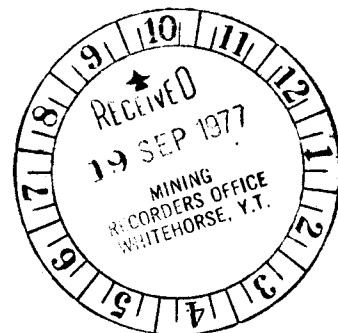


GEOCHEMICAL AND GEOPHYSICAL REPORT
ON THE K-EAST AND K-WEST GROUPS
Klotassin River Area, Yukon Territory
K - CLAIMS - WHITEHORSE MINING DISTRICT
Lat. 62°20' North; Long. 138°51' West
NTS Map-Sheet 115J/7



for

Union Oil Company of Canada Ltd.

by

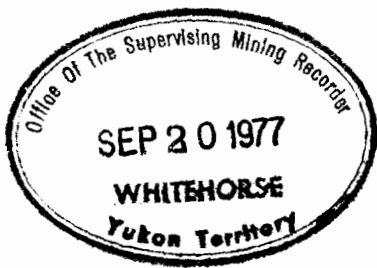
D.G. Leighton and
R.R. Culbert, P.Eng., PhD

D.G. Leighton & Associates Ltd.
Vancouver, B.C.

31 August, 1977



090219



This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of \$2000.00

~~Resident Geologist or
Resident Mining Engineer~~

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

B. R. BAXTER
Supervising Mining Recorder

Commissioner of Yukon Territory

CONTENTS

	Page
INTRODUCTION	1
SUMMARY AND CONCLUSIONS	2
GENERAL DESCRIPTIONS	3
Location and Access	3
Physiography and Topography	3
History	3
Claims	3
GEOLOGY	4
GEOCHEMISTRY	4
GEOCHEMICAL SURVEY	4
General	4
Results	4
Interpretation	5
GEOPHYSICAL SURVEY	5
General	5
Results	5
Interpretation	5
BREAKDOWN OF COSTS	6
PERSONNEL	7
CERTIFICATION	8
MAPS	
Index Map	follows page 3
Grouping Map	follows Page 4
Radiometric Survey Results	in pocket
Uranium: Thorium Ratios - Uranium in Soils	in pocket
APPENDIX	
Analytical Procedures	

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GEOCHEMICAL AND GEOPHYSICAL REPORT
ON THE KLOTASSIN PROPERTY
Klotassin River Area, Yukon Territory

INTRODUCTION

This report describes the results of a geochemical - radiometric survey completed over parts of the K mineral claims. Work was part of a program of uranium exploration covering a large part of the southwestern Yukon. Field work on the KLOTASSIN property was done during July and August, 1976.

SUMMARY AND CONCLUSIONS

1. The KLOTASSIN property comprised of 20 unsurveyed mining claims held by Union Oil Company of Canada Ltd. is situated roughly 70 miles north of Burwash in the Yukon Territory.
2. The property is presently reached by helicopter based in Burwash Landing.
3. Granitic rocks of Eocene age underlie the claims.
4. Exploration work carried out during the summer of 1976 consisted of prospecting with hand-held scintillometers plus geochemical and spectrometer surveys.
5. No indication of radioactive mineralization was found through any of the work done. While admitting the possibility of severe downward leaching masking the presence of a uranium deposit, it seems such mineralization could only be found by drilling. We do not feel such a program can be justified unless a reasonably definitive method of establishing drill targets can be found.

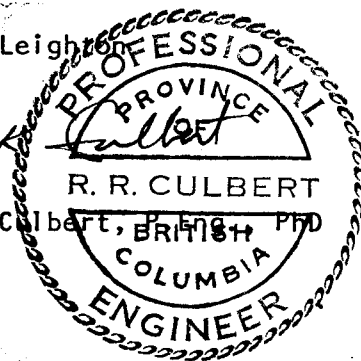
Respectfully submitted,

D. G. Leighton

D. G. Leighton

R. R. Culbert

R. R. Culbert, P. Eng. P. D.



31 August, 1977

GENERAL DESCRIPTIONSLocation and Access

The K-claims are located 25 miles east of Wellesley Lake at about 4500 feet elevation. The property is shown relative to topographic features on a map following this page. Access is by way of helicopter, a distance of 70 miles north of Burwash Landing on the Alaska Highway. Geographically, the claims are situated at 62°20' north latitude and 138°51' west longitude.

