOICE NO. 38968
RECEIVED Sept. 23/80
ANALYSED

ATTN: WOX- Rocks PROJ. WATSU

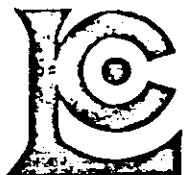
SAMPLE NO. :	PPM	
	Th	U/Th
80WA 17540R	17	0.06
17541	4	0.25
17542	15	0.07
17543	12	0.3
17544	19	0.1
17545	17	0.14
17546	21	0.21
17547	31	1.1
17548	26	0.7
17549	35	2.3
17550	27	3.2
17551	23	2.7
17552	9	0.3
17553	4	1.8
17554	3	0.3
17555	20	0.5
17557	10	0.4
17558	12	0.2
17559	2	3.3
17560	6	1.0
17561	12	0.1
17562	7	2.3
17563	4	0.5
17564	17	0.3
17565	4	2.5
17566	12	0.08
17567	14	0.07
17568	31	0.24
17569	< 1	1.0
17570	14	0.1
17571	10	1.5
17572	7	4.9
17573	29	1.2
17574	14	2.3
17575	< 1	1.5
17576	15	0.23
17577	4	0.13
17578	16	0.09
17579	7	14.4
17580R	7	1.3



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CERTIFICATE OF ANALYSIS

CERTIFICATE NO. 55556

TO: Canadian Occidental Petroleum Ltd.,
Minerals Division,
Ste. 311 - 215 Carlingview Dr.,
Rexdale, Ont. M9W 5X8

INVOICE NO. 38189

RECEIVED Aug. 13/80

ATTN: Wox Stream Sed. Project Watsu CC. Watson Lake, Y.T.

ANALYSED Aug. 25/80

SAMPLE NO. :	PPM Mo	PPM Cu	PPM Pb	PPM Zn	PPM W	PPM U
80WA-17015SS	7	20	12	98	15	48
17476	25	52	16	730	45	27
17477	16	34	14	300	28	31
17478	17	34	12	360	85	61
17489	2	24	14	130	11	11.0
17490	3	28	22	220	30	4.5
17491	2	32	16	164	6	16.5
17492	6	28	16	164	14	19.5
17493	9	34	12	110	13	7.0
17494	7	30	18	124	12	24.5
17495	4	24	14	110	13	46
17496	6	18	12	94	14	34
17497	3	18	14	90	20	62
17498	3	10	10	58	23	90
17499	4	12	10	82	45	67
17500	9	10	14	68	35	30
17510	12	28	16	400	55	38
17511	11	24	10	250	22	34
17512	3	24	8	114	7	11.5
17513	2	44	10	350	5	5.5
17514	3	26	8	240	9	33
17515	2	38	10	340	9	9.0
17516	5	10	6	48	10	9.5
17517	1	34	8	230	4	2.0
80WA-17518SS	1	36	10	192	2	1.5



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CERTIFIED BY: *Hart Bickle*

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CERTIFICATE OF ANALYSIS

TO : Canadian Occidental Petroleum Ltd.,
Minerals Division
Ste. 311-215 Carlingview Dr.,
Rexdale Ontario
M9W 5X8

CERT. # : A8010016-001-A
INVOICE # : 40215
DATE : 13-NOV-80
P.O. # : WATSU
WDX-NISU HEAV. MIN.

Sample description	Prep code	Cu ppm	Mo ppm	Pb ppm	Zn ppm	Ag ppm	U ppm
80WA 17477HM	213	34	24	20	200	0.1	16.5
80WA 17492HM	213	32	13	34	82	0.1	28.0
80WA 17495HM	213	20	26	82	72	0.1	>400.0 <u>589.0</u>
80WA 17498HM	213	24	12	102	104	0.1	328.0
80WA 17511HM	213	18	16	30	124	0.1	45.0
80WA 17512HM	213	20	12	8	96	0.1	38.0
80WA 17516HM	213	22	18	22	68	0.1	56.0

Certified by *Hart Bickler*

CHEMEX LABS LTD.

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NORTH VANCOUVER, B.C.
CANADA V7J 2C1
TELEPHONE: (604)984-0221
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CERTIFICATE OF ANALYSIS

TO : Canadian Occidental Petroleum Ltd.,
Minerals Division
Ste. 311-215 Carlingview Dr.,
Rexdale Ontario
M9W 5X8

CERT. # : A8010016-001-B
INVOICE # : 40430
DATE : 14-NOV-80
P.O. # : WATSU
WOX-NISU HEAV. MIN.

Sample description	Prep code	Au -(AA) ppb	W ppm	Sn ppm	Th (NAA) ppm	U/Th
80WA 17477HM	213	<10	250	10	25	-- 0.66 --
80WA 17492HM	213	<10	>400	11	143	-- 0.20 --
80WA 17495HM	213	<10	>400	7	308	-- 1.3 --
80WA 17498HM	213	<10	275	4	168	-- 2.0 --
80WA 17511HM	213	<10	150	2	21	-- 2.1 --
80WA 17512HM	213	<10	50	2	32	-- 1.2 --
80WA 17516HM	213	<10	>400	5	98	-- 0.6 --
						Avg 1.2

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CANADA V7J 2C1
TELEPHONE: (604)984-0221
TELEX: 043-52597

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CERTIFICATE OF ASSAY

TO : Canadian Occidental Petroleum Ltd.,
Minerals Division
Ste. 311-215 Carlinsview Dr.,
Rexdale Ontario
M9W 5X8

CERT. # : A8011129-001-A
INVOICE # : 40680
DATE : 24-NOV-80
P.O. # : NONE

W0Y

Sample description	Prep code	W03 percent					
80WA 17492 HM	214	0.11	--	--	--	--	--
80WA 17495 HM	214	0.21	--	--	--	--	--
80WA 17516 HM	214	0.07	--	--	--	--	--

Registered Assayer, Province of British Columbia

APPENDIX II - ROCK DESCRIPTIONS AND TRACE ELEMENT CONTENTS
(all values in ppm)

WOX CLAIM GROUP

80WAI7540R
CJR-W-1

Cherty Calc-silicate hornfels, very siliceous and finely laminated (i.e. green and white bands). Green band contains carbonate mineral, very fine-grained, slightly rusty (outcrop). Skarn banding is 2.5-5 cm thick; trace sphalerite present.

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
1	18	2	390	18	1	17

80WAI7541R
CJR-W-2a

Cherty Calc-silicate hornfels, (float) very siliceous and finely laminated, same as Cjr-W-1, but more skarny appearance, massive and a high specific gravity. strong dark brown MnO₂ stain coating the surfaces. Some minor carbonate present in the rock, the rock is very fine-grained. Garnet and actinolite are present with some scheelite.

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
1	8	4	42	125	1.0	4

80WAI7542R
CJR-W-2b

Quartzite, extremely rusty-red-orange "Quartzite"-Cherty Calc-silicate hornfels very fine-grained and finely laminated, very siliceous, some sulphides present, possible pyrrhotite; some biotite

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
1	78	2	10	1	1.0	15

80WAI7543R
CJR-W-2c

Skarn bands in Cherty Calc-silicate hornfels, garnets are prevalent -and vesuvianite with some green diopside (pyroxene), very siliceous with minor carbonate present, dark brown garnet colour, massive and fairly dense. Finely laminated in the hornfels, skarn bands are along fractures in the Calc-silicates (outcrop). Bands are 1.5-2 m wide and traceable for 5 meters.

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
15	10	1	54	375	3.5	12

80WA17544R
CJR-W-3b

Quartzite, rusty, deep red-orange (Quartzite or CJR-W-3b Calc-silicate), massive, very siliceous, fine-grained with biotite.

$\frac{\text{Mo}}{1}$	$\frac{\text{Cu}}{475}$	$\frac{\text{Pb}}{4}$	$\frac{\text{Zn}}{56}$	$\frac{\text{W}}{1}$	$\frac{\text{U}}{2.0}$	$\frac{\text{Th}}{19}$
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80WA17545R
CJR-W-3a

Quartzite, rusty red quartzite, very siliceous, fine-grained with pyrrhotite (moderately magnetic), massive (outcrop).

$\frac{\text{Mo}}{1}$	$\frac{\text{Cu}}{230}$	$\frac{\text{Pb}}{6}$	$\frac{\text{Zn}}{14}$	$\frac{\text{W}}{1}$	$\frac{\text{U}}{2.5}$	$\frac{\text{Th}}{17}$
-----------------------	-------------------------	-----------------------	------------------------	----------------------	------------------------	------------------------

80WA17546R
CJR-W-4

Quartz Monzonite - may be granite, slightly porphyritic near the contact. Composition: K-spar (70%), plag (20%), qtz(8%), biotite and muscovite (2%), , fine-medium-grained, the rock has distinctive qtz eyes (outcrop).

$\frac{\text{Mo}}{1}$	$\frac{\text{Zn}}{34}$	$\frac{\text{U}}{4.5}$	$\frac{\text{Th}}{21}$
-----------------------	------------------------	------------------------	------------------------

80WA17547R
CJR-W-6

Quartz Monzonite, medium-fine-grained, equigranular, near contact. Composition: K-spar (60%), plag (30%), qtz (8%), biotite (2%), minor muscovite. Some quartz eyes (float). Rusty weathering on fractures.

$\frac{\text{Cu}}{10}$	$\frac{\text{Zn}}{6}$	$\frac{\text{U}}{35}$	$\frac{\text{Th}}{31}$
------------------------	-----------------------	-----------------------	------------------------

80WA17548R
CJR-W-5

Altered Quartz Monzonite medium-coarse-grained and moderately friable, veins (1-3 cm) cut *the rock* may be a shear zone beside dyke. Composition (95%), muscovite and epidote (5%), (float). Has rounded quartz crystals.

$\frac{\text{Zn}}{1100}$	$\frac{\text{W}}{22}$	$\frac{\text{U}}{18.5}$	$\frac{\text{Th}}{26}$
--------------------------	-----------------------	-------------------------	------------------------

80WA17549R
CJR-W-7a

Fine-medium-grained Granite with quartz eyes. Composition: K-spar (70%), plag (20%), qtz (8%), hornblende+biotite (12%).

Cu	W	U	Th	(outcrop)
<u>6</u>	<u>1</u>	15.5	<u>35</u>	

80WA17550R
CJR-W-7b

Black-rusty-limonitic Quartz Monzonite, coarse-medium grained. Black is MnO₂?

Composition: K-spar (65%), plag (20%), quartz (10%), mafics (5%). Strong kaolin and limonite alteration present, possible shear zone (1 meter wide).

Cu	Zn	U	Th	(outcrop)
<u>26</u>	<u>850</u>	<u>87</u>	<u>27</u>	

80WA17551R
CJR-W-7c

Same as 7b, Quartz Monzonite, medium-grained, highly kaolinized throughout the "shear?" zone with a greyish-red, 4" quartz vein running through the middle.

MnO₂ present. Composition: K-spar (50%), plag (40%), qtz (8%), biotite (2%). Shear zone is 1 meter wide.

Mo	Cu	Pb	Zn	W	U	Th	(outcrop)
<u>48</u>	<u>12</u>	<u>44</u>	<u>112</u>	<u>8</u>	<u>64</u>	<u>23</u>	

80WA17552R
CJR-W-8a

Metapelite, brown orange colour, moderately siliceous, some remnant bedding may be present; very fine-grained, cherty. May be related to the Calc-silicates.

Mo	Cu	Pb	Zn	W	U	Th	(outcrop)
<u>2</u>	<u>46</u>	<u>10</u>	<u>112</u>	<u>7</u>	<u>2.5</u>	<u>9</u>	

80WA17553R
CJR-W-8b

Quartzite, dark black, laminated (2 cm?) quartzite, cherty, good parting along layers or "beds". Fine-grained and fairly competent.

Cu	Pb	Zn	W	U	Th	(outcrop near "fault")
<u>18</u>	<u>4</u>	<u>110</u>	<u>9</u>	<u>7.5</u>	<u>4</u>	

80WA-17554R
CJR-W-8c

Quartzite, calcite vein cutting and brecciating black Quartzites. Calcite is clean and subhedral and may be filling fracture.

