

GM 34793

Assessment report 1978, Gayot lake project 71-86, Dieter lake claim group

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Énergie et Ressources
naturelles

Québec 

ASSESSMENT REPORT 1978
PROJECT 71-86 GAYOT LAKE
DIETER LAKE CLAIM GROUP

Prepared by:
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UEM Montreal
April 9, 1979

Ministère des Richesses Naturelles, Québec
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MAP #1 Dieter Lake Grid East Half - Diamond Drilling Plan

MAP #2 Dieter Lake Grid West Half - Diamond Drilling Plan

1. INTRODUCTION

1.1 AREA OF INVESTIGATION

Only a limited amount of field exploration was carried out across the claim group of Dieter Lake. A report concerning the diamond drilling carried out is submitted as Appendix A of this report.

1.2 PURPOSE OF INVESTIGATION

To assess the uranium potential of a lower unit of the Sakami Formation in the vicinity of Dieter Lake.

1.3 TIME OF INVESTIGATION

Diamond drilling at Dieter Lake was carried out in two phases, the first during the period of April 1st to May 15th, and the second from July 2nd to August 25th. Exploration work began on July 3rd and ran until August 31st.

1.4 PERSONNEL

B. Starke	Manager Exploration, Eastern Canada
R. Lambert	Chief Geologist
R. Orr	Project Geologist
W. Holmstead	Junior Geologist (Diamond Drilling)
M. Leppin	Geophysicist
M. Beaulieu	Sr. Assistant
E. Canova	Sr. Assistant
P. Coon	Prospector
M. Coonishish	Prospector
J.M. Cormier	Jr. Assistant
J. Kaylor	Jr. Assistant
J.B. Loon	Prospector
P. Matoush	Prospector
L. McKinnon	Cook's Helper
W. McKinnon	Cook - Camp Mgr.
S. Rivard	Technician
F. Sivilla	Technician (Diamond Drilling)
J. McCormick	Pilot-Engineer (Viking Helicopters Ltd.)

1.5 INSTRUMENTS, VEHICLES USED1.5.1 Instruments

1 Mt. Sopris 1000C Portable Borehole Logger
 1 EDA RD 200 Portable Radon Detector
 12 SRAT SPP2NF Scintillometers
 1 Geonics EM16R
 1 Scintrex MP2 Proton Precession Magnetometer
 1 Scintrex GAD 6 Differential Gamma-Ray Spectrometer
 1 Scintrex GAM 2S Differential Gamma-Ray Spectrometer

1.5.2 Vehicles - Aircraft - Airterm CharterHelicopter

Type: Hughes 500C - float and ski equipped
 Operator: Viking Helicopters Ltd.
 Base: Ottawa, Ontario (field base: Dieter Lake)
 Length of Contract: 219 hours @ \$240/hr.
 Primary function: Drill support, personnel transportation, geochemistry

TABLE 1 - BREAKDOWN OF AIRCRAFT FUNCTIONS - CLAIM GROUP

Period	Total Hours	Function (hours per)
28/06-30/06	9:00	Ferry
1/07-31/07	22:35	Lake bottom sampling (0:30); transport of personnel (5:45); drill support (16:20)
1/08-30/08	45:30	Transport of personnel (19:10); drill support (25:15); airborne geology (0:45); maintenance and ferry (1:20)

2. GENERAL INFORMATION2.1 LOCALITY

Dieter Lake (site of the base camp) is 274 km northwest of Schefferville, Québec; the coordinates being Lat. 55°58'15"N, Long. 70°36'30"W.

2.2 COMMUNICATIONS AND ACCESS

2.2.1 Communications

A single sideband radio transceiver, Model CH100, was rented from the Canadian Marconi Company. Radio communication between Dieter Lake and Schefferville are possible through Laurentian Air Services, and to Montreal via the Bell Canada radiotelephone stations at Alma, Québec, and Frobisher Bay, N.W.T.

2.2.2 Access

Dieter Lake is a 1.5 hour flight from both Schefferville and Ft. Chimo using float-equipped aircraft.

2.3 TOPOGRAPHY

The topography in the vicinity of Dieter Lake is moderately rolling, with the elevation varying from 450 to 550 meters above sea level. Much of the area shows evidences of glacial activity, and glacial-fluvial deposits constitute many of the topographic features. As such, drainage patterns are typically deranged, and several large areas of lakes are controlled by ribbed moraine. Many areas are strewn with erratics and deposits of hummocky moraine. Several eskers can be traced for tens of kilometers.

2.4 CLIMATE

The climate may be classified as subarctic to continental. Mean temperature during the May-September period is 10°C, while the mean annual temperature is 0°C. Mean rainfall during the May-September period is 450 mm. The average daily maximum temperature during July is 18°C. The clearest weather usually occurs in April and May prior to break-up. The snow has usually gone by early June and the ice is off the lakes by the third week of the same month.

2.5 VEGETATION

This area lies in the transition zone between subarctic and tundra, resulting in a pattern of tundra barrens and limited areas of stunted open forest. The forest cover is found along the shore of lakes and rivers, while the tundra is on the highland. Black spruce (*Picea Mariana*) and tamarack (*Larix Laricina*) make up the greater part of the forest growth. Neither travel nor camp set up is hampered by the vegetation, and trees of sufficient size can usually be found for camp construction.

2.6 POPULATION AND LAND USE

Neither settlements nor commercial land exploitation occur within the area of investigation.

2.7 WATER RESOURCES

Numerous lakes provide water for drinking and access. Drainage is to the north, with the major rivers flowing into Hudson and Ungava Bays.

2.8 MAGNETIC DECLINATION

At Dieter Lake it is 29°12'W (1978), with a mean annual change of 6.2' easterly.

3. PREVIOUS SURVEYS AND ACTIVITIES

3.1 TOPOGRAPHIC MAPPING

The following N.T.S. map-sheets, at a scale of 1:250,000 published by the Surveys and Mapping Branch of the Department of Energy, Mines and Resources, encompass the project area (lat. 55°30'N to 56°30'N, long. 69°00'W to 74°00'W):

- 23 M, N
- 33 P
- 34 A
- 24 C, D

The following list of airphotos obtained from the National Air Photo Library cover the area delimited by the above coordinates:

A14094	20-54	1:43200
A14154	1-125	"
A14175	5-28	"
A14158	87-176	"
A14141	2-93	"
A16599	80-149	1:43000
A14318	36-123	1:43200
A14351	39-118	1:43000
A14350	12-102; 125-165	1:43200
A15634	13-62; 70-199	"
A15341	1-75; 162-216	1:42000
A11442	1-27	1:34680
A11493	79-102; 153-158	"
A11498	49-63	"
A15616	1-83	1:42000
A11501	39-55	1:34680

A15715	25-122	1:42000
A15813	1-33; 43-72	"
A11482	79-103	1:33680
A11504	1-9	1:34680
A12081	74-88	1:34680
A11550	49-75	"
A11428	28-53; 56-74	"
	163-178	
A11437	150-160	"

Uncontrolled airphoto mosaics at 1:50,000 may be obtained from the National Air Photo Library. The list for the area of interest is as follows:

<u>N.T.S. Reference</u>	<u>Mosaic Number</u>
26N northwest	RE 11164-30
23M northeast	RE 11164-29
23M northwest	RE 11164-23
33P northeast	RE 11164-25
33P northwest	RE 11164-7
34A southwest	RE 10742-8
34A southwest	RE 10742-7
24D southwest	RE 10742-2
24E southeast	RE 10742-12
24C southwest	RE 10701-1,2,3

3.2

GEOLOGICAL MAPPING

The Dieter Lake claim group falls within the area mapped by K.E. Eade (1966) (G.S.C. Memoir 339) at a scale of 1:1,000,000. Other reports which may be of use are by I.M. Stevenson (1968) (G.S.C. Memoir 356), and by W.F. Fahrig (1955) (G.S.C. Paper 55-42).

3.3

GEOPHYSICAL SURVEYS

The region bounded by lat. 55°33'N-56°00'N, long. 70°00'W-71°00'W is covered by an aeromagnetic map at a scale of 1:253,440, published jointly by the Ministère des Richesses Naturelles du Québec and the Canadian Department of Energy, Mines and Resources.

An exploration program was initiated during the 1977 field season in the Gayot and Mildred Lakes by Eldorado Nuclear Ltd. This program continued during 1978 with its efforts apparently concentrated along the western strike extension of the Dieter Lake showing.

4.

MINERAL CLAIMSDieter Lake Claim Group

No. of Claims:	190
Longitude:	Approx. 70°30'W
Latitude:	Approx. 55°55'N
N.T.S.:	23 M/15, M/16
Area:	30.75 km ²
Mining District:	Nouveau Québec
Staked by:	Jean Alix Co. Ltd.
Staked on:	Aug. 29 - Sept. 7, 1976
Date of Transfer:	October 26, 1976
UEM interest: 50%	S.D.B.J. interest: 50%
Operator:	UEM
Assessment Work Required:	1977/78: \$45,600
Rent:	\$1,900

Application for Development Licence due on September 9, 1978 (for entire claim block).

<u>Claim No.</u>	<u>Township</u>	<u>Staked On</u>
361610 (1-5)	4641	29.8.76
361611 (1-5)	4641	30.8.76
361692 (1-5)	4641	31.8.76
361693 (1-5)	4641	1.9.76
361694 (1-5)	4641	2.9.76
361695 (1)	4641	2.9.76
361695 (205)	4641	3.9.76
361696 (1)	4641	3.9.76
(2-5)	4641	4.9.76
361697 (1-5)	4641	5.9.76
361698 (1-3)	4641	6.9.76
(4-5)	4641 & 4642	6.9.76
361699 (1-4)	4641	7.9.76
(5)	4641 & 4642	7.9.76
361700 (1-5)	4641	29.8.76
361701 (1-5)	4641	30.8.76
361702 (1-5)	4641	31.8.76
361703 (1-5)	4641	1.9.76
361704 (1-5)	4641	2.9.76
361705 (1-4)	4641	3.9.76
(5)	4641	4.9.76
361706 (1-4)	4641	4.9.76
(5)	4641	5.9.76
361707 (1-5)	4641	5.9.76
361708 (1-5)	4641	6.9.76
361709 (1-5)	4641	7.9.76
361710 (1-5)	4641	29.8.76

361711 (1-5)	4641	30.8.76
361712 (1-5)	4641	31.8.76
361713 (1-5)	4641	1.9.76
361714 (1-5)	4641	2.9.76
361715 (1-5)	4641	3.9.76
361716 (1-5)	4642	4.9.76
361717 (1-5)	4642	5.9.76
361718 (1-5)	4642	6.9.76
361719 (1-5)	4642	7.9.76
361723 (1-5)	4642	29.8.76
361724 (1-5)	4641	30.8.76
361725 (1-5)	4641	31.8.76
361726 (1-5)	4641	1.9.76
361727 (1-5)	4641	2.9.76
361728 (1)	4641 & 4642	3.9.76
(2-3)	4642	3.9.76
(4-5)	4641 & 4642	3.9.76
361729 (1-5)	4642	4.9.76
361730 (1-5)	4642	5.9.76

5.

GENERAL GEOLOGY

The Sakami Formation outliers of northcentral Québec lie in the northeast arm of the Superior Structural Province. As such, all of the rocks within the area of interest are Precambrian in age. The oldest rocks of the region are the Archean volcanics and sediments, which were folded, faulted, metamorphosed, and intruded by granites during the Kenoran Orogeny of 2480 Ma ago. The Sakami sediments are Proterozoic and are tentatively classified as being Aphebian (Eade, 1966).

It was because of these sedimentary rocks and their temporal relationship with the surrounding older terrain that attracted exploration companies to the area. The Sakami rocks outcrop as discontinuous erosional remnants stretching across northern Québec in two east-west belts. As a group, they bear certain affinities to those sediments found in the Otish basin, the Labrador Trough and Richmond Gulf, and it has been suggested that all were once part of a single widespread sedimentary cover (Chown et al. 1977). The age of the Sakami relative to these other assemblages is unknown.

Of the two belts of Sakami sediments, it is the northernmost one with which we are dealing. Prior to the 1977 field season, only two outliers were known of, Gayot Lake and Little Whale River (Mildred Lake) (Eade, 1966); but as a consequence of the regional mapping program carried out by UEM, a third and fourth were discovered. These are to the east and northeast of Dieter Lake, 40 and 60 km away respectively. Mapping carried out within these outliers shows them to have essentially the same characteristics as are known for Dieter Lake.

The correlation between the sedimentary units for each of the areas mapped - and this applies to all of the Sakami in general - is very good. After a study of the Sakami in both northern and southern belts, Eade (1966) subdivided the formation into an upper and a lower part. Within the area of interest, the upper units are comprised of a single lithology, this being a quartz arenite; while the lower consist of an assemblage of conglomerates, shales, wackes, siltstones, and arkosic arenites.

The Sakami unconformably overlie quartz-feldspathic gneisses, granites, and pegmatites. In some instances a fault separates the sediments from the basement, but it is believed that these faults originally formed the structure into which the sediments were deposited and were reactivated afterwards.

6. ECONOMIC GEOLOGY

Dieter Lake Claim Group

A report on the diamond drilling is presented in Appendix A. The mineralization has been described as follows:

- a) is very fine-grained sooty pitchblende (max. grain size of 0.015 mm)
- b) shows strong parallel orientation to the bedding plane
- c) shows preference for clayey and quartz-free laminae
- d) sooty pitchblende is a primary phase (deposited syngenetically in a near-shore environment).

7. INVESTIGATIONS

7.1 AIRBORNE SURVEY

7.1.1 Helicopterborne Spectrometer Survey

Survey Platform:	Jet Ranger 206B
Aircraft Operator:	Heli Voyageur, Val d'Or, Québec
Instrumentation:	Scintrex GAM 2S Spectrometer Scintrex GSA 64 crystal RCM-6 recorder
Data recorded:	Total count, U, Th, K channels
Time Constant:	1.0 sec.
Survey Personnel:	M. Leppin, J. Kaylor
Method of Survey:	Line flying at 500 m spacings: 100 km/hr. airspeed; ground clearance ca. 30 m.
Areas flown:	Dieter Lake Claim Group 128 km.
Helicopter time used:	1.5 hours
Operational base:	Dieter Lake Base Camp

7.1.2 Helicopter Geochemistry - Lake Centre and Margin Sediment Sampling

Aircraft:	Hughes 500C
Aircraft Operator:	Viking Helicopters, Ottawa
Survey Personnel:	S. Rivard, M. Beaulieu
Method of Survey:	One person navigated, the other sampled using a dart
Area Sampled; Time:	Dieter: 0.5 hrs.

7.1.3 Helicopter Mapping

<u>Area</u>	<u>Helicopter Hours</u>
Dieter Lake	0.75 hrs.

7.2 CARBORNE SURVEY

Nothing to report.

7.3 GROUND SURVEY7.3.1 Ground Prospecting

The following table shows the number of mandays spent per area. The method employed consisted of teams of two, each person equipped with a scintillometer. In areas of detailed work, where lines had been cut, blocks of 200 x 200 m were covered daily by one team. In areas within the claims, where no lines had been cut, a team would prospect from one to two claims per day.

<u>Area</u>	<u>Mandays</u>
Dieter Lake	300

7.3.2 Radon Survey

Water samples (ca. 100 m apart) taken from the margins of Dieter Lake were tested for radon using an E.D.A. RD 200 portable detector.

<u>Lake</u>	<u>No. of Samples</u>
Dieter	53

Samples also analysed for radon were: 3 water samples from streams adjacent to Dieter Lake.

7.3.3 Geochemical Survey

<u>Area</u>	<u>Medium Sampled</u>	<u>No. of Samples</u>	<u>Method</u>
Dieter Lake	Centre-Lake Sediments	5	Helicopter
	Stream Sediments	2	Foot
	Lake Margin Waters	53	Canoe

7.3.4 Helium-Uranium Survey in Lake Waters

Refer to Appendix B.

7.3.5 Sampling

<u>Medium Sampled</u>	<u>Analytical Method</u>	<u>Elements</u>	<u>Number of Samples</u>
Core	DNA	U ₃ O ₈	1830
Core	XRF	U ₃ O ₈	76
Core	XRF	ThO ₂	5
Core	AA	Ag	3
Core	Fire & AA	Au	3
Core	Semi-quantitative	32 elem.	3

7.3.6 Other Surveys

<u>Area</u>	<u>Survey</u>	<u>Line km</u>
Dieter Lake Claim Group	EM 16R Orientation	6

Refer to Appendix C.

7.4 TRENCHING

Nothing to report.

7.5 DRILLING

See Appendix A.

8. RESULTS

8.1 ANOMALIES DISCOVERED

8.1.1 Radiometric Anomalies

Four anomalies were obtained on the lines covering this area (Map 4), none of which were ground checked; the reason being that two fall within an area held by a competitor, one coincides with the Fearless I showing, and the last is a false anomaly, caused by the core storage area. No new anomalies were found within this property.

