

# MAR 19710004: NORTHEASTERN ALBERTA

Received date: Dec 31, 1971

Public release date: Jan 01, 1973

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ECONOMIC MINERALS  
FILE REPORT No.  
U-AF-069(3)  
U-AF-070(3)

U-AF-069(4)  
U-AF-070(4)

SUMMARY REPORT

QUARTZ MINERAL EXPLORATION PERMITS

III and II2

VESTOR EXPLORATIONS LTD.

by

J.A. Greig, Dec. 15, 1971

### Outline of Exploration Work Completed

1. Airborne Radiometric - Spectrometric Survey 1969
2. Cursory Ground Radiometric Survey 1969.
3. Geological Mapping and Ground Radiometric Survey 1970.
4. Geological Mapping and Ground Radiometer Survey 1971.

### Results

Results of the geological and radiometric survey programs above are embodied in the various reports listed below:

1. Report on Airborne Radiometric Survey - Geo-X Ltd. - 1969.
2. Progress Report - A. Rich and J. Greig - 1969.
3. Progress Report - J. Greig - 1970.
4. Geological Report - H.H. Williams Ph.D - 1970.
5. Report on the Geology and Economic Potential - R.D. Morton Ph.D - 1970
6. Summary of Geological Exploration - E.<sup>A.</sup>~~K.~~ Babcock Ph.D. and G.S. Hartley - 1971.

Reports 1 to 4 inclusive listed above have been submitted and are on file at the Alberta Dept. of Mines and Minerals. Reports 5 and 6 are submitted with this Summary Report.

SUMMARY OF  
GEOLOGICAL EXPLORATION

PERMITS 111 & 112

MYERS LAKE, ALBERTA

for

VESTOR EXPLORATIONS LTD.

by

Dr. E. <sup>A</sup>~~K~~. Babcock & G. S. Hartley

August, 1971

ECONOMIC MINERALS

FILE REPORT No.

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## SUMMARY

The purpose of this survey was to evaluate permits 111 and 112 for potential uranium mineralization. This included a surface radiometric reconnaissance survey and geologic mapping of anomalies shown on Vestor's airborne radiometric anomaly map, location of possible bodies, determination of control of mineralization and making recommendations for further exploration.

### Areas Covered

Anomalies A, B, C, D, F and G shown on Vestor's airborne radiometric survey map 5 were surveyed radiometrically and mapped geologically (Figs. 1, 2, & 3, geologic maps and Fig. 4, an enlarged radiometric map of the area at the south end of Myers Lake). Anomalies H and J were not visited because of their great distance from camp. Anomaly E lies entirely within Myers Lake and there are no outcrops within several thousand feet. We are unable to explain the origin of this anomaly.

Instruments used were a SRAT SPP2-NF scintillometer and a 117B scintillometer.

### Regional Geology

The regional geology is as described by Williams in his report of August 1970. However, I have included the pink and grey granites northwest of Myers Lake as a single rock unit. These rock types are intermixed in the field, are mineralogically similar and appear to be variations of the same lithic body.

Foliation within most of the Permits, strikes northwest and generally dips west at greater than 60°. Foliation was measured whenever possible at observation points, but is not always shown on the geologic maps because of their small scale (see field notes).

### Anomaly G

The area of the anomalies G lies entirely within grey granite and foliated grey granite which consists of approximately 50 - 65% grey to tan feldspar, 25 - 30% smoky grey quartz and up to 15% chloritized biotite. Foliation is absent or weakly developed and generally strikes NNE and dips nearly vertically.

Outcrops in the vicinity of the anomaly were prospected (stations 60 to 68 - Fig. 2). No sources of anomalous radiation were found. It was suspected that the fault zone bounding the NW side of the aero anomaly would be radioactive, however, no anomalous radiation was found there. Background radiation throughout the area is approximately 100 cps.

### Anomaly F (Stations 50 to 59 - Fig. 2)

The area of anomaly F lies entirely within grey and pinkish-grey granitic gneiss. Composition is variable - pink or greyish feldspar 65 - 85%, smoky, blue-grey quartz 15 - 40%, chloritized biotite 2 - 5%. Foliation strikes 70° with predominantly SE dips near vertical.

No sources of anomalous radiation were found. Background radiation is 75 to 100 cps.

The sources of anomalies F and G are not readily explainable. The background radiation is not unusually high in these areas, and no showings were located on the ground. In comparison with the anomalies SE of Myers Lake F and G are characterized by an unusually invariant and monotonous background radiation.

General discussion of types of showings at anomalies A, B, C, and D, to be followed by discussion of individual anomalies and showings are listed below.



Anomalies A, B, C and D (Figs. 1, 3, & 4), are located in porphyroblastic granitic gneiss and porphyritic granite, depending upon whether the rocks are foliated or not. Radiometric showings within these anomalies are of three types.

1. Joints, along which no evidence of mineralization is present, but which are anomalously radioactive. Most of these showings have radioactivity of 500 cps or less at the face. Because of the low radioactivity and small volume of uranium minerals potentially present, these anomalies are of little potential value.

2. Sheared zones and mineralization associated with them. The largest showings located, both areally and radiometrically, are associated with mineralization along shear zones. Such masses are up to several tens of feet long and a few feet wide and have maximum face values of up to 2000 cps. These anomalies show the greatest potential, however the volumes of mineralized rock are not great nor is the level of radioactivity very high. Such faults generally trend approximately 25°, but a few trend at 300°. The joints which are radioactive also have these trends.

3. Areas of high radioactivity associated with unusually coarse grained porphyroblastic granitic gneiss or with knots of blue-grey quartz up to several feet long. These anomalies are generally less than 100 square feet.

The origins of airborne anomalies A, B, C and D are due to the combination of two and sometimes three factors. These being -

- (1) Unusually high background radiation, associated with the porphyroblastic granitic gneisses. This background is variable, but is usually at least 100 cps and is as great as 200 cps in many places.
- (2) Showings of high radioactivity, located using the scintillometers.
- (3) High relief, the high background radiation is in some places associated with high hills which would tend to accentuate anomalies recorded on a low altitude airborne survey.

### Anomaly A

Anomaly A (Figs. 1, 3, & 4), is located in an area of high hills made up of porphyroblastic granitic gneiss consisting of porphyroblasts  $\frac{1}{4}$ " -  $1\frac{1}{2}$ " long of grey albite 5 - 30% in a matrix of pink K-feldspar 40-75%, smoky blue-grey quartz 10 - 30% and in most places less than 5% chloritized biotite. Foliation is weak or not present.

Three showings were found at anomaly A, all which are associated with faults trending approximately N20'E, (locations 6, 9 & 38, Figs. 3 & 4). Of these, anomaly 9 is the largest, being about 3 - 4' wide, and 50' long, along a shear zone. Within the zone is a few inch wide band of rock consisting of approximately 50% red stained feldspar, 30% hematite pseudomorphous after magnetite and 30% <sup>±</sup> very fine grained metallic sulfides which appear to be pyrite and galena (samples taken). Radioaction is 400 - 500 cps waist; maximum 2000 cps spot. This corresponds to the 5000 cps <sup>m</sup> showing of Williams.

