

ENGINEER'S SUMMARY REPORT
URANIUM POTENTIAL
RUSS CLAIM GROUP

By

ACE R. PARKER & ASSOCIATES
LIMITED

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ENGINEER'S SUMMARY REPORT

on the

URANIUM POTENTIAL

of the

RUSS CLAIM GROUP

DAWSON MINING DISTRICT, YUKON TERRITORY

for

CANADIAN URANIUM CORPORATION LIMITED

by

ACE R. PARKER & ASSOCIATES LIMITED
MINERAL INDUSTRY CONSULTANTS & CONTRACTORS
WHITEHORSE, YUKON

DATED

IN CANADA

this

1st Day of June, 1969

CANADIAN URANIUM CORPORATION LIMITED

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CANADIAN URANIUM CORPORATION LIMITED

INTRODUCTION

This Report outlines known facts pertaining to a large unexplored and undeveloped Uranium potential situated near the Alaska Highway in North Central Yukon. Key Claims have been held on the property for years but little if any exploration work has been done on the property until recent months when airborne geophysical surveys and sampling revealed the occurrences to be much larger and richer than previously realized. A private Corporation is being set up to develop the property.

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SUMMARY

Undeveloped uranium mineralization exists in porphyritic granitic rocks along Clear Creek near the Whitehorse - Dawson Highway in the Yukon Territory in a geological and economic environment which justifies large scale exploration and development in the immediate future.

"Radioactivity" has been known in the area for many years but its importance was not fully realized until recent months when field work and an independent radiometric survey revealed seven major anomalous zones exist within an area of less than 50 Claims in size. (See attached Report by Mr. Mark - Geophysicist of Geotronics Surveys Limited)

Assays indicate that uranium is definitely present within the granitic rocks of the area and even though leached at surface is not contaminated by thorium.

Of particular significance is the fact that pitchblende has been found as float in Clear Creek in the area covered by the Russ Claims. Also radiation has been reported over an area of several square miles indicating a potential much greater than covered by this Report.

Possible huge tonnages of ore minable by relatively cheap mining methods in conjunction with easy access and a buoyant price for uranium make this property an excellent exploration bet at this time. The details of the situation are set forth in this Report.

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PROPERTY & OWNERSHIP

The better known portion of the property consists of eight (8) contiguous and granted mineral claims which cover approximately 400 acres of Crown Land. Additional Claims are being located to acquire other important ground in the immediate area. The original Claims are recorded in the office of the Mining Recorder at Dawson City, Yukon as follows:

<u>CLAIM NAME</u>	<u>GRANT NO.</u>	<u>REGISTERED OWNER</u>
Russ #1 to 8 incl.	Y 15092 to Y 15099 incl.	G. Karens Whitehorse, Yukon

These Claims are being transferred to a private Corporation, Canadian Uranium Corporation, and no liens are registered against the property. Also no Mining Company has ever worked on the ground.

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LOCATION & ACCESS

The property (63°32'N 137°47'E) lies in west-central Yukon Territory, 220 airmiles north-northwest of Whitehorse, Yukon, 57 airmiles southeast of Dawson City, Yukon, 52 airmiles west of Mayo, Yukon and more particularly along Clear Creek, three (3) airmiles northeast of the Whitehorse-Dawson City Highway at Mile-Post 258.5.

The Whitehorse-Dawson Road and the Clear Creek Placer trails in the Barlow area provide access to the area.

The local placer "roads" could be upgraded to provide easy access to the area although currently helicopters based in Whitehorse, Yukon provide the most convenient access to the property.

The Whitehorse-Dawson Highway provides a 259 mile-long connection with a railhead at Whitehorse, Yukon which is 111 miles by railroad from deep-sea haulage facilities at Skagway, Alaska.

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HISTORY & DEVELOPMENT

Radioactive rocks have been known in the Clear Creek area for many years and were first formerly reported by Lang in Geological Survey of Canada - Paper #51-10, page 41 - where Allanite, a thorium-rich mineral, was reported in the placer deposits of Clear Creek.

Later in 1966, Yukon Prospector - Mr. George Karens - prospected the Clear Creek area and staked an area of anomalous radioactivity presently known as the Russ Group.

Mr. Karen's dilligent work showed that the radioactivity in the Russ Group was related to uranium and not thorium.

During the period when Uranium prices were relatively low several prominent Engineers, such as Dr. Aho and Dr. Campbell, reported on the property and suggested to their clients that work be done on the ground but very little work was done to determine if the Uranium content increased below the area of weathering.

Recent limited test holes indicate that the Uranium content increases several hundred percent with depth and subsequently an airborne scintelometer survey was flown to determine the extent of the strongest surface radioactivity.

The results of the survey were very gratifying (see attached Report by Geotronics Surveys) and the principles of the present Company decided to proceed with development of the property.

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PHYSIOGRAPHY & GENERAL GEOLOGY

The physiography environment of the Russ Group includes a series of low and glacially rounded north-west trending mountains which stand along the north-eastern flank of the Tintina fault.

These mountains are covered by a thin mantel of glacial soil which exhibits a thin growth of typical and small Yukon White Spruce and buck-brush and have resulted from erosional processes acting along fractures and faults which are probably related to the major Tintina fault. Local drainage patterns such as Clear Creek follow faulted and fractured zones within the intrusives mass.

A broad valley located two miles southwest of the property follows the Tintina fault and is manteled by a thick layer of glacial gravel of unknown thickness.

