

MAR 19760006: N.W. ATHABASCA

Received date: Dec 31, 1976

Public release date: Jan 01, 1978

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FILE REPORT No.

U-AF-118(1)

U-AF-119(1)

U-AF-120(1)

U-AF-121(1)

U-AF-122(1)

URANERZ EXPLORATION AND MINING LTD.

YEARLY REPORT 1976

NW ATHABASCA

PROJECT 71-41

DR. K. LEHNERT-THIEL

DR. W. KRETSCHMAR

LA RONGE, SASKATCHEWAN

MIN 19760006

SUMMARY

During 1976 an integrated ground exploration program was carried out by Uranerz Exploration and Mining Ltd. on all dispositions held by the Joint Venture along the northwest shoreline of Lake Athabasca within the provinces of Alberta and Saskatchewan.

The most successful exploration tools used were:

- 1) ground prospecting for uraniferous boulders down glacial strike from the Helikian unconformity,
- 2) trenching,
- 3) geochemical surveys, i.e. water sampling,
- 4) surficial geological studies (performed by Dr. L. Bayrock, consultant from Vancouver).

Several uranium mineralized outcrops were found. One of them, located at Fair Creek is of possible economic importance. Close to 1,000 uranium mineralized boulders were discovered, most of them located within the Maurice Bay area, Saskatchewan.

L. Bayrock, surficial geologist, predicts on the basis of boulders found during 1975 and 1976, three individual ore bodies, two of them located in the Falling Sand Point area and one located near Maurice Bay. Average grade of boulders in the first area amounts to .52% U_3O_8 and 1.87% for the second area.

Additional source areas are indicated by boulders located at Goose Bay and north of Maurice Bay, but only limited prospecting was carried out so far.

The uranium potential of the dispositions held by the Joint Venture in the NW Athabasca area is classified as excellent.

Linecutting, ground geophysics and drilling are recommended for the winter season, and additional prospecting, geology and geochemistry for the 1977 summer campaign.

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1. INTRODUCTION

1.1 AREA OF INVESTIGATION

The target of the investigation was the northwest rim of the Athabasca Sandstone basin, located within the northeastern part of Alberta and the northwestern part of Saskatchewan along the northwest shore of Lake Athabasca.

1.2 PURPOSE OF INVESTIGATION

The purpose of the investigation was to locate supergene pitchblende deposits found on or close to the Helikian unconformity between the basement and the overlying Athabasca Sandstone Formation.

1.3 TIME OF INVESTIGATION

March - December 1976.

1.4 PERSONNEL

Table #1 accompanying this report contains a summary of all personnel employed within the NW Athabasca dispositions during 1976.

1.5 INSTRUMENTS, VEHICLES USED

1.5.1 Instruments

12	SPP-2 SRAT (scintillometers)
1	TV-5 spectrometer
1	transit
6	magnetometers
1	down hole logging equipment

1.5.2 Aircraft

Fixed wing aircraft were used for mobilization and logistic purposes. Table # 2 accompanying this report is a summary of all flying, broken down into individual projects.

A Bell 47 helicopter was kept on contract during the period May 22 to August 6th to provide transportation for the ground crew.

1.5.3 Other Vehicles

- 2 canoes
- 1 aluminum boat
- 1 outboard motor (4 h.p.)
- 1 outboard motor (20 h.p. Mercury)

2. GENERAL INFORMATION

2.1 LOCALITY

The area of investigation comprising approximately 800 square miles is located close to the border of the Provinces of Saskatchewan and Alberta.

Longitude	108° 15' E. to 111° 00' W.
Latitude	58° 45' N. to 59° 45' N.

Campsites are located at Sand Point, Falling Sand Point and Maurice Bay. The latter was made permanent base camp.

2.2 COMMUNICATION AND ACCESS

The most convenient means of access to the area of investigation is by float and ski equipped aircraft. Transportation within the area is facilitated by aircraft or by boat along the shore of Lake Athabasca. Freight and supplies can be transported to the area via various barge services which connect Lake Athabasca to the rail head at Fort McMurray in Alberta.

2.3 TOPOGRAPHY

Lake Athabasca has an elevation of 700 feet above sea level. The country is rugged except for the region along the shoreline which is covered by sand plains, raised beaches and swamps.

2.4 CLIMATE

The climate is extreme continental with temperatures in winter to -60° C and $+30^{\circ}$ C in summer.

2.5 VEGETATION

Jackpine and spruce are abundant.

2.6 POPULATION AND LAND USE

No settlements are located within the area of investigation.

2.7 WATER RESOURCES

Water resources are untapped.

2.8 MAGNETIC DEVIATION

The magnetic deviation is 26° E.

3. PREVIOUS SURVEYS AND ACTIVITIES

3.1 TOPOGRAPHIC MAPPING

The area of investigation is covered by National Topographic System sheets at a scale of 1:250,000 (NTS - Numbers 74M and 74N).

Airphotos are available for both the Alberta and Saskatchewan side of the area of investigation.

Photos may be obtained from the Geological Survey in Ottawa, from the Department of Northern Saskatchewan or from the Alberta Research Council in Edmonton.

3.2 GEOLOGICAL MAPPING

Alberta -

G.S.C. Map 12 - 1960, Fort Fitzgerald

J.D. Godfrey 1959, Aerial Photographic Interpretation of
Precambrian Structures North of Lake Athabasca.
Research Council of Alberta,
Geology Division, Bulletin 1.

Saskatchewan

Report #11, The Geology of the Harper Lake Area (South Half),
F. Foster 1967, Department of Mineral Resources,
Regina.

3.3 GEOPHYSICAL SURVEY

The area is covered by aeromagnetic maps (1:63,360) surveyed by Canadian Aero Service Ltd. in 1961 as part of the Federal Provincial program for aeromagnetic coverage of the Precambrian Shield. The lines were flown at an altitude of 1,000 feet at half mile intervals.

3.4 ASSESSMENT WORK

The area of investigation was subject to repeated exploration work starting in the early fifties. Very little positive information can be gathered from the old files, the only important one being the report on the uranium mineralized float found near Fidler Point, Alberta.

3.5 JOINT VENTURE WORK

The initial reconnaissance exploration for this project was undertaken late in 1974 upon the information of the Fidler Point uranium boulder. 140 lake bottom sediment samples were taken in the general area and a few days of helicopter flying were spent on reconnaissance spectrometer survey and airborne geological mapping. No uraniferous boulders were found at that time, but geological information gained during that period indicated favourable uranium potential. This opinion was enhanced by the geochemical assays which returned values ranging between 10 and 100 ppm U_3O_8 , 10 times greater than those obtained on the southwest rim of the Athabasca basin.

During the 1975 field season, the following exploration methods were used:

- 1) Airborne fixed wing spectrometer and magnetometer survey.
 - 2) Helicopter spectrometer rim survey.
 - 3) Helicopter mapping of the surficial traces of the unconformity.
- A few landings verified the observations made from the air.

- 4) Ground prospecting down glacial strike from the unconformity for uraniferous boulders and mineralized outcrops of supergene nature.
- 5) Geochemical muskeg sampling.
- 6) Grid cutting, magnetometer and horizontal loop electromagnetic survey.
- 7) Alpha cup radon survey.

Of all the methods employed, only the ground prospecting program, which was based on the geological interpretation of the unconformity, turned out to be successful.

The Helikian unconformity between the basement gneisses and the Athabasca Formation was found exposed at two localities, at Falling Sand Point and Grey Willow Point, both in Alberta. Both outcrops showed spotty uranium mineralization; at the first location within the regolith, at the second within the basal sandstone strata.

More than 400 uraniferous boulders were found by prospecting, scattered in the area between Cypress Point, Alberta, and Goose Bay, Saskatchewan. Near Falling Sand Point, over 200 uraniferous Athabasca Sandstone boulders, averaging .51% U_3O_8 , were found within an area measuring 50 x 50 meters. The source of these boulders was believed to be in close vicinity. The nature and distribution of the uraniferous boulders suggested the following:

- 1) evidence of several individual sources within both Alberta and Saskatchewan,
- 2) the presence of vein type (Rabbit Lake type) uranium deposits,
- 3) the presence of intraformational uranium deposits within the Athabasca Formation of the type found at Steward Island, Lake Athabasca, and at Fond du Lac.

The uranium potential after the 1975 field season was classified as excellent.

4. TENURE POSSIBILITIES

4.1 SASKATCHEWAN

According to the mineral regulations in Saskatchewan, three types of dispositions can be acquired at present:

- a) Mineral claims covering an area not greater than 40 acres (approximately 16 hektres).
- b) Claim blocks covering an area not greater than 15,000 acres (approximately 60 square km).
- c) Mineral Permits, covering an area not greater than 300 square miles (777 square km).

4.2 MINERAL CLAIM BLOCKS

Five mineral claim blocks CBS 4434, CBS 4435, CBS 4430, CBS 4688 and CBS 2024, totalling 42,751, acres are under Joint Venture disposition with the following participation:

S.M.D.C.	50%
Inexco	25%
U.E.M.	25%

4.3 ALBERTA

According to the mineral regulations in Alberta, permits and claims can be acquired at present.

4.4 PERMITS

Five permits totalling 49,600 acres are granted by the Alberta Government and are under the Joint Venture disposition with the following participation:

S.M.D.C.	33 1/3%
Inexco	33 1/3%
U.E.M.	33 1/3%

5. GENERAL GEOLOGY

Rocks underlying the area of investigation belong to the Churchill Structural Province which contains a wide variety of Precambrian units. During the Lower Proterozoic (Aphebian), several NE trending troughs were filled with sediments derived from the Archean uplands bordering their rims.

After the Hudsonian Orogeny the metamorphic complex was peneplained and during the Helikian both the Martin and the Athabasca Formations were deposited.

5.1 STRATIGRAPHY

The northeastern part of Alberta was mapped by A.W. Norris, who describes the oldest rock formation as porphyroblastic metasediments and gneisses of varying degrees of metamorphism.

K. Koster, who mapped the Saskatchewan portion of the area of investigation, differentiated the western granodiorite complex and the easterly situated White Lake complex.

The Western granodiorite complex consists of a series of more or less porphyritic and foliated granitic to dioritic rocks. The White Lake complex includes a wide variety of gneissic to migmatitic and granitic assemblages of quartzo-feldspathic rocks, hypersthene, cordierite, sillimanite or andalusite.

Conglomerates, sandstone and shales occur in the southwestern part of the area of investigation along the shoreline of Lake Athabasca. The age of this formation is still uncertain, a paleo-Helikian age (Martin formation) seems possible.

The youngest rocks in the area of investigation are sandstones of the Helikian Athabasca series, covering the central part of the area along the shoreline of Lake Athabasca.

CENOZOIC	Sand, Glacial drift	= Unconformity
PROTEROZOIC	ATHABASCA SANDSTONE FORMATION	= Unconformity
	MARTIN FORMATION	= Unconformity
ARCHEAN AND/OR APHEBIAN	White Lake complex Western Granodiorite complex	

5.2 STRUCTURE AND METAMORPHISM

Tectonic deformation and metamorphism of the Archean and Aphebian sediments are the result of the Hudsonian Orogeny. Several periods of folding are known. Tight isoclinal folding with northeast trending axes is a major structural feature, representing the youngest period of folding.

Metamorphism in the area is generally in the upper amphibolite facies.

J.D. Godfrey, who mapped in NE Alberta, discriminates two major structural domains located on each side of the major north trending Allen Fault. On the west side, NE structures are predominant, while on the other side west-east structures are evident.

The Martin Formation which is exposed in overturned position SW of the Allen Fault along the shore line of Lake Athabasca, appears to be dragged up along a fault semicoincident with the unconformity. L.P. Tremblay, with whom this position was discussed, suggested, however, that this position is merely the result of the Martin Formation being deposited in a graben structure.

Athabasca Sandstone outcrops were observed on Burntwood Island and NE of Cypress Point. The dip is SW, but the amount is not known; however, it appears to be steeper than 1:30, the amount established at the south and southwest rim of the basin.

The paleorelief of the basement, prior to the deposition of the Athabasca Formation, was more rugged in the area of investigation than at the SE rim of the basin in the Key Lake area. This fact resulted in the development of islands of erosional windows within the Athabasca Formation.

Another typical feature in this area are members of the basal Athabasca Formation which were termed "fanglomerate". The fanglomerate consists of angular to subangular fragments of fresh basement rocks bedded within a fine matrix of silicified sandstone with regolithic components. To understand the formation of the fanglomerate, we have to anticipate a rapid subsidence of the old pre-Helikian paleo-surface which was marked by a rather rugged paleorelief. Due to the ruggedness, the talus of the cliff was buried within the fine matrix of eroded regolith in adjacent gulleys.

Based on field evidence, the following stratigraphic profile has developed:

ATHABASCA FORMATION	sandstone, intraformational pebble conglomerate, sandstone
(rapid facies change) (interchangeable)	sandstone regolithic matrix, fanglomerate (reworked regolith) basal conglomerate
UNCONFORMITY	-----
BASEMENT	regolith (no foliation visible), altered basement (foliation intact), basement.

Syn- and post-Athabasca block faulting has taken place.

5.3 ECONOMIC GEOLOGY

In the past years significant uranium deposits have been recognized in the vicinity of major Proterozoic unconformities. Rabbit Lake, Cluff Lake and others are situated along the crystalline-Athabasca Formation unconformity. Some Beaverlodge occurrences are closely associated with the crystalline - Martin Formation unconformity.

The origin of these deposits is thought to be supergene with minor mobilization and re-deposition within close range.

Within the area of investigation, pitchblende has been reported within the former UMEX claims, now CBS 4430 and under Joint Venture disposition.

6. PROSPECTIVE TARGETS

- 1) The areas close to the unconformity where the sandstone cover has been removed during the last glacial period.
- 2) The area south east of the unconformity, covered by shallow sandstone. For practical reasons, a sandstone cover of 600 vertical feet is considered the maximum workable thickness because of the limited penetration of geophysical equipment on the one hand and the drilling costs for exploration on the other hand.
- 3) The area north west of the unconformity where the protective sandstone cover has been removed during the past geological epochs. Depending on the level of erosion most of these deposits were eroded along with the protecting sandstone or were leached by subsequent surface weathering. The chances of finding substantial deposits in this area are not considered good.

