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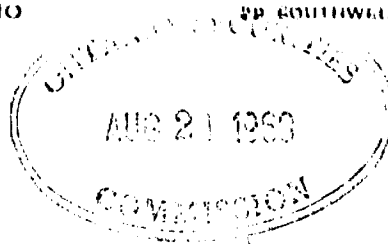
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*S. W. Evans, B.A.Sc., P. Eng.*  
MINING GEOLOGIST

TELEPHONE 444-4233

DON MILLS, ONTARIO

39 SOUTHWELL, ONT.



REPORT ON MINING CLAIMS E.O.-37858 to E.O.-37872 (INCLUSIVE),  
MONMOUTH TOWNSHIP, COUNTY OF HALIBURTON, EASTERN ONTARIO MINING  
DIVISION, FOR NORTHERN NUCLEAR MINES LIMITED

Toronto, Ontario,  
July 15, 1968.

S. W. Evans, P. Eng.,  
Mining Geologist.



NO SECURITIES COMMISSION OR SIMILAR AUTHORITY IN CANADA HAS IN ANY WAY PASSED UPON THE MERITS OF THE SECURITIES OFFERED HERE-UNDER AND ANY REPRESENTATION TO THE CONTRARY IS AN OFFENCE.

## NORTHERN NUCLEAR MINES LIMITED

Tenth Floor --- 366 Bay Street  
TORONTO 1, CANADA  
UNDERWRITER

### JOET INVESTMENTS LIMITED

12 Edgevalley Drive, Islington, Ontario

#### OFFERING:

The Underwriter will offer 183,075 shares, being the balance in its trading account resulting from the purchase of 600,000 shares from the Company for a total of \$200,000.00 and its trading in the shares during the course of maintaining an orderly market. The Underwriter will also offer the following shares which it holds under option, if such options are exercised:

<u>Number of Shares</u>	<u>Price per Share</u>	<u>Net Proceeds to the Company</u>
100,000 under option	50¢	\$50,000.00 if exercised
100,000 under option	55¢	\$55,000.00 if exercised
100,000 under option	60¢	\$60,000.00 if exercised
100,000 under option	65¢	\$65,000.00 if exercised

There is no obligation upon the Underwriter to purchase any of the optioned shares and no assurance that it will do so.

#### SECONDARY OFFERING:

74,000 of the vendor shares issued for the Monmouth Township claims will be offered for sale to the public through registered security dealers at the market price from time to time by James Martin Brady, John Joseph Rider and Frank Alison Cockburn. The proceeds therefrom will not accrue to the treasury of the Company. 1,000 of such vendor shares have been sold, the proceeds from which did not accrue to the treasury.

#### PURPOSE OF OFFERING:

The purpose of the offering is to provide funds to continue the financing of the exploration programs relating to the various groups of claims held by the Company and to provide the Company with working capital (see headings "HISTORY AND BUSINESS" and "USE OF PROCEEDS").

The Underwriter will offer the aforesaid shares for sale through registered security dealers who will act as Agents for the Underwriter and will be paid commissions not exceeding 25% of the selling price of such shares.

The Underwriter may be said to realize a gross profit in an amount equal to the difference between the price paid by it for such shares and the price at which such shares are sold to the public.

During the past six months the price range of the shares which traded on the over-the-counter market for mining shares in Toronto was as follows:

<u>Month</u>	<u>High</u>	<u>Low</u>
March	85¢	67¢
April	74¢	73¢
May	80¢	70¢
June	80¢	70¢
July	90¢	75¢
to 13th August	74¢	63¢

THE SHARES OF THE COMPANY ARE SPECULATIVE SECURITIES.  
REGISTRAR AND TRANSFER AGENT

### THE PREMIER TRUST COMPANY

19 Richmond Street West, Toronto, Canada

THE DATE OF THIS PROSPECTUS IS 15th OCTOBER, 1969.

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## HISTORY AND BUSINESS

Northern Nuclear Mines Limited (hereinafter called "the Company") was incorporated under the name Hemagold Mines Limited pursuant to The Corporations Act (Ontario) by Letters Patent dated 2nd October, 1964. Its name was changed to Northern Nuclear Mines Limited by Supplementary Letters Patent dated 5th July, 1968. Its head office is 10th Floor, 366 Bay Street, Toronto, Ontario. By agreement dated 10th July, 1968, between the Company and James Martin Brady, 1372 Devon Road, Oakville, Ontario (hereinafter called "the Vendor"), the Vendor sold to the Company fifteen (15) unpatented mining claims situate in Monmouth Township, Ontario. The consideration was the allotment and issue to the Vendor of 750,000 fully paid and non-assessable shares in the capital stock of the Company, of which 75,000 shares were issued free of escrow and 675,000 shares are deposited in escrow with the Registrar and Transfer Agent of the Company subject to release therefrom pro rata to the parties entitled thereto only with the consent of the Ontario Securities Commission and the Board of Directors of the Company. The claims were staked by the Vendor at a cost of approximately \$1,200.00, excluding compensation for his time.

The following persons, other than the Vendor, are entitled to the following percentages of the aforementioned 750,000 vendor shares: John Joseph Rider, 12 Edgevalley Drive, Islington, Ontario, the Vice-President, a director and one of the Promoters of the Company, 45%; Frank Alison Cockburn, 1494 Gregwood Road, Port Credit, Ontario, a director of the Company, 10%. Mr. Rider received his shares from Mr. Brady as a bonus for supplying finances to the Company (see heading "PLAN OF DISTRIBUTION"). Mr. Cockburn received his shares as a finder's fee for bringing together Messrs. Brady and Rider. The Vendor is the President, a director and a Promoter of the Company, and Mr. Rider is the Vice-President, a director and a Promoter of the Company, and also the controlling shareholder of the Underwriter (see heading "INTEREST OF MANAGEMENT AND OTHERS IN MATERIAL TRANSACTIONS").

### Monmouth Township Claims

The fifteen (15) unpatented claims referred to above are more particularly described as follows:

EO-37858 to EO-37872, both inclusive;

recorded with the Mining Recording Office for the Eastern Ontario Mining Division at the Parliament Buildings, Toronto, Ontario.

The claims are contiguous and located in the southwest section of Monmouth Township. They are approximately thirty (30) miles west of the Town of Bancroft and one hundred and thirty-five (135) miles by highway from Toronto. They enclose approximately 750 acres, and are accessible by a partially gravelled access road from the Provincial Highway. There is no surface or underground plant on the claims. Since acquisition of the claims in July, 1968, the Company has conducted a program of mapping, line cutting, stripping and trenching, geophysical and geological surveys, diamond drilling and assaying at a cost of approximately \$100,000.00.

The following is a summary of the reports of S. W. Evans, P.Eng., dated 15th July, 1968 and 1st August, 1969, which reports are available for inspection in the public files of the Ontario Securities Commission.

The property is located within what is referred to as the Bancroft Uranium Area of Ontario. The previous owners, during 1954 and 1956, conducted a limited uranium exploration program by trenching and diamond drilling a uranium occurrence on claim EO-37871. The owners reported that a bulk sample taken over a length of 35 feet assayed 0.14%  $U_3O_8$ . Of the six drill holes that tested the main exposure management reported that ore grade material over mining widths was intersected in three of the drill holes. The seventh drill hole tested another zone located under the overburden about 100 feet northwest of the main showing. The then management reported that this hole intersected six feet assaying 0.011%  $U_3O_8$ .

The major phase of the program conducted by the Company consists of 10,302 feet of diamond drilling in forty-five vertical drill holes in A-Zone (Limestone) area. The mineralized sections average 25 feet in thickness and have been traced down dip for 500 feet. The structure is open to the west, the south and southeast. There is at present approximately 2,000,000 tons of material with an average grade

of 0.045%  $U_3O_8$  (0.9 lbs. of  $U_3O_8$ ), determined from twenty-two drill holes, indicated above the 200 foot vertical elevation. The radiometric survey work indicates at least an additional 200 feet on the dip of the structure will be found on the west side of the present drill area. The above mentioned average grade was derived from chemical and radiometric determinations.

A ten ton bulk sample was taken from an open cut excavation in the A-Zone and shipped to the plant of Lakefield Research of Canada Limited for metallurgical testing. Preliminary tests have indicated that an excellent concentration ratio (30 to 1) can be obtained by simple gravity separation methods. This test work is continuing.

