

GEOCHEMICAL REPORT

On the Aztec, Squaw, Tlingits Groups of Claims
And a portion of the New Group of Claims
Situated immediately Southeast the confluence
Of Coffee Creek and the Yukon River,

Whitehorse Mining Division,
Yukon Territory

N.T.S. 115-J-10, 11, 14 and 15

Latitude 62° 45'N, Longitude 138° 55'W

During June 24 - August 21, 1970

On behalf of

TRANS-COLUMBIA EXPLORATIONS LTD. (NPL)

by

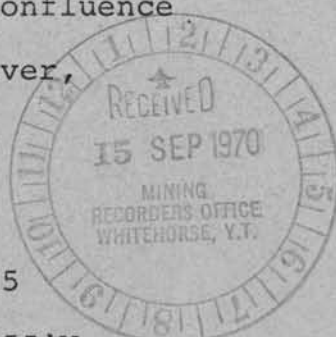
Geo-X Surveys Ltd.

Vancouver, B.C.

September 9, 1970

Report by

S. L. Sandner, B.Sc.



GEO-X SURVEYS LTD. 627 HORNBY STREET, VANCOUVER 1, B. C.

604-685-0312

TELEX 04-50404

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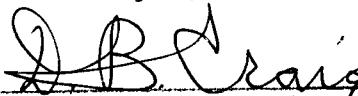
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This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representing a value in the amount of

~~\$32,721.60~~ 28,500



Resident Geologist or
Resident Mining Engineer

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



Commissioner of Yukon Territory

SUMMARY AND CONCLUSIONS

The soil sampling program carried out on the 225 Trans-Columbia mineral claims adjoining Casino Silver Mines ground to the west and northwest produced several interesting anomalous areas. One significant molybdenum zone, one copper zone and two mixed copper-molybdenum areas were outlined. These four zones are shown on the accompanying copper and molybdenum analysis maps Fig. 3 and 4. Considering the overall low background values for both Mo "0" ppm (parts per million) and Cu 15 ppm the four indicated zones are considered anomalous where values exceed 5 to 10 times background. Each of the four anomalous areas covers 2,000 X 5,000 feet or larger.

Most of the area sampled during the survey is covered by fairly good soil development and deep moss vegetation with minor outcroppings forming ridges or talus slopes.

Preliminary examination of outcroppings revealed typical medium grained granodiorite of the Klotassin Batholith. Evidence of alteration, some pyritization and light colored porphyry were noted at locations near some of the zones found to be anomalous from Cu-Mo analysis.

Government aeromagnetic anomalies bare a general coincidental relationship to the higher geochemical areas. It is recommended therefore that more detail geological mapping, closer spaced geochemical and if possible more detail airborne surveys be carried out in the areas where anomalous molybdenum and copper values were indicated.

INTRODUCTION

During the period of June 24 to August 15, 1970 Messrs. Bellamy, Dobson, Cross, Ganderton and Klinosky of Geo-X Surveys completed approximately 239 line miles of grid controlled layout and geochemical soil sampling on a property immediately south-east of the confluence of Coffee Creek and the Yukon River in the Yukon Territory. The work was conducted on behalf of Trans-Columbia Explorations Ltd. (NPL) of Vancouver, B.C. The survey covered a block of 225 contiguous claims (New 5,6, 103 - 150 inclusive, Aztec 1 - 151 incl., Squaw 1 - 12 incl., and Tlingits 1 - 12 incl. owned by Trans-Columbia Explorations. The soil samples were analyzed for molybdenum and copper in parts per million by Chemex Laboratories in North Vancouver. An atomic absorption, hot-acid extraction technique was employed.

The purpose of this survey was to assess the potential value of the claimed area in relation to the possible existance of Cu-Mo porphyry type deposits. This report describes the geochemical survey procedure and discusses the results obtained.

