

GEOLOGICAL, GEOCHEMICAL AND GEOPHYSICAL REPORT

- on the -

CROWN CLAIMS

Kamloops Mining Division

British Columbia

- for -

UNION OIL COMPANY OF CANADA LTD.,

#335 - 8th. Avenue S. W.,

CALGARY, Alberta.

COVERING:	Crown #1 (20 units)	Crown #6 (8 units)
	Crown #2 (20 units)	Crown #7 (18 units)
	Crown #3 (4 units)	Crown #8 (18 units)
	Crown #4 (9 units)	Crown #9 (12 units)
	Crown #5 (20 units)	Crown #10 (2 units)

WORK PERFORMED: May 23 to October 22, 1979.

LOCATION:

- (1). 51°03.5'N; 119°51'W.
- (2). NTS Map 82M12/W.
- (3). 7.5 km. southeast of Birch Island, B.C.

PREPARED BY:

KERR, DAWSON & ASSOCIATES LTD.,
#1-219 Victoria Street,
KAMLOOPS, B. C.

W. Gruenwald,
October 22nd., 1979.

MINERAL TECHNOLOGY DIVISION
ANNUAL REPORT
7503
NO. _____

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INTRODUCTION

The Crown claims were staked in late 1978 and early 1979 to cover an area 3 to 4 km. east of the Rexspar uranium deposit and 2.5 km. north of the Harper Creek copper deposit. The property is situated along the south flank of the North Thompson River between Birch Island and Vavenby, B. C.

From the period May 23 to June 7, 1979, the writer, two assistants and a geologist carried out geological, geochemical and geophysical surveys. The purpose of these surveys was to establish whether the claim area has any potential for hosting uranium and/or massive sulphide mineralization.

An airborne geophysical survey was flown in early May, 1979, the results of which were filed under a separate report by D. C. Fraser of Dighem Ltd. A brief discussion of the airborne work is included in this report.

SUMMARY AND CONCLUSIONS

- (1). The Crown claims comprised of 10 contiguous metric claims (131 units) are situated along the south flank of the North Thompson River valley between Birch Island and Vavenby, B. C. The claims are situated in the Kamloops Mining Division on NTS Sheet 82M/12W.

- (2). The claims are underlain by a thick sequence of phyllites and schists (metasediments) and chloritic metavolcanics thought to be part of the Eagle Bay Formation. The Rexspar uranium deposit in trachytes is found 3-4 km. to the west of the Crown claims while the Harper Creek copper deposit in phyllites and schists is found 2-3 km. south of the claims.

Fragmental metavolcanics west of Baker Creek suggest the proximity to a volcanic vent (?) in a thick volcanic pile of andesitic and underlying felsic (rhyolitic) volcanics. This volcanic environment could possibly host a massive sulphide deposit. Baker Creek appears to be the site of a north-south trending fault.

Trachyte float occurrences are found in the west and northwest corner of the Crown #1 claim. These occurrences may be glacially derived from the Rexspar and Bullion deposits and other possible trachytic horizons not yet identified on the Crown claims.

- (3). Geochemical surveys indicated a number of base metal (Cu, Pb, Zn, Mo) anomalies in the metavolcanic terrain west of Baker Creek. No significant geochemical anomalies were found over the metasediments to the east of Baker Creek.
- (4). The radiometric survey indicated that the metasediments (east of Baker Creek) are radiometrically more active than the metavolcanics (west of Baker Creek). The radiometric survey in the northwest corner of the Crown claims detected a number of buried radioactive trachytic float occurrences and also suggests that a radioactive trachytic horizon may underlie a portion of the area.

- (5). The airborne geophysical survey outlined a number of targets in the Crown #1 claim that have some co-occurrence with geochemical anomalies and may therefore indicate the possible presence of base metal mineralization.

PROPERTY

The Crown property consists of nine contiguous metric claims totalling 131 units as follows:

Crown West Group:

<u>Claim Name</u>	<u>Tag No.</u>	<u>Record Number</u>	<u>No. of Units</u>	<u>Record Date</u>	<u>Expiry Date</u>
Crown #1	43871	1344(8)	20	Aug.14,1978	Aug.14,1979
Crown #6	43879	1349(8)	8	Aug.14,1978	Aug.14,1979
Crown #9	45373	1885(5)	12	May 30,1979	May 30,1980
			40		
			units		

Crown Central Group:

Crown #2	43872	1345(8)	20	Aug.14,1978	Aug.14,1979
Crown #7	45371	1883(5)	18	May 30,1979	May 30,1980
			38		
			units		

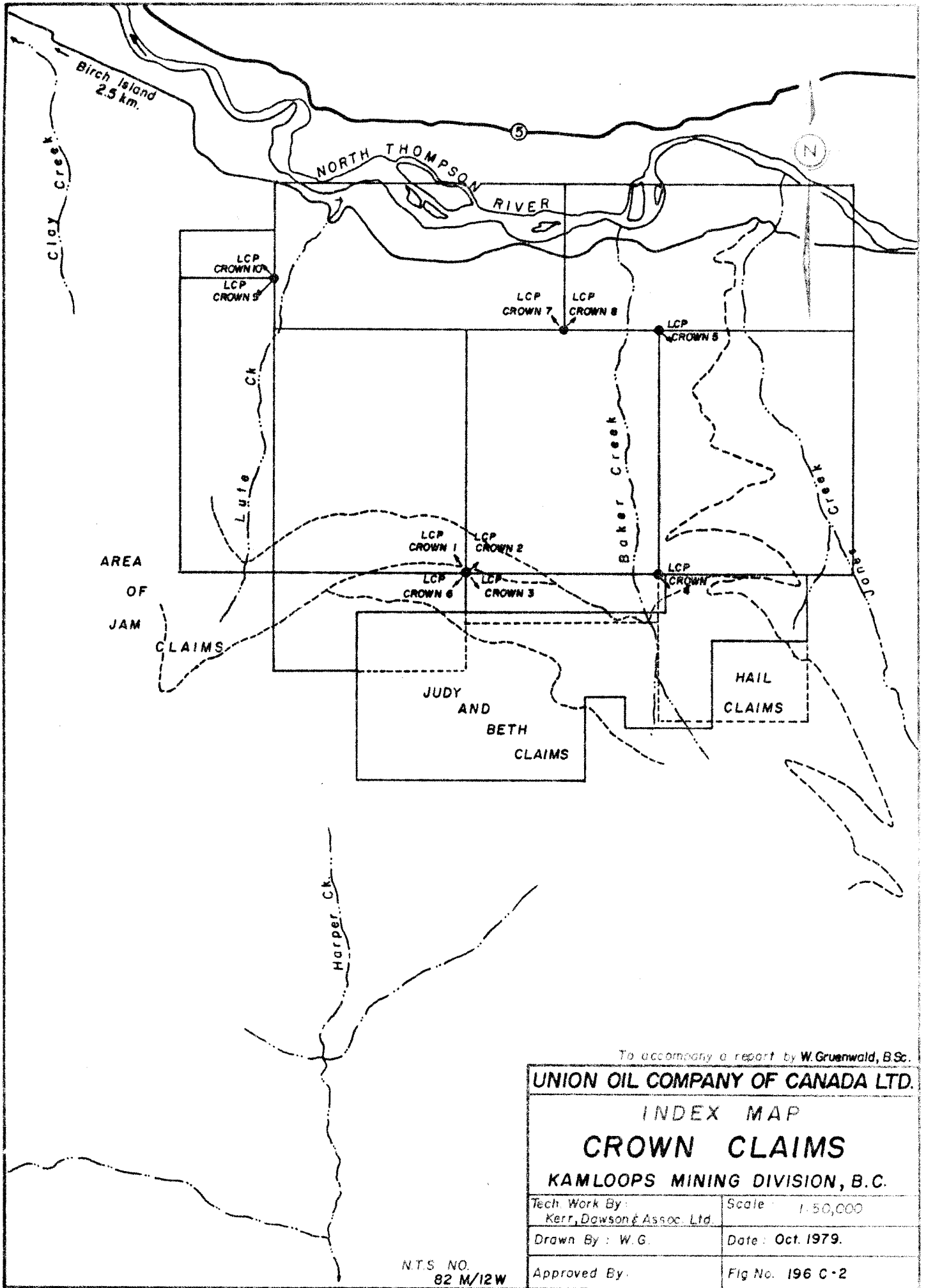
Crown East Group:

Crown #5	43875	1348(8)	20	Aug.14,1978	Aug.14,1979
Crown #8	45372	1884(5)	18	May 30,1979	May 30,1980
			38		
			units		

Ungrouped Claims:

Crown #3	43876	1346(8)	4	Aug.14,1978	Aug.14,1979
Crown #4	43877	1347(8)	9	Aug.14,1978	Aug.14,1979
Crown #10	01823	2158(10)	2	Oct. 2,1979	Oct. 4,1980

The registered owner of the Crown claims is Union Oil Company of Canada Ltd.



To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA LTD.

INDEX MAP

CROWN CLAIMS

KAMLOOPS MINING DIVISION, B.C.

Tech. Work By: Kerr, Dawson & Assoc. Ltd.	Scale: 1:50,000
Drawn By: W.G.	Date: Oct. 1979.
Approved By:	Fig No. 196 C-2

NTS NO.
82 M/12W

LOCATION AND ACCESS

The Crown property is situated in south central British Columbia approximately 7.5 km. southeast of the village of Birch Island, B. C. Geographic co-ordinates for the approximate center of the claims are $51^{\circ}03.5'$ north latitude and $119^{\circ}51'$ west longitude on NTS sheet 82M/12 West.

The claims are accessible from Birch Island via approximately 25 km. of good paved and gravel roads. Logging roads and skid trails provide access to much of the southern portion of the claims. No roads exist between these "upper" roads and the North Thompson valley.

PHYSIOGRAPHY AND VEGETATION

The Crown claims are situated on a moderately steep north facing slope immediately south of the North Thompson River. Two major creeks, namely Lute and Jones Creek mark the approximate western and eastern claim boundaries respectively. Baker Creek and numerous small creeks and seepages are found in the south and central portions of the claim block.

The total relief over the Crown claims is approximately 1,200 meters from the North Thompson River to the highest southern boundary near the head of Harper Creek.

Extensive logging has been done on Crown #6, Crown #3, the southern portions of Crown #1 and #2 as well as the area covering the Harper Creek deposit to the immediate south of the claim block.

Vegetation over the claim block consists of mature to immature stands of cedar, fir, pine, spruce, and balsam along with minor birch, poplar, and alder.

Spruce and balsam generally predominate in the uppermost areas of the claims; however, cedar and fir show a marked increase with decreasing elevation. Lower slopes that are well drained are nearly exclusively covered by jack pine. Thick underbrush is found in most creek valleys along with abundant cedar growth.

HISTORY

The claim area, especially that to the west, received considerable attention in the early 1950's when uranium was discovered at the Rexspar deposit along Foghorn Creek, 4 km. to the west. Work over the region then consisted of mapping, sampling, and airborne scintillometer work.

The northwest corner of the claim group contains the Bullion showing, a small uraniferous occurrence in trachytes similar to the Rexspar deposit. Work over this area consisted of sampling, mapping, trenching, drilling and underground work. Work on the Bullion showing was recorded up to the early 1970's.

During the mid 1960's, geochemical reconnaissance work delineated anomalous copper values at the headwaters of Baker Creek and the northeast fork of Harper Creek. This work resulted in staking, much of which covered the present claim area. Grids were established, followed by geochemical sampling, mapping, and geophysical surveys. Drilling in the late 1960's and early 1970's,

delineated a large low grade copper deposit that is situated within 2-3 km. of the southern boundary of the Crown claims. The Harper Creek deposit is presently owned by Noranda Exploration Company and Quebec Cartier Mining Company.

No recent work has been done on the Crown claim area except for that done in the 1979 field season.

GEOLOGY

On a regional scale the Crown claims are shown to be situated near the western flank of the Shuswap Metamorphic Complex (G.S.C. Map 48-1963). Located north and south of the claims are two granitic batholiths of Mesozoic age known as the Raft and Baldy Batholiths respectively.

The claim area is mapped as several units comprised of phyllites, limestone, sericitic quartzites, greenstones, chloritic schists and volcanic agglomerates. These rocks comprise much of what is termed as the Eagle Bay Formation.

On a local scale the Crown claim geology can be subdivided into two primary rock units and a trachytic subunit [+float(?)] occurrences.

UNIT #1 (See Geological Plan 196 C-3).

These rocks comprising probably the oldest rocks on the property are found principally east of Baker Creek and to the south of the claim group

in the area of the Harper Creek deposit. The rocks consist of fine grained brown, pale green, light to dark gray, locally graphitic, well foliated quartz sericite phyllites and schists (referred to as metasediments). These rocks are commonly pyritic showing small well developed pyrite cubes that appear to have grown across the foliation planes.

Locally the phyllites contain lenses of calcareous phyllite and argillite (?) especially south of the baseline on L-45E. Small bands of chloritic metavolcanics that may have originally been andesitic flows(?) are found in rock exposures 650 meters south of L-45E, 10S. Small quartz veinlets and "sweats" of milky quartz are found throughout much of the metasedimentary sequence.

The foliation attitude of the metasediments generally strikes east-southeast and dips from 25° to 50° to the north (nearly parallel to the topography).

The metasedimentary unit ends very abruptly at Baker Creek suggesting that Baker Creek may represent

a north-south fault. Sulphides in the form of disseminated pyrite is by far the most common mineralization found in the metasediments (seldom > 2%). Minor disseminated chalcopyrite and pyrite in quartz-sericite phyllite were found in an outcrop 400 meters south of post 3^S 3^E of the Crown #4 claim. This area, however, is on claims owned by the Noranda Exploration Company.

UNIT #2 (See Geological Plan 196 C-3).

This sequence of rocks termed "metavolcanics" are thought to be younger than the metasediments of Unit #1; however, they may simply be a stratigraphically higher unit of the Eagle Bay Formation. The rocks of this unit consist of fine grained, pale to dark green, massive to schistose chloritic metavolcanics that may have originally been andesitic flows and/or tuffs. Locally these rocks show remnant mafic porphyritic textures and in some areas show "quartz eye" textures. In several areas metavolcanic boulders (ie. southern portion of Crown #2 claim; L27+50^E to L30^E) were observed to contain fragments (5-20 cm) of felsic

(rhyolitic) and intermediate (andesitic) volcanics. This would seem to suggest possibly the proximity to a volcanic vent and underlying felsic volcanics.

In other areas in the north and central portions of Crown #1 and #2 are abundant and often very large (up to 4 cm) boulders of often weakly schistose metavolcanics that exhibit a fragmental texture with clasts from 2 to 20 cm across. In some boulders the fragments appear stretched suggesting fragment deformation may have resulted from regional metamorphism. True felsic fragments were not observed in the boulders in the central and northern portions of Crown #1 and #2.

Situated in the southern portion of the Crown #1 claim are several west-northwest trending parallel "wedges" of gray to black, locally rusty and/or carbonaceous phyllites that appear to be intercalated in the metavolcanic sequence. At least one co-incident lead-zinc-copper anomaly is found over a graphitic zone of one of these metasedimentary wedges.

Several areas were observed to contain very large milky white, rusty quartz veins cutting metavolcanics (i.e. L15^E; Baseline and L30^E; 3^S). Some of these veins, especially in the L15^E area were traced for over 100 meters and found to have a near vertical dip. The veins are devoid of any mineralization except for very minor pyrite which is often altered to limonite.

Schistosity or foliation attitudes of the Unit #2 rocks generally strike from east-west to east-southeast and dip northerly at 15° to 40°.

TRACHYTIC SUBUNIT + FLOAT (?) OCCURRENCES

Radioactive trachytic float was first encountered during the course of the radiometric survey on L-7+50^E; 9+50^N. This occurrence consisted of at least four angular to subangular boulders of medium grained feldspar porphyritic trachyte. The trachyte contains approximately 2-5% disseminated pyrite and was found to be highly radioactive and anomalous in molybdenum, uranium and thorium. These rocks occur on metavolcanic terrain and are therefore thought to be glacially transported from the Rexspar uranium deposit located 3 to 4 km. west of here

at approximately the same topographic elevation. A source between here and Rexspar cannot, however, be ruled out.

Subsequent exploration of the lower portions of L-7 + 50^E; 5^E and 2+50^E resulted in the discovery of at least six areas of surface or near surface radioactive trachyte boulders. Some boulders uncovered are dark colored and micaceous - distinctly different from the first discovery; however, all are quite radioactive.

An adit found immediately west of the north end of L-0^E near the mouth of Lute Creek is the site of the Bullion showing, a radioactive zone in trachyte and recrystallized carbonates. The Bullion showing would appear to be covered by the Crown #1, #9, and #10 claims.

Mineralization observed on the Bullion showing consists of disseminated pyrite, minor galena, chalcopyrite and uranium-thorium minerals. The Bullion showing may be the source of several of the "lower" trachyte float (?) occurrences in the northwest corner of the Crown #1 claim.

An interesting roadside exposure (3x3m) of weakly bedded recrystallized calcareous sediment was observed immediately east of the north end of L-10^E. The occurrence is mineralized by pyrite, galena, and minor sphalerite. In places the occurrence is rusty and contains a high concentration of dark brown to black manganese(?) rich decayed rock that returned a geochemical assay of 11 ppm uranium. A rock sample of the carbonate yielded highly anomalous levels of molybdenum (32 ppm) and lead (1.35%).