It is recommended that survey control be established in the A-Zone area to be followed by 5,000 feet of diamond drilling primarily designed to test the western flank of the drilled area where excellent radiometric results were obtained. The estimated cost of this continuing program is as follows:

Survey Control .....	\$ 2,000.00
Metallurgical Testing .....	5,000.00
Assaying .....	3,000.00
Labour .....	5,000.00
Diamond Drilling: 5,000 ft. @ \$6.00 per ft. ....	30,000.00
Engineering .....	10,000.00
Vehicle .....	1,500.00
Maintenance: camps, etc. ....	4,000.00
Contingencies .....	5,500.00
	<u>\$66,000.00</u>

#### Elliot Lake Area Claims

By agreement dated 3rd October, 1968, between the Company and James Martin Brady, 1372 Devon Road, Oakville, Ontario (hereinafter called "Brady"), Brady assigned to the Company all his right, title and interest in and to an agreement dated 29th May, 1968, with McMarmac Red Lake Gold Mines Limited, Suite 1700, 110 Yonge Street, Toronto, Ontario (hereinafter called "McMarmac") whereby, in consideration of the payment of \$30,000.00 by Brady to McMarmac, Brady was granted an option to enter upon and explore 18 patented mining claims situate in Township 150 in the Sudbury Mining Division, Province of Ontario, more particularly described as follows:

S-68831; S-68832; S-68839; S-68840; S-68848; S-68849; S-74022 to S-74030, both inclusive;  
S-74034; S-74036 and S-74037;

(hereinafter called "the Claims").

In order to exercise the option Brady, or his Assignee, would:

- (a) within six months of 18th July, 1968, commence the drilling of the extension of the present drill hole on the claims to basement, estimated to be a depth of approximately 5,000 feet;
- (b) within twelve months of 18th July, 1968, complete such aforementioned drilling;
- (c) within forty-five days of the completion of such aforementioned drilling, cause to be incorporated a new company under The Corporations Act of Ontario (hereinafter called "the New Company"), with an authorized capital of 3,000,000 shares of the par value of \$1.00 each and cause the New Company to acquire the Claims for the maximum number of shares in the New Company permitted by the Ontario Securities Commission and such other regulatory body having jurisdiction in the matter, of which shares McMarmac would be allotted and issued 25% thereof and Brady, or his Assignee, would be allotted and issued 75% thereof. The New Company would also reimburse Brady, or his Assignee, and McMarmac in shares of the New Company, free of escrow, at the rate of one share for each 10¢ spent by each respectively on the drilling and exploration of the Claims pursuant to the aforesaid agreement. By the said agreement McMarmac agreed to pay 25% of the cost of the



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REPORT ON MINING CLAIMS E.O. - 37858  
TO E.O. - 37872 (INCLUSIVE), MONMOUTH  
TOWNSHIP, COUNTY OF HALIBURTON, EASTERN  
ONTARIO MINING DIVISION, FOR NORTHERN  
NUCLEAR MINES LIMITED.

INTRODUCTION:

The fifteen claim property acquired by Northern Nuclear Mines Limited, in the Bancroft area of the Province of Ontario, includes within its boundaries a known uranium occurrence of merit.

The limited program completed by the previous owners during 1954 to 1956 was apparently curtailed due to unsettled market conditions and predictions of an over-supply of uranium within the industry. The loss of important sales to the U.S.A. when that country failed to exercise options to purchase because their own mining industry had successfully developed satisfactory reserves at that time, undoubtedly hastened the curtailment of the uranium search in Canada.

The resurgence of interest in uranium and predictions of supply shortages in the 1970's, unless the mining industry enters the exploration field in a substantial manner, have resulted in increased exploration activities throughout the country. It is estimated that over \$5,000,000.00 will be expended in this search during 1968. The largest portion of these expenditures will be allocated to the producing and former producing areas.

PROPERTY DESCRIPTION:

The property consists of 15 contiguous mining claims enclosing approximately 750 acres. It is located in Monmouth Township, County of Haliburton, Eastern Ontario Mining Division, of the Province of Ontario. These claims are more specifically described as follows:

<u>Mining Claim No.</u>	<u>Lot No.</u>	<u>Concession</u>
E. O. 37858	N 1/2 Lot 8	VII
37859	S 1/2 Lot 8	VII
37860	N 1/2 Lot 8	VI
37861	S 1/2 Lot 8	VI
37862	S 1/2 Lot 7	VII
37863	N 1/2 Lot 7	VI
37864	S 1/2 Lot 7	VI
37865	N 1/2 Lot 6	VII
37866	S 1/2 Lot 6	VII
37867	N 1/2 Lot 6	VI
37868	S 1/2 Lot 6	VI
37869	N 1/2 Lot 5	VII
37870	S 1/2 Lot 5	VII
37871	N 1/2 Lot 5	VI
37872	S 1/2 Lot 5	VI

These mining claims are recorded with the Mining Recording Office for the Eastern Ontario Mining Division at the Parliament Buildings in Toronto, Ontario.

ACCESSIBILITY, TOPOGRAPHY, AND FACILITIES:

The property lies within the southwest sector of Monmouth Township. It is approximately 30 miles west of the town of Bancroft and 135 miles by highway from Toronto. The village of Gooderham lies 5 miles to the west.



Accessibility, Topography, & Facilities: (continued)

The northern portion of the claim group is traversed by Ontario Highway #503 (an excellent paved highway). The southern extremity of the group is cut by the well defined channel of the Irondale River. Two major waterfalls, one, approximately 30 feet high, the other, 50 feet high, occur on this river on claim E.O. 37872.

Approximately 70% of the group is covered by overburden and in general, rock exposures are localized along northeast trending ridges. The central portion is marked by a plateau rising to elevations of 1300 feet. (Elevation of Gooderham Lake is 1,088 feet).

The property is quite rugged in detail and the differences in relief are usually precipitous. Growth consists of maple, spruce, pine and cedar with much dense smaller growth along the Irondale River. Beaver dams have created flooding conditions in localized areas of the property.

There are no camps or mining facilities on the property. Access to the showing area is by bush trail from Highway #503 or by trail from the old abandoned C. N. R. roadbed 3/4 mile west of the west boundary of claim No. 37871.

PROPERTY GEOLOGY:

The mining property of Northern Nuclear Mines Limited is located within the Bancroft Uranium Area of the Province of Ontario. The property is underlain by igneous and metasediment-

Property Geology: (continued)

ary rocks of the Grenville Series. They are Precambrian in age and consist of paragneiss, marble, nepheline gneiss, syenite, granite and granite pegmatite. This series occupies a belt lying between the Anstruther granite gneiss to the northeast and the Glamorgan granite gneiss to the northwest.

The metasediments strike northeast and dip 30° to 40° to the southeast. The marble group of the metasediments occupies a band up to 1/4 mile wide trending northeast across the property.

DESCRIPTION OF THE URANIUM OCCURRENCE AND PREVIOUS EXPLORATION WORK:

The occurrence is located north of the Irondale River on mining claim #E. O. 37871 and lies within a metasediment, a micaceous, silicated marble.

Most of the old trenches were caved and obscured by debris when examined by the writer in June, 1968, and, therefore, full use has been made of references to this uranium occurrence by government publications.

The showing occurs within the silicated marble close to the contact with a radioactive pegmatite. The marble contains phlogopite, tremolite, diopside, and pink calcite. Uraninite, as blebs and cubes, is found in the silicated marble and sometimes in the pink calcite. These crystals of uraninite vary from 1/8 to 1/4 inch across. The showing strikes N 34° E and dips at 30° to the southeast.

Description of the Uranium Occurrence and  
Previous Exploration Work: (continued)

The occurrence was explored in 1954 by trenching and seven diamond drill holes totalling 1,813 feet. The main surface trench runs from top to bottom on the east slope of the ridge. Satterly describes this trench from top to bottom as follows:

"This trench is 1 to 3 feet wide and for the first 80 feet up the hill exposes a pink coarse, graphic leuco-granite pegmatite on which geiger readings were 2 to 6 times background and might average 4 times background. The next 40 feet is in sand overburden which is exposed for a depth of 10 feet. The upper section, 75 feet in length, exposes a micaceous silicated marble which gave readings of 7 to 25 times background and might average 17 times background".

The owners at this time (1954) reported that a bulk sample taken in this trench over a length of 35 feet assayed 0.14% uranium oxide ( $U_3O_8$ ). Of the six drill holes that tested the main exposure, management reported that ore grade material over mining widths was intersected in 3 of the drill holes. A seventh drill hole tested another zone located under the overburden about 100 feet northwest of the main showing. The management reported that this hole intersected six feet assaying 0.011% uranium oxide (Radiometric).

CONCLUSIONS AND RECOMMENDATIONS:

The following conclusions are tabulated:

- 1) A uranium occurrence of unknown dimensions and economic importance, associated with an extensive silicated marble horizon of the metasedimentary rocks, exists on the property.
- 2) The possibility of other occurrences existing within this host horizon is very probable, especially in those areas where the metasediments are in contact with radioactive pegmatites.
- 3) The previous work (1954) was confined to the immediate vicinity of the known showing and there is no field evidence to indicate that controlled survey methods were utilized.
- 4) The general economic outlook for profitable exploitation of uranium deposits has altered and exploration funds for such projects are justified.

It is apparent from the data available that further exploration is necessary and merited on the Monmouth Township Property of Northern Nuclear Mines Limited. Such a program should not only re-assess the known uranium occurrence but be extended to cover other geologically favorable locations.

The following program is recommended.