8.1.2 Geochemical Anomalies/Chemical Analyses

Radon in Lake Margin Waters - Dieter Lake

Results for this survey are summarized below:

Number of samples:	53	
Background	< 6.28 cpm (\bar{x}):	34 values (64%)
Third Order:	6.28-10.59 ($\bar{x}+\sigma$):	12 values (23%)
Second Order:	10.60-14.90 ($\bar{x}+2\sigma$):	4 values (7.5%)
First Order:	> 14.90 ($>\bar{x}+2\sigma$):	3 values (5.5%)

A series of anomalous values are found over a distance of 800-900 m along the south-central shoreline of the lake in an area where no mineralization has been found or expected (Map 3). Paradoxically the shorelines adjacent to the known mineralization (Fearless I and Matoush Showings) resulted generally in background values. Solely on the basis of this data one would conclude that a source of radon gas is locally present, but when known geology is also considered it would seem that the method as a prospecting tool cannot be used with the expectation of accurately locating the source. There is one other possibility to explain these anomalous values however. A stream enters Dieter Lake at the southernmost point of the bay in which the values were found. This stream drains an area comprised of quartz arenites, not known to contain uranium values. Three water samples taken from another stream east of this, and which drains the same area resulted in very high radon values, but again no explanation is apparent.

9. ASSESSMENT

9.1 ASSESSMENT OF POTENTIAL

With the completion of 3686.5 m of diamond drilling carried out at four showings, the assessment of the Dieter Lake property can be viewed with guarded optimism. Positive factors would be: 1) the confirmation that the mineralized horizons are present in each locale, and thus can be expected to be found along the entire length of the sedimentary belt; 2) that previously unknown structures have been intersected, which could potentially serve as mechanisms or environments by which or into which

the uranium could have been remobilized and/or reconcentrated; 3) locally high uranium values were encountered at each showing, more of which could be expected with better definition of the mineralized horizons.

Negative elements are: 1) values obtained from Bert's Lake are not as expected, based upon analyses of samples obtained at surface; 2) the generally narrow intersections of uranium mineralization, and relatively low average values obtained.

The potential of this property lies in the combination of two categories: a deposit consisting of a large, low-grade component within which are concentrations due either to primary or secondary enrichment of the ore. Present results would point to such an interpretation.

10.

RECOMMENDATIONS

Current results warrant continued exploratory drilling on the Dieter Lake claim group so as to continue the evaluation of the uranium potential. Given the nature of the occurrence, it is recommended that drilling be continued along strike from those areas tested during this year's program, taking into mind the proposed genetic model.

APPENDIX A

DIAMOND DRILLING REPORT

GAYOT LAKE 71-86

DIETER LAKE CLAIM GROUP

Prepared by:

Wayne Holmstead,
UEM Montreal

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1. INTRODUCTION

From April to August 1978, 43 vertical holes were drilled on the Dieter Lake Grid at four main areas. (See Diamond Drill Location Plans).

TABLE 1 - DRILL AREAS

<u>Location</u>	<u>Number of Holes</u>	<u>Number of Meters</u>
Fearless One	15	1,248.7
Matoush	4	289.5
Vivian Lake	4	313.3
Bert's Lake	<u>20</u>	<u>1,835.0</u>
	43	3,686.5

On August 25, 1978 the Heath and Sherwood Drilling Company completed their contract with a total of 3,686.5 meters.

2. DRILL AREAS

2.1 FEARLESS ONE AND MATOUSH

2.1.1 Geology

The Fearless One and Matoush Showings were found to be very similar with respect to geology. The following stratigraphic sequence was found:

TABLE 2 - STRATIGRAPHY OF FEARLESS ONE AND MATOUSH

	<u>Fearless One</u>		<u>Matoush Showing</u>	
	<u>Thickness Range (m)</u>	<u>Thickness Averg. (m)</u>	<u>Thickness Range (m)</u>	<u>Thickness Averg. (m)</u>
Overburden:	0.6-11.9	3.6	1.5-3.4	2.1
Sandstone: buff coloured; interbeds of red hematitic sandstones: fine to medium grained; minor conglomerate with subangular quartz clasts (1 cm)	-	-	-	-

	<u>Fearless One</u>		<u>Matoush Showing</u>	
	<u>Thickness Range (m)</u>	<u>Thickness Averg. (m)</u>	<u>Thickness Range (m)</u>	<u>Thickness Averg. (m)</u>
Shales: irregular distribution alternating units of red, green and grey; interbeds of siltstone and sandstone; finely laminated	-	65 (approx)	-	-
Greenwacke: irregular distribution; typically fine-grained; quartz and minor feldspar clasts in aphanitic matrix; massively bedded	4.0-4.6	4.3	-	-
Redwacke: gradational contact with above unit; fine-to-very-fine grained quartz grains in red aphanitic matrix; estimated clasts: matrix 60:40; massive bedding; minor interbeds of sandstone and green wacke	14-38	31	9- 33	20
Greenwacke: gradational contact with above unit; as upper unit; siltstone, sandstone interbeds, minor shale; graded bedding in sandstone-siltstone (tops up); cross beds in coarser sandstone; bedding is 80°CA. Mineralization in upper part; contains traces of chalcopyrite	6-33	22	3-23	15
Sandstone, Siltstone, minor conglomerate interbedded	4-17	8	-	-
Shale: gradational change downward to finer sediments; alternating beds of red and green shale:				
Green:	11-28	23	13-26	19
Red:	6-13	9	4-13	9
Green:	1-3	2	1.2-1.5	1.3

<u>Fearless One</u>		<u>Matoush Showing</u>	
<u>Thickness</u>	<u>Thickness</u>	<u>Thickness</u>	<u>Thickness</u>
<u>Range (m)</u>	<u>Averg. (m)</u>	<u>Range (m)</u>	<u>Averg. (m)</u>

Sandstone, Siltstone,
Conglomerate: basal Sakami
unit; thin basal conglom-
erate which may contain
clasts from basement or
quartz pebbles

0-11	4	5-21	13
------	---	------	----

Granite Gneiss:
Archean basement, moderately
weathered.

In the Fearless One area the dip was found to be 70-80° (measured from the core axis). Very little evidence of faulting was observed in the core, however, vertical displacements in the geological sections were explained by faulting.

The average dip in the Matoush Area was 60-80° (measured from the core axis). There was no evidence of faulting from the drilling data in this area.

2.2 VIVIAN LAKE

Four holes were drilled in the Lake Vivian area for a total of 313.3 meters.

2.2.1 Geology

The following stratigraphic sequence was found:

TABLE 3 - STRATIGRAPHY OF VIVIAN LAKE

	<u>Thickness</u> <u>Range (m)</u>	<u>Average (m)</u> <u>Thickness</u>
Overburden	1.2 - 2.7	2
Red shale with minor conglomerate	5.9-14.3	10
Red shale with pink sandstone and conglomerate quartz & feldspar clasts sub-angular < 3 cm	13-16	14
Pink to buff sandstone and conglomerate interbedded with minor red and green shale. Quartz and feldspar clasts sub-angular < 3 cm	11.5-14.9	13

	<u>Thickness Range (m)</u>	<u>Average (m) Thickness</u>
Red shale interbedded with pink sandstone and conglomerate, quartz and feldspar clasts sub-angular 5 cm some fractures kaolinized, hematized and filled with calcite	2.6-18.9	10
Grey shale cut by calcite veins and hematized fractures	4.2-13.4	8
Green shale interbedded with carbonate rich beds and minor green conglomerate, trace sulphides and calcite veins present	17.0-26.5	23
Red shale interbedded with carbonate-rich beds	minor-14.4	13
Green and red siltstone, sandstone and conglomerate quartz, feldspar and rock fragment clasts sub-angular 8cm	0.9-9.1	5
Altered basement gneissic texture strongly hematized and chloritized	1.9-4.9	3
Unaltered basement granitic gneiss with hornblende, biotite gneiss and granitic pegmatite.		

The average dip appears to be 70-80° south (measured from the core axis). No faulting was evident from the drilling in this area.

2.3 BERT'S LAKE

In the Bert's Lake area, 20 holes were drilled for a total of 1835.0 m.

2.3.1 GEOLOGY

The following stratigraphic sequence was found:

TABLE 4 - STRATIGRAPHY OF BERT'S LAKE

<u>Unit</u>	<u>Thickness Range (m)</u>	<u>Thickness Average (m)</u>
Overburden	1.5-4.0	3
Red and green shales interbedded with minor red siltston	33	unknown
Pink quartz and feldspar sandstone interbedded with lenses of conglom- erate, quartz and feldspar clasts sub-rounded 3 cm	55-82	72
Red and green shales interbedded with minor red siltstone	18-37	27
Pink to green sandstone and conglom- erate, quartz and feldspar clasts 4 cm, sub-rounded	0-16	6
Altered basement gneissic texture hematized, chloritized	0- 25	5
Unaltered basement granitic gneiss with hornblende, biotite gneiss and granitic pegmatite		

The average dip of the bedding was 65-75° south measured from the core axis. The following evidence indicates faulting in this area:

- 1) Fracturing and brecciation in holes 78-27, 78-35 and 78-42
- 2) A 2.4 m Diabase Dike cutting the green shale in hole 78-27
- 3) A 70 m displacement in the position of the unconformity between the sediments and basement.

The strike and dip of this fault may not be deduced from the drilling data. However, it was found from surface mapping that a 40° strike and a 75°E dip (measured from surface) is common for jointing and faulting in this area.

3. CORRELATION OF GEOLOGY

The geology is very similar between Fearless One and Matoush, the only difference being the absence of the middle siltstone, sandstone and conglomerate unit in the Matoush holes.

At Vivian Lake the redwacke unit found at Fearless One and Matoush changes to red shale interbedded with sandstone and conglomerate. The greenwacke becomes a green shale and the lower shales remain virtually unchanged.

At Bert's Lake there is a further change in the upper units. The red shale interbedded with sandstone and conglomerate at Vivian Lake becomes an almost homogeneous sandstone and conglomerate at Bert's Lake. Again the lower units remain unchanged.

The correlation of the stratigraphic units between the four drill areas is very difficult because of;

- 1) the large distance between drill sites
- 2) faulting between drill sites
- 3) and rapid lateral facies changes.

4. ENVIRONMENT OF DEPOSITION

A model that would explain the sediments and rapid lateral facies changes encountered in the Dieter-Bert's Lake area would be a delta forming in a shallow water basin.

The large unit of sandstone and conglomerate at Bert's Lake indicates a relatively high energy environment probably close to the centre of the delta. At Lake Vivian the red shales interbedded with sandstone and conglomerate would represent a transition zone where the environment would fluctuate between a high energy delta environment and a lower energy environment outside of the delta.

The wackes at Fearless One and Matoush represent an environment outside of the delta that is still influenced by delta deposition. This would explain the silty, sandy texture of the wackes.

The shales below the delta sediments represent deposition prior to the formation of the delta in a relatively low energy, shallow water environment.

The basal sandstone and conglomerate would probably form in the topographic lows of the basement paleosurface. Absence of this basal formation probably represents relative topographic highs in the basement.

APPENDIX B
PROJECT 71-86
GAYOT LAKE
HELIUM-URANIUM SURVEY
IN DIETER LAKE

Prepared by:

Michael Leppin,

UEM Montreal

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2.	<u>URANIUM, HELIUM & RADON IN LAKE WATERS, RESULTS</u>	2
3.	<u>CONCLUSIONS</u>	2

1. INTRODUCTION

During April 1978, a Helium, a Uranium and a Radon survey was carried out at Dieter Lake (see Map 1). A fault passing through Dieter Lake is a possible structure of Uranium concentration. A total of 248 water samples were taken: 115 for Uranium, 115 for Helium and 18 for Radon analysis.

2. URANIUM, HELIUM & RADON IN LAKE WATERS, RESULTS

The lake bottom water samples were collected through holes in the ice with the aid of a Kemmerer-type water sampling bottle. The sampling depth was about 0.5 m above the lake bottom. The analysis for Uranium was performed by Bondar & Clegg Ltd. (Ottawa), and the Helium content was analysed by Chemical Projects Ltd. (Toronto). The Radon concentration was measured with the aid of a degassing unit (RDU 200) and a detector (RD 200) from EDA Instruments Inc. (Toronto). The results of Uranium and Helium surveys are shown on Maps 2 and 3 respectively.

Uranium concentration occurs in the range between 0.2 ppb and 5.4 ppb, the mean value is about 1.3 ppb U_3O_8 . Assuming that those water samples having concentration greater than 1.4 ppb are anomalous, two zones of main interest can be outlined (see Map 2): one zone follows approximately the axis of the lake and seems to correlate with a fault passing through Dieter Lake; the other zone is located at the east shore of the lake (46E, 39+00N) where a radioactive swamp was also mapped.

Helium concentration occurs in the range between $1 \cdot 10^{-8} \text{ cm}^3 \text{ He} / 1 \text{ cm}^3 \text{ H}_2\text{O}$ and $40 \cdot 10^{-8} \text{ cm}^3 \text{ He} / 1 \text{ cm}^3 \text{ H}_2\text{O}$, the mean value is about $11 \cdot 10^{-8} \text{ cm}^3 \text{ He} / 1 \text{ cm}^3 \text{ H}_2\text{O}$. Assuming that those water samples having Helium concentration greater than $15 \cdot 10^{-8} \text{ cm}^3 \text{ He} / 1 \text{ cm}^3 \text{ H}_2\text{O}$ are anomalous, one zone of main interest can be outlined in the centre of Dieter Lake at 44E, 39+50N (see Map 3). This Helium anomaly correlates with the central part of the Uranium anomaly in the middle of the Lake. According to the statistical evaluation of the Helium data done by Geochemical Projects Ltd. concentrations exceeding $9.18 \cdot 10^{-8} \text{ cm}^3 \text{ He} / 1 \text{ cm}^3 \text{ H}_2\text{O}$ are considered to be anomalous. They comment on the survey results as follows:

"Sampling stations L45E/39+50N, L43E/40+50N, L44E/39+50N, L44E/38+50N, L44E/38+00N, L43E/38+00N, L45E/40+00N and L44E/40+00N are of particular interest in that for these samples the contrast (referring to the background mean value $(6.86 \pm 2.32) \cdot 10^{-8}$ cm³ He/1 cm³ H₂O) is approximately equal to or greater than 5. We have found that in close proximity to uranium ore bodies the contrast usually ranges from 5 to >100. As the samples from Dieter Lake were collected at much shallower depths than ground water samples from wells or boreholes, it would appear that the anomaly found in Dieter Lake is particularly significant and should be investigated further."

Because of lack of time and early break-up, samples for Radon analysis were taken only in the west part of the lake between lines 35E and 39E. Radon concentrations occur in the range between 0 counts per minute (cpm) and 7 cpm, nevertheless significant anomalous zones cannot be outlined.

3. CONCLUSIONS

Two zones of Uranium concentration in waters can be outlined at Dieter Lake. Zone one follows approximately the axis of the lake and seems to be correlated with a fault passing through Dieter Lake. Zone two is located at the east shore of the lake close by a radio-active swamp. A strong helium anomaly is present in the centre of Dieter Lake correlating with the central part of the Uranium anomaly zone one. The area between lines 43E, 38+00N and 45E, 40+00N seems to be of main interest and should be investigated further. During the field season 1978 it is projected to continue the Radon survey in particular on lines 43E, 44E, 45E and 46E.

June 13, 1978

Date

Richard Ceppi

Signature

APPENDIX C

GEOPHYSICAL REPORT 1978

GAYOT LAKE AREA

PROJECT NO. 71-86

Prepared by:

M. Leppin, Montreal

TABLE OF CONTENTS

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<u>CONCLUSIONS</u>	1
<u>MAPS - Map No. 1, E.M. - 16R SURVEY</u>	

1. INTRODUCTION

During August 1978, E.M. - 16R and horizontal loop orientation tests were carried out in the Dieter Lake area in order to find out which method distinctively maps the sediment-basement contact.

2. E.M. RESULTS

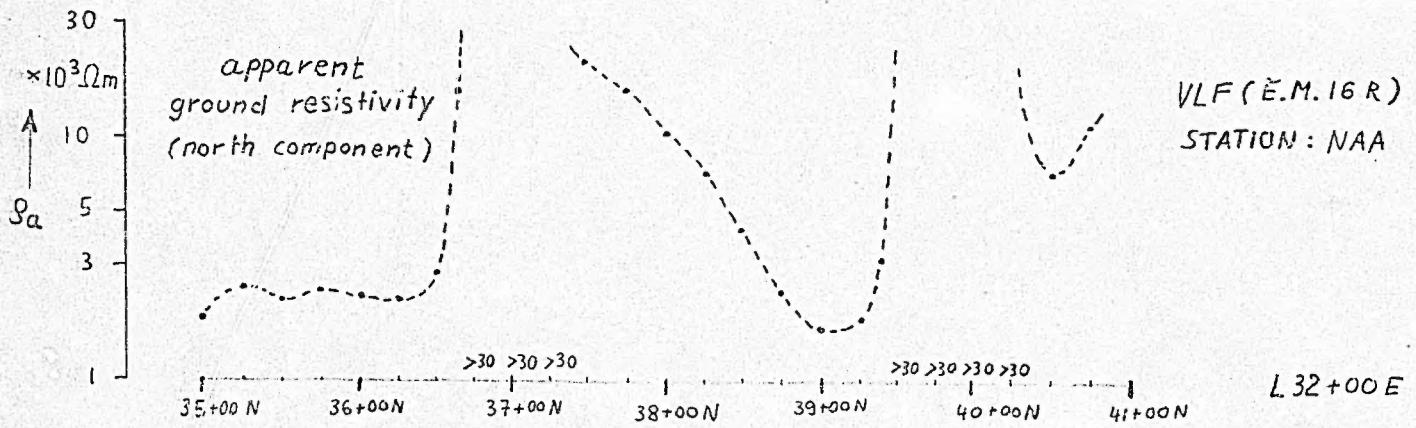
Station NAA, Cutler (Maine), $f = 17.8$ kHz was used for the VLF (E.M. 16R) survey. In the Dieter Lake area the primary magnetic field almost points west, inducing a horizontal electric field directed south. The ratio (apparent ground resistivity) and phase between the horizontal electric field and the horizontal magnetic field component were measured with a Geonics ground resistivity meter (E.M. - 16R) taking readings at a 25 m station interval. The survey results are plotted on Map No. 1.