The above occurrence is thought to be a suboutcrop of rock that is very similar to the Bullion showing area. This would seem to suggest that the area between here and the Bullion showing could have good exploration potential since the two showings are over 1,000 meters apart.

GEOCHEMISTRY

During May, 1979, a blazed and flagged grid totalling 79.97 kilometers was established over much of the Crown claims. The 21 north-south lines were spaced at 250 meters with stations marked at 50 meter intervals.

Soil samples were collected at 100 meter intervals, when possible along with silt and water samples where creeks or seepages were encountered. A total of 765 soils (+silts), 93 water and 26 rock samples were collected and analyzed. Soil samples were collected from the "B" horizon (25-40 cm deep) when possible, while silts were taken from the finer grained portion of the active portion of a stream or seepage.

All samples were marked by the appropriate grid co-ordinates and stored in waterproof kraft envelopes. The samples were then shipped to the Min-En Laboratory in Vancouver for analysis. Soils and silts were then dried and sieved with a minus 80 mesh fraction being used (rocks were ground to -80 mesh).

The extraction method used for molybdenum, copper, lead and zinc was hot nitric acid while uranium (and thorium in rocks) was extracted using hot nitric and perchloric acid. Analysis for uranium and thorium in rocks was done using fluorimetry and spectrophotometry respectively. Uranium analysis for waters was by fluorimetry. The remainder of the above elements (Mo, Cu, Pb, Zn) were analyzed by atomic absorption.

The results for molybdenum, copper, lead, zinc, uranium and thorium in soils and rocks were stated in parts per million (ppm). Uranium in water was stated in parts per billion (ppb).

All values were plotted on base maps at a scale of 1:10,000 or 1 cm=100m (see figure no's. 196 C-4 to 196 C-9A). Only the probably and definitely anomalous categories were contoured on the geochemical plans.

The following represents all of the statistical data for the soil and water geochemistry:

CROWN CLAIM STATISTICAL ANALYSES

Molybdenum (Mo) n = 765 (soils and silts)

\bar{x} = 2.11 ppm Mo

\bar{s} = 1.49 ppm Mo

Negative < 2.11 ppm

Possibly Anom. 2.12 → 3.60 ppm

Probably Anom. 3.61 → 5.09 ppm

Definitely Anom. > 5.09 ppm.

Copper (Cu) n = 765 (soils +silts)

\bar{x} = 25.51 ppm

\bar{s} = 46.45 ppm

Negative < 25.51 ppm

Possibly Anom. 25.52 → 71.97 ppm

Probably Anom. 71.98 → 118.42 ppm

Definitely Anom. > 118.42 ppm

Lead (pb) n = 763 (omitted extreme highs 895 & 5,350 ppm)

\bar{x} = 29.11 ppm

\bar{s} = 30.32 ppm

Negative < 29.11 ppm

Possibly Anom. 29.11 → 59.43 ppm

Probably Anom. 59.44 → 89.75 ppm

Definitely Anom. > 89.75 ppm

CROWN CLAIM STATISTICAL ANALYSES (cont'd)

Zinc (Zn) n = 763 (omitted highs of 1,880 & 1,570)

\bar{x} = 94.70 ppm

\bar{s} = 63.35 ppm

Negative 94.70 ppm

Possibly Anom. 94.71 → 158.05 ppm

Probably Anom. 158.06 → 284.1 ppm

Definitely Anom. > 284.1 ppm

Uranium (U) n = 765 (soils and silts)

(Soils & Silts) \bar{x} = 1.70 ppm

\bar{s} = 0.95 ppm

Negative < 1.70 ppm

Possibly Anom. 1.71 → 2.65 ppm

Probably Anom. 2.65 → 3.60 ppm

Definitely Anom. > 3.60 ppm

Uranium (U) n = 93

(Waters) \bar{x} = 0.42 ppb

\bar{s} = 0.60 ppb

Negative < 0.42 ppb

Possibly Anom. 0.43 → 1.02 ppb

Probably Anom. 1.03 → 1.62 ppb

Definitely Anom. > 1.62 ppb

The following is a discussion of the geochemical anomalies for each element with reference to location, size, range of values (upper limit), co-occurrence with other geochemical anomalies and geological setting.

MOLYBDENUM (Mo) (Figure No. 196 C-4).

- (i). - L-0; 18+00N (Crown #1 claim)
 - 3.6 to 26 ppm (highest molybdenum value on Crown claims).
 - co-occurs with radiometric anomaly as well as a uranium soil anomaly.
- (ii). - L-27 + 50^E and L-30^E (NW corner of Crown #2)
 - values up to 6 ppm Mo.
 - no co-occurrence with any other metal.
- (iii). - Baseline 10^E area (south boundary of Crown #1 claim).
 - small one and two sample anomalies.
 - up to 15 ppm.
 - in area of graphitic (?) phyllite.
 - co-occurs with Cu, Zn, Pb, and U anomalies.
- (iv). - Many other anomalies east and west of Baker Creek (many are one sample anomalies).

Anomalies are found over all rock types and in one case (L-0; 18^N) over an area of high radioactivity and suspected (buried) trachyte.

COPPER (Cu) (Figure No. 196 C-5).

- * All anomalies are west of L-20^E and mainly in the Crown #1 claim.
- (i). - L-5^E - 7 +50^E; 18^N to 21^N (largest anomaly) (Crown #1)
- values up to 465 ppm
 - co-incident with a lead anomaly [see Lead (i)]
 - co-incident with a zinc anomaly [see Zinc (i)]
- (ii). - L-10^E; 11^N - 14^N (Crown #1)
- two samples, values up to 443 ppm Cu.
 - is co-incident with a uranium anomaly [see Uranium (iv)]
- (iii). - Baseline 10^E to 12^E area (southern border of Crown #1)
- three samples up to 920 ppm Cu.
 - co-incident Mo, Pb, Zn, and U anomalies
 - in area of graphitic (?) phyllite.
- (iv). - eight other one sample anomalies in the Crown #1 area
- maximum values of 225 ppm Cu.

All anomalies except for that at Baseline 10^E area (graphitic?phyllites) are found over metavolcanic terrain.

LEAD (Pb) (See Figure No. 196 C-6).

- * Geochemical anomalies predominantly
 in the Crown #1 claim (L-0^E - L-15^E).
- (i). - L-5^E - 7+50^E; 19^N to 21^N
 - four values, maximum 895 ppm Pb.
 - partially co-incident with copper
 anomaly [See Copper (i)]
- (ii). - L-10^E - L-15^E; 1^N to 4^N
 - six values, maximum 505 ppm Pb
 - definite co-incident with zinc anomaly
 [see Zinc (iii)]
- (iii). - Baseline 10^E area
 - several very high values, 295 and 5,350 ppm
 - co-incident with Cu, Zn, Mo, and U.
 - corresponds to graphitic (?) phyllite in
 this area.
- (iv). - 13 other anomalies - most are one sample
 anomalies
 - maximum value to 281 ppm Pb.

All anomalies except for that at Baseline 10^E area
 (graphitic (?) phyllites) are found over metavolcanic
 terrain.

ZINC (Zn) (See Figure No. 196 C-7).

Geochemical anomalies primarily in western portion of claim block - anomalies are much broader probably due to zinc's greater mobility.

- *
(i). - L-5^E to 7 + 50^E; 18^N to 22^N (Crown #1)
 - eight samples, maximum 815 ppm Zn.
 - co-incident Pb and Cu anomalies
 [see Lead (i), Copper (i)]
- (ii). - L-7 + 50^E to 15^E; 12 + 50^N to 17^N (Crown #1)
 - 13 samples, maximum value to 358 ppm Zn.
 - a one sample co-incident Pb anomaly
 @ L=10^E; 17^N
- (iii). - L-10^E to 15^E; 0 to 4^N (Crown #1)
 - seven samples, maximum 390 ppm Zn.
 - definite co-incident with lead anomaly
 [see Lead (ii)]
 - one sample co-incident Mo anomaly at
 L-15^E; 2 + 70^N.
- (iv). - L-5^E to 10^E; 26^N to 30^N (Crown #7)
 - six samples, maximum 375 ppm Zn.
 - a one sample co-incident Pb anomaly at
 L-5^E; 29 + 50^N.
 - a one sample co-incident Cu anomaly at
 L-5^E; 30^N.
 - no co-incident Mo or U.

- (v). - Baseline 8^E to 12^E . (south boundary Crown (1)).
 - four samples, maximum 1,570 ppm Zn.
 - co-incident Pb, Cu, Mo and U anomalies.
 - in area of graphitic (?) phyllite.
- (vi). - L-22 + 50^E to L-25 E . (Crown #2)
 - five samples, maximum 215 ppm Zn.
 - no co-incident with other metals.
- (vii). - 15 to 20 other lesser one and two sample anomalies only four of which are in the definitely anomalous category.
 - lesser anomaly co-incident at:
- | | |
|----------------------|-------------------|
| L-0 E - 33 N | Pb-Zn co-incident |
| L-0 E - 15 N | Pb-Zn co-incident |
| L-0 E - 18 N | Pb-Zn co-incident |
| L-2+50 E -19 N | Pb-Zn co-incident |
| L-5 E - 4 N | Pb-Zn co-incident |
| L-15 E - 8 N | Pb-Zn co-incident |
| L-17+50 E to | |
| L-20 E -4 N | Pb-Zn co-incident |

All anomalies except for that at baseline 10^E area (graphitic(?) phyllites) are found over metavolcanic terrain.

URANIUM (U) (See Figure 196 C-8).

All anomalous uranium values are located west of Baker Creek

- of the 27 anomalies, 18 are one sample anomalies.
 - the bulk of the anomalies lie in a west-southwest trending belt extending from Baker Creek (4 to 10^N) to L-0^E & 5^E; 3^N to 5^S.
 - the following are uranium anomalies that are co-incident with other metals.
- (i). Baseline 10^E area, co-incident Cu, Pb, Zn, Mo anomalies.
 - (ii). L-5^E; 3 + 50^S & 4 + 50^S co-incident Cu anomalies.
 - (iii). L-10^E; 9^N to 10^N - co-incident (one sample) Cu anomaly.
 - (iv). L-10^E 12^N to 14^N - co-incident (two sample) Cu anomaly.
 - (v). L-12 + 50^E; 2^N - co-incident (one sample) Cu anomaly.
 - (vi). L-15^E; 15^N - co-incident (one sample) Cu anomaly.
 - (vii). L-0^E; 18^N, 26^N, 32-33^N - co-incident Mo anomalies.

- (viii). Baseline 23^E to 27 + 50^E area,
co-incident Mo anomaly.

Most uranium anomalies are situated in metavolcanic terrain with the exception of the baseline 10^E to 12 + 50^E area (graphitic(?) phyllites). Several anomalies in the northwest corner of Crown #1 are over known or suspected areas of radioactive trachyte float (?) (ie. L-0; 18^N, L-5^E, 21 + 50^N & 28^N).

URANIUM IN WATERS (See Figure No. 196 C-9).

- all definitely anomalous values are indicated east of Baker Creek which may be suspect since no uranium soil anomalies exist in this area.
- range in values from 0.1 to 3.4 ppb uranium.

Rock geochemical sites were plotted on the geological plan (Figure 196 C-3) while both locations and geochemical assays are plotted on a separate base map (Figure No. 196 C-9A). Descriptions for these rock samples are found in appendix B of this report. The following table categorizes the geochemical values versus the three main rock types encountered on the Crown claims.

	<u>Mean Value (\bar{x}) in ppm</u>					
	<u>Mo</u>	<u>Cu</u>	<u>Pb</u>	<u>Zn</u>	<u>U</u>	<u>Th</u>
Metavolcanics	1.37	20.7	10.3	35.4	1.2	- -
Metasediments	2.81	30.2	44.7	60	1.2	- -
Trachytic Rocks	16.71	35.4	91.1	82	8.3	135.8

From this table, it can be seen that the metavolcanic rocks are the most deficient in all the above metals while the trachytic rocks are especially anomalous in molybdenum, uranium, and thorium. The metasediment values are generally double the metavolcanics except for uranium which is the same as the metasediments.

RADIOMETRICS

A radiometric survey was carried out simultaneously with the geochemical and geological surveys. The survey was performed using a Urtec UG 135 digital display spectrometer. Readings were taken at 50 meter intervals along all established grid lines and recorded along with the appropriate co-ordinates. The total count, uranium and thorium channels were used and readings were expressed in counts per second (cps) (using a 10 second measuring interval).

All radiometric values were plotted on base maps at a scale of 1:10,000 (See Figure No's. 196 C-10 and C-11). Total count values over 100 counts per second (cps) were considered anomalous and contoured while uranium-thorium values greater than 0.6 cps were designated by symbols.

Upon inspection of the total count values (Figure 196 C-10) a very definite pattern can be discerned. Anomalous total count values extend from the entire area east of Baker Creek and then arc to the

west parallel to the North Thompson River valley. Few anomalous values are found south of 22^N in the region west of Baker Creek.

The area along and east of Baker Creek corresponds to the thick succession of metasediments which have been geochemically shown to contain more uranium than the metavolcanics to the west. The anomalous values (≥ 100 cps) in the Baker Creek valley may be interpreted as a "depression mass effect" (ie. values in a pit or canyon would be greater than those on surface).

The sudden cutoff of anomalous radiometric values at Baker Creek suggests that the metasediments suddenly give way to the metavolcanics. This supports the idea of Baker Creek being the site of a roughly north-south fault.

Upon reaching tie line 25^N, the radiometric response becomes less anomalous and forms a broad east-west zone that probably marks the fluvioglacial till of the North Thompson River. The often silty to clayey "sediments" have been observed on old road cuts and found to be moderately radioactive. Part of this radioactivity

is probably due to clay minerals rich in potassium (K-40) and possible accumulation of uranium ions in clays from groundwater movement.

The northwest corner of the claim block (south and east of the Bullion showing) exhibits anomalous total count values that may be due to trachytic float in overburden and/or radioactive trachytic bedrock of the type observed at the Rexspar and Bullion deposits.

At least two areas on L-7 + 50^E show anomalous total count values that are directly related to near surface boulders of radioactive trachyte that appears to be very similar to that observed at the Rexspar deposit. At least two other anomalies on L-0 and 2+50^E are suspected of being over buried radioactive trachytic boulders. The bulk of Crown #1, #2, #3, and #6 claims exhibited only background radiation.

Uranium and thorium readings are not as well defined as the total count values with possibly and definitely anomalous values being scattered over the entire property. Many of the anomalous readings do, however, fall within the anomalous areas discussed above especially

along Baker Creek, the northwest corner of the claims and over known and suspected boulders and/or suboutcrops of trachyte in the west central part of the Crown #1 claim.

AIRBORNE GEOPHYSICAL SURVEY

A detailed discussion of the results of an airborne survey flown over the Crown claims in May, 1979, is given in a report dated June 20, 1979, and submitted by Dighem Limited. The following is a brief discussion of the airborne survey, its results and the relationship of geophysical anomalies to the results of ground surveys outlined in the writer's report.

The airborne survey totalling 180 line kilometers measured the electro-magnetic, resistivity, and magnetic properties over the Crown claims. The Dighem report outlined 12 groups of anomalies, the breakdown of which are as follows:

- GROUP 1 Test flight anomaly outside of claims.
- GROUP 2 L-0 to L-5+00^E; 15^N
- this is a moderately conductive area with little magnetic expression and is flanked to the north and northeast (downhill) by a co-incident zinc, copper, lead, geochemical anomaly [see Geochemistry-Copper (i)]
 - metavolcanic terrain

GROUP 3 L-10^E to 15^E; 22 to 26^N

- a low conductance anomaly that may reflect a weak bedrock conductor, occurs on the blanks of a magnetic feature.
- is situated on the east flank of a zinc anomaly [see Zinc Geochemistry (iv)]
- metavolcanic terrain, a few outcrops noted.

GROUP 4,5,6

- no geochemical anomalies noted near these geophysical anomalies.

GROUP 7 L-7 + 50^E - 10^E; 2 to 4^S

- moderately high conductance anomaly with slight magnetic co-incidence in the southern part.
- thought to be a flat dipping structure.
- uranium - copper geochemical anomaly to the west and a copper, zinc, lead anomaly to the northeast.
- area of mixed metavolcanics and metasediments.

GROUP 8 L-12 + 50^E to L-17 + 50^E; 2 to 6^N

- weak conductor, slightly magnetic.
- on the northeast flank of a co-incident copper, zinc, lead anomaly
- metavolcanic terrain with possible intercalated metasediments.

- GROUP 9 L-20 to 25^E; 1^S to 2^N
- weak to moderate conductance, no magnetic response
 - well defined resistivity low
 - molybdenum geochemical anomaly to the northeast
- GROUP 10 L-35^E; B/L 0+00
- low conductance, slightly magnetic
 - weak uranium anomaly 100-200 meters north
- GROUP 11 L-35^E to L-37 + 50^E; 7 to 10^S
- a weak, slightly magnetic conductor
 - no geochemical response in this area
- GROUP 12
- this is a large group of highly conductive anomalies that are all situated east of Baker Creek.
 - interpreted to reflect a large flat dipping conductor exhibiting often very low resistivity
 - little magnetic response
 - no geochemical response in these areas
 - situated in area underlain by exclusively metasedimentary rocks, possibly containing graphitic horizons.