LOCATION AND ACCESS

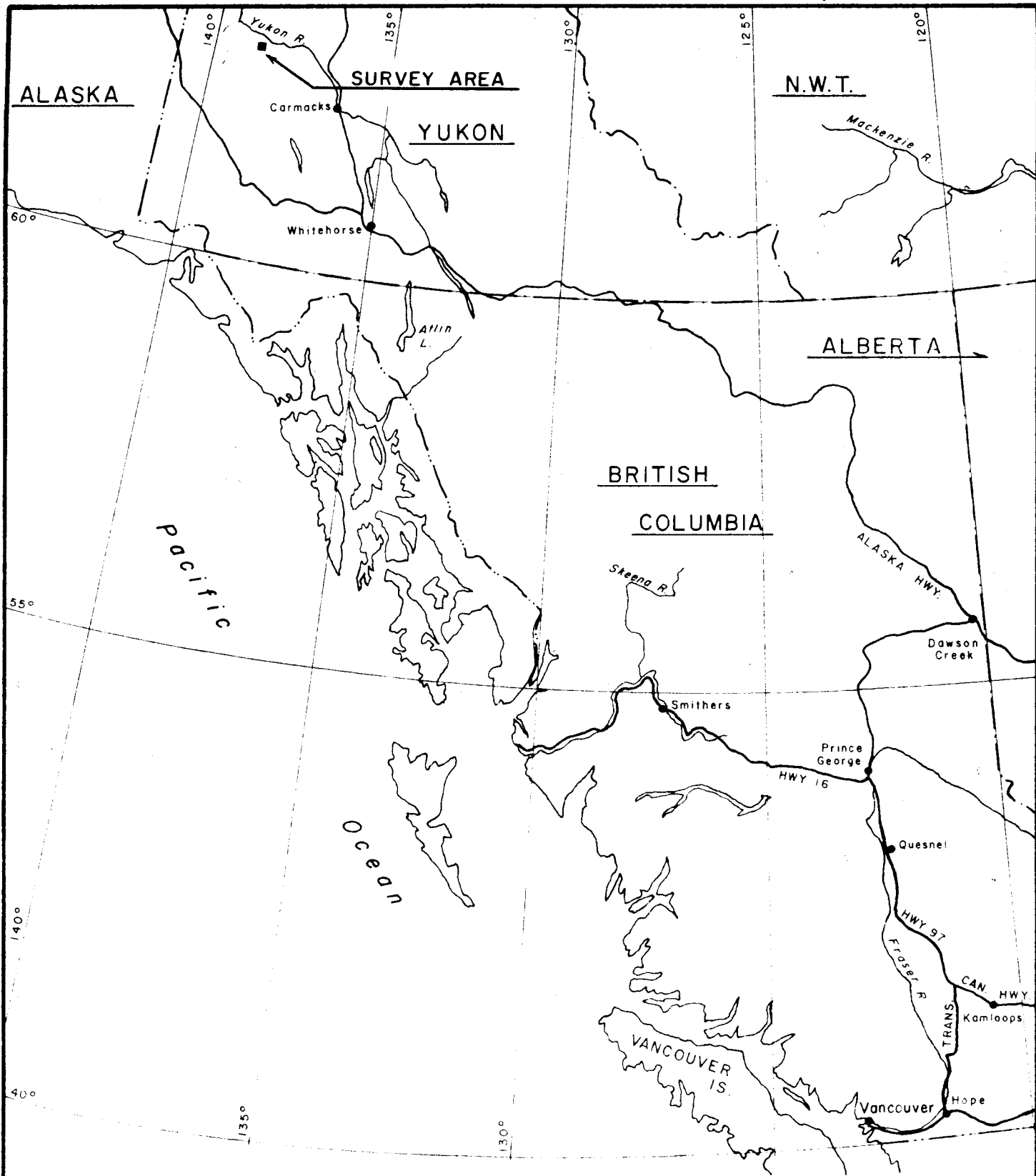
The groups of claims covered by this report is centered at latitude 62° 45'N and longitude 138° 55'W, immediately southeast of the confluence of Coffee Creek and the Yukon River in the Whitehorse Mining Division, Yukon Territory and is some 185 air miles northwest of Whitehorse. Access to the claims can be gained by fixed wing air flight from Whitehorse to the Casino airstrip, thence by helicopter to the property approximately 6 miles to the west.