- 1) The results available from the previous program should be compiled as a matter of record.

Conclusions and Recommendations: (continued)

- 2) The area underlain by the marble metasediments should be covered with a line grid at 200 foot intervals. In the vicinity of the known showing, this line interval should be 50 feet. (This would involve a baseline of 1 1/4 miles, and approximately 16 miles of linecutting.
- 3) A continuous reading Scintillometer Survey should be carried out over the line grid, with detail work recorded where necessary. Readings should be taken every 50 feet, even where no detail work is required, and a radioactivity contour map produced.
- 4) The reassessment of the known uranium occurrence would be best accomplished by stripping the ridge with a bulldozer. This would be followed by a detailed Scintillometer Survey of this locale.
- 5) Geiger prospecting of the rest of the property should be considered paying particular attention to the pegmatitic phases of the granite.
- 6) Comprehensive sampling and assaying under proper supervision should be carried out in conjunction with the above program.
- 7) A diamond drill test of the property should be based on the results of the initial program.

COST ESTIMATES:

The following costs are submitted. Due to their nature, it is difficult to assess the sampling and detail survey work requirements.

a) Linecutting.....	\$ 1,500.00
b) Scintillometer Survey and detail work.....	3,500.00
c) Geiger Prospecting.....	1,500.00
d) Stripping and Trenching.....	2,500.00
e) Sampling and Assaying.....	1,500.00
f) Supervision and Engineering.....	2,500.00
g) Exigencies.....	1,500.00
h) Allowance for Diamond Drilling (Approx., 2000 ft. @ \$5.00 per ft..)	10,000.00
<hr/>	
TOTAL.....	\$24,500.00

Respectfully submitted,

Toronto, Ontario,  
July 15, 1968.

*S. W. Evans*  
S. W. Evans, P. Eng.,  
Mining Geologist.



REFERENCES

- 1) Mining in Canada, May, 1968.  
Canadian Uranium Industry.
- 2) Radioactive Occurrences in the Bancroft Area by  
J. Satterly, Ontario Department of Mines, Volume LXV,  
part 6, 1956.
- 3) Canadian Deposits of Uranium and Thorium by A. H. Lang,  
Geological Survey of Canada, 1952.
- 4) Ontario Department of Mines, Preliminary Map of Monmouth  
Township #P - 60.
- 5) Some Radioactive Mineral Occurrences in the Bancroft Area  
by J. Satterly and D. F. Hewitt, Ontario Department of  
Mines, Geological Circular #2, 1955.
- 6) Uranium and Thorium Deposits of Southern Ontario by  
D. F. Hewitt, Ontario Department of Mines, Mineral  
Resources Circular, No. 4, 1967.

# LEGEND

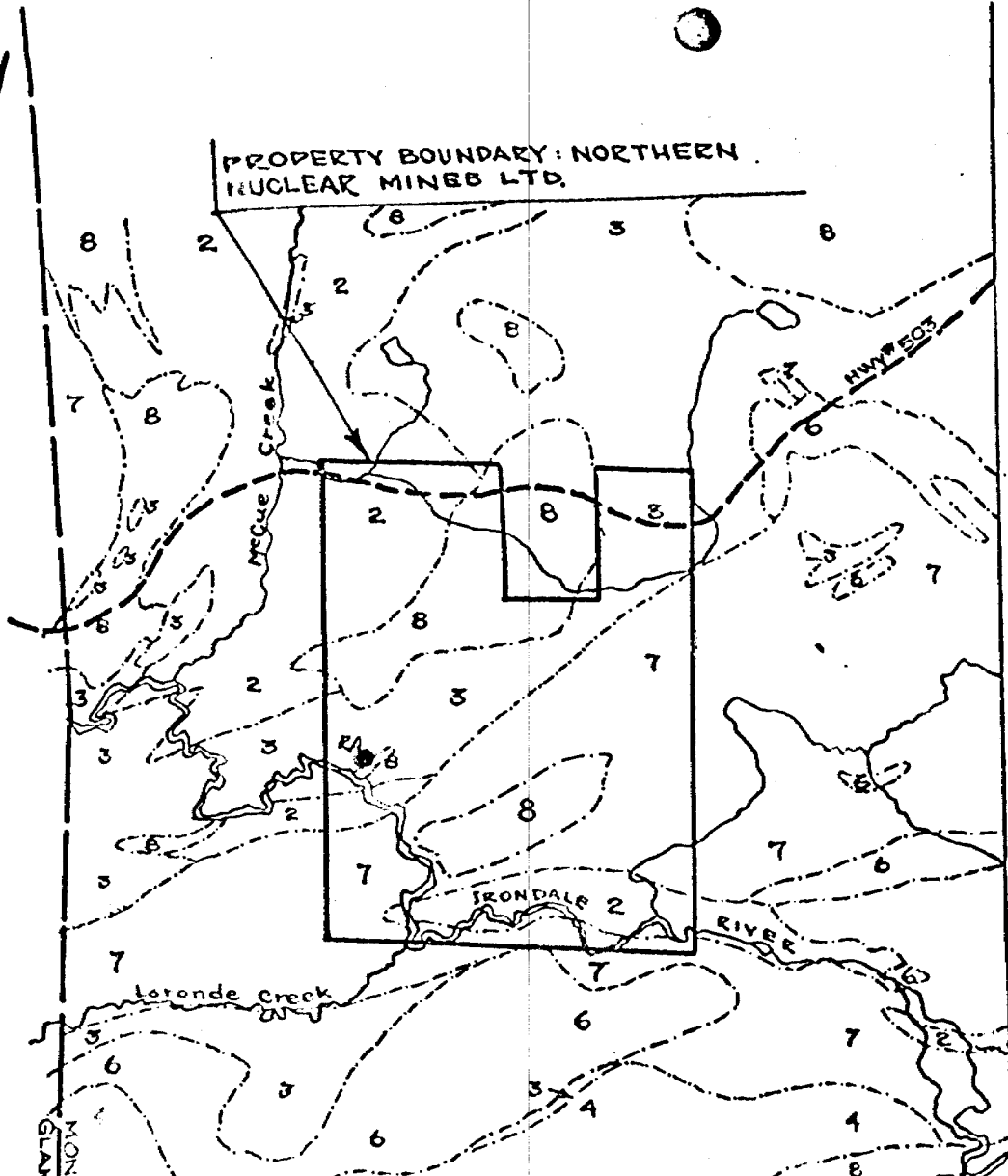
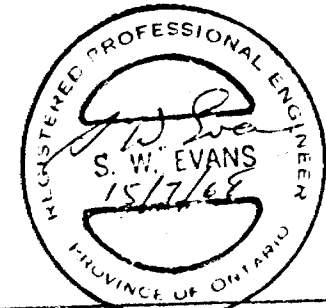
## PRECAMBRIAN PLUTONIC ROCKS:

- 8 GRANITE GROUP
- 7 SYENITE GROUP
- 6 NEPHELINE ROCKS
- 4 BASIC INTRUSIVES

## METASEDIMENTS:

- 3 MARBLE GROUP
- 2 PARAGNEISS-AMPHIBOLITE GROUP

- RA RADIOACTIVE OCCURRENCE.
- ~ GEOLOGICAL CONTACT.