EXPLORATION POTENTIAL AND RECOMMENDATIONS

As a result of the geological, geochemical and geophysical surveys previously discussed, it is evident that several areas of the Crown claims have definite exploration potential. These are as follows:

- (1). The central and southern portions of the Crown #1 (and possibly Crown #2) claims.
 - this area contains several anomalous and co-incident base metal (Cu, Zn, Pb) geochemical anomalies as well as a number of airborne geophysical anomalies.
 - detailed ground geophysical surveys (ie. magnetic and VLF electromagnetic) followed by drilling would seem to be warranted.

- (2). The northwest corner of the Crown claims (Crown #1, #9, and #10).
 - this area was found to contain radioactive trachyte boulders and anomalous radiometric values.
 - the Bullion uranium showing and a similar road exposure at least 1,000 m to the east indicate

a sizable area of exploration potential.

- here again detailed ground surveys followed by drilling would definitely be warranted.

(3). The east central portion of Crown #2 and west central portion of Crown #5 claims.

- the airborne geophysical survey outlined an area of strong conductance east of Baker Creek.

- though not associated with any geochemical anomalies, the area would warrant the drilling of at least one exploratory drill hole.

Respectfully Submitted By:

KERR, DAWSON & ASSOCIATES LTD.,

A circular professional seal of the Geological Association of Canada is stamped over a handwritten signature. The seal contains the text "GEOLOGICAL ASSOCIATION OF CANADA" around the top edge, "W. GRUENWALD" in the center, and "FELLOW" at the bottom. The signature is written in cursive and appears to read "Werner Gruenwald".

Werner Gruenwald, B. Sc.,
GEOLOGIST

October 22, 1979,

KAMLOOPS, B. C.

APPENDIX A

GEOCHEMICAL ASSAY

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

(CROWN)
CLAIMS

ANALYTICAL REPORT

Project _____ Date of report **June 6/79.**
File No. **9-159** Date samples received **May 31/79.**
Samples submitted by: **J. Kerr**
Company: **Kerr Dawson & Assoc.**
Report on: **258 soils** Geochem samples
Assay samples

Copies sent to:

1. **Kerr Dawson & Assoc., Kamloops, B.C.**
2. **Union Oil of Canada, Calgary, Alta.**
3. _____

Samples: Sieved to mesh **- 80** Ground to mesh _____

Prepared samples stored discarded
rejects stored discarded

Methods of analysis: **Mo, Cu, Pb, Zn, nitric, perchloric digestion.**
A.A. Analysis. U-Fluorometric Analysis.

Remarks: **Sample L45E13N was missing.**

SPECIALISTS IN MINERAL ENVIRONMENTS

*MIN-EN Laboratories Ltd.**Specialists in Mineral Environments*

Corner 15th Street and Bowicke
 705 WEST 15TH STREET
 NORTH VANCOUVER, B.C.
 CANADA V7M 1T2

June 6, 1979.

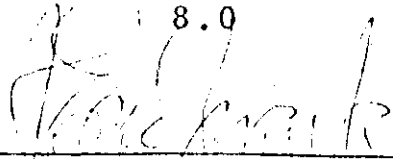
Kerr Dawson & Assoc.,
 #9-219 Victoria St.,
 Kamloops, B.C.

File No: 9-159

Attn: J. Kerr

WATER SAMPLES

<u>Sample Number</u>	<u>U</u> <u>ppb</u>	<u>pH</u>
BL-0+00-3+70E	0.6	7.1
BL-33+30E	0.8	7.9
L42+50E9S	0.6	7.5
L25E1N	1.0	7.4
L25E3S	1.0	7.6
L35E5S	0.8	8.0
L35E9N	0.4	8.0
L35E10+60N	0.6	7.8
L35E16+30N	0.6	7.9
36+50E1S	0.6	7.7
L37+50E4+05S	3.0	8.1
L37+50E6+50N	1.6	8.0
L40E1+00N	2.0	8.0
L40E2N	2.0	8.2
L40E3+20N	1.5	7.9
43+10E6+55N	1.5	8.0
L45E13N	3.4	7.9
L45E5+25S	1.3	7.8
L50E8S	1.3	8.1
L50E10S	1.3	8.0


 Certified By

PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **June 6**

ATTENTION: **J. Kerr**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 960-5314

1979.

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au	U
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
L00+00	2	10	18	41									3.4
1S	1	8	24	36									3.4
2S	2	41	38	80									4.4
3S	3	7	20	28									2.9
L0- 4S	4	18	30	51									2.3
L0+005S	2	24	61	71									3.9
BLO+00													
1E	2	13	22	43									2.9
2+50E	1	13	18	51									4.4
3+50E	1	54	30	79									5.9
5E	1	8	13	32									2.9
BLO+00													
6+50E	1	6	6	14									2.3
BL													
28+50E	2	30	26	101									3.4
30E	1	21	21	63									3.4
31E	2	18	26	110									3.4
32+50E	2	17	34	94									3.9
33+30E	2	19	18	51									3.9
34E	3	26	30	97									4.4
BL 36E	3	27	36	62									3.9
36+50E	2	32	28	64									3.9
L25E													
0+00	4	33	38	65									7.9
1S	3	38	72	79									4.9
1S(S)	2	26	26	50									5.9
2S	2	45	40	77									4.9
3S	3	47	84	148									4.4
4S	2	20	32	82									4.4
L25E5S	2	16	28	57									0.8
L25E2N	1	27	46	131									4.4
L2750E	2	34	20	78									4.4
2S	3	51	48	117									7.9
3S	1	21	20	65									4.4

Handwritten notes and signatures at the bottom right of the page.

PROJECT NO: _____

MIN - EN Laboratories Ltd.

DATE: June 6

ATTENTION: J. Kerr

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE: (604) 430-5314

1979.

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au	U
Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
81	86	90	95	100	105	110	115	120	125	130	135	140	145
L50E 3S	1	20	22	88									4.4
4S	2	16	16	64									6.4
5S	2	15	20	84									6.9
6S	2	27	37	96									4.4
7S	1	16	16	69									3.4
8S	2	31	34	66									5.9
9+00S	2	43	38	78									4.4
L50E 10S	5	45	74	87									5.4
0+00	2	19	22	82									4.9
1N	1	16	18	70									5.4
2N	2	25	24	86									4.4
3N	2	15	20	98									4.9
4N	2	27	24	77									5.9
5N	1	13	18	70									6.4
6N	2	20	34	63									6.9
7N	2	26	19	77									6.4
8N	2	28	33	58									5.9
9N	2	13	22	72									7.4
10N	1	17	30	60									6.9

[Handwritten signature]

*MIN-EN Laboratories Ltd.**Specialists in Mineral Environments*

Corner 15th Street and Bewicko

705 WEST 15TH STREET

NORTH VANCOUVER, B.C.

CANADA V7M 1T2

June 11, 1979.

Kerr Dawson & Assoc.,
#1-219 Victoria St.,
Kamloops, B.C.
V2C 2A1.

File No: 9-186
Attn: W. Gruenwald

WATER SAMPLES

<u>Sample Number</u>	<u>U</u> <u>ppb</u>	<u>pH</u>
WH 1	0.1	7.2
WH 2	0.1	7.3
BASE 1800E	0.2	7.4
2000E	0.2	7.1
2400E	0.1	7.3
2555E	0.1	7.4
BASE 2620E	0.2	7.5
ROAD 520E	0.1	7.2
B/L 12+30E	0.1	7.4
B/L 16+60E	0.1	7.3
0+00E400N	0.2	7.6
0+00E6+00N	0.4	7.9
0+00E8+98N	0.2	7.6
0+00E11+00N	0.2	7.8
0+00E16+10N	0.4	7.4
0+00E33+30N	0.1	7.4
0+10S15+50E	0.1	7.3
2+50E12+90N	0.6	7.7
L5E3+50S	0.1	7.4
L5E4+50S	0.1	7.1
L5E11N	0.2	7.8
L5E12+90N	0.2	7.4
L5E15+30N	0.2	7.6
L5E18+50N	0.4	7.8

W. Gruenwald
Certified By

Kerr Dawson & Assoc.

June 11, 1979.

File No: 9-186

Attn: W. Gruenwald

WATER SAMPLES

<u>Sample Number</u>	<u>U</u> <u>ppb</u>	<u>pH</u>
L5E21+30N	0.2	7.7
L7+50E20+40N	0.2	7.9
L7+50E21N	0.4	7.7
10+00E5+00S	0.2	7.2
10+00E9+40N	0.4	7.6
10+00E10+00N	0.4	7.7
10+00E12+20N	0.4	7.7
10+00E16+85N	0.2	7.8
12+50E0+50S	0.1	7.6
12+50E1+00S	0.1	7.4
L12+50E14+40N	0.2	7.7
L15E4+50S	0.1	6.9
L15E3N	0.1	7.4
L15E5+50N	0.1	7.2
L15E7+50N	0.1	7.4
L15+50E13N	0.1	7.8
17+50E1+00N	0.1	7.5
17+50E4+20N	0.1	7.3
17+50E4+80N	0.1	7.0
17+50E16+90N	0.1	7.3
L20E2S	0.1	7.5
20+00E0+60N	0.1	7.4
20+00E3+50N	0.1	7.5
20+00E23+00N	0.1	7.7
22+50E1+20N	0.1	7.6
L22+50E3N	0.2	7.5
L22+50E6+45N	0.1	7.4
22+50E2+60S	0.1	7.2
L25E5+45N	0.1	7.6
L25E6+20N	0.1	7.5
L25E6+70N	0.1	7.7
L25E8+70N	0.1	7.7
L25E10+50N	0.1	7.9
27+50E0+50N	0.1	7.8
27+50E2+60N	0.1	7.8
27+50E3+75N	0.1	7.9
27+50E5+80N	0.1	7.8
27+50E6+50N	0.1	7.9

Car Phillips
Certified By

Kerr Dawson & Assoc.

June 11, 1979.

File No: 9-186

Attn: W. Gruenwald

WATER SAMPLES

<u>Sample Number</u>	<u>U</u> <u>ppb</u>	<u>pH</u>
27+50E7+60N	0.1	7.5
27+50E0+50S	0.1	7.6
L30E8+50N	0.4	7.9
L30E10+50N	0.2	7.8
32+50E1+00N	0.2	7.8
32+50E3+10N	0.2	7.9
32+50E7+10N	0.2	7.9
32+50E9+00N	0.2	7.9
32+50E13+00N	0.4	7.8

Gar Paul [Signature]
Certified By

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Date of report June 13/79.
File No. 9-186 Date samples received June 8/79.
Samples submitted by: W. Gruenwald
Company: Kerr Dawson & Assoc.
Report on: 505 soils Geochem samples
.....
..... Assay samples

Copies sent to:

1. Kerr Dawson & Assoc., Kamloops, B.C.
2.
3.

Samples: Sieved to mesh - 80 Ground to mesh

Prepared samples stored discarded
rejects stored discarded

Methods of analysis: Mo, Cu, Pb, Zn-nitric, perchloric digestion.

A.A. analysis, U-Fluorometric Analysis.

Remarks: Sample L32+50E1+00N was missing.

SPECIALISTS IN MINERAL ENVIRONMENTS

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **June 1**

705 WEST 15th ST. NORTH VANCOUVER B.C. V7M 1T2
PHONE 604 250-5314

1979.

ATTENTION: **W. Gruenwald**

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	U ppm			
81	86	90	95	100	105	110	115	120	125	130	135	140	145 ppm	150	155	160
11+50E 11+00N	1	16	21	95									1.3			
12+00N	1	56	19	92									0.8			
13+00N	1	48	22	76									1.8			
14+00N	1	60	20	114									1.3			
15+00N	1	26	43	122									1.3			
16+00N	1	37	36	335									1.3			
17+00N	2	12	34	142									1.3			
18+00N	1	8	20	104									1.3			
19+00N	1	465	81	815									2.3			
20+00N	1	100	51	410									1.8			
20+40N	2	190	86	295									1.8			
21+00N	2	10	23	230									1.3			
22+00N	1	14	18	138									1.3			
23+00N	1	10	28	115									1.3			
24+00N	1	13	32	126									1.3			
25+00N	2	11	18	63									1.3			
26N	1	16	26	53									1.3			
12+50E 1N	1	10	41	166									1.3			
2N	2	74	126	240									3.9			
3N	3	10	61	182									1.3			
4N	1	16	30	156									1.3			
5N	1	12	18	71									0.8			
6N	1	42	21	60									1.3			
7N	1	8	9	16									1.3			
8N	2	16	23	56									1.3			
9N	1	8	8	27									1.3			
10N	1	16	22	85									1.3			
11N	1	12	25	120									1.3			
12N	1	36	20	82									1.8			
13N	1	11	26	192									1.3			

[Handwritten signature and notes]

PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **June**

705 WEST 15th ST. NORTH VANCOUVER B.C. V7W 1T2
PHONE (604) 260-5314

1979.

ATTENTION: **W. Gruenwald**

Sample No.	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppm	As ppm	Mn ppm	Au ppm	U ppm
LI2+50E													1.8
14N	3	58	44	178									1.3
15N	2	19	33	230									1.3
16N	2	18	25	182									1.3
17N	2	32	18	126									1.8
18N	3	26	19	80									1.3
19N	1	18	14	64									0.8
20N	1	28	15	81									1.3
21N	1	22	21	71									1.3
22N	1	10	17	104									1.3
23N	1	10	14	65									1.3
24N	1	14	17	56									1.3
25N	1	8	18	58									1.8
10+70E													11.0
33N	3	82	318	1880									11.0
LI15E1S	1	13	23	49									1.8
2S	1	10	24	54									1.3
3S	1	13	23	38									1.3
4S	1	56	71	56									2.3
5+00S	1	16	18	30									1.3
1+00N	1	10	72	78									1.3
2+00N	2	52	62	186									1.8
3N(S)	4	71	505	390									2.3
4+00N	1	40	50	86									2.3
5+00N	1	26	32	80									1.8
6+00N	1	72	55	102									1.8
7+00N	2	18	28	110									1.8
7+50N	1	30	45	92									2.9
8+00N	2	29	172	480									1.8
9+00N	3	48	21	86									1.8
10+00N	1	122	42	87									2.3
11+00N	2	33	32	136									1.8

[Handwritten signature and notes]

PROJECT No: _____

MIN - EN Laboratories Ltd.

DATE: June 1
1979.

125 WEST 15th ST. NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 430-5814

ATTENTION: W. Gruenwald

Sample No.	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	U ppm
81	85	90	95	100	105	110	115	120	125	130	135	140	145
L1.5E													
12+00N	1	40	22	152									1.3
13+00N	1	66	49	160									2.9
14+00N	3	54	35	88									2.9
15+00N	2	124	52	174									2.9
16+00N	1	20	40	168									1.3
17+00N	2	28	21	58									1.3
18+00N	2	22	23	104									1.3
19+00N	3	16	20	84									1.3
20+00N	2	15	17	88									1.3
21+00N	3	20	49	255									1.3
22+00N	1	11	20	142									1.3
23+00N	2	10	12	144									1.3
24+00N	2	12	13	127									0.8
25+00N	2	7	10	72									0.8
26N	1	8	16	60									0.8
27N	3	8	12	186									1.3
28N	1	12	32	154									1.3
29N	2	9	19	75									1.3
30N	2	14	31	146									1.3
31N	3	18	19	70									1.8
L1.5E32N	2	12	12	44									1.8
L2.0E1S	1	11	17	46									1.3
2S	1	17	25	42									5.4
3S	1	6	9	16									0.8
4S	2	11	19	36									0.8
L2.0E5S	2	6	8	15									1.3
L2.2E5E													
1+20N	1	22	35	63									1.8
2N	3	16	20	74									0.8
3N	2	42	56	86									3.9
4N	1	45	58	99									2.3

[Handwritten signature]

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: June 1

ATTENTION: W. Gruenwald

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5514

1979.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm	U ppm			
61	86	90	95	100	105	110	115	120	125	130	135	140	145	150	155
L25E6N	1	22	28	108											1.8
6+70N	2	60	51	82											1.3
7N	1	32	35	185											2.9
8N	2	20	25	184											1.3
9N	1	42	38	91											1.3
10N	1	35	51	87											1.8
11N	2	20	26	113											1.8
12N	2	12	22	159											1.3
13N	2	10	22	182											1.3
14N	2	11	23	110											1.8
15N	1	8	20	126											1.3
16N	1	15	31	78											1.8
17N	2	18	20	57											1.3
18N	1	10	18	71											1.3
19N	2	5	14	42											1.3
20N	2	8	15	71											1.8
21N	1	7	15	59											1.3
22N	2	16	18	77											1.3
23N	2	8	22	76											1.3
24N	1	9	17	125											1.3
25N	1	10	16	79											1.3
26N	2	8	20	71											1.3
27N	1	6	16	72											1.3
28N	2	12	26	104											1.3
29N	1	11	22	65											1.3
30N	1	10	28	145											1.3
31N	2	8	23	182											1.3
32N	1	10	17	79											1.8
33N	1	27	25	60											2.3
L30 I+00S	1	24	24	69											1.3

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PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **June**

ATTENTION: **W. Gruenwald**

705 WEST 15TH ST. NORTH VANCOUVER, B.C. V7M 1T5
PHONE (604) 930-5514

1979.