The property lies along Clear Creek and the north-western flank of the Barlow Stock which forms the core of Twin Sisters Mountain southeast of the property.

The Barlow stock is a granite intrusive mass which has intruded (Precambrian?) schists of the Yukon Group. This stock is locally porphyritic and hydrothermally altered and contains pegmatite dikes.

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ECONOMIC GEOLOGY & MINERAL DEPOSITS

Along Clear Creek, and particularly on the Russ Group, an area of the Barlow Stock contains anomalous amounts of radioactivity associated with hematitic hydrothermal alteration of porphyritic granite. A recently conducted airborne survey of the Claims by Geotronics Surveys Ltd., of Vancouver, B.C. (see attached Report) indicates that the anomalous area and subsequent area of probable mineralization probably exceeds six million square feet in area even though 90% of said area is concealed by overburden.

Bed rock is exposed for several hundred feet along Clear Creek near the edge of the airborne anomaly, and although essentially decomposed in nature, surface assays vary from 0.017 to 0.17% U_3O_8 over a width of 500 feet where bed rock becomes concealed by overburden. Shallow test holes drilled in these exposures indicate that surface mineralization is extensively leached and increases appreciably (700%) with depth and is barren of any contamination by Thorium.

Bed rock in the area of mineralization consists of coarse grained porphyritic and orange to yellowish weathering granite. Individual feldspar phenocrysts exceed two inches in length in a finer grained feldspar ground mass with approximately 5% mafics. Small and steeply dipping shear zones are present but are concealed by weathering. The exact mineralogical

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ECONOMIC GEOLOGY & MINERAL DEPOSITS cont'd

nature of the uranium may be determined after some deep drilling has been completed. Nevertheless it is believed that the uranium mineralization is fracture controlled and of hydrothermal origin. It is significant that similar and unexplored mineralization exists within several miles of the present property.

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EXPLORATION & MINING CONSIDERATIONS

A program of Scintelometer Surveys, bulldozer trenching and diamond drilling would be the best method for exploration and development of the uranium mineralization on the immediate property. A very large area in the vicinity of the property should be explored by regional airborne Scintelometer Surveys, since this is a new discovery and there has been very little search of uranium in the area.

There is every indication that low cost open-pit mining methods could be employed to mine the deposits.

Sufficient water is available in the area for domestic and mining purposes and the quantity used will depend on the size of the resulting mining operation.

Electric power could be generated on site or "piped in" from existing Government facilities located at Mayo, Yukon approximately 57 miles east of the property.

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MISCELLANEOUS CONSIDERATIONS

Uranium concentrate - "yellow cake" will undoubtedly increase in demand in the years to come and will probably rise from the present price of \$7.00 per pound to as much as \$14.00 per pound in the early 1970's. Such a concentrate has a high unit value, an essential consideration for seemingly isolated mining operations and will probably be saleable on the open market with few restrictions.

Current underground mining operations in Canada operate on a grade of 0.14% (U_3O_8) and surface pit operations work on grades as low as 0.05% at present metal prices - these grades will probably be "cut in half" by the early 1970's due to the effect of supply and demand.

Canadian Uranium Corporation's Clear Creek operation will certainly be pleasantly economic by the time the mine is developed in the early 1970's and should have a life of many years.

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CONCLUSIONS & RECOMMENDATIONS

Canadian Uranium's Russ Group is very similar to the famous Gunner Deposits and contains a new and probably economic uranium potential of significant magnitude which remains relatively undeveloped to date.

Surface assays and a possible open-pit mining potential of 5,000,000 tons per 100 vertical feet in conjunction with results of recent airborne Scintelometer Surveys justify a systematic and extensive exploration program of the property and area as follows:

<u>OPERATIONS</u>	<u>COSTS</u>
1. Airborne Radiometric Surveys	\$175,000.00
2. Reserve for additional Staking	45,000.00
3. Geologic Mapping & Sampling	15,000.00
4. Line Cutting & Picketing 300 line miles @ \$100.00/lm	30,000.00
5. Ground Magnetometer & Scintelometer Surveys - 300 line miles @ \$250.00/lm - combined	75,000.00
6. Earth & Rock Excavation - access roads - trenching & drill-site preparations - equivalent to 200,000 cubic yards @ \$1.00/cubic yard	200,000.00
7. Diamond Drilling - 20,000 feet of BQ Wireline @ \$27.00/ft. - overall	<u>540,000.00</u>
<u>SUB TOTAL</u>	<u>\$1,080,000.00</u>

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CONCLUSIONS & RECOMMENDATIONS cont'd

<u>OPERATIONS</u>	<u>COSTS</u>
	<u>CARRIED FORWARD</u> \$1,080,000.00
8. Sampling & Assaying	9,000.00
9. Transportation - trucks & chopper	22,000.00
10. Camp & Subsistence - overall	45,000.00
11. Engineering & Supervision	23,000.00
12. Communications - radio	7,000.00
13. General Administration Head office expense	13,000.00
14. Contingencies	<u>151,000.00</u>
	<u>TOTAL</u> <u>\$1,350,000.00</u>

When this program has been completed a decision can be made regarding the future of the property. The Company also owns a very promising silver-lead property in the Teslin area of the Yukon where silver assays exceed 75 ounces per ton with ore occurrences that remain unexplored and are exposed over 90 feet in length.