Referring to the apparent resistivity data and drill results on Line 32E (see Figure 1) especially two geological contacts seem to produce distinctive resistivity anomalies: the sediment-basement contact and the contact between quartz-sandstones (south) and less porous sediments (i.e. red wacke) respectively basement rocks (north). The anomalies due to the sediment-basement contact occasionally are masked by weathering of the basement rocks. Anomalies then occur approximately 75 m north of the contact within the basement probably at the boundary between altered and fresh basement rocks.

The horizontal loop E.M. survey conducted on Line 32E (see Figure 1) with an Apex Max. Min. unit did not pick up the resistivity inconsistencies on L32E at 36+50N and 39+25N.

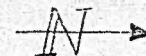
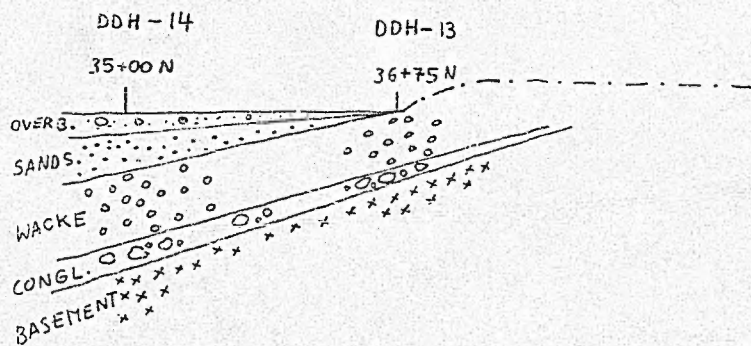
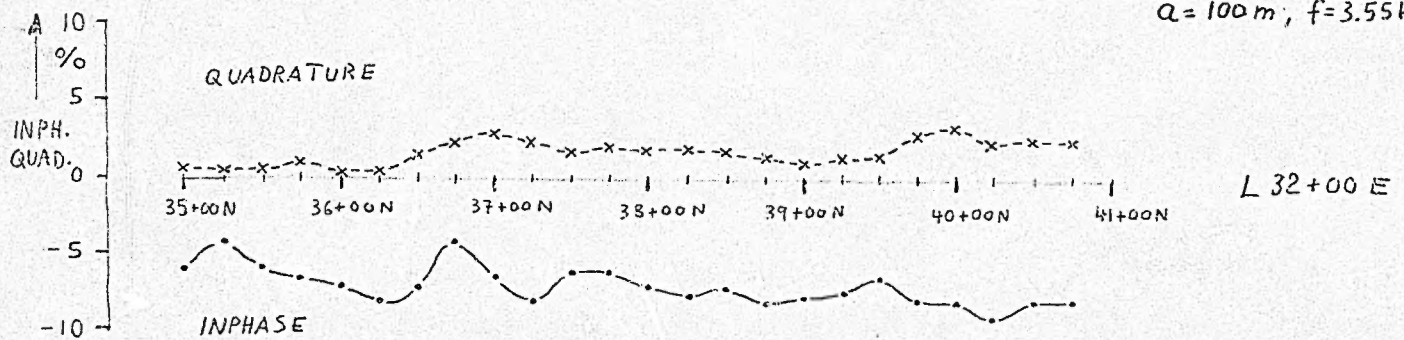
3. CONCLUSIONS

Due to the resistivity contrast between sediments and basement the VLF (E.M.-16) method appears to be the best tool for large scale mapping of the unconformity. In areas where the geological picture is complicated additional ground resistivity mapping (E.M.-16R) may be helpful to differentiate between geological units.



HORIZONTAL LOOP E.M.

$Q = 100 \text{ m}$, $f = 3.55 \text{ kHz}$



URANERZ EXPLORATION AND MINING LIMITED

GAYOT LAKE AREA 71-86
DIETER LAKE GRID - WEST HALF
E.M.-16R AND HORIZONTAL LOOP E.M. SURVEY
ON LINE 32+00 E - 1978

COMP.: M.L.	DATE:	REP./RAP. No.: 7186	MAP/CARTE No.: Fig. 1
DRAWN/DESS.: M.L.	DATE:	SCALE/ECH.: 1:5000	REPORT No.:
REVISION:		PROJ. No.:	
T.C. TO BONN:	REF.:	FILE/DUSS:	

APPENDIX D

GEOCHEMISTRY DATA

GAYOT LAKE

PROJECT NO. 71-86

KEY FOR LAKE AND STREAM SEDIMENT SAMPLE DATA RECORDS

Type: Lake/Pond
 Mineral Rich 1
 Organic Rich 2
 Stream
 Mineral Rich 3
 Organic Rich 4
 Spring
 Mineral Rich 5
 Organic Rich 6
 Bog
 Mineral Rich 7
 Organic Rich 8

Size or Depth: Meters
 Flow Rate: Stagnant 1
 Slow 2
 Moderate 3
 Fast 4
 Torrent 5

Grain Size: Organic 1
 Clay 2
 Silt 3
 Fine Sand 4
 Coarse Sand 5

Organic Content: Estimate in %

Colours: White 1 Red 6
 Buff 2 Brown 7
 Yellow 3 Dark Brown 8
 Orange 4 Black 9
 Pink 5 Grey 10

Comments: Lakeshore features
 Relief
 Possible contamination
 Sample Status

GEOCHEMICAL SAMPLE DATA SHEET

Project: 71-86

- LAKE AND STREAM SEDIMENTS -

Page 1

SAMPLE#	AREA NTS MAP#	LINE	STA- TION	TYPE	WIDTH/ DEPTH (m)	FLOW RATE	ORGANIC CONTENT %	COLOUR	GRAIN SIZE	U ppm				PERMIT NO.	COMMENTS
SSR-01	23M			2	6			7	1	70.0				DL	
02															2 no SP 1L- Dieter Lake
03	23M			1	2			7	4	6.2				DL	
04	23M			1-2	0.75			7	4-1	4.5				DL	
05															5 no SP
255	23M			2	0.5		100	8	1	0.9				DL	
256	23M			1	1		20	8	4-5	4.8				DL	

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

GM-34793

PROJECT No: 71-86

HOLE No: 78-1

PROPERTY: DIETER LAKE

CLAIM No: 361692-4

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 36+00 E

EAST SAME

NORTH 40+00 N

NORTH _____

ELEVATION 11.9 M

ACID TEST

FOOTAGE

INCLINATION

DIP 90°

AZIMUTH _____

DRILLING CONTRACTOR HIS

LENGTH 17.4 m.

RIG No: 15A

CASING SIZE BW

COMMENCED APR 2, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED APR 3, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 16 m.

DOWN HOLE LOGGING

INSTRUMENT MT SOPRIS 1000C

PROBE #151

OPERATOR ML, PM

DATE APR 4, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

BY G. HOLMSTED

DATE APR 2, 1978

CHEMICAL ASSAYS

LAB BOWDAR CLEGG

DATE APR 25, 1978

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-2

PROPERTY: DIETER LAKE

CLAIM No: 361692-4

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 36+00E

EAST SAME

NORTH 39+00N

NORTH _____

ELEVATION 22.9 M

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR H+S

LENGTH 58.2

RIG No: 15A

CASING SIZE RQ

COMMENCED APR 3, 1978

BIT SIZE _____

CORE SIZE RQ

COMPLETED APR 5, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 20.4 M

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C #24

PROBE #151

OPERATOR PAUL MARTIN, M LEPPIN

DATE APR 5, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTEAD, R ORR

LAB BONDAR CLEGG

DATE APR 5, 1978

DATE _____

FOOTAGE		CORE LOG	CHEMICAL ASSAY				
FROM	TO		CORE REC. %	SAMPLE			U ₃ O ₈ (ppm)
		NO.		FROM (FT.)	TO (FT.)		
0	4	OVERBURDEN					
4	18.5	GREY-GREEN WACKE, F.G., MOD FRACTURED WK LIMONITIZED IN PARTS, MASSIVE BEDDING	2-1	13	14	28.6	
			2	14	15	40.4	
18.5	23.5	GREY CONGLOMERATE w SHALE & SILTSTONE Q. CLASTS SUB-ANGULAR → ROUNDED MOD FRACTURED, WK LIM ON FRACTURES BEDS DIP 70° CA	3	15	16	85.3	
			4	16	17	281	ND
			5	17	18	108	16.7/0.9
			6	18	19	111	
23.5	35	GREY SLT w MDR & C-G SS MOD FRACTURED ALONG BEDDING PLANES LIM ON FRACTURES SMALL SCALE CROSS-BEDDING IN SLT.	7	19	20	46.0	
			1-5	6	7	41.1	
35	62	GREY SH., WK-MOD FRACTURED FINELY LAMINATED DIP 70° CA. SLATY CLEAVAGE LIM & Mn STAINING ON BED PLANES	2-9	31	32	12.6	
			2-10	41	42	6.5	
62	80	GREY SH w CALCAREOUS INTERBEDS DIFFERENTIALLY WEATHERED TO A BROWN EARTHY RESIDUE MOD FRACTURED, STR IN PARTS FINELY LAMINATED LIMONITE STAINING	2-11	43	44	6.8	
			2-12	55	56	4.9	
			2-13	65	66	17.6	
80	125	GREY-GREEN SHALE w CALC. INTERBEDS LESS WEATHERED THAN ABOVE WK FRACTURED, WK LIM ON FRACTURES CALCITE VEINLETS 108-110 STR. FRACTURED & WEATHERED LIMONITE STAINING 110-117 CALCITE VEINLETS	2-14	73		15.6	
			2-15	86	87	33.3	
					87	17.2	
			17	100	101	67.2	

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
125	147	RED SHALE MOD-STR FRACTURED ALONG BEDDING PLANES FINELY LAMINATED SOME SLATY CLEAVAGE SCATTERED CALCITE VEINLETS					
		141-147 →	40	111	112	5.5	
147	153	GREEN SH <u>W</u> CALC INTERBEDS MOD-STR FRACTURED ALONG BED PLANES SLATY CLEAVAGE SOME DIFFERENTIAL WEATHERING OF CALC LAYERS SOME LIM ^o STAINING					
				19	120	121	4.1
				20	130	131	5.5
				21	140	141	4.4
				22	150	151	10.3
153	172.5	GRAY-GREEN SS <u>W</u> MINOR SLT LOCALLY CG <u>W</u> SUBANGULAR Q CLASTS (0.5mm - 2cm) GRADES INTO SS NEAR BOTTOM COLOR CHANGE GREY → GREEN FINELY LAMINATED, WK FRACTURED					
				23	162	163	5.1
172.5	173	RED CG, SUBANGULAR CLASTS (1/2 - 4 cm) Q, VOL ^o , GR CLASTS					
				24	172	173	1.5
173	174	GNEISS, MOD-STR FRACTURED STR CHLORITIZED WK HEMATIZED					
174	175	GNEISS, WK ALTERED WK FRACTURED					
175	177	GNEISS, MOD CHLR WK HEM.					
177	180.5	GR. PEG.					
180.5	191	GNEISS <u>W</u> SOME PEG. (GR), WK-MOD-FRACTURED WK CHLR, WK HEM., WK LIM					
				25	177	179	0.8
				26	187	188	1.1

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-3

PROPERTY: DIETER LAKE

CLAIM No: 361692-4

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 36+00

EAST SAME

NORTH 38+00

NORTH _____

ELEVATION 28.7 M

ACID TEST

FOOTAGE

INCLINATION

DIP 90°

AZIMUTH _____

DRILLING CONTRACTOR H+S

LENGTH 89.9 M.

RIG No: 15A

CASING SIZE BW

COMMENCED APR 5, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED APR 7, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 71 M

DOWN HOLE LOGGING

INSTRUMENT MT SOPRIS 1006C

PROBE # 151

OPERATOR P.M.

CORE STORED IN DIETER LAKE

DATE APR 7, 1978

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTEAD

LAB BONDAR-CLEGG

DATE APR 7, 1978

DATE APR 27, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)	TO (FT.)		
	0	2						
	2	96	3-1	2	3	7.9		
	2	96	2	12	13	7.2		
	2	96	3	22	23	5.4		
	2	96	4	32	33	5.2		
	2	96	5	42	43	16.9		
	2	96	6	52	53	6.1		
	2	96	7	62	63	6.6		
	2	96	8	72	73	7.3		
	2	96	9	82	83	8.7		
	2	96	10	92	93	11.3		
	2	96	11	101	102	31.3		
	2	96	12	116	117	17.9		
	2	96	13	117	118	18.1		
	2	96	14	118	119	20.3		
	2	96	15	119	120	16.2		
	2	96	16	120	121	44.5		
	2	96	17	121	122	33.5		
	2	96	18	122	123	10.7		
	2	96	19	123	124	157. (29/1.2)		
	2	96	20	124	125	117. ()		
	2	96	21	125	126	136. ()		
	2	96	22	126	127	74.1		
	2	96	23	127	128	71.4		
	2	96	24	128	129	40.9		
	2	96	25	129	130	47.1		
	2	96	26	130	131	31.3		
	2	96	27	131	132	26.7		

20/a

20/a

20/a

OVERBURDEN

REDWAKE W BLEBS, STRINGERS & VEINLETS OF CALCITE.
F-G → M-G
WK-MOD FRACTURED
(42-65) SANDY SECTIONS W OXIDATION AND WEATHERING OF MATRIX
Q GRAINS (0.5-2 mm)
(45-86) BLOTCHES OF CALCITE-RICH MATERIAL

REDWAKE W GRN WKE & LOCALIZED CALCITE
MOD. FRACTURED
SOME SECTIONS WEATHERED TO LIGHT BROWN LIMONITIC MATERIAL

GRN WKE W MINOR INTERBEDS OF SS & SLT
F-G → M-G, WK-MOD FRACTURED
VUGS WEATHERED TO BROWN LIMONITIC MATERIAL
SOME SECTIONS OF CORE BLOTCHED W BLACK MATERIAL (POSSIBLY CARBONACEOUS)
(165-166) SLT GRADING TO SS ON BOTTOM
DISSEMINATED PYRITE EXCLUSIVELY IN GRN WKE. (TRACE)
ABSENT BLACK Q
(163.3) Q GRAINS COMED W PY.