It is recommended that the samples collected at showing #9 be assayed and possibly the showing be sampled at greater depth or trenched depending on the outcome of the assay. The volume of mineralized rock appears to be very small, however.

### Anomaly B

Rock within the area of anomaly B (Figs. 1, 3 & 4) is the same as at anomaly A. Showings were found at locations 43, 47, 48 and 49 (Figs. 3 & 4). Showings 43 and 47 are along joints trending approximately 305° - no mineralization is associated with them. Showing 48 is associated with two masses of smoky, blue-grey quartz; radiation, face 1250 cps maximum, 500 cps face area of anomalous radioactivity approximately 10' x 3'. Radiation source is a Zone 1 - 2 inches wide approximately 50% smoky black quartz, 30% biotite, 20% pink feldspar. Anomaly is unimportant due to small volume of mineralization.

Showing #49 has anomalous radioactivity of 2400 cps maximum face reading, 500 cps waist, 200 cps background in an area 50' long by 2' wide. The source of radioactivity is fine-grained black rock which appears to consist of quartz, feldspar and an unidentified black mineral. The samples from site 49 should be assayed. Should the assay be favourable, the showing should be sampled at depth and possibly trenched. However, once again the volume of mineralized material is small.

#### Anomalies C and D (Fig. 1)

Within the area of anomalies C and D showings are present at locations 72, 74, 76, 77 and 78. Showings 74, 76 and 78 are small and have no apparent structural or lithologic control. Showing #77 is along a shear zone trending 53°. Along it the rock is differentiated into streaks of biotite schist and grey quartz - face reading maximum 1600 cps, waist - 500 cps, background 200 cps. Showing 72 is an area about 8' in diameter within the porphyroblastic granitic gneiss. Radiation 2000 cps maximum, 400 cps waist. Anomaly not structurally controlled nor is mineralization evident except for a black surface coating on parts of outcrop. Sample should be assayed and possibly sampled at depth to determine cause of radioactivity.

#### Anomaly directly north of Anomaly D (Figs. 1, 3 & 4)

Several small showings are present in the banded granitic gneisses. most of these are associated with small shears, but are small in volume and low in radioactivity - approximately 500 cps face values. These anomalies are of little potential value.

#### Other Areas

No anomalous radiation was found on any rock types other than porphyroblastic granitic gneiss or banded granitic gneiss. The grey and pink granites northwest of Myers Lake are very monotonous radiometrically at about

100 cps. The mylonites showed no anomalous radiation where examined and no mineralization other than very thin epidote veins.

#### RECOMMENDATIONS

It is recommended that samples from anomalies #9, 49 and 72 be assayed. If the assays show very high  $U_3O_8$  values, trenching and sampling should be carried out. It is recommended that no further geologic work be carried out unless the assays warrant it. It is the writers opinion that unless the assays show unusually high concentrations of  $U_3O_8$  that permits 111 and 112 be dropped. The volume of mineralized rock is very small and the anomalies are very localized.

ECONOMIC MINERALS

FILE REPORT No.

U-AF-069(4)

U-AF-070(4)

REPORT.  
ON  
THE GEOLOGY AND ECONOMIC POTENTIAL  
OF  
QUARTZ MINERAL PERMITS III & II2  
PROVINCE OF ALBERTA  
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by

Prof. Roger D. Morton, B.Sc., Ph.D., F.G.S., P. Geol.

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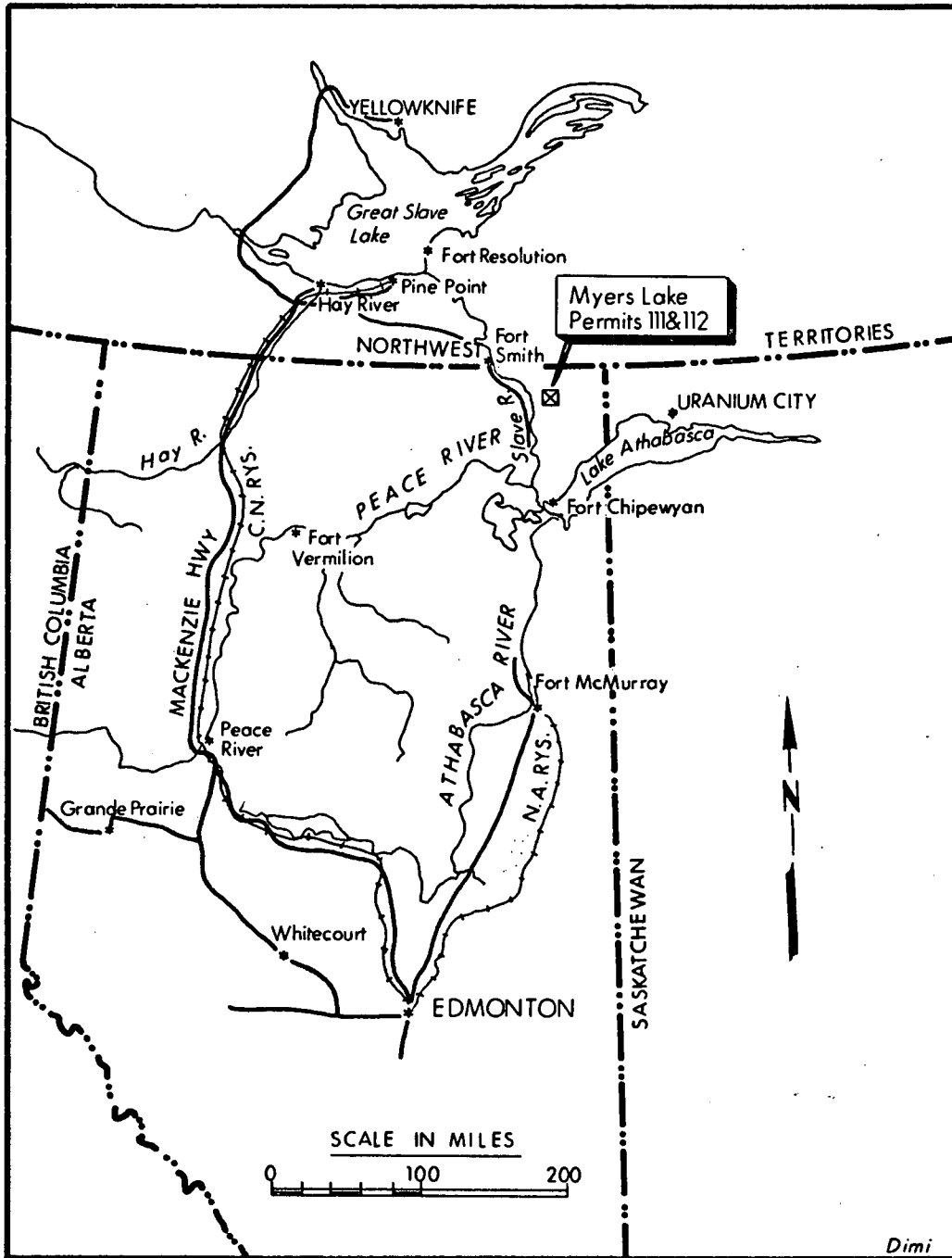
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### MAPS