The following criteria are felt to be necessary for the formation of supergene uranium deposits within the three target areas:

- 1) Syn-Athabasca faulting, resulting in structurally dilated zones.
- 2) Vertical displacement along the fault zone. This is observed at Key Lake, but not at Rabbit Lake or Cluff Lake.
- 3) A reducing depositional environment, as evidenced by bituminous, graphitic or carbonate rocks.
- 4) Thick regolith development on the pre-Helikian paleosurface.
- 5) Evidence of Aphebian fold belts which pre-concentrated the uranium on the pre-Helikian paleosurface.

7. INVESTIGATIONS

The following exploration methods were carried out during the 1976 field season:

- 1) diamond drilling
- 2) linecutting
- 3) ground geophysical surveys (magnetometer and electromagnetic surveys)
- 4) airborne electromagnetic and magnetometer survey
- 5) trenching
- 6) geochemical sampling
- 7) glaciology
- 8) ground prospecting.

7.1 AIRBORNE SURVEY

During the fall of 1976, Geoterrex Ltd., Ottawa, carried out an airborne electromagnetic and magnetometer survey covering the area from Falling Sand Point to Colin River. Flight lines were flown in a grid pattern east-west and north-south, 0.5 km apart.

7.2 CARBORNE SURVEY

Not applicable.

7.3 GROUND SURVEY

7.3.1 Ground Radiometric Survey

Ground prospecting with SRAT SPP-2 scintillometers was carried out in all dispositions held.

7.3.2 Radon Survey

Not carried out.

7.3.3 Geological Mapping

Helicopter and ground mapping were carried out on all dispositions held.

7.3.4 Geochemical Survey

92 lake and muskeg water samples and 7 lake bottom sediment samples were taken.

7.3.5 Sampling

Samples of uranium mineralized outcrops and boulders were taken. 63 samples were assayed in Bonn, 10 at the Key Lake laboratory.

7.3.6 Other Surveys

Linecutting

Linecutting commenced in March 1975 in the Falling Sand Point - Maurice Bay area and was terminated in April due to an early break-up. Minor linecutting was carried out during the summer season. Late in October, linecutting operations were started again and lasted until Christmas 1976.

The object of the lines is to provide ground control for prospecting and ground geophysical surveys.

Magnetometer Survey

In the period November - December 1976, magnetometer surveys were carried out on the grid between Falling Sand Point and Maurice Bay.

7.4 TRENCHING

6 uranium mineralized outcrops were trenched in the Maurice Bay exploration area.

7.5 DRILLING

24 diamond drill holes totalling 2,497 feet were drilled in a grid pattern on 200 metre centres in the Falling Sand Point area.

7.6 MICROSCOPY

Not carried out.

8. RESULTS

8.1 ANOMALIES DISCOVERED

Geoterrex's survey was carried out with a two month delay and only preliminary electromagnetic results are available at present. The survey indicated no trends or systematic grouping of anomalies. It has been proven that this type of electromagnetic survey does not achieve the results yielded by Questor (a comparative test survey has been flown at Key Lake by Geoterrex). The quality of the Geoterrex results do not compare with those obtained using the Questor system.

8.1.1 CBS 4434

Approximately 900 uraniferous boulders were found in this claim block, most of them concentrated within two areas designated "A" and "B", surrounded by muskeg and outwash. Surficial geological studies indicate that these two areas are windows of a giant boulder fan originating within a muskeg one mile NE of area "B". Average grade of 28 boulders is 1.87% U_3O_8 .

Several trenches were dug on outcropping uranium mineralization, the most important one being located on the north edge of Ness Creek. A northeast striking, 0.5m wide and 8m long, mineralized shear zone was exposed in Athabasca Sandstone, grading 0.93% average uranium content on 10 samples taken. The zone is open to both ends and at depth.

The same, or a sub-parallel zone surfaces 300 meters to the northeast, the only difference being that the hanging wall is formed by strongly chloritized regolith.

Both trenches show normal faulting and strong alteration such as chloritization and hematization of the host rock.

8.1.2 CBS 4435

Limited ground prospecting was carried out during the 1976 field season. Three weakly mineralized sandstone boulders were discovered.

8.1.3 CBS 2024

Very limited ground work was performed in this disposition during the 1976 field season. The evidence of Athabasca Formation has been ascertained in this area by the discovery of many unmineralized sandstone boulders. A graben position of the sandstone is considered.

8.1.4 CBS 4430

Limited prospecting was carried out during the 1976 field season within this claim block. Two areas with outcropping uranium mineralization within regolith were discovered.

8.1.5 Permit 189

Limited glaciological studies only were carried out in this disposition, and no final conclusions are being aired by Mr. L. Bayrock.

8.1.6 Permit 190

Glaciologic studies only were carried out in this disposition. L. Bayrock postulated two sources of boulders found in the Falling Sand Point area.

8.1.7 Permit 191

36 airborne radiometric anomalies were followed up on the ground, and only five anomalies were explained by outcropping basement rock with anomalous background. SRAT readings of 600 to 3500 cps with the nose of the instrument against the outcrop were recorded.

8.1.8 Permit 193

Two uraniferous sandstone boulders with readings of 800 cps and 5,000 cps were found. One of them resembles in appearance the Fishcamp Bay boulder, found in 1975. Samples were taken and shipped to Bonn. One sandstone outcrop, possible Martin Formation, was located within the permit.

8.1.9 Permit 194

29 ground prospecting traverses were completed, but only one uraniferous sandstone boulder, reading 3,500 cps, was found. One sample of this boulder was sent to Bonn for assays.

8.2 GEOCHEMICAL ANOMALIES

Of 92 water samples taken, a background of 0.4 ppb uranium has been statistically established. Peak values of 10 ppb coincide very well with the suspected source area of the Maurice Bay boulders.

No anomalous values were obtained on seven lake bottom sediment samples.

8.3 RADON ANOMALIES

Nothing to report.

8.4 OTHER ANOMALIES

Nothing to report.

8.4.1 Linecutting

At present, the final results of the linecutting are not available. It is assumed that by Christmas 1976 the goal of 1,200 km of line for this year will be achieved.

8.4.2 Magnetometer Survey

Surveying is under way and the final results will not be available until early next year

8.4.3 Drilling Results

24 holes, totalling 2,497 feet, were drilled in the period April - June 1976 (maps #4 and 5, table #4). No uranium mineralization was found. All drill holes intersected Athabasca Sandstone, covered by overburden up to 39 feet thick. The drilling results showed that the thickness of Athabasca Sandstone is increasing to the east and local changes are due to the paleorelief of the basement. The base of the Athabasca series is made up of conglomerate of variable composition. Below the unconformity the strata consists of regolith, locally interbedded with partly kaolinized and chloritized basement. In only one drill hole (#5), hydrothermally altered and fractured sandstone overlying chloritized and kaolinized regolith was found. This can be interpreted as an indication of possible mineralization in the vicinity. The first nine holes were drilled with AQ equipment, and due to the small diameter

only four of these holes were logged. For the balance of the drill holes, BQ was used, but by then no down hole logging equipment was available.

8.5 DESCRIPTION OF MINERALIZATION

Dr. Voultzidis, Bonn, has carried out mineralogical and petrographic investigations on 30 uraniferous outcrop and boulder samples. The following is a short summary of his report (#76-11, August 19, 1976):

All samples studied consist solely of quartzitic sandstones and conglomerates and are completely devoid of feldspathic material. The matrix consists of chloritic and sericitic minerals plus epidote and iron hydroxides.

There are no indications of tectonic stress.

The quartzitic rocks appear similar in texture, mineralogy and uranium mineralization to the mineralized sandstone from Key Lake. The uranium mineralization is of two types; dark, primary uranium oxides and yellow and pink secondary uranyl-hydroxides, derived from the primary oxides by hydration (gummitization). No typical colloidal pitchblende structures were noted. The sooty pitchblende (UO_3) and coffinite ($USiO_4$) typical of Key Lake are rare. Nickel and other minerals were not detected.

8.6 CHEMICAL ANALYSIS

Table #3 lists the results of all chemical analyses carried out on samples of uraniferous boulders and outcrops.

9. ASSESSMENT OF POTENTIAL

Up to September 1976, approximately 1,500 uranium mineralized boulders and six uranium mineralized outcrops were found in the area of investigation.

Based on the results gained during the 1975 and 1976 exploration seasons, the following major conclusions can be drawn:

- 1) Several individual sources with overlapping boulder fans can be expected within both provinces of Alberta and Saskatchewan. L. Bayrock postulates two sources in the Falling Sand Point area in Alberta, and one in the Maurice Bay area in Saskatchewan. However, no additional work has been done this year to clarify the origin of boulders found in the southern part of Goose Bay during 1975. It is possible that more than one source area may exist for these boulders.

Another unknown source is indicated by boulders found in the northern part of CBS 4434, bringing the number of expected mineralized zones to a minimum of five.

- 2) Outcropping mineralization was trenched in the Fair Creek area revealing information regarding the control of the mineralization. The mineralization is definitely structurally controlled, occurring within a fault zone in both the basement and Athabasca Formation. It is highly possible that the major boulder fields originate from deposits with similar but larger structures. The fact that no mineralized regolith has been found within the Maurice Bay and Falling Sand Point boulder fans indicates only that the erosional level did not expose the basement. Uranium mineralized regolith boulders were found in the Belinda - Sebastian Lake area and at Goose Bay.
- 3) The type of mineralization is therefore very similar to the Key Lake deposits, which has been pointed out by Dr. Voultsidis in his report (#76-11 dated August 19, 1976).

- 4) The following grades have been obtained by averaging the sample assays:

Falling Sand Point boulders:	.52% U_3O_8 using 11 boulders
Maurice Bay boulders:	1.87% U_3O_8 using 28 boulders
Fair Creek outcrop:	.93% U_3O_8 using 10 samples

It should be mentioned that two of the Maurice Bay boulders assaying 20.9% and 30.5% U_3O_8 were not used in compiling the above figure.

Channel samples were taken of the trenches, but assays are not available at present. The width of the mineralized shear zone is approximately 0.5m, strike length and depth are not known. If persistent, this structure might be an economic proposition.

9.1 URANIUM POTENTIAL

Based on the field results of the past two years and experiences gained in the Key Lake area, the uranium potential of the NW rim of the Athabasca basin has to be classified as excellent.

9.1.1 Potential for Other Minerals

No evidence of other mineralization was found. The potential for additional minerals is limited to those types commonly found to occur in association with uranium mineralization. The high cobalt content of some uraniferous samples (Fishcamp Bay, Falling Sand Point) should be mentioned in this connection. Only uranium mineralization has been detected in the Maurice Bay boulders.

10.

RECOMMENDATIONS

The following winter program is recommended:

- 1) Continue with linecutting and magnetometer surveys in the area from Falling Sand Point to Collins Creek.
- 2) Have all magnetic anomalies and structures covered by a ground electromagnetic survey by February 1977.
- 3) Commence drilling on February 1st, 1977, at Falling Sand Point area and at Maurice Bay area on targets outlined by the electromagnetic survey.

The following summer program is recommended:

Continue with the ground prospecting and ground mapping and geochemical programs in all dispositions held. Drilling and trenching should be carried out.

[illegible]

UEM La Ronge

Men in Field Yearly Summary

1976

TABLE # 1

Proj. No. Month	7141	7152	7153	7154	7155	7156	7157	Total
Jan.								
Feb.								
Mar.	241							
Apr.	378 1/2							
May	234							
June	423							
July	408.							
Aug.	28							
Sept.	67							
Oct.	146							
Nov.	535							
Dec.	319							
Total	2779							

PROJECT No. 71-41
 SURVEY AREA NW Athabasca
 MAP No. 74N 5
 SCALE 1:50,000

SAMPLE RECORD

Maurice Bay Exploration Area

TABLE # 3

ARRIVAL at UEB/BONN

READING (cps)

UEB No.	FIELD No.	SAMPLER and DATE	CO-ORD.	LOCALITY ANOMALY	SAMPLING POINT	GEOLOGY	INSTR. Backgr	Sample	Situ	DESIRED EXAMIN.	ANALYSES(wt. - %)
1618	32	7.6.76		Griffith Spring	4 km NW Maurice Bay camp	Athabasca sandstone bould.	25	8500		U, Th Ni, V, Co	U ₃ O ₈ : 1,53, Co<0,002, Ni<0,02 : Cu=0,009, V<0,02
1619	34	7.6.76		creek area "	5 km W Maurice Bay camp	"	25	<15000			U ₃ O ₈ : 1,53, Co<0,002, Ni<0,02 : Cu<0,002, V<0,02
1620	43c	12.6.76	473W + 98m 421N + 64m	Faire - Griffith Creek area	N - edge of Ness Creek	Athabasca sandstone outcrop	50	3600	15000		U ₃ O ₈ : 0,12 Co<0,002, Ni<0,02 : Cu<0,002, V<0,02
1621	43d	12.6.76	"	"	"	"	50	5000	15000		U ₃ O ₈ : 0,035 Co<0,002, Ni<0,02 : Cu<0,002, V<0,02
1622	52f	15.6.76		"	"	Athabasca sandstone bould.	30	8500			U ₃ O ₈ : 1,31 Co<0,002, Ni<0,02 : Cu<0,002, V<0,02
1623	53g	15.6.76		"	"		30	12500			U ₃ O ₈ : 3,28 Co<0,002, Ni<0,02 : Cu<0,002, V<0,02
1624	54a	15.6.76		"	"		30	8500			U ₃ O ₈ : 0,22 Co<0,002, Ni<0,02 : Cu<0,002, V<0,02
1625	54c	15.6.76		"	"		30	<15000			U ₃ O ₈ : 4,38 Co<0,002, Ni<0,02 : Cu<0,002, V<0,002
1626	54c	15.6.76		"	"		30	9500			U ₃ O ₈ : 1,06 Co=0,020, Ni<0,02 : Cu<0,002, V<0,02
1627	55f	15.6.76		"	"		30	<15000			U ₃ O ₈ : 0,47 Co<0,002, Ni=0,02 : Cu<0,002, V<0,02

PROJECT No. 71-41
 SURVEY AREA NW Athabasca
 MAP No. 74N 5
 SCALE 1:50,000

SAMPLE RECORD

Maurice Bay Exploration Area

ARRIVAL at ~~UEB/DONN~~ Key Lake

READING (cps)

UEB No.	FIELD No.	SAMPLER and DATE	CO-ORD. 422N +	LOCALITY ANOMALY	SAMPLING POINT	GEOLOGY	INSTR. Backgr	Sample	Situ	DESIRED EXAMIN.	ANALYSES(wt.-%)
	1	B.H. 7.30.76	24.4m 471W + 92.2 m	Faire - Griffith Creek area	Trenched outcrop 2	Regolith?	50cps	1500cps	2800 cps	U, Pb, Ni, Cu, Zn	U ₃ O ₈ : = 0.70% :
	2	"	"	"	"	"	"	2300cps	6000 cps	"	U ₃ O ₈ : = 1.12% :
	3	"	"	"	"	"	"	5500cps	7000 cps	"	U ₃ O ₈ : = 2.8%, 0.013% Ni, : 0.02%Zn
	4	"	"	"	"	"	"	3400cps	6000 cps	"	U ₃ O ₈ : = 1.9%, 0.02%Zn :
	5	"	"	"	"	"	"	600cps	1500 cps	"	U ₃ O ₈ : = 0.24%, 0.01%Zn :
	6	"	"	"	"	"	"	2700cps	6000 cps	"	U ₃ O ₈ : = 1.10%, 0.03%Zn :
	7	"	"	"	"	"	"	2500cps	6200 cps	"	U ₃ O ₈ : = 1.26%, 0.01%Zn :
	8	"	boulder area B	Griffith - Spring Creek area	boulder area B	SS boulder	"	9500cps	15000 cps	"	U ₃ O ₈ : = 5.3% :
	9	"	"	"	"	SS boulder	"	15000cps	15000 cps	"	U ₃ O ₈ : = 8.4%, 0.3%pb, 0.4%Cu : 0.01% Zn
	10	"	421N+ 64 m 473W+	Fair - Griffith Creek area	Trenched outcrop 1	SS	75cps	420cps	5000 cps	"	U ₃ O ₈ : = 0.03% :

98 m

PROJECT No. 71-41

SURVEY AREA NW Athabasca

MAP No.