Following

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)	ThO ₂
		GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)			
180	188.5	SS <u>W</u> INTERBEDS OF CG & SLT Q CLASTS SUBANGULAR (2mm - 3cm) MOD FRACTURED SOME CROSS BEDDING IN CG & SS GRADED BEDDING CG → SLT	28	132	133	33.7		
517	515		29	133	134	435	ND	
			30	134	135	26.7		
			31	135	136	50.3		
			32	136	137	57.1	265/2.5	
			33	137	138	54.5	ND	
			34	138	139	36.6		
			35	139	140	22.1		
			36	140	141	17.0		
			37	141	142	51.6		
188.5	208	GREEN SLT <u>W</u> SOME SH & CALCITE BEDS <u>W</u> MINOR SS MOD-STR FRACTURED MOD-STR LIM IN PARTS	38	142	143	16.5		
575	634		39	143	144	78.9		
			40	144	145	27.3		
			41	145	146	30.6		
			42	156	157	12.5		
			43	159	160	15.7		
			44	160	161	8.5		
			45	161	162	6.5		
			46	162	163	5.1		
			47	163	164	4.8		
208	273	SHALE <u>W</u> SLT & CALCITE BEDS (208-241) GRN SHALE (241-264) RED SHALE (264-273) GREEN SH SOME SECTION PREDOMINANTLY CALCITE EG. 252' FOR 12cm 263 " 6cm WK. FRACTURED FINELY LAMINATED	48	164	165	24.4		
634	532		49	165	166	30.3	190/1.9	
			50	166	167	23.6		
			51	167	168	16.9		
			52	168	169	44.4		
273	280	GREEN SLT GRADING TO SS & CG Q & FELDSPAR CLASTS SUBANG → ANG. (0.5mm - 4cm) WK. FRACTURED 6" GRN CG AT BOTTOM OF SECTION PIRRE ON CONTACT AT BSMT						

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U ₃ O ₈ (ppm)
FROM	TO			NO.	FROM (FT)	TO (FT.)	
280	295			ALTERED GRANITE <u>W</u> SECTIONS OF GR. PEG WK - MOD FRACTURED WK CHLR, HEM.			
				53	173	174	22.1
				54	174	175	18.3
				55	175	176	14.6
				56	176	177	26.8
				57	177	178	24.1
				58	178	179	78.7
				59	179	180	214
				60	180	181	72.2
				61	181	182	50.1
				62	182	183	27.7
				63	183	184	20.2
				64	184	185	21.0
				65	185	186	37.2
				66	186	187	37.2
				67	187	188	31.9
				68	188	189	40.9
				69	189	190	36.1
				70	203	204	22.5
				71	213	214	7.8
				72	223	224	5.8
				73	234	235	5.5
				74	242	243	3.2
				75	253	254	3.9
				76	257	258	3.3
				77	267	268	8.7
				78	276	277	2.9
				79	286	287	1.1

101

159/0.9

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-5

PROPERTY: DIETER LAKE

CLAIM No: 361692-3

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 36+00
NORTH 36+00
ELEVATION 0 m

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP 90°
AZIMUTH _____

DRILLING CONTRACTOR HVS
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 117.0 m
COMMENCED APR 9
COMPLETED APR 12

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 117.0

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD
DATE APR 12, 1978

DOWN HOLE LOGGING

INSTRUMENT MT SOPRIS 1000C
PROBE #151
OPERATOR P.M.
DATE APR 12, 1978

CHEMICAL ASSAYS

LAB B-C
DATE MAY 4, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE NO.	FROM (FT.)	TO (FT.)	U ₃ O ₈ (ppm)	
0	16	OVERBURDEN		001	16	23	9.7	
16	128	F-G → M-G REDWACKE WK-MOD FRACTURED STR FRACTURED (S7-S8) " LIMONITIZED 16-53 MOTTLED BY GREEN SECTIONS (3-4 cm) - SOME SECTIONS STRONGLY WEATHERED TO VUGS FILLED WITH BROWN & GREEN WEATHERING PRODUCT (EG. 60-5" 100' 25") - CUT BY CALCITE VEINLETS - MORE PROMINENT IN TOP OF SECTION - NO VISIBLE BEDDING - FRACTURES LIMONITIZED & IN SOME PLACES COATED W A NON-RADIOACTIVE BLACK SUBSTANCE	115 SAMPLES	002	22	33	5.7	
				003	33	43	6.3	
				004	43	53	4.2	
				5	53	63	3.9	
				6	63	73	10.8	
				7	73	83	7.9	
				8	83	93	6.5	
				9	93	103	7.6	
				10	103	113	7.6	
				11	113	125	14.9	
				12	125	126	19.7	
				13	126	127	15.6	
				14	127	128	22.8	
				15	128	129	23.9	
				16	129	128	24.4	
				17	130	131	85.9	
				18	131	132	20.7	
				19	132	133	374	257 0.9
				20	133	131	18.9	
				21	134	135	56.1	
				22	135	136	89.1	
				23	136	137	57.7	
				24	137	138	16.9	
				25	138	139	105	115 M-G
				26	139	140	70.7	
				27	140	141	57.7	
				28	141	151	46.5	

FOOTAGE		CORE LOG	CHEMICAL ASSAY					
FROM	TO		CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)		
				NO.	FROM (FT.)		TO (FT.)	
220	224	SLT, SS & CG GRADUATED BEDDING, WK FRACTURED 228-229 MAINLY CG & CLASTS SUBROUNDED - MINOR ROCK FRAGMENTS (1CM-11CM) POSSIBLY VOLCANIC OR METASED. 225.5 MINOR DISCONTINUITY BETWEEN SLT & SS DIP IN SS 80 °/A DIP IN SLT 86 °/A		29	151	152	16.2	
				30	152	153	19.6	
				31	153	154	14.9	
				32	154	155	13.5	
				33	155	156	21.4	
				34	156	157	20.7	
				35	157	158	54.3	
				36	158	159	176	
				37	159	160	310	
				38	160	161	146	
				39	161	162	14.5	179/1.8
				40	162	163	41.7	
				41	163	164	384	
				42	164	165	26.9	
				43	165	166	24.7	
229	248	SLT INTERBEDDED W SS F-G-M-G WK FRACTURED 238 CALCITE BEDS 1CM THICK DIP 83 °/A		44	166	167	27.4	
				45	167	168	14.4	
				46	168	169	22.5	
				47	169	170	20.8	
				48	170	171	55.6	
				49	171	172	75.0	
				50	172	173	42.5	
				51	173	174	439	
				52	174	175	123	363/2.1
				53	175	176	21.2	
248	288	GREY SHALE WK-MD FRACTURED FINELY LAMINATED SOME LIM STAINING ON FRACTURES DIP 54 °/A 272-273 SR FRACTURED		54	176	177	391	
				55	177	178	169	
				56	178	179	77.1	

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			NO.	FROM (FT.)	TO (FT.)	U ₂ O ₈ (ppm)
288	319	GREEN SHALE WK FRACTURED FINELY LAMINATED CALCITE VEINS & INTERBEDS DIP 81° C/A (200')					
				58	180	181	21.0
				59	181	182	154.6
				60	182	183	56.9
				61	183	193	13.7
				62	193	197	7.9
				63	197	198	6.0
319	350	RED SHALE WK FRACTURED FINELY LAMINATED CALCITE VEINS & INTERBEDS DIP 82° C/A (354')		64	198	199	5.9
				65	199	200	9.4
				66	200	201	6.3
				67	201	202	4.5
				68	202	203	92.2
				69	203	204	7.2
				70	204	205	70.2
319	355	GREEN SHALE WK-MOD FRACTURED FINELY LAMINATED CALCITE VEINS & INTERBEDS DIP 82° C/A (352')		71	205	206	57.7
				72	206	207	13.9
				73	207	208	71.0
				74	208	209	21.6
				75	209	210	29.8
				76	210	211	18.6
				77	211	212	17.3
355.5	356	GREEN SLT & SS MOD FRACTURED BEDDING INDISTINCT		78	212	213	16.8
				79	213	214	21.2
				80	214	215	15.1
				81	215	216	20.4
				82	216	217	19.2
				83	217	218	14.5
				84	218	219	13.3

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE		U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)		TO (FT.)
356	359	ALTERED BASINENT MOD. CHLORITIZED GNEISSIC TEXTURE WK-MID FRACTURED		85	219	220	54.3
				86	220	221	95.6
				87	221	222	31.4
				88	222	223	83.2
				89	223	224	68.6
359	362	PINK GR PEGMATITE RECHLORITIZED UNFRACTURED WK FRACTURED DIP OF CONTACT WITH ABOVE 35° C/A 359'		90	224	225	65.6
				91	225	226	47.1
				92	226	227	89.9
				93	227	228	19.5
				94	228	229	96.8
362	364.5	METASED OR METAVOLCANIC F.G. MOD FRACTURED GNEISSIC TEXTURE HEMATIZED IN PARTS		95	229	230	66.9
				96	230	231	67.3
				97	231	232	35.4
				98	232	233	25.7
				99	233	243	21.9
364.5	384	UNALTERED BASINENT WK FRACTURED Q-BI-H-GNEISS W/ SOME FELDSPAR		100	243	253	10.5
				101	253	263	6.2
				102	263	273	6.4
				103	273	283	20.1
				104	283	293	6.6
			105	293	303	24.1	
			106	303	313	18.4	
			107	313	323	5.4	
			108	323	332	4.2	
			109	332	342	4.8	
			110	342	352	5.3	
			111	352	357	15.2	
			112	357	357	2.4	

HOLE NO :

URANERZ EXPLORATION AND MINING

PAGE

OF

FOOTAGE

CORE LOG

CHEMICAL ASSAY

CORE REC. %

SAMPLE

U₃O₈ (ppm)

NO.

FROM (FT.)

TO (FT.)

FROM

TO

GEOLOGICAL DESCRIPTION

113

359

362

0.7

114

362

365

10.6

115

365

384

1.8

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-6

PROPERTY: DIETER LAKE

CLAIM No: 361692-5

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 38+00E

EAST SAME

NORTH 41+00N

NORTH _____

ELEVATION 12.66 M.

ACID TEST

FOOTAGE

INCLINATION

DIP 90°

AZIMUTH _____

DRILLING CONTRACTOR H+S

LENGTH 16.2 M.

RIG No: 15A

CASING SIZE BW

COMMENCED _____

BIT SIZE _____

CORE SIZE BQ

COMPLETED _____

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 16 M

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C

PROBE #151

OPERATOR P.M.

CORE STORED IN DIETER LAKE

DATE APR 13, 1978

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTEAD

LAB B-C.

DATE APR 14, 1978

DATE MAY 4 1978

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-7

PROPERTY: DIETER LAKE

CLAIM No: 361692-5

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 38+00
NORTH 40+00
ELEVATION 17.5 m.

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP 90°
AZIMUTH -

DRILLING CONTRACTOR H+S
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 72.5 m.
COMMENCED APR 13/78
COMPLETED APR 14/78

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) 72.5 m.

DOWN HOLE LOGGING

INSTRUMENT MS 1000C
PROBE #151
OPERATOR P.M.
DATE APR 14/78

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD
DATE APR 15, 1978

CHEMICAL ASSAYS

LAB B-C
DATE MAY 4, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
			NO.	FROM (FT.)	TO (FT.)		
0	4	OVERBURDEN					
4	53.5	F.G → M-G GREENWIRE MOD-SHR FRACTURED STR. LIMONITIZED ALONG FRACTURES (35, 43.5, 7) WEATHERED STR FRACTURED 20-22 37-38 6-7 ≈ 35 TRACE PYRITE (10-11) NO DISTINCT BEDDING					
53.5	59	SS + CG WK-MOD FRACTURED - MOSTLY N.W. BEDDING PLANES Q CLASTS SUB ANG - SUB RND (1/2 - 3 CM) SOME CROSSBEDDING VISIBLE (EG 55') PREDOMINANT DIP 79°/A (54')					
59	75	SS + SLT GREEN MOD FRACTURED WK LIMONITIZED ON FRACTURES WK CG IN PARTS Q. CLASTS < 1/2 CM DIP 75°/A (65')					
			120	4	5	31.9	
			121	5	6	20.8	
			122	6	7	28.9	
			123	7	8	136	
			124	8	9	405	
			125	9	10	65.0	
			126	10	11	489	
			127	11	12	444	
			128	12	13	390	
			129	13	14	153	
			130	14	15	133	
			131	15	16	262	
			132	16	17	82.8	
			133	17	27	15.7	
			134	27	36	10.7	
			135	36	37	5.8	
			136	37	38	10.8	
			137	38	39	21.4	
			138	39	40	11.4	
			139	40	41	16.5	
			140	41	42	14.2	
			141	42	43	29.5	
			142	43	44	14.0	
			143	44	45	37.9	

275/2.7

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)	TO (FT.)		
75	157	GREEN SHALE MOD-STR FRACTURED CUT BY CALCITE VEINS & INTERBEDS STR LIM & WEATHERED IN PARTS - MOSTLY FLOW FRACTURES (106, 110, 115) STR FRACTURED IN PARTS (83-85, 147-150, 133, 130) DIP 82° N/A (119) FINELT LAMINATED SOME BEDS STR LIM.						
				144	45	46	7.8	
				145	46	47	11.8	
				146	47	48	8.9	
				147	48	49	23.0	
				148	49	50	11.4	
				149	50	51	8.4	
				150	51	52	286	
				151	52	53	170	198 / 0.9
				152	53	54	139	
				153	54	55	98.2	
				154	55	56	111	
				155	56	57	60.7	
				156	57	58	56.1	
				157	58	59	91.5	
				158	59	60	132	
				159	60	61	181	139 / 0.9
				160	61	62	104	
				161	62	63	42.6	
				162	63	64	14.3	
				163	64	74	7.5	
				164	74	84	5.2	
				165	84	101	9.8	
				166	101	111	7.4	
				167	104	114	10.0	
				168	114	124	7.3	
157	187	RED SHALE FINELT LAMINATED WK-MOD FRACTURED CUT BY CALCITE INTERBEDS. DIP 75° C/A (182)						
187	190	GRN SHALE FINELT LAMINATED MOD-STR FRACTURED ALONG BEDDING PLANES STR FRACTURED 188 INTERBEDDED BY CALCITE DIP 78° C/A 189						

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-8

PROPERTY: DIETER LAKE

CLAIM No: 361692-5

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 38+00E

EAST SAME

NORTH 39+00N

NORTH _____

ELEVATION 13.5 m.

ACID TEST

FOOTAGE

INCLINATION

DIP 90°

AZIMUTH -

DRILLING CONTRACTOR H & S

LENGTH 89.0 m

RIG No: 15A

CASING SIZE BW

COMMENCED APR 15, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED APR 17, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 89.0 m.

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C

PROBE # 151

OPERATOR PAUL MARTIN

CORE STORED IN DIETER LAKE

DATE APR 17, 1978

CORE LOGGED

BY W HOLMSTEAD

DATE APR 17, 1978

CHEMICAL ASSAYS

LAB BOWEN CLEGG

DATE MAY 4, 1978

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U ₂ O ₈ (ppm)		
				NO.	FROM (FT.)	TO (FT.)			
93	109	SLT, SS & CG GRADED BEDDING WK. MOD FRACTURED STR FRACTURED (101, 102, 108) 97-98 STR LIM; HEM 102, 105 STR LIM. Q CLASTS SUBANG → SUBRD (1/2 cm) 108.5-109 SOME FELD & ROCK CLASTS VARIABLE DIP PROBABLY DUE TO X BEDDING 107' 80° /A DIP		204	85	86	26.1		
				205	86	87	45.1		
				206	87	88	102		
				207	88	89	20.0		
				208	89	90	241	161/51.2	
				209	90	91	10.0		
				210	91	92	45.9		
				211	92	93	49.8		
				212	93	94	19.6		
				213	94	95	21.6		
				214	95	96	10.0		
				215	96	97	96.3		
			109	118	SLT & SS WK FRACTURED 109-111.5 STR FRACTURED VARIABLE DIP DUE TO X-BEDDING DIP 113' 76° /A		216	97	98
	217	98				99	45.4		
	218	99				100	136		
	219	100				101	149		
	220	101				102	16.8	177/15	
	221	102				103	36.1		
	222	103				104	22.4		
118	211	GREEN SHALE FINELY LAMINATED WK. MOD FRACTURED STR FRACT (146-149) 166.5-169 SOME BEDS STR LIM. DIPS 133' 74° /A 165.5' 72° /A		223	104	105	97.1		
				224	105	106	79.8		
				225	106	107	18.8		
				226	107	108	14.6		
				227	108	109	7.6		
				228	109	110	12.8		

FOOTAGE		CORE LOG
FROM	TO	
211	237	<p>RED SHALE FINELY LAMINATED WK-MOD FRACTURED STR FRACTURED 222, 234-235, 236-237 DIP 232' 70° C/A INTERBEDDED W CALCI</p>
237	246	<p>GREEN SHALE FINELY LAMINATED MOD-STR FRACTURED (STR 246) INTERBEDDED W CALCI. DIP 70° C/A 243' LIN ON FRACTURES (240)</p>
246	260	<p>SLT, SS DARK GRAY WK FRACTURED (STR 258-259) WK CONGLOMERATIC IN SECTIONS Q CLASTS < 1/2 CM SUB ANG → SUB RND DIP INDISTINCT 74° C/A 259'</p>
260	265	<p>SLT, SS & CG (263.5-265) (261.5-262) WK-MOD FRACTURED (261.5-262) CLASTS ANG → SUB ANG (1/2-2 CM) Q & FELD W MINOR ROCK FRAGMENTS 263.5-265 CLASTS SUB RND → RND 1/2-3 CM 263.5 BSMT CLAST LARGER THAN CORE ROCK FRAG & Q W MINOR FELDSPAR. DIP 72° C/A 263'</p>

CORE REC. %	CHEMICAL ASSAY			
	SAMPLE			U ₃ O ₈ (ppm)
	NO.	FROM (FT.)	TO (FT.)	
	229	128	138	7.2
	230	138	148	11.7
	231	148	158	18.4
	232	158	168	8.5
	233	168	178	15.0
	234	178	188	7.8
	235	188	198	13.7
	236	198	208	8.7
	237	208	218	4.6
	238	218	228	3.9
	239	228	238	4.8
	240	238	248	10.9
	241	248	256	18.3
	242	256	257	7.1
	243	257	258	8.3
	244	258	259	4.5
	245	259	260	3.7
	246	260	261	11.8
	247	261	262	18.5
	248	262	263	13.3
	249	263	264	7.0
	250	264	265	133
	251	265	266	12.0
	252	266	267	25.3
	253	267	268	3.0

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: DL-78-9

PROPERTY: DIETER LAKE

CLAIM No: 361692-5

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 38+00E

EAST SAME

NORTH 38+00N

NORTH _____

ELEVATION 4.63m.

ACID TEST

FOOTAGE

INCLINATION

DIP 90°

AZIMUTH -

DRILLING CONTRACTOR H+S

LENGTH 107.6 m

RIG No: 15A

CASING SIZE BW

COMMENCED APR 17, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED APR 19, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 107.6 m.