Physiography and Topography

The property lies within an unglaciated part of the Yukon. Topography here consists of smooth-topped ridges mainly devoid of vegetation with occasional outcrops of castellated alaskite. Although the claims are almost totally lacking in bedrock exposures, frost heaved blocks are common.

History

The K-claims were staked over ground previously held by Canadian Occidental Petroleum Ltd. which conducted grid soil sampling and geological mapping mainly for copper and molybdenum mineralization.

Claims

Whitehorse Mining District
Registered in the name of Union Oil Company of Canada

<u>Property</u>	<u>Mineral Claims</u>	<u>Grant No.</u>	<u>Record Date</u>	<u>Expiry Date</u>
KLOTASSIN	K1 - K20	YA 8066 - YA 8085	August 30, 1976	August 30, 1977

K1 - K10	K-EAST GROUP;	K11 - K20	K-WEST GROUP
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GEOLOGY

The K-property is underlain entirely by so-called Nisling Range alaskite. This consists of miarolitic, leucocratic granite. The rock varies extensively in texture over distances of a few feet and as much change is observed within a single outcrop as over a mile-long traverse. A detailed description of Nisling type rock is given by Tempelman-Kluit (1973). *

GEOCHEMISTRY

Silt sampling in the KLOTASSIN area revealed anomalous conditions near the headwaters of a creek running into the Nisling River from the east. Follow-up indicated a cluster of high values about one mile from the head of this creek. Two small streams entering this area from the hillside on the east bank were found to be strongly anomalous, 55 and 58 parts per million. Several high values were also picked up from across the main ridge to the east. Surrounding values were relatively low. Besides the classic nature of the distribution of sample results including an up-stream cut-off, the environment appears simple. The source area of the high stream silts was marked for follow-up.

GEOCHEMICAL SURVEY

General

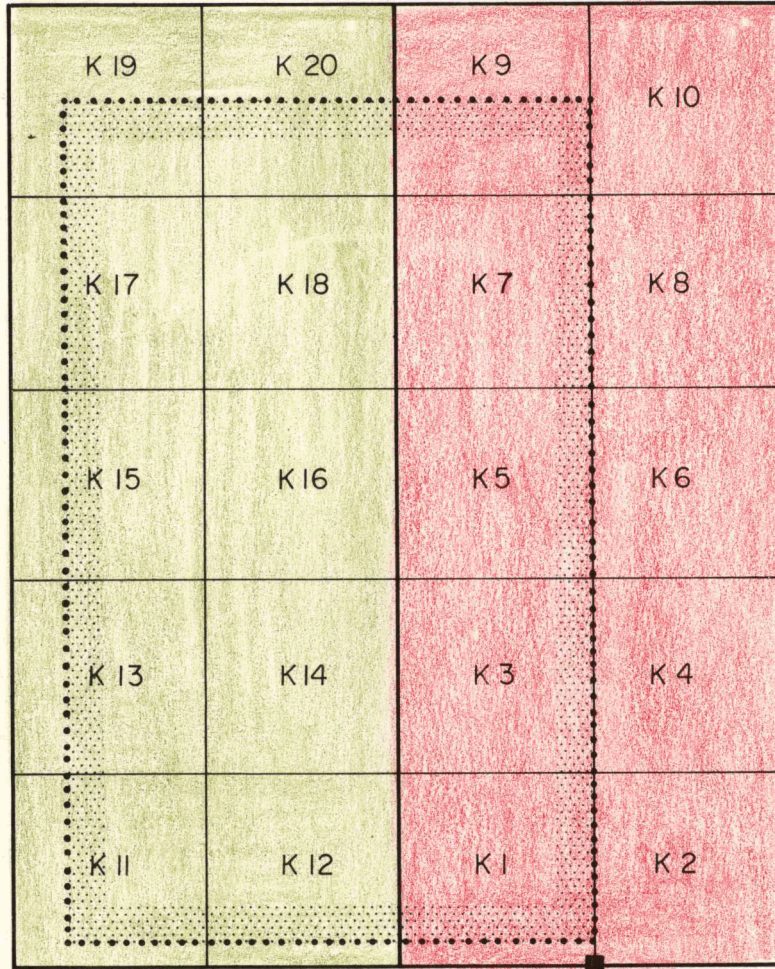
A geochemical soil survey covering the central part of the KLOTASSIN property was completed in July, 1976. Control for this work was by chain and compass survey. Pickets were used to mark stations which were placed at 100 or 200 foot intervals on lines 400 feet apart.