74N 5

SCALE

1:50,000

SAMPLE RECORD

Maurice Bay Exploration area

ARRIVAL at UEB/BONN

READING (cps)

UEB No.	FIELD No.	SAMPLER and DATE	CO-ORD.	LOCALITY ANOMALY	SAMPLING POINT	GEOLOGY	INSTR. Backgr	Sample	Situ	DESIRED EXAMIN.	ANALYSES(wt. - %)
CN 1628	58b	16.6.76		Faire - Griffith Creek area	N. edge Ness Creek	Athabasca Sandstone boulder	30	>15000		U, Th Ni, Co, V	U ₃ O ₈ : 0.30, Co=0.002, Cu<0.0002, Ni<0.02, V<0.02
1629	60c	16.6.76		"	"	"	30	7500			U ₃ O ₈ : 0.47, Co<0.002, Cu<0.002, Ni<0.002, V<0.02
1630	60k	16.6.76		"	"	"	30	>15000			U ₃ O ₈ : 1.86, Co= 0.007, Cu=0.008, Ni<0.02, V<0.02
1631	66a	17.6.76		"	"	"	35	7000			U ₃ O ₈ : 0.95, Co<0.002, Cu=0.009, Ni<0.02, V<0.02
1632	69a	17.6.76		"	"	"	35	>15000			U ₃ O ₈ : 1.35, Co<0.02, Cu<0.02, Ni<0.02, V<0.02
1633	71e	17.6.76		"	"	"	35	7000			U ₃ O ₈ : 0.82, Co<0.002, Cu<0.002, Ni<0.02, V<0.02
1634	80c	18.6.76		"	"	"	35	5000			U ₃ O ₈ : 0.68, Co=0.007, Cu=0.003, Ni=0.07, V<0.02
1635	82c	19.6.76		"	"	"	35	2800			U ₃ O ₈ : 0.026, Co<0.002, Cu<0.002, Ni<0.02, V<0.02
1636	82f	19.6.76		"	"	"	35	6000			U ₃ O ₈ : 0.36, Co<0.002, Cu=0.002, Ni<0.02, V<0.02
1637	86e	21.6.76		Griffith-Spring Creek area	N. edge of Griffith Creek	"	35	>15000			U ₃ O ₈ : 30.5, Co<0.002, Cu= 0.002, Ni<0.02, V<0.02

PROJECT No. 71-41

SURVEY AREA NW Athabasca

MAP No. 74N 5

SCALE 1:50,000

SAMPLE RECORD

Maurice Bay Exploration area

ARRIVAL at UEB/BONN

READING (cps)

UEB No.	FIELD No.	SAMPLER and DATE	CO-ORD.	LOCALITY ANOMALY	SAMPLING POINT	GEOLOGY	INSTR. Backgr	Sample	Situ	DESIRED EXAMIN.	ANALYSES(wt. - %)
CN 1638	86f	21.6.76		Griffith Spring Creek area	N. edge of Griffith Creek	Athabasca Sandstone boulder	35	>15000		U, Th, Ni, Co, V	U ₃ O ₈ : 2.26, Co=0.007, Cu<0.002 : Ni<0.01, V<0.02
1639	87d	22.6.76		"	"	"	35	>15000		"	U ₃ O ₈ : 20.9, Co<0.002, Cu=0.024 : Ni<0.002, V<0.02
1640	88a	22.6.76		"	"	"	35	>15000		"	U ₃ O ₈ : 4.28, Co<0.002, Cu=0.015 : Ni<0.02, V<0.02
1641	89b	22.6.76		"	"	"	30	>15000		"	U ₃ O ₈ : 3.61, Co<0.002, Cu=0.003 : Ni<0.02, V<0.02
1642	89c	27.6.76		"	"	"	30	>15000		"	U ₃ O ₈ : 3.38, Co<0.002, Cu=0.013 : Ni<0.02, V<0.02
1643	90b	12.6.76		Faire - Griffith Creek area	N. edge of Ness Creek	"	30	7500		"	U ₃ O ₈ : 0.51, Co=0.002, Cu<0.002 : Ni<0.02, V<0.02
1644	BH1	23.6.76		"	"	"	30	3500		"	U ₃ O ₈ : 0.60, Co<0.002, Cu<0.002 : Ni<0.02, V<0.02
1645	DC3	13.6.76		"	"	"	30	6500		"	U ₃ O ₈ : 3.02, Co<0.002, Cu<0.002 : Ni<0.02, V<0.02
1646	NC1	13.6.76		"	"	"	30	4100		"	U ₃ O ₈ : 0.18, Co<0.002, Cu<0.002 : Ni<0.02, V<0.02
1647	5R1	13.6.76		"	"	"	30	5000		"	U ₃ O ₈ : 0.49, Co<0.002, Cu<0.002 : Ni<0.02, V<0.02

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Diamond Drill Hole Summary

Project No.: NW ATHABASCA

Date: April to
June 1976
Table 4

No	Grid Location	Dip	Started	Completed	Depth	Geological Information					Remarks
						Overb.	S.S.	Regol	Base.		
1	200 NW/ 232 NE	90°	7.4.76	9.4.76	199'	-15'	-18'	-108'	-199'		Basement consists of biotite-gneiss and pegmatitic rock at bottom
2	200 NW/ 234 NE	90°	9.4.76	10.4.76	119'	-27'	-355'	-118'	-119'		Basement consists of biotite-gneiss changing with pegmatitic rock.
3	200 NW/ 236 NE	90°	15.4.76	18.4.76	88'	-29'	-57'	-585'	-88'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
4	200 NW/ 238 NE	90°	18.4.76	20.4.76	79'	-29'	-48'	-53'	-79'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
5	200 NW/ 240 NE	90°	20.4.76	25.4.76	99'	-21'	-51'	-99'			Athabasca sandstone is locally largely conglomerate 9 ft. of regolith at top are hydrothermally altered and strongly fractured.
6	196 NW/ 242 NE	90°	15.6.76	16.6.76	103	-32'	-88'	-103			No uranium mineralization by scint. (backgrd 25-40)
7	196 NW/ 240 NE	90°	14.6.76	15.6.76	103	-28'	-74'	-77	-103		No uranium mineralization by scint. (backgrd 25-40 cps)
8	196 NW/ 238 NE	90°	13.6.76	14.6.76	149	-22	-63	-128	-149		No uranium mineralization by scint. (backgrd 20-40)
9	198 NW/ 237 NE	90°	14.4.76	15.4.76	76'	-26'	-49'	-51.5	-76'		Athabasca Sandstone is locally partly conglomerate Regolith consists of chemically altered basement.
10	198 NW/ 235 NE	90°	13.4.76	14.4.76	72'	-22'	-33'	-38'	-72'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
11	196 NW/ 234 NE	90°	10.4.76	10.4.76	88'	-23'	-54.5	-57.5	-88'		Regolith consists of chemically altered basement. 195 cps at 65 ft. by down hole spectrometer reading.
12	196 NW/ 236 NE	90°	12.4.76	12.4.76	79'	-28'	-73'	-78'	-79'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.

UEM La Ronge

Diamond Drill Hole Summary

Project No.: NW ATHABASCA
71-41Table 4
Date: April to
June 1976

No	Grid Location	Dip	Started	Completed	Depth	Geological Information					Remarks
						Overb.	S.S.	Regol.	Base.		
13	198 NW/ 243 NE	90°	16.6.76	17.6.76	93	-25	-76	-93			No uranium mineralization by scint (backgrd 20-35c)
14	196 NW/ 244 NE	90°	17.6.76	18.6.76	109	-25.6	-80.5	-85	-109		No uranium mineralization by scint. (bckgrd 25-40c) Altered basement is locally regolithic.
15	198 NW/ 245 NE	90°	18.6.76	19.6.76	103	-16	-69.5	-103			No uranium mineralization by scint. (bckgrd 20-35cp) Regolith contains few sections altered basement (strongly kaolinized)
16	196 NW/ 246 NE	90°	19.6.76	20.6.76	103	-26.5	-79	-103			No uranium mineralization by scint. (bckgrd 20-40cp) Regolith contains few sections of altered basement (partly chloritized)
17	198 NW/ 247 NE	90°	20.6.76	21.6.76	123	-26	-61.5	-101	-123		No uranium mineralization by scint. (bckgrd 25-50c) Altered basement locally regolithic. (partly chloritized and kaolinized)
18	196 NW/ 248 NE	90°	21.6.76	22.6.76	34	-34					Drill hole stopped in overburden, no tricon!
19	198 NW/ 249 NE	90°	23.6.76	24.6.76	100	-33	-72	-100			No uranium mineralization by scint (25-45 cps) Regolith contains few sections altered basement. (partly chloritized and Kaolinized)
20	200 NW/ 262 NE	90°	27.6.76	28.6.76	133	-19	-113.5		133		No uranium mineralization by scint. (25-35 cps) Altered basement locally regolithic, (partly chloritized and kaolinized)
21	198 NW/ 251 NE	90°	22.6.76	23.6.76	103	-39	-70	-103			No uranium mineralization by scint. (25-40 cps) Regolith contains few sections altered basement. (partly chloritized and kaolinized)
22	200 NW/ 258 NE	90°	26.6.76	27.6.76	138	-36	-117.5	-138			No uranium mineralization by scint. (25-40 cps) Regolith contains few sections altered basement (boulder 133 - 134 ft.)
23	200 NW/ 252 NE	90°	24.6.76	25.6.76	102	-30.5	-65	-97		102	No uranium mineralization by scint. (20-35 cps) Basement locally altered (partly chloritized and kaolinized)
24	200 NW/ 254 NE	90°	25.6.76	26.6.76	102	-30.5	-98	-101	-102		No uranium mineralization by scint. (25-35 cps) 33% Core Recovery in Regolith.

UEM La Ronge

Diamond Drill Hole Summary

Project No.: NW ATHABASCA

Date: April to
June 1970
Table 4

No	Grid Location	Dip	Started	Completed	Depth	Geological Information					Remarks
						Overb.	S.S.	Regol	Base.		
1	200 NW/ 232 NE	90°	7.4.76	9.4.76	199'	-15'	-18'	-108'	-199'		Basement consists of biotite-gneiss and pegmatitic rock at bottom
2	200 NW/ 234 NE	90°	9.4.76	10.4.76	119'	-27'	-355'	-118'	-119'		Basement consists of biotite-gneiss changing with pegmatitic rock.
3	200 NW/ 236 NE	90°	15.4.76	18.4.76	88'	-29'	-57'	-585'	-88'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
4	200 NW/ 238 NE	90°	18.4.76	20.4.76	79'	-29'	-48'	-53'	-79'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
5	200 NW/ 240 NE	90°	20.4.76	25.4.76	99'	-21'	-51'	-99'			Athabasca sandstone is locally largely conglomerate 9 ft. of regolith at top are hydrothermally altered and strongly fractured.
6	196 NW/ 242 NE	90°	15.6.76	16.6.76	103	-32'	-88'	-103			No uranium mineralization by scint. (backgrd 25-40)
7	196 NW/ 240 NE	90°	14.6.76	15.6.76	103	-28'	-74'	-77	-103		No uranium mineralization by scint. (backgrd 25-40 cps)
8	196 NW/ 238 NE	90°	13.6.76	14.6.76	149	-22	-63	-128	-149		No uranium mineralization by scint. (backgrd 20-40)
9	198 NW/ 237 NE	90°	14.4.76	15.4.76	76'	-26'	-49'	-51.5	-76'		Athabasca Sandstone is locally partly conglomerate Regolith consists of chemically altered basement.
10	198 NW/ 235 NE	90°	13.4.76	14.4.76	72'	-22'	-33'	-38'	-72'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
11	196 NW/ 234 NE	90°	10.4.76	10.4.76	88'	-23'	-54.5	-57.5	-88'		Regolith consists of chemically altered basement. 195 cps at 65 ft. by down hole spectrometer reading
12	196 NW/ 236 NE	90°	12.4.76	12.4.76	79'	-28'	-73'	-78'	-79'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.