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Map 5.	Contoured results of 1969 airborne radiometric survey.....	In pocket

*Please Note: Maps 4 and 5 above have been submitted to the Dept. of Mine and Minerals to party Venter's progress report for 1969.*



**LOCATION MAP  
MAP 1.**

*Dimi*



## SUMMARY

The Quartz Mineral Permits III and II2 presently held by Vestor Explorations Ltd cover an area of 29,440 acres in the NE corner of Alberta. The area is underlain by a strongly faulted complex of Precambrian rocks equivalent in age to the Tazin group of Beaverlodge, Saskatchewan. The major geologic feature of the district is a 2 - 2.5. mile wide fault - bounded belt, the Warren Fault zone, which contains an orthogneiss series. The fault zone is bounded on the NW and SE by granitic lithologies.

The results of an airborne radiometric spectrometer survey performed in 1969 are presented. Eight anomalies are described and their possible geologic causes outlined.

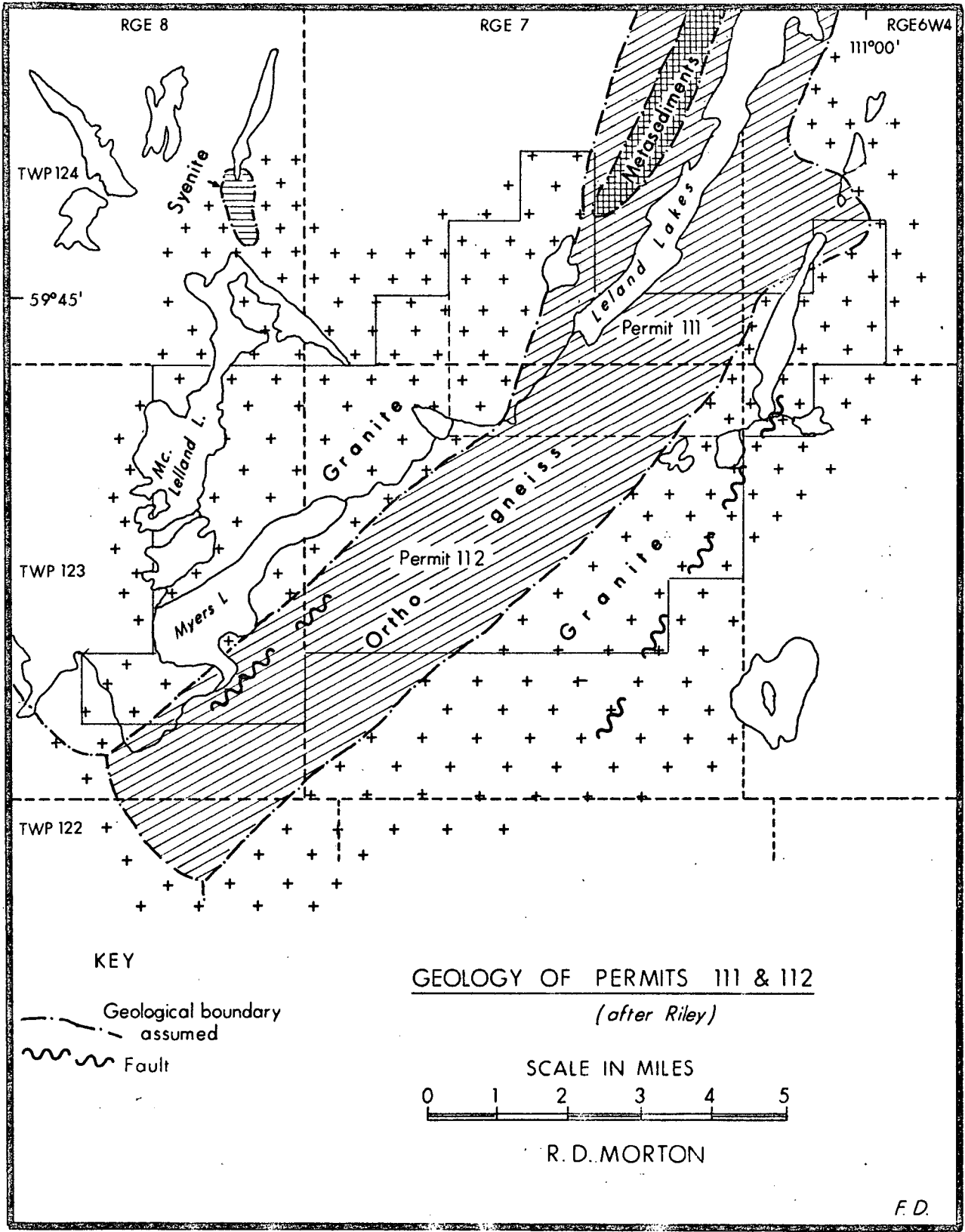
On the basis of strong lithological and structural similarities between the area of the permits and the Beaverlodge district, the possibility of uranium occurrences being encountered is emphasized. It is therefore recommended that ground radiometric surveys and geological mapping be initiated by a programme estimated to cost \$21,500.

## INTRODUCTION

At the request of Messrs. A. Rich, J. Greig and G. H. Saxton, directors of Vestor Explorations Ltd, this report was prepared for the purpose of elucidating the economic potentials of Alberta Quartz Mineral Permits Nos. III and II2, presently held by the aforementioned company. This report is based upon an extensive literature survey, together with examination of the results of an airborne radiometric survey performed during 1969. The author, although familiar with analogous sectors of the Precambrian Shield around Uranium City, Saskatchewan, has not personally examined the properties contained within Permits III and II2.

## LOCATION OF PERMITS III & II2 AND ACCESSIBILITY

Permits III and II2 are located within the north east corner of the Province of Alberta, some 35 miles SE of Fort Smith, at an approximate latitude of 59° 43' N and an approximate longitude of 111° 10' W. Map I shows the location of the permits which together cover a total area of 29,440 acres and includes information concerning the current transportation



MAP 2.

facilities. The numerous large lakes contained within the permit boundaries provide easy access by float- or ski-equipped, fixed-wing aircraft which may be chartered from Fort Smith (30 miles away), Fort Chipewyan (70 miles away), and Uranium City (80 miles distant). The relatively low relief of the terrain in this district permits easy access by foot to any location from the lakeshores.