Respectfully submitted,

ACE R. PARKER & ASSOCIATES LIMITED


Ace R. Parker - Consulting Engineer, AIME #245905
P. Eng., Yukon Territory & Alberta

&
R.E. Renshaw - Consulting Geologist
P. Eng., British Columbia & Ontario

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FINANCIAL CONSIDERATIONS

THE VEHICLE:

Canadian Uranium Corporation Limited
A 5,000,000 share Private Canadian Company
presently being formed.
Company includes two (2) vendors

THE OFFERING: - (equity financing)

450,000 Common Treasury Shares @ \$3.00
per share.

PLANS & DISBURSEMENTS:

Property development as per this Report and
conversion of the Private Company to a Public
Company during 1970 with subsequent listing
for trading on an accredited Canadian Stock
Exchange.

AGENT:

Mr. K. Grundman - Mine Finance - Europe

CANADIAN URANIUM CORPORATION LIMITED

C E R T I F I C A T E

I, Ace R. Parker, of the City of Whitehorse, Yukon Territory, do certify that:

- 1 - I am a Consulting Engineer practising under the name and style of ACE R. PARKER & ASSOCIATES LIMITED with office at 3rd and Elliot Street, Whitehorse, Yukon.
- 2 - I am a Bachelor of Science in Mining Engineering from the College of Earth Sciences and Mineral Industry, University of Alaska, College, Alaska - 1962. I hold a diploma in Mineralogy from the Mineral Science Institute, Chicago, Illinois - 1959.
- 3 - I am a member of the Association of Professional Engineers of Yukon, and the Association of Professional Engineers of Alberta. I have been a member of the American Institute of Mining, Metallurgical, and Petroleum Engineers since 1954.
- 4 - I have formally practiced my Profession for the past seven years after working in the Mineral Industry since 1953.
- 5 - This Certificate is part of the attached Engineer's Summary Report on the RUSS GROUP dated 7th of June, 1969. The attached property map shows the location of the RUSS CLAIM GROUP which has been located in compliance with the Yukon Quartz Mining Act.
- 6 - This Report is based on a comprehensive personal study of documents, maps and Reports relating to the property described herein, including Reports of the Geological Survey of Canada, all in conjunction with several personal examinations of the property by myself.
- 7 - I currently have no direct or indirect interest in the RUSS CLAIM GROUP described in the accompanying Report but I intend to purchase half interest in the current property.

Whitehorse, Yukon

June 7th, 1969



Ace R. Parker, P. Eng.

DOLMAGE-CAMPBELL & ASSOCIATES. LIMITED
CONSULTING GEOLOGISTS

VANCOUVER, CANADA

GEOLOGICAL REPORT

on the

RUSS GROUP

LOCATION: (63°32' N, 137° 47' E)

The Clear Creek uranium showing is located near the Whitehorse-Dawson highway, 270 miles by road from Whitehorse or 425 miles from the Keno turnoff at Stewart Crossing. A little-used side road, (a former placer operations service road), leaves the Dawson highway near the abandoned community of Barlow. This road is presently passable to 4-wheel drive vehicles. Three miles from the highway, it passes within 1 1/2 miles of the showing.

Access from the side road to the showing on foot is presently difficult because the area is an old burn in small-diameter, mixed coniferous and deciduous trees. However, outcrops are few and slopes into the valley of Clear Creek gentle, so that a "Cat" road to the property could be constructed very inexpensively.

HISTORY:

The presence of above-average radioactivity in certain rocks in the Clear Creek area has been known for a number of years. In 1966, Mr. George Karons carried out detailed prospecting up Clear Creek and staked a large outcropping of radioactive granite.

Leng (G.S.C. Paper 51-10, p. 41), reported the presence of allanite in Clear Creek placer deposits.

GEOLOGICAL SETTING

The uranium showing is in pegmatitic granite near the western edge of a small granitic stock, about 12 miles in longest dimension, immediately north of the Tintina trench. The stock, believed to be part of the Mesozoic age Coast Intrusions, is intruded into and completely surrounded by metamorphic rocks of the Yukon group.

LOCAL GEOLOGY:

The western contact between the granitic stock and the Yukon group metamorphic rocks lies between the placer operations service road previously discussed and the bed of Clear Creek. The central part of the showing, on the northwest bank of Clear Creek, is about 1/2 mile east of the contact.

At the central part of the showing, the outcrops are pegmatitic (porphyritic) granite with phenocrysts of light creamish feldspar two inches or more in length. The matrix to the phenocrysts is composed of finer grained feldspar, 20% dull quartz, and less than 5% mafics, principally mica. The granite is strongly fractured with three more or less mutually perpendicular fracture sets. Occasional steeply dipping shears up to four inches wide are exposed.

The granite is rusty to orange to faintly yellowish on the weathered surface. It is moderately decomposed and disintegrates readily under hammer blows.

About 2000 feet downstream from the central part of the showing is an outcrop of a similar granite. However, it is light grey rather than rusty in color, is not as strongly weathered, and does not have anomalous radioactivity where examined.

DISTRIBUTION OF RADIOACTIVITY

In the vicinity of the showing, the granite in place has a fairly consistent level of radioactivity of three to four times background. Individual hand specimens removed from the area for testing have a barely detectable increase in radioactivity above background. (leached?)

To the northeast, the anomalous radioactive granite disappears under overburden adjacent to a branch of Clear Creek. To the southwest, the radioactivity extends 500 to 600 feet along Clear Creek (downstream) before decreasing to about twice background a short distance from where the granite, there less strongly weathered, becomes completely covered with overburden. Up the hill to the northwest from Clear Creek, outcrops can be traced for an estimated distance of 600 to 700 feet horizontally from the creek. The level of radioactivity appears to decrease in the final northwestern outcrops seen, but the decrease is not marked.