UEM La Ronge

Diamond Drill Hole Summary

Project No. : NW ATHABASCA
71-41Table 4
Date: April to
June 1976

No	Grid Location	Dip	Started	Completed	Depth	Geological Information					Remarks
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14	196 NW/ 244 NE	90°	17.6.76	18.6.76	109	-25.6	-80.5	-85	-109		No uranium mineralization by scint. (bckgrd 25-40cps) Altered basement is locally regolithic.
15	198 NW/ 245 NE	90°	18.6.76	19.6.76	103	-16	-69.5	-103			No uranium mineralization by scint.(bckgrd 20-35cps) Regolith contains few sections altered basement (strongly kaolinized)
16	196 NW/ 246 NE	90°	19.6.76	20.6.76	103	-26.5	-79	-103			No uranium mineralization by scint.(bckgrd 20-40cps) Regolith contains few sections of altered basement (partly chloritized)
17	198 NW/ 247 NE	90°	20.6.76	21.6.76	123	-26	-61.5	-101	-123		No uranium mineralization by scint. (bckgrd 25-50cps) Altered basement locally regolithic. (partly chloritized and kaolinized)
18	196 NW/ 248 NE	90°	21.6.76	22.6.76	34	-34					Drill hole stopped in overburden, no tricon!
19	198 NW/ 249 NE	90°	23.6.76	24.6.76	100	-33	-72	-100			No uranium mineralization by scint (25-45 cps) Regolith contains few sections altered basement. (partly chloritized and Kaolinized)
20	200 NW/ 262 NE	90°	27.6.76	28.6.76	133	-19	-113.5		133		No uranium mineralization by scint. (25-35 cps) Altered basement locally regolithic, (partly chloritized and kaolinized)
21	198 NW/ 251 NE	90°	22.6.76	23.6.76	103	-39	-70	-103			No uranium mineralization by scint. (25-40 cps) Regolith contains few sections altered basement. (partly chloritized and kaolinized)
22	200 NW/ 258 NE	90°	26.6.76	27.6.76	138	-36	-117.5	-138			No uranium mineralization by scint. (25-40 cps) Regolith contains few sections altered basement (boulder 133 - 134 ft.)
23	200 NW/ 252 NE	90°	24.6.76	25.6.76	102	-30.5	-65	-97		102	No uranium mineralization by scint. (20-35 cps) Basement locally altered (partly chloritized and kaolinized)
24	200 NW/ 254 NE	90°	25.6.76	26.6.76	102	-30.5	-98	-101	-102		No uranium mineralization by scint. (25-35 cps) 33% Core Recovery in Regolith.

UEM La Ronge

Diamond Drill Hole Summary

Project No.: NW ATHABASCA

Date: April to
June 1976
Table 4

No	Grid Location	Dip	Started	Completed	Depth	Geological Information					Remarks
						Overb.	S.S.	Regol	Base.		
1	200 NW/ 232 NE	90°	7.4.76	9.4.76	199'	-15'	-18'	-108'	-199'		Basement consists of biotite-gneiss and pegmatitic rock at bottom
2	200 NW/ 234 NE	90°	9.4.76	10.4.76	119'	-27'	-355'	-118'	-119'		Basement consists of biotite-gneiss changing with pegmatitic rock.
3	200 NW/ 236 NE	90°	15.4.76	18.4.76	88'	-29'	-57'	-585'	-88'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
4	200 NW/ 238 NE	90°	18.4.76	20.4.76	79'	-29'	-48'	-53'	-79'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
5	200 NW/ 240 NE	90°	20.4.76	25.4.76	99'	-21'	-51'	-99'			Athabasca sandstone is locally largely conglomerate 9 ft. of regolith at top are hydrothermally altered and strongly fractured.
6	196 NW/ 242 NE	90°	15.6.76	16.6.76	103	-32'	-88'	-103			No uranium mineralization by scint. (backgrd 25-40 cps)
7	196 NW/ 240 NE	90°	14.6.76	15.6.76	103	-28'	-74'	-77	-103		No uranium mineralization by scint. (backgrd 25-40 cps)
8	196 NW/ 238 NE	90°	13.6.76	14.6.76	149	-22	-63	-128	-149		No uranium mineralization by scint. (backgrd 20-40 cps)
9	198 NW/ 237 NE	90°	14.4.76	15.4.76	76'	-26'	-49'	-51.5	-76'		Athabasca Sandstone is locally partly conglomerate Regolith consists of chemically altered basement.
10	198 NW/ 235 NE	90°	13.4.76	14.4.76	72'	-22'	-33'	-38'	-72'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.
11	196 NW/ 234 NE	90°	10.4.76	10.4.76	88'	-23'	-54.5	-57.5	-88'		Regolith consists of chemically altered basement. 195 cps at 65 ft. by down hole spectrometer reading.
12	196 NW/ 236 NE	90°	12.4.76	12.4.76	79'	-28'	-73'	-78'	-79'		Athabasca Sandstone is locally largely conglomerate Regolith consists of chemically altered basement.

UEM La Ronge

Diamond Drill Hole Summary

Project No.:

NW ATHABASCA

Table 4

71-41

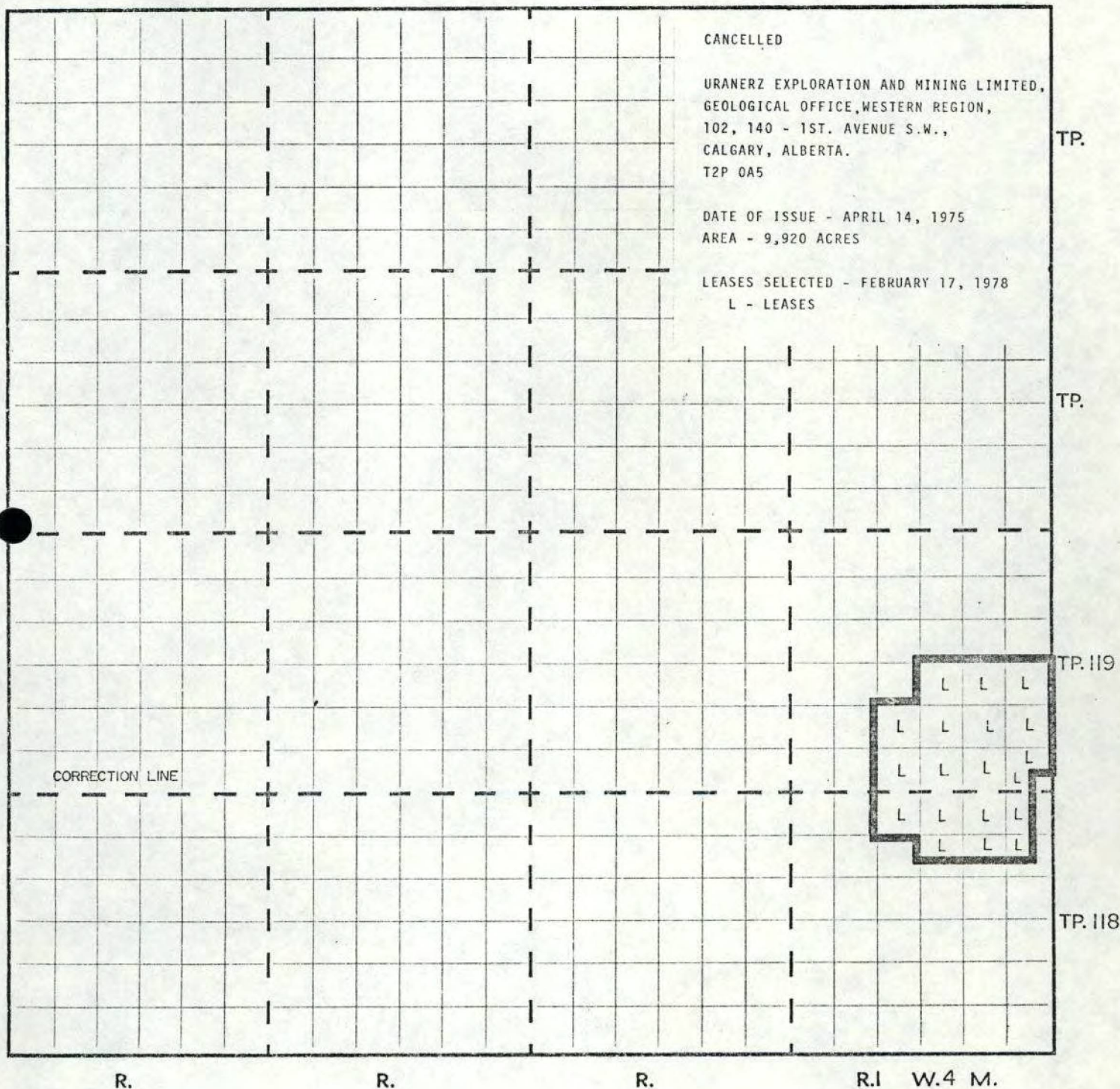
Date: April to
June 1976

No	Grid Location	Dip	Started	Completed	Depth	Geological Information					Remarks
						Overb.	S.S.	Regol.	Base.		
13	198 NW/ 243 NE	90°	16.6.76	17.6.76	93	-25	-76	-93			No uranium mineralization by scint (backgrd 20-35c)
14	196 NW/ 244 NE	90°	17.6.76	18.6.76	109	-25.6	-80.5	-85	-109		No uranium mineralization by scint. (bckgrd 25-40c) Altered basement is locally regolithic.
15	198 NW/ 245 NE	90°	18.6.76	19.6.76	103	-16	-69.5	-103			No uranium mineralization by scint.(bckgrd 20-35cp Regolith contains few sections altered basement (strongly kaolinized)
16	196 NW/ 246 NE	90°	19.6.76	20.6.76	103	-26.5	-79	-103			No uranium mineralization by scint.(bckgrd 20-40cp Regolith contains few sections of altered basement (partly chloritized)
17	198 NW/ 247 NE	90°	20.6.76	21.6.76	123	-26	-61.5	-101	-123		No uranium mineralization by scint. (bckgrd 25-50c) Altered basement locally regolithic. (partly chloritized and kaolinized)
18	196 NW/ 248 NE	90°	21.6.76	22.6.76	34	-34					Drill hole stopped in overburden, no tricon!
19	198 NW/ 249 NE	90°	23.6.76	24.6.76	100	-33	-72	-100			No uranium mineralization by scint (25-45 cps) Regolith contains few sections altered basement. (partly chloritized and Kaolinized)
20	200 NW/ 262 NE	90°	27.6.76	28.6.76	133	-19	-113.5		133		No uranium mineralization by scint. (25-35 cps) Altered basement locally regolithic,(partly chloritized and kaolinized)
21	198 NW/ 251 NE	90°	22.6.76	23.6.76	103	-39	-70	-103			No uranium mineralization by scint. (25-40 cps) Regolith contains few sections altered basement. (partly chloritized and kaolinized)
22	200 NW/ 258 NE	90°	26.6.76	27.6.76	138	-36	-117.5	-138			No uranium mineralization by scint. (25-40 cps) Regolith contains few sections altered basement (boulder 133 - 134 ft.)
23	200 NW/ 252 NE	90°	24.6.76	25.6.76	102	-30.5	-65	-97		102	No uranium mineralization by scint. (20-35 cps) Basement locally altered (partly chloritized and kaolinized)
24	200 NW/ 254 NE	90°	25.6.76	26.6.76	102	-30.5	-98	-101	-102		No uranium mineralization by scint. (25-35 cps) 33% Core Recovery in Regolith.

198800?

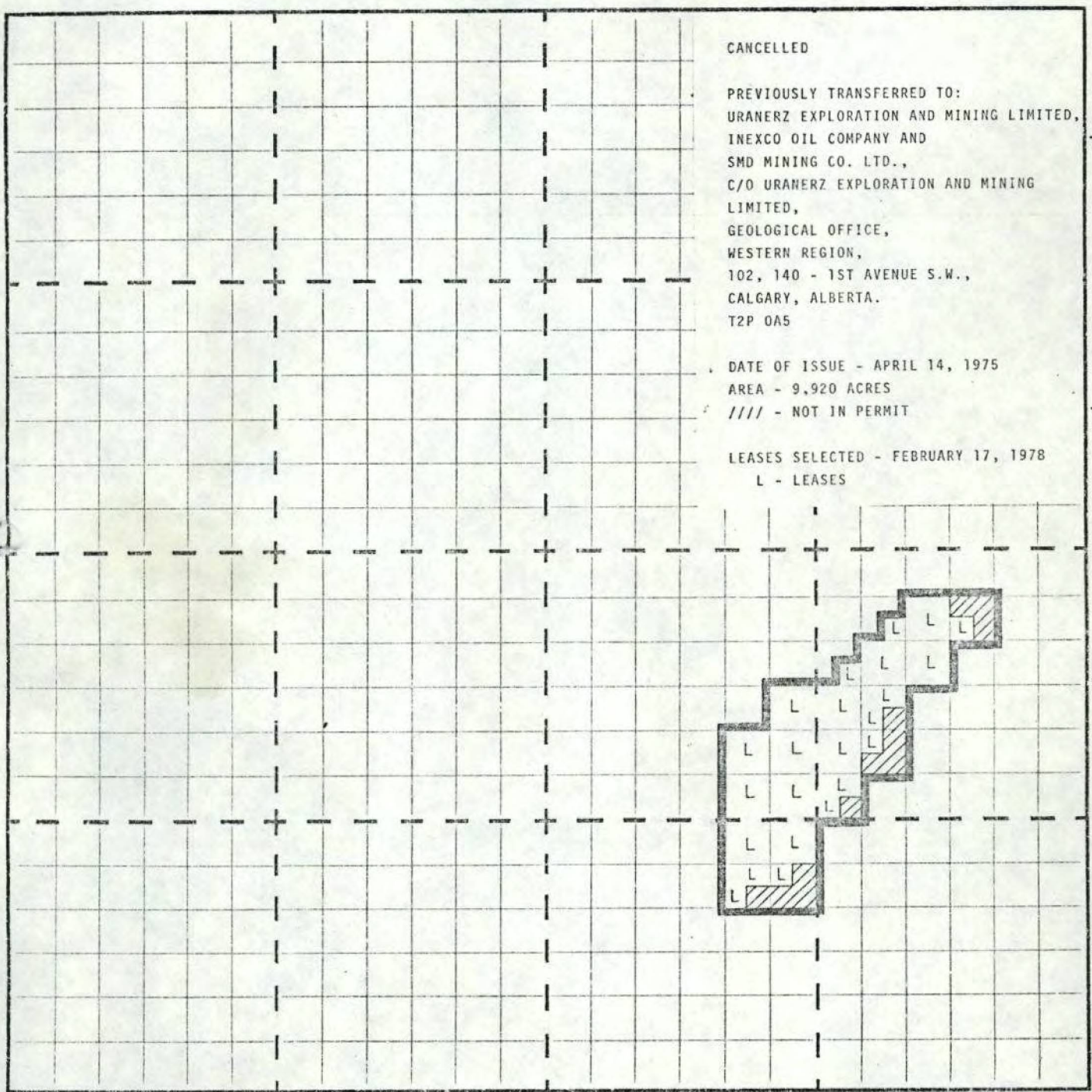
197600006

QUARTZ MINERAL EXPLORATION PERMIT No. 189



19760006.