PROPERTY

The property consists of some 225 contiguous claims and recorded in the Whitehorse Mining Division, and listed as follows:

| <u>CLAIM NAMES</u> | <u>RECORD NUMBER</u> |
|-----------------------|----------------------|
| Aztec 1 - 151 incl. | Y37004 - Y37154 |
| Squaw 1 - 12 incl. | Y36980 - Y36991 |
| Tlingits 1 - 12 incl. | Y36992 - Y37003 |
| New 5,6 | Y35950 - Y35951 |
| New 103 - 150 incl. | Y36048 - Y36095 |

The claims are owneded by Trans-Columbia Explorations Ltd. (NPL) registered office at 211 - 717 W. Pender St., Vancouver, B.C.



TRANS - COLUMBIA EXPLORATIONS LTD.
DAWSON RANGE AREA - WHITEHORSE M.D., YUKON

LOCATION MAP



GEO - X SURVEYS LTD.

Drawn A.N.S.

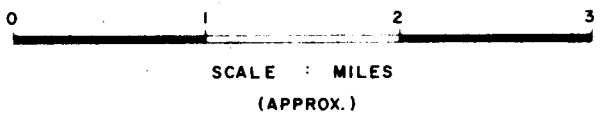
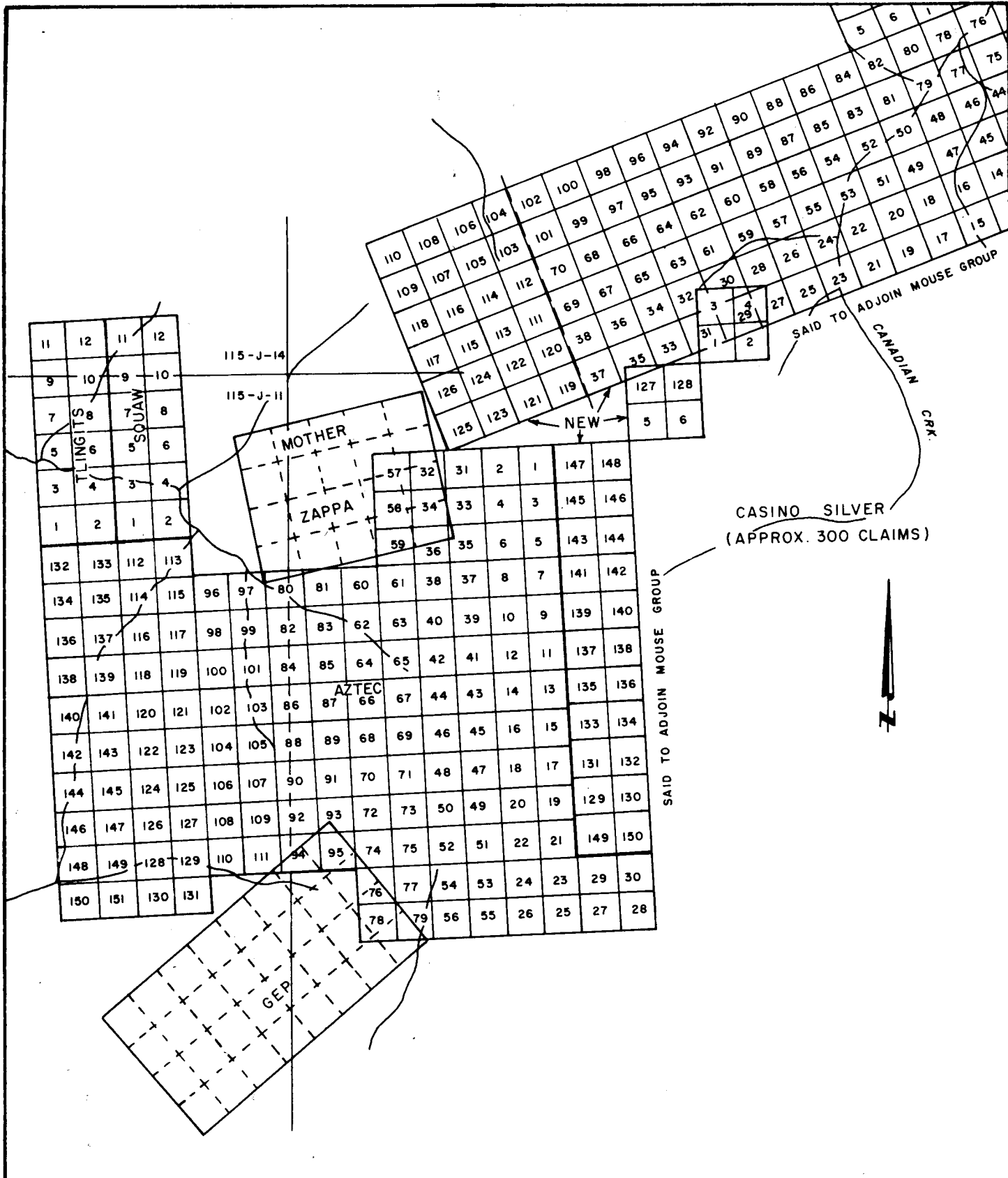
Dated SEPT. 9, 1970

Fig. No.