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C

PROBE #151

OPERATOR PAUL MARTIN

CORE STORED IN DIETER LAKE

DATE APR 19, 1978

CORE LOGGED

BY W HULMSTEAD

DATE APR 20, 1978

CHEMICAL ASSAYS

LAB BONDAR CLEGG

DATE MAY 4 1978

FOOTAGE		CORE LOG	67 SAMPLES	CORE REC. %	CHEMICAL ASSAY			
FROM	TO				GEOLOGICAL DESCRIPTION	SAMPLE NO.	FROM (FT.)	TO (FT.)
0	6	OVERBURDEN		260	6	16	6.7	
6	26	GREY SHALE MOD FRACTURED ALONG BEDDING PLANS 24' CUT BY ^{1cm} Q VEINS W SLICKENSIDES FRACTURE SURFACES LIMONITIZED DIP 77°/A 14.5 23-26 COLOUR CHANGES TO BROWN DUE TO LIM.		261	16	26	7.8	
				262	26	36	9.4	
				263	36	46	5.2	
				264	46	56	12.5	
				265	56	66	7.9	
				266	66	76	5.5	
				267	76	86	5.3	
				268	86	96	4.6	
26	39	SS W GREENWACKE WK FRACTURED SS APPEARS TO BE X BEDDED & VARIABLE DIP SS CUT BY FELDSPAR RICH BEDS SS SLIGHTLY CG AT BOTTOM W FELD CLASTS SUB ANG → SUB RND < 1/2 CM. SHARP CONTACT BETWEEN LOWER REDWACKE & UPPER SS. DIP 75°/A 33'		269	96	106	7.3	
				270	106	116	7.9	
				271	116	126	8.1	
				272	126	136	6.7	
				273	136	146	6.8	
				274	146	156	13.7	
				275	156	166	18.3	
				276	166	171	10.4	
				277	171	172	16.5	
				278	172	173	14.8	
39	157	REDWACKE WK FRACTURED STR WEATHERED TO A BROWN RESIDUE IN PLACES FC 52, 148 134-135 STR WEATHERED SANDY SECTION LIMONITIZED BEDDING INDISTINCT		279	173	174	10.1	
				280	174	175	9.0	
				281	175	176	9.8	
				282	176	177	29.6	
				283	177	178	25.7	
				284	178	179	57.9	

153/1.5

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			NO.	FROM (FT.)	TO (FT.)	U ₃ O ₈ (ppm)
157	176	GREENWACKE MOD-SHR FRACTURED STR 162.5-167.5 DIP 160' 75° C/A					
				286	180	181	107
			60	287	181	182	40.3
			50	288	182	183	41.9
				289	183	184	18.5
				290	184	185	40.9
				291	185	186	13.2
				292	186	187	108
				293	187	188	693
				294	188	189	60.2
				295	189	190	48.5
				296	190	191	42.2
				297	191	192	22.5
				298	192	193	15.7
				299	193	203	9.9
				300	203	213	5.8
				301	213	223	9.1
				302	223	233	9.1
				303	233	243	16.3
				304	243	253	8.7
				305	253	263	26.4
				306	263	273	7.2
				307	273	283	11.9
				308	283	293	4.6
				309	293	303	3.5
176	184	SLT SS, CG GRADED BEDDING WR FRACTURED Q CLASTS RND → SUBRND (1/2-2CM) DIP 182' 70° C/A 179-186 TRACE PIRITE					
184	198.5	SLT SS WR FRACTURED WR CG IN PARTS DIP 74° 191' 189-192 TRACE PIRITE					
198.5	287	GREEN SLT FINELY LAMINATED 230-244 LAMINATED BEDS & FRACTURES 239-240 SANDY SECTION INTERSECTED BY CARBONATE URANS BEDS DIP 77° C/A 242' 71° C/A 287' 73° C/A 272'					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-10

PROPERTY: DIETER LAKE

CLAIM No: 361692-2

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 36+00E

EAST SAME

NORTH 34+25N

NORTH _____

ELEVATION 0 m.

ACID TEST

FOOTAGE

700			
85°			

INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR H+S

LENGTH 217.0 m

RIG No: 15A

CASING SIZE BW

COMMENCED APR 20, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED APR 25, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 217.0 m

DOWN HOLE LOGGING

INSTRUMENT MS 1000C

PROBE #151

OPERATOR PAUL MARTIN

CORE STORED IN DIETER LAKE

DATE APR 25, 1978

CORE LOGGED

BY W HOLMSTEAD

CHEMICAL ASSAYS

LAB BONAR CLEGG

DATE APR 26, 1978

DATE _____

FOOTAGE		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	18	OVERBURDEN		327	18	28	1.9
18	45.5	BUFF SS <u>w</u> INTERBEDS OF RED HEA SS F.G → M-G MOD FRACTURED WK CG. IN PARTS Q CLASTS SUBANG < 1 CM. DIP 71° C/A 26.5'		328	28	33	3.8
				329	28	43	4.1
				330	113	123	5.2
				331	47	53	7.2
				332	53	62	5.9
45.5	53	RED SHALE MOD FRACTURED FINELY LAMINATED <u>w</u> INTERBEDS OF HEA-RED Y BROWN GREEN DIP 79° C/A 49' STR HEA ON FRACTURES <u>NUMB</u> BEDDING PLANES		333	62	73	7.8
				334	73	82	7.2
				335	82	92	8.6
				336	92	103	8.9
				337	113	113	3.9
				338	123	133	3.1
				339	133	143	2.1
				340	143	153	3.8
53	99	GREEN SHALE <u>w</u> INTERBEDS OF BROWN SS & GRN W/VE MUD-STR FRACTURING STR 62-63 74-80 91.5-92.5 96.5-99 SANDY SECTIONS 68-71, 80.5-81 STR WEATHERED IN PARTS 79.5 GRN W/VE 82-82.5, 85-88 <u>w</u> BLACK QUARTZ KABLINIZED ON FRACTURES DIP 71° C/A 86'		341	153	163	6.0
				342	163	173	4.4
				343	173	183	4.1
				344	183	193	3.3
				345	193	203	3.4
				346	203	213	5.0
				347	213	223	6.8
				348	223	233	7.1
			60	349	233	243	6.6
			65	350	243	253	6.5
			70	351	253	263	8.4
			75	352	263	273	5.7
			30	353	273	283	4.3
				354	283	293	8.5

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY						
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)			
				NO.	FROM (FT.)	TO (FT.)				
99	226	RED SHALE WEATHERED TO PINK → GREY SS ≈ 50/50 WK FRACTURED 151.5 - 155 MOD FRACTURED WEATHERED ON FRACURES MORE WEATHERED SS LOCALLY PENETRATED BY BLENDS MINOR X-BEDDING SHALES FINELY LAMINATED DIP $E1^{\circ}/A 116'$ $82^{\circ}/A 158'$ $74^{\circ}/A 210'$ } SHALES SS VARIABLE DIP DUE TO X-BEDDING		355	293	303	11.0			
				356	303	313	4.6			
				357	313	323	9.2			
				358	323	333	4.8			
				359	333	343	22.8			
				360	343	353	8.7			
				361	353	363	6.3			
				362	363	373	6.0			
				363	373	383	8.1			
				364	383	393	9.2			
				365	393	400	16.2			
				366	400	403	18.9			
				367	403	406	20.9			
				368	406	409	51.6			
				369	409	412	125			
				370	412	415	53.3			
			226	265	GREEN SHALE FINELY LAMINATED WK FRACTURED DIP $E2^{\circ}/A 246'$		371	415	427	38.0
							372	427	430	16.9
	373	430				432	17.0			
	374	432				435	19.5			
	375	435				438	95.0			
	376	438				441	85.7			
265	268.5	DK GREY SHALE BEDDING INDISTINCT EXCEPT WHERE 1-2 CM S. BEDS CUT PLAYS IN SOME PLANE CONCRETIONS ON SURFACES OF S. BEDS DIP $E4^{\circ} - 266'$		377	441	444	43.7			
				378	444	447	17.9			
				379	447	450	22.1			
				380	450	453	33.6			
				381	453	456	16.3			
				382	456	459	92.2			

210/46

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)	ThO ₂
				NO.	FROM (FT.)	TO (FT.)		
268.5	283	SANDSTONE W/ INTERBEDS OF GRET SS SS CROSS BEDDED 273.5 DEEPERIAL PINNE UP TO 1CM BATTERED COBBES ROCK & GRAINS COMED W/ FRACT. W/ FRACTURED TRACE FELD IN W/KE W/ CG IN PARTS		383	459	462	355	ND
				384	462	465	126	
				385	465	468	65.1	
				386	468	471	28.4	
				387	471	481	7.8	
				388	481	491	5.8	
				389	491	501	25.0	
				390	501	505	17.4	
				391	505	508	15.5	
				392	508	511	22.5	
				393	511	514	13.5	
			283	406	SANDSTONE W/ INTERBEDS W/ MUDR (L-2) IN SS W/ FRACTURED (NO 390-394.5) PINN W/ SS RELATIVE W/ MUDR COY 157 CRACKS VERTICALLY 300-330 PRECIPITATED 298' MUDROCK MUDR		394	514
	395	517				520	62.8	
	396	520				523	33.0	
	397	523				526	46.1	
	398	526				529	67.5	
	399	529				532	87.3	
	400	532				535	64.2	
	401	535				538	135	135/0.9
	402	538				541	14.3	
	403	541				551	11.7	
	404	551				561	17.1	
406	514.5	SANDSTONE W/ INTERBEDS OF GRET SS W/ FRACTURED 422-433 SANDSTONE 443-471 SS DIP 82°/A 41.5' BEDDING INDISTINCT IN GRADUATION					405	561
				406	571	581	5.9	
				407	581	584	6.8	
				408	584	592	6.5	
				409	592	595	6.4	
				410	595	598	7.8	
				411	598	601		
				412	601	604		
				413	604	607		
				414	607	610		
				415	610	613		
				416	613	616		
514.5	530	SLT SS, CG GRET-GREEN W/ FRACTURED (1/2-5cm) GRADED BEDDING		417	616	619		
				418	619	622		
				419	622	625		
				420	625	628		
				421	628	631		
				422	631	634		
				423	634	637		
				424	637	640		
				425	640	643		
				426	643	646		
				427	646	649		
				428	649	652		

FOOTAGE

CORE LOG

CHEMICAL ASSAY

CORE REC. %

SAMPLE

NO.

FROM (FT.)

TO (FT.)

U₃O₈ (ppm)

FROM

TO

GEOLOGICAL DESCRIPTION

699

704

GREEN SHALE
MOD FRACTURED
INTERBEDDED W/ COMPACTED CALCINE BEDS
EVIDENCE OF SOFT SEQUENCE DEVELOPMENT
A FOLDING 702-703'
WINDOW UP 2-16 1/2 704'

704

707.5

GREEN SLT S.S.
WR. MOD FRACTURED
W/ CO. CL. BEDS
BEDDING INDISTINCT

707.5

712

RED SLT S.S.
WR. MOD FRACTURED
BEDDING INDISTINCT
EVID. OF FOLDING
ESTIMATED DEPTH OF BSNT 720'

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-12

PROPERTY: DIETER LAKE

CLAIM No: 361692-4

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 34+00E

EAST SAME

NORTH 38+00N

NORTH _____

ELEVATION 22.7M.

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH _____

DRILLING CONTRACTOR H+S

LENGTH 15.2M

RIG No: 15A

CASING SIZE BW

COMMENCED APR 28, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED APR 28, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) _____

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C

PROBE #151

OPERATOR PAUL MARTIN

CORE STORED IN DIETER LAKE

DATE APR 28, 1978

CORE LOGGED

BY W HOLMSTEAD

DATE APR 29, 1978

CHEMICAL ASSAYS

LAB BONDAR CLEGG

DATE _____

FOOTAGE		CORE LOG	CHEMICAL ASSAY			
FROM	TO		CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)
		NO.		FROM (FT.)	TO (FT.)	
6	2	OB				
2	21	GREENWACKE W MINOR SS, SLT, CG MOD FRACTURED (STR. 8-8.5, 20') LIM ON FRACTURES BEDDING INDISTINCT	512	3	6	9.6
			513	6	9	9.6
			514	9	12	70.9
			515	12	15	50.9
			516	15	18	45.5
21	24	ALTERED BSMT. MOD-STR FRACTURED GNEISSIC TEXTURE STR CHLR, HFM	517	18	21	76.0
			518	21	24	37.6
24	31	GR GNEISS PEGMATITIC TEXTURE RELATIVELY UNALTERED MOD FRACTURED	519	24	31	2.6
31	50	WK ALTERED BSMT Q BI H ROCK WEAKLY GNEISSIC MOD-STR FRACTURED WK HFM IN PARTS	520	31	50	4.1

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-13

PROPERTY: DIETER LAKE

CLAIM No: 361700-3

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 32+00E
NORTH 35+00N
ELEVATION 8.6M

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H+S
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 100.9 m.
COMMENCED APR 28, 1978
COMPLETED MAY 1, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 100.9 M.

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD
DATE MAY 2, 1978

DOWN HOLE LOGGING

INSTRUMENT MS 1000C
PROBE # 151
OPERATOR P MARTIN
DATE MAY 1, 1978

CHEMICAL ASSAYS

LAB BONDAR-CLEGG
DATE _____

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			GEOLOGICAL DESCRIPTION	SAMPLE NO.	FROM (FT.)	TO (FT.)
0	39	OB		521	35	45	6.0
39	121	<p>PINK SS - RED SHALE + MINOR GRD SHALE MOD - STR FRACTURED STR 39-40 46, 47, 89-90 91.5-96, 101-120 39-39.5 GRD SH 90-96 RD SH 43-44 RD SH 51-60 " 73-75 " RD SH MOTTLED BY BROWN + GREEN SS INTERBEDDED W/ HEAVY-RICH W/ S + HEAVY MOTTLED DIP RD SH SS 67° 57' 68° 72' 75° 105'</p>		522	45	55	6.0
				523	55	65	4.0
				524	65	75	3.8
				525	75	85	2.6
				526	85	95	5.7
				527	95	105	4.5
				528	105	115	2.7
				529	115	125	4.8
				530	125	135	8.6
				531	135	145	9.9
				532	145	155	6.1
				533	155	165	10.1
				534	165	175	12.5
				535	175	185	6.1
				536	185	195	7.2
				537	195	205	8.4
				538	205	215	10.9
				539	215	225	32.0
				540	225	228	71.2
				541	228	231	70.0
				542	231	234	37.3
				543	234	237	60.3
				544	237	240	15.0
				545	240	243	13.5
				546	243	246	51.6
				547	246	247	51.0
				548	247	248	55.3
121	221	<p>RED W/KE WK FRACTURED STR 132, 139.5, 148' MOTTLED BY BROWN + GREEN STR WEATHERED 132, 149, 201'</p>					
221	281	<p>GREEN W/CKE 252-264 TRACE PYRITE WK FRACTURED MOTTLED BY BLACK PLANE 234-241 LOCALLY CUT BY CALCITE VEINS BEDDING INDISTINCT 261-270 GRD SS WK CG IN PARTS DIP VARIABLE 80° S/N 269'</p>					

CHEMICAL ASSAY

FOOTAGE		CORE LOG	CORE REC. %	SAMPLE			U ₃ O ₈ (ppm)		
FROM	TO			NO.	FROM (FT.)	TO (FT.)			
281	288	RDWKE WK FRACTURED MOD 281' WK CG IN PARTS BEDDING INDISTINCT		549	248	249	140		
				550	249	250	91.5		
				551	250	251	531	209	1.8
				552	251	252	40.5		
				553	252	253	198		
288	312	GRN → PINK SLT, SS, CG w MINOR GR LWKE WK FRACTURED DIP VARIABLE 75°/A 304' Q CLASSED W FELD & ROCK FRAS SUB W/ 5 CM (1/2 - 5 CM)		554	253	254	253		
				555	254	255	26.7		
				556	255	256	34.3		
				557	256	257	41.0		
				558	257	258	266		
				559	258	259	674		
				560	259	260	61		
312	331	SS, SLT w MINOR GR & SH (322, 324) GREEN → PINK WK FRACTURED WK CG IN PARTS DIP 79°/A 324' ESTIMATED DEPTH TO BSMT 115M.		561	260	261	264		
				562	261	262	254	268	2.4
				563	262	263	173		
				564	263	264	308		
				565	264	265	146		
				566	265	268	55.3		
				567	268	271	39.5		
				568	271	281	9.9		
				569	281	291	28.8		
				570	291	301	26.8		
				571	301	304	37.4		
				572	304	307	21.2		
				573	307	310	21.4		
				574	310	313	27.3		
				575	313	316	135	135	0.9
				576	316	319	18.0		
				577	319	331	20.2		

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-20

PROPERTY: DIETER LAKE

CLAIM No: 361711-3

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 62+00E
NORTH 46+00N
ELEVATION 0.0

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H9S
RIG No: 15A
CASING SIZE BW
BIT SIZE BQ
CORE SIZE BQ

LENGTH 113.7

COMMENCED JUNE 30, 1978

COMPLETED JULY 2, 1978

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) TO BOTTOM

DOWN HOLE LOGGING

INSTRUMENT M.S. 1000 C. #24
PROBE #151
OPERATOR FRANK SIVILLA
DATE JULY 2, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD
DATE JULY 4, 1978