### PHYSIOGRAPHY OF THE AREA

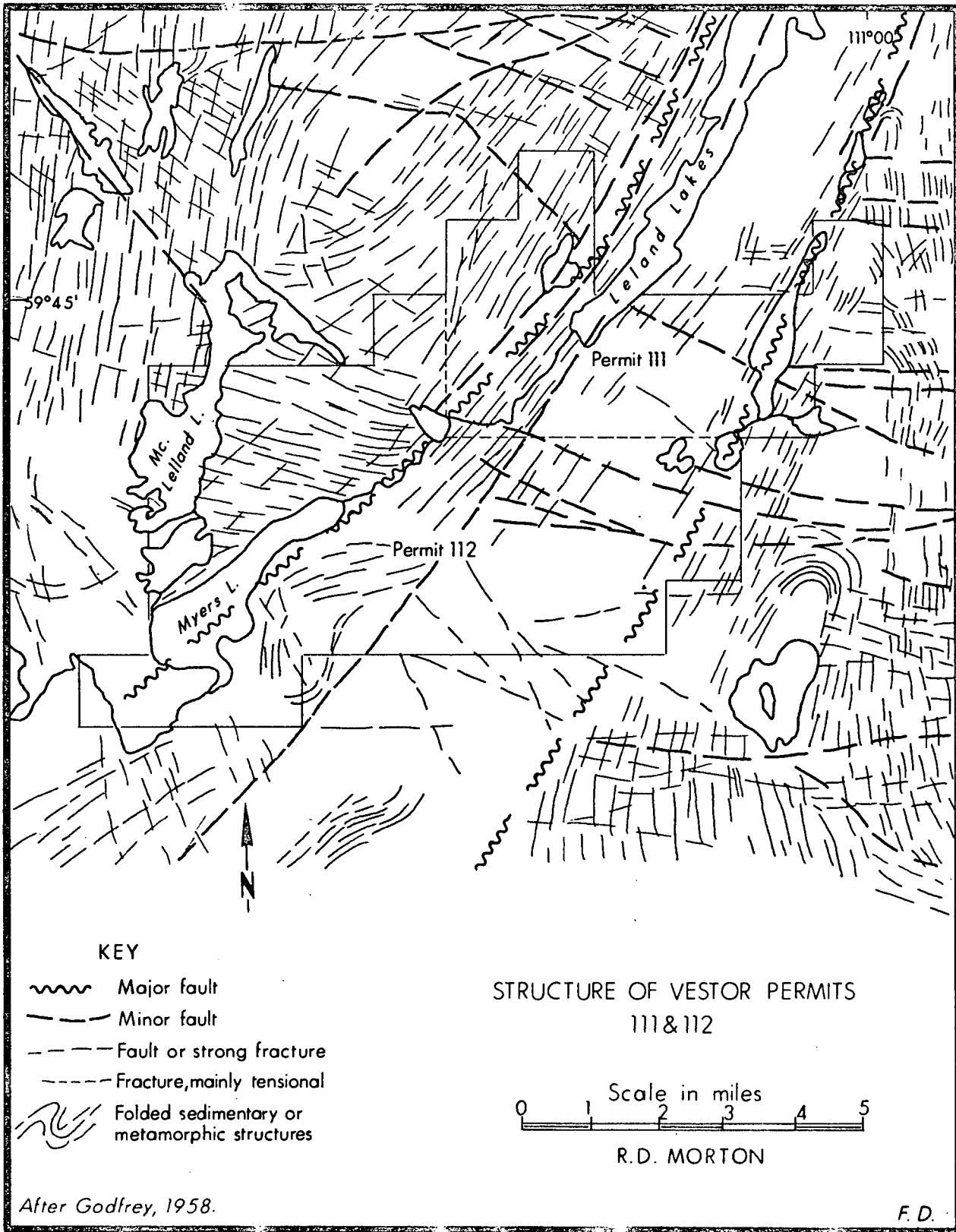
The topography of the areas contained within Permits III and II2 is typical of the Southern Canadian Shield. A terrain of low, rounded hills and ridges is broken by numerous steep-sided valleys. The larger valleys are filled by drift, badly drained and consequently are the sites of extensive muskeg development. The maximum elevation within the permit areas is only in the order of 950 ft. above sea level. In general the topographic features of the area reflect strongly the strike of the numerous steeply dipping faults and the strike of the foliated members of the metamorphic sequence.

Tree cover is relatively sparse within the higher sectors but becomes quite dense in the valleys.

### GENERAL GEOLOGY

The areas of Permits III and II2 are underlain entirely by a strongly folded Precambrian igneous and metamorphic complex of ortho- and para-gneisses which is cut by numerous granitic intrusives and a multitude of faults. The Precambrian complex of N.E. Alberta has revealed ages within the range of 1800 to 2200 million years old (Godfrey and Baadsgaard, 1962) and has therefore suffered a series of metamorphic events contemporaneous with those which characterize the Tazin group of the Beaverlodge district.

To date, little detailed geological exploration has been performed within the region of Permits III and II2 and consequently one must rely upon the cursory information contained within the reports of Godfrey (1958) and Riley (1960) for information concerning lithologies and their relative structural dispositions. Map 2 summarises the observations on broad lithological aspects of the region by Riley (1960). The principal geological feature of



MAP 3.

the permit area appears to be a fault-bounded belt, some 2 to 2.5 miles across, which contain an ortho-gneiss series. This ortho-gneiss belt is surrounded by granitic rocks. A series of metasediments are indicated near the northern boundary of Permit III, this group, too, being bounded by fault-structures.

Map 3 (Godfrey 1958) differs somewhat from the observations of Riley (1960), especially with respect to the position of the easternmost major fault, the southern and eastern boundary dislocation of the so-called Warren fault-zone. However, this map is most useful as it includes information concerning both fault systems and the strike of lithologies as interpreted from aerial photographs. Extensive faulting is developed within the region and in certain sectors major folding within the metamorphics is indicated by arcuate lineaments. The axial-plane traces of these inferred fold structures apparently strike NE-SW or NNE-SSW.

Three distinct fault trends are evident in Map 3:

- (1) A set of major faults which strike NE-SW and define the so-called Warren fault zone.
- (2) Later E-W striking, minor dislocations.
- (3) Later E-W to NW-SE striking, minor dislocations.

The first set outlined above might represent major strike-slip faults similar to those developed in the Beaverlodge district of Saskatchewan. The angular relationship of the second and third sets suggests a complimentary shear relationship. Godfrey (1958) states that the latter set does appear to have suffered a sinistral movement.

A study of aeromagnetic survey map (7161G) reveals that the lithologies within the Warren fault zone possess a high magnetic susceptibility whereas the areas to the NW and SE of the fault zone exhibit a relatively low magnetic susceptibility.