Immediately across Clear Creek on the southeast no outcrops are present. However, it is reported that further back from the creek to the east a second area of anomalous granite but not as radioactive as that in the discovery area is present.

From examinations made, it was not possible to determine the micro distribution of the radioactivity in either its original form or in the presently weathered outcrops. No positive identification of even secondary uranium minerals could be made; however, assays show anomalous quantities of uranium to be present. In addition, the higher level of radioactivity than that detected in the less weathered granite downstream indicates that the radioactivity is not due principally to potassium in feldspar. The virtual lack of thorium as shown by assays makes it improbable that the uranium is present mainly in accessory monazite.

To a minor extent, radioactivity may be concentrated on fractures. This is attributed to secondary deposition, probably of radium, from ground water rather than to primary deposition of uranium on fractures from hydrothermal fluids following complete consolidation of the granite.

It is concluded that the uranium was deposited in localized areas in the granite from late stage magmatic fluids and that it is disseminated in the matrix minerals in unknown mineralogical form.

ASSAYS:

Grab samples taken for assay by others in 1966 returned values in uranium (U_3O_8) up to 0.1% and minor values in molybdenum. The one sample which assayed 0.1% U_3O_8 was reported to have been collected from the freshest exposure - the bottom of a 10 foot deep slot blasted in a rock cliff immediately above the creek.

Samples collected by the writer have been sent for assay. When received, the results will be forwarded as a supplement to this report.

CONCLUSIONS & RECOMMENDATIONS:

The area of anomalously radioactive, pegmatitic granite on the west bank of Clear Creek measures at least 500 feet in one direction, 600 feet in the other and is exposed over a vertical height of more than 200 feet above creek level. It is open to the northeast and southeast. These dimensions indicate a tonnage potential of 25,000 tons/vert. foot, or 5 million tons for 200 vert. ft.

Easy access to the Dawson highway, large tonnage open pit mining, and relatively low crushing and acid leaching costs make this deposit, if it exists, amenable to exploitation of low grade material. At \$8. per pound for uranium, rock possibly as low in grade as 0.05% U_3O_8 could be economically exploited, excluding revenue from by-products such as molybdenum.

Final recommendations will await the receipt of assay results. However, because of the tendency for uranium to be leached from outcrops, very little weight can be placed on the assay of surface samples. It is apparent that an adequate assessment of the deposit can only be made by diamond drilling, tunnelling or extensive trenching. Drilling would be the most practical and economical at this stage.

RECOMMENDATIONS:

Because of the possibility of the Clear Creek property being a large tonnage, low grade uranium deposit that would be profitable at the anticipated prices for uranium we would recommend that this possibility be investigated by a limited drill program to test grades of unweathered material. For such a test we recommend a minimum program as follows:-

3 EX holes @ 200 ft. each =	600 feet
600 feet @ \$15/ft. =	<u>\$9,000.00</u>

(Note: The cost per foot estimate for drilling is all inclusive for access road construction, assay costs, and field supervision.)

Respectfully submitted,

L.T. Jory

L.T. Jory, P.Eng., Ph.D.

Douglas D. Campbell

Douglas D. Campbell, P.Eng., Ph.D.

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Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 688-3504

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM RUSS GROUP - YUKON

REPORT NO.

V-4694

SAMPLE(S) OF ROCK Submitted on September 20, 1968.

Gold (Au)oz:ton	Silver (Ag)oz:ton	Molybdenum (Mo)%
trace	trace	0.01

DATE September 25, 1968. oz:ton - Troy ounces per 2,000 lbs.

SIGNED 

PULP AND REJECTS DISCARDED AFTER 3 MONTHS

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DIVISION OF TECHNICAL SERVICE LABORATORIES

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Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.
TELEPHONE 694-1374

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM **RUSS GROUP - YUKON**

REPORT NO.

T-05085

V-1736

SAMPLE(S) OF **ROCK**

Yukon Uranium - samples taken across 400 ft.

RADIOMETRIC

<u>Sample No.</u>	<u>Uranium Oxide (U₂O₃)%</u>	<u>Thorium Oxide (ThO₂)%</u>
1	.02	nil
2	.03	nil
3	.02	nil
4	.05	nil

2 samples sent in for study - .02 % (both). no visible mineral

DATE November 28, 1966

SIGNED 

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325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 683-3504

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Dolmage Campbell & Associates

REPORT NO.
T-08614
V-2857

SAMPLE(S) OF ROCK

RADIOMETRIC (Semquantitative)

Sample No.	Thorium Oxide (ThO ₂)%
13456	nil
13457	nil

DATE October 6, 1967

SIGNED 

60 Element --Semi-Quantitative Spectrographic Analysis

Aluminum	9.0	Nickel	0.001
Antimony	ND	Niobium	ND
Arsenic	ND	Osmium	ND
Barium	0.1	Palladium	ND
Beryllium	Trace	Phosphorus	Trace
Bismuth	ND	Potassium	Trace
Boron	0.01	Platinum	ND
Cadmium	ND	Rhodium	ND
Calcium	1.0	Ruthenium	ND
Cerium	ND	Scandium	ND
Cesium	ND	Selenium	ND
Chromium	0.001	Silicon	Matrix
Cobalt	ND	Silver	Trace
Copper	0.003	Sodium	Major
Gadolinium	ND	Strontium	0.03
Gallium	ND	Tantalum	ND
Gold	ND	Tellurium	ND
Hafnium	ND	Thallium	ND
Indium	ND	Thorium	Trace
Iridium	ND	Thulium	ND
Iron	3.0	Tin	Trace
Lanthanum	0.003	Titanium	0.2
Lead	0.01	Tungsten	ND
Lithium	ND	Uranium	.05
Lutetium	ND	Vanadium	0.001
Magnesium	0.5	Ytterbium	ND
Manganese	0.05	Yttrium	ND
Mercury	ND	Zinc	ND
Molybdenum	0.001	Zirconium	0.005
Neodymium	ND	Germanium	ND

All Results Expressed in Percent

C-200/4/67

1/3



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Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.