CHEMICAL ASSAYS

LAB ROLDAR CLEGG
DATE AUG 14, 1978

FOOTAGE METRES		CORE LOG	CHEMICAL ASSAY				
FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)		TO (FT.)
0	1.2 m	OB					
1.2	15.5	RED SH MOTTLED BY GREEN & BROWN, INTERBEDDED w/ MINOR CG & BUFF SS. WK FRACTURED Q ^a FELD CLASTS SUB RND → SUB ANG < 1 CM. DIP 82° (9.8 m)		905	37.0	37.5	1.9
				909	37.5	38.0	2.4
				910	38.0	38.5	1.5
				911	38.5	39.0	2.8
				912	39.0	39.5	2.9
				913	39.5	40.0	22.6
				914	40.0	40.5	39.3
15.5	28.5	RED SH w/ INTERBEDS OF PINK SS & CG WK FRACTURED Q ^a FELD CLASTS SUB RND - SUB ANG. < 3 CM DIP 85° (22.5 m)		915	40.5	41.0	12.4
				916	41.0	41.5	15.6
				917	41.5	42.0	43.7
				918	42.0	42.5	33.5
				919	42.5	43.0	9.0
				920	43.0	43.5	66.5
				921	43.5	44.0	28.2
				922	59.0	59.5	12.7
				923	59.5	60.0	9.0
				924	60.0	60.5	9.5
				925	60.5	61.0	11.2
				926	61.0	61.5	11.6
				927	61.5	62.0	62.7
				928	62.0	62.5	58.2
				929	62.5	63.0	390.2
				930	63.0	63.5	56.0
				931	63.5	64.0	49.2
				932	64.0	64.5	22.3
28.5	40.4	→ End BUFF SS. w/ PINK CG WK-MOD FRACTURED Q ^a FELD CLASTS < 5 CM SUB RND → SUB ANG. DIP 83° (34.5 m)					

EDDAGE METRES		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)	
				NO.	FROM (-FT.)	TO (-FT.)		
40.4	41.2	RED SH MOTTLED BY GREEN & BROWN WK FRACTURED BEDDING INDISTINCT		933	64.5	65.0	21.5	
41.2	44.3	PINK CG. <u>W</u> MINOR SS & SH. Q & FELD CLASTS < 5CM. SUBRD → SUBANG. WK FRACTURED BEDDING INDISTINCT.		934	70.5	71.0	7.2	
				935	71.0	71.5	13.6	
				936	71.5	72.0	13.8	
				937	72.0	72.5	17.6	
				938	72.5	73.0	19.6	
44.3	48.0	RED SHALE MOTTLED BY GREEN & BROWN WK FRACTURED CUT BY CALCITE VEINS IN PARTS		939	73.0	73.5	18.8	
				940	73.5	74.0	258.2	144
				941	74.0	74.5	29.8	1.0
				942	74.5	75.0	8.7	
48.0	61.4	GREY SHALE <u>W</u> MINOR GREEN & RED WK FRACTURED MOTTLED BY CALCITE & CUT BY CALCITE VEINS						
61.4	78.4	GREEN SHALE <u>W</u> CALCAREOUS VEINS & BEDS. LIM ON FRACTURES WK FRACTURED DIP 82° (77.0M)						

~~FOOTAGE~~

CORE LOG

CHEMICAL ASSAY

METRES		GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U ₃ O ₈ (ppm)
FROM	TO			NO.	FROM (FT.)	TO (FT.)	
78.4	89.3			RED SHALE W CALcareous INTERBEDS WR FRACTURED DIP. 81° (86.7M)			
89.3	92.1	RED SH INTERBEDDED W CG. WR FRACTURED SH INTERBEDDED W CALcareous BEDS Q, FELD + RK FRAG CLASTS < 5CM. AMG → SUBANG DIP. 80° (91M)					
92.1	94.0	ALTERED BSMT W PEGMATITE (GR) WR FRACTURED STR CHLORITIZED MOD METAMORIZED					
94.0	95.5	DARK FG. BSMT. ROCK WR FRACTURED POSSIBLY VOLCANIC OR METASED.					
95.5	109.4	GR. GNEISS W PEGMATITE WR FRACTURED WR METAMORIZED					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 78-86

HOLE No: 78-25

PROPERTY: DIETER LAKE

CLAIM No: 361709-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 98+00E

EAST SAME

NORTH 48+00N

NORTH _____

ELEVATION 2.4

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR H+S

LENGTH ~~56.4~~ 92.4

RIG No: 15A

CASING SIZE BCW

COMMENCED JULY 12, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED JULY 14, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) TO BOTTOM

DOWN HOLE LOGGING

INSTRUMENT M-1000 C #24

PROBE #151

OPERATOR F SIVILLA

CORE STORED IN DIETER LAKE

DATE JULY 14, 1978

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTEAD

LAB BENDAR-CLEGG

DATE JULY 14, 1978

DATE AUG 18, 1978

FOOTAGE (METRES)		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY				
FROM	TO			SAMPLE		U ₃ O ₈ (ppm)		
				NO.	FROM (FT.)			TO (FT.)
0	9 (2.7)	OB		1039	49.0	49.5	4.7	
				40	49.5	50.0	6.1	
9 (2.7)	163 (49.7)	Q ⁺ FELD SS ⁺ CG W MINOR SH WK - MOD FRACTURED RED → BUFF COLOR. Q ⁺ FELD CLASTS < 1CM SUBRD → SUB-ANG STR HEMATIZED IN PARTS (30-70') (9.1-21.3) 22-23' YELLOW STAIN ON FRACTURES DIP 70° 40' (12.2) 70° 100' (30.5) 75° 160' (48.8)		41	50.0	50.5	16.3	
				42	50.5	51.0	29.9	
				43	51.0	51.5	50.6	
				44	51.5	52.0	21.3	
				45	52.0	52.5	225.2	133
				46	52.5	53.0	40.1	1.0
				47	53.0	53.5	25.1	
				48	53.5	54.0	34.5	
				49	54.0	54.5	16.6	
				50	54.5	55.0	6.7	
				51	55.0	55.5	9.3	
				52	55.5	56.0	6.5	
163 (49.7)	170.5 (51.9)	RED SHALE MOTTLED BY GREEN IN PARTS WK FRACTURED (57.8) 170' ABUNDANT CALCITE VEINS (51.5) 169' CALCITE WEATHERED TO A RED-BROWN BEDDING INDISTINCT. RESIDUE		53	56.0	56.5	7.9	
				54	56.5	57.0	5.8	
				55	57.0	57.5	7.3	
				56	57.5	58.0	13.1	
				57	58.0	58.5	517.6	365
				58	58.5	59.0	212.2	1.0
				59	59.0	59.5	17.6	
170.5 (51.9)	185 (57.3)	GREEN & RED SHALE WK FRACTURED CALCAREOUS IN PARTS DIP 75° 187' (57.0)		60	59.5	60.0	27.7	
				61	60.0	60.5	17.6	
				62	60.5	61.0	12.9	
				63	61.0	61.5	9.3	
				64	61.5	62.0	11.6	

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
(METRES)				SAMPLE			U ₃ O ₈
FRCM	TO	GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)	(ppm)	
188 (57.3)	213 (64.9)	GREEN SH <u>W</u> MINOR RD. SHALE WK FRACTURED CALCAREOUS IN PARTS 191.5-192.5 CALCITE WEATHERED TO BROWN RESIDUE DIP 75° 189' (57.6)	1065	62.0	62.5	25.6	
			66	62.5	63.0	17.4	
			67	63.0	63.5	25.7	
			68	63.5	64.0	173.3	163
			69	64.0	64.5	152.1	1.0
			70	64.5	65.0	45.4	
213 (64.9)	253 (77.1)	RED SH <u>W</u> MINOR GRN SH WK FRACTURED CALCAREOUS IN PARTS DIP 70° 244' (74.4)					
253 (77.1)	275 (83.8)	GREY-GREEN SH <u>W</u> SS & CG WK-MOD FRACTURED Q & FELD CLASTS < 1CM SB-RND → SUB ANG 260.5 LARGE (7-8cm) Q CLAST SUB RND. DIP 70° 257' (78.3)					
275 (83.8)	303 (92.4)	ALTERED BSMT GNEISS & GR PEG. MOD-STR FRACTURED STR HEM. POSSIBLY REGOLITHIC NEAR TOP.					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-27

PROPERTY: DIETER LAKE

CLAIM No: 361709-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 99+00E

EAST SAME

NORTH 47+00N

NORTH _____

ELEVATION 4.6

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR HOS

LENGTH 52.4

RIG No: 15A

CASING SIZE BW

COMMENCED JULY 21, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED JULY 23, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) 19 m (CAVING)

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #24

PROBE #151

OPERATOR F SIVILLA

DATE JULY 23, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTED

LAB BONDAR-CLEGG

DATE JULY 24, 1978

DATE _____

FOOTAGE (METERS)		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY		
FROM	TO			SAMPLE		U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	
0	10 (3.1)	OB				
10	15 (3.1)	RED SHALE <u>w</u> MINOR GREEN INTERBEDS MOD-STR FRACTURED (STR 10-11.5) DIP 80° 12'				
15	40 (4.6)	GREEN SHALE <u>w</u> MINOR RED INTERBEDS MOD-STR FRACTURED (STR 25-26, 33-34, 38- 43 ³⁹) DIP 75° 32'				
40	48 (12.2)	FG DIABASE DIKE PLAGIOCLASE ⁿ PYROXENE CUT BY FINE CALCITE VEINLETS STR STR FRACTURED				
48	58 (14.6)	GREEN SHALE <u>w</u> MINOR INTERBEDS OF RED MOD-STR FRACTURED (STR 50' 57-58') DIP 80° 54'				
58	63 (17.7)	RED BROWN SH. <u>w</u> MINOR GREEN INTERBEDS MOD-STR FRACTURED (STR 62-63) DIP 70° 59'				

NO SAMPLES

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
63 (19.2)	122 (37.2)	PINK - RED HEMATIZED. SS ⁹ CG MOD-STR FRACTURED (STR 68-72, 75-77.5, 79-81 DIP 85-86					
122 (37.2)	137.5 (41.9)	RED BRECCIATED ROCK IF MOST PROBABLY HIGHLY ALTERED RED SHALE STR. FRACTURED					
137.5 (41.9)	145 (44.2)	GREEN BRECCIATED ALTERED ROCK MOST PROBABLY ALTERED GREEN SHALE MOD-STR FRACTURED (STR. 138, 145)					
145 (44.2)	145.5 (44.4)	PINK CG STR FRACTURED Q ⁺ FELO CLASTS < 2cm SUB. RD → SUB ANG.					
145.5 (44.4)	172 (52.4)	UNALTERED BSMT GR GNEISS & GR PEG. WK FRACTURED.					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-29

PROPERTY: DIETER LAKE

CLAIM No: 361709-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 99+00E
 NORTH 49+00N
 ELEVATION 2.0

EAST SAME
 NORTH _____

ACID TEST
 FOOTAGE
 INCLINATION

DIP -90°
 AZIMUTH -

DRILLING CONTRACTOR H & S
 RIG No: 15A
 CASING SIZE BW
 BIT SIZE BW
 CORE SIZE BQ

LENGTH 43.6
 COMMENCED JULY 25, 1978
 COMPLETED JULY 26, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) _____

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W. HOLMSTEAD
 DATE JULY 26, 1978

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #24
 PROBE #151
 OPERATOR F. SIVILLA
 DATE JULY 26, 1978

CHEMICAL ASSAYS

LAB BONDAR - CLEGG
 DATE AUG 29, 1978

FOOTAGE		CORE LOG	CHEMICAL ASSAY				
FROM	TO		CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)		
0	9 (2.7)	OB					
			132	16	16.5	8.7	
			33	16.5	17	7.4	
			34	17	17.5	10.8	
9	45 (2.7) (13.7)	GREEN → PINK SS + CG WK - MOD HEMATIZED WK - MOD FRACTURED DIP VARIABLE 70° 25' Q FIELD CLASTS < 1CM. SURROUND SOME YELLOW STAINING ON FRACTURES	35	17.5	18	10.1	
			36	18	18.5	10.5	
			37	18.5	19	142.0	52
			38	19	19.5	21.6	1.0
			39	19.5	20	13.0	
			40	29	29.5	19.9	
45	57 62 (13.7) (18.9)	RED SN W GREEN INTERBEDS WK - MOD FRACTURED DIP 60° 48'	41	29.5	30	8.4	
			42	30	30.5	29.2	
			43	30.5	31	13.2	
			44	31	31.5	67.2	
			45	31.5	32	17.8	
57	62 (18.9)	GREEN SLT, SS WK FRACTURED	46	32	32.5	80.9	
	63 (19.2)		47	32.5	33	122.6	53
			48	33	33.5	43.3	1.0
			49	33.5	34	12.6	
63	69 (19.2) (21.0)	GREEN SN W RED INTERBEDS. WK FRACTURED DIP 65° 68'					
69	103 (21.0) (31.4)	RED SHALE WK - MOD FRACTURED YELLOW-BROWN STAIN ON FRACTURES CALCAREOUS IN PARTS WEATHERED 83' 6CM SANDY SECTION 87' DIP 70° 74'					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-31

PROPERTY: DIETER LAKE

CLAIM No: 361709-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 98+50E

EAST SAME

NORTH 47+50N

NORTH _____

ELEVATION 4.7

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR H & S

LENGTH 116.4

RIG No: 15A

CASING SIZE BW

COMMENCED JULY 27, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED JULY 29, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) TO BOTTOM

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C #24

PROBE #151

OPERATOR F SIVILLA

DATE JULY 30, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTEAD

LAB BOWDAR - CLEGG

DATE JULY 31, 1978

DATE AUG 24, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE NO.	FROM (FT.)	TO (FT.)	U ₃ O ₈ (ppm)
6	8 (2.4)	OB		1168	82	82.5	13.1
8	44 (2.4)	GREEN SHALE W RED INTERBEDS WK FRACTURED. WK CALCAREOUS BEDS IN PARTS DIP 65-70° 25'		69	82.5	83	4.4
				70	83	83.5	2.8
				71	83.5	84	3.8
				72	84	84.5	7.7
				73	84.5	85	21.8
				74	85	85.5	57.2
				75	85.5	86	39.1
44	210 (13.4)	PINK & RED HEM SS & CG W MINOR RED SH WK FRACTURED Q CLASTS < 2cm SUBORD DIP VARIABLE 65-70° 150'		76	86	86.5	41.7
				77	86.5	87	257.4 ↑170.2
				78	87	87.5	82.9 ↓1.0
				79	87.5	88	27.7
				80	88	88.5	33.1
				81	88.5	89	25.2
				82	89	89.5	17.9
210	277 (64.0)	PINK, RED & GREEN HEM SS & CG WK FRACTURED Q CLASTS < 1cm SUBORD. DIP 70° 260'		83	89.5	90	10.0
				84	90	90.5	8.0
				85	90.5	91	6.8
				86	91	91.5	9.3
				87	91.5	92	7.5
277	293 (84.4)	RED SH W GRN INTERBEDS & MINOR SS WK FRACTURED DIP 70° 286'		88	92	92.5	83.5 ↑2.5
				89	92.5	93	321.4 ↓1.0
				90	93	93.5	66.4
				91	93.5	94	59.7
				92	94	94.5	57.1
				93	94.5	95	30.8

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
		GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)		
293 (89.3)	320 (97.5)	GRN SH W RED INTERBEDS WK FRACTURED (STR 297, 301-302) DIP 65° 301'	1194	95	95.5	24.9	
			95	95.5	96	14.5	
			96	96	96.5	24.4	
			97	96.5	97	48.8	
			98	97	97.5	58.6	
			99	97.5	98	39.4	
			1200	98	98.5	77.0	
			01	98.5	99	77.2	
			02	99	99.5	55.8	
			03	99.5	100	36.3	
320 (97.5)	323.5 (98.6)	STR CALCAREOUS SHALE WK FRACTURED ABUNDANT 80% CALCITE VEINS					
	358						
323.5 (98.6)	358 (109.1)	RED SHALE W MINOR GRN INTERBEDS NEAR BOTTOM. WK FRACTURED CUT BY CALCITE VEINS IN PARTS DIP 70° 340'					
358 358 (109.1)	363 (110.6)	GRN SH W MINOR RED INTERBEDS WK FRA MOD-STR FRACTURED (STR 362')					
363 (110.6)	367.5 (112.0)	RED → GRN SS ^g CG MOD FRACTURED GR CLASTS < 2CM SUB RND → SUB ANG.					
367.5 (112.0)	382 (116.4)	MOD ALTERED DSMT DRECLLATED GR GNEISS ? PEG					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-32

PROPERTY: DIETER LAKE

CLAIM No: 361709-2

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 99+00E
NORTH 46+00N
ELEVATION 9.4

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H/S
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 81.4
COMMENCED JULY 29, 1978
COMPLETED JULY 31, 1978