QUARTZ MINERAL EXPLORATION PERMIT No. 190 u-AF-119



CANCELLED

PREVIOUSLY TRANSFERRED TO:
URANERZ EXPLORATION AND MINING LIMITED,
INEXCO OIL COMPANY AND
SMD MINING CO. LTD.,
C/O URANERZ EXPLORATION AND MINING
LIMITED,
GEOLOGICAL OFFICE,
WESTERN REGION,
102, 140 - 1ST AVENUE S.W.,
CALGARY, ALBERTA.
T2P 0A5

DATE OF ISSUE - APRIL 14, 1975
AREA - 9,920 ACRES
//// - NOT IN PERMIT

LEASES SELECTED - FEBRUARY 17, 1978
L - LEASES

R.

R.

R.2

R.1 W.4 M.

TP.

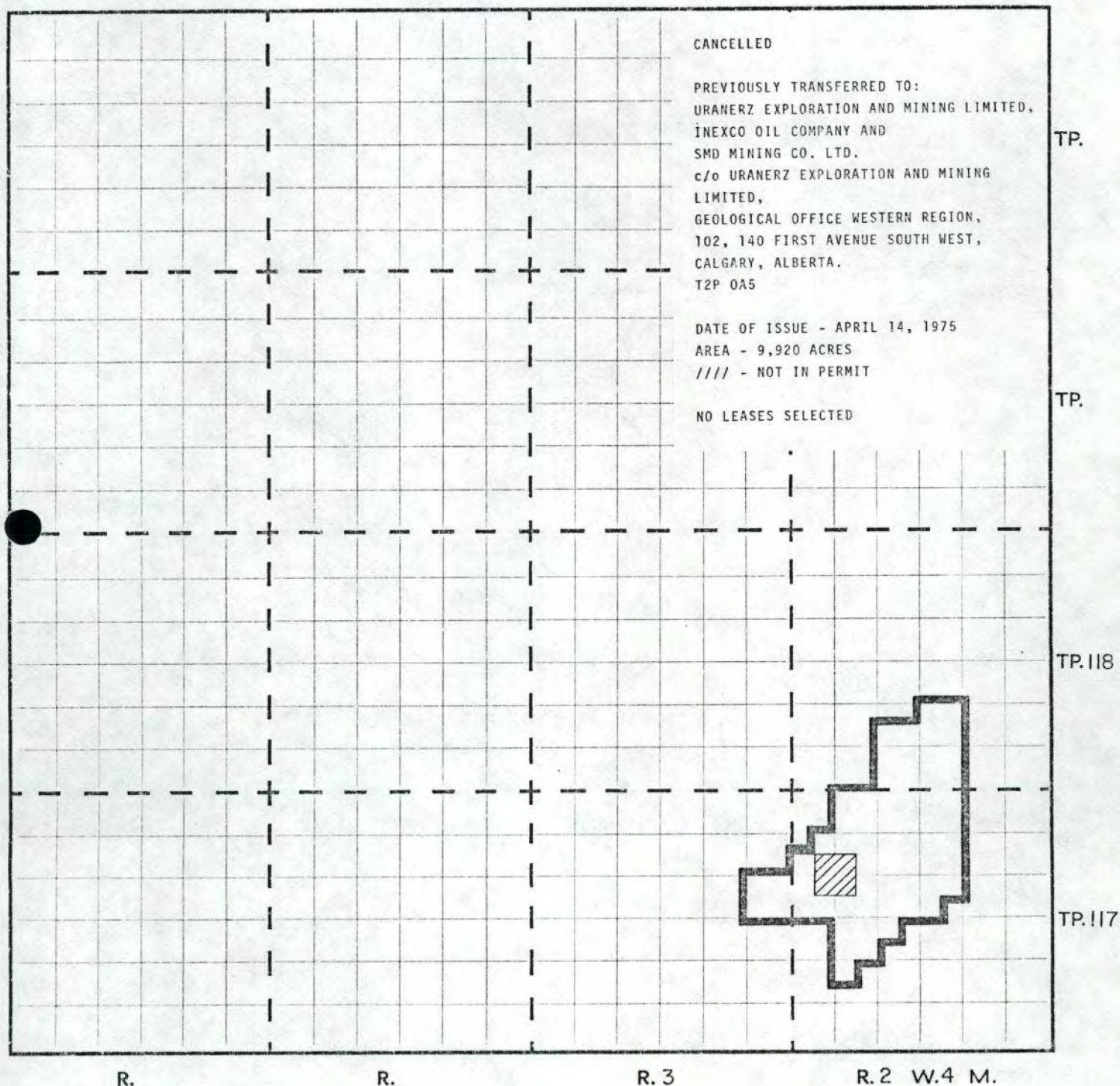
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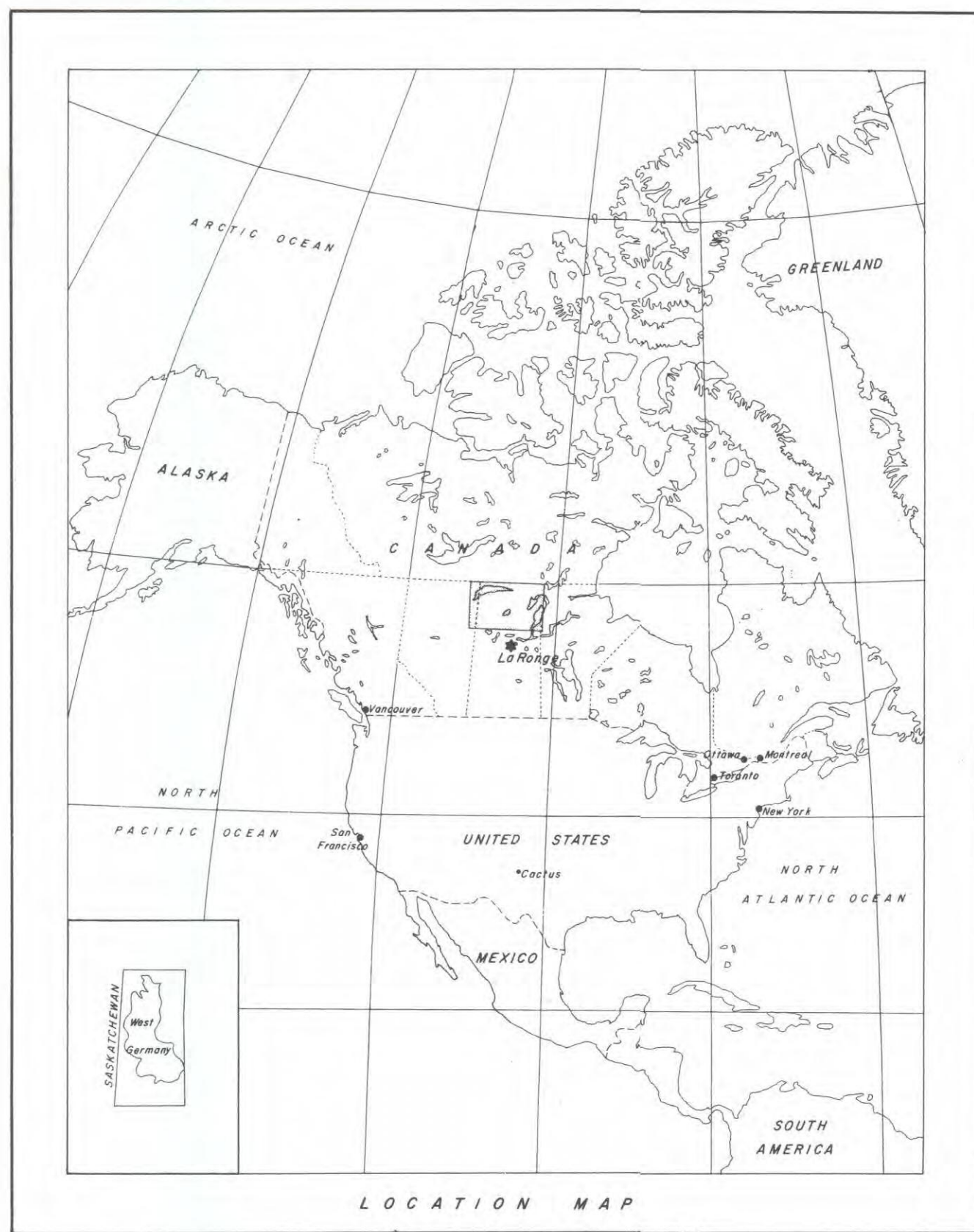
TP. 118

TP. 117

19760006.

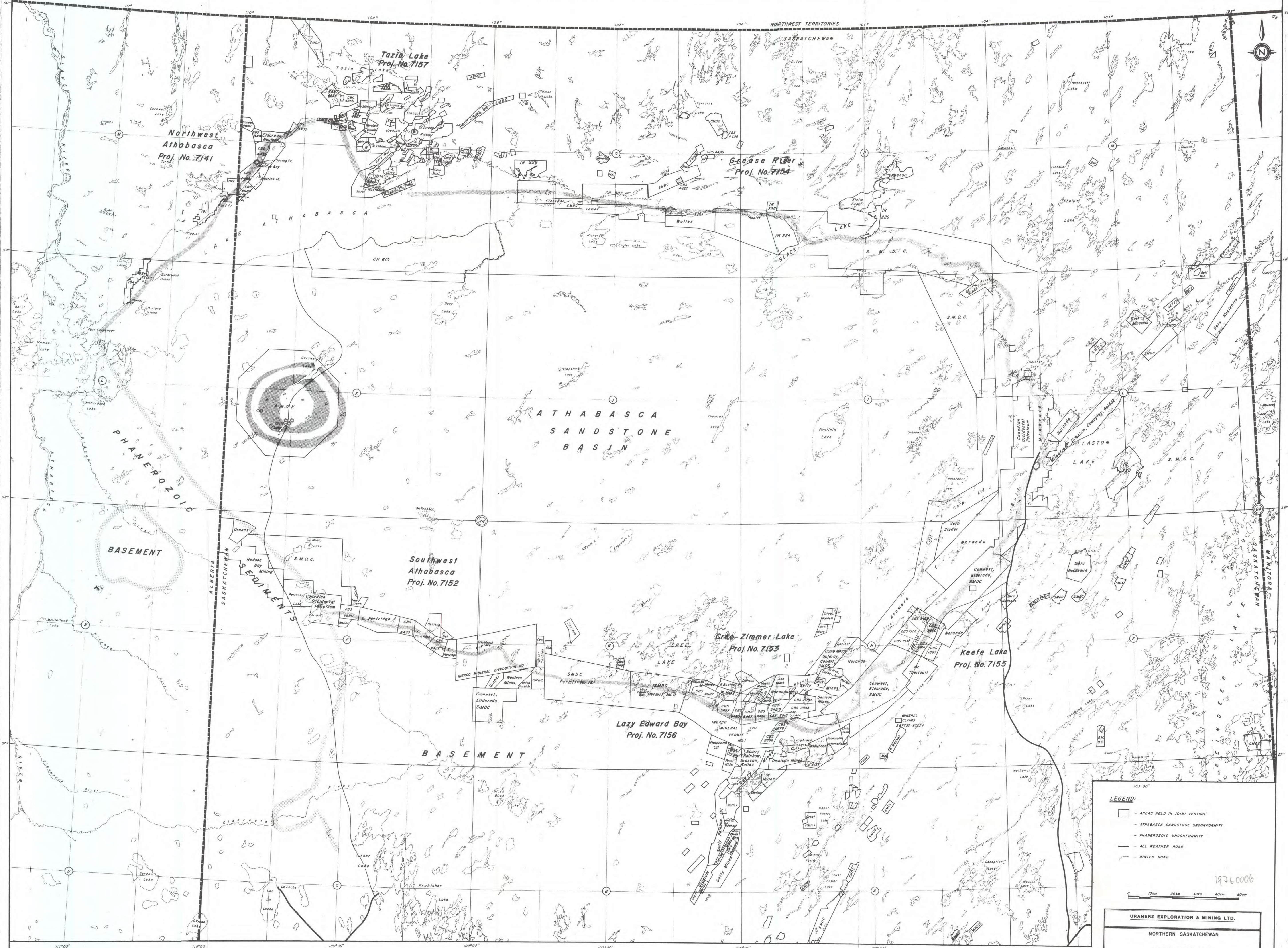
QUARTZ MINERAL EXPLORATION PERMIT No. 191