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au	U
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppm
L30													
26+00N	1	8	13	37									1.3
27+00N	2	10	22	72									1.3
28+00N	1	13	22	73									1.3
29+00N	3	10	14	52									2.3
30+00N	2	11	13	64									1.8
31N	1	21	20	78									1.8
32N	1	11	13	42									1.3
32+35N	2	20	12	37									2.3
L32+50E	2	15	23	108									1.3
2+00S	2	9	16	102									1.3
3+00S	1	32	24	72									1.8
4+00S	3	19	25	58									2.3
5+00S	2	11	14	75									2.3
BL	3	26	35	99									1.8
1+00N	no sample												---
2+00N	1	25	29	81									1.8
3+00N	2	45	43	74									4.9
4+00N	2	19	54	64									3.9
500N	2	33	42	117									1.8
600N	2	24	37	125									2.3
7+00N	1	39	31	53									2.3
8+00N	3	10	24	115									1.8
9+00N	1	24	35	126									2.3
900N silt	1	13	23	51									2.9
10+00N	2	17	24	127									1.8
11+00N	3	9	20	83									1.8
12+00N	2	16	24	98									1.8
13+00N	4	30	35	33									1.8
14+00N	1	10	17	67									1.8
15+00N	1	11	15	118									1.3

Handwritten notes:
 1.3
 1.8
 1.3

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **June 1979.**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V1V 1T2
PHONE 504-930-5314

ATTENTION: **W. Gruenwald**

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppm	As ppm	Mn ppm	Au ppm	U ppm			
81	85	90	95	100	105	110	115	120	125	130	135	140	145	150	155	160
0+00E													1.3			
19+00N	4	25	44	101									1.8			
20+00N	1	23	22	76									1.8			
21+00N	3	29	36	113									1.8			
22+00N	4	23	27	120									1.8			
23+00N	2	14	26	122									1.8			
24+00N	2	10	14	72									1.3			
25+00N	2	18	25	137									1.8			
26+00N	12	54	38	238									2.9			
27+00N	2	31	33	140									1.8			
28+00N	3	24	22	119									2.3			
29+00N	1	13	23	91									2.3			
30+00N	3	17	28	89									2.3			
31+00N	1	17	20	88									2.3			
32+00N	6	69	53	105									2.3			
3320N	9	67	281	171									2.9			
3330N	5	64	53	118									2.9			
3450N	2	30	33	80									2.9			
35+00N	2	14	21	124									2.3			
L2+50EIS	2	8	11	25									1.8			
2S	2	24	41	98									2.3			
3S	1	31	29	100									2.3			
4S	1	11	10	25									1.8			
5S	2	25	22	67									1.8			
1+00N	2	13	21	33									1.3			
2+00N	1	16	21	55									1.8			
3+00N	1	30	38	103									1.8			
4+00N	3	22	28	87									2.3			
5+00N	3	21	25	79									2.3			
6+00N	2	34	27	62									2.3			
7+00N	3	44	17	61									2.3			

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PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **June 1 1979.**

ATTENTION: **W. Gruenwald**

705 WEST 15TH ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 960-5914

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm	U ppm
17+00N	2	64	36	71									1.8
18+00N	2	12	25	102									1.3
19+00N	3	25	23	64									2.3
20+00N	2	19	25	105									1.8
21+00N	3	10	21	138									1.3
22+00N	4	12	20	83									1.8
23+00N	4	11	19	55									1.3
23+00(Site)	3	29	27	94									1.3
24+00N	2	16	29	65									0.8
25+00N	2	8	12	126									1.8
26+00N	3	11	19	52									1.3
27+00N	3	21	13	53									1.3
28+00N	3	6	16	139									0.8
29+00N	3	8	24	142									1.3
30+00N	4	6	13	72									1.3
31+00N	4	5	13	64									1.3
32+00N	6	52	37	48									1.3
27+50E	3	39	41	79									2.3
50N	3	39	41	79									2.3
1+00N	5	48	37	74									2.3
2+00N	1	33	43	72									1.8
2+60N	2	29	45	111									1.8
3+00N	2	16	16	82									0.8
4+00N	1	12	39	136									1.8
5+00N	2	11	24	176									1.3
7+00N	4	31	38	85									1.3
8+00N	3	51	27	109									1.3
9+00N	3	38	36	105									1.3
1.1+00N	2	17	23	46									1.3
1.2+00N	3	36	38	65									1.8
1.3+00N	2	8	23	83									1.3

W. Gruenwald

PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **June**

ATTENTION: **W. Gruenwald**

705 WEST 15th ST. NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5814

1979.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	U ppm
6	10	15	20	25	30	35	40	45	50	55	60	65	70
85	90	95	100	105	110	115	120	125	130	135	140	145	150
14+00E 14+00N	5	11	28	124									1.3
15+00N	3	11	21	96									1.8
16+00N	4	37	32	88									1.3
17+00N	3	15	35	79									1.8
18+00N	3	12	15	43									1.8
19+00N	6	14	23	61									1.3
20+00N	5	9	22	79									1.8
21+00N	6	10	21	51									1.3
22+00N	3	10	20	68									1.8
23+00N	3	11	18	74									1.8
24+00N	2	9	25	91									1.8
25+00N	5	9	21	46									2.3
17+00E 17+50E	3	5	18	40									1.8
17+50E	4	5	16	28									1.3
19+00E	6	19	42	113									1.8
20+00E	3	29	141	111									2.3
21+00E	1	11	53	44									1.3
22+50E	3	9	9	46									1.3
23+00E	2	31	36	102									1.8
24+00E	5	25	34	86									1.3
24+00 Silt	3	39	49	92									2.3
25+00E	4	25	32	73									2.9
25+55E	2	59	44	87									3.9
26+00E	4	43	41	125									4.4
26+20E	5	32	44	75									2.3
27+00E	5	25	34	84									4.4

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MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Date of report June 18/79.
File No. 9-209 Date samples received June 13/79.
Samples submitted by: W. Gruenwald
Company: Kerr Dawson & Assoc.
Report on: 2 waters, 2 soils, 2 rocks Geochem samples
..... Assay samples

Copies sent to:

1. Kerr Dawson & Assoc., Kamloops, B.C.
2.
3.

Samples: Sieved to mesh -80 soil Ground to mesh -80 rocks

Prepared samples stored discarded waters-stored
rejects stored discarded

Methods of analysis: Mo, Cu, Pb, Zn-nitric, perchloric digestion. A.A.

Analysis. U-Fluorometric. Th-Accid digestion-spectrophotometric

Remarks:

SPECIALISTS IN MINERAL ENVIRONMENTS

MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

Corner 15th Street and Bewicke
705 WEST 15TH STREET
NORTH VANCOUVER, B.C.
CANADA V7M 1T2

June 16, 1979.

Kerr Dawson & Assoc.,
#1-219 Victoria St.,
Kamloops, B.C.

File No: 9-209
Attn: W. Gruenwald

WATER SAMPLES

<u>Sample Number</u>	U <u>ppb</u>	pH —
CRW 3	0.4	7.1
CRW 6	0.4	7.3

Sanjiv Kumar Gill
Certified By

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Date of report July 10/79.
File No. 9-290 Date samples received July 3/79.
Samples submitted by: W. Gruenwald
Company: Kerr Dawson & Assoc.
Report on: 26 soils, 8 rock Geochem samples
..... Assay samples

Copies sent to:

1. Kerr Dawson & Assoc., Kamloops, B.C.
2.
3.

Samples: Sieved to mesh -80 soil Ground to mesh -80 rock

Prepared samples stored discarded
rejects stored discarded

Methods of analysis: Mo, Cu, Pb, Zn-nitric, perchloric digestion.

A.A. Analysis. U-Fluorometric. Th-Acid digestion-
Spectrophotometric.

Remarks:
.....
.....

SPECIALISTS IN MINERAL ENVIRONMENTS

PROJECT No: Crown Claims

MIN - EN Laboratories Ltd.

ROCK GEOCHEM.

DATE: July

ATTENTION: W. Gruenwald

705 WEST 15th ST. NORTH, VANCOUVER, B.C. V7M 1T2
PHONE: 604-980-5314

1979

Sample Number	Pb	Zn	Cu	Co	Ag	Fe	Hg	As	Mn	Au	Mo	U	Th		
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppb	ppm	ppm	ppm		
ms WR 5	23	70	14	<i>chl-gtz phyllite, carbonaceous, 2-3% magnetite</i>									4	0.8	
ms WR 6	32	12	19	<i>white-gray laminated carbonate</i>									5	1.3	
ms WR 9	107	44	12	<i>phyllite</i>									2	1.3	
mv WR10 (100MNEL05S)	9	34	14	<i>metavolcanic</i>									2	1.3	
mv L5E; 2+30N	9	39	35	<i>brown weathering green metavolcanic</i>									1	1.8	
T L5E; 22+15N	21	135	32	<i>limonitic, black, altered trachyte</i>									2	11.5	92.0
T L5E; 26+15N	31	114	48	<i>trachyte</i>									1	11.0	134.0
T L5E; 28+20N	37	44	40	<i>trachyte</i>									1	13.8	75.0
T L7+50E; 26N(250mN)	20	33	47	<i>altered, moderately radioactive trachyte float</i>									2	3.4	64.5
T L5E; 33+50N	72	63	14	<i>very radioactive, yellow stained trachyte</i>									17	1.3	425.0
T L7+50E; 9+50N	117	22	9	<i>highly radioactive, rusty red trachyte (pyritic)</i>									91	14.8	125.5
mv L7+50E; 2S (20mW)	15	54	57	<i>pale green, feldspar porphyry</i>									3	0.8	
T L7+50E; 18N	340	164	58	<i>f.g. rusty yellow, radioactive float.</i>									3	2.3	35.0
mv 7+35E; 5S (A)	10	11	5	<i>metavolcanic</i>									1	1.3	
ms 7+35E; 5S	10	107	79	<i>f.g. black phyllitic shale?</i>									2	0.8	
mv 12+60E; 4+30N	11	52	13	<i>semi schistose metaool.</i>									1	1.3	
ms 10+50E; 0+50S	14	56	63	<i>limonitic skarny? rock.</i>									1	0.8	
mv 300m L 12+50E; 25N	14	53	4	<i>semi schistose mafic porphyry.</i>									1	0.8	
mv 17+50E; 4+60S	6	18	15	<i>schistose metavolcanic</i>									1	1.3	
mv 17+50E; 1+50S	9	22	15	<i>bleached, pale green altered h₂O porphyry.</i>									1	1.3	
ms 10E; BL	166	240	24	<i>d. gray to black fissile graphitic phyllite</i>									3	1.8	
ms L35E; 16+70N	18	150	23	<i>d. gray, f.g. gtz-sericite phyllite</i>									1	1.8	
ms L35E; 22N	12	133	61	<i>d. gray f.g. schistose gtz-biotite schist.</i>									2	0.8	
ms 42+70E; 2+20S	27	48	6	<i>limonitic dense skarny rock.</i>									3	0.8	
ml 45+50E; 8+50N	3	53	22	<i>gray gtz-ser phyllite</i>									1	1.3	
ms 45+15E; 3+05S	49	16	10	<i>pale gray argillaceous carbonate</i>									7	1.3	

MIN-EN Laboratories Ltd.

705 WEST 15th STREET,
NORTH VANCOUVER, B.C., CANADA V7M 1T2
TELEPHONE (604) 980-5814

ANALYTICAL REPORT

Project Date of report July 12/79.
File No. 9-159R Date samples received
Samples submitted by: J. Kerr
Company: Kerr Dawson & Assoc.
Report on: 258 Soils Geochem samples

Assay samples

Copies sent to:

1. Kerr Dawson & Assoc., Kamloops, B.C.
2. Union Oil, Calgary, Alta.
3.

Samples: Sieved to mesh Ground to mesh

Prepared samples stored discarded

rejects stored discarded

Methods of analysis: U-Fluorometric Analysis.

Remarks: Uranium rerun.

SPECIALISTS IN MINERAL ENVIRONMENTS

PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **July**

ATTENTION: **J. Kerr**

705 WEST 15th ST. NORTH VANCOUVER, B.C. V7M 1T7
PHONE (604) 980-8814

1979

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au	U
Number	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L00+00													1.3
1S													1.3
2S													2.3
3S													0.9
L0-4S													0.8
L0+00S													1.3
BL0+00													0.8
1E													0.8
2+50E													1.5
3+50E													3.4
5E													0.8
BL0+00													0.8
5+50E													0.8
BL													0.8
8+50E													0.9
30E													0.9
31E													1.3
32+50E													1.5
33+30E													1.8
34E													1.6
BL 36E													1.8
36+50E													1.8
L23E													3.9
0+00													2.9
1S													1.9
1S(S)													1.8
2S													1.8
3S													1.8
4S													0.9
L25E5S													0.8
L25E2N													0.8
L27+50E													1.3
2S													1.3
3S													0.8

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PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: July

105 WEST 15TH ST. NORTH VANCOUVER, B.C. CANADA
PHONE (604) 980-8814

1979.

ATTENTION: **J. Kerr**

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Mg	As	Mn	Au	U
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm
L2750E													0.8
4S													1.3
5S													2.1
L3522E													1.3
L35E14N													1.3
15N													1.3
16N													1.3
17N													1.5
18N													1.8
19N													2.3
20N													1.8
21N													2.9
23N													1.6
24N													1.5
25N													0.8
26N													1.6
27N													1.0
28N													1.1
29N													1.8
30N													1.3
31N													1.8
L35E													1.0
0+00													1.3
1S													1.1
2S													0.8
3S													1.1
4S													0.8
L35E													0.8
00S													1.3
L35E													1.3
5+00(54)													1.5
L35E1N													0.9
2N													0.8
3N													

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PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **July**

ATTENTION: **J. Kerr**

705 WEST 15th ST. NORTH VANCOUVER, B.C. V6V 1T2
PHONE (604) 980-5214

1979

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm	U ppm
L35E4N							•						1.3
5N							•						1.3
6N							•						1.3
7N							•						1.0
8N							•						0.8
9N							•						1.3
9N(SH)							•						1.8
10N							•						1.3
10N(SH)							•						1.8
11N							•						0.9
12N							•						1.5
13N							•						1.3
L3750E							•						1.8
1S							•						1.8
2S							•						1.3
3S							•						1.1
5S							•						1.0
L3750E							•						1.5
0700							•						1.5
1N							•						1.3
2N							•						1.5
3N							•						1.5
4N							•						1.8
5N							•						1.0
6N							•						1.0
7N							•						1.1
8N							•						1.2
9N							•						0.8
10N							•						1.3
11N							•						1.5
12N							•						1.3
13N							•						1.3

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PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **July** _____

ATTENTION: **J. Kerr**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5514

1979.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppm	U ppm
L3750E													1.3
14N													1.5
15N													1.0
16N													1.5
17N													1.3
18N													0.6
19N													2.3
20N													0.8
21N													1.6
22N													1.6
23N													1.2
24N													1.1
25N													0.8
L40E1S													0.8
2S													0.8
3S													0.8
4S													0.7
5S													0.8
L40E													0.3
0+00													0.8
3N													1.0
3+20N													1.0
4N													1.0
5N													1.5
6N													1.8
7N													1.8
8N													1.3
9N													0.8
10N													1.5
11N													0.8
12N													0.8
13N													1.3

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PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **July**
1979

ATTENTION: **J. Kerr**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 920-5514

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	U ppm
L40E14N							•						1.9
15N							•						1.8
16N							•						1.3
17N							•						1.5
18N							•						1.3
19N							•						1.3
20N							•						1.9
21N							•						1.3
22N							•						1.3
23N							•						1.5
24N							•						2.3
25N							•						1.8
26N							•						1.9
27N							•						1.3
28N							•						1.7
29N							•						1.9
30N							•						1.8
31N							•						1.3
L4250E							•						1.9
1S							•						0.8
2S							•						1.8
3S							•						0.8
4S							•						1.6
5S							•						1.3
6S							•						1.5
7S							•						1.8
8S							•						2.3
9S							•						1.8
L4250E							•						1.5
0+00							•						1.5
1N							•						1.5

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PROJECT No.: _____

MIN - EN Laboratories Ltd.

DATE: **July 1**

ATTENTION: **J. Kerr**

705 WEST 15th ST. NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 920-5814

1979

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au	U
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
81	86	90	95	100	105	110	115	120	125	130	135	140	145
L4250E													1.6
2N													1.7
3N													1.3
4N													1.3
5N													1.8
6N													0.8
7N													1.9
8N													1.3
9N													1.8
10N													1.3
11N													1.3
12N													1.8
13N													2.0
14N													1.5
15N													1.8
16N													2.1
17N													1.3
18N													1.5
19N													1.3
20N													1.6
21N													1.4
22N													1.3
23N													1.8
24N													1.8
25N													1.3
L45E1S													1.3
2+10S													1.8
3+05S													1.9
4S													2.0
5S													1.8
L45E6S													1.3

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PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **July 1**

ATTENTION: **J. Kerr**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE (604) 980-5214

1979

Sample No.	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppb	As ppm	Mn ppm	Au ppb	U ppm
61	90	95	100	105	110	115	120	125	130	135	140	145	150
L45E7S													1.4
8S													1.3
9S													0.8
10S													1.3
L45E00													1.5
1N													0.8
2N													0.8
3N													1.5
4N													1.3
5N													1.3
6N													1.6
7N													0.8
8N													1.6
9N													0.8
10N													0.8
11N													1.8
12N													1.9
13N													no sample
14N													1.3
15N													1.6
16N													1.8
17N													1.3
18N													1.6
19N													1.3
20N													1.2
21N													1.3
22N													1.5
23N													0.8
24N													0.8
25N													1.3

[Handwritten signature]
20.1.1979

PROJECT No. _____

MIN-EN Laboratories Ltd.

