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1983 Assessment Report

Geological, Geochemical & Physical

Title: CROWN GROUP

Claims: J & R Fr., Hartford, Hartford Fr.
Silver Star, Murray Fr., Nellie Cotton,
Hip Fr., Golden Crown Fr., Star Fr.,
Crown Fr., Willie Fr., Crown 1-19

Location: Hartford Junction - Greenwood M.D.
49° 05' N 118° 34' W
N.T.S. 82E/2E

Author: L. Sookochoff, P.Eng.
Sookochoff Consultants Ltd.
311-409 Granville St.
Vancouver, B.C., V6C 1T2

Owner and Operator: Consolidated Boundary Exploration Ltd.
Box 511, Grand Forks, B.C.. V0H 1H0

Dates of Work: June 1, 1983 to September 30, 1983

Date of Report: April 10, 1984

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

12.373

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1983 Assessment Report

on the

CROWN GROUP

for

CONSOLIDATED BOUNDARY EXPLORATIONS

INTRODUCTION

During the 1983 field season geochemical surveys, trenching and geological mapping were carried out on the claims of the Crown property.(Figure 2)

The purpose of the surveys was to locate zones of indicated gold bearing mineralization in a geochemical survey which would subsequently be tested by trenching and bedrock sampling.

The exploration work was performed by D. Runkle, M.Sc., geologist and assisted in the field by M. Vaskovic a third year geological student at U.B.C. and under the supervision of the writer.

The field program was carried out from June 1, 1983 to September 30, 1983.

PROPERTY

The property is comprised of 30 contiguously located claims of which six are reverted crown grants. Particulars are as follows:

<u>Claim Name</u>	<u>Lot No.</u>	<u>Record No.</u>	<u>Expiry Date*</u>
Willie Fr.		2014	January 30, 1986
Crown Fr.		2027	February 6, 1986
Murray Fr.	718 S	1985	January 28, 1987
Silver Star	1550	1926	December 21, 1987
J & R Fr.	1059	1865	November 8, 1987
Hartford	1057	1927	December 21, 1986
Hartford Fr.	1061	1928	December 21, 1986
Crown 1-8		1986-93	January 28, 1986
Crown 9-16		2015-22	February 6, 1986
Crown 17-19		2202-04	May 28, 1986
Nellie Cotton	1460	2173	May 13, 1987
Hip Fraction		2199	May 28, 1986
Star Fr.		2201	May 28, 1986
Golden Crown Fr.		2200	May 28, 1986

* On the approval of the assessment work for which this report forms a part thereof.

LOCATION AND ACCESS

The property is located 13 km northwest of Grand Forks and within four km of Phoenix in the southern interior of British Columbia. Access is west from Grand Forks via the No. 3 Highway for 16 km to the Phoenix junction. At Hartford junction and near the Phoenix Mine tailings the Hartford road leads to a secondary road branching off to the west. The property is within three km of the junction.

PHYSIOGRAPHY

The property is situated on the southern slope of Knob Hill which is at an elevation of 1,500 meters. The ground covered by the claim group is of moderate to shallow slopes with elevations of up to 1,525 m and a relief of 215 m.

WATER AND POWER

Sufficient water for all phases of the exploration program should be available from water courses on or near the property.

A power transmission line and a telephone line pass through the property.

HISTORY

The history of the immediate area dates back to 1891 when large low grade copper deposits were discovered near Phoenix. In 1913 production from the Phoenix area peaked with a virtual shut down on the mines and smelters in 1919. During this period a number of quartz hosted gold-silver deposits were developed not only for the contained precious metal value, but for the silica which was a prime smelter requirement.

On the adjacent property, the Winnipeg claim was reported to be the largest gold mine in the Greenwood area producing some 59,000 tons during the period 1900 to 1912. The production was more than all the other gold mines combined in this area. In addition to the extensive development on the Winnipeg claim, similar scale developments with lesser production were made from the adjoining Golden Crown claim.