Project	LANDSITUATION TABLE										DATE: DEC. 1976	
	DISPOSITION	DATE	SIZE (ACRES)	SMOC INE/CV	% OWNERSHIP	YEARLY REQUIRED CREDIT	MINIMUM EXPENDITURE	DATE	DUE	EXTENSION		
ALBERTA	189	APR 14, 1975	5,250	33.3	33.3	4,810	4,810	4,810	APR 14, 1977			
	190	"	"	"	"	"	"	"	"			
	191	"	"	"	"	"	"	"	"			
	193	"	"	"	"	"	"	"	"			
	194	"	"	"	"	"	"	"	"			
Northwest Athabasca 7141	CBS 4430	APR 28, 1975	5,280	50	25	5,950	5,950	5,950	APR 28, 1977			
	CBS 4431	AUG 1, 1975	15,151	"	"	37,828	37,828	37,828	AUG 1, 1977			
	CBS 4432	"	12,500	"	"	31,625	31,625	31,625	"			
	CBS 4688	MAY 10, 1976	6,490	"	"	16,225	16,225	16,225	MAY 10, 1978			
	CBS 2024	SEPT 30, 1976	6,100	"	"	15,250	15,250	15,250	SEPT 30, 1978			
	TOTAL		79,631 (322 sq km)			125,318	125,318	125,318				
Southwest Athabasca 7152	MIN DISPO NO. 1	JULY 16, 1974	176,000	50	25	45,000	60,000	60,000	JULY 17, 1977			
	CBS 4432	MAY 29, 1975	13,700	"	"	34,250	34,250	34,250	MAY 29, 1977			
	CBS 4433	"	13,600	"	"	34,000	34,000	34,000	"			
	CBS 4686	JAN 5, 1976	114,080	"	"	(35,200)	LAPSED	JULY 16, 1978				
	TOTAL		203,300 (825 sq km)			113,250	60,000	128,250				
Cree-Zimmer 7153	SEPT 75-77	DEC 17, 1975	720	33.3	33.3	1,800	1,380	1,800	DEC 17, 1977			
	PERMIT NO. 1	DEC 1, 1975	187,370	"	"	60,000	52,473	"	DEC 1, 1977			
	CBS 1878	AUG 25, 1971	5,470	"	"	13,475	6,241	"	AUG 25, 1981			
	CBS 2046	OCT 10, 1973	6,980	"	"	17,450	17,450	17,450	OCT 10, 1977			
	CBS 2018	APR 13, 1973	13,500	"	"	34,000	34,000	34,000	APR 13, 1977			
	CBS 2043	OCT 9, 1973	11,400	"	"	28,500	28,500	28,500	OCT 9, 1977			
	CBS 2046	"	10,500	"	"	26,250	26,250	26,250	"			
	CBS 3457	AUG 29, 1975	12,700	"	"	31,750	31,750	31,750	AUG 29, 1977			
	CBS 3458	"	9,800	"	"	24,500	24,500	24,500	"			
	CBS 3459	"	12,400	"	"	30,500	30,500	30,500	"			
	CBS 3460	"	14,800	"	"	37,000	37,000	37,000	"			
	CBS 3461	"	10,600	"	"	26,500	26,500	26,500	"			
	CBS 4687	JAN 5, 1976	13,860	"	"	34,650	34,650	34,650	JAN 5, 1978			
	TOTAL		310,750 (1259 sq km)			568,075	54,293	294,400				
Grease River 7154	CBS 4427	APR 16, 1975	1,784	50	25	4,460	4,460	4,460	APR 16, 1977			
	CBS 4428	"	1,888	"	"	4,720	4,720	4,720	"			
	CBS 4429	"	1,205	"	"	3,012	3,012	3,012	"			
	TOTAL		4,887 (120 sq km)			12,192	12,192	12,192				
Keefe Lake 7155	CBS 3459	JAN 22, 1974	14,300	33.3	33.3	(35,800)	LAPSED	JAN 22, 1977				
	CBS 3460	"	14,700	"	"	36,750	36,750	36,750	JAN 22, 1977			
	CBS 3461	JAN 14, 1974	14,180	"	"	35,400	35,400	35,400	JAN 14, 1977			
	CBS 1919	JULY 18, 1974	7,250	"	"	18,125	18,125	18,125	JULY 18, 1977			
	CBS 1927	"	(12,100)	"	"	(32,500)	LAPSED	JULY 18, 1978				
	CBS 1975	"	(12,300)	"	"	(32,250)	"	"	"			
	CBS 1883	OCT 7, 1974	(10,400)	"	"	(26,000)	"	"	"			
	TOTAL		36,100 (1148 sq km)			80,250	108,300	90,250				
	PERMIT NO. 11	MAR 26, 1976	102,644	NOT ESTABLISHED	30,000	45,000	60,000	60,000	MAR 26, 1977			
	TOTAL		102,644 (4145 sq km)			30,000	45,000	60,000				
Lazy Edward Bay 7156	CBS 4055	SEPT 10, 1976	12,660	NOT ESTABLISHED	31,650	31,650	31,650	31,650	SEPT 10, 1978			
	CBS 4056	"	10,790	"	"	25,737	25,737	25,737	"			
	CBS 4057	"	10,790	"	"	24,975	24,975	24,975	"			
	CBS 4458	"	10,210	"	"	25,525	25,525	25,525	"			
	TOTAL		46,210 (1190 sq km)			117,287	117,287	117,287				
Tazla Lake 7157	TOTAL OF ALL PROJECTS		794,107 (3173 sq km)			896,372	601,366	627,697				

() - FIGURES IN BRACKETS NOT INCLUDED IN TOTALS.



LEGEND:

- AREAS HELD IN JOINT VENTURE
- ATHABASCA SANDSTONE UNCONFORMITY
- PHANEROZOIC UNCONFORMITY
- ALL WEATHER ROAD
- WINTER ROAD

0 10km 20km 30km 40km 50km

197-6-0006

URANERZ EXPLORATION & MINING LTD.

NORTHERN SASKATCHEWAN

DISPOSITION MAP

COMPILED BY: J. H. HARRIS DATE: JULY 1976 NTS REF. 76-24-5 (E.M.) SHEET: 1

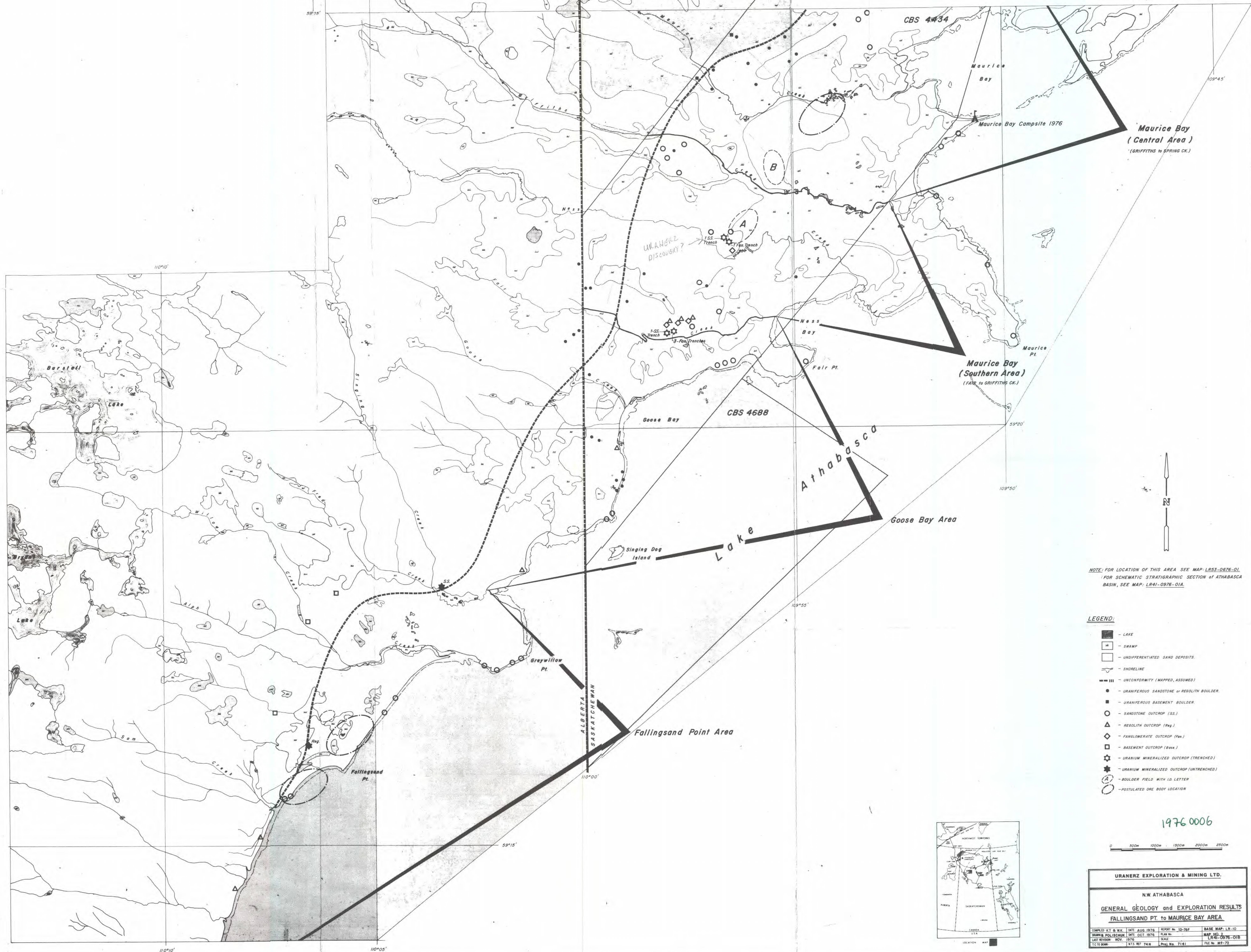
DESIGNED BY: J. H. HARRIS DATE: JULY 1976 PLAN NO. 12-764

LAST MODIFIED: DEC. 1976 SCALE: 1:50,000

1:50,000 1:50,000 1:50,000 1:50,000 1:50,000 1:50,000 1:50,000 1:50,000 1:50,000 1:50,000

CONFIDENTIAL

For Continuation See Map: LR41-0976-01A.



LEGEND:

- LAKE
- SWAMP
- UNDIFFERENTIATED SAND DEPOSITS
- SHORELINE
- UNCONFORMITY (MAPPED, ASSUMED)
- URANIFEROUS SANDSTONE or REGOLITH BOULDER
- URANIFEROUS BASEMENT BOULDER
- SANDSTONE OUTCROP (SS.)
- REGOLITH OUTCROP (Reg.)
- FANGLOMERATE OUTCROP (Fen.)
- BASEMENT OUTCROP (Bsm.)
- URANIUM MINERALIZED OUTCROP (TRENCHED)
- URANIUM MINERALIZED OUTCROP (UNTRENCHED)
- BOULDER FIELD WITH ID. LETTER
- POSTULATED ORE BODY LOCATION

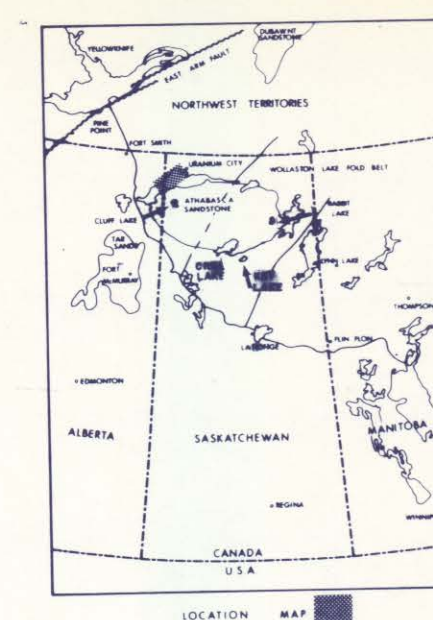
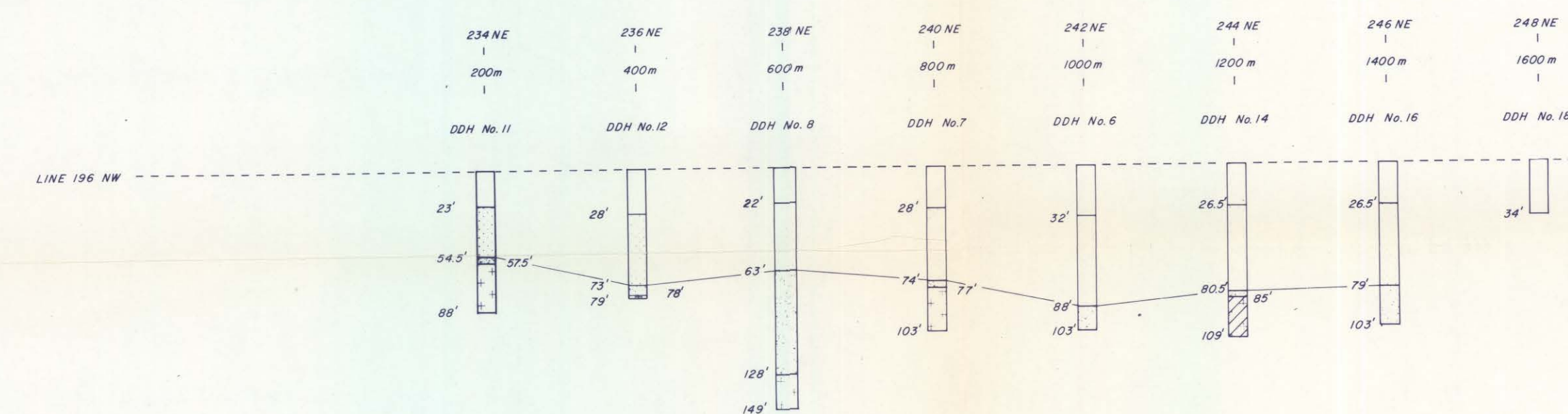
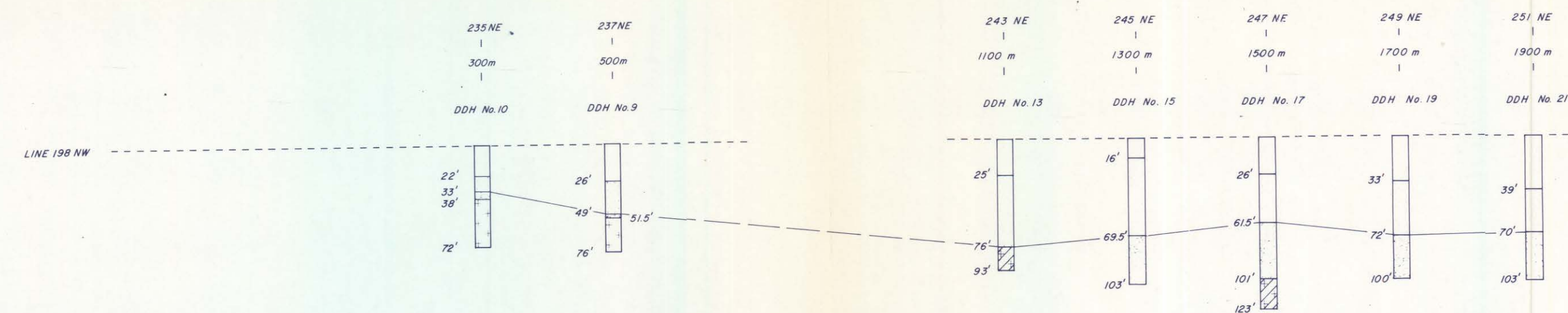
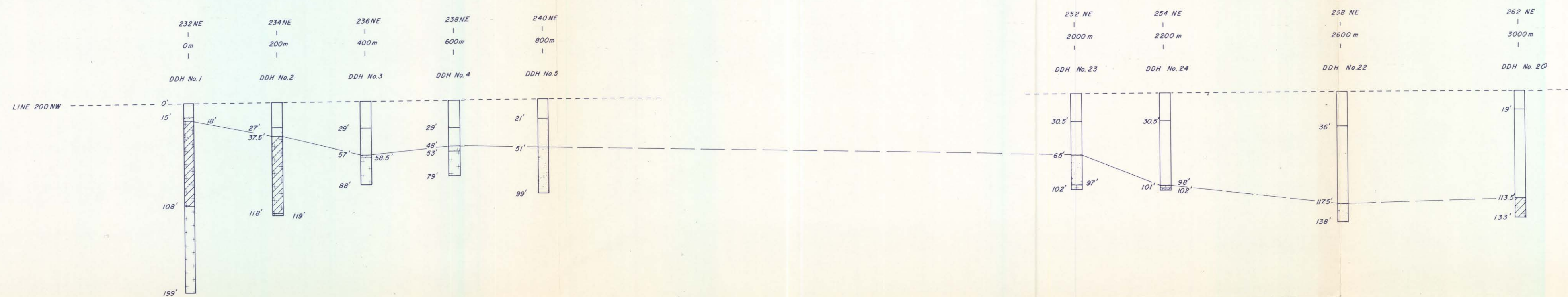
1976 0006

0 500m 1000m 1500m 2000m 2500m

URANERZ EXPLORATION & MINING LTD.			
N.W. ATHABASCA			
GENERAL GEOLOGY and EXPLORATION RESULTS			
FALLINGSAND PT. to MAURICE BAY AREA			
COMPILED BY K.T. & W.R.	DATE: AUG. 1976	REPORT NO. 12-767	BASIS MAP: L.R. 10
DRAWN BY POLYCHUK, L.M.T.	DATE: OCT. 1976	FILE NO.	MAP NO. 2
LAST REVISION: NOV. 1976	SCALE	LR41-0976-01B	
1:50,000	1:50,000	1:50,000	1:50,000

CONFIDENTIAL

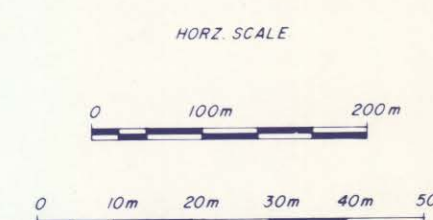
SCALE: 1cm = 50m



NOTE:
- FOR DDH LOCATION PLAN AND DRILLING RESULTS
SEE DWG. NO. LR41-0376-03.

