Assessment Report

on

Geology, Geochemistry and Radiometric Survey

Toke 1-36 Claims

Watson Lake Mining District

NTS 105G/7

Latitude 61°23'N, Longitude 130°59'W

February 22, 1978

R.J. Cathro, P. Eng. Consulting Engineer

090295

This report has been examined by the Geological Evaluation Unit and is recommended to the Commissioner to be considered as representation work in the amount of

$5430.72

~~Resident Geologist or~~
~~Resident Mining Engineer~~

Considered as representation work under Section 53 (4) Yukon Quartz Mining Act.

B. R. BAXTER
Supervising Mining Recorder

~~Commissioner of Yukon Territory~~

TABLE OF CONTENTS

TABLES AND FIGURES

INTRODUCTION

The Toke claims were staked by Firth Project (Chevron Canada Ltd.) in July, 1977 to protect the entire drainage basin above highly anomalous uranium soil anomalies discovered in the previous year by Ukon Joint Venture (Chevron Canada Ltd., Kerr-Addison Mines Ltd.). Previous work leading up to the discovery included local airborne radiometric surveys, ground prospecting, grid soil sampling and the digging of one hand trench for soil profile analysis. Samples from this profile assayed up to .9% U_3O_8.

The 1977 program was designed to further define the geochemical anomalies, to explain the concentration mechanism and to locate mineralization in bedrock. The 1976 grid was extended by 1500 metres to a base line length of 2700 m. The enlarged grid was used to extend previous grid soil sampling and radiometric surveys, and as a control for random prospecting and further hand pitting.

This work was carried out from July 26 to August 14 on behalf of Firth Project by a crew managed by Archer, Cathro & Associates Ltd. and led by geologist Uwe Schmidt under the supervision of the writer. Other crew members were Gary Matthews, who assisted from July 26-August 9 and Mark Hawley, who assisted from August 2-14. All work was carried out from the Grass Lakes base camp located on the claim group.

Geochemical analysis for uranium was done at Chemex Labs Ltd., North Vancouver, B.C. by hot acid extraction of a minus 80 mesh fraction followed by fusion in a sodium fluoride-based flux and examination with a G.K. Turner fluorometer.

PROPERTY, LOCATION, AND ACCESS

The Toke property consists of 36 contiguous claims covering one large and one small cirque valley immediately east of the westernmost of three Grass Lakes at latitude 61°23'N and longitude 130°59'W. The claims are registered in Watson Lake Mining District in the name of Archer, Cathro & Associates Ltd. as follows -

Claim Name	Grant Numbers	Expiry Date
Toke 1-36	YA21495-YA21530	29 July, 1978

The claims are accessible from Grass Lake which is a suitable landing site for any float-equipped aircraft. The nearest float base is located 100 km northwest at Ross River. Two aircraft were available for charter at this time. One was a Pilatus Porter operated by Norcrown Air Ltd. and the other was a Turbo Beaver operated by Trans North Turbo Air Ltd.

The Robert Campbell Highway, which connects Ross River to Watson Lake, lies to the north within 36 miles of the property. The all-weather gravel road could be used in conjunction with a helicopter to gain access to the property. The nearest helicopters available for charter were in Ross River where a Hughes 500 D and Bell 206B was operated by Terr-Air Ltd. and a Bell 206A was operated by Trans North Turbo Air Ltd.

GEOLOGY AND GEOMORPHOLOGY

The Toke property is situated in southeastern Pelly Mtns. which are characterized by steep, rugged terrain. Local relief commonly reaches 1800 m in elevation with isolated peaks exceeding 2100 m. The main valley bottoms are broad and U-shaped, having an elevation of about 1200 m. Pleistocene glaciation covered all or most of the area. Ice movement was northwesterly in a large area surrounding the claim group but local variations exist, such as the main valley at the Toke property, when ice moved northeastward. The present expressions of glaciation are the abundant cirque valleys in the mountains and lateral moraines in the larger valleys. Glacial till thickness varies from a few centimeters in steeper regions to tens of metres on valley bottoms.