On the CROWN GROUP of claims, information is sketchy however a 1901 report states that development work comprised of "250 feet of sinking and 150 feet of cross-cutting and drifting on the Hartford were carried out". During the same period "75 feet of shafting and crosscutting" on the J & R claim were reported.

Granby reportedly carried out limited diamond drilling on the present Crown claim group.

In 1980 two diamond drill holes were completed on the J & R Fr. claim for a total of 120 meters.

In 1981 Argenta Resources held the property under option and completed a geophysical survey and four diamond drill holes in the J & R Fraction.

GEOLOGY

In the Greenwood-Phoenix area the oldest rocks of Carboniferous sedimentary strata in association with volcanic flows are intruded by mafic rich and larger felsic igneous bodies. The sedimentary strata include a limestone sequence designated as the Brooklyn Formation and which is host to the Phoenix copper replacement and high grade skarn deposits of the area.

On the adjacent Winnipeg-Golden Crown property a major northwesterly trending fault structure is a prime control to at least seven known and/or developed gold-silver-copper veins. Cross structures are a factor in determining vein continuity with reported faults which offset some veins. Veins are also cut by post-mineral dykes.

An example of vein continuity is indicated within the Golden Crown workings where a continuous vein is exposed for some 80 meters horizontally with an indicated 100 meter vertical projection. There is no information on the continuity or extent of the Winnipeg vein structure.

The Golden Crown vein occurs predominantly within metavolcanics with associated serpentine adjacent to the hanging wall.

The major northwesterly trending fault structure which hosts the gold-silver-copper bearing veins on the adjoining property is projected to extend to the Crown Group.

On the CROWN GROUP property outcropping of andesites, latites with mafic and dioritic plugs are indicated.

A vein on the Hartford claim of the CROWN GROUP was explored by "200 feet of sinking and about 150 feet of cross-cutting and drifting". On the J & R claim there are "75 feet of shafting and cross-cutting and a body of 4 feet of ore has been developed for 47 feet".

On the adjacent Winnipeg-Golden Crown property mineralization is primarily of pyrrhotite and chalcopyrite with gold and silver values within a veined quartz matrix. Veins, as exposed in numerous pits, trenches and within the Golden Crown workings, are commonly comprised of massive sulphide constituents. Wall rock adjacent to the main vein may be mineralized. Moderate sulphide content with gold-silver-copper values also occurs in localized areas without a definite vein structure.

The 1980 drilling intersected narrow zones of pyrite-pyrrhotite-chalcopyrite mineralization associated with quartz veining. Assays of .018 oz Au/ton and .12 oz Ag/ton were obtained from D.H.JR1 and .04 oz Au/ton, .50 oz Ag/ton, 1.0% Cu across .48m in D.H.JR2.

The 1981 geophysical surveys delineated one prime anomalous zone along the central portion of the J & R claim. All four of the drill holes intersected a massive sulphide gold bearing zone which assayed up to .221 oz Au/ton across 0.3 meters.

1983 EXPLORATION PROGRAM

Geochemical

A 3.1 kilometer baseline was established trending at 120° with cross lines at 100 meter intervals surveyed in by compass and hip chain. Stations were marked at 50 meter intervals along the cross lines.

A detailed soil geochemistry survey was completed on four areas of interest, (Figure 4) based on previous exploration activity and on a local magnetometer survey. Samples were collected on 10 meter line and sample spacings for a 10 meter grid coverage.

Samples were selected from the B horizon of the brown to brownish gray sandy-loam forest soil at a depth of commonly 30 centimeters. The soil was placed in a brown wet-strength paper bag with the grid co-ordinates marked thereon. A total of 305 samples were analysed.

Testing Procedure

All samples were tested by Acme Laboratories of Vancouver, B.C. The testing procedure is first to thoroughly dry the sample. Then .500 grams of material is digested with 3 ml. of 3:1:3 HCL to HNO3 to H2O at 90 deg. more or less for one hour. The sample is diluted to 10 mls. with water. The samples were then analysed by atomic absorption for gold.