Cu	Zn	U	Th	(float)
<u>8</u>	<u>12</u>	<u>1.0</u>	<u>3</u>	

80WA17555R
CJR-W-9

Sheared Quartz Monzonite, fault zone? Very siliceous and sheared, strong kaolinization and limonitization found in this zone between the granites and sediments. Obvious biotite and muscovite and MnO₂ are present in these highly altered rocks. HF did not indicate the presence of K-spar. Sugary Qtz and plag rich with some epidote. Possible pseudofabric of qtz grains. Fault zone is 30 meters wide.

Mo	Cu	Pb	Zn	W	U	Th	(float)
<u>8</u>	<u>10</u>	<u>46</u>	<u>116</u>	<u>9</u>	<u>10</u>	<u>20</u>	

80WA17557R
CJR-W-10a

Skarn, garnet rock, dense and found in Calc-silicates. MnO₂ stain along fracture surfaces (black stain). Abundant of calcite.

Mo	Cu	Pb	Zn	W	U	Th	(outcrop)
<u>1</u>	<u>10</u>	<u>4</u>	<u>108</u>	<u>1</u>	<u>3.5</u>	<u>10</u>	

80WA17558R
CJR-W-10b

Quartzite, rusty-reddish Calc-silicate with pyrrhotite, slight banding in the rock, very cherty, also some metapelite is present in thin bands within the Calc-silicate. Usually in shear zones or fractures running down the cliff side, Quartzite-type rock.

Mo	Cu	Pb	Zn	W	U	Th	(outcrop)
<u>1</u>	<u>164</u>	<u>4</u>	<u>14</u>	<u>3</u>	<u>2.0</u>	<u>12</u>	

80WA17559R
CJR-W-10c

Black, fine-grained, evenly-thinly laminated (slaty?) Quartzite, good, slaty cleavage. (outcrop)

Cu	Zn	U	Th
<u>18</u>	<u>52</u>	<u>6.5</u>	<u>2</u>

80WA17560R
CJR-W-11a

Finely laminated, fine-grained Calc-silicate, cherty, massive, in contact with metapelites. Rhodocrosite on fracture surfaces. Near 0.6 m thick calcite vein.

Mo	Cu	Pb	Zn	W	U	Th
<u>10</u>	<u>8</u>	<u>24</u>	<u>52</u>	<u>1</u>	<u>6</u>	<u>6</u>

80WA17561R
CJR-W-13a

Finely laminated, cherty Calc-silicate Hornfels, fine-grained, very siliceous with some skarn banding (2.5 cm thick) and some brown laminated metapelite, float, at top of big hill. (float)

Mo	Cu	Pb	Zn	W	U	Th
$\frac{2}{2}$	$\frac{18}{18}$	$\frac{26}{26}$	$\frac{86}{86}$	$\frac{13}{13}$	$\frac{1.5}{1.5}$	$\frac{12}{12}$

80WA17562R
CJR-W-13c

Quartzites, very black Calc-silicate or black Quartzite, very cherty and siliceous with some calcite lining the sides found near meta-sed-granite contact, probably MnO₂ causes the black colour. Only 90 cps on Urtex (float). Possible galena present.

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{32}{32}$	$\frac{525}{525}$	$\frac{780}{780}$	$\frac{14}{14}$	$\frac{16}{16}$	$\frac{7}{7}$

80WA17563R
CJR-W-13b

Quartzites, rusty-red, cherty black Quartzite, very siliceous, fine-grained. Appears to have some pyrrhotite.

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{86}{86}$	$\frac{12}{12}$	$\frac{18}{18}$	$\frac{1}{1}$	$\frac{2}{2}$	$\frac{4}{4}$ (outcrop)

80WA17564R
CJR-W-14a

Medium-grained, equigranular Quartz Monzonite on ridge just below the sedimentary contact; also rhodocrosite? present. Composition: K-spar (60%), plag (30%), Qtz (10%), biotite rhodocrosite (3%)

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{6}{6}$	$\frac{16}{16}$	$\frac{12}{12}$	$\frac{10}{10}$	$\frac{5}{5}$	$\frac{17}{17}$ (outcrop)

80WA17565R
CJR-W-15a

Skarn, very siliceous, probably a band in Calc-silicate hornfels, (float) on top of ridge. Garnets, vesuvianite and pyroxenes present.

Mo	Cu	Pb	Zn	W	U	Th
$\frac{2}{2}$	$\frac{8}{8}$	$\frac{6}{6}$	$\frac{82}{82}$	$\frac{0.1\%}{0.1\%}$	$\frac{10}{10}$	$\frac{4}{4}$

80WA17566R
CJR-W-15d

Metapelite, brown-green, with biotite and actinolite (present in acicular xls), finely laminated rock with a good parting, fine-grained, taken halfway down ridge (outcrop).

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{22}{22}$	$\frac{6}{6}$	$\frac{60}{60}$	$\frac{7}{7}$	$\frac{1}{1}$	$\frac{12}{12}$ (outcrop)

80WA17567R
CJR-W-15e

Cherty Quartzite, rusty-red coating
over the rock surfaces, fine-grained, very siliceous.

Mo	Cu	Pb	Zn	W	U	Th	(outcrop)
$\frac{1}{1}$	$\frac{34}{34}$	$\frac{14}{14}$	$\frac{8}{8}$	$\frac{5}{5}$	$\frac{1.0}{1.0}$	$\frac{14}{14}$	

80WA17568R
CJR-W-15f

Coarse-grained-porphyrific (1-5 cm feldspar)
Granite. Composition: K-spar (80%), plag (10%), qtz (8%),
biotite hornblende (2%); near trenches on MIJ Claims.

Mo	W	U	Th	(outcrop)
$\frac{1}{1}$	$\frac{5}{5}$	$\frac{7.5}{7.5}$	$\frac{31}{31}$	

80WA17569R
KL-W-1-3

Metapelite, cherty metapelite, finely
laminated with a fine parting, fine-grained, blackish
colour, greenstone highly chloritized, appears to be black
quartzite. (outcrop)

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{10}{10}$	$\frac{2}{2}$	$\frac{42}{42}$	$\frac{1}{1}$	$\frac{1.0}{1.0}$	$\frac{<1.0}{<1.0}$

80WA17570R
KL-W-1-1

Calc-silicate hornfels, slightly rusty,
cherty Calc-silicate, finely laminated, fine-grained, some
greenish fine-grained mineral present along one of the
beds, bands of white-green, some metapelite also present.

Mo	Cu	Pb	Zn	W	U	Th	(outcrop)
$\frac{1}{1}$	$\frac{18}{18}$	$\frac{8}{8}$	$\frac{10}{10}$	$\frac{1}{1}$	$\frac{1.5}{1.5}$	$\frac{14}{14}$	

80WA17571R
MM-W-1

Black, fine-grained, Quartzite, rusty
coloured with pyrrhotite (outcrop), possible
Calc-silicate, no banding.

Mo	Cu	Pb	Zn	W	U	Th	(float)
$\frac{28}{28}$	$\frac{64}{64}$	$\frac{6}{6}$	$\frac{76}{76}$	$\frac{45}{45}$	$\frac{15}{15}$	$\frac{10}{10}$	

80WA17572R
MM-W-2

Medium, coarse-grained Granite, equigranular with Molybdenite on
fracture surface. Composition: K-spar (75%), plag (15%),
qtz (8%), biotite+muscovite (2%).

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{8}{8}$	$\frac{18}{18}$	$\frac{4}{4}$	$\frac{14}{14}$	$\frac{34}{34}$	$\frac{7}{7}$

80WA17573R
CJR-W-16a

Pegmatite pods in coarse-grained granite with large biotite and large feldspar crystals (1-3 cm). Also (?) rhodocrosite present, some kaolin alteration (outcrop) Near high scint reading of 925 cps.

Mo	Cu	Pb	Zn	W	U	Th
$\frac{1}{1}$	$\frac{6}{6}$	$\frac{12}{12}$	$\frac{10}{10}$	$\frac{3}{3}$	$\frac{34}{34}$	$\frac{29}{29}$

80WA17574R
CJR-W-160

White, fine-medium grained Granite (Qtz Monzonite). Composition: Plag (30%), K-spar (60%), Qtz (8%), Biotite (2%). Muscovite is present with some epidote alteration. Slight iron stain. (outcrop)

Mo	Zn	U	Th
$\frac{1}{1}$	$\frac{14}{14}$	$\frac{32}{32}$	$\frac{14}{14}$

80WA17575R
CJR-W-16c

Quartz Vein cutting metapelite (rusty) near igneous intrusion, whitish quartz, calcite is in vugs in quartz veins. Epidote along contact edge. (outcrop)

Cu	Zn	U	Th
$\frac{8}{8}$	$\frac{26}{26}$	$\frac{1.5}{1.5}$	$\frac{<1}{<1}$

80WA17576R
CJR-W-16d

Quartzite, rusty-red, black quartzites, fine-grained, massive, possible pyrrhotite.

Mo	Cu	Pb	Zn	W	U	Th	(float)
$\frac{1}{1}$	$\frac{16}{16}$	$\frac{6}{6}$	$\frac{12}{12}$	$\frac{4}{4}$	$\frac{3.5}{3.5}$	$\frac{15}{15}$	

80WA17577R
CJR-W-16e

Quartzite, quartz vein (float) with metapelite, white quartzite.

Mo	Cu	U	Th
$\frac{1}{1}$	$\frac{10}{10}$	$\frac{0.5}{0.5}$	$\frac{4}{4}$

80WA17578R

Banded, cherty Calc-silicate Hornfels with intercalated bands of brown metapelite, fine-grained, Calc-silicates are very siliceous, (outcrop)

Mo	Cu	W	U	Th
$\frac{1}{1}$	$\frac{12}{12}$	$\frac{2}{2}$	$\frac{1.5}{1.5}$	$\frac{16}{16}$

80-WA17579R
CJR-W-17b

Quartzite, rusty, black-reddish, very stained quartzite or
Calc-silicate. Abundant pyrrhotite in this rock,
rusty zone in Calc-silicates. (float)

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
50	825	10	184	12	101	7

80WA17580R
CJR-W-17c

Quartzite, limy (CO_3), orthoquartzite-Calc-silicate,
whitish-green, fine-grained, very siliceous, in rusty,
dirty calcite band near orthoquartzite unit contact. Also
some brecciated, cherty fragments (black) in a calcite
matrix. (outcrop)

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
13	16	4	186	5	9.0	7

80WA17581R
CJR-W-17d

Skarn, brown, from skarn band in
Calc-silicate; epidote, vesuvianite garnet, calcite,
present in the rock; some rusty, black
quartzites and metapelites present. Also some calcite
lining and filling the fracture surfaces.

(outcrop) Skarn is 0.6-1.2 m wide and
traceable for 1.5 meters.

<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>W</u>	<u>U</u>	<u>Th</u>
1	10	6	78	1	1.0	5

ROCK DESCRIPTIONS

NISU CLAIM GROUP

80WA17582R
CJR-N-18a

Quartz Monzonite at contact of meta-sed with some molybdenite along fractures and disseminated in the rock, coarse-medium grained, hypidiomorphic, (outcrop). Composition: K-spar (40%), plag (40%), quartz (15%), biotite hornblende (5%).

Mo	Cu	Pb	Zn	W	U	Th
0.490%	38	24	22	35	17	36

80WA17583R
CJR-N-18b

Same as 18a but at contact of Quartz Monzonite and meta-seds on other side of the saddle. Abundant visible molybdenite (outcrop). Same Composition as 18a.

Mo	Cu	Pb	Zn	W	U	Th
1.86%	30	20	16	20	24.5	90

80WA17584R
CJR-N-18c

Skarn rock, massive, dark brown-greenish, with vesuvianite, garnet, actinolite, diopside, epidote. Small specks of possible scheelite under ultra violet lamp. 1-2 meters wide skarn bands. (outcrop)

Mo	Cu	Pb	Zn	W	U	Th
84	8	4	32	400	3	1

80WA17585R
CJR-N-18d

Skarn, same as 18c but from another skarn along the ridge at a granite-metased contact (outcrop). Some actinolite crystals (acicular) along fracture surfaces, abundant calcite in the skarn which is a dirty, light brown colour. Some yellow fluorescence on U.V. (scheelite?). 5 meter wide skarn bands.