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) TO BOTTOM

CORE STORED IN DIETER LAKE

CORE LOGGED
BY W. HOLMSTEAD
DATE AUG 1, 1978

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #24
PROBE #151
OPERATOR F SIVILLA
DATE JULY 31, 1978

CHEMICAL ASSAYS
LAB BC-LDAR-CLEGG
DATE AUG 24 1978

CORE LOG

CHEMICAL

0	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE		
			NO.	FROM (FT.)	TO (FT.)
5 8)	OB		1204	52	52.5
5 5.1)	PINK-RED HEM SS & CG WK FRACTURED Q ^{9FELD} CLASTS < 2cm SUB-RND → SUB-ANG. DIP 75° 60'		05	52.5	53
			06	53	53.5
			07	53.5	54
			08	54	54.5
			09	54.5	55
			10	55	55.5
			11	55.5	56
8 3)	PINK → GRN SS & CG WK FRACTURED Q & FELD CLASTS < 2cm SUBRND → SUB-ANG. DIP 70° 140'		12	56	56.5
			13	56.5	57
			14	57	57.5
			15	57.5	58
			16	58	58.5
0 7.0)	GRN SHALE W MINOR RED SHALE (179.5-180) SHEARING 178-179 MOD-STR FRACTURED (STR 186-190) STR CALCAREOUS IN PARTS SOME FRACTURES STR KAOLINIZED. DIP 85° 202'		17	58.5	59
			18	59	59.5
			19	59.5	60
			20	60	60.5
			21	60.5	61
			22	61	61.5
			23	61.5	62
6 5.0)	RED → GREY SHALE W MINOR GRN INTERBEDS WK-MOD FRACTURED STR CALCAREOUS IN PARTS DIP 70° 238'		24	62	62.5
			25	62.5	63
			26	63	63.5
			27	63.5	64
			28	64	64.5
			29	73	73.5

FOOTAGE		CORE LOG	CHEMICAL ASSAY				
FROM	TO		CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)		TO (FT.)
0	6 (1.8)	OB					
6	115 (1.8)	PINK-RED HEM SS & CG WK FRACTURED Q ^{FELD} CLASTS < 2cm SUP-RND → SUB-ANG. DIP 75° 60'					
			1204	52	52.5	1.5	
			05	52.5	53	2.1	
			06	53	53.5	2.2	
			07	53.5	54	2.2	
			08	54	54.5	17.4	
			09	54.5	55	894.5	↑470.4
			10	55	55.5	47.2	↓1.0
			11	55.5	56	23.5	
			12	56	56.5	13.2	
			13	56.5	57	10.7	
			14	57	57.5	9.4	
			15	57.5	58	20.9	
			16	58	58.5	8.4	
			17	58.5	59	177.4	↑109.4
			18	59	59.5	39.4	↓1.0
			19	59.5	60	27.0	
			20	60	60.5	11.6	
			21	60.5	61	16.0	
			22	61	61.5	10.5	
			23	61.5	62	12.6	
			24	62	62.5	15.2	
			25	62.5	63	11.4	
			26	63	63.5	16.5	
			27	63.5	64	381.2	↑205.0
			28	64	64.5	28.8	↓1.0
			29	73	73.5	28.5	
115	178 (35.1)	PINK → GRN SS & CG WK FRACTURED Q ^{FELD} CLASTS < 2cm SUBRND → SUB-ANG. DIP 70° 140'					
178	220 (54.3)	GRN SHALE W MINOR RED SHALE (179.5-180) SHEARING 178-179 MOD-STR FRACTURED (STR 186-190) STR CALCAREOUS IN PARTS SOME FRACTURES STR KAOLINIZED. DIP 85° 202'					
220	246 (67.0)	RED → GREY SHALE W MINOR GRN INTERBEDS WK-MOD FRACTURED STR CALCAREOUS IN PARTS DIP 70° 238'					

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
			NO.	FROM (FT.)	TO (FT.)		
246 (75.0)	253 (77.1)	GREEN SH, SLT, SS <u>W</u> RED INTERBEDS WK-MOD FRACTURED SOME FRACTURES LIM					
			1230	73.5	74	13.1	
			31	74	74.5	8.4	
			32	74.5	75	17.7	
253 (77.1)	255.5 (77.8)	RED → GRN SS WK FRACTURED WK CONGLOMERATIC AT BASE	33	75	75.5	43.6	
			34	75.5	76	14.6	
			35	76	76.5	59.0	↑ 1875
			36	76.5	77	315.9	↓ 1.0
			37	77	77.5	11.6	
255.5 (77.8)	267 (81.4)	WK ALTERED BSMT GR GNEISS + PEGMATITE WK FRACTURED SOME ANNEALED BRECCIATION	38	77.5	78	11.7	

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-33

PROPERTY: DIETER LAKE

CLAIM No: 361697-4

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 100+00E
NORTH 46+00N
ELEVATION 12.0

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H & S
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 114.9
COMMENCED JULY 31, 1978
COMPLETED AUG 3, 1978

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) _____

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #.24
PROBE #151
OPERATOR F SIVILLA
DATE AUG 3, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD
DATE AUG 4, 1978

CHEMICAL ASSAYS

LAB BONDAR-CLEGG
DATE AUG 31, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
		GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)		
0	9 (2.7)	OB					
			1239	76	76.5	1.8	
			40	76.5	77	2.8	
9	25 (2.7)	GREEN SHALE W CALCAREOUS INTERBEDS MOD-STR FRACTURED (STR 17-20) (23-24) 23-24 LIM ON FRACTURES DIP 70° 16'	41	77	77.5	4.1	
			42	77.5	78	4.6	
			43	78	78.5	4.2	
			44	78.5	79	204.0	245
			45	79	79.5	286.0	1.0
			46	79.5	80	51.5	
			47	80	80.5	17.3	
			48	80.5	81	11.6	
25	186 (7.6)	PINK-RED HEM SS & CG W MINOR RED SHALE WK FRACTURED & CLASTS < 2CM SUB-RND DIP 70-75° 114'	49	81	81.5	10.8	
			50	81.5	82	8.4	
			51	82	82.5	7.9	
			52	82.5	83	6.7	
			53	83	83.5	6.7	
			54	83.5	84	8.2	
			55	84	84.5	17.8	
			56	84.5	85	10.1	
			57	85	85.5	267.0	154
			58	85.5	86	40.7	1.0
186	252 (56.7)	PINK → GREEN SS & CG WK FRACTURED & CLASTS < 2CM SUB-RND. DIP 70-75° 210'	59	86	86.5	38.4	
			60	86.5	87	24.2	
			61	87	87.5	12.9	
			62	87.5	88	9.4	
			63	88	88.5	10.7	
			64	88.5	89	18.9	
252	257 (76.8)	RED SHALE W GRN MOTTLES WK FRACTURED BEDDING INDISTINCT					

FOOTAGE		GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
257 (78.3)	256 261.5 (79.7)	GRN → BRN SS W GRN SHALE INTERBEDS WK-MOD FRACTURED CALCAREOUS IN PARTS		1265	89	89.5	7.7
				66	89.5	90	98.1
				67	90	90.5	17.1
				68	90.5	91	17.1
261.5 (79.7)	306 (93.3)	GRN SHALE W CALCAREOUS INTERBEDS WK-MOD FRACTURED DIP 75° 285'					
306 (93.3)	332.5 316 (103.7)	RED → BRN SH W CALCAREOUS & GRN INTERBEDS WK-MOD FRACTURED DIP 80° VARIABLE 332.5 STR SILICIFIED POSSIBLY COBBLE					
340 (103.7)	343 (104.5)	CORE LOST (GROUND) 332.5-340 GRN & RED SHALE WK FRACTURED -MOD-					
343 (104.5)	346.5 (105.6)	PINK CG WK FRACTURED Q & FELD CLASTS < 1CM SUB-RND → SUB-ANG.					
346.5 (105.6)	361 (110.0)	RED & GREEN SLT, SS & CG WK FRACTURED Q CLASTS < 8CM SUB-RND → SUB-ANG.					
361 (110.0)	377 (114.9)	WK ALTERED BSMT HORNBLENDE & GRANITE GNEISS WK FRACTURED					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-34

PROPERTY: DIETER LAKE

CLAIM No: 361709-2

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 100+00E

EAST SAME

NORTH 47+00N

NORTH _____

ELEVATION 10.7

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH _____

DRILLING CONTRACTOR H/S

LENGTH 88.1

RIG No: 15A

CASING SIZE BW

COMMENCED AUG 4, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED AUG 6, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) TO BOTTOM

CORE STORED IN DIETER LAKE

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #24

PROBE #151

OPERATOR F. SIVILLA

DATE AUG 6, 1978

CORE LOGGED

BY W HOLMSTEAD

DATE AUG 7 1978

CHEMICAL ASSAYS

LAB BONDAR CLEGG

DATE AUG 31, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	5 (1.5)	OB					
5	92 (1.5) (28.0)	PINK → RED SS ^{CG} W MINOR GRN SS. ^{CG} (51-65) WK FRACTURED Q & FELD CLASTS < 1CM SUB-RND DIP 70° 51'		1269	46	46.5	7.9
				70	46.5	47	2.4
				71	47	47.5	4.0
				72	47.5	48	4.1
				73	48	48.5	5.5
				74	48.5	49	11.4 14.4
				75	49	49.5	20.7
				76	49.5	50	12.9
				77	50	50.5	12.5
				78	50.5	51	10.6
				79	51	51.5	9.7
				80	51.5	52	7.2
				81	52	52.5	6.6
				82	52.5	53	8.8
				83	53	53.5	11.8
				84	53.5	54	14.0
				85	54	54.5	263.0
				86	54.5	55	426.0
				87	55	55.5	32.0
				88	55.5	56	21.6
				89	56	56.5	13.3
				90	56.5	57	10.4
				91	57	57.5	10.6
				92	57.5	58	13.1
				93	58	58.5	5.7
				94	58.5	59	15.5
92	154 (28.0) (46.9)	GREEN → PINK SS ^{CG} WK FRACTURED Q & FELD CLASTS < 4CM SUB-RND. DIP 70° 125'					
154	158 (46.9) (48.1)	RED SHALE MOTTLED BY BROWN WK FRACTURED BEDDING INDISTINCT.					
158	196 (48.1) (59.7)	GREEN SHALE W MINOR RED SHALE MOD FRACTURED ALONG BEDDING PLANES DIP 70° 150' LIM ON FRACTURES 175-177					
196	232.5 (59.7) (70.8)	RED-BROWN SHALE ? SLT WK-MOD FRACTURED DIP 65-70° 230'					

HOLE NO.:		URANERZ EXPLORATION AND MINING				PAGE 2		OF 2			
FOOTAGE		CORE LOG				CHEMICAL ASSAY					
FROM	TO	GEOLOGICAL DESCRIPTION				CORE REC. %	SAMPLE			U ₃ O ₈ (ppm)	
					NO.		FROM (FT.)	TO (FT.)			
232.5 (70.8)	242 (73.8)	RED GREEN → RED SLT W MINOR SH & SS MOD FRACTURED BEDDING INDISTINCT.					1275	59	59.5	250.0 250.0	100 1.0
							96	59.5	60	14.4	
							1297	70	70.5	13.4	
							98	70.5	71	28.3	
242 (73.8)	248 (75.6)	PINK SS & CG WK FRACTURED Q-FELD CLASTS < 1CM SUB-RND → SUB-ANG. BEDDING INDISTINCT.					99	71	71.5	24.3	
							1300	71.5	72	13.8	
							01	72	72.5	55.6	
							02	72.5	73	78.8	
							03	73	73.5	58.5	
							04	73.5	74	27.3	
248 (75.6)	267.5 259 (78.9)	RED & GREEN SLT & SS MOD-STR FRACTURED (STR 249-252) BEDDING INDISTINCT STR HEMATIZED IN SPOTS (249-250)									
259 (78.9)	267.5 (81.5)	PINK SS & CG WK FRACTURED Q-FELD CLASTS < 1CM SUBRND OCCASIONAL CLASTS UP TO 10 CM SUB-ANG. BEDDING INDISTINCT.									
267.5 (81.5)	288 (87.8)	GREEN W MINOR RED, MOD-STR ALTERED DSMT. WK-MOD FRACTURED STR CILUR. MOD HEM.									
288 (87.8)	289 (88.1)	GR. PEGMATITE (UNALTERED)									

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: ~~78~~ 71-86

HOLE No: 78-35

PROPERTY: DIETER LAKE

CLAIM No: 361709-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 100+00E

EAST SAME

NORTH 48+00N

NORTH _____

ELEVATION 7.6

ACID TEST

FOOTAGE

INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR H+S

LENGTH 49.7

RIG No: 15A

CASING SIZE BW

COMMENCED AUG 6, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED AUG 7, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) _____

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #24

PROBE #151

OPERATOR F SIVILLA

DATE AUG 7, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

CHEMICAL ASSAYS

BY W HOLMSTEAD

LAB BONDAR CLEGG

DATE AUG 8, 1978

DATE AUG 31, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
		GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)		
0	8 (2.4)	OB					
			1305	9	9.5	9.4	
			06	9.5	10	19.7	
8 (2.4)	29 (8.8)	PINK HEM SSG CG MOD FRACTURED Q • FELD CLASTS < 2CM SUB-ANG. DIP - BEDDING INDISTINCT	07	10	10.1	59.8	140
			08	11.3	11.5	225.0	15
			09	11.5	12	25.9	
			10	12	12.5	25.3	
			11	12.5	13	14.7	
			12	13	13.5	12.4	
			13	13.5	14	9.4	
29 (8.8)	32 (9.8)	RED SHALE MOD FRACTURED BEDDING INDISTINCT. MOTTLED BY GRN IN PARTS	14	14	14.5	7.4	
			15	14.5	15	5.6	
			16	15	15.5	10.1	
			17	15.5	16	9.4	
			18	16	16.5	9.2	
32 (9.8)	37 (11.3)	CORE LOSS (GROUND)	19	16.5	17	418.0	229
			20	17	17.5	39.4	10
37 (11.3)	52 (15.8)	RED SHALE w GRN INTERBEDS MOD-STR FRACTURED (STR 50-52) DIP 65° 38'	21	17.5	18	25.2	
			22	18	18.5	13.6	
			23	18.5	19	9.9	
52 (15.8)	65 (19.8)	GREEN SHALE w MINOR RED INTERBEDS MOD FRACTURED. SOME FRACTURES LIM. DIP 70° 56'					

FOOTAGE		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
65 (19.8)	109 (33.2)	RED-BROWN SHALE <u>W</u> MINOR GRN SHALE WK FRACTURED STR CALCAREOUS IN PARTS DIP 65° 97'					
109 (33.2)	114 (34.7)	GRN SHALE <u>W</u> RED & CALCAREOUS INTERBEDS WK FRACTURED DIP VARIABLE EVIDENCE OF STRESS & BRECCIATION					
114 (34.7)	115 (35.1)	PINK SS & CG WK FRACTURED Q CLASTS < 5cm SUB-RND. DIP 65°					
115 (35.1)	118.5 (36.1)	RED & GREEN SLT WK-MOD FRACTURED WK CONGLOMERATIC					
118.5 (36.1)	124 (37.8)	PINK SS & CG WK FRACTURED Q & FELD CLASTS < 2cm SUB-RND					
124 (37.8)	131.5 (40.0)	RED SLT MOTTLED BY GRN IN PARTS WK-MOD FRACTURED WK CONGLOMERATIC IN PARTS					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-36

PROPERTY: DIETER LAKE

CLAIM No: 361697-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 102+00E

EAST SAME

NORTH 48+00N

NORTH _____

ELEVATION 12.5

ACID TEST
FOOTAGE
INCLINATION

DIP -90°

AZIMUTH -

DRILLING CONTRACTOR H²S

LENGTH 84.1

RIG No: 15A

CASING SIZE BW

COMMENCED AUG 7, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED AUG 9, 1978

DOWN HOLE LOGGING

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) _____

INSTRUMENT MS 1000C #24

PROBE #151

OPERATOR F-SIVILLA

CORE STORED IN DIETER LAKE

DATE AUG 9, 1978

CORE LOGGED

BY W HOLMSTEAD

DATE AUG 9, 1978

CHEMICAL ASSAYS

LAB BONDAR-CLEGG

DATE AUG 31, 1978

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
198 (66.4)	214 65.2	RED-DROWN SHALE APPEARS TO BE TRANSITION ZONE FROM GREEN → RED WK FRACTURED DIP BEDDING INDISTINCT		1350	57	57.5	11.0
				51	57.5	58	11.6
				52	58	58.5	13.5
				53	58.5	59	9.9
				54	59	59.5	277.0
				55	59.5	60	35.6
				56	60	60.5	11.2
214 (65.2)	238 (72.5)	RED SHALE W MINOR GRN INTERBEDS WK FRACTURED DIP 55-60° 232' 65-70 219'					156
							1.0
238 (72.5)	251 (76.5)	RED → GRN SLT & SS W PINK CG WK-MOD FRACTURED Q & FELD CLASTS < 2cm SUB-ANG					
251 (76.5)	260 (79.2)	GREEN CG WK FRACTURED Q & FELD & ROCK FRAG CLASTS < 5cm SUB-ANG STR CHLORITIZED. 251' STR CHLOR. KAOL (PROBABLY WEATHERED PEBBLE)					
260 (79.2)	276 (84.1)	MOD ALTERED BSMT (GREEN) WK FRACTURED STR CHLORITIZED.					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-38