Checked

Job No. 1149

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 DAWSON RANGE AREA - WHITEHORSE M.D., YUKON

CLAIM MAP

G GEO - X SURVEYS LTD

| | | |
|------------|--------------------|----------|
| Drawn R.K. | Dated SEPT 9, 1970 | Fig No 2 |
| Checked | Job No 1149 | |

GENERAL SETTING

The property is situated in the Dawson Range Mountains approximately 190 air miles northwest of Whitehorse. Elevation of the claims lies between 3,000 and 5,000 feet above sea level. Topography ranges from gentle rounded rolling terrain to steep V-shaped valleys with streams and occasional sharp rock out-cropping ridges. The area lies within Yukon plateau, unglaciated since Pleistocene times.

Vegetation consisting of thick moss and scrub bush make walking difficult. Much of the area is above treeline. Coffee Creek drainage basin forms most of the central western and northwestern portion of the claim area Casino Creek drains the southern flank of the area.

FIELD PROCEDURE

The initial survey base line was established along the top of the northeast Aztec claims in an east-west direction. Ground control was established by located claim posts. Soil samples were collected at 400 foot intervals along crosslines spaced 400 feet apart. The samples were taken by excavating a small pit

with a shovel to the appropriate depth, to reach the B Horizon. The soil sample was placed in a geochemical sample bag (marked with line number and station number) and on standard field notes together with a description of the color, composition and depth of soil sample. The sample depth varied slightly and averaged 8 inches below the vegetation base or A zone.

APPENDIX I

PERSONNEL

Name: SANDNER, Stanley L.

Education: B.Sc. - University of British Columbia
(Honours - Geology)

Professional Associations: Registration pending - Association of
Professional Engineers of British Columbia.

Experience: 9 years active exploration and production
experience throughout western North and
western South America. Most of this
experience was directly involved in geo-
physical, geological and geochemical studies
of base metal and iron deposits.

Directly involved in bringing two properties
into profitable production.

President and Director of Geo-X Surveys Ltd.

APPENDIX I

PERSONNEL

NAME: BELLAMY, Norman Warren

EDUCATION: Grade Ten - Fraser Lake Senior
Secondary.

EXPERIENCE: Two and one half years in Underground
Mines.

Five years with various companies doing
field work in mining exploration.

Presently employed by Geo-X Surveys Ltd.
since August 3, 1968 doing various types
of field work under Professional super-
vision.

APPENDIX I

PERSONNEL

NAME: DOBSON, Lionel John

EDUCATION: June 1966 - Grade 12; Brentwood College,
Mill Bay, B.C.

May 1968 - 1st year University; University
of Victoria, Victoria, B.C.

December 1968 - Private Pilot licence -
Victoria Flying Club.

EXPERIENCE: September 1968 - April 1969 - Mapping
Assistant.

May 1969 - June 1969 - Survey Assistant.

The above positions - Employed by B.C.
Government, Victoria.

June 1969 - present - Employed by Geo-X
Surveys Ltd. as Air Crew Navigator and
Photo Co-ordinator.

APPENDIX I

PERSONNEL

Name: RENE, Val

Education: Technical School (Yugoslavia)
Engineering Department (Mechanical)

Experience: Airborne Geophysical and Data Compilor
with Spartan Air Services Ltd., Ottawa

Employed with Geoterrex as Geophysical
Data Compilor (Airborne)

Presently employed with Geo-X Surveys Ltd.
(Airborne Data Compilor)

APPENDIX I

PERSONNEL

Name: KEY, Robert A.

Education: Grade XII Diploma.

1 year Petroleum Geology at the Institute of Technology and Arts in Calgary.