LEGEND:

- OVERBURDEN
- ATHABASCA SANDSTONE
- REGOLITH
- BASEMENT AND ALTERED BASEMENT



19760006

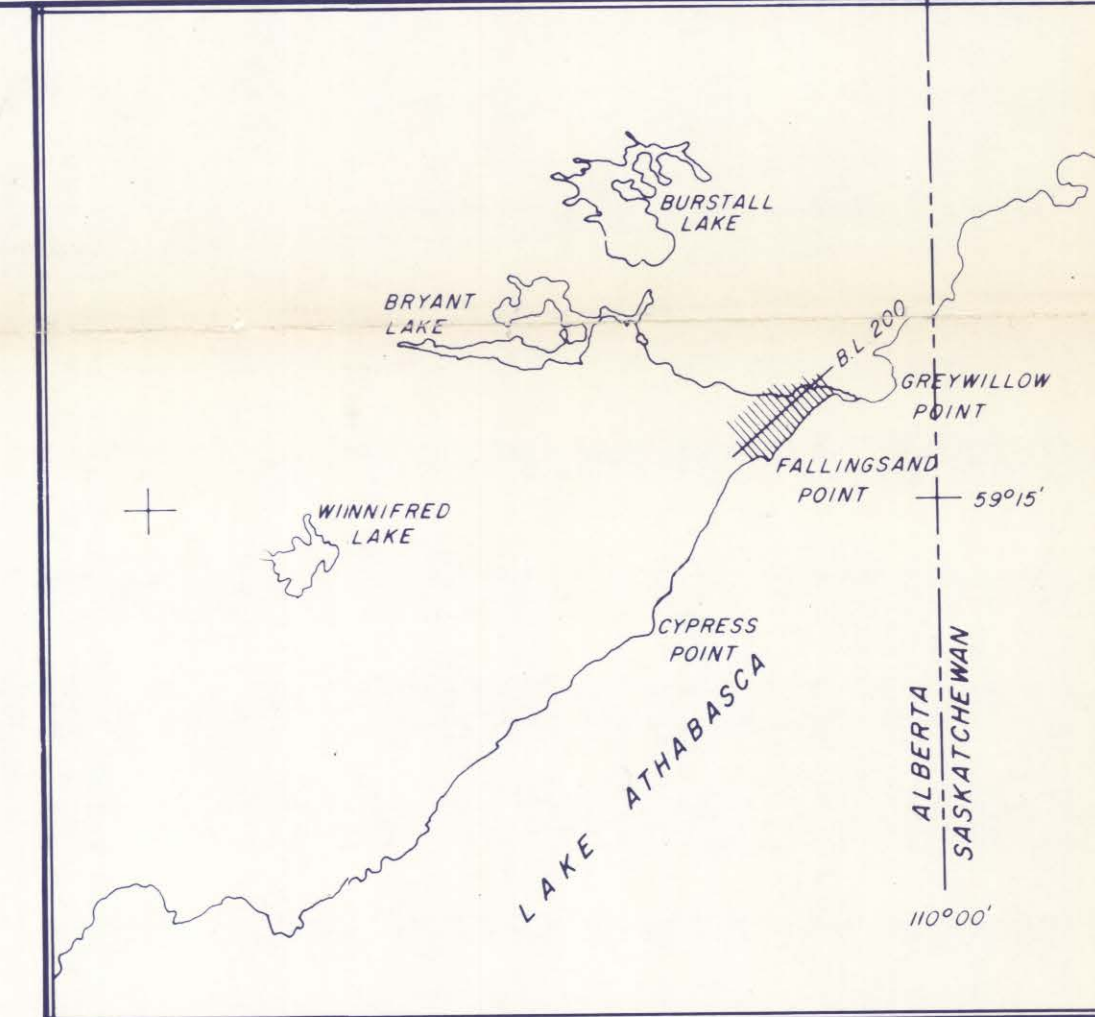
URANERZ EXPLORATION & MINING LTD.

NORTHWEST ATHABASCA AREA

DIAMOND DRILL HOLE SECTIONS

COMPILED BY: W. Kretschmer	DATE: JUNE 1976	REPORT NO: 12-76F	BASE MAP: NONE
DRAWN BY: B. Polischuk	DATE: JULY 1976	PLAN NO: 1	MAP NO: 2
CHECKED BY: J. Polischuk	DATE: JULY 1976	SCALE: AS SHOWN	FILE NO: LR41-0376-04
DATE: JULY 1976	BY: J. Polischuk	PROJ. NO: 7141	FILE NO: M9-69

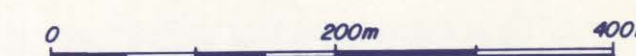
CONFIDENTIAL



LOCATION MAP
SCALE: 1:250,000

LEGEND:

- DDH NO. 3 - DIAMOND DRILL HOLE LOCATION.
- | | | | |
|-----|--------------|---|-----------------------------------|
| 29' | Ox. | - | DEPTH OF OVERBURDEN. |
| 12' | A.S. | - | " " ATHABASCA SANDSTONE. |
| 32' | a.B. or Reg. | - | " " ALTERED BASEMENT or REGOLITH. |
| 15' | B. | - | " " BASEMENT. |
| 88' | T.D. | - | TOTAL DEPTH OF DRILLED CORE. |



URANERZ EXPLORATION & MINING LTD.

NORTHWEST ATHABASCA PROJECT NO.7141

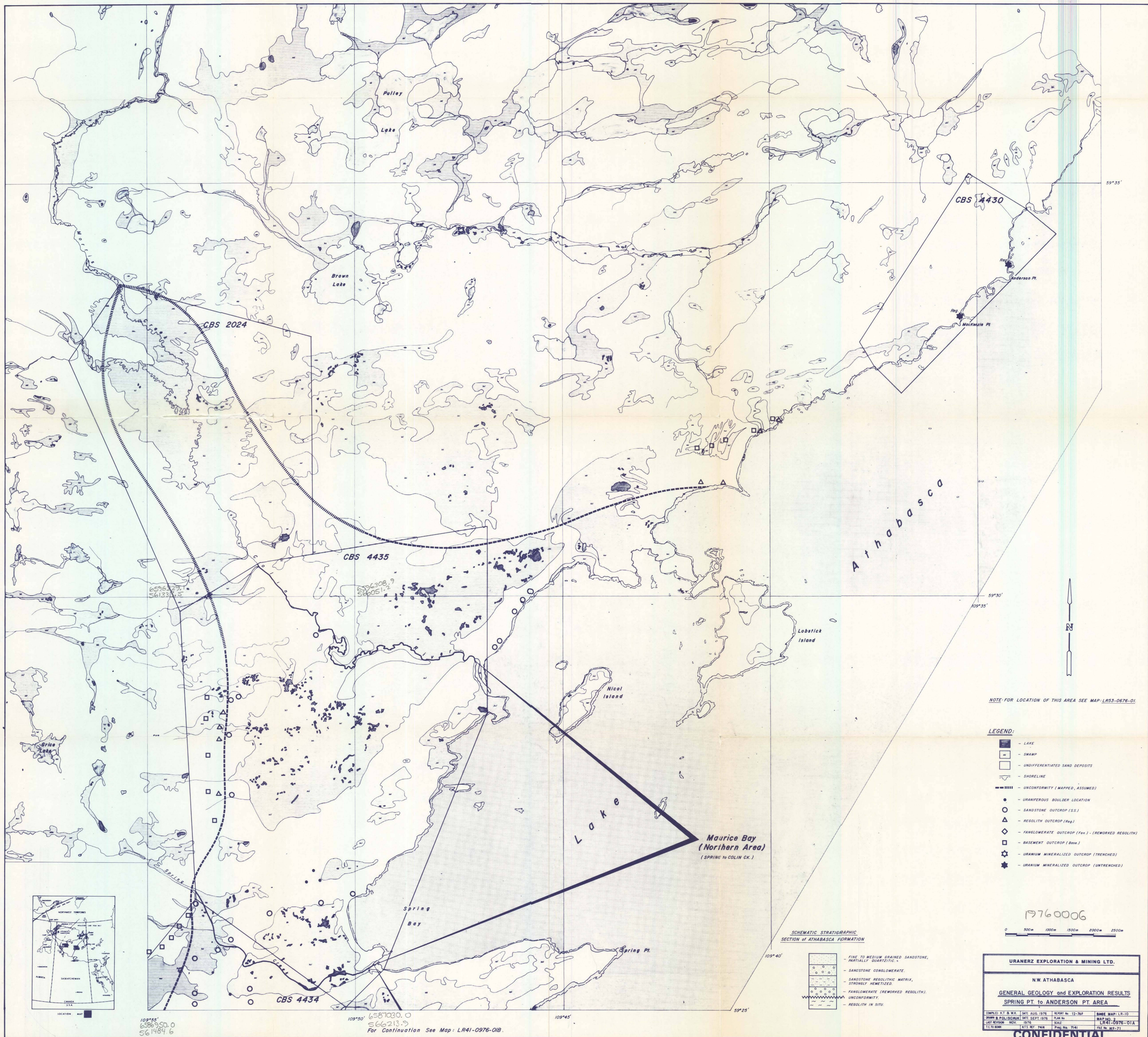
DDH LOCATION PLAN

AND RESULTS

COMPILED <u>W. Kretschmar</u>	DATE <u>JUNE, 1976</u>	MAP No. <u>4</u>	BASE MAP: <u>LR-102</u>
DRAWN <u>B. POLISCHUK</u>	DATE <u>JULY, 1976</u>	PLAN No.	REPORT No. <u>12-76F</u>
LAST REVISION: <u>JUNE 1976</u>			PROJECT No. <u>7141</u>
T.C. TO BOTTOM:	REF <u>74 M</u>	MAP: <u>LR41-0376-03</u>	FILE No. <u>M9-68</u>

REF: 741 MAP: ER41-0376-05 FILE NO: 100-441101-100
CONFIDENTIAL

19760006



NOTE: FOR LOCATION OF THIS AREA SEE MAP: LR53-0676-01

- LEGEND:**
- LAKE
 - SWAMP
 - UNDIFFERENTIATED SAND DEPOSITS
 - SHORELINE
 - UNCONFORMITY (MAPPED, ASSUMED)
 - URANIFEROUS BOULDER LOCATION
 - SANDSTONE OUTCROP (SS.)
 - REGOLITH OUTCROP (Reg.)
 - FANGLOMERATE OUTCROP (Fang.) - (REWORKED REGOLITH)
 - BASEMENT OUTCROP (Bas.)
 - URANIUM MINERALIZED OUTCROP (TRENCHED)
 - URANIUM MINERALIZED OUTCROP (UNTRENCHED)

19760006

0 500m 1000m 1500m 2000m 2500m

SCHEMATIC STRATIGRAPHIC
SECTION OF ATHABASCA FORMATION

- FINE TO MEDIUM GRAINED SANDSTONE, PARTIALLY QUARTZITIC.
- SANDSTONE CONGLOMERATE.
- SANDSTONE REGOLITHIC MATRIX, STRONGLY HEMETIZED.
- FANGLOMERATE (REWORKED REGOLITH).
- UNCONFORMITY.
- REGOLITH IN SITU.

URANERZ EXPLORATION & MINING LTD.

N.W. ATHABASCA

GENERAL GEOLOGY and EXPLORATION RESULTS
SPRING PT. to ANDERSON PT. AREA

COMPILED: K.T. & W.K. DATE: AUG. 1976 REPORT NO. 12-76P NAME: MAP: LR-10
DRAWN: B. POLISCHUK DATE: SEPT. 1976 PLAN NO. MAP NO. LR41-0976-01A
LAST REVISION: NOV. 1976 SCALE: 1:50,000
T.C. TO: 8000-1111-1111 PROJ. NO. 7141 FILE NO. MS-21

CONFIDENTIAL

109°55' 6586950.0
561484.6

109°50' 6587030.0
566213.9
For Continuation See Map: LR41-0976-01B.