RESULTS OF GEOCHEMICAL SURVEY

The assay results are presented in the accompanying maps. All results above 15ppb were considered anomalous in area C & D, 25ppb in areas A & B and trench sites were selected according to gold anomalous areas and/or previous exploration activity and/or magnetometer survey results.

The geochemical survey results indicated a relatively high background value for gold suggesting a potential gold bearing area.

GEOLOGICAL SURVEY

Runkle describes the geological survey as:

"Using the grid lines as a base, geological mapping has been completed on all lines between the baseline and the road. Only the barest framework of a stratigraphy has been worked out with this amount of mapping. Structural trends conform to the 120° trends found in nearby areas. In the area mapped to date, the rocks are primarily felsic fine grained and lapilli tuff, and cherty tuff. A prominent silica horizon appears to cap the tuff sequence; perhaps an exhalite cap. This rock contains sulfide mineralization in at least on location, but is otherwise barren. Above this, rocks are fine to medium grained crystalline andesite.

A random magnetometer survey has revealed an anomalous area within a large serpentine, talc-serpentine body on line 500W, south of the road. The serpentinite is approximately 50m by 150m. The anomaly has been trenched and sampled. At the surface, there is no visible difference in the rock across the anomaly. To further test the anomaly, detailed and systematic magnetometer and E.M. surveys are recommended, with subsequent drilling, if warranted by the geophysics.

The "central zone" of sulfide mineralization has been trenched to determine its extent, if any. The trench contains a complex of coarse and very fine grained tuffs, with minor sheared serpentinite. Three quartz veins cut across the tuffs; two at the regional 120° trend. One, 10 cm thick, is asymmetric, with serpentine interlayered on the north, and barren of sulfide mineralization.

The other, 2 cm thick, has a .5 cm layer of 2mm pyrite granules in the center. The style of mineralization is similar to that found in the adjacent pit, but not as massive. The "central zone" appears at this point, to be very localized. It has not been shown to extend, either by trenching or magnetometer survey.

At present, exploration is centered on the "southeast zone" of known mineralization, the site of previous drilling."


CONCLUSIONS

Geochemical surveys in association with magnetometer surveys and as previously determined VLF-EM surveys, are successful exploration methods in delineating areas of potential gold bearing sulfide zones.

RECOMMENDATIONS

Recce geochemical surveys are recommended for the initial location of anomalous areas. These areas should then be detailed by geophysical and geochemical surveys to delineate prime target areas for trenching and/or diamond drilling.

Respectfully submitted,

A circular professional seal for the Province of British Columbia. The outer ring contains the text "PROFESSIONAL ENGINEER" at the top and "PROVINCE OF BRITISH COLUMBIA" at the bottom. The center of the seal features a stylized figure of a person standing on a globe. Overlaid on the seal is a signature and the name "LAURENCE SOOKCOFF".
LAURENCE SOOKCOFF
BRITISH COLUMBIA
Laurence Sookcoff, P.Eng.
Consulting Geologist

April 10, 1984
Vancouver, B.C.

BIBLIOGRAPHY

MINISTER OF MINES REPORTS - 1901 p. 870; 1902 p. 1063

McNAUGHTON, D.A. - Greenwood - Phoenix Area British Columbia,
Geological Survey of Canada Paper 45-20, Ottawa 1945

SOOKOCHOFF, L. - Geological Report on the Winnipeg and Golden
Crown for Munde Mines Ltd. February 7, 1980

SOOKOCHOFF, L. - Diamond Drill Assessment Report on the Crown
Group, November 12, 1980

CERTIFICATE AND CONSENT

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with offices at 311-409 Granville Street, Vancouver, B.C., V6C 1T2.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology
2. I have been practising my profession for the past seventeen years.
3. I am registered with the Association of Professional Engineers of British Columbia.
4. The information for this report was obtained from sources as cited under bibliography and from work the writer has performed on the property since 1979.



Laurence Sookochoff, P.Eng.
Consulting Geologist.

April 10, 1984
Vancouver, B.C.