TELEPHONE 684-1374

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM Mr. George Karens

REPORT NO.

T-05066

V-1744

SAMPLE(S) OF ROCK

RADIOMETRIC

Uranium Oxide (U_3O_8)% .01Thorium Oxide (ThO_2)% nil

November 28, 1966

DATE

SIGNED

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Laboratories Limited

325 HOWE STREET - VANCOUVER 1, B.C.
TELEPHONE 684-1374

ASSAYERS
CHEMISTS
GEOCHEMISTS

CERTIFICATE OF ANALYSIS

SAMPLE(S) FROM **RUSS GROUP - YUKON**

REPORT NO.
T-05085
V-1736

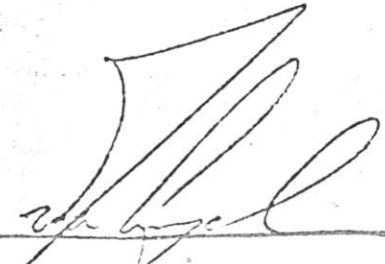
SAMPLE(S) OF **ROCK**

Yukon Uranium - samples taken across 400 ft.
RADIOMETRIC

<u>Sample No.</u>	<u>Uranium Oxide (U₃O₈)%</u>	<u>Thorium Oxide (ThO₂)%</u>
1	.02	nil
2	.03	nil
3	.02	nil
4	.05	nil

2 samples sent in for assay - .02 to (both). no visible mineral

DATE November 23, 1966

SIGNED 

FIELD REPORT

APRIL 1969

ACE R. PARKER & ASSOCIATES LTD.

AIRBORNE SCINTILLOMETER SURVEY

RUSS CLAIMS #1 to #32

BARLOW LAKE AREA, DAWSON MINING DISTRICT, Y.T.

GEOPHYSICIST'S REPORT by: David G. Mark, B.Sc.

**GEOTRONICS
SURVEYS**

5107 VICTORY STREET, SOUTH BURNABY, B.C., PHONE 434-0137

Geophysical Surveys, Ground & Airborne

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April 1969

FIELD REPORT:

Airborne scintillometer survey: Barlow Lake area, including Russ Claims #1 - 32, Dawson Mining District, Y.T.

INSTRUMENTATION:

The instrument used was a Royal Scintillometer with 2 inch Iodide Crystal manufactured by Precision Radiation Instruments Ltd., with a Bausch and Lomb 6 inch cart recorder and associated components, comprising one airborne scintillometer system. The Airborne equipment was mounted in a Cessna 172 aircraft chartered from Globe Air Ltd., Whitehorse, Y.T.

The scintillometer installation was calibrated and tested locally near Whitehorse Airport, and flown directly to Barlow Lake area.

SURVEY PROCEDURE AND METHOD:

The survey was conducted by Geotronics Surveys Ltd. under the direct supervision of Ace R. Parker. The instrument operator was Tom Rolston.

The survey was carried out using: Gravel Lake, Barlow Lake, The Dawson Highway, Clear Creek, Barlow Creek and Squaw Creek as topographical features for accurate grid control.

10 East-West grid lines and 4 North-South tie lines were flown for a total of 100 line miles. All survey lines were flown at 200 feet above ground terrain and the scintillometer scale at one MR/HR full scale. The background reading was measured and recorded at .2 to .3 MR/HR.

All readings were transferred from the 6 inch recorder chart and plotted and mapped at one inch to 1,000 feet scale. All readings of .4 MR/HR or higher were mapped and contoured .4 MR/HR being approximately twice background recording. All mapped readings were multiplied by 10 for simplicity in plotting.

INTERPRETATION:

The geology of the anomalous area from the "Geological Survey of Canada" map 1143A was transcribed onto the survey report map in order to see what type of rock the anomalies were on. All of the anomalies of major significance (0.6 MR/HR or greater) are in the granitic stock and a couple of lesser anomalies are near it. In the central part of the showing, according to the Engineer's report, (1) this

granitic stock is pegmatitic (porphyritic) granite, a favourable host rock for uranium. It is thus quite probable, that the anomalies are in this type of rock also.

Since a significant amount of uranium has been assayed in some of this rock, it is most likely the cause of the primary radiation in these anomalies. However, since the phenocrysts are composed of a light, creamish feldspar and the matrix mostly a finer-grained feldspar, it then seems that much of the feldspar is orthoclase, or K-Spar. Thus, because of the large amount of potassium in the granite, the radioactive isotope, K-40, if present in large enough amounts, could be the cause of, or part of the cause of, some of the anomalies. This is only a possibility that must be considered and does not preclude further exploration.