Mo	Cu	Pb	Zn	W	U	Th
90	8	4	38	140	15	2

ROCK DESCRIPTIONS

TRENCH-"MOLLY SHOWING"

80WA17586R
CJR-N-19a

Greenish, skarny looking rock, probably abundant epidote and diopside with some actinolite.

Minor vesuvianite present; very siliceous rock (outcrop). 1 meter wide skarn band.

$\frac{\text{Mo}}{95}$	$\frac{\text{Cu}}{8}$	$\frac{\text{Pb}}{2}$	$\frac{\text{Zn}}{36}$	$\frac{\text{W}}{6}$	$\frac{\text{U}}{45}$	$\frac{\text{Th}}{82}$
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80WA17587R
CJR-N-19b

Skarn, brown-red to whitish; calcite euhedral garnet, vesuvianite, diopside epidote; very siliceous, quartz-rich.

Outcrop in trench. 2 meter wide skarn band.

$\frac{\text{Mo}}{.068\%}$	$\frac{\text{Cu}}{14}$	$\frac{\text{Pb}}{2}$	$\frac{\text{Zn}}{26}$	$\frac{\text{W}}{8}$	$\frac{\text{U}}{20.5}$	$\frac{\text{Th}}{27}$
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80WA17588R
CJR-N-19c

Skarn, brown-red-greenish, obvious molybdenite. Consists of garnet, vesuvianite, diopside epidote, very siliceous.

Outcrop in trench. 2 meter wide skarn band.

$\frac{\text{Mo}}{29}$	$\frac{\text{Cu}}{14}$	$\frac{\text{Pb}}{1}$	$\frac{\text{Zn}}{24}$	$\frac{\text{W}}{7}$	$\frac{\text{U}}{10}$	$\frac{\text{Th}}{33}$
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80WA17589R
CJR-N-19d

Skarn, dense brown skarn with vesuvianite, garnet, with minor diopside and possible epidote. Minor calcite is present in the rock.

Outcrop in trench. 2 meter wide skarn band.

$\frac{\text{Mo}}{.596\%}$	$\frac{\text{Cu}}{8}$	$\frac{\text{Pb}}{26}$	$\frac{\text{Zn}}{26}$	$\frac{\text{W}}{20}$	$\frac{\text{U}}{10.5}$	$\frac{\text{Th}}{29}$
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80WA17590R
CJR-N-19e

Hybridized Quartz Monzonite, flakes of visible, disseminated molybdenite in a very siliceous quartz monzonite. Some moly is filling fractures. Composition: K-spar (30%), plag (30%), quartz (20%), epidote and actinolite (20%), outcrop in trench. Allotriomorphic crystal faces, medium-coarse grained.

$\frac{\text{Mo}}{25}$	$\frac{\text{Cu}}{10}$	$\frac{\text{Pb}}{4}$	$\frac{\text{Zn}}{12}$	$\frac{\text{W}}{3}$	$\frac{\text{U}}{8}$	$\frac{\text{Th}}{35}$
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80-WA17591R
CJR-N-19f

Quartz Monzonite, medium-coarse grained, hypidiomorphic, crystalline, quartz monzonite to monzonite, outcrop in trench, slightly porphyritic. Composition: Plag (60%), K-spar (20%), Qtz (12%), Biotite (2%).

$\frac{\text{Mo}}{185}$	$\frac{\text{W}}{13}$	$\frac{\text{U}}{23}$	$\frac{\text{Th}}{12}$
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80WA17592R
CJR-N-19g

Coarse-grained, very siliceous crystalline, Quartz Monzonite. Composition: Plag (65%), K-spar (15%), quartz (15%), biotite (3%), hornblende (2%). High scintillometer reading 1400 cps.

$\frac{\text{Mo}}{.346\%}$	$\frac{\text{W}}{13}$	$\frac{\text{U}}{23}$	$\frac{\text{Th}}{12}$
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80WA17593R
CJR-N-19h

Hybridized, Coarse-grained, very crystalline, Quartz Monzonite. Composition: Plag (50%), K-spar (32%), Quartz (10%), Idocrase-vesuvianite-biotite (8%), visible Molybdenite (In trench)

$\frac{\text{Mo}}{.432\%}$	$\frac{\text{Cu}}{8}$	$\frac{\text{Pb}}{4}$	$\frac{\text{Zn}}{4}$	$\frac{\text{W}}{14}$	$\frac{\text{U}}{19.5}$	$\frac{\text{Th}}{28}$
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80WA17594R
CJR-N-19i

Contact area of skarn and Quartz Monzonite, skarn appears to be along fractures in the quartz monzonite. Some minor visible, flaky Molybdenite and a yellowish fluorescent (U.V.) mineral (calcite). trench) (at surface outcrop).

$\frac{\text{Mo}}{.432\%}$	$\frac{\text{Cu}}{16}$	$\frac{\text{Pb}}{2}$	$\frac{\text{Zn}}{24}$	$\frac{\text{W}}{13}$	$\frac{\text{U}}{13.5}$	$\frac{\text{Th}}{65}$
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80WA17595R
CJR-N-19j

Skarn, deep brown-red, siliceous-crystalline skarn with idocrase (vesuvianite)-garnet with some minor actinolite and pyroxene. Yellow fluorescent calcite? (In trench-outcrop) (No CO₃)

Mo	Cu	Pb	Zn	W	U	Th
.156%	$\frac{8}{8}$	$\frac{2}{2}$	$\frac{56}{56}$	15	$\frac{86}{86}$	$\frac{76}{76}$

80WA17596R
CJR-N-19k

Skarn, deep brown-red-green, siliceous-crystalline skarn with garnet; idocrase and acicular actinolite, calcite pyroxene and epidote. Some visible moly present and yellow fluorescent scheelite.

1 meter wide x 7 meter long

skarn band.

Mo	Cu	Pb	Zn	W	U	Th
.072%	$\frac{8}{8}$	$\frac{2}{2}$	$\frac{42}{42}$	+400	12.5	$\frac{11}{11}$

80WA17597R
CJR-N-19l

Skarn, same as 19k but pyroxenes are more distinguishable along with epidote, some visible moly present and maybe scheelite (yellow fluorescence). Calcite present (HCL). 1 meter wide x 7 meter long skarn band.

Mo	Cu	Pb	Zn	W	U	Th
.138%	$\frac{8}{8}$	$\frac{2}{2}$	$\frac{14}{14}$	375	$\frac{2}{2}$	$\frac{5}{5}$

Appendix III - Sampling and Laboratory Procedures

I. SAMPLING PROCEDURES

A) Heavy Minerals

1. A sample site is selected which exhibits maximum sorting of stream bed material. Active (below water) or previously active (dry now but previously below water) sites may be chosen. Leading edges or sides of gravel bars with large boulders are most attractive. In practice, the ideal case is rare and one chooses the best possible site.

2. Gravel and cobble material is shoveled into a large (18" to 24") gold pan into which 1/4" holes have been drilled. The material is vigorously shaken in still water so that - 1/4 in. material passes the screen into a second, matching pan. Enough -1/4 in. material is collected to fill an 18" x 24" poly bag (usually one large pan or two smaller ones). The -1/4" material is returned to camp.

3. The - 1/4 in. material is panned to achieve a concentrate of heavy minerals and aggregates containing heavy minerals. Approximately 80% of the original material (20 - 25 lbs) is discarded while a 1 - 2 lb. concentrate is obtained. The concentrate is sealed in a plastic or cloth bag (cloth is preferred as it allows

the sample to dry, thus reducing shipping weight) and then sent to the laboratory for geochemical analysis.

B) Stream Sediment

1. A presently or previously active stream site is selected which exhibits minimum sorting ie. quiet water, and accumulation of fine sandy and silty material. If the stream is too active, material can be obtained from bank-moss which acts as a trap, or by digging out the lee of large boulders.
2. Three to four handfuls of material is collected and after squeezing to remove excess water is placed in high wet-strength, heavy duty, prenumbered kraft envelopes. The samples are dried in the field and then sent to the laboratory for geochemical analysis.

C) Stream Water

1. A 4 oz. poly bottle is rinsed with the sample site water at least three times then filled fully and tightly capped. The sample is tested in the field for pH and specific conductivity, then sent to the laboratory for geochemical analysis.
2. Care should be taken to avoid contamination by always collecting waters up-stream from a heavy mineral or sediment sample site.

D) Soil

1. 'B' horizon or talus fine material is sampled.
2. Three to four handfuls of material are collected into heavy duty, high wet-strength kraft envelopes which are dried in the field and then sent to the laboratory for analysis.

E) Sample Site Information Card

1. At each soil or stream sample site, an 80 column field data card is completed. The sampler records such information as sample number, location and type, depth of stream, sample composition, vegetation, drainage, etc. Separate cards are used for stream and soil samples in order to record pertinent information.

II. Laboratory Procedures

A. Sample Preparation

i) Heavy Minerals

1. Samples dried and weighed.
2. Screen - 10 mesh material from sample and weigh; weigh and retain +10 mesh material left on screen.
3. Use -10 mesh fraction for heavy liquid separation.
4. Transfer -10 mesh (fine) fraction into a 1000 ml. separatory funnel containing 200 mls. of tetrabromoethane (S.G. 2.96):
5. Shake sample gently in heavy liquid. Particles of fines adhering to sides of the separatory funnel can be washed into the heavy liquid by slowly rotating the funnel at an oblique angle. The "heavies" (S.G. >2.96) will slowly settle to the bottom of the heavy liquid.
6. Drain the "heavies" into a small filter funnel. Drain excess heavy liquid and light materials into a separate filter funnel. Collect all heavy liquid into a waste receiving bottle.
7. Save light minerals (S.G. <2.96). Wash "heavies" fraction with methanol to remove residual tetrabromoethane. Use the same procedure on light minerals fraction. Dry both fractions and weigh. Retain the "lights" in a suitable sealed container. Save 0.5 gm of "heavies" in a plastic vial for visual examination.
8. Pulverize the remaining "heavies" in an agate mortar and pestle and homogenize before weighing for analyses.

9. Analyse the "heavies" powder for appropriate elements. The number of elements analysed for is determined by the amount of "heavy" material obtained in separation.

ii) Stream Sediments

1. Samples are sorted and dried at 50°C for 12 to 16 hours.
2. Dried material is then screened to obtain the -80 mesh (177 micron) fraction. The rest of the material is discarded.
3. -80 mesh fraction material is weighed and analysed for appropriate elements.

iii) Soils

Same procedure as for stream sediments.

iv) Rocks

1. Entire sample is crushed.
2. If necessary (>250 gms.). The sample is split on a Jones splitter, the reject is retained for a short period.
3. The split fraction is pulverized in a ring grinder such that 90% passes a 200 mesh (74 micron) sieve.
4. The -200 mesh material is weighed and analysed for the appropriate elements.

v) Waters

See individual element descriptions for U and F.

B. Elemental Analyses

i) ppm Copper, Lead, Zinc, Silver, Molybdenum (Atomic Absorption)

1. A 1.0 gm portion of -80 mesh soil or stream sediment or -200 mesh rock flour or pulverized "heavies" is digested in concentrated, hot, perchloric - nitric acid ($\text{HClO}_4\text{-HNO}_3$) for 2 hours.
2. Digested sample is cooled and made up to 25 mls. with distilled water.
3. Solution is mixed and solids allowed to settle.
4. Cu, Pb, Zn Ag and Mo are determined by atomic absorption, using background correction for Pb and Ag analyses.

<u>Element</u>	<u>Bkgd. Corr.</u>	<u>Flame Type</u>	<u>Wave Length hm</u>	<u>Detection Limit</u>	<u>Chemex Standard</u>	<u>+ 1 Std. Deviation</u>
Cu	No	A	324.7	1 ppm	71 ppm	+ 3
Pb	Yes	A	217.0	1 ppm	59 ppm	+ 1
Zn	No	A	213.8	1 ppm	52 ppm	+ 3
Ag	Yes	A	328.1	0.2 ppm	8.5 ppm	+ 0.5
Mo	No	N	313.3	1 ppm	25 ppm	+ 1

A = Air acetylene flame.