CERTIFICATE OF EXPENDITURE

EXPLORATION WORK ON "CROWN GROUP"

From June 1, 1983 to August 30, 1983

Ike Wiebe - Geochem, Line cutting, Mag Work - 16 days @ \$100	\$ 1600.00
Don Hairsine - Geochem, Line cutting - 5 days @ \$100	500.00
Marcella Vaskovic - Mapping - 6.5 days @ \$100	650.00
Dita Runkle - Mapping, Sampling, Geologist - 7.75 days @ \$200	1550.00
L. Sookochoff, P.Eng. - Consulting Engineering	1093.00
Vehicle Rental	315.00
Accomodation	245.00
Assay	2797.50
 Backhoe Rental:	
July - 12 hrs. @ \$45.00	618.75
August - 27.5 hrs @ \$45.00	<u>1237.50</u>
 Total Exploration:	\$10,607.15
 Portable Assessment Account:	
30% of \$10,607.15	\$ <u>3,182.14</u>
 TOTAL:	\$13,789.29 =====

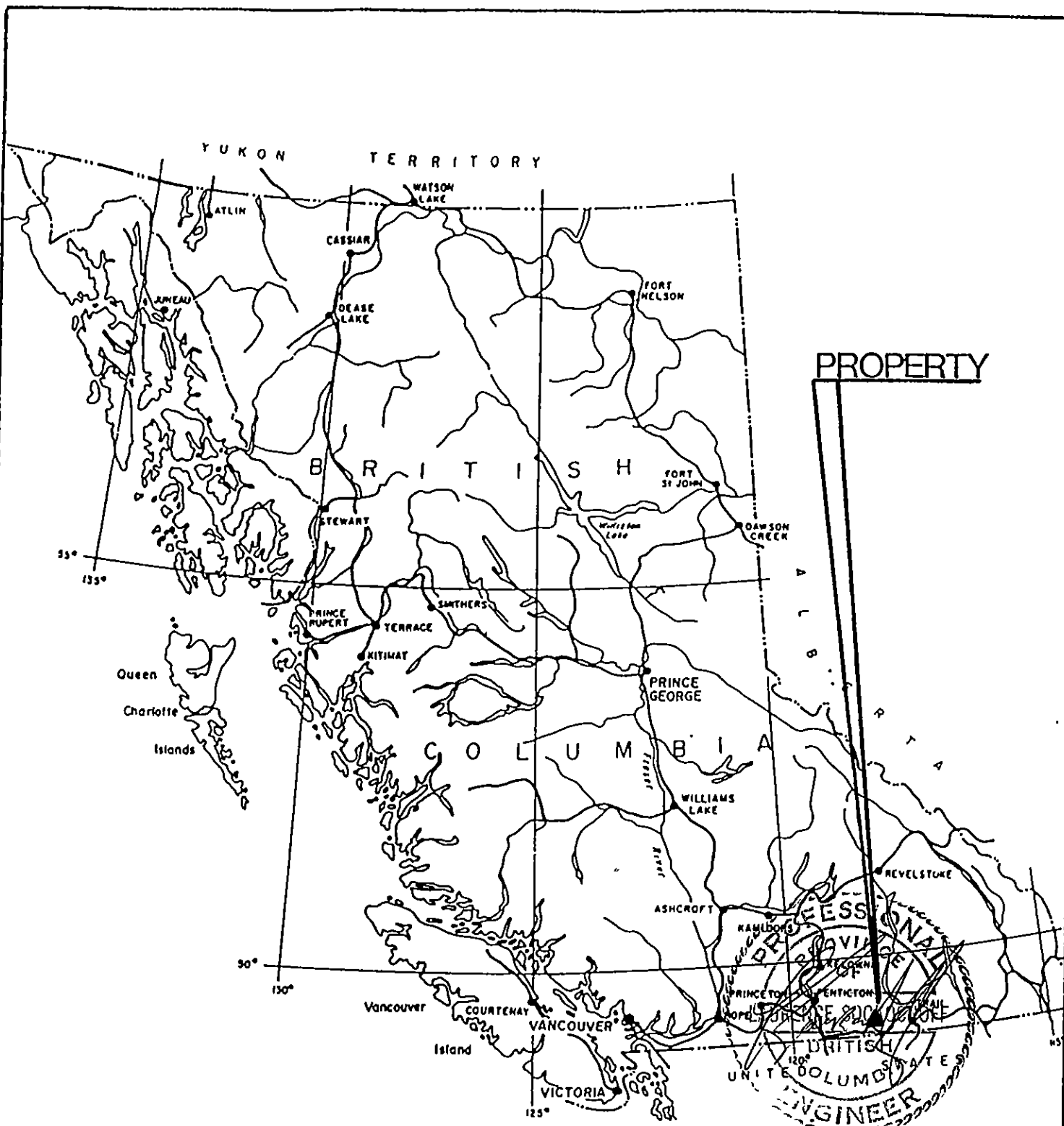


FIGURE 1

SOOKOCHOFF CONSULTANTS INC.			
CONSOLIDATED BOUNDARY: EXPLORATION LTD. PROPERTY LOCATION MAP CROWN GROUP			
<p>0 100 200 300 MILES 0 100 200 300 KILOMETRES</p>			
N T S 82E/2E		GREENWOOD, M D	
DRAWN	PROJECT	DATE April 1984	FIG 1