DATE: **July 1 1979.**

705 WEST 15TH ST. NORTH VANCOUVER, B.C. V7W 1T2
PHONE 604-960-8814

ATTENTION: **J. Kerr**

Sample No.	Mo	Cu	Pb	Zn	Ni	Co	Ag	Fe	Hg	As	Mn	Au	U
ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppb	ppm	ppm	ppm	ppm
61	85	90	95	100	105	110	115	120	125	130	135	140	145
L45E													1.8
26N													1.8
27N													1.8
28N													1.3
29N													1.8
30N													1.8
31N													2.5
32N													2.3
33N													1.8
147+50E													1.8
1S													1.3
2S													1.3
3S													1.8
4S													1.3
5S													1.5
6S													1.3
7S													1.8
8S													1.6
9S													1.8
L47+50E													1.5
0+00													1.7
1N													1.8
2N													1.3
3N													1.6
4N													1.3
5N													1.9
6N													0.8
7N													1.3
8N													

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PROJECT No. _____

MIN - EN Laboratories Ltd.

DATE: **July 1**

ATTENTION: **J. Kerr**

705 WEST 15th ST., NORTH VANCOUVER, B.C. V7M 1T2
PHONE 604-980-8814

1979.

Sample Number	Mo ppm	Cu ppm	Pb ppm	Zn ppm	Ni ppm	Co ppm	Ag ppm	Fe ppm	Hg ppm	As ppm	Mn ppm	Au ppm	U ppm
SI	85	90	95	100	105	110	115	120	125	130	135	140	145
L4750E													1.9
9N													1.9
10N													1.8
L50E1S													1.9
2S													1.5
3S													1.4
4S													1.3
5S													1.6
6S													1.3
7S													1.3
8S													1.8
9+00S													1.7
10S													1.3
L50000													1.5
1N													1.4
2N													1.3
3N													1.3
4N													1.4
5N													1.3
6N													1.3
7N													1.4
8N													0.8
9N													1.3
10N													1.5

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APPENDIX B

ROCK SAMPLE DESCRIPTIONS

with

GEOCHEMICAL ASSAYS

ABBREVIATIONS

f.g.	-	fine grained
m.g.	-	medium grained
x'al	-	crystal
x'alline	-	crystalline
qtz	-	quartz
ser	-	sericite
> av	-	greater than average
s.g.	-	specific gravity
w̄	-	with
mag	-	magnetite, magnetic
carb	-	carbonaceous
hb	-	hornblende
fs	-	feldspar
mod.	-	moderately

CROWN CLAIMS

ROCK DESCRIPTIONS

(Figure 196 C-9A)

Geochemical Analysis

		<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Mo</u>	<u>U</u>	<u>Th</u>
		(ppm)					
WR-5	- green, f.g.-m.g. schistose calcareous metavolcanic - contains 2-3% magnetite x'als 0.5-2 mm. - definite pale green-white calcite lenses.	23	70	14	4	0.8	
WR-6	- pale green, white-gray laminated m.g. x'alline carbonate. - probably a carbonate unit in metavolcanic terrain.	32	12	19	5	1.3	
WR-9	- very schistose, f.g. gray-green metavolcanic (?) sediment - definite phyllitic texture (sheen)	107	44	12	2	1.3	
WR-10	- massive, f.g.-mg. semi-schistose 100 m NE metavolcanic						
L-0, 5 ^S	- no original minerals or textures observed, non magnetic. - vague dark green patches of chlorite may be fragments?	9	34	14	2	1.3	
45+50 ^E ;	- gray qtz-ser phyllite, locally limonitic						
8+50 ^N	- no very fissile	3	53	22	1	1.3	
45 + 15 ^E -	pale gray, f.g. argillaceous carbonate with thin lenses of white calcite, cut by few thin carbonate veinlets.	49	16	10	7	1.3	
3+05 ^S							

Geochemical Analysis

		<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Mo</u>	<u>U</u>	<u>Th</u>
		(ppm)					
42+70 ^E	- massive, quartzose (some carbonate limonite rock dense (> av.s.g.) skarn? no definite texture	27	48	6	3	0.8	
2+20 ^S	- large quartz vein cuts rock - some pale green-apple green, f.g. mica (fuchite?)						
10+50 ^E	- limonite weathered, pale buff rock (skarn appearance)	14	56	63	1	0.8	
0+05 ^S	- carbonate content (ie. dolomitic) may be moderate - minor pyrite ~1% f. grained.						
10+70 ^E ; 33 ^N	- massive white-gray, laminated carbonate containing minor pyrite and galena. - cut by quartz vein mineralized by pyrite, galena and manganese.	32	12	1350,	145	2.9	
L-5 ^E ; 2+30 ^N	- brown weathering, pale green, f.g. semi schistose altered volc with remnant quartz eyes 1-3 mm across - brown weathering penetrates deep into rock (pale green core) - non mag, non carb.	9	39	35	1	1.8	

		Geochemical Analysis					
		Pb	Zn	Cu	Mo	U	Th
		(ppm)					
L-5 ^E ; 22+15 ^N	- rusty, weathering, limonitic, feldspar rich rock, non schistose weakly magnetic, minor pyrite ~1%, f.g. black micaceous material - may be <u>altered trachyte?</u>	21	135	32	2	11.5	92.0
L-5 ^E ; 26+15 ^N	- rusty weathering, feldspar rich (orthoclase twins etc. noted) with f.g. micaceous material and limonite as in above sample - weakly magnetic; non schistose	31	114	48	1	11.0	134.0
L-5 ^E ; 28+20 ^N	- similar to above rocks, slight foliation or lineation, abundant feldspar and micaceous material - weakly magnetic	37	44	40	1	13.8	75.0
L-5 ^E ; 33+50 ^N	- two pieces of yellow stained, very RADIOACTIVE TRACHYTE float. - fine grained minor pyrite, micaceous (f.g.) - one specimen contains purple fluorite - these could be transported from either Bullion or Rexspar deposits.	72	63	14	17	1.3	425
20 ^m ^W ; L-7+50 ^E , 2 ^S	- pale green-gray, f.g. feldspar porphyry (altered) semi schistose - non magnetic, weakly carbonate. - limonitic fractures.	15	54	57	3	0.8	

Geochemical Analysis

		<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Mo</u>	<u>U</u>	<u>Th</u>
							(ppm)
L-7+50 ^E	- RADIOACTIVE TRACHYTE FLOAT (?)						
9+50 ^N	- found 4 boulders in meta volc, terrain.						
(3 spec.)	- rusty red weathering, pale gray, massive, pyritic (f.g.) trachyte (abundant) orthoclase x'als.						
	- non magnetic, non carb. pyrite 2% +						
	- rocks were angular-sub angular.	117	22	9	91	14.8	125.0
L-7+50 ^E ;	- RADIOACTIVE FLOAT.						
18 ^N	- much finer grained, semi lineated, rusty yellow, oxidized						
(2 spec.)	rock, contains f.g. pyrite and micaceous material.						
	- very similar if not the same as those found on L+5 ^E 22-28 ^N .	340	164	58	3	2.3	35.0
250mNNW	- pale green and pinkish semi lineated feldspar rich rock with some micaceous lenses.						
L-7+50 ^E ;							
26 ^N	- small pyrite cubes ~1-2%.						
	- moderately magnetic in places.						
	- probably an altered radioactive trachyte.						
	- FLOAT in area near valley bottom. (old skid road.)	20	33	47	2	3.4	64.5

Geochemical Analysis

		<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Mo</u>	<u>U</u>	<u>Th</u>
		(ppm)					
300m ^N ; L-12+50 ^E ;	- pale green, semi schistose lineated mafic porphyry						
25 ^N	- phenocrysts (hb) are aligned and stretched - non mag. cut by carbonate veinlet.	14	53	4	1	0.8	
12+60 ^E ;	- pale green, semi schistose meta						
4+30 ^N	volc with few qtz eyes - minor qtz-carb lenses. - some limonite-mica on fracture surfaces. - non magnetic	11	52	13	1	1.3	
L-17+50 ^E ;	- pale green, f.g. schistose meta volc with few						
4+60 ^S	hb phenocrysts - minor qtz, minor pyrite- limonite - non mag. non carb.	6	18	15	1	1.3	
L-17+50 ^E ;	- bleached, pale green altered hb porphyry						
1+50 ^S	- noted few qtz eyes and some pyrite ≤ 1%	9	22	15	1	1.3	
L-35 ^E ;	- dark grey, f.g. schistose, quartz-						
22 ^N	biotite schist - mod. magnetic, minor py. cubes ≤ 1%, non-carb.	12	133	61	2	0.8	

Geochemical Analysis

		<u>Pb</u>	<u>Zn</u>	<u>Cu</u>	<u>Mo</u>	<u>U</u>	<u>Th</u>
		(ppm)					
L-35 ^E ; 16+70 ^N	- dark gray, v. f.g. sercite (qtz) phyllite-lustrous sheen on fracture (cleavage) faces. - minor limonite, non mag. non carb.	18	150	23	1	1.8	
1000 ^E ; B/L	- dark gray-black very f.g. fissile (graphitic) phyllite, minor siliceous layers - some pyrite cube weathering - kink folded, non mag.	166	240	24	3	1.8	
L-7+35 ^E ; 5 ^S	- f.g. black, shale (possibly phyllite) - limonitic fractures.	10	107	79	2	0.8	
7+35 ^E ; 5 ^W (A)	- pale gray, green, massive, semi lineated metavolcanic (?) pyrite dissem. (~ 2-3%) - mod. magnetic and very minor carbonate. - CHECK FOR RAD. - may have been f.g. tuff (welded?) or other such fragmental.	10	11	5	1	1.3	

APPENDIX C

PERSONNEL

PERSONNEL

Field:

John R. Kerr, P. Eng.	- May 19,27,28,29,1979	3 1/4 days
Werner Gruenwald, B.Sc.	- May 23-31, June 1-7,1979	16 days
Mike Dawson, Assistant	- May 23-31, June 1-7, 1979	16 days
Brian Hayashi, Geologist	- May 28-31, June 1-7, 1979	11 days
Sam Williams, Assistant	- May 28-31, June 1-7, 1979	11 days

Office:

Werner Gruenwald, B. Sc.	- June 9, 11,15,16,18,19, 21-27, Sept.10-14, 18,27,28, Oct. 1-3, 5, 9-12,13,19.	22 3/8 days
--------------------------	---	-------------

APPENDIX D

STATEMENT OF EXPENDITURES

COST STATEMENT

Labour:

John R. Kerr, P. Eng., 3 1/4 days @ \$190.00/day	\$ 617.50	
Werner Gruenwald, Geologist Field - 16 days Compilation - 7 days		
23 days @ \$125.00/day	2,875.00	
Brian Hayashi, Geologist 11 days @ \$125.00/day	1,375.00	
M. Dawson, Assistant 16 days @ \$100.00/day	1,600.00	
S. Williams, Assistant 11 days @ \$100.00/day	<u>1,100.00</u>	\$ 7,567.50

Grid Establishment:

79.97 km. @ \$75.00/km. 5,997.75

Truck Rental:

Suburban - 17 days @ \$25.00/day	425.00	
1,190 mi. @ 25¢/mi.	297.50	
Courier - 11 1/2 days @ \$15/day	172.50	
680 mi. @ 15¢/mi.	<u>102.00</u>	997.00

Geochemical Costs: 6,181.90

Room and Board: 1,501.27

Equipment Rental: 16 days @ \$10/day. 160.00

Misc. Purchases, Printing, Xerox, Freight 397.55

TOTAL \$22,802.97

*(work recorded July 27/79)

Cost Statement - Crown Claims (continued) page two

TOTAL BROUGHT FORWARD \$22,802.97

Additional Costs: (July 31 to October 22, 1979)

Office:

W. Gruenwald, Geologist
22 3/8 days @ \$125.00/day \$2,796.88

Printing, xeroxing, report
binding, secretarial, and
misc. 340.70

Additional total \$3,137.58 3,137.58

GRAND TOTAL. \$25,940.55

APPENDIX E

REFERENCES

REFERENCES

- Lang, A. H; Griffith, J.W.;
& Steacy, H. R. (1962) - Geological Survey of Canada
Economic Series No. 16.
"Canadian Deposits of
Uranium and Thorium"
pp. 203-205.
- Geology, Exploration & Mining
in British Columbia (1970) - Sue, Goof, Hail Claims
pp. 297
- Fraser, D.C. & Dvorak, Z. (June 20,)
(1979) - Dighem II Survey of Baker
Creek, British Columbia,
for Union Oil Company of
Canada Limited, by
Dighem Limited.
- Campbell, R. B. (1962) - Adams Lake Geological Map
Map No. 48, 1963
82M/W 1/2.

APPENDIX F

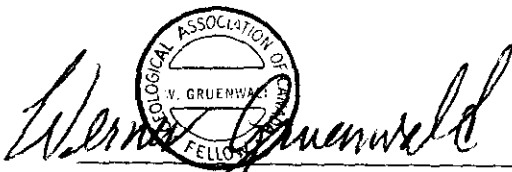
WRITER'S CERTIFICATE

CERTIFICATE

I, WERNER GRUENWALD, OF KAMLOOPS, BRITISH COLUMBIA, DO HEREBY
CERTIFY THAT:

- (1). I am a geologist residing at #1 - 219 Victoria Street, Kamloops, British Columbia, and employed by Kerr, Dawson, and Associates Ltd. of Suite #1-219 Victoria Street, Kamloops, B. C.
- (2). I am a graduate of the University of British Columbia, B. Sc. (1972), and a fellow of the Geological Association of Canada. I have practised my profession for 7 1/2 years.
- (3). I am the author of this report which describes the results of an exploration programme carried out under my supervision on the Crown Claims, Kamloops Mining Division, British Columbia.

KERR, DAWSON AND ASSOCIATES LTD.,

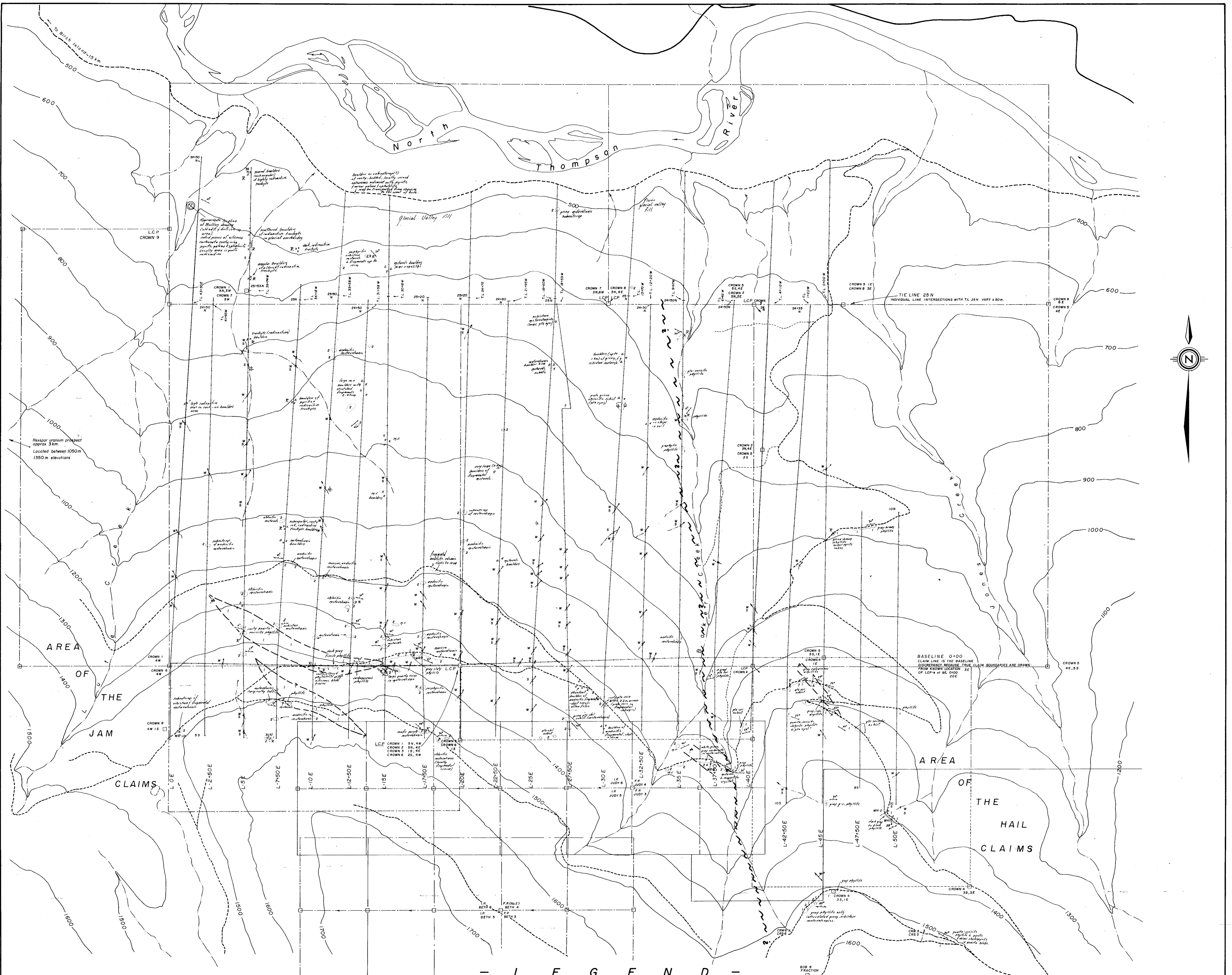

Werner Gruenwald, B. Sc.,
GEOLOGIST

October 22, 1979,

KAMLOOPS, B. C.