The Grass Lakes area is underlain by a variety of metamorphic rocks intruded by a porphyritic quartz monzonite stock of Cretaceous age. Prior to the publication of GSC Open File 486 in August, 1977, the only geological mapping available for the project area was preliminary map 7-1960 published by the GSC in 1960. The new GSC map has subdivided the metamorphic rocks into an older group that were probably sedimentary, Windermere-equivalent rocks of Hadrynian or Cambrian age, and a younger group that includes Klondike schist-equivalent rocks of unknown age. The younger group may have been thrust tectonically to their present position (Allochthonous). The older suite below the thrust fault that is presumably still situated at its site of deposition is referred to as Autochthonous. Relationships are obscured by regional metamorphism and a strong structural overprint that are possibly related to movement of the Tintina Fault or overthrusting. Rock units and age relationships in the current GSC interpretation are shown in Table I and correlation of new and old mapping are shown on Table II following this page. The newer map was not available at the time of field work but mapping has since been adjusted to conform to it.

Table II. <u>Unit Correlation of Old and New GSC Mapping</u>

AGE	UNIT	AGE	UNIT
Jurassic and/or Cretaceous	Unit 9 Biotite Quartz Monzonite	Cretaceous	Kqm Biotite Quartz Monzonite
	— Intrusive Contact —		— Intrusive Contact —
Unknown	Unit A Chloritic schist, phyllite, carbonate, micaceous marble	Unknown	(Allochthonous?) <u>Klondike Schist</u> PPK2 Black siliceous phyllite PPK4 Muscovite-biotite and chloritic quartzose gneiss
			— [Possible Thrust Plane] —
Unknown	Unit C Quartzose, micaceous gneiss, granitoid gneiss and augen gneiss	Cambrian? and Windermere?	(Autochthonous) P€sc Biotite-garnet-muscovite schist — — — — — — Pn Biotite-feldspar augen gneiss
GSC Map 7-1960 Wheeler, Green and Roddick 1960		GSC Open File 486 Tempelman-Kluit et al 1977	

Only two units PPK4 and Kqm occur on the claim group which is mainly underlain by Cretaceous quartz monzonite (Kqm). The other rock type, micaceous quartzose gneiss (PPK4) is found as a xenolith in the intrusive at the northeast end of the grid. Contacts with this unit and the quartz monzonite stock lie just north of the northern claim boundary and approximately 3 km south of the southern claim boundary.

The rock units, from oldest to youngest are as follows:

TABLE I

GSC GEOLOGICAL INTERPRETATION IN FIRTH PROJECT AREA

(based on Open File 486, D.J. Tempelman-Kluit, et al, 1977)

	ERA	PERIOD	MAP UNIT	LITHOLOGY
Possibly Allochthonous?	Mesozoic	Cretaceous	Kqm	porphyritic biotite quartz monzonite
	(Intrusive into P€sc, PPK4, gradational to Pn)			
	Paleozoic?	Age Unknon	PPK2	siliceous phyllite, greywacke, marble
	(Contact between PPK4 and PPK2 is gradational)			
			PPK4	muscovite-biotite feldspathic gneiss, micaceous quartzite, minor marble
	(Contact between PPK4 and Pn is gradational)			
Autochthonous	Paleozoic?	Cambrian?	P€sc	biotite-garnet-muscovite schist
	(Contact between P€sc and Pn is gradational)			
	Hadrynian?	Windermere equivalent	Pn	biotite-muscovite-quartz feldspar augen gneiss