N = Nitrous oxide - acetylene flame.

ii) ppm Tin (Sn) (Atomic Absorption)

1. A 1.0 gm sample of -80 mesh soil or stream sediment, -200 mesh rock flour or pulverized "heavies" is scintered with ammonium iodide.
2. The resulting tin-iodide is leached with a dilute HCl - ascorbic acid solution.

3. The TOPO complex is then extracted into MIBIC (Methyl isobutyl ketone) and analysed via atomic absorption.

4. Detection limit: 1 ppm Sn

iii) ppm Tungsten (W) (Colourimetric)

1. 0.5 gm of -80 mesh soil or stream sediment, -200 mesh rock flour or pulverized "heavies" is fused with potassium bisulfate and leached with HCl.

2. The reduced form of W is complexed with toluene 3, 4 dithiol and extracted into an organic phase.

3. The resulting colour is visually compared to similarly prepared standards. (Colourimetric method)

4. Detection limit: 2 ppm W

iv) ppb Gold (Au) (Atomic Absorption)

1. A 5 gm sample of -200 mesh rock flour or pulverized "heavies" is ashed at 800°C for 1 hour.

2. Ashed material is digested with aqua regia twice to dryness.

3. Digested material is taken up in 25% HCl.

4. Au is extracted as the bromide into MIBK and analysed via atomic absorption.

5. Detection limit: 10 ppb Au

v) ppm Thorium (Th) (Neutron Activation)

1. 1 gm of -80 mesh soil or stream sediment, -200 mesh rock flour or pulverized "heavies" is weighed into a polyethelene vial and heat sealed.

2. Samples, along with standards, are then irradiated

for sufficient periods to receive a neutron dose of $1-3 \times 10^{10}$ to $10^{15}/\text{cm}^2$.

3. Following irradiation, samples are cooled for at least one week and thorium determined by the measurement of its characteristic gamma ray, using a semiconductor (Ge (Li)) detector.

4. Detection limit: 1 ppm Th

vi) Uranium (U) (Fluorimetry)

A) Uranium in soils, stream sediments, "heavies", rocks.

1. 1 gm of -80 mesh soil or stream sediment, -200 mesh rock flour or pulverized "heavies" is digested with hot, $\text{HClO}_4\text{-HNO}_3$ to strong fumes of HClO_4 for approximately 2 hours.

2. The digest is diluted to volume and mixed.

3. An aliquot is extracted into MIBK with the acid of an aluminum nitrate-tetrapropyl ammonium hydroxide salting solution. (TPAN)

4. Uranium in the MIBK is determined by evaporating a portion of the MIBK in a platinum dish and fusing with a mixture of $\text{Na}_2\text{CO}_3\text{-K}_2\text{CO}_3\text{-NaF}$.

5. The fluorescence of the fused flux is measured to determine the uranium content.

6. Detection limit: 0.5 ppm U

vii) pH

1. pH in waters was determined in the field, using a portable pH meter.

2. The meter was standardized by means of buffer solutions, every 10th sample to minimize meter drift.

viii) Specific Conductivity (S.C.)

1. S.C. in waters was determined in the field, using a portable S.C. meter.
2. The electrode was washed in a standard water, after each determination, to minimize and standardize contamination.

APPENDIX IV.

DESCRIPTION OF MOLLY CLAIMS

N.T.S. 105F/1

Conwest Exploration Company Limited (Molly Group) (61°10'N,
132°25'W)

References: Wheeler, Green, and Roddick (1960a); Skinner (1961, pp. 41-42); Green and Godwin (1963, p. 30).

Late in the 1962 field season, the company staked the Molly group of 72 claims covering a molybdenite showing. Work carried out during the summer of 1963 consisted of trenching, diamond drilling, and detailed mapping of the prospect. A crew of about 20 men was employed. Results proved discouraging and work was suspended early in August, 1963. The main showing is at an altitude of about 5,500 feet and is on the south side of a small valley tributary to McNeil River. The camp, located on a small bench in this valley, was supplied by a helicopter based at Quiet Lake on the Canol Road, about 22 miles to the west.

The main showing occurs near the contact of metamorphic rocks of unknown age (unit A, Wheeler, Green, and Roddick, 1960a) with granodiorite (unit 9). The metamorphic rocks consist of a limestone, perhaps 50 feet thick, which has been irregularly altered to: (i) diopside-garnet skarn, (ii) wollastonite-garnet skarn, and which contains thin bands of finely banded green diopside hornfels and purplish brown biotite hornfels probably formed from siliceous limestone and argillite respectively. This band is overlain by a finely banded unit, probably more than 1,000 feet thick, composed of green diopside hornfels, purplish brown biotite hornfels, and irregular stringers of limestone. This unit probably formed from a limy argillite and appears similar in original lithology to unit 2 of Middle and Late Cambrian age as mapped by Wheeler, Green, and Roddick (1960a). Molybdenite occurs mainly in the diopside-garnet and the wollastonite-garnet skarns formed from the limestone band. These have been traced for about 800 feet trending northeast and dipping moderately to the southeast beneath the finely banded overlying rocks. The overall structures of the metamorphic rocks appear simple, but complex crumpling on a minor scale was observed in outcrops of the finely banded hornfels unit. Seventeen diamond drill holes with a total length of 2,500 feet were drilled to test the showing at depth.

The north showing occurs on a ridge about 3,400 feet northwest of the main showing. There, trenching exposed disseminated molybdenite in a thin band of "hybrid granite" or "meta-diorite", composed of plagioclase feldspar and diopside, developed at the contact between the granodiorite and the overlying diopside skarn and hornfels. The altered limestone band of the main showing is not present. Specimens from this showing contain considerable cream-coloured powellite, formed through the alteration of molybdenite.

The north showing is similar in type to the molybdenite showing about 25 miles to the northwest, which was explored by Canol Metal Mines Limited in 1959 and 1960 (Skinner, 1961, pp. 41-42).

From: Green and Godwin (1964); p 45-46

Property Name: Common MOLLY Other

Location: Lat. 61°11' Long. 132°25' NTS 105F/1

Metals: Major Molybdenum Minor Copper, Fluorite, Uranium

Type of Mineral Deposit: Skarn

History and Previous Work:

Staked as Molly cl (79713) in Sept/62 by O. Haug for Conwest EL, which mapped, hand trenched in rock and drilled 15 holes (1482 ft) in 1963. Restaked as Skarn cl (Y29242) in June/69 by A. Racicot, as MO cl (Y54546) in Sept/70 by O. Haug and as Weasel cl (Y84197) in June/75 by Archer, Cathro & Assoc. Ltd, which performed reconnaissance radiometric and geochem surveys later in the year. J. Irwin tied on MLJ cl (YA33216) in June/78. and JOA Cl in Apr 20/79.

Description:

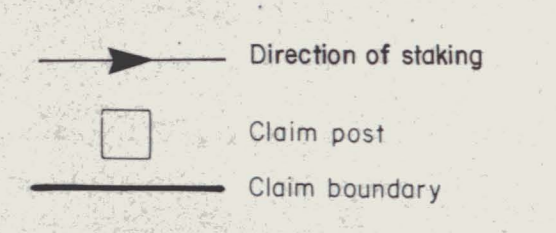
A 50 ft thick band of Silurian silty dolomite has altered to diopside-garnet and wollastonite-garnet skarn at the contact of a granodiorite stock. The skarn is weakly mineralized with coarse grained molybdenite, pyrrhotite, chalcopyrite and fluorite for surface length of 800 feet. Drilling returned a number of narrow intersections grading in excess of 1% MoS₂, of which the best assayed 1.08% MoS₂ across 13.3 ft. A second occurrence of disseminated molybdenite found about a mile to the west in hybrid granite at the intrusive contact was also explored by hand trenching. The 1975 surveys located several anomalous areas assaying up to 77 ppm uranium geochemically. A specimen of skarn float assayed 0.025% U₃O₈.

References:

P64-36, pp 45-46
ER, Sept/63 by A.S. Ashton for Conwest ECL - FFAC



Exact Location of JOA
Claims Uncertain



CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (EAST)
YUKON
WATSON LAKE MINING DISTRICT.
N.T.S. 105-F
BASE MAP





- Claim post (Not Located)
- Claim post (Located)
- Claim boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F

BASE MAP





Legend

Geology

NISUTLY BATOLITH - CRETACEOUS

7 7a Granite, coarse-grained to porphyritic
7b Quartz Monzonite, fine to coarse-grained

CARBONIFEROUS-PERMIAN

6 6a "Greenstone", metasilstone, chloritized, massive
6b Metasilstone (schist), Quartzite, finely laminated calc-silicates

SILURIAN (Metasedimentary Rocks)

5 Calc-silicate hornfels (metasomatized) with remnant metapelite, cherty, finely laminated
4 Banded skarn in calc-silicate hornfels
3 3a "Heavy-banded" limestone, intercalated chert and carbonate
3b Massive slightly recrystallized limestone
2 2a Sandy Quartzites
2b Black Quartzites with calcite veins and pods
2c Black micaceous laminated Quartzites with pyrrhotite
2d White massive, crystalline Quartzites
1 Hornfelsed Metapelite - brown phyllite

Symbols

Bedding (inclined, vertical)
Foliation
Fracture-Joints (inclined, vertical)
Outcrop
Talus
Geological Contact
Fault
Thrust Fault
Shear Zone

Rock Geochemistry
Anomalous Values (see legend)
Rock Geochemistry Section (see shaded area)

Mineralization

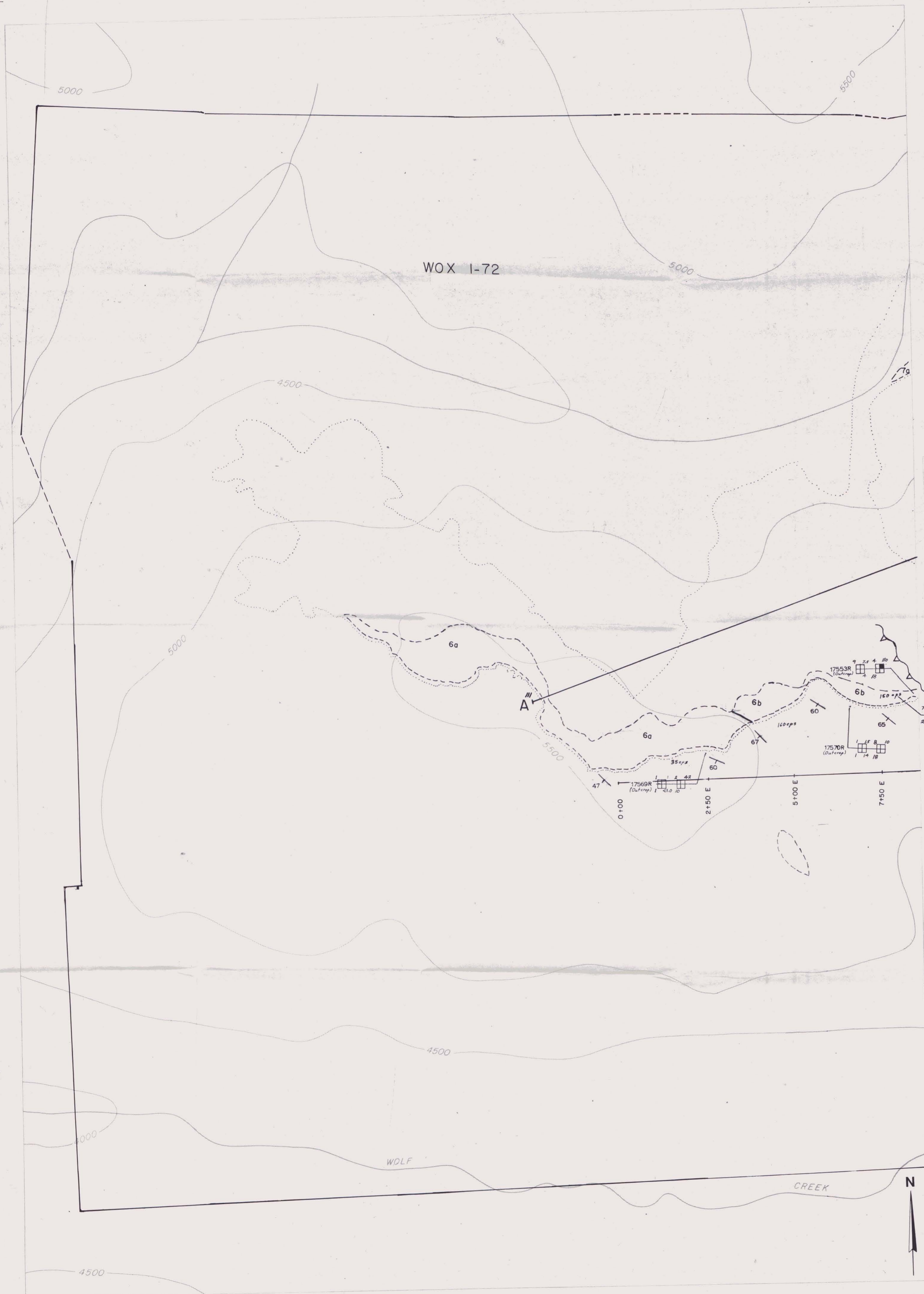
Sch Scheelite
Mo Molybdenite
Po pyrrhotite
Sp Sphalerite
Ga Galena
Claim Boundary
Cross Section Line