APPENDIX G

MAPS



- L E G E N D -

- 1 BROWN (RUSTY), PALE GREEN, LIGHT TO DARK GRAY, LOCALLY GRAPHITIC PHYLITE. QUARTZ LENSES (SWEATS) UBIQUITOUS. PYRITE CUBES 3-4mm LOCALLY COMMON.
LA CALCAREOUS ARGILLITE
- 2 PALE TO DARK GREEN, MASSIVE TO SCHISTOSE ANDESITIC METAVOLCANIC. LOCALLY EXHIBITS FRAGMENTAL TEXTURE, WITH SOME CLASTS BEING OF A FELSIC NATURE. CLASTS FROM 1cm TO 15cm ACROSS. LOCALLY ELONGATION OF CLASTS NOTED.
2A, WHITE, GRAY, PALE GREEN CARBONATE
- 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS.
- CREEK, SEEPAGE
- SWAMPY OR BOGGY AREA
- ROADS (MAIN AND SECONDARY)
- CLAIM BOUNDARY WITH LEGAL CORNER POST (LCP)
- GRID LINE WITH STATION MARKERS AND LINE NUMBER.
- WATER SAMPLE, SILT SAMPLE
- OUTCROP OUTLINE
- AREA OF ABUNDANT, OFTEN LARGE BOULDERS
- SCHISTOSITY AND/OR CLEAVAGE ATTITUDE
- QUARTZ VEIN
- GEOLOGICAL CONTACT
- FAULT (ASSUMED)
- RADIOACTIVE FLOAT (TRACHYTE)
- ADIT
- ABBREVIATIONS: qtz quartz, sch schistose, chl chlorite, m.v. metavolcanic
- x R ROCK SAMPLE SITE

7503

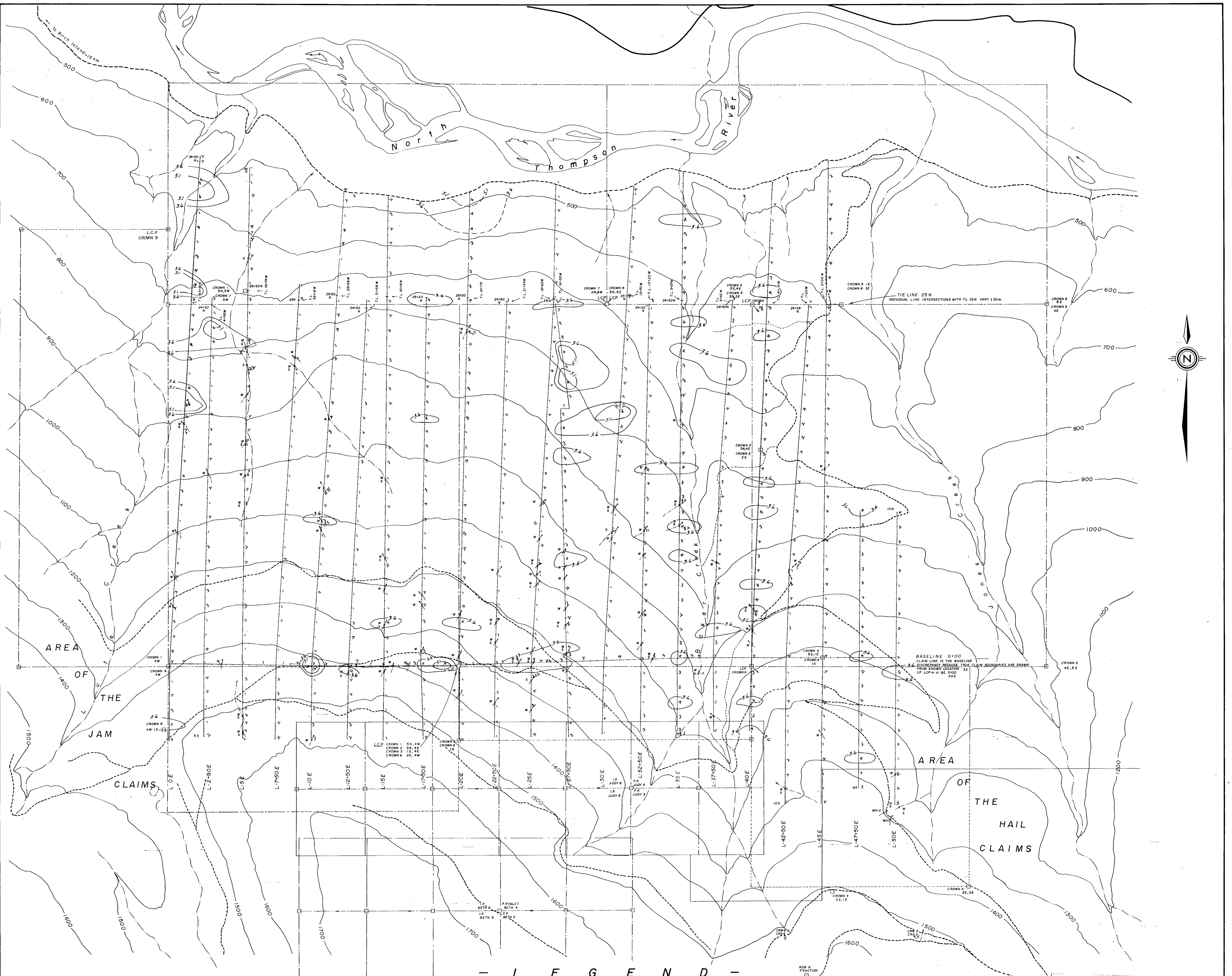
To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

**GEOLOGICAL PLAN
CROWN CLAIMS**

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON & ASSOCIATES LTD.	SCALE: 1:10,000
DRAWN BY: W.G.	DATE: JUNE, 1979.
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 196 C-3



GEOCHEMICAL CATEGORIES

- NEGATIVE < 2.1 ppm Mo
- POSSIBLY ANOMALOUS 2.1 - 3.6 ppm Mo
- PROBABLY ANOMALOUS 3.6 - 5.1 ppm Mo
- DEFINITELY ANOMALOUS > 5.1 ppm Mo

- L E G E N D -
- 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS.
 - CREEK, SEEPAGE
 - SWAMPY OR BOGGY AREA
 - ROADS (MAIN AND SECONDARY)
 - CLAIM BOUNDARY WITH LEGAL CORNER POST (LCP)
 - GRID LINE WITH STATION MARKERS AND LINE NUMBER.
 - WATER SAMPLE, SILT SAMPLE
 - SAMPLE SITE WITH MOLYBDENUM VALUE IN PARTS PER MILLION (PPM)

7503

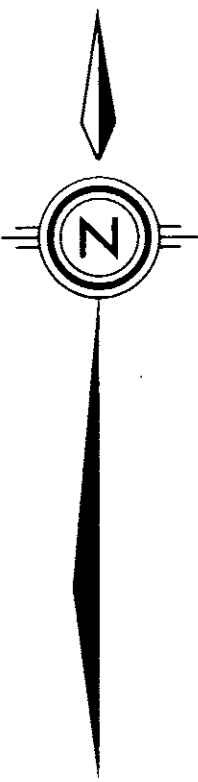
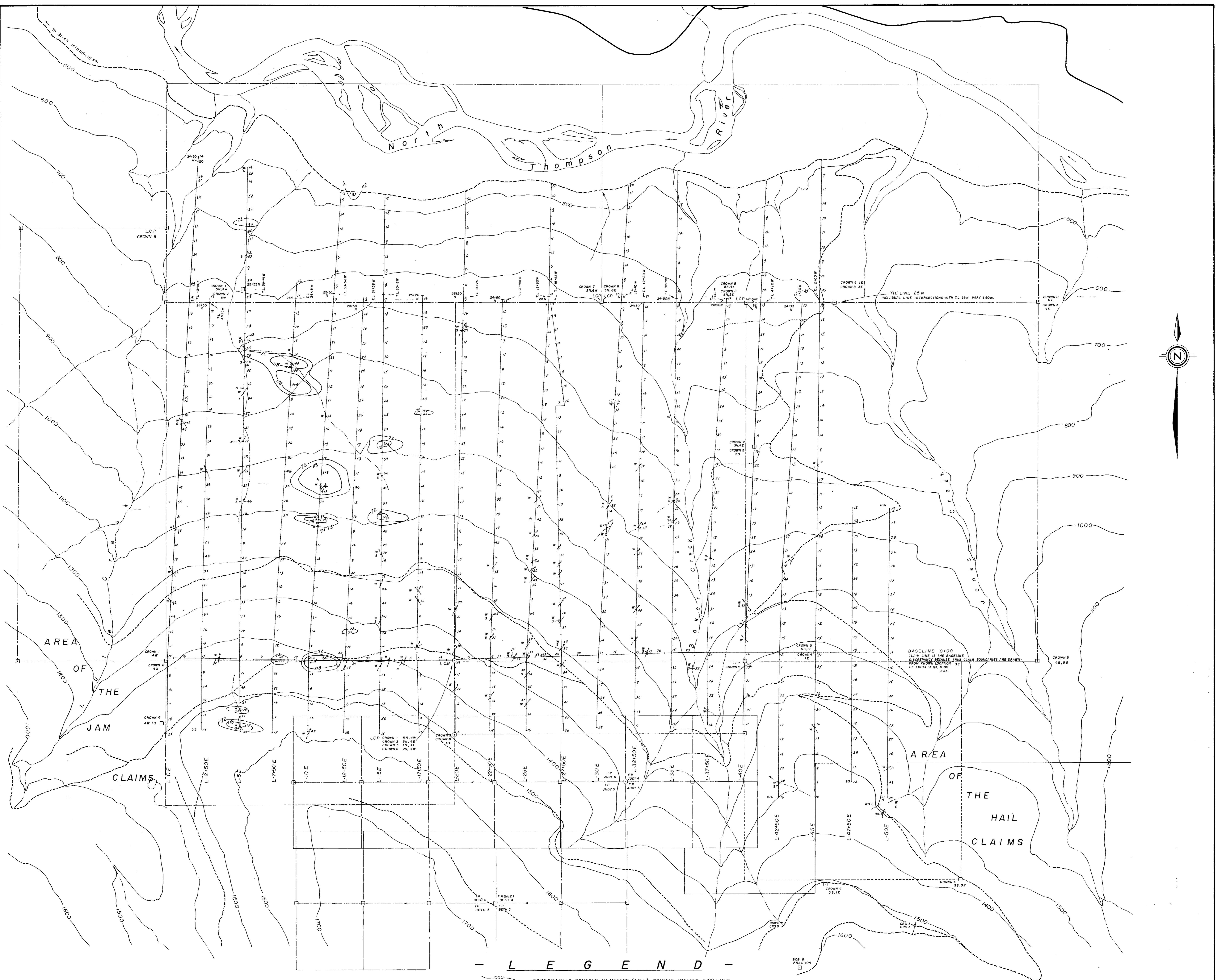
To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

GEOCHEMICAL PLAN (MO)
CROWN CLAIMS

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY KERR, DAWSON & ASSOCIATES LTD.	SCALE: 1:10,000 0 100 200 METERS 400
DRAWN BY W.G.	DATE: JUNE, 1979.
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 196 C-4



GEOCHEMICAL CATEGORIES

- NEGATIVE < 25.5 ppm Cu
- POSSIBLY ANOMALOUS 25.5 - 71.9 ppm Cu
- PROBABLY ANOMALOUS 71.9 - 118.4 ppm Cu
- DEFINITELY ANOMALOUS > 118.4 ppm Cu

- L E G E N D -
- TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS.
 - CREEK, SEEPAGE
 - SWAMPY OR BOGGY AREA
 - ROADS (MAIN AND SECONDARY)
 - CLAIM BOUNDARY WITH LEGAL CORNER POST (L.C.P.)
 - GRID LINE WITH STATION MARKERS AND LINE NUMBER
 - WATER SAMPLE, SILT SAMPLE
 - SAMPLE SITE WITH COPPER VALUE IN PARTS PER MILLION (PPM)

MINERAL REVENUE BRANCH
ASSOCIATED COMPANY

7503

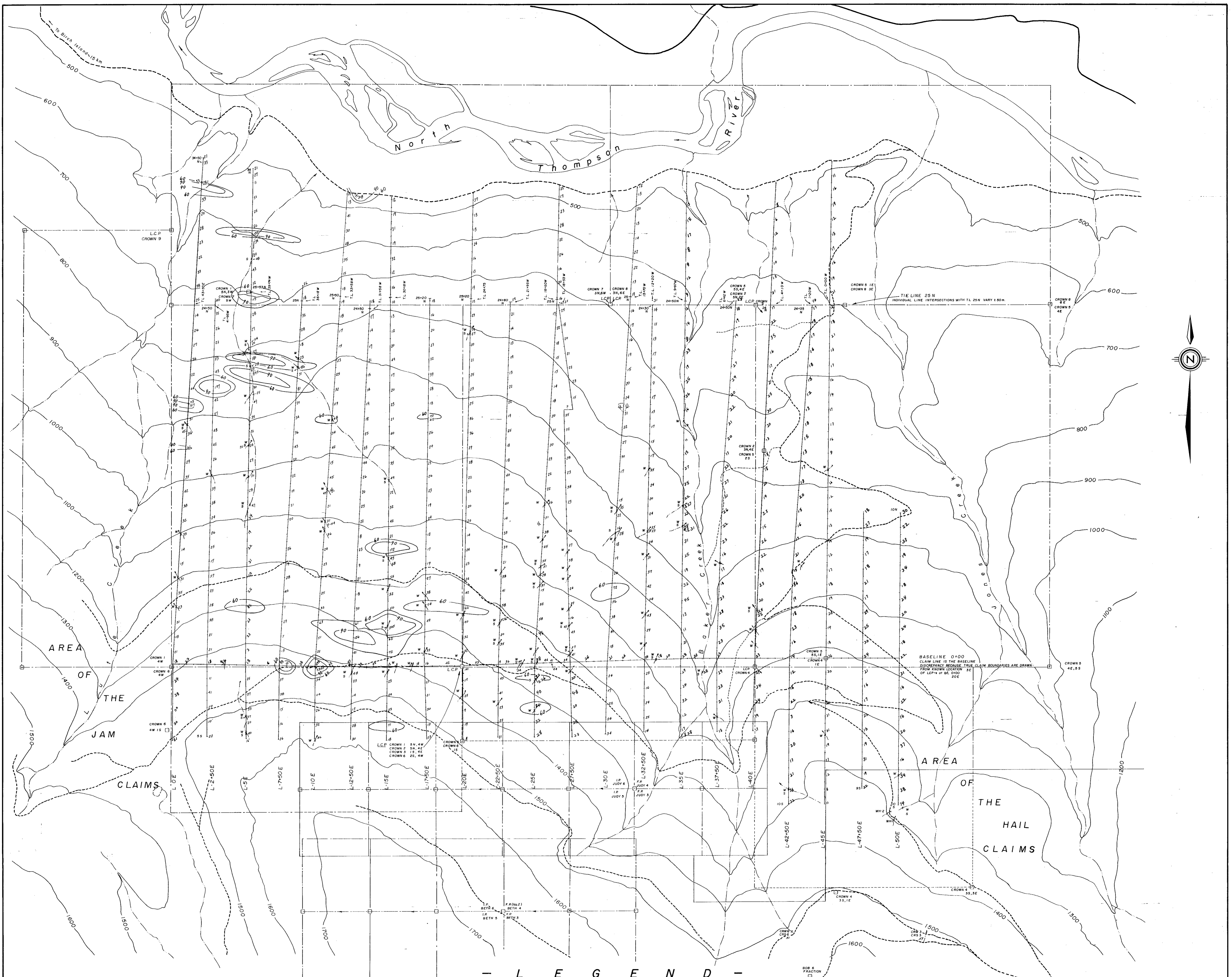
To accompany report by W. Gruenewald, B.Sc.