Experience: 2 years in Steam Heating Design Drafting.

12 years with Mobil Oil Canada Limited, Senior Draftsman.

2 years, mining exploration with Geo-X Surveys Limited as Chief Draftsman.

APPENDIX I

CERTIFICATE

NAME: MALESKU, Terrance D.

EDUCATION: Grade XII - Balfour Technical School,
Regina, Saskatchewan.

EXPERIENCE: September 1961 - September 1965 as Geologi-
cal Draftsman for Marathon Oil Co., Regina,
Saskatchewan.

September 1965 - December 1968 as Structural
Draftsman for Con-Force Products, Regina,
Saskatchewan.

April 1969 - presently employed as Geologi-
cal Draftsman for Geo-X Surveys Ltd.

APPENDIX II

PERSONNEL AND DATES WORKED


The following Geo-X Surveys Ltd. personnel were employed on the Trans-Columbia Explorations Ltd. Yukon Project.

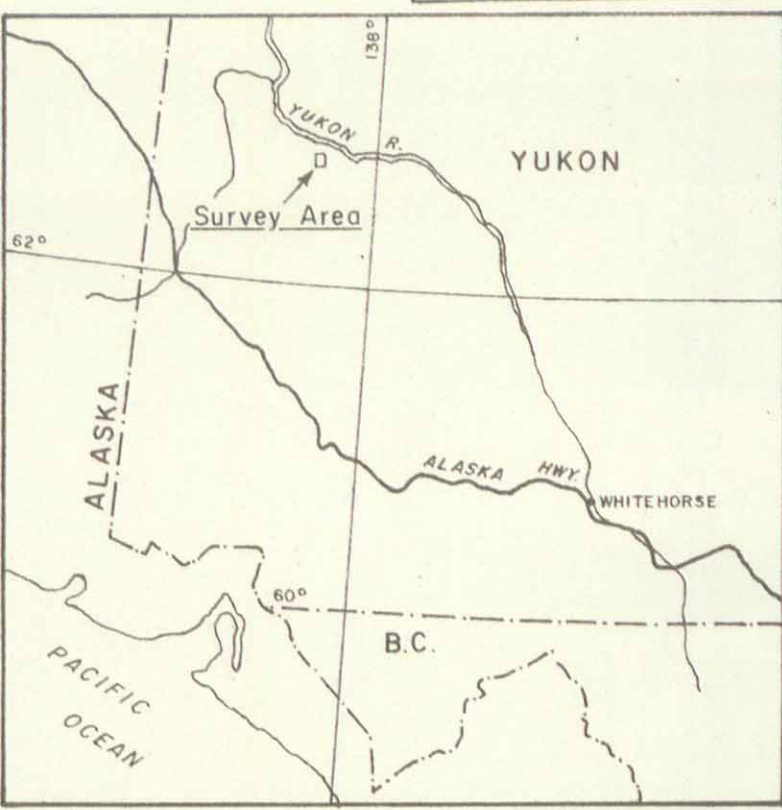
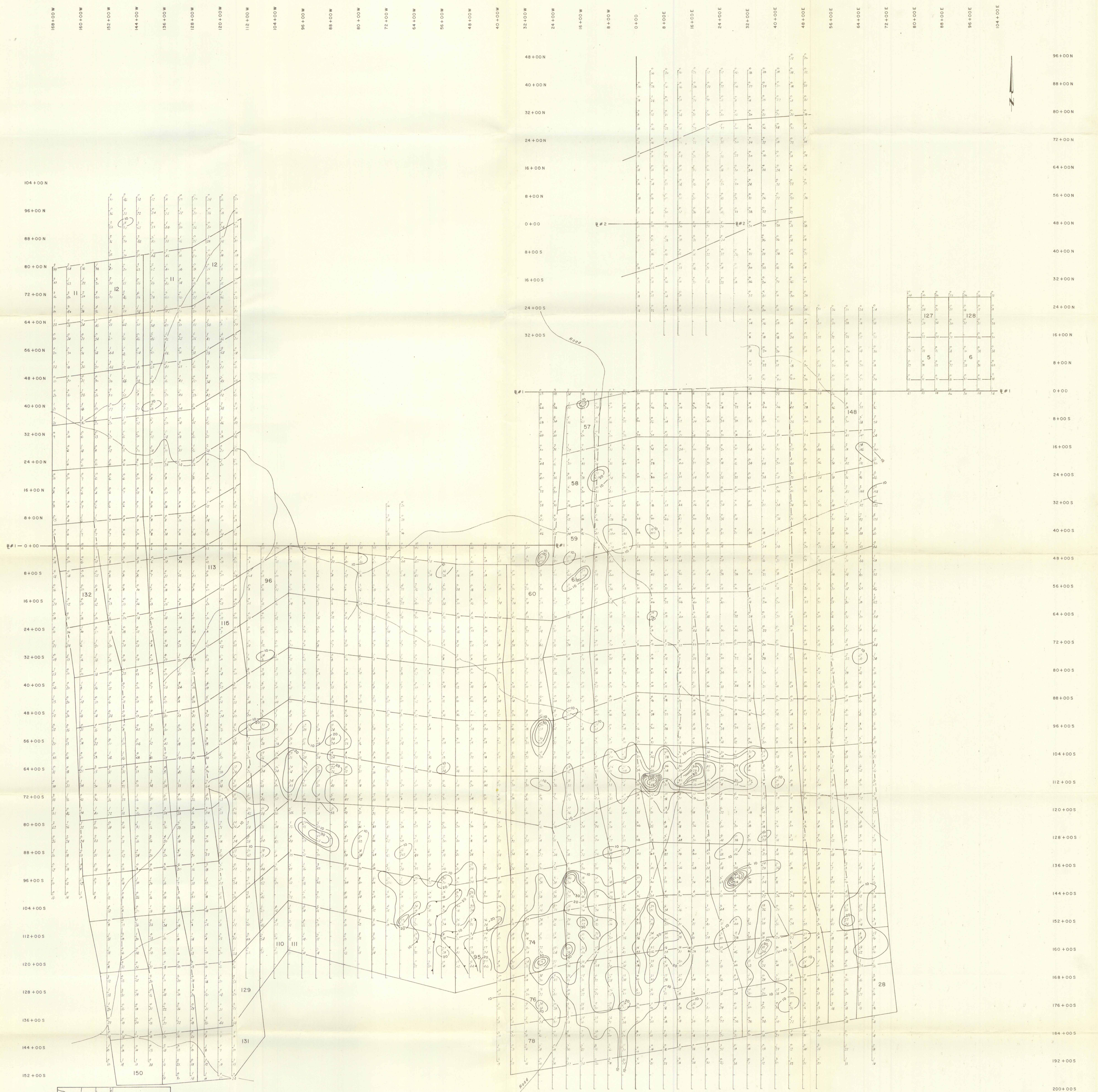
| <u>Name</u> | <u>Work</u> | <u>Date</u> |
|---------------|--------------------|-----------------------------|
| N.W. Bellamy | Sample Collection | June 24-Aug.21, 1970 |