PROPERTY: DIETER LAKE

CLAIM No: 361697-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 102 + 00E
NORTH 49 + 00N
ELEVATION 8.0

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP - 90°
AZIMUTH -

DRILLING CONTRACTOR HYS
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 52.4

COMMENCED AUG 13, 1978

COMPLETED AUG 14, 1978

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) _____

CORE STORED IN DIETER LAKE

CORE LOGGED
BY W HOLMSTEAD
DATE AUG 15, 1978

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C #24
PROBE #151
OPERATOR F SIVILLA
DATE AUG 14, 1978

CHEMICAL ASSAYS

LAB BONDAR-CLEGG
DATE _____

FOOTAGE		CORE LOG	CHEMICAL ASSAY				
FROM	TO		CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)		TO (FT.)
0	7 (2.1)	OB	1405	11	11.5	5.7	
7	37 (2.1)	PINK → GREEN SS & CG WK FRACTURED Q-FELD CLASTS < 2CM SUB-RND. DIP VARIABLE & INDISTINCT ≈ 80° MINOR GREEN SHALE <u>W</u> ^ RED INTERBEDS MOD STR FRACTURED (STR 37-50) CALCITE VEINS (56.5-57.5) DIP 70° 65'	06	11.5	12	6.7	
			07	12	12.5	322.0	} 174
			08	12.5	13	25.2	
			09	13	13.5	23.1	
			10	13.5	14	18.4	
			11	14	14.5	10.8	
			12	14.5	15	10.9	
			13	15	15.5	14.3	
			14	15.5	16	8.8	
			15	16	16.5	34.4	
37	68 (11.3)		16	16.5	17	613.0	} 325
			17	17	17.5	42.1	
68	91 (20.7)	RED-BROWN SHALE <u>W</u> CALCAREOUS INTERBEDS WK-MOD FRACTURED DIP 70° 80'	18	17.5	18	17.1	
			19	18	18.5	10.4	
			20	18.5	19	16.6	
			21	19	19.5	11.2	
			22	19.5	20	10.2	
91	102 (27.7)	GREEN SHALE WK-MOD FRACTURED DIP 75° 99'	23	20	20.5	10.7	
			24	20.5	21	5.1	
102	109 (31.1)	PINK CG WK FRACTURED Q-FELD CLASTS < 3CM SUB-RND BEDDING INDISTINCT	1425	27	27.5	7.1	
			26	27.5	28	28.1	
			27	28	28.5	7.6	
			28	28.5	29	10.0	
			29	29	29.5	17.5	
			30	29.5	30	14.7	
			31	30	30.5	48.2	

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-39

PROPERTY: DIETER LAKE

CLAIM No: 361697-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 104 + 00E
NORTH 49 + 00N
ELEVATION 9.9

EAST _____
NORTH 1

ACID TEST
FOOTAGE
INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H&S
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 84.1'

COMMENCED AUG 14, 1978

COMPLETED AUG 16, 1978

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) _____

DOWN HOLE LOGGING

INSTRUMENT MS 1000 C #24
PROBE #151
OPERATOR F SIVILLA
DATE AUG 18, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTED
DATE AUG 18, 1978

CHEMICAL ASSAYS

LAB BONDAR-CLEGG
DATE _____

FOOTAGE		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃₀₈ (ppm)
				NO.	FROM (FT.)	TO (FT.)	
0	6 (1.8)	OB	1439	29	29.5	2.7	
			40	29.5	30	3.9	
6	45 (1.8) (13.7)	PINK → RED SS & CG w MINOR RED SH (24') WK FRACTURED WK-MOD HER. DIP 85° 24'	41	30	30.5	2.6	
			42	30.5	31	4.2	
			43	31	31.5	4.1	
			44	31.5	32	7.3	
			45	32	32.5	10.2	
			46	32.5	33	25.4	
45	100 (13.7) (30.5)	GREEN → PINK SS & CG WK FRACTURED DIP 80° 82'	47	33	33.5	17.7	
			48	33.5	34	14.3	
			1449	47	47.5	7.7	
100	104 (30.5) (31.7)	RED SHALE MOTTLED BY GREEN IN PARTS WK FRACTURED BEDDING INDISTINCT	50	47.5	48	1.7	
			51	48	48.5	33.0	
			52	48.5	49	12.3	
104	127 (31.7) (38.7)	GREEN SHALE CUT BY CALCITE VEINS IN PARTS WK-MOD FRACTURED (STR 106-108) WK LIM ON FRACTURES DIP 75° 110'	53	49	49.5	8.0	
			54	49.5	50	27.5	
			55	50	50.5	10.5	
			56	50.5	51	246.6	137
			57	51	51.5	17.5	110
127	161 (38.7) (49.0)	RED-BROWN SHALE w MINOR CRAL SH MOTTLED BY CALCITE VEINS IN PARTS WK FRACTURED DIP 70° 160	58	51.5	52	20.4	

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-41

PROPERTY: DIETER LAKE

CLAIM No: 361697-4

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 104 + 00E

EAST SAME

NORTH 47 + 00N

NORTH _____

ELEVATION 12.1

ACID TEST

FOOTAGE

INCLINATION

DIP - 90°

AZIMUTH -

DRILLING CONTRACTOR H & S

LENGTH 145.4

RIG No: 15A

CASING SIZE BW

COMMENCED AUG 18, 1978

BIT SIZE _____

CORE SIZE BQ

COMPLETED AUG 21, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) _____

DOWN HOLE LOGGING

INSTRUMENT ALO

PROBE DOWN-HOLE

OPERATOR LOG

DATE _____

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD

DATE AUG 22, 1978

CHEMICAL ASSAYS

LAB BONDAR CLEGG

DATE _____

FOOTAGE

CORE LOG

CHEMICAL ASSAY

FROM	TO	GEOLOGICAL DESCRIPTION	CORE REC. %	SAMPLE			U ₃ O ₈ (ppm)	
				NO.	FROM (FT.)	TO (FT.)		
0	14 (4.3)	OB		1495	95	95.5	5.7	
14 (4.3)	27 (8.2)	RED SHALE <u>W</u> GRN INTERBEDS WR FRACTURED DIP 75° 24'		96	95.5	96	1.4	
				97	96	96.5	11.4	
				98	96.5	97	14.8	
				99	97	97.5	72.6	
				1500	97.5	98	89.4	226
27 (8.2)	52 (15.8)	GREEN SHALE <u>W</u> RED INTERBEDS WR FRACTURED DIP 75-80° 45' MINOR CALCAREOUS INTERBEDS		01	98	98.5	363.6	10
				02	98.5	99	31.7	
				03	99	99.5	21.3	
				04	99.5	100	30.1	
				05	100	100.5	15.6	
				06	100.5	101	13.0	
				07	101	101.5	9.3	
				08	101.5	102	7.0	
				09	102	102.5	6.8	
				10	102.5	103	8.4	
				11	103	103.5	7.3	
				12	103.5	104	12.2	
115 (35.1)	248 (75.6)	PINK → RED SS & CG <u>W</u> MINOR RED SHALE WR FRACTURED Q & FELD CLASTS < 1CM SUB-RND DIP 70° 177'		13	104	104.5	201.8	127
				14	104.5	105	82.6	10
				5	105	105.5	7.8	
				6	105.5	106	4.2	
				17	106	106.5	11.7	
				18	106.5	107	8.6	
				19	107	107.5	2.1	
				20	107.5	108	10.5	
				21	108	108.5	11.9	
248 (75.6)	315 (96.0)	GREEN - PINK SS & CG <u>W</u> MINOR RED SHALE WR FRACTURED DIP 80' 295' Q & FELD CLASTS < 2CM SUB-RND		22	108.5	109	11.8	

FOOTAGE		CORE LOG	CHEMICAL ASSAY			
FROM	TO		CORE REC. %	SAMPLE		U ₃ O ₈ (ppm)
		NO.		FROM (FT.)	TO (FT.)	
315 (96.0)	320 (97.5)	RED SHALE w MINOR CG. MOTTLED BY GRN & BRN WR FRACTURED. BEDDING INDISTINCT	1523	109	109.5	170
			24	109.5	110	1195.0 } 202
			25	110	110.5	41.4 } 10
			26	110.5	111	12.3
			27	111	111.5	16.6
			28	111.5	112	8.3
320 (97.5)	335 (102.1)	RED SHALE w GRN INTERBEDS WR FRACTURED DIP 70° 330'	29	112	112.5	11.2
			30	112.5	113	7.7
			31	113	113.5	14.6
			32	113.5	114	10.6
			33	114	114.5	7.1
			34	114.5	115	9.1
			35	115	115.5	7.3
			36	115.5	116	11.6
			37	116	116.5	8.5
			38	116.5	117	7.6
			39	117	117.5	6.4
			40	117.5	118	12.6
			41	118	118.5	7.5
			42	118.5	119	7.7
			43	119	119.5	7.7
			44	119.5	120	10.9
			45	120	120.5	11.9
			46	120.5	121	7.8
			47	121	121.5	13.7
			48	121.5	122	7.9
			49	122	122.5	13.5
			50	122.5	123	7.9
335 (102.1)	365 (111.3)	GREEN SHALE w CALCITE VEINS & INTERBEDS WR FRACTURED DIP 65-70° 353'				
365 (111.3)	403 (122.8)	RED-BRN SHALE INTERBEDDED w CALCITE WR FRACTURED DIP 65-70° 387' FRACTURES LIAONITIZED				
403 (122.8)	412 (125.6)	GREEN SHALE w RED INTERBEDS WR FRACTURED DIP 65-70° 407'				
412 (125.6)	433.5 (132.1)	GREEN & RED SS w ^{MINOR} CG & RD SH. WR FRACTURED DIP 65° 427'				

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-42

PROPERTY: DIETER LAKE

CLAIM No: 361709-2

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 98+00 E
NORTH 46+00 N
ELEVATION 2.5

EAST SAME
NORTH _____

ACID TEST

FOOTAGE

INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H.S.
RIG No: 15A
CASING SIZE BW
BIT SIZE _____
CORE SIZE BQ

LENGTH 99.7
COMMENCED AUG 21, 1978
COMPLETED AUG 23, 1978

CASING REMOVED YES NO

PLASTIC PIPE (LENGTH) TO BOTTOM

CORE STORED IN DIETER LAKE

CORE LOGGED

BY W HOLMSTEAD

DATE AUG 23, 1973

DOWN HOLE LOGGING

INSTRUMENT MS 1000C #24

PROBE #151

OPERATOR F SIVILLA

DATE AUG 23, 1978

CHEMICAL ASSAYS

LAB BONDAR-CLEGG

DATE _____

FOOTAGE (METRES)		CORE LOG GEOLOGICAL DESCRIPTION	CORE REC. %	CHEMICAL ASSAY		
FROM	TO			SAMPLE		U ₃ O ₈ (ppm)
			NO.	FROM (FT.)	TO (FT.)	
0	5 (1.5)	OB	1564	60	60.5	3.7
			65	60.5	61	7.8
5	19 (1.5) (5.8)	RED SHALE w GRN INTERBEDS MOD-STR FRACTURED (STR 10-12') DIP 70° 15'	66	61	61.5	16.9
			67	61.5	62	7.8
			68	62	62.5	9.4
			69	62.5	63	27.6
			70	63	63.5	428.3
19	135 (5.8) (41.1)	PINK → RED HEM SS & CG WK FRACTURED Q-FELD CLASTS < 1 CM SUB-RND. DIP 70-75° 77'	71	63.5	64	83.9
			72	64	64.5	93.7
			73	64.5	65	25.0
			74	65	65.5	16.5
			75	65.5	66	11.6
			76	66	66.5	8.7
			77	66.5	67	7.7
			78	67	67.5	5.4
			79	67.5	68	6.6
			80	68	68.5	6.0
			81	68.5	69	8.0
			82	69	69.5	6.7
			83	69.5	70	13.9
			84	70	70.5	8.3
			85	70.5	71	244.3
			86	71	71.5	63.7
206	212 (62.8) (64.6)	RED & GRN INTERBEDDED SS & SLT. WK FRACTURED DIP 65° 211'	87	71.5	72	23.5
			88	72	72.5	17.7
			89	72.5	73	10.1
			90	73	73.5	8.0

256

1.0

154

1.0

FOOTAGE		CORE LOG	CORE REC. %	CHEMICAL ASSAY			
FROM	TO			SAMPLE			U ₃ O ₈ (ppm)
		GEOLOGICAL DESCRIPTION	NO.	FROM (FT.)	TO (FT.)		
212 (64.6)	228 (69.5)	RED SHALE w MINOR GRN SHALE WK-MOD FRACTURED (STR 215-217) DIP 70° 220'	1591	73.5	74	8.4	
			92	74	74.5	7.7	
			93	74.5	75	9.5	
			94	75	75.5	16.8	
			95	75.5	76	17.0	
228 (69.5)	265 (80.8)	GREEN SHALE w RED INTERBEDS WK FRACTURED STR CALCAREOUS IN PARTS (252-254) DIP 80° 242' 75° 230'	96	76	76.5	145.7	155
			97	76.5	77	146.2	150
			98	77	77.5	13.2	
			99	77.5	78	12.7	
265 (80.8)	289 (88.1)	RED-BRN SH w GRN INTERBEDS WK-MOD FRACTURED MOTTLED BY GRN CUT BY CALCITE VEINS DIP VARIABLE 60° 285' STR WEATHERED, LIM & CALCITE VEINS (286-287)					
289 (88.1)	307 (93.6)	RED SHALE MOTTLED BY GRN IN PARTS WK FRACTURED BEDDING INDISTINCT CUT BY CALCITE VEINS IN PARTS					
307 (93.6)	327 (99.7)	MOD-STR ALTERED BSAT. WK-MOD FRACTURED CHLOR, HEM.					

URANERZ EXPLORATION AND MINING LIMITED

DIAMOND DRILL LOG

PROJECT No: 71-86

HOLE No: 78-43

PROPERTY: DIETER LAKE

CLAIM No: 361708-1

MAIN GRID LOCATION

DRILL GRID LOCATION

EAST 96+00E
NORTH 47+00N
ELEVATION 0.0

EAST SAME
NORTH _____

ACID TEST
FOOTAGE
INCLINATION

DIP -90°
AZIMUTH -

DRILLING CONTRACTOR H+S
RIG No: 15A
CASING SIZE BW
BIT SIZE BQ
CORE SIZE BQ

LENGTH 124.7
COMMENCED AUG 23, 1978
COMPLETED AUG 25, 1978

CASING REMOVED YES NO
PLASTIC PIPE (LENGTH) TO BOTTOM

DOWN HOLE LOGGING

INSTRUMENT M-S 1000C #24
PROBE #151
OPERATOR F-SIVILLA
DATE AUG 25, 1978

CORE STORED IN DIETER LAKE

CORE LOGGED
BY W HOLMSTEAD
DATE AUG 26, 1978

CHEMICAL ASSAYS
LAB RONDAR CLEGG
DATE _____

FOOTAGE		CORE LOG	CHEMICAL ASSAY				
FROM	TO		SAMPLE			U ₃ O ₈ (ppm)	
			NO.	FROM (FT.)	TO (FT.)		
0	12 (3.7)	OB	1606	88	88.5	14.6	
			01	88.5	89	17.0	
			02	89	89.5	15.8	
12	282 (3.7) (86.0)	PINK & GRN SS & CG ^{RED} W MINOR SHALE (121-122) WK FRACTURED CHLOR & KAOL ON FRACTURES DIP 70° 120' 60° 235'	03	89.5	90	23.8	
			04	90	90.5	77.2	
			05	90.5	91	57.6	
			06	91	91.5	35.9	
			07	91.5	92	27.6	
			08	92	92.5	30.6	
			09	92.5	93	9.7	
282	288 (86.0) (87.8)	RED SHALE OR RW FR MOTILED BY GREEN WK FRACTURED CUT BY CALCITE VEINS 287-288 BEDDING INDISTINCT	10	92	93.5	13.3	
			11	93.5	94	16.6	
			12	94	94.5	205.3	155
			13	94.5	95	164.7	10
			14	95	95.5	81.4	
288	313 (87.8) (95.4)	GREEN SHALE INTERBEDDED W RED & BRN SHALE WK-MOD FRACTURED CUT BY CALCITE VEINS (STR CALCAREOUS IN PARTS) DIP 60° 295'	15	95.5	96	61.6	
			16	107	107.5	10.3	
			17	107.5	108	12.5	
			18	108	108.5	11.4	
			19	108.5	109	88.5	
			20	109	109.5	14.0	
			21	109.5	110	82.5	
			22	110	110.5	106.3	124
			23	110.5	111	100.8	10
313	359 (95.4) (109.4)	RED SHALE WK FRACTURED CUT BY CALCITE VEINS IN PARTS DIP 65° 344'	24	111	111.5	51.7	
			25	111.5	112	21.9	
359	362 (109.4) (110.3)	GREEN SHALE W RED INTERBEDS WK FRACTURED DIP 60-65 360'					