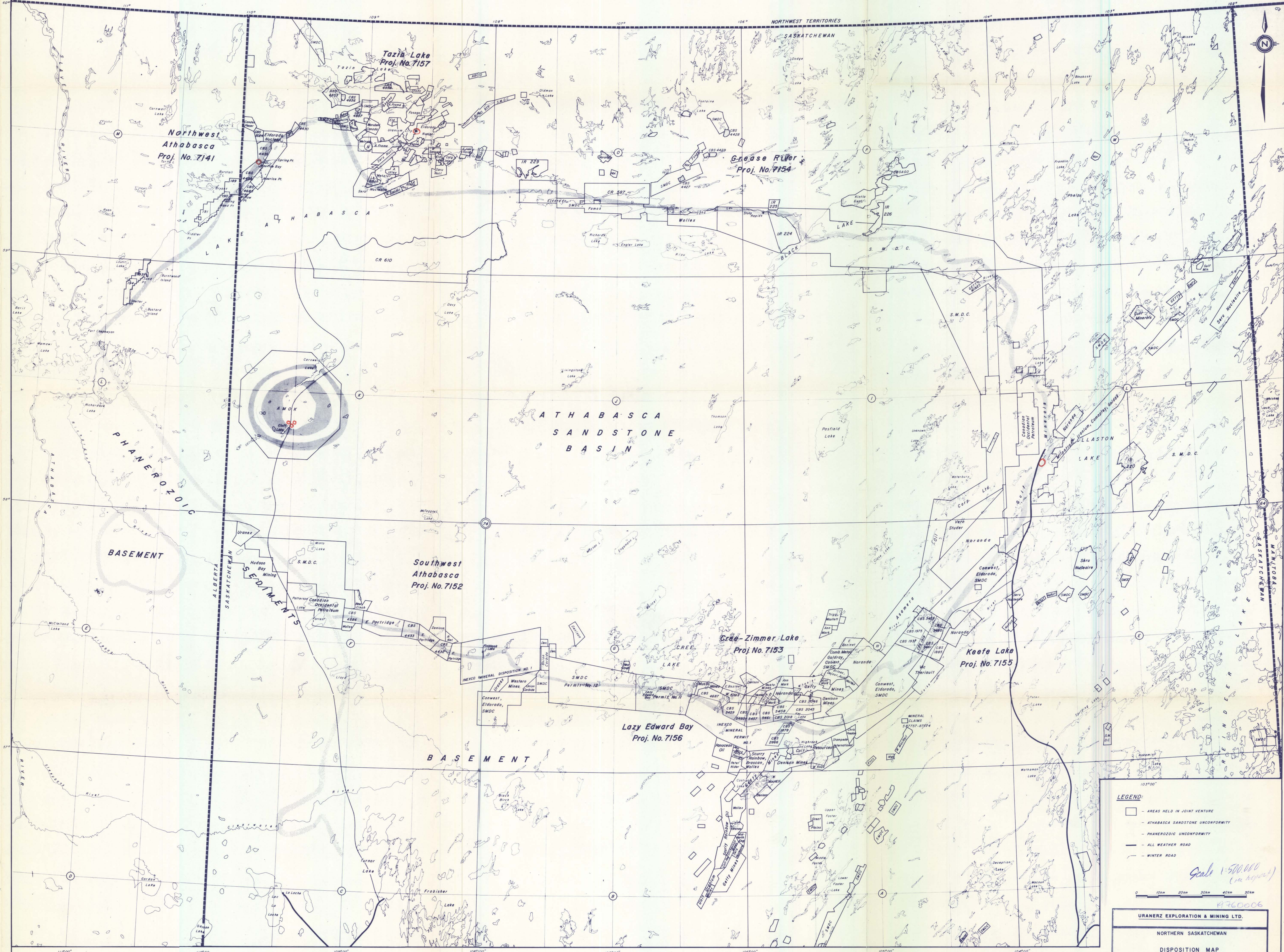
109°45'

59°25'

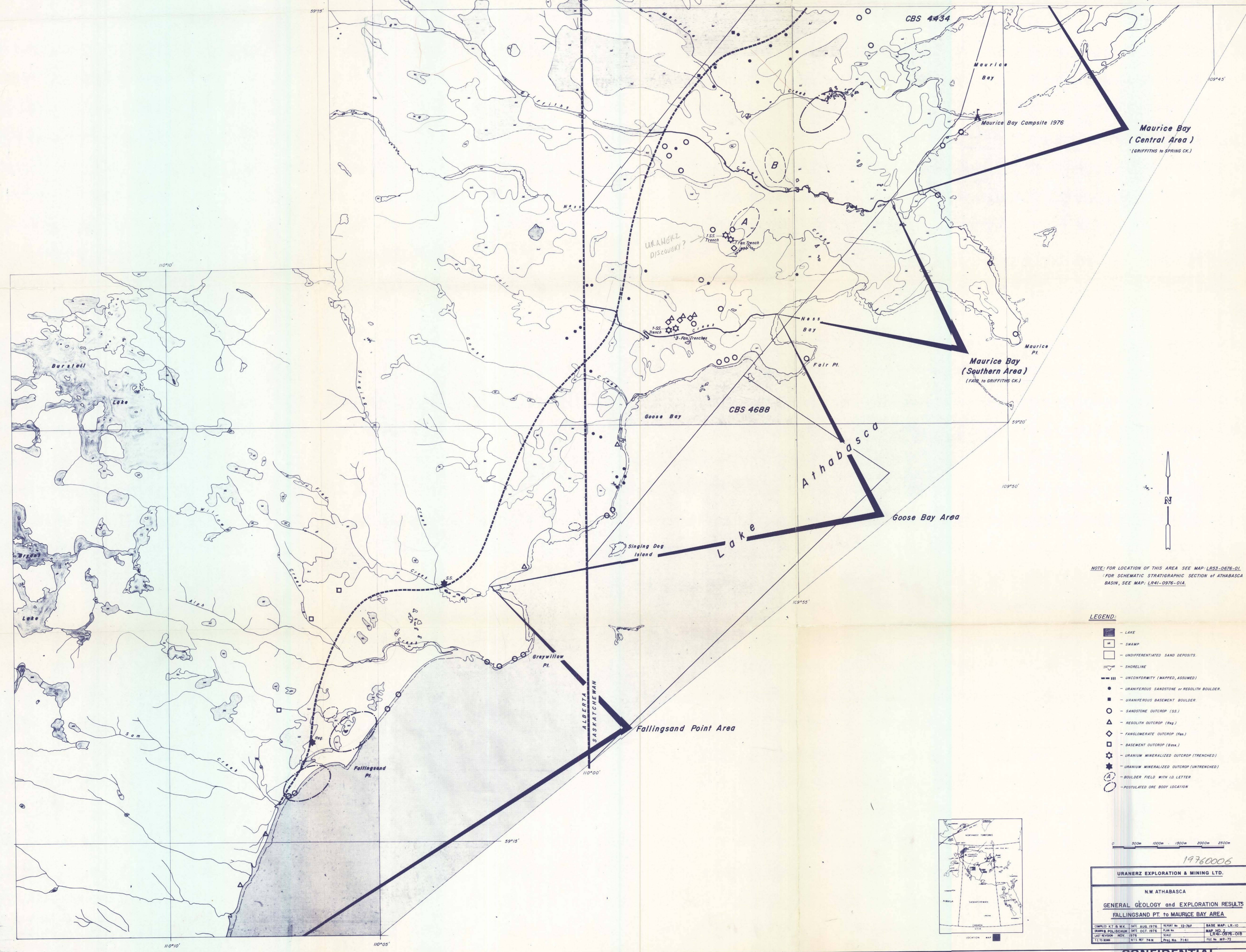


Project	LANDSITUATION TABLE										DATE: DEC. 1976	
	DISPOSITION	DATE ACQUIRED	SIZE (ACRES)	OWNERSHIP	%	YEARLY MAINTENANCE	1977	1978	1979	DATE	EXTENSION	
Northwest Athabasca Proj. No. 7141	189	APR 14, 1975	9,220	33.3	33.3	4,610	4,610	4,610	4,610	APR 14, 1977		
	190	"	"	"	"	"	"	"	"	"		
	191	"	"	"	"	"	"	"	"	"		
	192	"	"	"	"	"	"	"	"	"		
	194	"	"	"	"	"	"	"	"	"		
Southwest Athabasca Proj. No. 7152	CBS 4430	APR 28, 1975	2,380	50	25	5,950	5,950	5,950	5,950	APR 28, 1977		
	CBS 4434	AUG 1, 1975	15,151	"	"	37,828	37,828	37,828	37,828	AUG 1, 1977		
	CBS 4435	"	12,650	"	"	31,625	31,625	31,625	31,625	"		
	CBS 4608	MAY 10, 1976	6,490	"	"	16,225	16,225	16,225	16,225	MAY 10, 1978		
	CBS 2004	SEPT 30, 1976	6,000	"	"	15,250	15,250	15,250	15,250	SEPT 30, 1978		
Cree-Zimmer Lake Proj. No. 7153	TOTAL		79,631	(322 ha km)		125,318	125,318	125,318	125,318			
	MIN DISPO. NO. 1	JULY 18, 1976	176,000	50	25	45,000	45,000	45,000	45,000	JULY 17, 1977		
	CBS 4431	MAY 29, 1975	13,700	"	"	34,250	34,250	34,250	34,250	MAY 29, 1977		
	CBS 4433	"	13,600	"	"	34,000	34,000	34,000	34,000	"		
	CBS 4606	JAN 5, 1976	(14,080)	"	"	(35,000)				LAPSED JULY 16, 1976		
Grease River Proj. No. 7154	TOTAL		203,300	(823 ha km)		113,250	113,250	113,250	113,250			
	187757-77	DEC 17, 1975	720	33.3	33.3	1,800	1,800	1,800	1,800	DEC 17, 1977		
	PERMIT NO. 1	DEC 1, 1975	187,520	"	"	60,000	60,000	60,000	60,000	DEC 1, 1977		
	CBS 1878	AUG 25, 1971	5,470	"	"	13,675	13,675	13,675	13,675	AUG 25, 1977		
	CBS 2866	OCT 12, 1972	6,980	"	"	17,450	17,450	17,450	17,450	OCT 12, 1977		
Keefe Lake Proj. No. 7155	CBS 2008	APR 13, 1975	13,600	"	"	34,000	34,000	34,000	34,000	APR 13, 1977		
	CBS 2048	OCT 9, 1975	11,400	"	"	28,500	28,500	28,500	28,500	OCT 9, 1977		
	CBS 2046	"	10,500	"	"	26,250	26,250	26,250	26,250	"		
	CBS 5457	AUG 29, 1975	12,700	"	"	31,750	31,750	31,750	31,750	AUG 29, 1977		
	CBS 5458	"	9,800	"	"	24,500	24,500	24,500	24,500	"		
Lazy Edward Bay Proj. No. 7156	CBS 5459	"	12,800	"	"	32,000	32,000	32,000	32,000	"		
	CBS 5460	"	14,800	"	"	37,000	37,000	37,000	37,000	"		
	CBS 5461	"	10,600	"	"	26,500	26,500	26,500	26,500	"		
	CBS 4607	JAN 5, 1976	15,600	"	"	39,000	39,000	39,000	39,000	JAN 5, 1978		
	TOTAL		510,750	(2058 ha km)		368,075	368,075	368,075	368,075			
Tazin Lake Proj. No. 7157	CBS 4427	APR 16, 1975	1,784	50	25	4,460	4,460	4,460	4,460	APR 16, 1977		
	CBS 4428	"	1,888	"	"	4,720	4,720	4,720	4,720	"		
	CBS 4429	"	1,905	"	"	4,760	4,760	4,760	4,760	"		
	TOTAL		4,607	(170 ha km)		13,940	13,940	13,940	13,940			
	CBS 3459	JAN 22, 1974	(14,320)	33.3	33.3	(35,000)				LAPSED JAN 22, 1977		
Tazin Lake Proj. No. 7157	CBS 3460	"	14,700	"	"	36,750	36,750	36,750	36,750	JAN 22, 1977		
	CBS 3461	JAN 14, 1974	14,180	"	"	35,450	35,450	35,450	35,450	JAN 14, 1977		
	CBS 1919	JULY 13, 1974	7,220	"	"	18,050	18,050	18,050	18,050	JULY 13, 1977		
	CBS 1937	"	(12,120)	"	"	(30,300)				LAPSED JULY 13, 1976		
	CBS 1975	"	(12,900)	"	"	(32,250)				"		
Tazin Lake Proj. No. 7157	CBS 1965	OCT 7, 1974	(10,600)	"	"	(26,500)				OCT 7, 1976		
	TOTAL		36,000	(146 ha km)		90,250	90,250	90,250	90,250			
	PERMIT NO. 11	MAR 26, 1976	106,644	NOT ESTABLISHED		30,000	45,000	60,000	60,000	MAR 26, 1977		
	TOTAL		106,644	(418 ha km)		30,000	45,000	60,000	60,000			
	CBS 4855	SEPT 10, 1976	12,660	NOT ESTABLISHED		31,650	31,650	31,650	31,650	SEPT 10, 1978		
Tazin Lake Proj. No. 7157	CBS 4856	"	10,295	"	"	25,737	25,737	25,737	25,737	"		
	CBS 4857	"	13,750	"	"	34,375	34,375	34,375	34,375	"		
	CBS 4458	"	10,210	"	"	25,525	25,525	25,525	25,525	"		
	TOTAL		46,915	(190 ha km)		117,287	117,287	117,287	117,287			
	TOTAL OF ALL PROJECTS		784,187	(3173 ha km)		856,372	856,372	856,372	856,372			

() - FIGURES IN BRACKETS NOT INCLUDED IN TOTALS.



For Continuation See Map: LR41-0976-01A.



NOTE: FOR LOCATION OF THIS AREA SEE MAP: LR53-0676-01.
FOR SCHEMATIC STRATIGRAPHIC SECTION OF ATHABASCA BASIN, SEE MAP: LR41-0976-01A.

- LEGEND:**
- LAKE
 - SWAMP
 - UNDIFFERENTIATED SAND DEPOSITS
 - SHORELINE
 - UNCONFORMITY (MAPPED, ASSUMED)
 - URANIFEROUS SANDSTONE or REGOLITH BOULDER
 - URANIFEROUS BASEMENT BOULDER
 - SANDSTONE OUTCROP (SS)
 - REGOLITH OUTCROP (Reg)
 - FANOLMERE OUTCROP (Fan)
 - BASEMENT OUTCROP (Bsx)
 - URANIUM MINERALIZED OUTCROP (TRENCHED)
 - URANIUM MINERALIZED OUTCROP (UNTRENCHED)
 - BOULDER FIELD WITH ID LETTER
 - POSTULATED ORE BODY LOCATION

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NW ATHABASCA			
GENERAL GEOLOGY and EXPLORATION RESULTS			
FALLINGSAND PT. to MAURICE BAY AREA			
COMPILED BY: K.T. B.W.K.	DATE: AUG. 1976	REPORT NO: 12-76P	BASE MAP: LR-10
DRAWN BY: POLYMERUS	DATE: OCT. 1976	PLAN NO:	MAP NO: 2
LAST REVISION: NOV. 1976	SCALE:	FILE NO: 0976-01B	
FILE TO: BOMB	FILE NO: 74N	FILE NO: 71A	FILE NO: 89-72

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