Claim post
Claim boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (EAST)
WATSON LAKE MINING DISTRICT,
YUKON
N.T.S. 105-F
GEOLOGY & ROCK
GEOCHEMISTRY

SCALE IN METRES
0 50 100 200 300 400
METRES

PLAN 1



Legend

Geology
NISUTLIN BATHOLITH - CRETACEOUS
 7 7a Granite, coarse-grained to porphyritic
 7b Quartz Monzonite, fine to coarse-grained

CARBONIFEROUS-PERMIAN
 6 6a "Greenstone", metasiltstone, chloritized, massive
 6b Metasiltstone (schist), Quartzite, finely laminated calc-silicate

SILURIAN (Metasedimentary Rocks)
 5 Calc-silicate hornfels (metasomatized) with remnant metapelite, cherty, finely laminated
 4 Banded skarn in calc-silicate hornfels
 3 3a "Wavy-banded" Limestone, interlaminated chert and carbonate
 3b Massive slightly recrystallized limestone
 2 2a Sandy Quartzites
 2b Black Quartzites with calcite veins and pods
 2c Black Micaeous laminated Quartzites with pyrrhotite
 2d White massive, crystalline Quartzites?
 1 Hornfelsed Metapelite - brown phyllite

Symbols
 / / Bedding (inclined, vertical)
 / / Foliation
 / / Fracture-Joints (inclined, vertical)
 [] Outcrop
 [] Talus
 [] Geological Contact
 [] Fault
 [] Thrust Fault
 [] Shear Zone

Rock Geochemistry
 [] Anomalous Values (see (ppm))
 [] Rock Geochemistry Section (X) are shaded

Mineralization
 Sch Scheelite
 Mo Molybdenite
 Po pyrrhotite
 Sp Sphalerite
 Ga Galena
 [] Claim Boundary
 A-A' Cross Section Line
 [] Claim post
 [] Claim boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F
GEOLOGY & ROCK
GEOCHEMISTRY



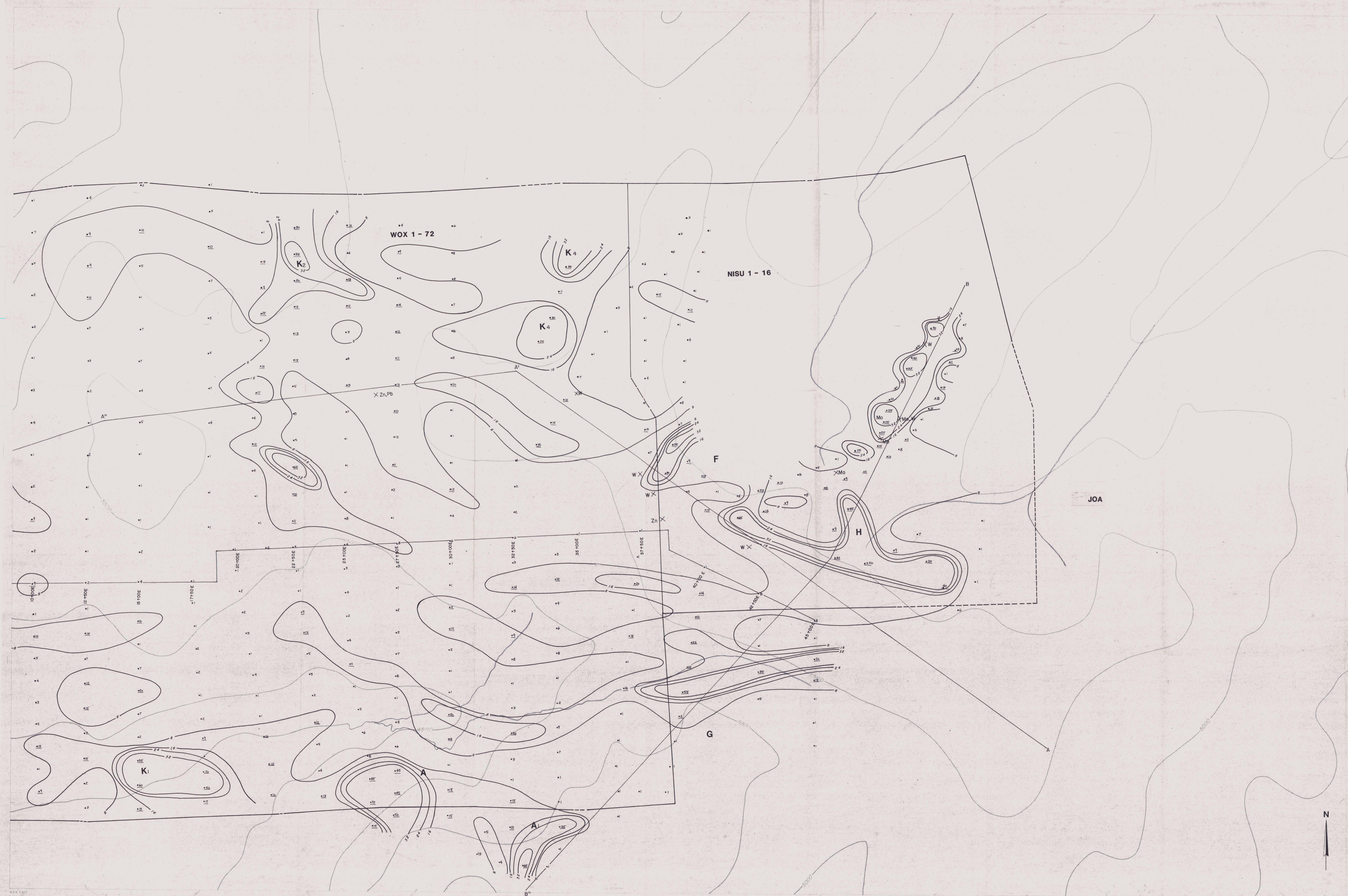
PLAN 1b



WOX 1 - 72

LEGEND
 All values in ppm
 WOX CA sample number
 Mo ANOMALOUS
 > 10 ppm Mo, > 8 ppm W, > 12 ppm U
 PROBABLY ANOMALOUS
 7-10 ppm Mo, 7.5-8 ppm W, 10.4-12 ppm U
 CONTOURS in ppm
 5
 10
 15
 20
 claim boundary
 A''' Cross Section

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F
SOIL GEOCHEMISTRY
 CONTOURED VALUES
Mo
 SCALE IN METRES
 100 50 0 100 200 300 400
 PLAN 2b C.R./d.t. Dec.80



WOX 1-72

NISU 1-16

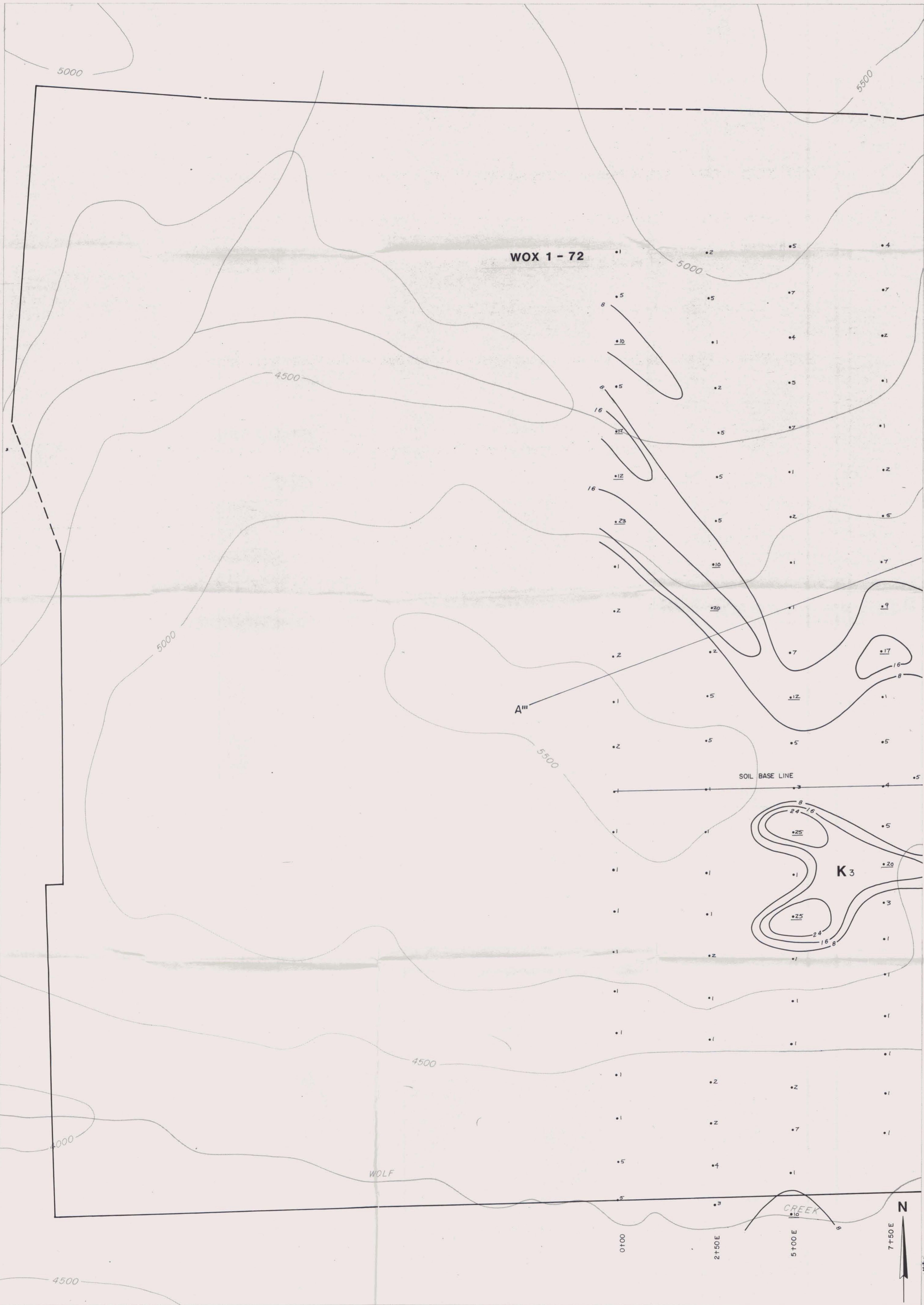
JOA

- LEGEND**
 All contours in ppm
- 8
 - 16
 - 24
 - 32
- Claim Boundary
 X W (etc) metal occurrences
 Anomalous Values are Underlined >8 ppm W
 A'-A'-A' Cross section line
 H Soil anomaly