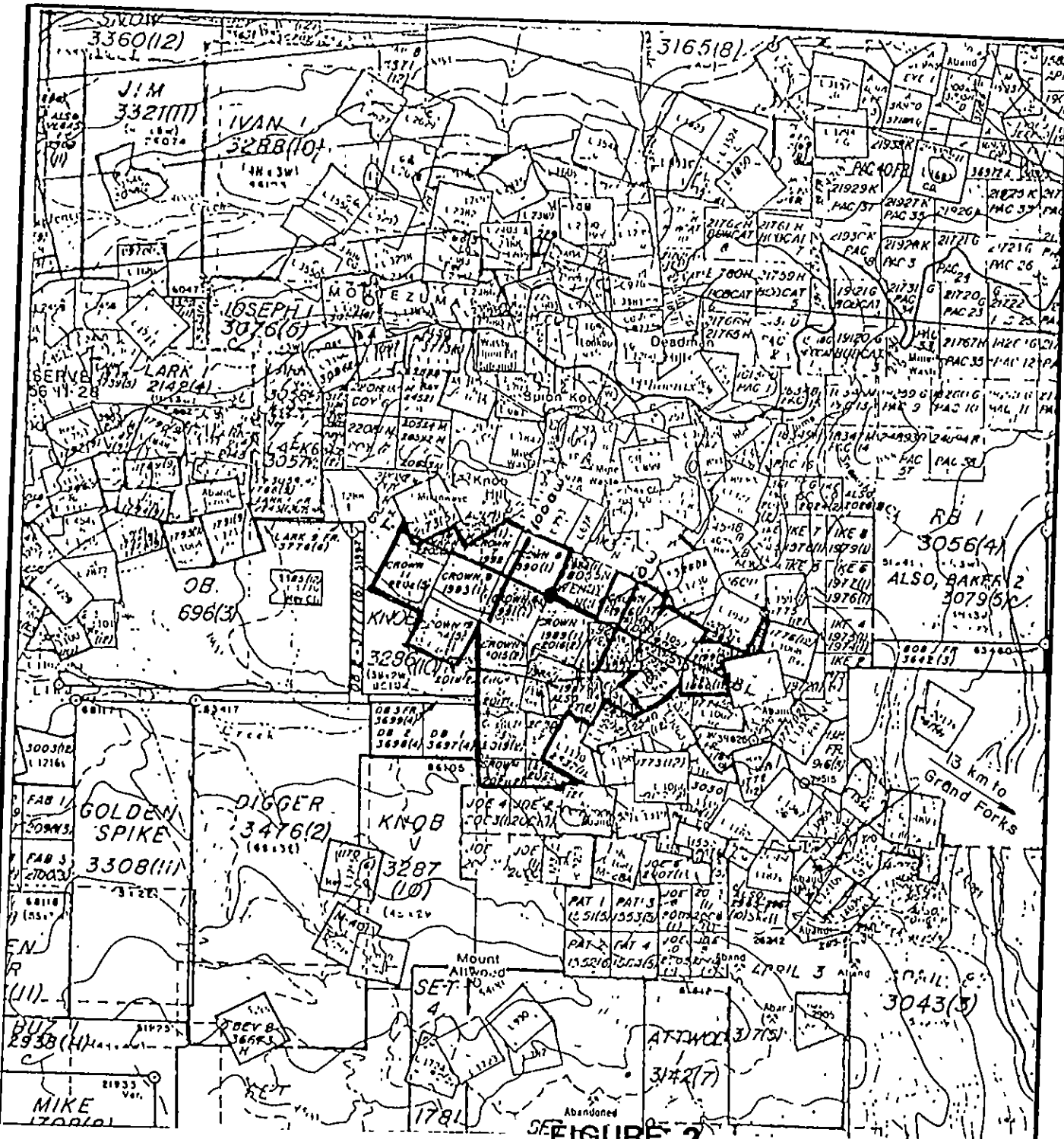


FIGURE 2

SOOKOCHOFF CONSULTANTS INC.