CONCLUSIONS AND RECOMMENDATIONS

The fact that uranium has been assayed to an appreciable amount warrants further work on the property as follows:

- (1) Additional staking should be done to include at least all of the major anomalies and these areas should be prospected further
- (2) Like any other type of airborne survey, an airborne scintillometer survey must be followed up by a ground survey in order to obtain drill targets, for the following reasons:
 - (a) An air survey can only obtain the approximate position of anomalies and, therefore, a ground survey would define the position of the anomalies much better.
 - (b) An anomaly from an airborne survey is of exploration interest only and does not mean there is a significant amount of uranium. In other words, a mass effect from an insignificant percentage of radioactive material over a large area can produce an anomalous reading in the aircraft. This radioactive material could be radon gas (a daughter product of uranium) which seeps readily through porous material, or uranium, being quite soluble, which has been leached from a primary source over a wide area.

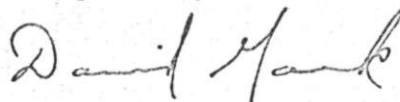
Because of the limited penetrating power of the gamma-ray, the ground survey should be done in a small

grid, say 50-foot or 100 foot line-spacing and 25 foot or 50 foot stations, and closer spacing in areas of increased interest.

- (3) Depending on the results of the ground survey, a diamond drill program should then be set up.

footnote #1 - A Report on the Geology of the Russ Claims by Dr. L.T. Tory, P.Eng., and Dr. Douglas D. Campbell, P.Eng.

Respectfully submitted,

A handwritten signature in cursive script that reads "David Mark".

David Mark, B.Sc.
Geophysicist.

**GEOTRONICS
SURVEYS**

5107 VICTORY STREET, SOUTH BURNABY, B.C., PHONE 434-0137

Geophysical Surveys, Ground & Airborne

RESUME OF TECHNICAL AND FIELD EXPERIENCE OF
TOM ROLSTON, PRESIDENT AND FIELD MANAGER OF
GEOTRONICS SURVEYS LTD.

- (i) Eleven years with R.C.A.F. as Instrument and Electronic Technician with crew supervisory capacity in various electronic and instrumentation systems.
- (ii) Two years with Kerr-Addison Mines Ltd. as Electronic Technician servicing, repair and maintenance of various types of geophysical instruments. Also, two seasons as Field Supervisor and geophysical instrument operator in mining exploration, including airborne and ground geophysical surveys, geochemical surveys, geophysical and geochemical drafting and mapping.
- (iii) Three years Field Supervisor of geophysical and geochemical surveys, including instrument operator of various geophysical instruments, airborne and ground systems magnetometer, electro-magnetic, gravity meter, self potential meter, scintilometer, induced polarization.
- (iv) Three years contracting geophysical - geochemical surveys with close association with mining engineers for various mining companies.