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PROJECT WATSU
WOX CLAIMS (EAST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F
SOIL GEOCHEMISTRY
 CONTOURED VALUES



SCALE IN METRES
 0 50 100 150 200 250 300 400



LEGEND

All contours in ppm

- 8 Contour 8 ppm
- 16 Contour 16 ppm
- 24 Contour 24 ppm
- Claim Boundary

Anomalous Values are Underlined > 8 ppm

A''' Cross section line

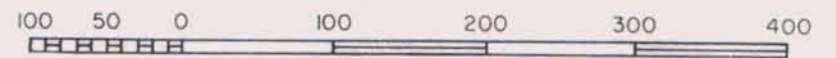
K Soil anomaly

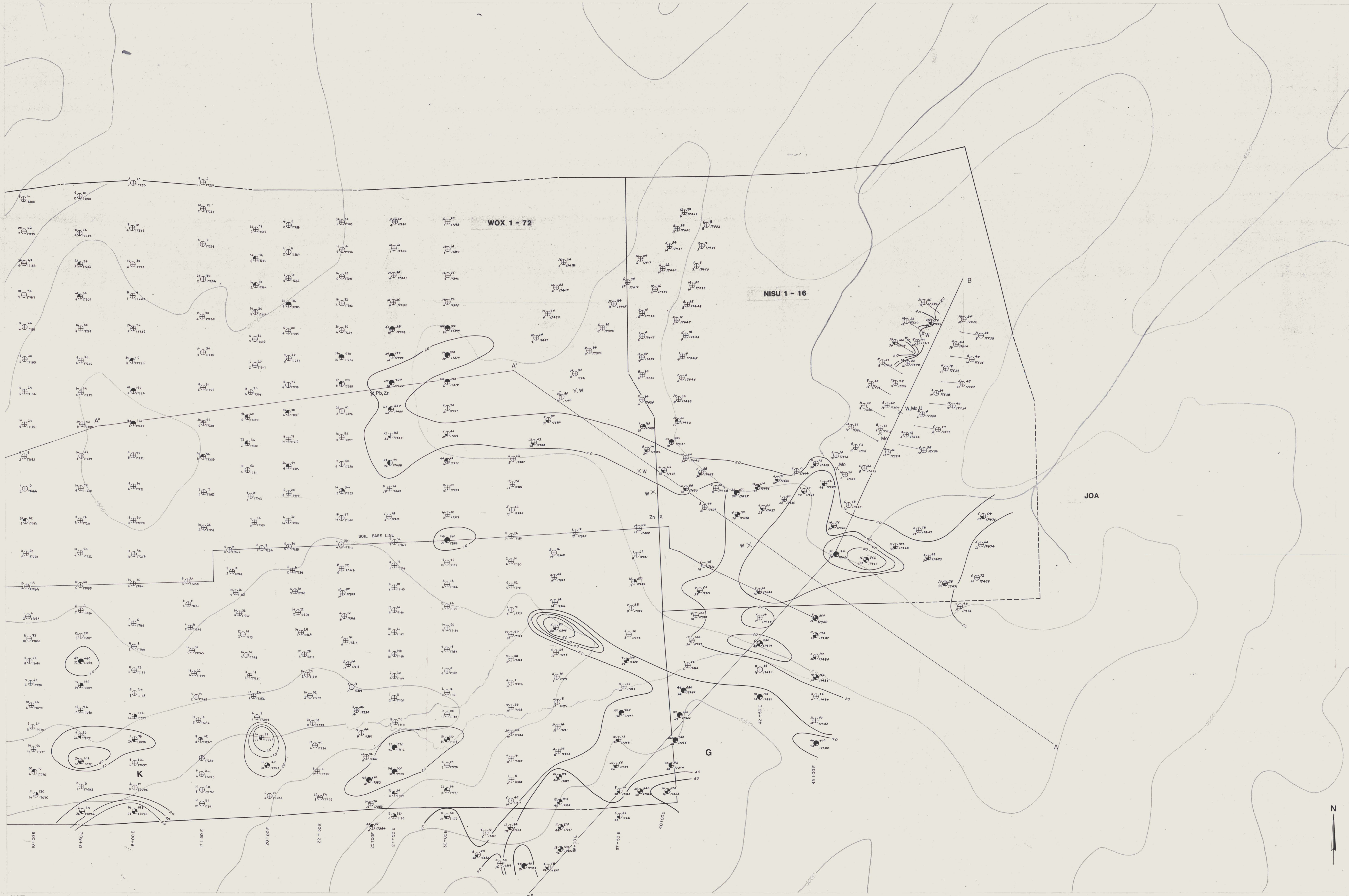
CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F

SOIL GEOCHEMISTRY
 CONTOURED VALUES

W

SCALE IN METRES





LEGEND

G Soil anomaly

X Mo (etc) metal occurrence

All values in ppm

Contour Interval: 20

20-40 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

40-60 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

60-80 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

80-100 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

100-120 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

120-140 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

140-160 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

160-180 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

180-200 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

200-220 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

220-240 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

240-260 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

260-280 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

280-300 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

300-320 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

320-340 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

340-360 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

360-380 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

380-400 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

400-420 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

420-440 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

440-460 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

460-480 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

480-500 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

500-520 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

520-540 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

540-560 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

560-580 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

580-600 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

600-620 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

620-640 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

640-660 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

660-680 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

680-700 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

700-720 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

720-740 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

740-760 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

760-780 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

780-800 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

800-820 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

820-840 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

840-860 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

860-880 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

880-900 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

900-920 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

920-940 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

940-960 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

960-980 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

980-1000 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

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MINERALS DIVISION

PROJECT WATSU
WOX CLAIMS (EAST)
WATSON LAKE MINING DISTRICT,
YUKON
N.T.S. 105-F

SOIL GEOCHEMISTRY
SAMPLE LOCATION AND VALUE

CONTOURED Cu
SCALE IN METRES

0 50 100 200 300 400

PLAN 4a C.R./d. Dec.80





LEGEND

All values in ppm

Contour Interval in (ppm)

20 ————— Pb, Zn

40 ————— Cu

60 ————— ANOMALOUS

80 ————— > 20 ppm Cu, > 30 ppm Pb, > 120 ppm Zn

PROBABLY ANOMALOUS

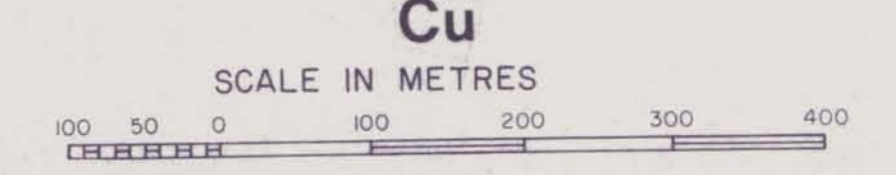
19-20 ppm Cu, 23-30 ppm Pb, 105-120 ppm Zn