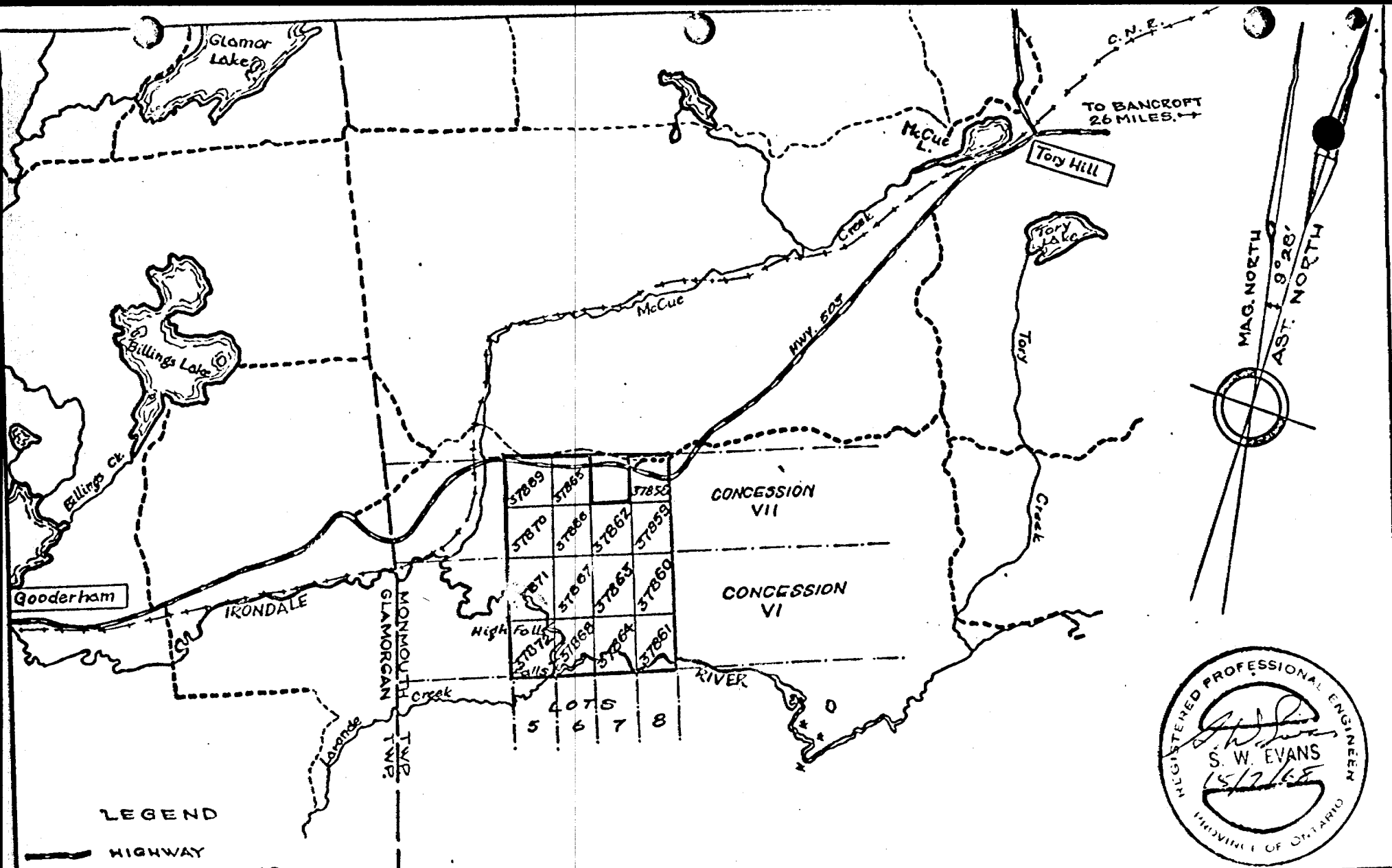


S.W. EVANS, MINING GEOLOGIST  
 FOR  
**NORTHERN NUCLEAR MINES LTD.**  
**GENERAL GEOLOGY**  
 MONMOUTH TWP. ~ HALIBURTON COUNTY  
 EASTERN ONTARIO MINING DIVISION

Scale: 1 inch = 1/2 mile.  
 Source: O.D.M. No P-60

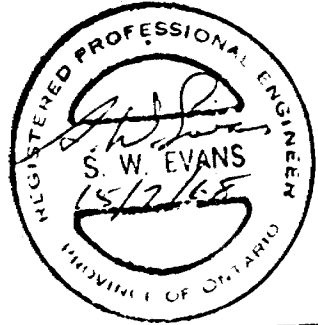
Date: July 10, 1968  
 S.W.E.





**LEGEND**

- HIGHWAY
- SECONDARY ROAD
- TRAIL OR TOTE ROAD
- TOWNSHIP LINE
- C.N.R. Abandoned.



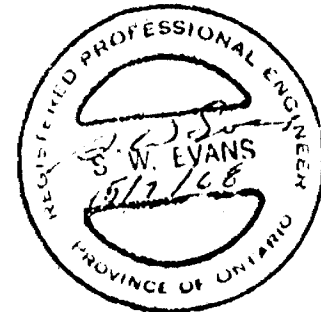
S.W. EVANS, MINING GEOLOGIST  
 #02  
**NORTHERN NUCLEAR MINES LTD.**  
**PROPERTY PLAN**  
 MONMOUTH TWP. ~ HALIBURTON COUNTY  
 EASTERN ONTARIO MINING DIVISION  
 Scale: 1 inch. = 1.25 miles      Date: June 20, 1968  
 SOURCE: O.D.M. CLAIM MAP: N.T.S. SHEET 81 96 WEST      SWE.

C E R T I F I C A T E

I, S. W. Evans of the Municipality of Metropolitan Toronto of the Province of Ontario, do hereby certify that:

- 1) I am a Mining Geologist residing at 29 Southwell Drive, Don Mills, Ontario.
- 2) I am a graduate of the University of Toronto in Mining Geology, 1951, with a degree of Bachelor of Applied Science, and that I am a member of the Association of Professional Engineers of the Province of Ontario.
- 3) I have been practicing my profession since graduation.
- 4) I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the property or securities of Northern Nuclear Mines Limited.
- 5) The statements contained in this report are based on visits to the property on June 18 and June 19 and on July 2, 3, and 4, 1968, as well as on information from the reference sources listed with this report. I am also familiar with the general Bancroft Area from previous trips for examination purposes.

Toronto, Ontario,  
July 15, 1968.



S. W. Evans, P. Eng.,  
Mining Geologist.

S. W. Evans, B.A.Sc., P.Eng.  
MINING GEOLOGIST

63.3076  
"B"

TELEPHONE ~~444-4133~~

DON MILLS, ONTARIO

29 SOUTHWELL DR.

444-4133

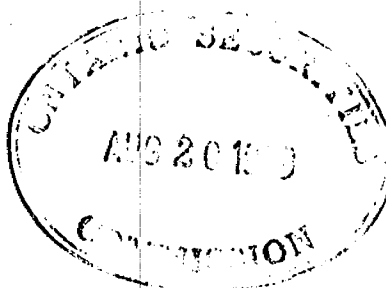


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PROGRESS REPORT ON THE MONMOUTH TOWNSHIP PROPERTY  
FOR  
NORTHERN NUCLEAR MINES LIMITED

PROPERTY MINING CLAIMS E.O.- 37858 to E.O.-37872 (INCLUSIVE)  
EASTERN ONTARIO MINING DIVISION, HALIBURTON COUNTY



Toronto, Ontario,  
August 1, 1969.

S. W. Evans, P. Eng.,  
Mining Geologist.





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I N D E X

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        Metallurgy..... Page 6

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Enclosures:

- Drill Hole Plan: Scale 1 inch = 400 feet — See diamond drilling Report # 38
- Plan: A-Zone Area Scale 1 inch = 40 feet
- Assay Data: sheets 1 to 7 inclusive

INTRODUCTION:

The major phase of the present program has constituted 10,302 feet of diamond drilling in the A-Zone (Limestone) Area. The mineralized sections average 25 feet in thickness and have been traced down dip for 500 feet. The structure is open to the west, the south, and the southeast. Some further drilling to the north will be required to ascertain what has occurred in this direction.

There is at present approximately 2,000,000 tons of material grading 0.045%  $U_3O_8$  (0.9 lbs. of  $U_3O_8$ ) indicated above the 200 foot vertical elevation and our radiometric survey work indicates that at least an additional 200 feet on the dip of the structure will be found on the west side of the present drill area. The writer believes that approximately 1,500,000 pounds of  $U_3O_8$  amenable to open-cut mining procedures, will be developed.

A sizeable open cut was also completed in the D.H. #69 - 7 area. This has provided an excellent chance to observe the geological details of the structure and 10 tons of material from this cut was shipped for metallurgical testing. Considerable higher grade material was observed in this cut.

Preliminary metallurgical testing has indicated that simple gravity separation procedures result in a table concentrate, 3.3% by weight of the feed, which contains 81.3% of the uranium oxide. Test work is continuing.

STATEMENT ON THE URANIUM MINING INDUSTRY:

A study of the projections and forecasts of the demand for uranium indicates, that unless significant successes result from exploration programs during 1969, that shortages will exist by 1974. This demand will primarily be based on the tremendous expansion taking place in the nuclear power generation capacities. The McGraw-Hill publication Power, June 1968 issue, in a comprehensive report on fuels states that by 1985, 14% of the total energy power of the U. S. A. will be supplied from nuclear sources, and that this percentage is in fact more energy than furnished by coal in 1965. It is noted that the free-world projection will require a total of 1.2 million tons  $U_3O_8$  by 1980 at a price of \$10.00 per pound of contained  $U_3O_8$ . This forecast is considered reasonable regardless of breeder - reactor developments which are expected to reduce cumulative uranium needs sometime after 1980.

Results of recent programs in the U. S. A. have indicated that significant discoveries, considering the multi-million dollar exploration budget, are not being made as forecast. It would appear that new reserves will be of lower grade with higher exploitation costs than present operations.

The economic factors involved with the development of a uranium producer and the timing of such an operation have become very important. In general, seven years are required to bring a new mineral deposit to production and if the power industry maintains an 8 year forward reserve in order to estimate production costs, then in the U. S. A. alone an additional 35,000 tons  $U_3O_8$  per year must be discovered over the next 12 years. This will not be an easy task for the mining industry as aptly illustrated by the fact that in the U. S. A., during 1967, net increase to the reserves was 10,600 tons  $U_3O_8$ , after drilling 10,764,000 feet.