Allochthonous ? rocks, Klondike Schist equivalent of unknown age

Unit PPK4-Chloritic gneiss and schist

A variety of rock types have been assigned to PPK4, including chloritic schist, gneiss, marble and skarn. The gneiss member contains abundant but variable amounts of quartz and a variety of micas, predominately chlorite with some muscovite and biotite, and has little K-feldspar. It is easily differentiated from augen gneiss of Unit Pn, which has no schist or carbonate component, has a uniform quartz content, is uniformly high in K-feldspar, and contains biotite as the only important mafic mineral. Porphyroblasts are uncommon in PPK4 gneisses and usually consist of quartz rather than feldspar. Complex folding is often observed on a small scale. Isoclinal, recumbent and shear folds are defined by irregular quartz lenses and mica. A later, weaker foliation is superimposed on earlier complex structures. In contrast to this Pn, augen gneiss has no polyphase deformation and biotite, feldspar and quartz are only aligned in one plane. Carbonate rocks in PPK4 show a variety of metamorphic effects. Some exposure of argillaceous carbonates show no significant metamorphism but others are altered to garnet-diopside skarn, calc-silicate hornfels and mica marbles.

Intrusive rocks of mid-Cretaceous age

Kqm - Porphyritic biotite-muscovite quartz monzonite

Porphyritic biotite-muscovite quartz monzonite is the predominant rock type on the Toke claim group. It is characterized by large white phenocrysts of K-feldspar that range from 1 to 10 cm in length and average 4 cm. The matrix is made up of coarse, equigranular plagioclase, quartz, K-feldspar and biotite varying in grain size from 2 to 5 mm.

The only area of alteration seen on the property is located southeast of the grid and consists of carbonate and fluorite-bearing intrusive talus. Calcite occurs with green and purple fluorite along open fractures. Minor tourmaline-bearing quartz veins and quartz-feldspar-tourmaline pegmatites were also noted in the area.

Structure

Structure within the district is dominated by the northwest trending Tintina Fault which passes 10 km south of Grass Lakes. The structural influence of this fault is best seen south of the fault in less metamorphosed units. Foliations north of the fault are parallel to it and a northerly trending set that are subsidiary structures of the Tintina Fault.

At least two periods of deformation have been recognized in unit PPK4. The first phase consists of strong mica development and tightly spaced isoclinal, assymetric and disharmonic minor folds with amplitudes of about 20 cm. The second phase consists of planar deformation that has been superimposed on the folding. No additional mica development appears to have accomplished this phase. In areas where stress was applied perpendicular to axial planes, fold closure has resulted. In other areas, shear has paralleled axial planes and has produced shear folds. Disharmonic folds have developed in areas of mixed composition such as quartzose and carbonate lenses.

On a regional scale, metamorphic units appear to be flat-lying or gently dipping. Minor folds have no large equivalents of the type that should have resulted from a gently dipping thrust fault. No evidence for such an event has been found in the general area although good examples are reported to the southeast by the GSC.

GEOCHEMISTRY AND RADIOMETRIC SURVEY

Field work began with the enlargement of the 1976 grid, which was extended 150 m to the north and 1350 m to the south for a total length of 2700 m. The base line was picketed at 50 m intervals using wooden laths and soil samples were taken at 150 m intervals along cross lines spaced 150 m apart to tie into the 1976 survey. Additional soil samples were collected at 50 m intervals between some cross lines, to further outline anomalies. The results, plotted on Figure T1 show a background of about 10 ppm U and local anomalies of up to 375 ppm.

A complete radiometric survey was performed during the soil sampling, using Scintrex BGS-1S scintillometers (13 cc crystal). Radiometric readings were recorded at 25 m intervals on each line and the results are plotted on Figure T2. Radiometric response was mainly in the range 50 to 80 cps but locally increased to 100 cps.

Soil profiles were obtained by hand pitting at 17 sites of high radioactivity and, in addition, the 1976 pit was deepened and resampled. Pits ranged in depth from 30 to 75 cm, depending on ground conditions. Results of this work are shown in Figures T3 and T4 following this page. The highest uranium assays were obtained from dark grey to black carbonaceous and organic soil horizons in the pits. The highest assay obtained in 1977 was 0.95% U_3O_8 in pit T1A, situated on the base line at line 0. Most pits intersected a volcanic ash horizon about 20 cm below surface that was underlain by grey and black clay up to 30 cm thick and permeable mixed talus at the bottom. Only one pit (T8A) failed to reach the talus horizon. The assays show a direct relationship between uranium and organic content with both the volcanic ash and talus horizon usually giving lower values.