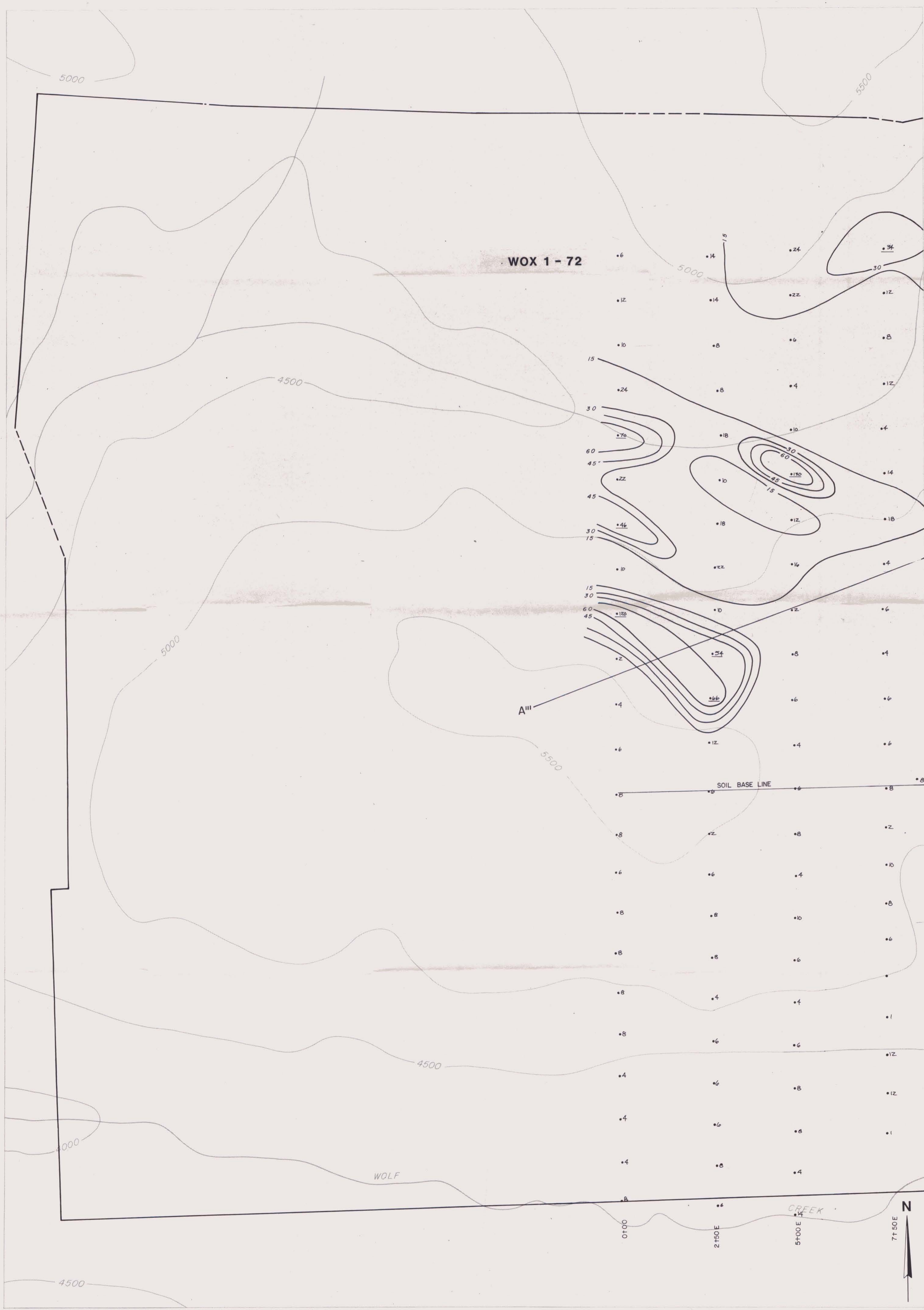
A''' ————— Cross section line

————— Claim boundary

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F

SOIL GEOCHEMISTRY
 SAMPLE LOCATION AND VALUE



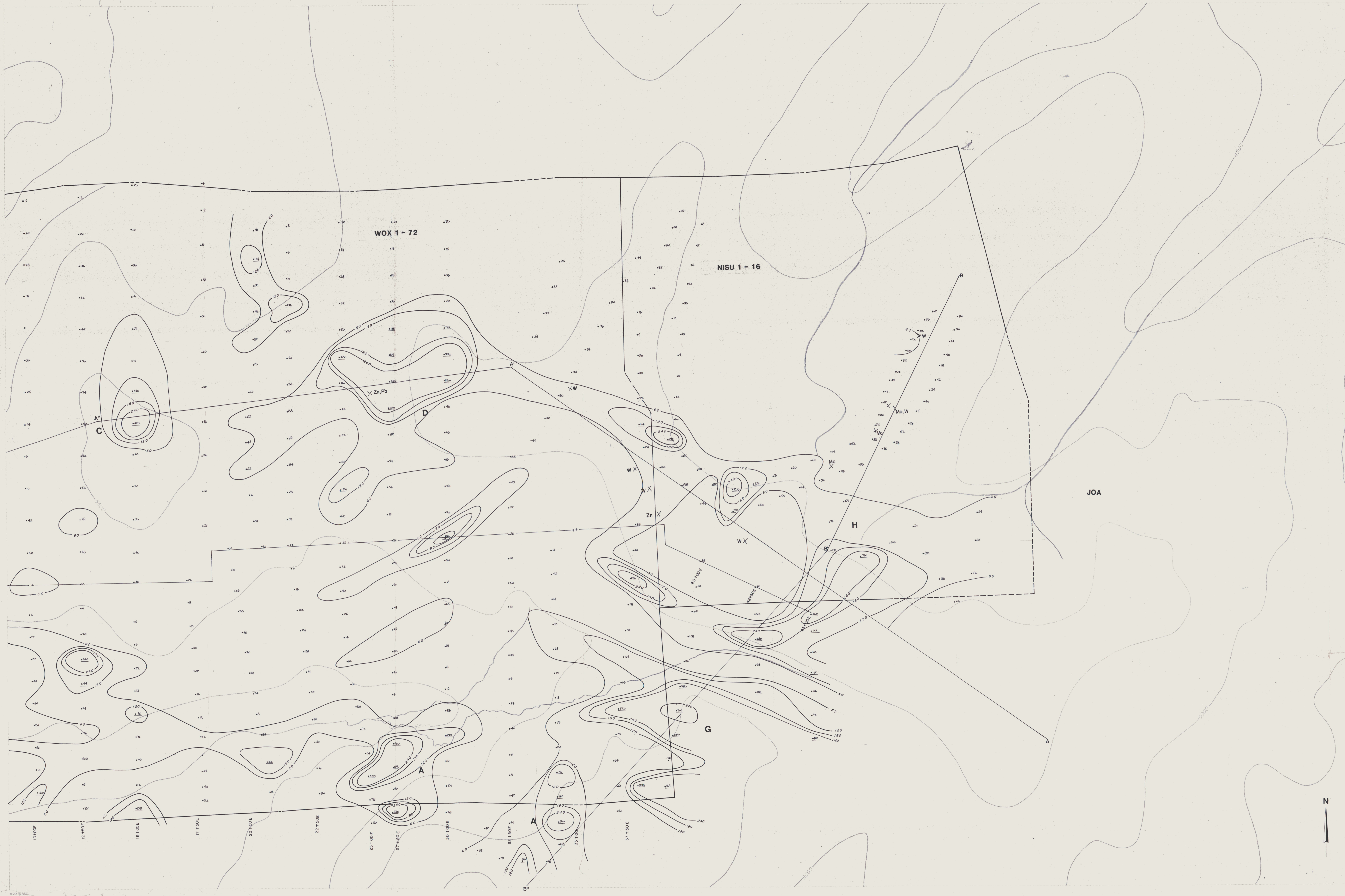


WOX 1 - 72

LEGEND
 All contours in ppm
 — 15 —
 — 30 —
 — 45 —
 — 60 —
 — Claim Boundary
 Anomalous Values are Underlined > 30 ppm
 A''' Cross section line

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F
SOIL GEOCHEMISTRY
 CONTOURED VALUES
Pb
 SCALE IN METRES
 100 50 0 100 200 300 400
 PLAN 5b C.R./d.t. Dec.80





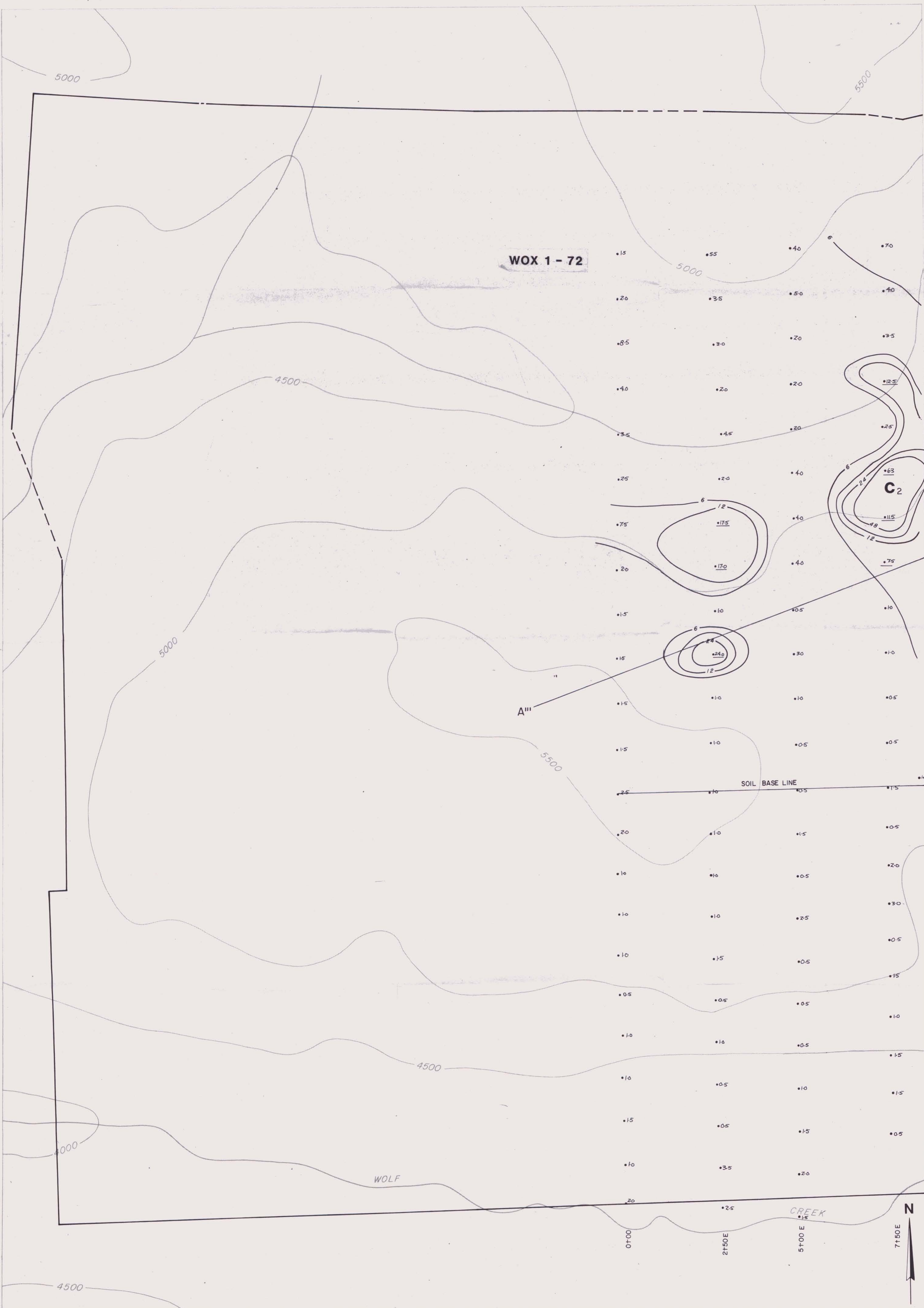
LEGEND
 All contours in ppm
 60
 120
 180
 240
 Claim Boundary
 A—A' Cross section line
 Anomalous Values are Underlined
 XW(etc) metal occurrence
 H Soil anomaly

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (EAST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F
SOIL GEOCHEMISTRY
CONTOURED VALUES
Zn





CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (EAST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F
SOIL GEOCHEMISTRY
 CONTOURED VALUES
U
 SCALE IN METRES
 0 100 200 300 400
 PLAN 7a C.R./dt. Dec 1980



WOX 1 - 72

A'''

SOIL BASE LINE

N

LEGEND

All contours in ppm

- 6 —
- 12 —
- 24 —
- 48 —

— claim boundary

Anomalous Values are Underlined >12 ppm

A''' Cross section line

C Soil anomaly

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION

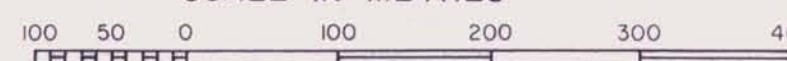
**PROJECT WATSU
WOX CLAIMS (WEST)**

WATSON LAKE MINING DISTRICT,
YUKON
N.T.S. 105-F

**SOIL GEOCHEMISTRY
CONTOURED VALUES**

U

SCALE IN METRES





LEGEND
 E Soil anomaly
 X,W(etc) Metal occurrence
 A'-A'-A' Cross section line

Readings and contours in cps
 Units: made 100 TC at 10 sec.
 100
 250
 300
 400
 500
 Contour Boundary
 ● ANOMALOUS
 ○ PROBABLY ANOMALOUS
 250-300 cps

CANADIAN OCCIDENTAL PETROLEUM LTD.
 MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (EAST)
 WATSON LAKE MINING DISTRICT,
 YUKON
 N.T.S. 105-F

SCINTILLOMETER SURVEY
 CONTOURED VALUES

SCALE IN METRES
 0 50 100 150 200 300 400
 METRES
 PLAN 8a C.R./41, Dec. 80





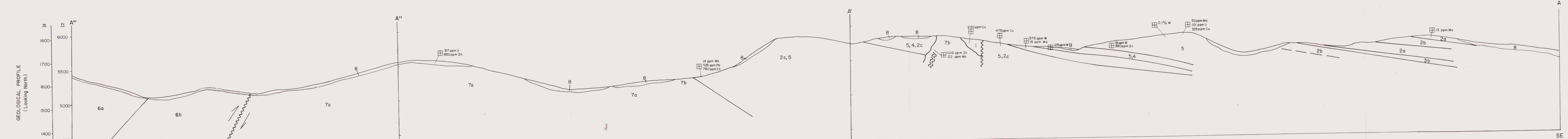
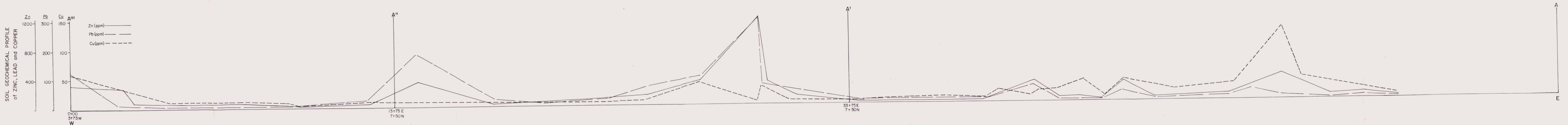
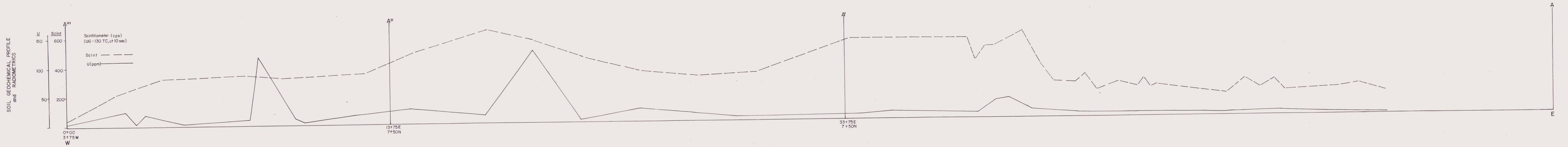
WOX 1 - 72

- LEGEND
- Readings and contours in cps.
Urtec model UG 130 TC at 10 sec.
- 100 —
 - 250 —
 - 300 —
 - 400 —
 - 500 —
 - Anomalous > 300 cps
 - Probably Anomalous 290-300 cps
 - Claim boundary
 - A''' Cross Section

CANADIAN OCCIDENTAL PETROLEUM LTD.
MINERALS DIVISION
PROJECT WATSU
WOX CLAIMS (WEST)
WATSON LAKE MINING DISTRICT,
YUKON
N.T.S. 105-F