UNION OIL COMPANY OF CANADA

GEOCHEMICAL PLAN (CU) CROWN CLAIMS

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY KERR, DAWSON & ASSOCIATES LTD.	SCALE: 1:10,000
DRAWN BY W.G.	DATE JUNE, 1979.
APPROVED BY J.R. KERR, P.ENG.	FIG. NO. 196 C-5



GEOCHEMICAL CATEGORIES

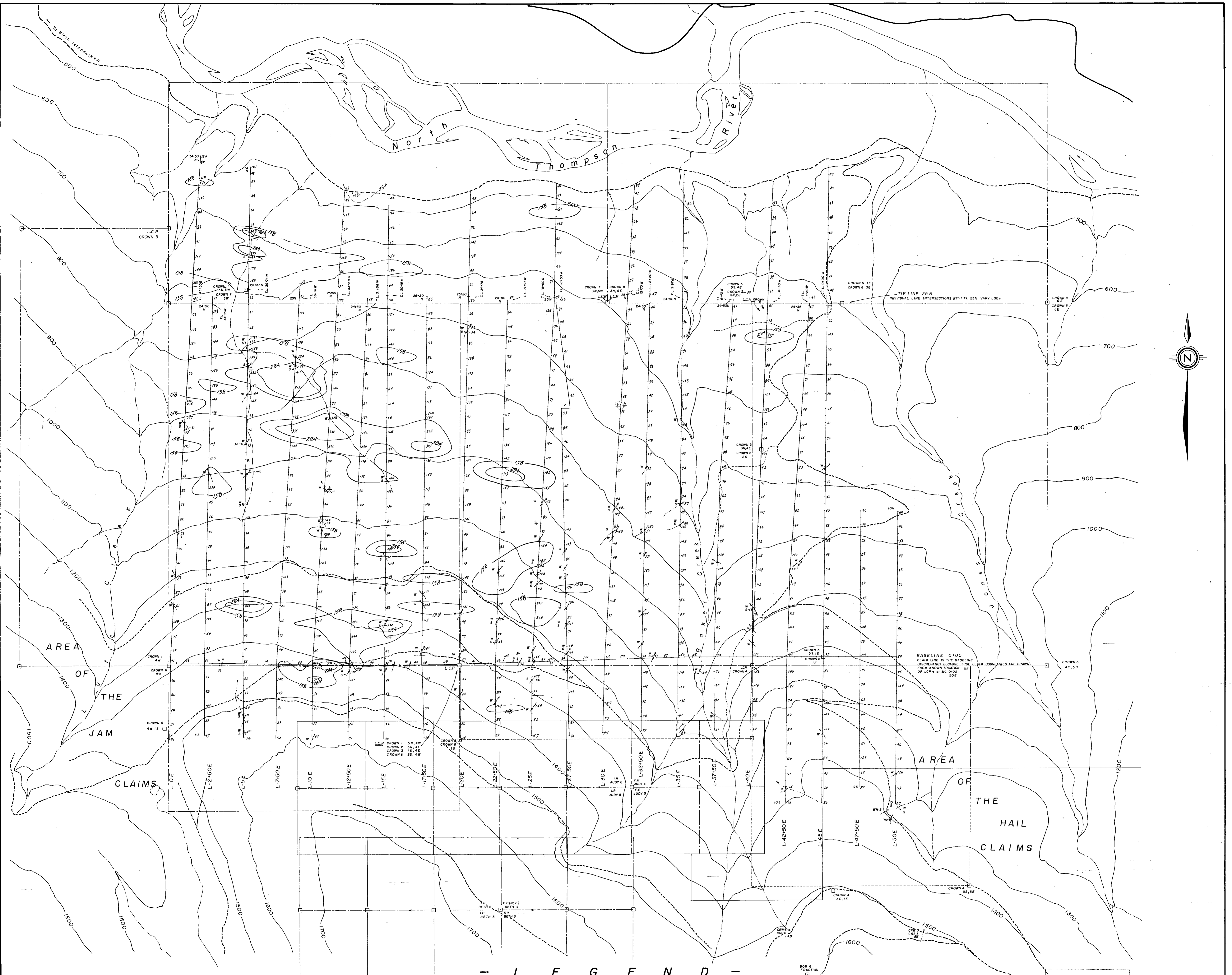
NEGATIVE	< 29.1 ppm Pb
POSSIBLY ANOMALOUS	29.1 - 59.4 ppm Pb
PROBABLY ANOMALOUS	59.4 - 89.7 ppm Pb
DEFINITELY ANOMALOUS	89.7 ppm Pb

- L E G E N D -

- TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS.
- CREEK, SEEPAGE
- SWAMPY OR BOGGY AREA
- ROADS (MAIN AND SECONDARY)
- CLAIM BOUNDARY WITH LEGAL CORNER POST (LCP)
- GRID LINE WITH STATION MARKERS AND LINE NUMBER
- WATER SAMPLE, SILT SAMPLE
- SAMPLE SITE WITH LEAD VALUE IN PARTS PER MILLION (PPM)

BASELINE 0+00
CLAIM LINE IS THE BASELINE
DISCREPANCY MEASURED. TRUE CLAIM BOUNDARIES ARE DRAWN
FROM KNOWN LOCATION
OF LCP'S IN W. 0100
20E

MINING DIVISION
KAMLOOPS MINING DIVISION
7503
UNION OIL COMPANY OF CANADA
**GEOCHEMICAL PLAN (PB)
CROWN CLAIMS**
KAMLOOPS MINING DIVISION, B.C.
TECHNICAL WORK BY: KERR DAWSON & ASSOCIATES LTD. SCALE: 1:10000
DRAWN BY: W.G. DATE: JUNE, 1979.
APPROVED BY: J.R. KERR, P.E.N.G. FIG. NO. 196 C-6



GEOCHEMICAL CATEGORIES

- NEGATIVE < 94.7 ppm Zn
- POSSIBLY ANOMALOUS 94.7 - 158 ppm Zn
- PROBABLY ANOMALOUS 158 - 284 ppm Zn
- DEFINITELY ANOMALOUS > 284 ppm Zn

- L E G E N D -

- 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS.
- CREEK, SEEPAGE
- SWAMPY OR BOGGY AREA
- ROADS (MAIN AND SECONDARY)
- CLAIM BOUNDARY WITH LEGAL CORNER POST (LCP)
- GRID LINE WITH STATION MARKERS AND LINE NUMBER.
- WATER SAMPLE, SILT SAMPLE
- SAMPLE SITE WITH ZINC VALUE IN PARTS PER MILLION (PPM)

7503

To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

GEOCHEMICAL PLAN (Zn)

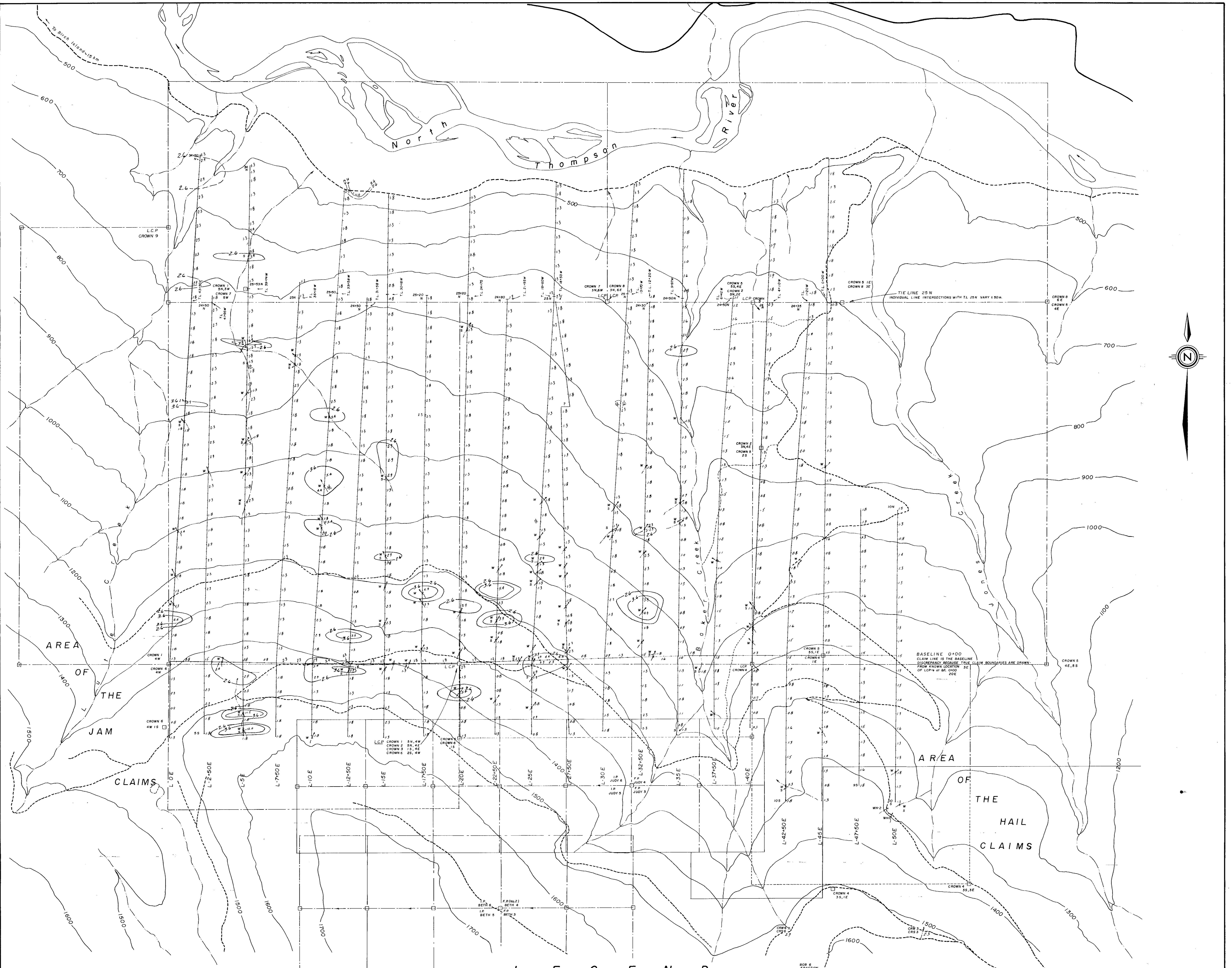
CROWN CLAIMS

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON & ASSOCIATES LTD. SCALE: 1:10,000

DRAWN BY: W.G. DATE: JUNE, 1979

APPROVED BY: J.R. KERR, P.ENG. FIG. NO. 196 C-7



GEOCHEMICAL CATEGORIES

- NEGATIVE < 1.7 ppm U
- POSSIBLY ANOMALOUS 1.7 - 2.6 ppm U
- PROBABLY ANOMALOUS 2.6 - 3.6 ppm U
- DEFINITELY ANOMALOUS > 3.6 ppm U

- L E G E N D -
- 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL 100 METERS.
 - CREEK, SEEPAGE
 - SWAMPY OR BOGGY AREA
 - ROADS (MAIN AND SECONDARY)
 - CLAIM BOUNDARY WITH LEGAL CORNER POST (L.C.P.)
 - GRID LINE WITH STATION MARKERS AND LINE NUMBER
 - WATER SAMPLE, SILT SAMPLE
 - SAMPLE SITE WITH URANIUM VALUE IN PARTS PER MILLION (PPM)

MINDS & REFINANCES CORP.
 7503
 NO.

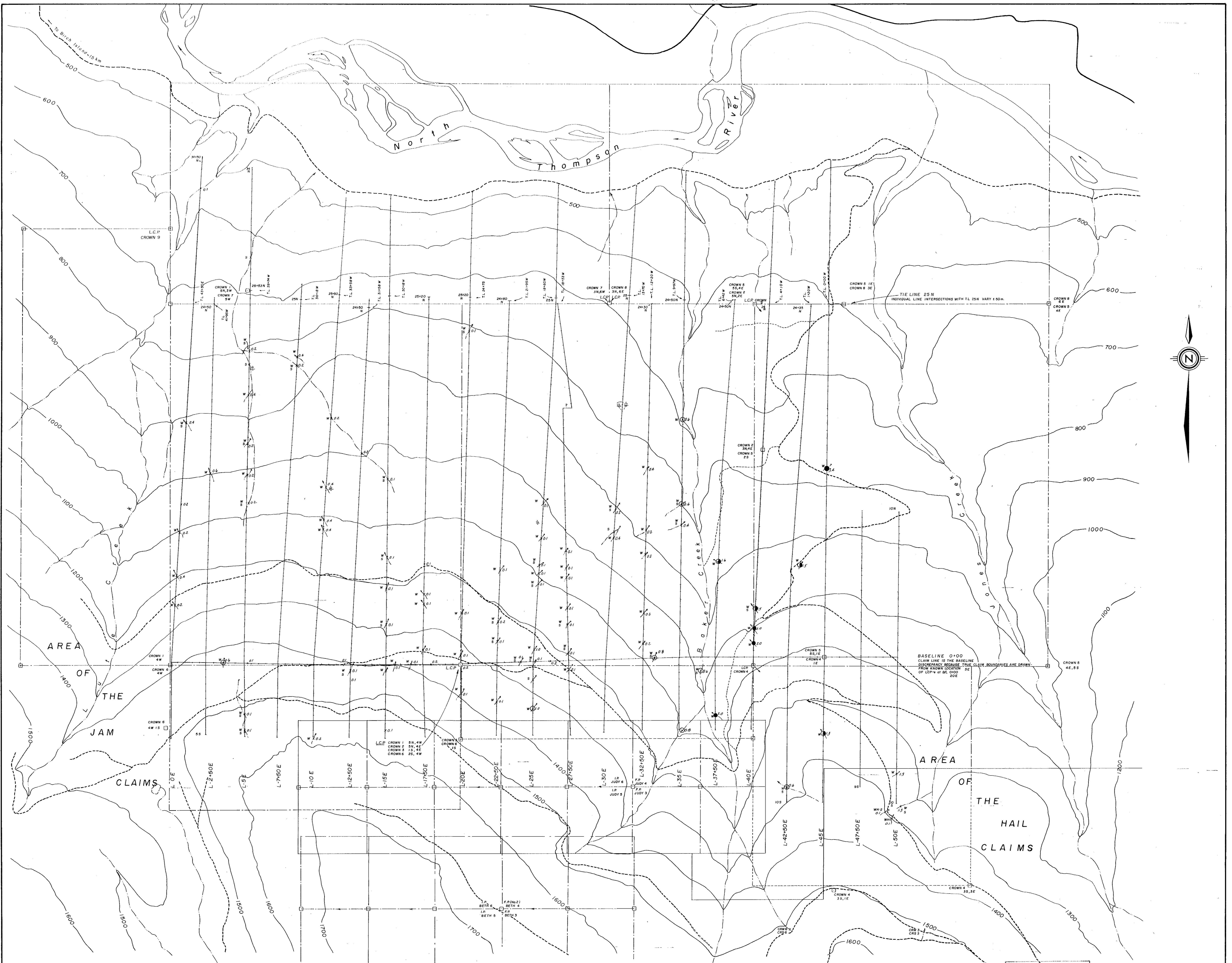
To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

**GEOCHEMICAL PLAN (U)
 CROWN CLAIMS**

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON & ASSOCIATES LTD.	SCALE: 1:10,000
DRAWN BY: W.G.	DATE: JUNE, 1979.
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 196 C-8



GEOCHEMICAL CATEGORIES

- NEGATIVE < 0.42 ppb U
- POSSIBLY ANOMALOUS 0.42 - 1.02 ppb U
- PROBABLY ANOMALOUS 1.02 - 1.62 ppb U
- DEFINITELY ANOMALOUS 1.62 ppb U