PROPERTY FACILITIES:

The drill program was started in January and temporarily suspended towards the end of June, 1969. This suspension has allowed the company to proceed with a backlog of assaying and core examination. Proper storage and working facilities have now been provided with the erection of a substantial core storage building to hold 15,000 feet of core.

A trailer has been moved onto the property to provide living quarters for our personnel. The access road from the highway has been partially gravelled and further road improvement is planned.

PROGRAM RESULTS:P-1 Zone:

This pegmatite horizon was tested by three angle hole (#69 - 9, #69 - 10, #69 - 11) totalling 37 feet during the program. The best intersection was obtained in drill Hole #69 - 10 where 10 feet returned 0.041%  $U_3O_8$ . Further work on this zone is warranted and also on other pegmatitic radioactive occurrences.

The A - Zone Deposit:

Forty-five vertical drill holes, totalling 10,302 feet have been completed on the A-Zone. All holes intersected the favourable 'skarn' horizons but in some instances, evidences of alteration weakness, and a decrease in uraninite mineralization was disclosed.

Significant assays have been obtained in drill holes over a strike length of 1600 feet and for 500 feet down the structural dip. The present average assay thickness is 25 feet. The overall average grade from 22 drill holes is 0.045%  $U_3O_8$ . This average is derived from chemical and radiometric determinations. Where chemical checks of radiometric results have been carried out, these have checked very closely.

PROGRAM RESULTS: The A-Zone Deposit (continued)

The open cut blasted in the side hill is approximately 40 feet long, 12 feet wide, and at the face, about 14 feet deep. In this trench important amounts of high grade material with a profusion of uraninite crystals up to 1/4 inch in diameter were observed. There was certainly no indication from the drill core that material of this nature existed (D.H. #69 - 7 drilled in this location intersected 17.8 feet from surface, assaying 0.060%  $U_3O_8$ , chemical determination). It must be concluded from this observation that diamond drilling of such deposits, where the economic mineralization is so friable and scattered, will result in conservative estimates.

Sampling, assaying and logging is continuing and considerable fill-in assaying will be necessary.

From the results to date, it is estimated that the A-Zone Deposit contains 2,000,000 tons of material with an average grade of 0.045%  $U_3O_8$ , uranium oxide. From our radiometric survey results, it is expected that at least an additional 200 feet will be developed on the structural dip along the west side of our present drilling area.

The program has illustrated the widespread nature of the uranium occurrence within the defined 'skarn' horizon of the metamorphic limestone. Correlation of this zone is definite and the deposit is open to the west, the south, and the southeast. Extensions to the north (D.H. #69 - 26 and #69 - 27 are located to the north) may be limited to 200 feet of length north-west of D.H. #69 - 15.

Topography:

The outcrop and light overburden expression of the A-Zone deposit occupies a ridge rising to 50 feet and extending for 1600 feet along the strike of the deposit. The eastern slope of this ridge is indicative of the dip of the underlying sediments.



PROGRAM RESULTS: The A-Zone Deposit (continued)Geology and Mineralogy:

The uraninite mineralization occurs as crystals, from minute to 1/4 inch in size, scattered through a metamorphic limestone that is logged as a 'skarn' zone. The prominent pink to salmon red calcite occurring as an alteration product in these beds, and associated with the uraninite bearing intersections is the outstanding feature of the deposit. Associated minerals include, apatite, zircon, epidote, sericite, phlogopite, biotite, and actinolite-tremolite, as well as finely disseminated pyrite and pyrrhotite with traces of chalcopyrite and some scattered molybdenite. Small amounts of nickel, tin, silver, yttrium, have been indicated spectroscopically.

Significant  $U_3O_8$  assays have been returned over a vertical thickness as great as 67.5 feet. The 'skarn' zone itself may have thicknesses of over 150 feet in certain area, with the uraninite mineralization being concentrated in the upper and lower sections.

The meta-sediments dip at  $25^\circ$  to  $30^\circ$  to the east and strike  $N 5^\circ E$ . In a number of intersections an autoclastic brecciated marble formation (logged as spotted green formation) lies above and below the skarn section. The results to date also indicate that the meta-sediments have been tilted giving the deposit a pitch to the south of  $10^\circ$  to  $15^\circ$ . There is also some evidence, from observations made in Cut No. 1, that the outcrop ridge may be the axis of an arch structure. Drilling along the west side will test this postulation.

The structural information is presented in somewhat of an idealistic nature from the existing evidence and will undoubtedly undergo further study as the program proceeds.

PROGRAM RESULTS: The A-Zone Deposit (continued)Metallurgy:

The uranium values are obtained from free milling uraninite crystals of varying size enclosed in a soft calcite rich rock that lends itself to low cost autogenous crushing and handling.

A ten ton bulk sample derived from the Cut No. 1 excavation was shipped in June to the Lakefield, Ontario, plant of Lakefield Research of Canada Limited, for metallurgical testing. Some preliminary work has been completed. A series of heavy liquid separations on various screen size fractions was carried out. These Sink - Float procedures were on the whole unsatisfactory, although a recovery of 99.2% was obtained in a Sink concentrate making up 37.5% of the feed by weight at a relatively coarse grind. In preliminary tests by simple gravity separation techniques a tabling test was very encouraging in that 81.3% of the uranium oxide was recovered in a concentrate weighing 3.3% of the feed.

This is an excellent concentration ratio (30 to 1) and further tabling tests are being conducted to ascertain what improvements in recovery and concentration ratios can be effected by simple gravity methods. It may be that a combination of Heavy Liquid Separation and Gravity Concentration will give the optimum recovery and concentration ratio.

A representative sample has also been shipped to Ferro-Magnetics Limited in Prescott, Ontario, to ascertain whether the Jones High Intensity Wet Magnetic Separator might have beneficiation applications on the Northern Nuclear Mines material.

Full reports are awaited from Lakefield Research of Canada Ltd. and Ferro-Magnetics Limited.

CONCLUSIONS:

It is apparent from the work to date that a geologically unique and important uranium deposit is being developed on the Monmouth Township property of Northern Nuclear Mines Limited.

It is believed that at least 1,500,000 pounds of uranium oxide,  $U_3O_8$ , will be outlined as the program continues and that this amount of material will be recovered by low cost open-cut procedures. Power, labour, and transportation facilities are available. Preliminary metallurgical tests have indicated that simple concentration methods are applicable to the deposit. The soft calcite rich host will result in low crushing and handling cost. Metallurgical test work is continuing.

RECOMMENDATIONS:

The following recommendations are tabulated:

- 1: Surveying control should be established in the A-Zone Area. In effect, all holes should be tied in by transit and elevations established. A contour map of the locale should be prepared and accurate drill hole sections established. This survey control should be completed before the drill program resumes.
- 2: That we proceed with our metallurgical testing at Lakefield Research of Canada Limited and at Ferro Magnetics Limited.
- 3: That a Resident Engineer for the project be engaged for full time duties on the property under the direction of the Consulting Engineer.
- 4: That transportation facilities for Northern Nuclear personnel be supplied on the property. It is possible that a second hand 4-wheel drive any type vehicle may be available locally at a reasonable cost.
- 5: On completion of the recommended survey, an additional 5,000 feet of diamond drilling is recommended.  
This drilling should be primarily directed to testing the extensions along the western flank of the deposit.

COST ESTIMATES:

The following cost estimates are submitted for the continuing program.

1:	Survey Control .....	\$ 2,000.00
2:	Metallurgical Testing .....	5,000.00
3:	Assaying .....	3,000.00
4:	Labour .....	5,000.00
5:	Diamond Drilling: 5,000 ft. @ \$6.00 per ft..	30,000.00
6:	Engineering .....	10,000.00
7:	Vehicle .....	1,500.00
8:	Maintenance: camps, etc. ....	4,000.00
9:	Contingencies .....	5,500.00

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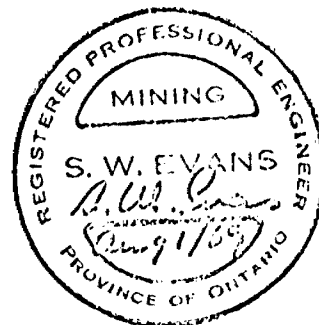
TOTAL \$66,000.00

Respectfully submitted,

*S. W. Evans*

S. W. Evans, P. Eng.,  
Mining Geologist.

Toronto, Ontario,  
August 1, 1969.