#### ECONOMIC POTENTIAL OF PERMITS III & II2

A number of radioactive occurrences have previously been reported from the metamorphic complex of N.E. Alberta (Godfrey, 1958) in the regions of Andrew Lake, Spider Lake, Cherry Lake, Fishing Lake, and Leggo Lake. The first three of these showings were located within paragneissic sequences, whilst the latter two occurred within granitic

lithologies and were associated with E - W to NE - SW striking fracture zones.

As no showings were previously recorded from the areas of Permits III and II2, the possibilities of uranium mineralization must be considered in the light of indirect geologic evidence. The facts listed below, it is felt, strongly emphasize the possibility of a successful search for uranium mineralization within the region:

- (1) Tazin group rocks of similar lithology and metamorphic grades to those of N.E. Alberta host the uranium deposits of the Beaverlodge district, Saskatchewan and have revealed minor showings of high grade uranium mineralization in nearby Leggo Lake, Fishing Lake and Allison Bay (see Collins and Swan 1954; Lang et. al. 1962).
- (2) Strong structural similarities exist between the areas of Permits III and II2 and the Beaverlodge district, Saskatchewan. In particular the present area is attractive for its high density of faults and the presence of extensive mylonitic belts in the Warren fault zone which bear strong similarities to those found around productive mines worked by Eldorado Nuclear Ltd in Saskatchewan. The importance of faults in the location of uranium deposits within the analogous Beaverlodge district has been emphasized by numerous workers in the past (Trigg 1968).
- (3) The presence of major fold structures adjacent to large faults, as seen in the areas of Permits III and II2, is most significant. It is quite possible that the hinge sectors of such folds may be preferential sites for ore deposition as in the Vema Mine of the Beaverlodge district (Morton, 1968).
- (4) The numerous records of sulfide showings in the NE corner of Alberta e.g. to the south, near Allison Bay where Ag-U-Cu mineralization has been located in the younger fault zones.
- (5) The minimal overburden cover in the Permit areas, facilitating rapid ground or aerial radiometric surveys.
- (6) The overall accessibility of the Permit areas and their relative proximity

to the operational plants of the Beaverlodge district.

### THE RESULTS OF THE AIRBORNE RADIOMETRIC SURVEY OF 1969

The results of an airborne radiometric spectrometer survey, performed by Geo-X Surveys Ltd. of Vancouver, B.C. are presented in Maps 4 and 5. Map 4 illustrates the flight line layouts based upon a pattern of approximately 0.25 mile grid lines flow either on a N-S system or, in part, upon a NW - SE pattern. The instrument employed in the survey was an "Exploranium" DIGRS - 2000, 4-channel spectrometer having resolution of better than 8.3% at 0.662 MeV and 1000V, equipped with three 6" x 4" NaI (TI) crystals. Discrimination filtering for the selection of Bismuth 214 radiation (i.e. one of the isotopes produced during radioactive decay of uranium) was employed. The results of the spectrometer survey are shown in Map 5. This plot has a contour interval of 1 count per second and was computer-contoured by Geo-X Surveys Ltd, in an unbiased manner with no weighting for specific known geological strike directions.

The following features of Map 5 are noteworthy:

- (1) It would appear that a range of 1 to 5 counts per second (cps) is the characteristic background range for the region.
- (2) The majority of anomalous readings, (i.e. those in excess of 6 cps) are located within the western half of Permit 112. Permit 111 exhibits no major anomalies.
- (3) Low anomalies are generally equatable with the major lakes and muskeg-covered sectors.
- (4) A total of 8 anomalous sectors are located within Permit 112. Descriptions and comments concerning these anomalies are given below:

#### Anomaly A.

An anomalous area of some 1.75 square miles is located SE of Myers Lake within the Warren Fault zone. The maximum of this anomaly is in excess of 10 cps and could either be related to a major fold structure described by Godfrey (1958, see Map 3) or may be related to the NE-SW fault zone indicated by Riley (1960).

Anomalies B, C and D.

3 small anomalies, each approximately 0.5 miles in diameter, occur near the SW limit of Permit 112. The easternmost anomaly exhibits radioactivity in excess of 12 cps. These anomalies might possibly be related to younger dislocations striking NW-SE as shown by Godfrey (1958) or they might be related to the NE-SW fault zone of Riley (1960) and therefore represent a continuation of the same structure which gave rise to anomaly A.

Anomalies E and F.

Two strong anomalies occur at the SW and NE ends of Myers Lake respectively. The south western anomaly exhibits radioactivity in excess of 12 cps. Both of these anomalies appear to be related to the major, northern boundary fault of the Warren fault zone as shown by Godfrey (1958).

Anomaly G.

A series of two minor anomalies occur near the north boundary of Permit 112, NE of Myers Lake. These could possibly be related to younger WNW-ESE trending faults indicated by Godfrey (1958).

Anomaly H.

A distinct linear anomaly, situated in the northernmost sector of Permit 112, NE of Myers Lake, exhibits radioactivity of over 12 cps. It is possible that this anomalous zone might be related to a younger, NW-SE striking, minor dislocation indicated on Map 3.

Anomaly J.

A minor anomalous zone, near the eastern boundary of Permit 112 exhibits radioactivity of around 10 cps. This anomaly might be due to the presence of a younger, minor fault which Godfrey (1958) indicates as striking WNW-ESE across the Warren fault zone.

THE 1969 CURSORY GROUND RADIOMETRIC SURVEY

During a four week period in the summer of 1969 a two man ground crew was sent to the area of Permits 111 and 112 with the intention of performing an immediate follow-up



radiometric investigation of the results of the airborne spectrometer survey. Unfortunately a considerable time delay was experienced between the performance of the airborne survey and the receipt of the resultant data and maps by Vestor's personnel. This delay prevented any systematic and meaningful surveys from being initiated at that time and the crew was withdrawn.

### CONCLUSIONS AND RECOMMENDATIONS

The overall geologic aspects of Permits III and II2, augmented by the results of the airborne radiometric survey of 1969, indicate that immediate systematic ground exploration for uranium deposits should be initiated within this region. The association of radioactive anomalies with known major fault zones, mylonite belts and major fold structures within the metamorphic complex is highly encouraging. The prime targets for investigation during the summer of 1970 undoubtedly lie within the western half of Permit II2.

It is therefore strongly recommended that a detailed ground radiometric survey be carried out, together with a programme of detailed geological cartography. This latter programme should be limited in the first phases to the establishment of the geologic causes of the aforementioned 8 anomalous zones. Subsequently work should be extended to examine those structurally and lithologically favourable sectors of the two permit areas which may not have revealed anomalies during the airborne survey owing to thick overburden or water coverage.

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Trigg, C. M. 1968. Uranium and the Beaverlodge district. *Western Miner*, vol. 41, 9, pp 42-53.

Aeromagnetic Map 7161 G. Fitzgerald, Alberta Geol. Survey of Canada.