Samples were collected from the "B" soil horizon using grub-hoes. All samples were shipped to Min-En Laboratories Ltd., North Vancouver, B.C., where they were prepared and tested for uranium and organic content. The analytical procedure is described in Appendix "A".

Results

Results of the grid controlled geochemical survey on the KLOTASSIN property are shown on a 200 feet to one inch map (in pocket). The soil values are combined with Uranium: Thorium ratios for comparative purposes.

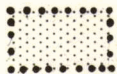
* Tempelman-Kluit, D.J. (1973); Reconnaissance Geology of Aishihik Lake, Snag and Part of Stewart River Map-Areas, West-Central Yukon, G.S.C. Paper 73 - 41.



K-EAST GROUP

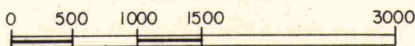
K-WEST GROUP

BL. STN. 0+00
KLOTASSIN PROPERTY GRID



AREA COVERED BY GEOCHEMICAL -
RADIOMETRIC SURVEY GRID

SCALE IN FEET



D. G. LEIGHTON & ASSOCIATES LTD.

KLOTASSIN PROPERTY GROUPING MAP

PROJECT
M.U.G.

PROJECT NO.
101A

SCALE
1" = 1500'

DATE
AUG. - 1977

Interpretation

No indication of radioactive mineralization is evident from the geochemical - radiometric results, nor was any found in the course of prospecting work. Most of the variation seen in the results is related to variations in soil cover and/or organic content in the samples.