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- 2: Radioactive Occurrences in the Bancroft Area by  
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- 3: Uranium and Thorium Deposits of Southern Ontario by  
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- 4: Power, McGraw-Hill publication of June 1968, with a  
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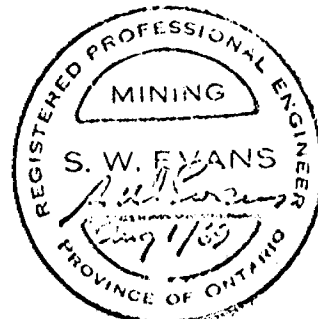
C E R T I F I C A T E

I, S. W. Evans of the Municipality of Metropolitan Toronto, of the Province of Ontario, do hereby certify that:

- 1: I am a Mining Geologist residing at 29 Southwell Drive, Don Mills, Ontario.
- 2: I am a graduate of the University of Toronto in Mining Geology, 1951, with a degree of Bachelor of Applied Science, and that I am a member of the Association of Professional Engineers of the Province of Ontario.
- 3: I have been practicing my profession since graduation.
- 4: I have no interest, direct or indirect, nor do I expect to receive any interest, direct or indirect, in the property or securities of Northern Nuclear Mines Limited.
- 5: The statements made in this progress report are based on my direct supervision of the present program and as a result of the surveys which I carried out on the property in 1968, as well as on the reference sources listed with this report under Bibliography.

Toronto, Ontario,  
August 1, 1969.

*S. W. Evans.*  
S. W. Evans, P. Eng.,  
Mining Geologist.



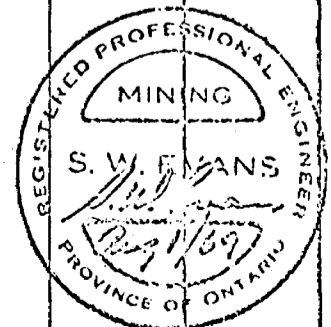
SAMPLE AND ASSAY RECORD

PROPERTY, Northern Nuclear Mines Limited: Monmouth Twp. Property.

D.D. HOLE No. Results from 'A' ZONE (Edenstone Area)

McPHAR TV-1 SPECTROMETER: T-1 SCALE: TOTAL RADIOACTIVE COUNT

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	METAL UNIT	ASSAYS			
FROM	TO				T-1 check Background 1000 cpm	U <sub>3</sub> O <sub>8</sub> % Chem.	ThO <sub>2</sub> % Rad.	Radio
DRILL HOLE #		69 - 2						
BR 8:0	11:0	6:0	4501		23,000	0.120		
11:0	20:0	6:0	4502		7,000	0.053		
20:0	32:6	12:6	4503		3,000		nil	
32:6	39:4	6:8	4504		4,000		nil	
39:4	46:0	6:6	4505		5,500	0.025		
132.5	136.7	4.2	4506		6,000	0.052		
Average:								
8.0	20.0	12.0				0.039		
or								
8.0	16.0	38.0				0.032		
DRILL HOLE #		69 - 2						
BR 8:0	17:0	9:0	4507		15,000	0.050		
17:0	23:8	6:8	4508		low		nil	
33.7	36.0	2.3	4509		6,000	0.032		
117.8	126.0	8:2	4510		7,000	0.032		
126.0	132.0	6.0	4511		3,500		nil	
DRILL HOLE #		69 - 3						
BR 8:0	16:0	8:0	4518	NA	Low RA			
22.9	23.8	0.9	4512		16,000	0.055		
57.5	59.5	2.0	4519	NA	2,500			
111:0	116:0	5:0	4520		5,000	0.010		
116:0	121:0	5:0	4521		7,500	0.024		
121:0	123.5	2.5	4522		5,500	0.015		
Average:								
111.0	123.5	12.5				0.017		
DRILL HOLE #		69 - 1						
BR 2:0	8:0	6:0	4517		4,000	less than < 0.005		
36.8	39:4	1:6	4524		5,000	0.020		
48:2	50:5	2:3	4514		to 80,000	0.010		
50:5	53.1	2:6	4525		3,000	0.016		
63:3	66:0	2:7	4526	NA	3,000			
66:0	67:1	1:1	4515		7,000	0.060		
67:1	73.1	5:0	4527		5,000	0.015		
76.3	83.0	6:7	4523		7,500	0.031		
123.3	125.8	2.5	4529		10,000	0.175		
Average:								
43.2	83.0	34.2				0.032		
or								
66.0	83.0	17.0				0.021		
and								
48.2	53.1	4:9				0.154		



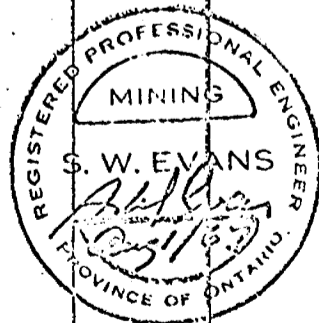
SAMPLE AND ASSAY RECORD

SHEET No. 2

PROPERTY: Northern Nuclear Mines Limited: Monmouth Twp. Property

D.D. HOLE No. Results from 'A ZONE' (Limestone Area)

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	METAL UNIT	ASSAYS			
FROM	TO				2-1 Check Background 2000 sp	U <sub>3</sub> O <sub>8</sub> % Chem.	ThO <sub>2</sub> % Radio.	ThO <sub>2</sub> % Chem.
DRILL HOLE #		69 - 5						
38.0	39.3	1.3	4536		3,500	0.019		
DRILL HOLE #		69 - 6						
ER 6.0	10.0	4.0	4534		5,000	0.010		
10.0	14.0	4.0	4535		5,500	0.020		
14.0	17.5	3.5	4536		5,500	0.011		
17.5	19.7	2.2	4537		4,000	0.012		
<u>Averages:</u>								
6.0	19.7	13.7				0.021		
or								
10.0	17.5	7.5				0.030		
DRILL HOLE #		69 - 7						
ER 4.8	10.0	5.2	4530		15,000	0.055		
10.0	15.0	5.0	4531		9,000	0.033		
15.0	17.6	2.6	4532		17,000	0.075		
17.6	23.6	5.0	4533		7,000	0.035		
<u>Averages:</u>								
4.8	23.6	17.8				0.060		
DRILL HOLE #		69 - 8						
ER 4.0	10.0	6.0	4539		8,000	0.033		
10.0	15.0	5.0	4540		8,000	0.031		
15.0	20.0	5.0	4541	NA	3,000			
20.0	25.0	5.0	4542	NA	2,500			
26.7	33.5	6.8	4543	NA	3,500			
99.0	109.0	10.0	4544		9,500	0.026		
109.0	115.0	6.0	4545		6,500	0.024		
<u>Averages:</u>								
4.0	15.0	11.0				0.032		
99.0	115.0	16.0				0.025		
DRILL HOLE #		69 - 12						
35.6	45.1	9.1	4550	NA				
45.1	48.1	3.0	4551		5,500		0.04	nil
99.0	102.5	3.5	4552		to 12,000	0.063	0.03	nil
102.5	106.5	4.0	4553	NA	2,500			nil
106.5	111.5	5.0	4554		5,500		0.02	nil
111.5	117.0	5.5	4555		to 9,000		0.05	nil
<u>Average:</u>								
99.0	117.0	18.0				0.026		





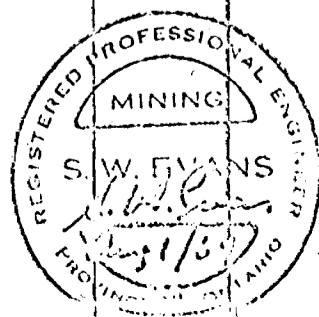
**SAMPLE AND ASSAY RECORD**

Sheet No. 3

PROPERTY: Northern Nuclear Mines Limited, Monmouth Twp. Property.

D.D. HOLE No. Results from 'A ZONE' (Limestone Area)

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	METAL UNIT	U <sub>238</sub> check Background 2000	ASSAYS			
FROM	TO					U <sub>235</sub> %	ThO <sub>2</sub> %	Chem.	Radio
DRILL HOLE #		69 - 14							
44.1	50.6	6.5	4556		9,000				nil
50.6	57.6	7.0	4557		3,500				nil
57.6	64.6	7.0	4558		5,000				nil
64.6	69.1	4.5	4559		9,000				nil
94.0	100.9	6.9	4560		15,000	0.068		0.07	nil
100.9	105.4	4.5	4561		6,000			0.03	nil
Average:									
44.1	69.1	25.0						0.044	
and	94.0	105.4						0.051	
DRILL HOLE #		69 - 15							
73.0	78.0	5.0	4567		17,000				nil
78.0	85.0	7.0	4568		15,000				nil
Average:									
73.0	85.0	12.0						0.066	
DRILL HOLE #		69 - 16							
13.7	19.7	6.0	4562	NA	4,500				
30.0	36.2	6.2	4563	NA	4,500				
50.0	55.0	5.0	4564		7,000			0.05	nil
55.0	60.0	5.0	4565	NA	3,000				
60.0	64.1	4.1	4566		6,000			0.04	nil
Average:									
50.0	64.1	14.1						0.030	
DRILL HOLE #		69 - 17							
69.5	74.5	5.0	4569		9,500			0.05	nil
DRILL HOLE #		69 - 18							
20.0	27.1	7.1	4570		15,000	0.031		0.10	nil
27.1	31.4	4.3							
31.4	36.0	4.6	4571		7,000			0.04	nil
36.0	43.5	7.5							
43.5	53.2	9.7	4572		9,500			0.05	nil
53.2	57.4	4.2	4573		4,500			0.01	nil
57.4	58.8	1.4							
58.8	64.3	5.5	4574		8,000			0.03	nil
64.3	69.8	5.5	4575		15,000			0.10	nil
69.8	75.5	5.7	4576	NA	3,500				
Average:									
20.0	69.8	49.8						0.045	
or	43.5	69.8						0.051	
or	58.8	69.8						0.066	
and	20.0	27.1						0.10	