**GEOTRONICS
SURVEYS**

5107 VICTORY STREET, SOUTH BURNABY, B.C., PHONE 434-0137

Geophysical Surveys, Ground & Airborne

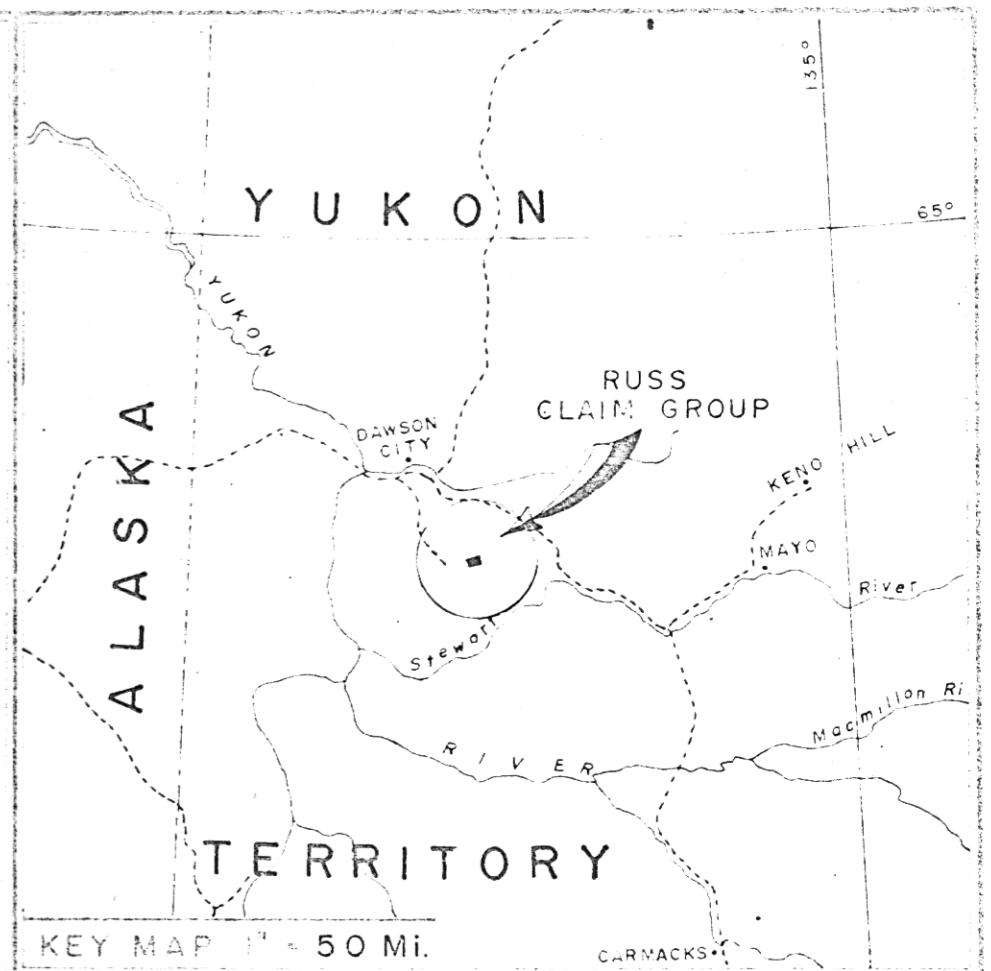
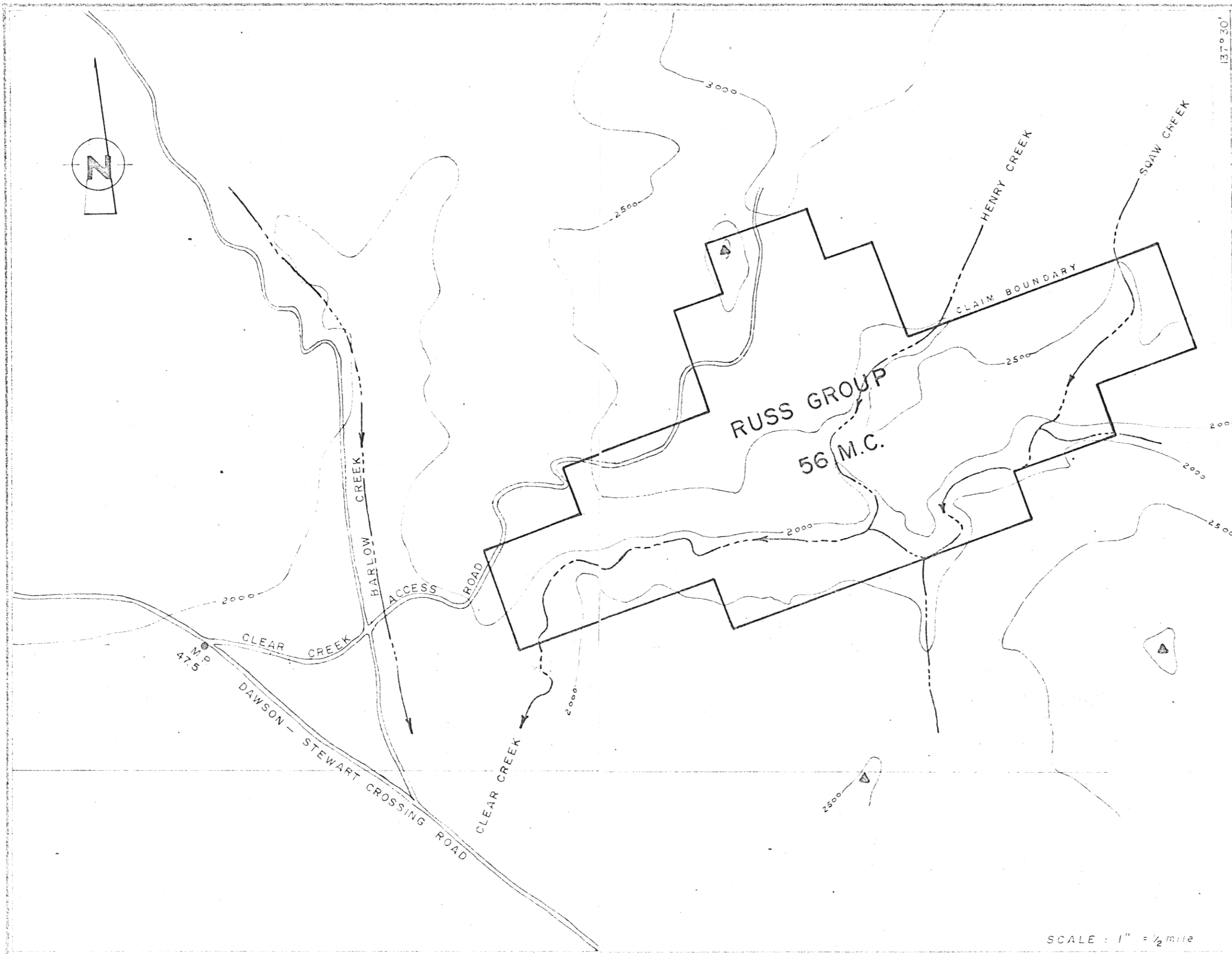
RESUME OF TECHNICAL AND FIELD EXPERIENCE OF
DAVID MARK, B.Sc.

EDUCATION:

Graduate of University of British Columbia in Science (B.Sc.), in geophysics.

EXPERIENCE IN INDUSTRY:

- (i) Prospecting and geological evaluation for New Taku Mines Ltd., during exploration season of 1965.
- (ii) Field supervisor for geophysical and geochemical work and prospecting for Mastodon-Highland Bell Mines Ltd., during exploration season of 1966.
- (iii) Field supervisor in geochemical work and geological mapping for Anaconda (Canada) Company during exploration season of 1967.
- (iv) Field geophysicist for Geo-X Surveys Ltd. during exploration season of 1968.
- (v) Presently geophysicist for Geotronics Surveys Ltd.
- (vi) Experience in various geophysical instrument surveys: magnetometer,, Electro-magnetic, self potential, gravity, induced polarization, resistivity, seismic methods.