| L. Dobson | Sample Collection | June 24-Aug. 21 |
| F. Ganderton | Helper | June 24-Aug.21 |
| B. Cross | Helper | June 24-Aug.12 |
| K. Klinosky | Helper | Aug. 13-Aug.21 |
| S. L. Sandner | Report Preparation | Sept.9-Sept.11 |
| R. Key Dra | Drafting | Aug. 18-20,24,26,27,31 |
| T. Malesku | Drafting | July 31, Aug.19-24,26-28,31 |

APPENDIX III

COST BREAKDOWN

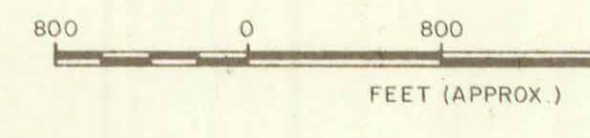
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| Contract between Trans-Columbia Exploration Ltd. (NPL) | |
| and Geo-X Surveys Ltd., dated June 19, 1970 in the | |
| amount of | \$22,500.00 |
| Plus, | |
| Detail work over anomalous areas | <u>6,000.00</u> |
| | <u>\$28,500.00</u> |


S. L. Sandner,
President



INDEX MAP
SCALE: 1" = 80 MILES

TO ACCOMPANY THE GEOCHEMICAL REPORT ON THE TILGITS, SQUAM
AZTEC & A PORTION OF NEW GROUP OF CLAIMS OWNED BY TRANS-COLUMBIA EXPL. LTD.
IN THE WHITEHORSE M.D., YUKON TERRITORY
BY G.L. SANDER - GEOLOGIST
VANCOUVER, B.C.