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COST ESTIMATES FOR PRELIMINARY EXPLORATION PROGRAMME

(VESTOR EXPLORATIONS LTD)

PERMITS 111 AND 112, NORTHEAST ALBERTA

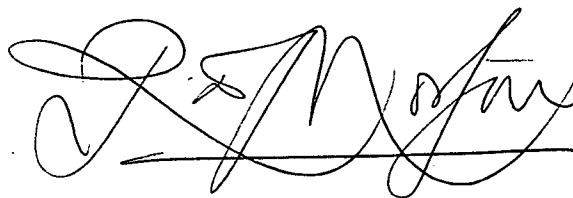
Phase 1

1.	<u>Detailed ground geological and radiometric survey</u>	
	a. Salaries for personnel; prospecting, mapping, supervision.	\$ 5,500
	b. Instrumentation; scintillometers, survey instruments.	3,000
	c. Mobilization and support aircraft	2,000
	d. Camp operating costs	1,500
	e. Camp equipment	2,000
	f. Assays and geochemical sample analysis	500
2.	<u>Expediting</u>	1,000
3.	<u>Consultant's fees</u>	<u>1,000</u>
	Subtotal	16,500
	Add contingency	<u>1,500</u>
	Total cost of Phase 1	\$ 18,000

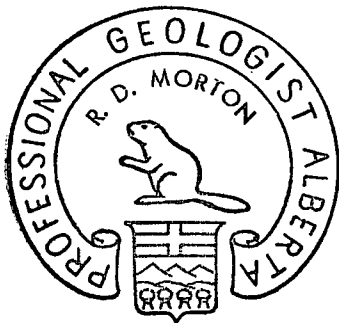
Phase 2

1.	<u>Follow up trenching and drilling</u>	3,000
2.	<u>Assays</u>	<u>500</u>
	Total cost of Phase 2	\$ 3,500
	Total Cost of Phase 1 and Phase 2	\$ <u>21,500</u>

Respectfully submitted,



Roger D. Morton, B.Sc., Ph.D., F.G.S., P.Geol.,  
Consultant Geologist

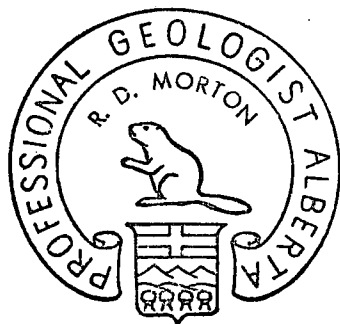


CERTIFICATE

I, Roger D. Morton, of the City of Edmonton, in the Province of Alberta,  
hereby declare:

- (1) That I am a registered Professional Geologist in the Province of Alberta.
- (2) That I am a graduate of the University of Nottingham, England with the degrees of Bachelor of Science (Honours Geology) 1956 and Doctor of Philosophy (Geology) 1959.
- (3) That I hold the tenured position of Associate Professor of Geology at the University of Alberta and also serve the mining industry as a Consulting Geologist from my office at 10941 - 88 Ave., Edmonton, 61, Alberta.
- (4) That I have no interest, either direct or indirect in the properties described in this report and that I have no interest direct or indirect in Vestor Explorations Ltd, of Edmonton.
- (5) That this report is not based upon personal examination of the property but upon information contained within the publications cited herein.

Dated at Edmonton, Alberta this 13th day of February, 1970.




A handwritten signature in black ink, appearing to read "R. D. Morton", written in a cursive style.

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Consultant Geologist.

A ■ Pink porphyroblastic granite gneiss

B ■ Banded granite gneiss

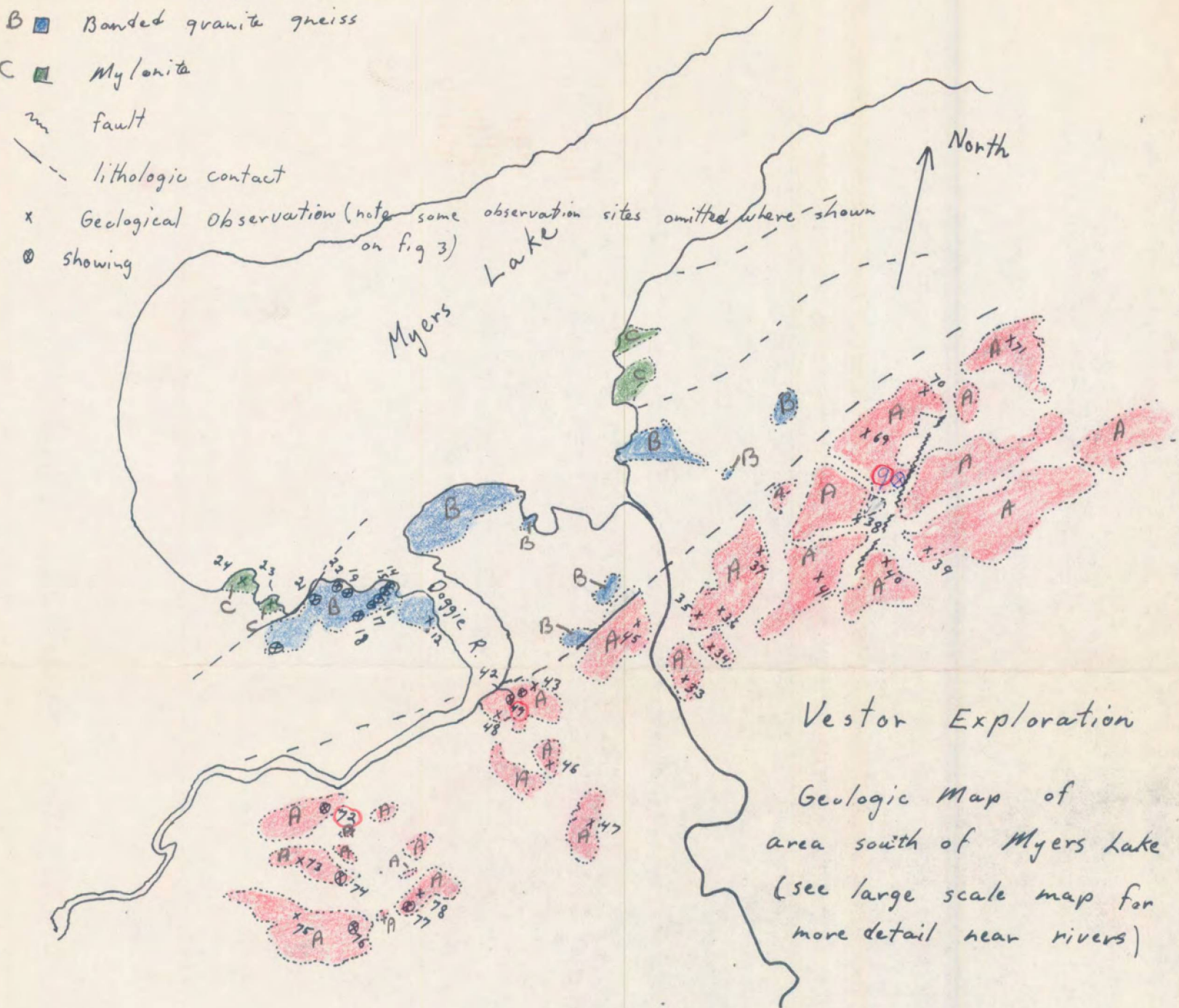
C ■ Mylonite

 fault

- - - lithologic contact

x Geological Observation (note some observation sites omitted where shown on fig 3)