- L E G E N D -

- - - - - 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS.
- ~~~~~ CREEK, SEEPAGE
- ⊞ SWAMPY OR BOGGY AREA
- +— ROADS (MAIN AND SECONDARY)
- +— CLAIM BOUNDARY WITH LEGAL CORNER POST (L.C.P.)
- +— GRID LINE WITH STATION MARKERS AND LINE NUMBER.
- W WATER SAMPLE, SILT SAMPLE
- SAMPLE SITE WITH URANIUM VALUE IN PARTS PER BILLION (PPB)

MINERAL DEVELOPMENT DIVISION
 7503
 NO.

To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

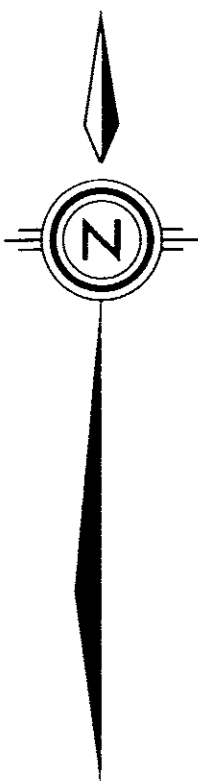
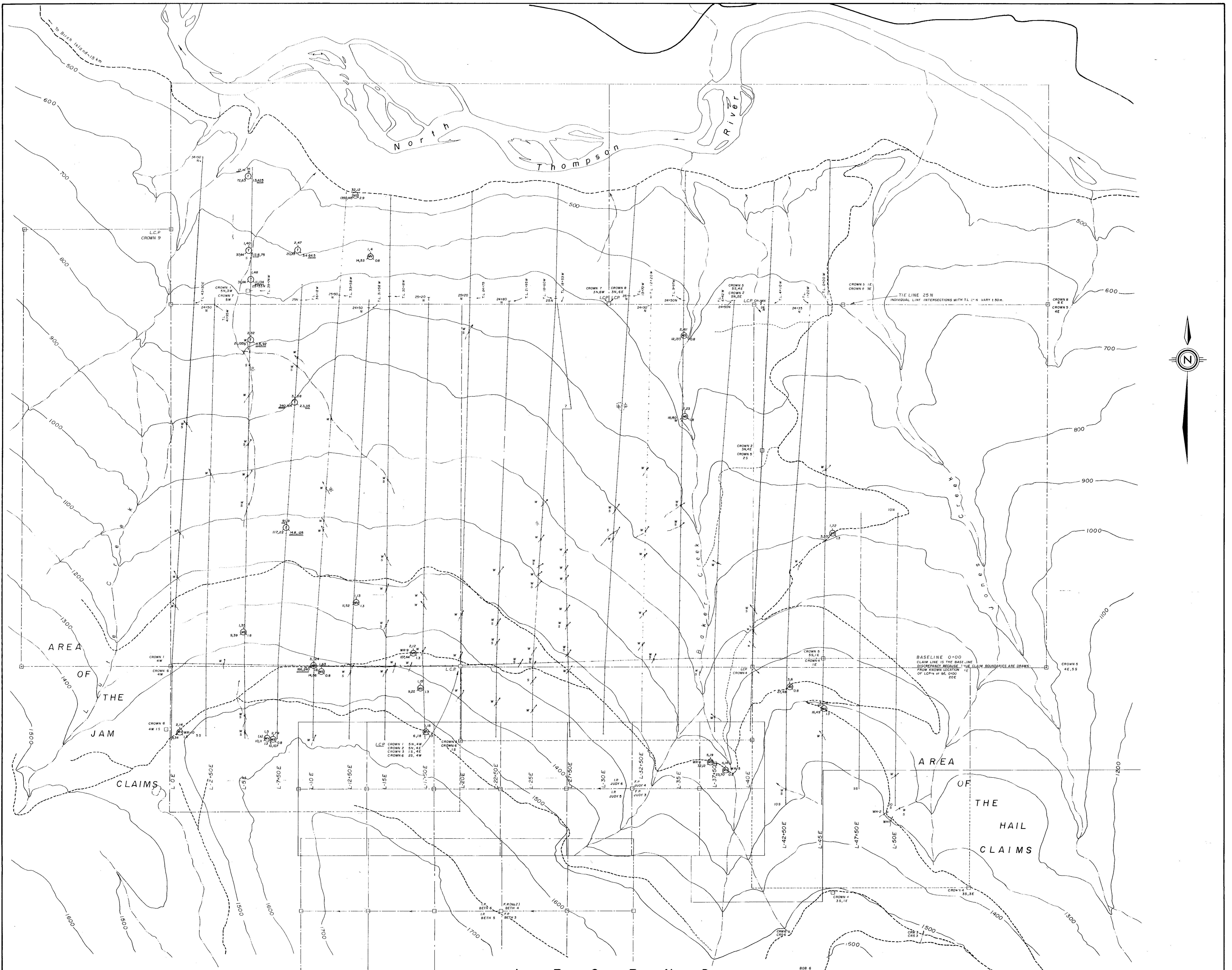
**GEOCHEMICAL PLAN
 (URANIUM IN WATERS)
 CROWN CLAIMS**

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON & ASSOCIATES LTD. SCALE: 1:10,000

DRAWN BY: W.G. DATE: JUNE, 1979.

APPROVED BY: J.R. KERR, P.ENG. FIG. NO. 196 C-9



- L E G E N D -

- 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 METERS
- CREEK, SEEPAGE
- SWAMPY OR BOGGY AREA
- ROADS (MAIN AND SECONDARY)
- CLAIM BOUNDARY WITH LEGAL CORNER POST (L.C.P.)
- GRID LINE WITH STATION MARKERS AND LINE NUMBER
- WATER SAMPLE, SILT SAMPLE

Mn, Cu
 ANOMALOUS VALUE 12.74
 27.80 13.3
 Pb, Zn 0.74
 Ag
 ROCK GEOCHEMICAL SAMPLE SITE WITH GEOCHEMICAL ASSAYS AND ROCK TYPE IN CIRCLE
 MV = METAVOLCANIC
 MS = METASEDIMENT
 T = TRACHYTE

BASELINE 0+00
 CLAIM LINE IS THE BASELINE
 DIFFERENCE REQUIRE THE CLAIM BOUNDARIES ARE DEPEND
 FROM KNOWN LOCATION OF
 OF LCP'S IN W. 1000 00E

MINERAL RESOURCES DIVISION
 ASSASSINMENT REPORT
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 N.V.

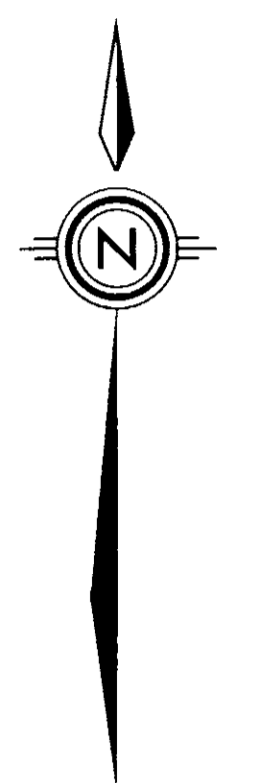
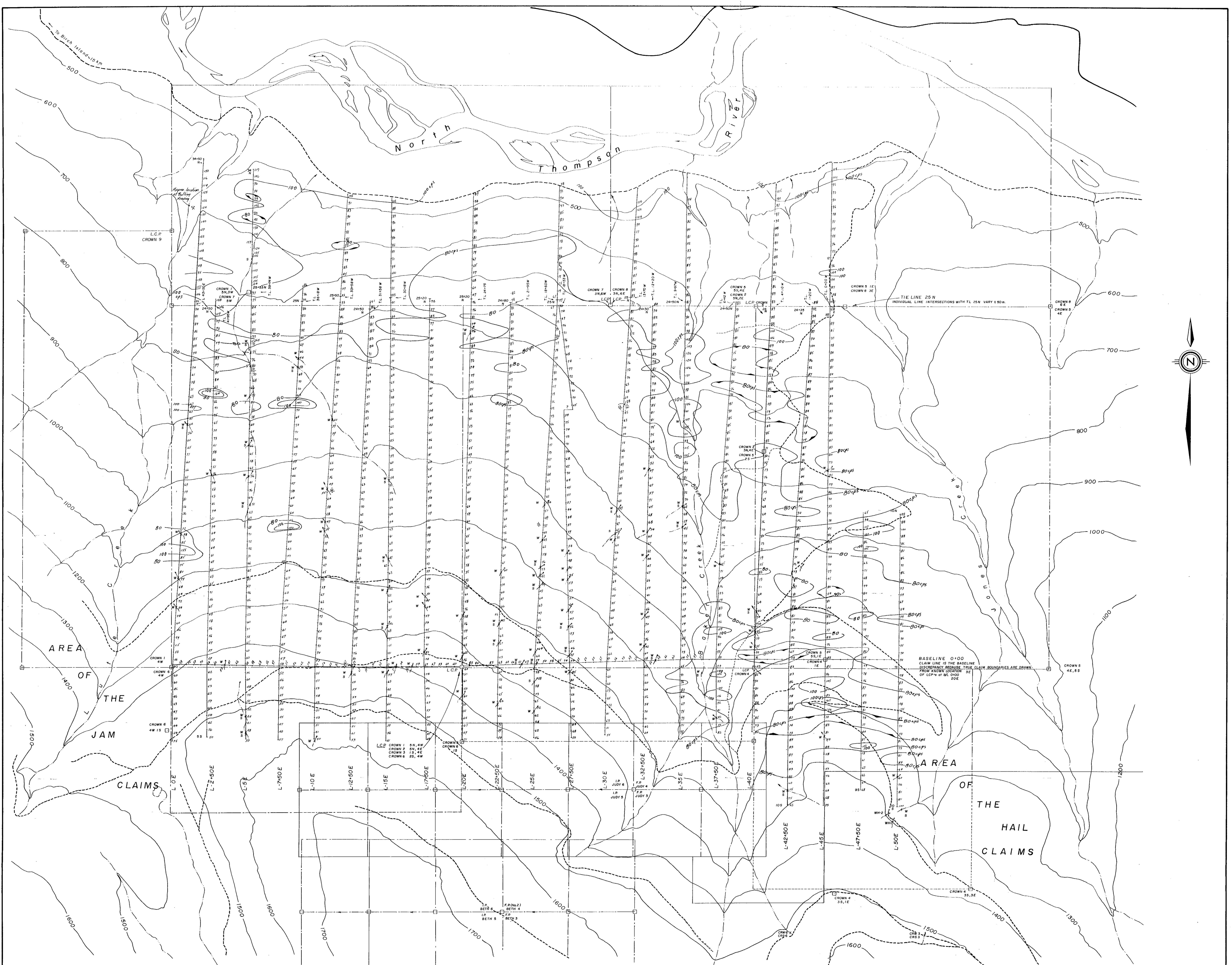
To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

ROCK GEOCHEMICAL PLAN
CROWN CLAIMS

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON & ASSOCIATES LTD.	SCALE: 1:10000 0 100 200 METERS 400
DRAWN BY: W.G.	DATE: JUNE, 1979.
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 196 C-9A



- L E G E N D -

- 1000 TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL 100 METERS.
- CREEK, SEEPAGE
- SWAMPY OR BOGGY AREA
- ROADS (MAIN AND SECONDARY)
- CLAIM BOUNDARY WITH LEGAL CORNER POST (L.C.P.)
- GRID LINE WITH STATION MARKERS AND LINE NUMBER.
- WATER SAMPLE, SILT SAMPLE
- GRID STATION WITH TOTAL COUNT READING IN COUNTS PER SECOND (CPS)

RADIOMETRIC CATEGORIES

- < 60 cps
- 60 - 80 cps
- 80 - 100 cps
- > 100 cps

NOTE: ALL READINGS TAKEN WITH A URTEC UG-135 SPECTROMETER.

MINERAL RESOURCES BRANCH
ASSOCIATED SURVEY
7503

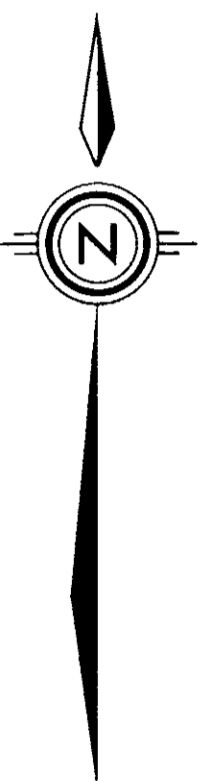
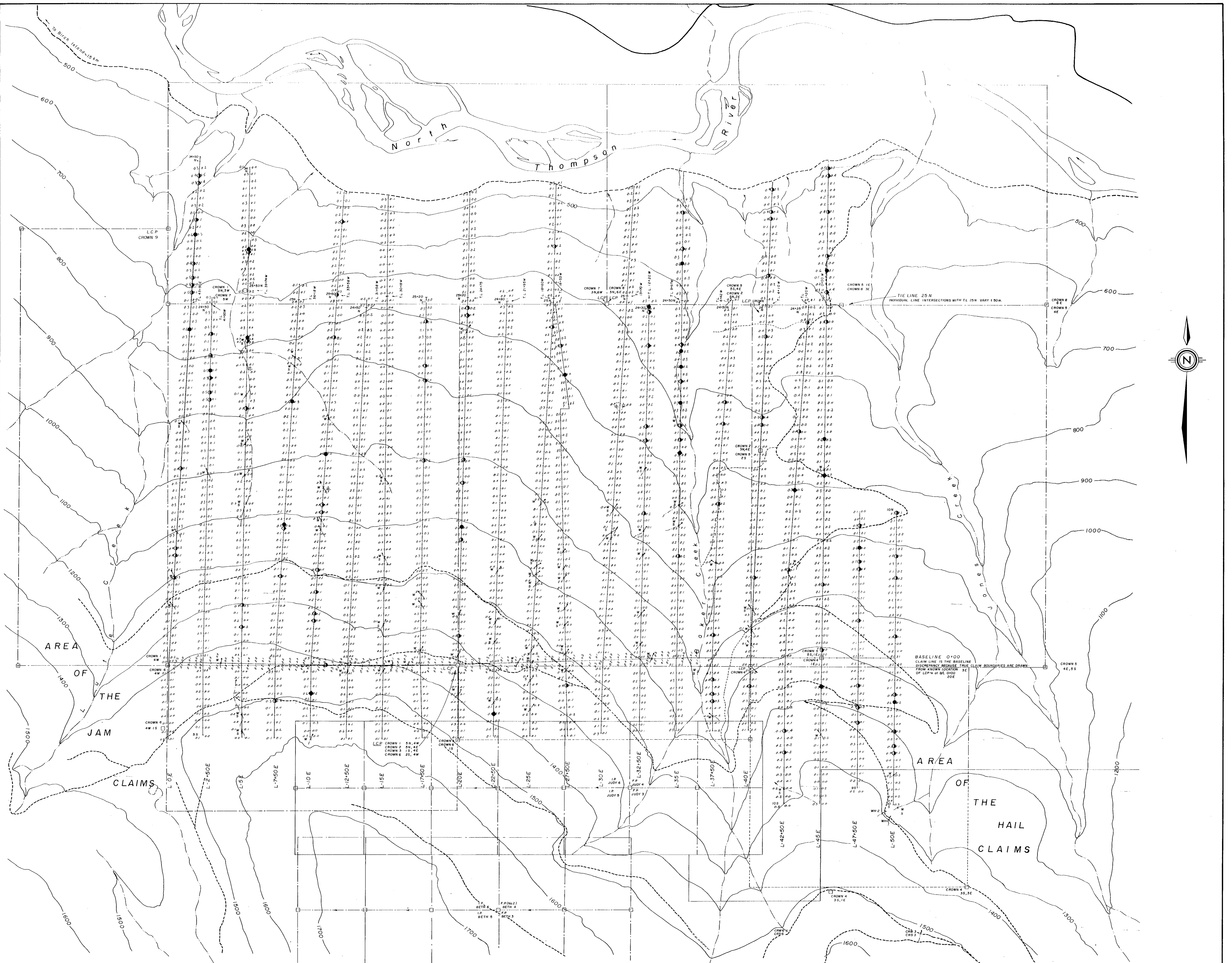
To accompany a report by W. Gruenwald, B.Sc.

UNION OIL COMPANY OF CANADA

**RADIOMETRIC SURVEY
(TOTAL COUNT)
CROWN CLAIMS**

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY: KERR, DAWSON & ASSOCIATES LTD.	SCALE: 1:30,000
DRAWN BY: W.G.	DATE: JUNE, 1979.
APPROVED BY: J.R. KERR, P.ENG.	FIG. NO. 196 C-10



- L E G E N D -

- TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 meters.
 - CREEK, SEEPAGE
 - SWAMPY OR BOGGY AREA
 - ROADS (MAIN AND SECONDARY)
 - CLAIM BOUNDARY WITH LEGAL CORNER POST (LCP)
 - GRID LINE WITH STATION MARKERS AND LINE NUMBER.
 - WATER SAMPLE, SILT SAMPLE
 - GRID STATION WITH URANIUM AND THORIUM READINGS IN COUNTS PER SECOND (CPS)
- NOTE: ALL READINGS TAKEN WITH A URTEC UG-135 SPECTROMETER.

RADIOMETRIC CATEGORIES

URANIUM		THORIUM	
○	0.0 - 0.3 cps	○	0.0 - 0.3 cps
●	0.4 - 0.5 cps	◐	0.4 - 0.5 cps
●	≥ 0.6 cps - ANOMALOUS	◐	≥ 0.6 cps - AN

MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
7503
No.

UNION OIL COMPANY OF CANADA

**RADIOMETRIC SURVEY
(URANIUM & THORIUM READINGS)
CROWN CLAIMS**

KAMLOOPS MINING DIVISION, B.C.

TECHNICAL WORK BY KERR, DAWSON & ASSOCIATES LTD.	SCALE 1:10,000
DRAWN BY W.G.	DATE: JUNE, 1979
APPROVED BY J.R. KERR, P.ENG.	FIG. NO. 196 C-11



- L E G E N D -

- TOPOGRAPHIC CONTOUR IN METERS (A.S.L.), CONTOUR INTERVAL = 100 meters
- CREEK, SEEPAGE
- SWAMPY OR BOGGY AREA
- ROADS (MAIN AND SECONDARY)
- CLAIM BOUNDARY WITH LEGAL CORNER POST (LCP)
- GRID LINE WITH STATION MARKERS AND LINE NUMBER
- WATER SAMPLE, SILT SAMPLE
- CLAIM POSTS FROM OLD TWO POST SYSTEM
- I.P. = INITIAL POST (NO 1 POST)
- F.P. = FINAL POST (NO 2 POST)

7503

MINERAL RESOURCES DIVISION
 UNION OIL COMPANY OF CANADA

**CLAIM MAP
 CROWN CLAIMS**

KAMLOOPS MINING DIVISION, B.C.

1:1 INITIAL WORK BY R.L.H. HAWSON & ASSOCIATES LTD. SCALE 1:50,000
 DRAWN BY W.L. DATE JUNE, 1979. DATE JUNE, 1979. FIG. NO. 196 C-12