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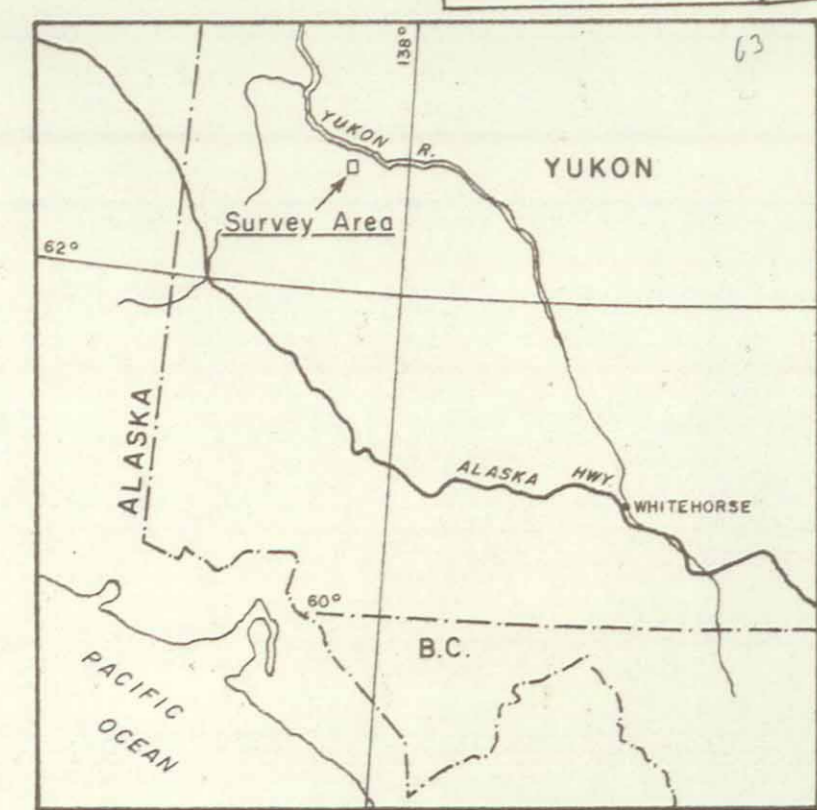
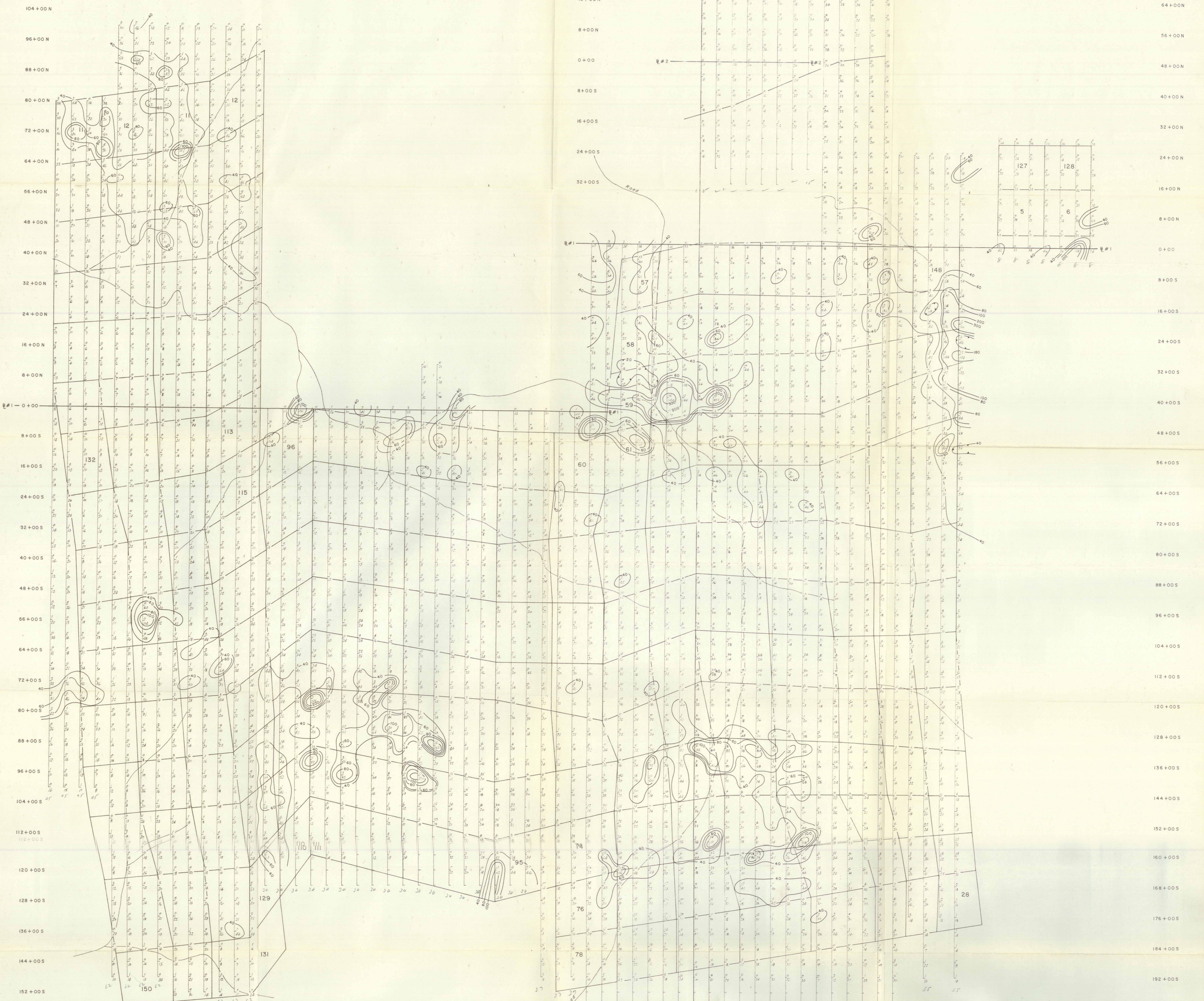
TRANS-COLUMBIA EXPLORATIONS LTD.
DAWSON RANGE AREA-WHITEHORSE M.D.
YUKON