**CONSOLIDATED BOUNDARY
EXPLORATION LTD.**

CROWN GROUP

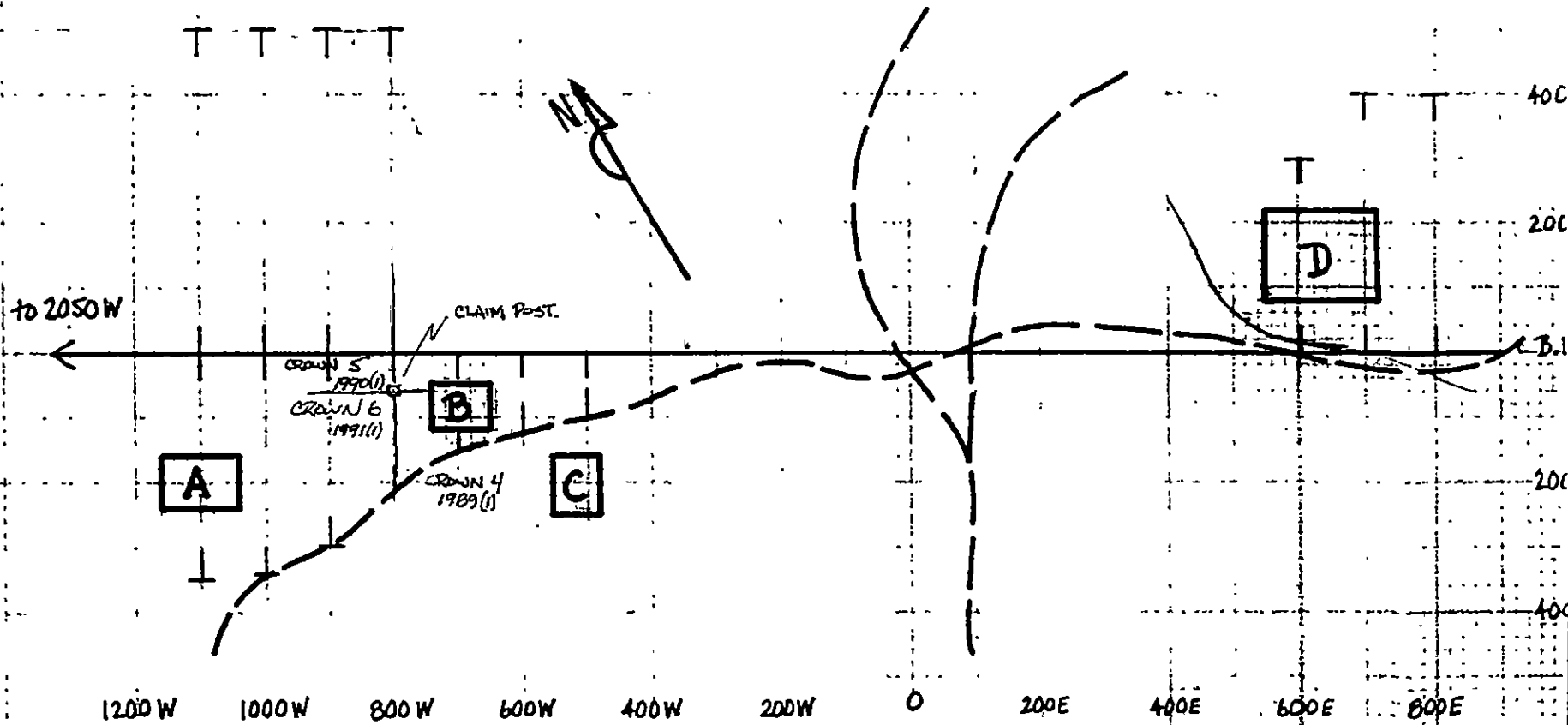
N T S 82E/2E GREENWOOD M D

INDEX & CLAIM MAP

0 500 1000
meters

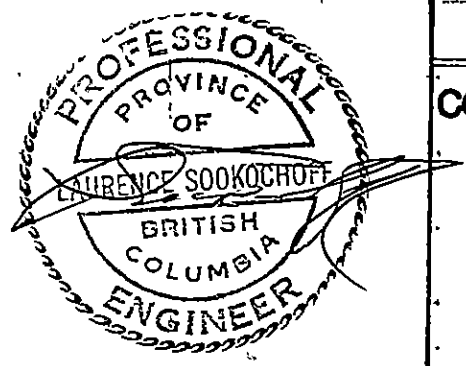
Scale 1:50,000

April 1984



LEGEND

- surveyed lines
- road
- enlarged area



TOTAL NUMBER OF TRENCHES = 8
 TOTAL LENGTH OF TRENCHES = 170M.

SOOKCHOFF CONSULTANTS INC.