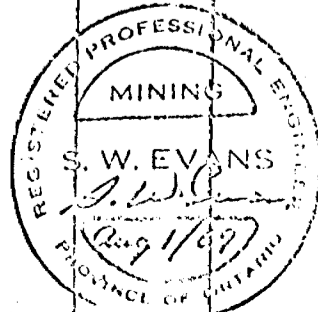


SAMPLE AND ASSAY RECORD

SHEET No. 4

PROPERTY: Hornmouth Township  
 D.D. HOLE No. A - Zone Results (Limestone Area)

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	ASSAYS					
FROM	TO			METAL UNIT	T-1 check	U <sub>3</sub> O <sub>8</sub> %		ThO <sub>2</sub> %	
				Background 2000 c.p.m.	Chem.	Radio.	Chem.	Radio.	
<u>DRILL HOLE #</u>		<u>69 - 19</u>							
107.7	112.7	5.0	4578						
112.7	117.7	5.0	4579	8,000		0.04		nil	
117.7	122.7	5.0	4580	23,000		0.11		0.16	
122.7	127.7	5.0	4581	4,000		0.01		nil	
127.7	129.7	2.0	4582	3,500		0.01		0.03	
				to 80,000	0.152	0.15		0.30	
137.4	149.4	12.0	4583	5,000		0.02		0.06	
<u>Averages:</u>									
107.7	129.7	22.0				0.073			
or									
107.7	149.4	41.7				0.044			
<u>DRILL HOLE #</u>		<u>69 - 20</u>							
51.7	58.2	6.5	4584	6,000		0.04		nil	
58.2	63.2	5.0	4585	3,000		0.01		nil	
63.2	68.2	5.0	4586	8,000		0.04		nil	
68.2	71.2	3.0	4587	15,000		0.13		nil	
148.0	158.0	10.0	4588	5,500		0.02		nil	
158.0	168.5	10.5	4589	2,500		nil		nil	
168.5	171.5	3.0	4590	25,000	0.110	0.13		nil	
171.5	176.5	5.0	4591	5,000		0.02		nil	
176.5	188.1	11.6	4592	8,000		0.04		nil	
<u>Averages:</u>									
51.7	71.2	19.5				0.046			
and									
168.5	188.1	19.6				0.049			
<u>DRILL HOLE #</u>		<u>69 - 21</u>							
58.0	61.0	3.0	4593	7,000		0.05		nil	
99.0	100.5	1.5	4594	15,000		0.16		nil	
<u>DRILL HOLE #</u>		<u>69 - 22</u>							
62.0	75.0	13.0	4595	4,000		0.03		nil	
75.0	85.0	10.0	4596	8,000		0.12		nil	
85.0	90.0	5.0	4597	20,000		0.09		nil	
<u>Averages:</u>									
62.0	90.0	28.0				0.073			
<u>DRILL HOLE #</u>		<u>69 - 23</u>							
121.0	127.5	6.5	4598	9,000		0.07		nil	
127.5	136.7	9.2	4599	6,000		0.03		nil	
252.0	255.5	3.5	4600	low		0.03		0.05	
<u>Averages:</u>									
121.0	136.7	15.7				0.055			



SAMPLE AND ASSAY RECORD

SHEET No. 5

PROPERTY: Monmouth Township:  
 D.D. HOLE No. A Zone Results (limestone Area)

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	METAL UNIT	ASSAYS			
FROM	TO				P 1 check 2000 gm	U <sub>3</sub> O <sub>8</sub> Chem.	Radio	ThO <sub>2</sub> Chem.
<u>DRILL HOLE #</u>		<u>69 - 24</u>						
83.5	88.5	5.0	1901	HA	3,000			
88.5	93.5	5.0	1902		8,000		0.02	nil
101.3	105.3	4.0	1903		4,500		0.03	0.02
111.0	114.0	3.0	1904		4,000		0.02	0.02
120.0	125.0	5.0	1905		9,000		0.02	nil
150.0	158.7	8.7	1906		4,000		0.03	nil
158.7	162.7	4.0	1907		5,500		0.03	0.01
162.7	172.7	10.0	1908		9,000	0.052	0.05	nil
<u>Averages:</u>								
88.5	125.0	36.5					0.01	
end	150.0	172.7					0.01	
<u>DRILL HOLE #</u>		<u>69 - 26</u>						
87.0	92.0	5.0	1909		7,000		0.01	nil
<u>DRILL HOLE #</u>		<u>69 - 28</u>						
43.6	54.6	6.0	1910		8,000		0.01	nil
54.6	61.1	6.5	1911		2,500		nil	nil
61.1	71.1	10.0	1912		6,000		0.02	nil
71.1	81.1	10.0	1913		4,000		0.01	nil
81.1	91.1	10.0	1914		12,000		0.07	nil
91.1	101.1	10.0	1915		12,000		0.08	nil
101.1	106.1	5.0	1916		5,000		0.02	0.02
106.1	116.1	10.0	1917		9,000		0.05	nil
<u>Averages:</u>								
43.6	116.1	67.5					0.010	
or	81.1	101.1					0.075	
or	81.1	116.1					0.030	

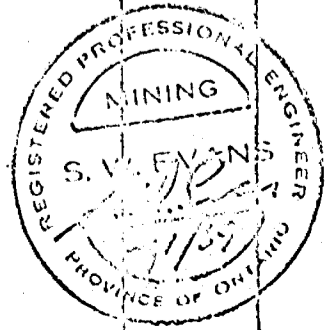


SAMPLE AND ASSAY RECORD

PROPERTY: Monmouth Township  
 D.D. HOLE No. A Zone Results (Limestone Area)

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	METAL UNIT	ASSAYS			
FROM	TO				1. check Background 2500 cps	U <sub>2</sub> O <sub>3</sub> % Chem.	ThO <sub>2</sub> % Radio.	Chem.
<u>DRILL HOLE #</u>		<u>69 - 29</u>						
127.0	135.0	8.0	1928		2,500	nil		
135.0	142.0	7.8	1929		3,500	nil		
<u>DRILL HOLE #</u>		<u>69 - 30</u>						
63.6	73.6	10.0	1930		1,000	< 0.01	nil	
73.6	83.6	10.0	1931		7,000	0.02	< 0.01	
83.6	93.6	10.0	1932		5,000	0.02	< 0.01	
93.6	103.6	10.0	1933		9,000	0.05	0.02	
103.6	109.0	5.4	1934		15,000	0.025	0.03	0.02
125.2	135.2	10.0	1935		9,000	0.014	0.02	0.01
<u>Averages:</u>								
73.6	109.0	35.4				0.03		
or 93.6	109.0	15.4				0.04		
<u>DRILL HOLE #</u>		<u>69 - 31</u>						
14.0	24.0	10.0	1945		6,000	0.02	< 0.01	
24.0	29.0	5.0	1946	NA	low		nil	
29.0	34.0	5.0	1946		4,500	0.02	nil	
34.0	44.0	10.0	1947		5,000	0.01	0.02	0.02
44.0	49.0	5.0	not sampled					
49.0	54.0	5.0	1948		5,500	0.02	nil	
54.0	64.0	10.0	1949		20,000	0.03	0.03	
<u>Averages:</u>								
14.0	64.0	50.0				0.026		
or 34.0	64.0	30.0				0.033		
or 49.0	64.0	15.0				0.060		
<u>DRILL HOLE #</u>		<u>69 - 35</u>						
89.4	99.4	10.0	1918		6,000	0.02	nil	
99.4	105.4	10.0	1919	NA	LOW			
150.7	155.7	5.0	1920	NA	LOW			
155.7	165.7	10.0	1921	NA	LOW			
165.7	175.7	10.0	1922		LOW	0.02		
175.7	180.7	5.0	1923		6,000	0.04		
124.0	134.6	10.6	1926		3,500	0.02		
193.5	198.5	5.0	1927		15,000	0.05		

) Dr.  
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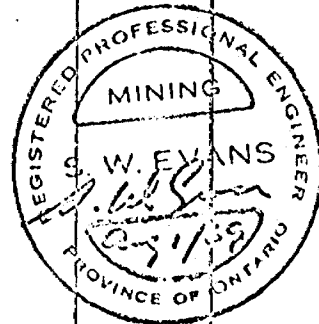
SAMPLE AND ASSAY RECORD