MOLYBDENUM GEOCHEMICAL
P.P.M.
CONTOUR INT. 10, 20, 30, 40, 50, 60, 80, 100, 200

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| DRAWN | TM | JOB NO. | FIG. NO. |
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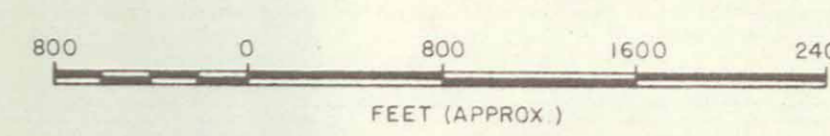
GEO - X SURVEYS LTD.

168+00W 160+00W 152+00W 144+00W 136+00W 128+00W 120+00W 112+00W 104+00W 96+00W 88+00W 80+00W 72+00W 64+00W 56+00W 48+00W 40+00W 32+00W 24+00W 16+00W 8+00W 0+00 8+00E 16+00E 24+00E 32+00E 40+00E 48+00E 56+00E 64+00E 72+00E 80+00E 88+00E 96+00E 104+00E



INDEX MAP
SCALE: 1" = 80 MILES

TO ACCOMPANY THE GEOCHEMICAL REPORT ON THE TLINGIT SQUAW
ATES A & A PORTION OF NEW GROUP OF CLAIMS OWNED BY TRANS-COLUMBIA EXPL. LTD.
IN THE WHITEHORSE M.D. - YUKON TERRITORY
BY AL SANDNER - GEOLOGIST
VANCOUVER, B.C.



LEGEND
 O MOLY
 31 COPPER

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 DAWSON RANGE AREA - WHITEHORSE M.D.
 YUKON

COPPER GEOCHEMICAL
 P.P.M.
 CONTOUR INT. 40, 60, 80, 100, 200, 300

| | | | |
|---------|--------------|---------|----------|
| DRAWN | TM | JOB NO. | FIG. NO. |
| DATED | SEPT 3, 1970 | 1149 | 4 |
| CHECKED | | | |

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