CONSOLIDATED BOUNDARY EXPLORATION LTD

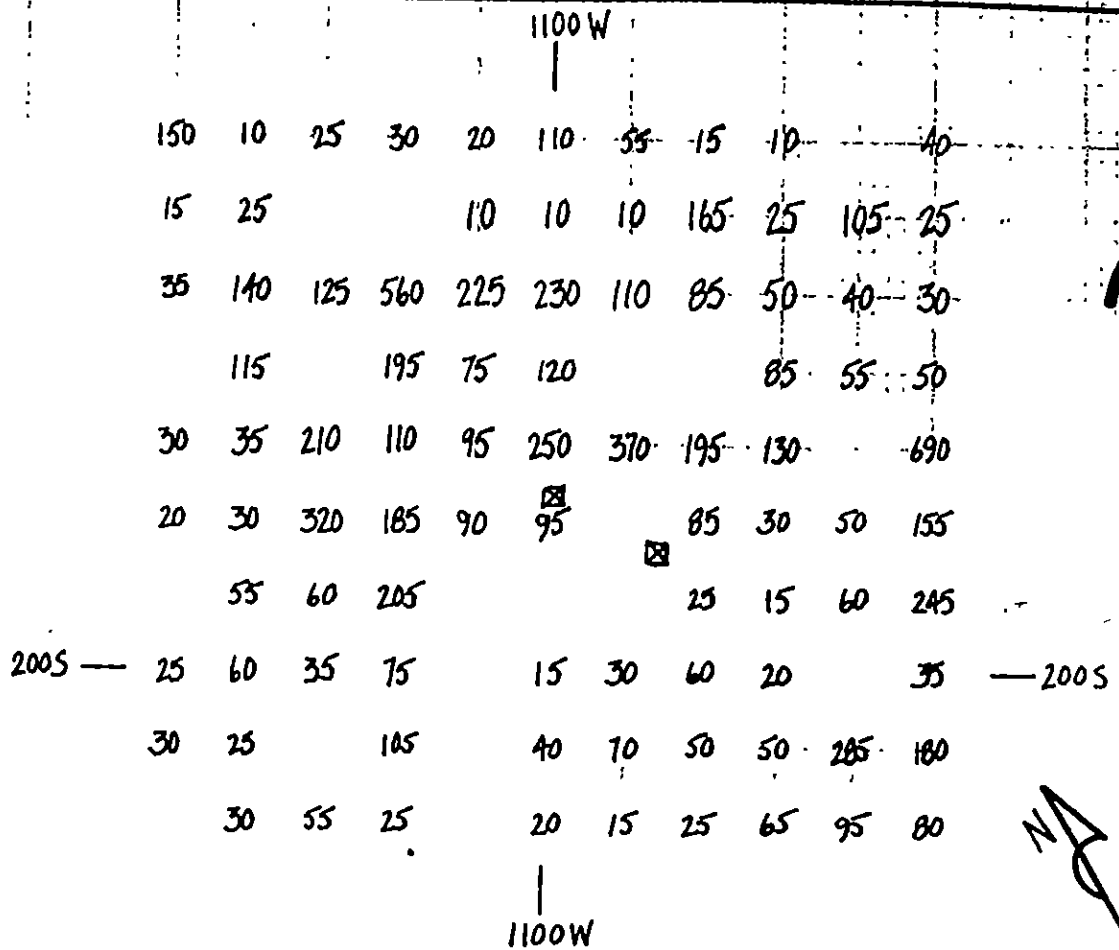
CROWN GROUP

INDEX MAP

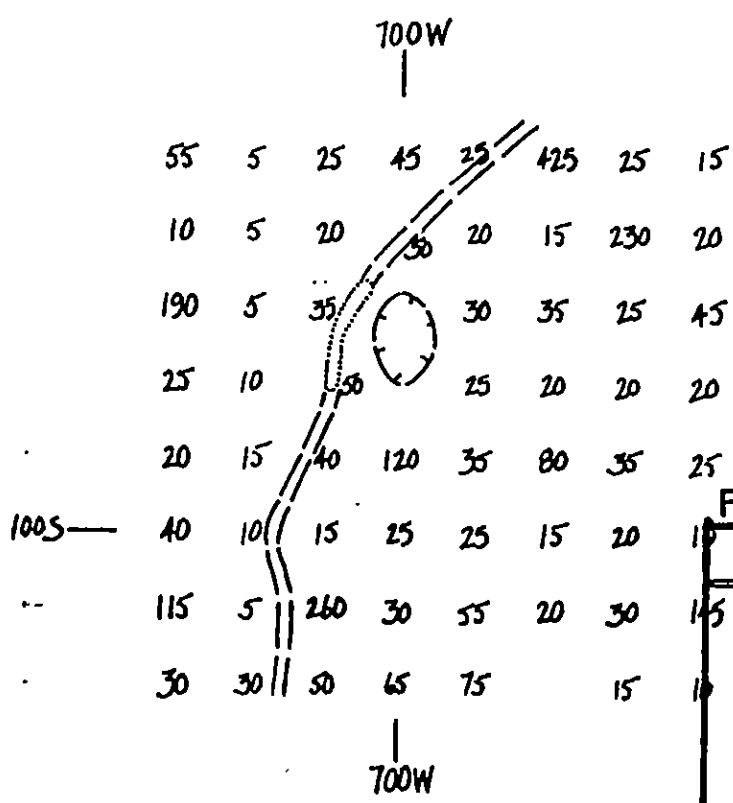
Scale 1:5000

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FIGURE 4



A



B



FIGURE 5

SOOKOCHOFF CONSULTANTS INC.

**CONSOLIDATED BOUNDARY
EXPLORATION LTD.**

CROWN GROUP

DETAIL GEOCHEM & TRENCHING

Scale 1:1000

April 1984