SCINTILLOMETER SURVEY
CONTOURED VALUES

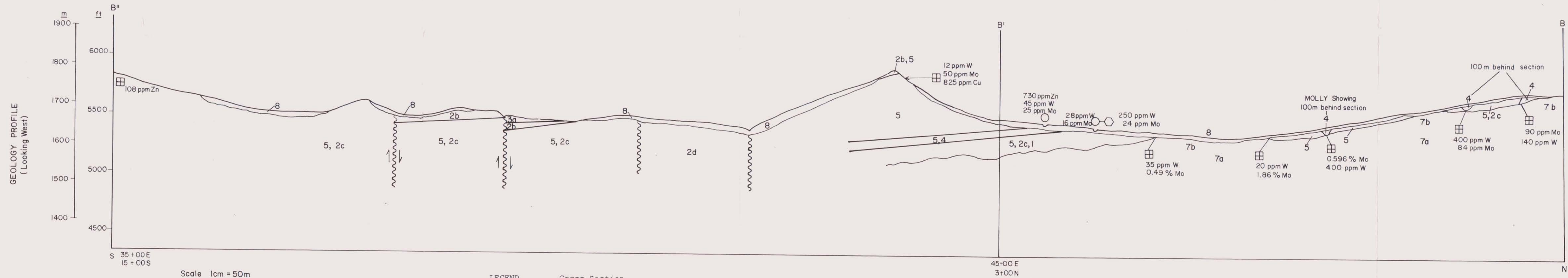
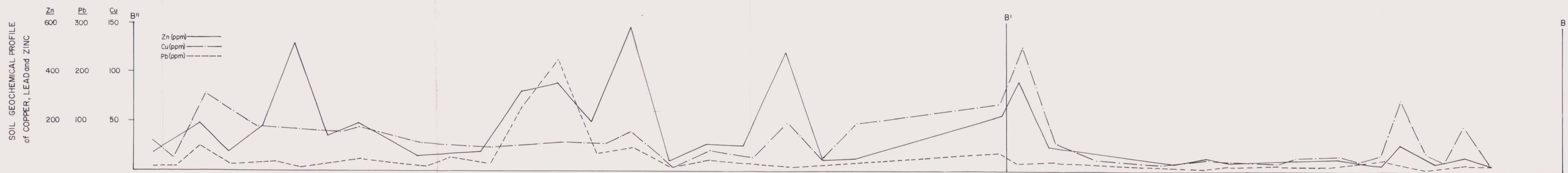
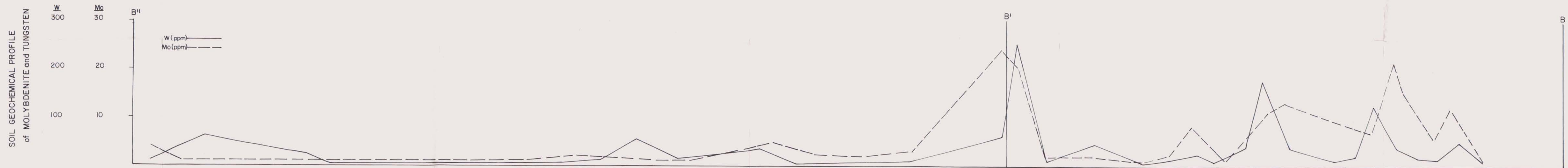
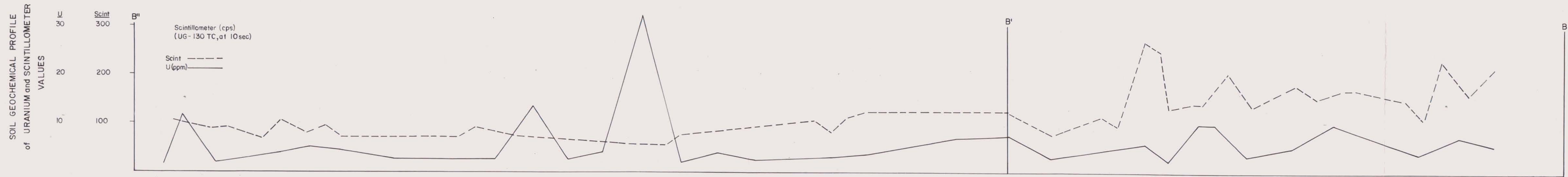




LEGEND

GEOLOGY		SILURIAN		SYMBOLS	
Unit 8	Overburden talus	5	Calc-silicate hornfels (metasomatized) with remnant metapelitic cherty, finely laminated	—	Geological contact
CRETACEOUS		4	Banded skarn in calc-silicate hornfels	~ ~ ~	Shear zone
7 7a	Granite, coarse-grained to porphyritic	3 3b	Massive slightly recrystallized limestone	~ ~ ~	Fault
7b	Quartz monzonite, fine to coarse-grained	2 2a	Sandy quartzites	□	Rock geochemistry only anomalous values shown
CARBONIFEROUS-PERMIAN		2b	Black quartzites with calcite veins and pods		
6 6a	"Greenstone", metasilstone, chloritized, massive	2c	Black micaceous laminated quartzites with pyrrhotite		
6b	Metasilstone (schist), quartzite, finely laminated calc-silicate hornfels	1	Hornfelsed metapelite, brown phyllite		

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PROJECT WATSU
WOX - NISU CLAIMS
WATSON LAKE MINING DISTRICT,
YUKON
N.T.S. 105-F/152
**GEOLOGICAL, GEOCHEMICAL &
SCINTILLOMETER PROFILES A''' - A'' - A'**
C.R./sh. Feb. 1981 PLAN 10



Scale 1cm = 50m

- LEGEND** Cross Section
- Geology Unit
- 8 Overburden Talus
- CRETACEOUS** Nisutlin Batholith
- 7 7a Granite, coarse-grained to porphyritic
- 7b Quartz-monzonite, fine to coarse-grained

- SILURIAN**
- 5 Calc-silicate hornfels (metasomatized) with remnant metapelite cherty, finely laminated
- 4 Banded skarn in calc-silicate hornfels
- 3 3a "Wavy banded" limestone, interlaminated chert and carbonate
- 2 2b Black quartzites with calcite veins and pods
- 2c Black micaceous laminated quartzites with pyrrhotite
- 2d White massive, crystalline quartzites

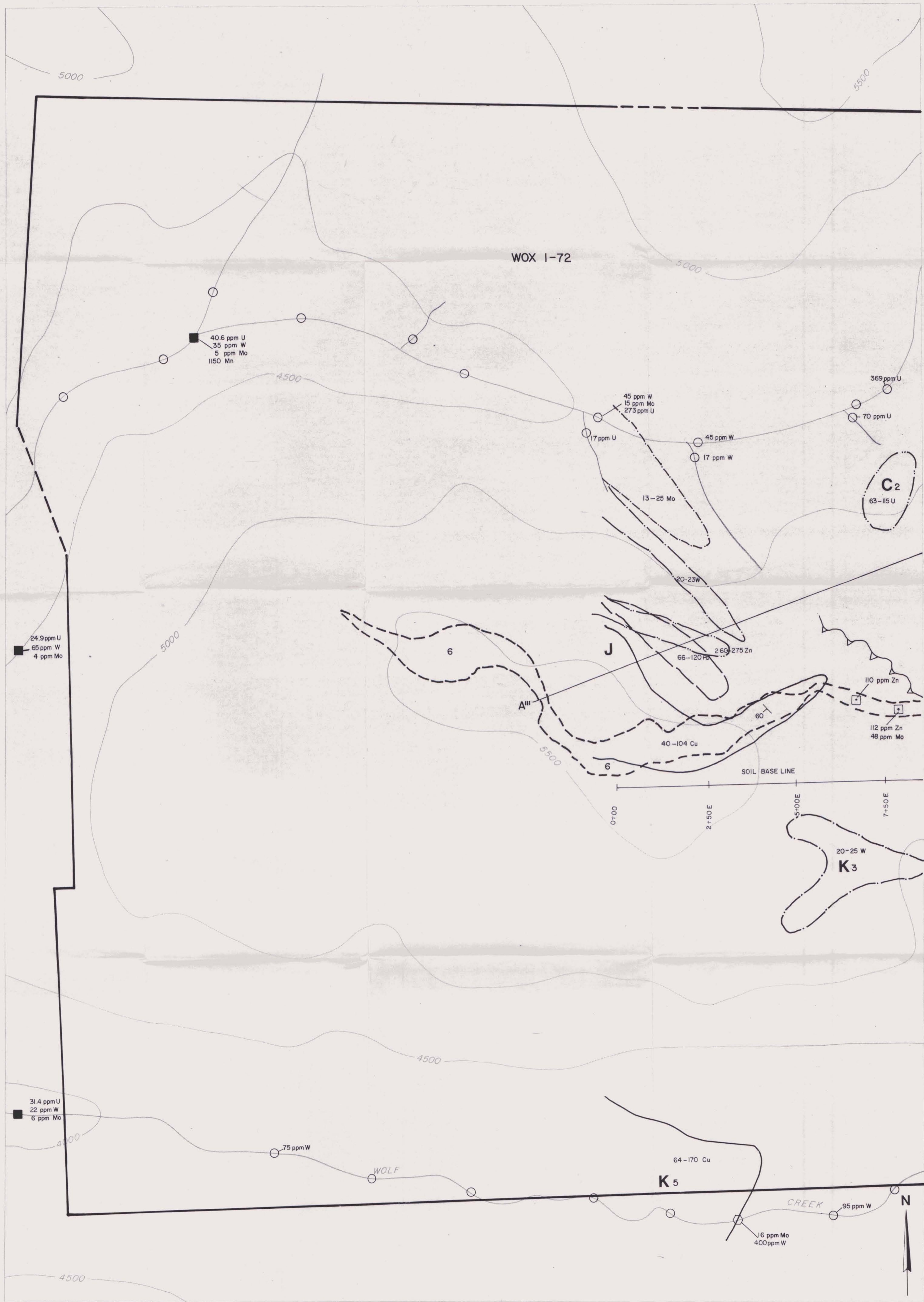
- SYMBOLS**
- Geological contact
- ~ Fault or Shear
- ⊠ Rock Geochemistry
- Stream Sediment (CanadianOxy, 1980)
- Heavy Mineral (CanadianOxy, 1980) for Rocks, Sediments, and Heavy Minerals, only anomalous values shown.

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PROJECT WATSU
WOX - NISU CLAIMS
WATSON LAKE MINING DISTRICT,
YUKON

N.T.S. 105-F/1a2

GEOLOGICAL, GEOCHEMICAL & SCINTILLOMETER PROFILES B'-B'-B



LEGEND

Geology

7	NISUTLIN CRETACEOUS-BATHOLITH Granites and Quartz Monzonites
6	CARBONIFEROUS-PERMIAN Greenstones, metasiltstone-quartzite
5	SILURIAN Calc-silicate hornfels
4	Banded skarn in calc-silicate hornfels
3	Wavy banded and massive recrystallized limestone
2	Quartzites
1	Hornfelsed metapelite - brown phyllite

Symbols

	Rock Geochemistry (1980) (Anomalous Values see Section IX)
	Fault-Shear Zone
	Thrust Fault

Mineralization

Mo	molybdenite
Sp	sphalerite
Sch	scheelite
Ga	galena
Po	pyrrhotite

Stream Sediment

	1978 GSC-URP (site approximate)
	1979 CanadianOxy location
	1980 CanadianOxy location

Only Probably Anomalous Values (Sacks, 1979) shown
 >16 ppm W, >11 ppm Mo, >38 ppm U,
 >54 ppm Cu, >59 ppm Pb, >320 ppm Zn

Heavy Mineral

	1979 CanadianOxy location
	1980 CanadianOxy location

Probably Anomalous Values (Sacks, 1979)
 >440 ppm Zn, >300 ppm Sn, >0.95 ppm Ag,
 >8.5 ppm Mo, >160 ppm W, >3150 ppb Au,
 >120 ppm U, >1200 ppm Th, >165 ppm Cu,
 >280 ppm Pb

Soil Geochemistry

	Copper	>80 ppm
	Lead	>60 ppm
	Zinc	>240 ppm
	Tungsten	>32 ppm
	Molybdenum	>10 ppm
	Uranium	>48 ppm

Radiometric Anomaly

	Scintillometer	>500 cps
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A^{III} Cross-Section Line
A Soil Anomaly

Claim post

Claim boundary

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PROJECT WATSU
WOX CLAIMS (WEST)
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 N.T.S. 105-F
COMPILATION MAP