⊙ showing



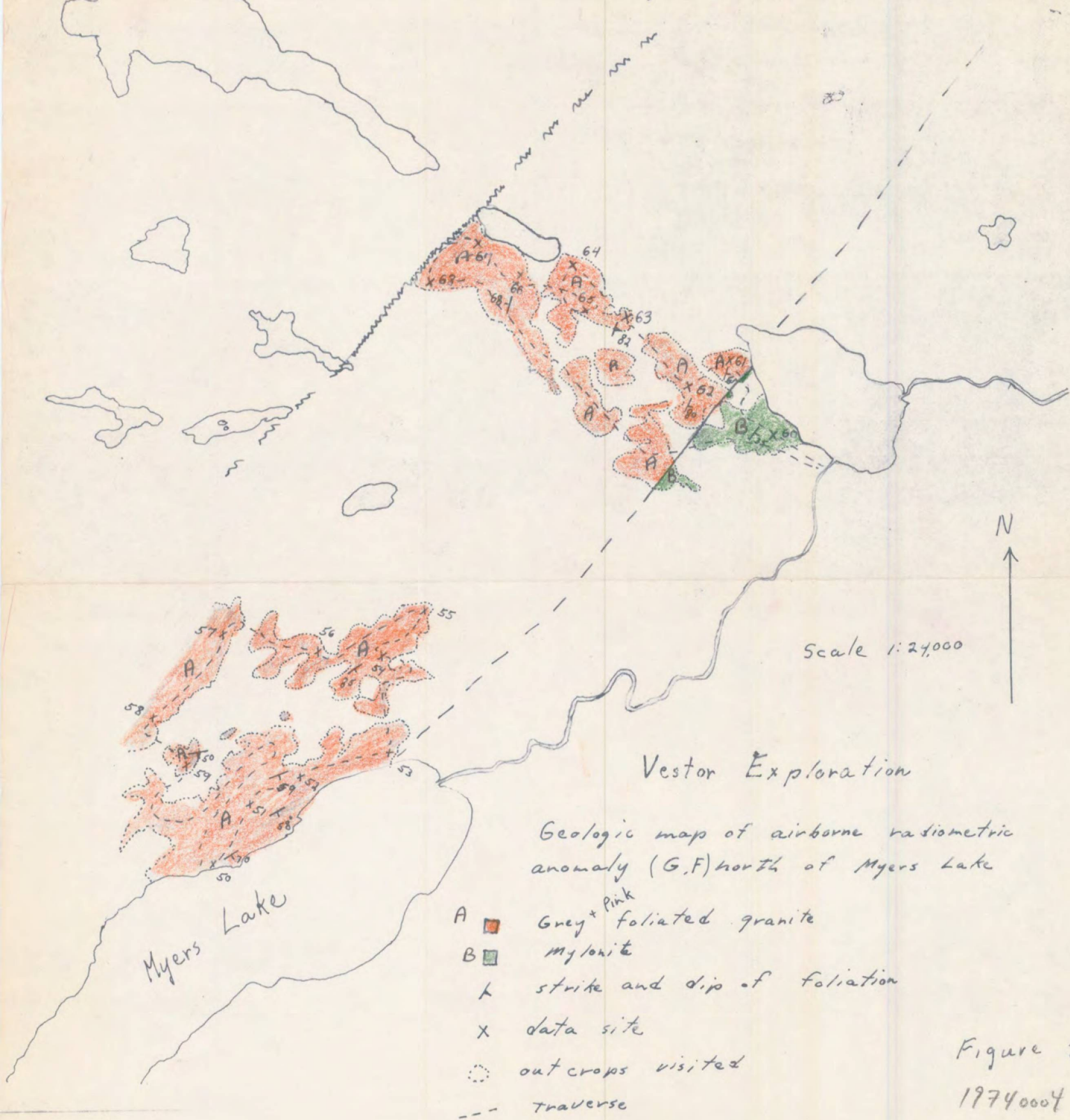
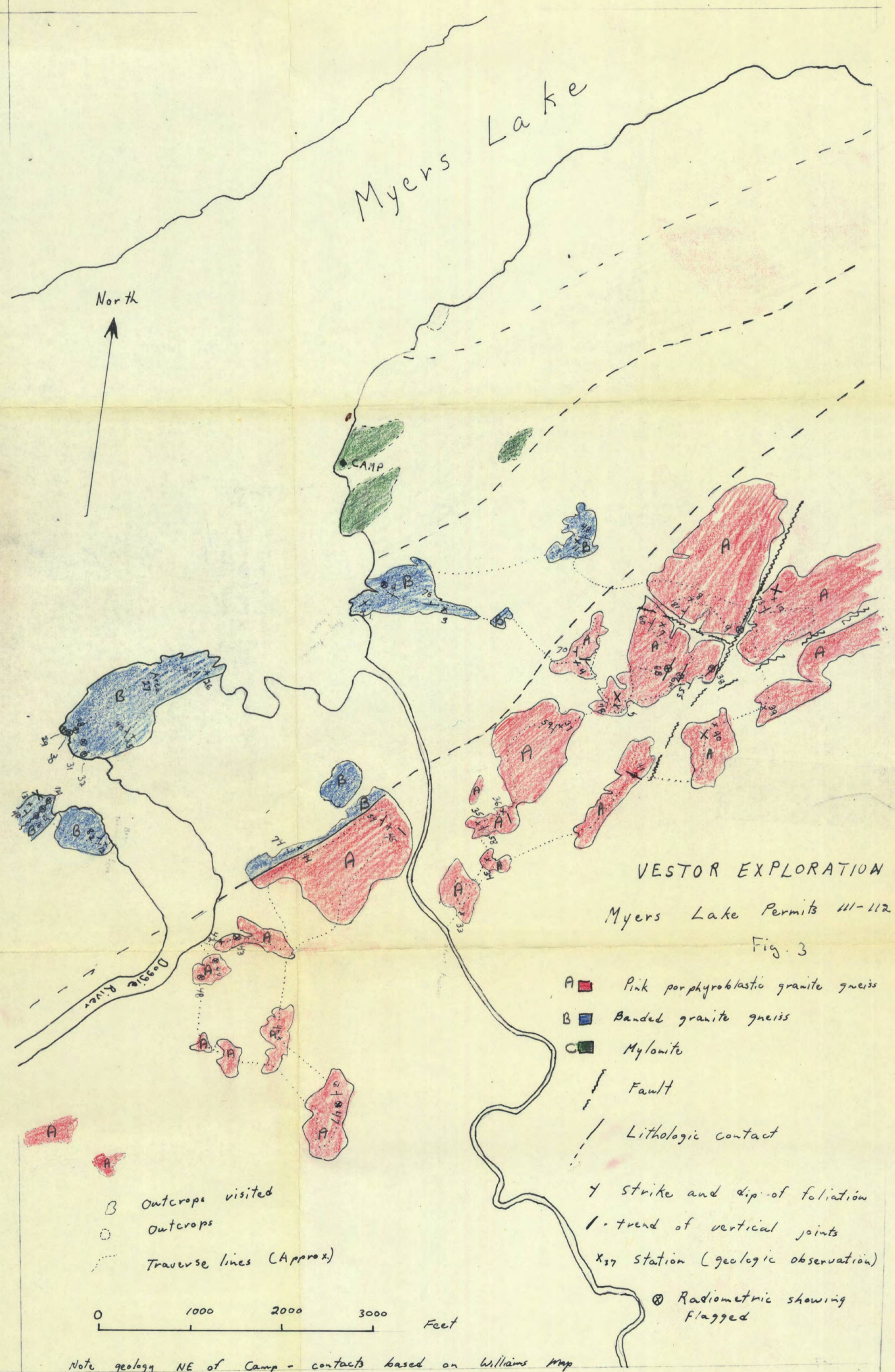