PROPERTY LOCATION MAP

of the
RUSS CLAIM GROUP

DAWSON CITY MINING DISTRICT
YUKON TERRITORY

ACE R. PARKER & ASSOCIATES LTD.
GENERAL CONSULTING ENGINEERS & SURVEYORS

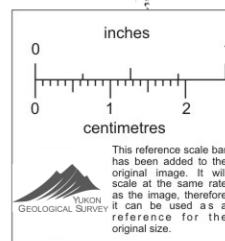
DATE JUNE-11-1969

SCALE as noted

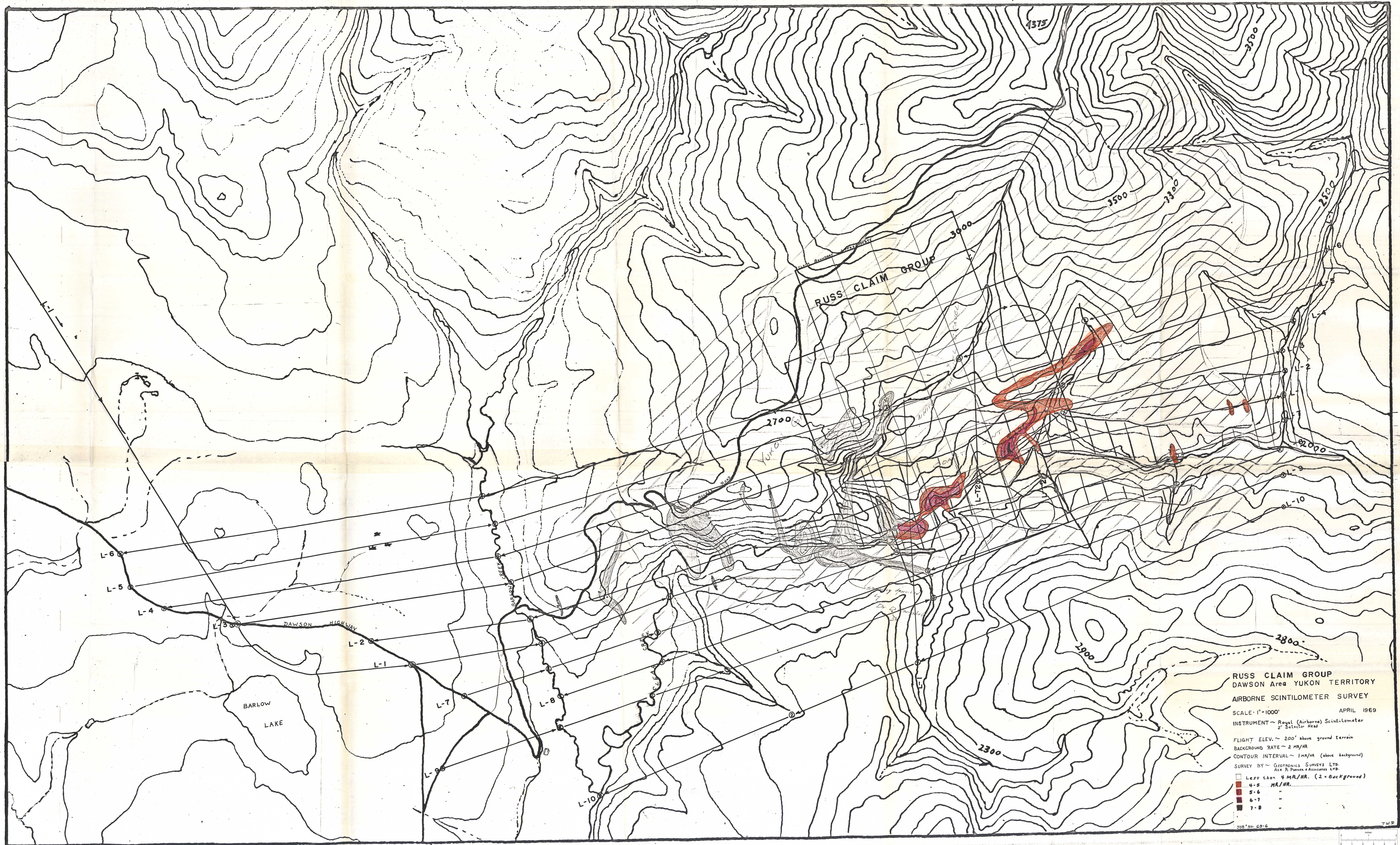
DRAWN BY *[Signature]*

DRWG No.

SEAL
[Signature]



SCALE : 1" = 1/2 mile



RUSS CLAIM GROUP
DAWSON Area YUKON TERRITORY
AIRBORNE SCINTILOMETER SURVEY
 SCALE - 1" = 1000' APRIL 1969
 INSTRUMENT - Royal (Airborne) Scintilometer
 2" Detector Head
 FLIGHT ELEV. - 200' above ground terrain
 BACKGROUND RATE - 2 MR/HR
 CONTOUR INTERVAL - 1 MR/HR (above background)
 SURVEY BY - Geotronics Surveys Ltd.
 ACE R. PIANCA & ASSOCIATES LTD.

Less than 4 MR/HR. (2 - Background)	
4-5 MR/HR.	Light Red
5-6 "	Red
6-7 "	Dark Red
7-8 "	Black



BARLOW
LAKE

DAWSON - STEWART
HWY

BARLOW
CREEK

Access

GEORGE CREEK

HENRY CREEK

CLEAR

GROUND RADIOMETRIC
GEOPHYSICAL SURVEY
OF THE
RUSS GROUP (56 MC)