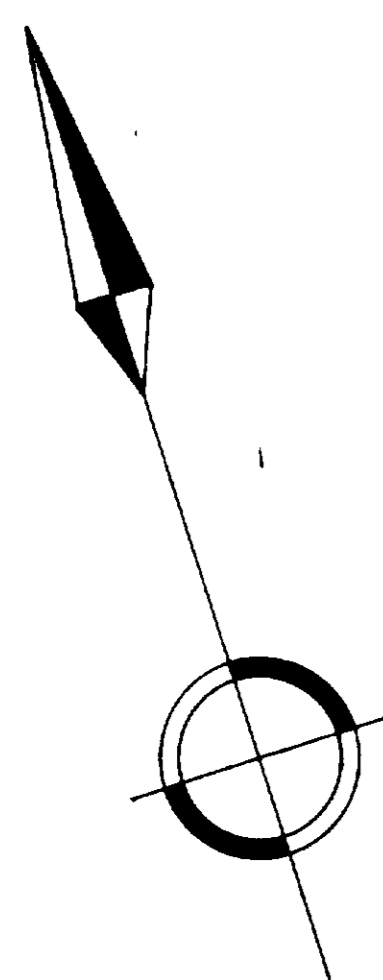
SHEET No. 7

PROPERTY: Nonmouth Township

D.D. HOLE No. A -- ZONE Results (Limestone Area)

FOOTAGE		CORE LENGTH FEET	SAMPLE NUMBER	ASSAYS					
FROM	TO			METAL UNIT	U-1 Check	U <sub>3</sub> O <sub>8</sub> %	% Radio.	ThO <sub>2</sub> %	% Radio.
<u>DRILL HOLE #</u>		<u>69 - 27</u>							
125.0	130.0	5.0	1939	3,000		< 0.01		< 0.01	
130.0	140.0	10.0	1940	15,000	0.052	0.06		< 0.01	
140.0	151.5	11.5	1941	20,000		0.11	0.020	0.05	
151.5	160.0	8.5	1942	15,000	0.068	0.09		< 0.01	
160.0	168.0	8.0	1943	2,500		< 0.01		nil	
<u>Averages:</u>									
130.0	160.0	30.0				0.088			
211.0	222.0	11.0	1944			0.01		0.01	
# 1944	check for other metals:			Ni %	Cu %	Mo %	Au ounces	Ag per ton	
				Trace	0.02	< 0.01	nil	Trace	
<u>DRILL HOLE #</u>		<u>69 - 32</u>							
190.0	195.0	5.0	1936	5,000	> 0.01	0.01		nil	
195.0	205.0	10.0	1937	5,500	> 0.01	0.01		nil	
205.0	213.2	8.2	1938	8,000	0.022	0.03		nil	
<u>Averages:</u>									
190.0	213.2	23.2				0.017			
or									
205.0	213.2	8.2				0.03			
<u>DRILL HOLE #</u>		<u>69 - 10</u>							
365.3	373.3	8.0	1924	15,000		0.05			
373.3	379.0	5.7	1925	13,000		0.05			
<u>Averages:</u>									
365.3	379.0	13.7				0.05			





S.W. EVANS - MINING GEOLOGIST

**NORTHERN NUCLEAR MINES LTD**

**PLAN... A-ZONE AREA**

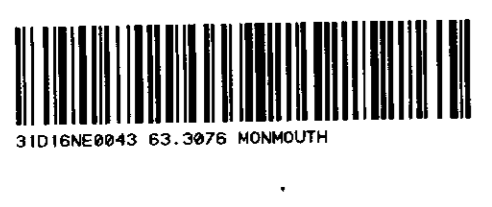
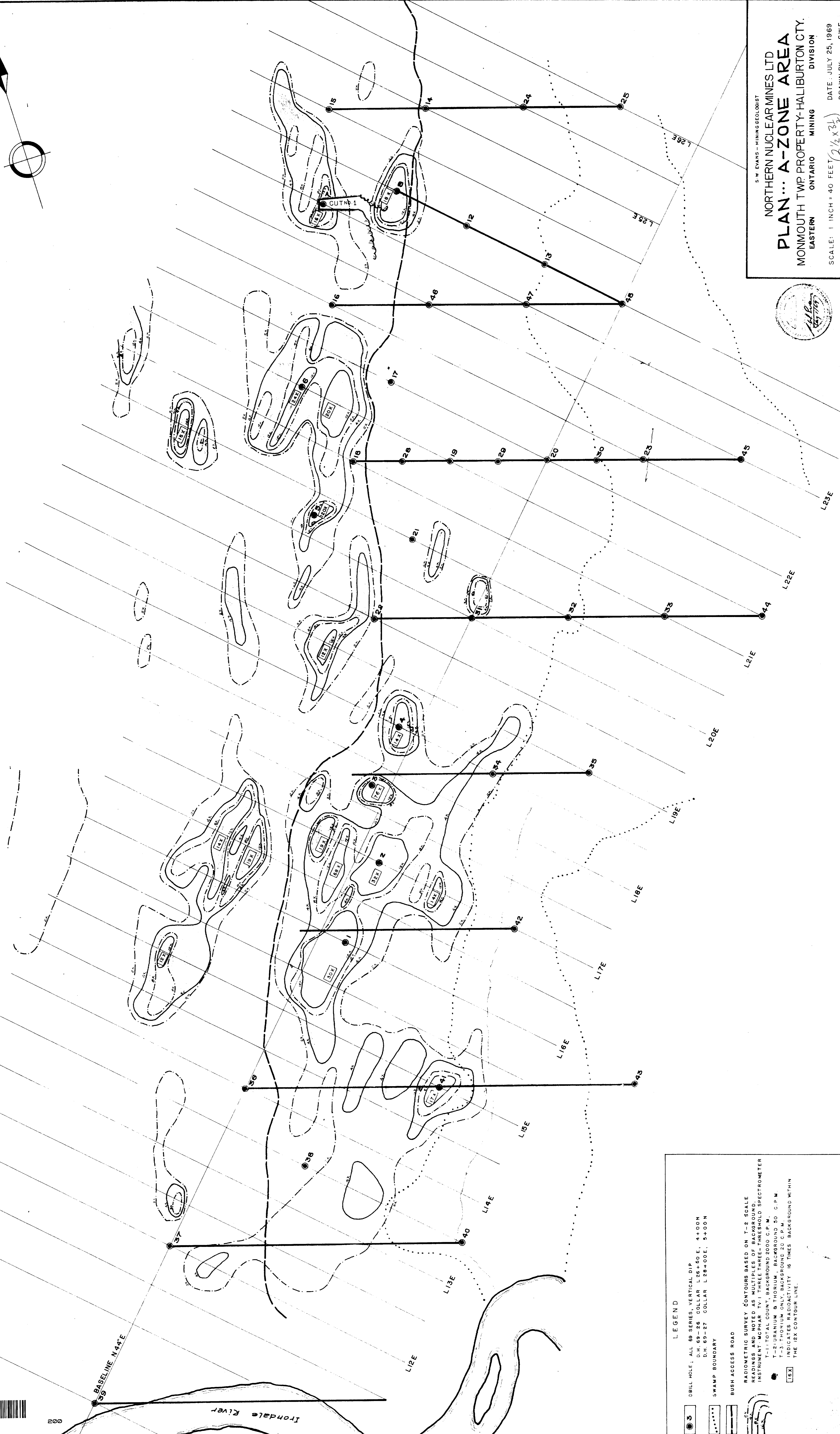
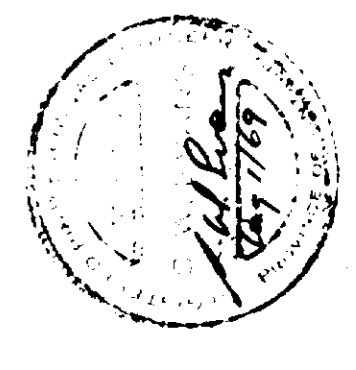
MONMOUTH TWP. PROPERTY-HALIBURTON CTY.

EASTERN ONTARIO MINING DIVISION

SCALE: 1 INCH = 40 FEET (2 1/2 X 3 1/2)

DATE: JULY 25, 1969

DRAWN BY: S.W.E.



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Irondale River

**LEGEND**

OBILL HOLE: ALL 69 SERIES, VERTICAL DIP  
 D.M. 69-26 COLLAR L26+50 E, 4+00N  
 D.M. 69-27 COLLAR L28+00 E, 5+00N

SWAMP BOUNDARY

BUSH ACCESS ROAD

RADIOMETRIC SURVEY CONTOURS BASED ON T-9 SCALE  
 READINGS AND NOTED AS MULTIPLES OF BACKGROUND.  
 INSTRUMENT: MOPHAR TV-1 THREE THREE-THRESHOLD SPECTROMETER

T-1: TOTAL COUNT, BACKGROUND 2000 C.P.M.  
 T-2: URANIUM & THORIUM, BACKGROUND 20 C.P.M.  
 T-3: THORIUM ONLY, BACKGROUND 20 C.P.M.  
 INDICATES RADIOACTIVITY 16 TIMES BACKGROUND WITHIN  
 THE 15X CONTOUR LINE.