Figure 2

19740004



VESTOR EXPLORATION  
 Myers Lake Permits 111-112  
 Fig. 3

- A ■ Pink porphyroblastic granite gneiss
- B ■ Banded granite gneiss
- C ■ Mylonite
- - - Fault
- Lithologic contact
- γ Strike and dip of foliation
- | trend of vertical joints
- X<sub>37</sub> station (geologic observation)
- ⊗ Radiometric showing flagged

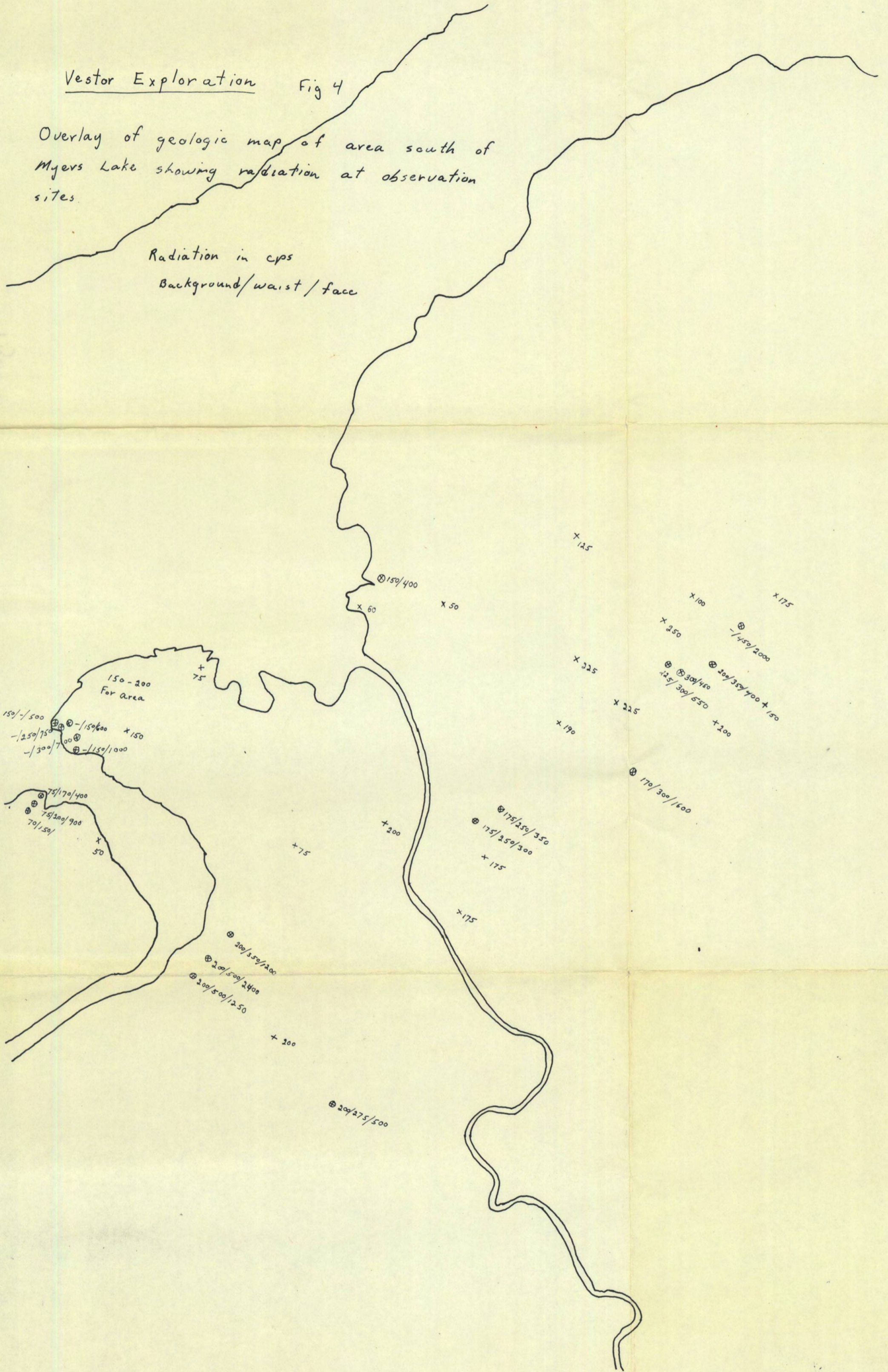
0 1000 2000 3000 Feet

Note geology NE of Camp - contacts based on Williams map

Vestor Exploration Fig 4

Overlay of geologic map of area south of Myers Lake showing radiation at observation sites

Radiation in cps  
Background/waist/face



150-200  
For Area

150/-/500  
-/250/75  
-/300/75

-/150/600  
-/150/1000  
x 150

75/170/400  
75/200/900  
70/150

x 50

⊕ 150/400

x 60

x 50

x 125

x 100

x 175

x 250

⊕ -/450/2000

x 225

⊕ 200/350/400 + 150

x 225

⊕ 300/450  
⊕ 225/300/550 + 200

x 190

⊕ 170/300/600

+ 200

⊕ 175/250/350  
⊕ 175/250/300

+ 175

+ 75

x 175

⊕ 200/350/200  
⊕ 200/500/2400  
⊕ 200/500/250

+ 200

⊕ 200/275/500