GEOPHYSICAL SURVEY

General

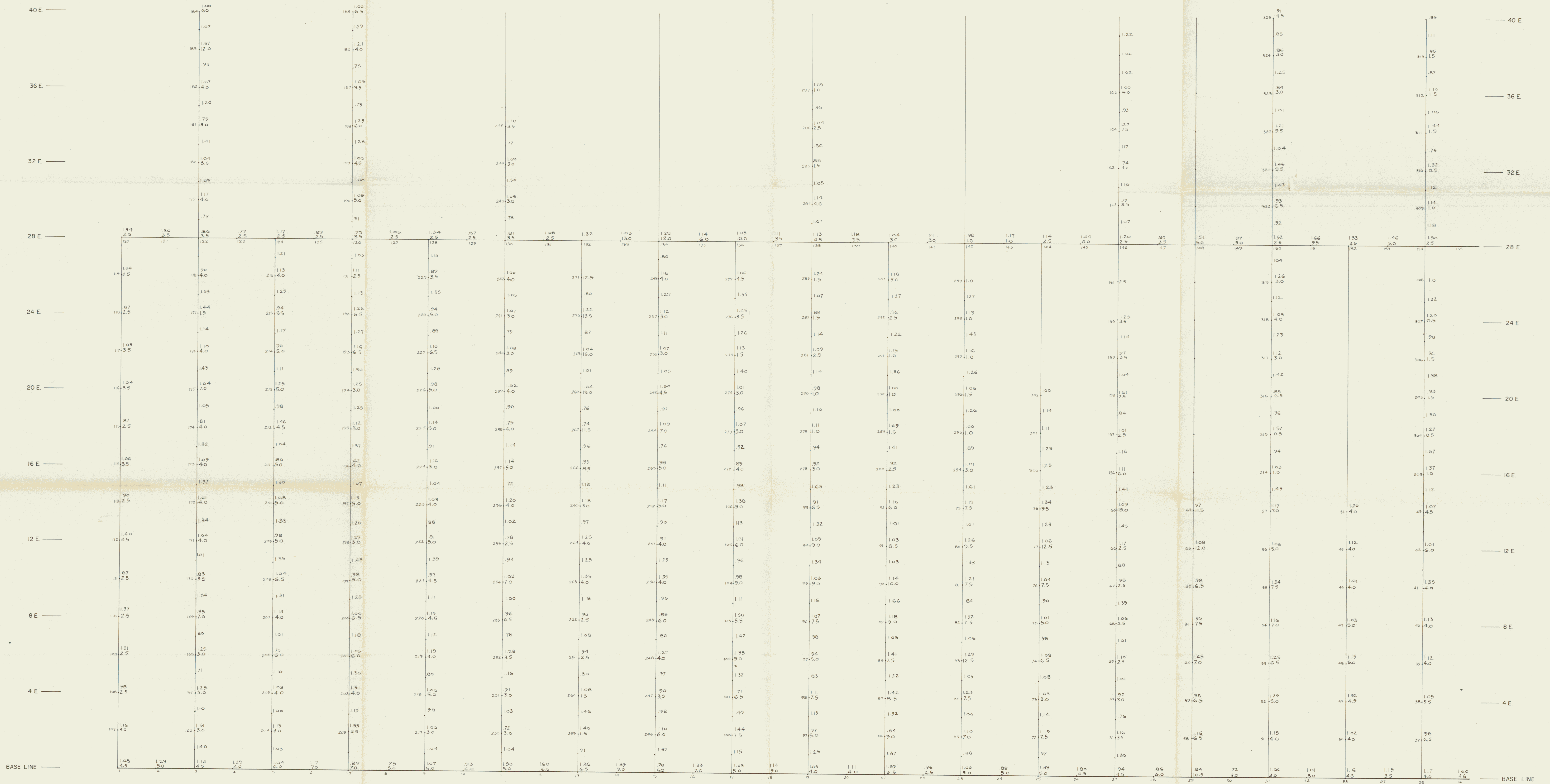
A SPECTRA "44" spectrometer with the standard 3 inch crystal detector was used to measure radioactivity at selected grid locations. For this survey the instrument was used in a digital mode with a 30 second counting time. The T/C, K, U and Th readings were recorded at each station.

Results

Results are presented on a one inch to 200 foot scale map entitled "Radiometric Survey Results" (in pocket). U:T/C and U:K ratios are included with these results.

Interpretation

There is no pattern within the radiometric survey results, which is considered evidence for potential economic concentrations of uranium mineralization. In fact, most of the variation observed seems due to closure effects and proximity to rock exposures.



0 N 4 N 8 N 12 N 16 N 20 N 24 N 28 N 32 N 36 N 40 N 44 N 48 N 52 N 56 N 60 N 64 N 68 N

LEGEND
 101 U:Th Ratio
 40 U (ppm)
 sample number

D.G. Leighton

D. G. LEIGHTON & ASSOCIATES

"K" CLAIMS, YUKON
 URANIUM: THORIUM RATIOS
 URANIUM IN SOILS (ppm)

SCALE IN FEET
 0 200 400 600 800

PROJECT M.U.G. JV	PROJECT No. 101 A	DATE 1976	DRAWN ALTAIR
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MIN-EN Laboratories Ltd.

Specialists in Mineral Environments

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

ANALYTICAL PROCEDURE REPORTS FOR
ASSESSMENT WORK

Procedure for Uranium Analysis:

Rock, soil and silt samples are dried at 110°C and then rocks are crushed and pulverized to -80 mesh.

Soils and silts are sieved and the minus 80 mesh fraction is retained for analysis.

1.000 g. sub-sample is weighed and digested for eight hours with HNO_3 and HClO_4 .

Then the uranium is separated chemically from other possible interfering ions as Mn, Fe, etc.

After preparation a suitable aliquote is taken and fluxed to form a 1.5 inch diameter discs in platinum dishes.

These salt discs then are compared and measured along with suitable standard with a Jarrell Ash Fluorometer.

The results are calculated accordingly to the sample aliquotes used from standard graphs.