Radiometric and geochemical profiles suggest an upward migration of hydromorphic uranium that has been absorbed by charcoal and organic matter in the immediately overlying soil horizons. This type of carbonaceous trap for uranium has been well documented in the literature. Preliminary sampling of spring water encountered in pits T1E and T2B gave assays of 80 ppb and 6.5 ppb U.

The source rock for the uranium is probably the porphyritic quartz monzonite stock that underlies the grid and outcrops immediately to the east. This stock forms steep, unvegetated cliffs and is well jointed to allow weathering, leaching and transport of uranium. The intrusive rock makes up the bulk of the boulders in the till at the base of the soil profiles and is interpreted as a pre-glacial talus fan. The boulders consist of large angular pieces of quartz monzonite porphyry with a permeable matrix of poorly sorted, immature, micaceous, clay-rich sands. The high feldspar and mica content and angular grains in the matrix suggest locally derived, non-fluvial deposition. Overlying sediments are either unsorted morainal or grey clays. Lateral moraines are common in the main valley and lin large cirques. Distribution of moraines indicates a northward movement of ice in the main valley. Clay beds vary from grey to black depending on organic and charcoal content. Their depositions indicate quite water conditions, possibly related to high lake levels or ponds in the irregular glacial sediment surface. Organic content is attributed to the later development of swamps, and at least one forest fire is indicated by charcoal fragments.

No radioactive rocks were found in any of the pits but approximately 20 radioactive boulders of aplite ranging in size from 30 cm to 1 m across were found in a small cirque in the northeast portion of the grid. The average radiometric response of these boulders was 250 cps, which is twice the local background of the porphyritic quartz monzonite. Three specimens of aplite assayed 60 ppm U, 85 ppm U and 0.153% U_3O_8, whereas the average assay of quartz monzonite was only 3 ppm U.

Aplitic dikes were also located in bedrock uphill from the float occurrence described above. The dikes are light brown, fine-grained, contain minor pyrite and are intermittently radioactive. K-feldspar comprises about 40% of the rock, followed by 30% quartz, 20% plagioclase and 10% muscovite. Aplite dikes of this type are rare and were found in only one other place, an isolated talus boulder located in the upper cirque valley at the southeast corner of the grid. A sample from this boulder assayed 110 ppm U and gave a radiometric response of 250 cps over a background of 130.

Elsewhere on the Toke claim group. porphyritic quartz monzonite is the predominant rock type. It is characterized by large white phenocrysts of K-feldspar that range from 1 to 10 cm in length and average 4 cm. The matrix is made up of coarse, equigranular plagioclase, quartz, K-feldspar and biotite varying in grain size from 2 to 5 mm.

The only area of alteration seen on the property is located southeast of the grid and consists of carbonate and fluorite-bearing intrusive talus. Calcite occurs with green and purple fluorite along open fractures. Minor tourmaline-bearing quartz veins and quartz-feldspar-tourmaline pegmatites were also noted in the area.

CONCLUSIONS AND RECOMMENDATIONS

Uranium assays of up to 0.95% U_3O_8 have been obtained from samples of organic-rich soil that appear to represent trapped hydromorphic uranium. The organic horizons are erratically distributed and proper groundwater conditions for the concentration of hydromorphic uranium are local and of insufficient volume to make this type of target economically attractive. Mineralization in bedrock is rare and only one radioactive occurrence has been found in bedrock in spite of good exposure. A local concentration of radioactive aplite float found downhill from this occurrence assayed as high as 0.153% U_3O_8.

One water sample collected from a pit assayed 80 ppb U, which is strongly anomalous. Insufficient water sampling has been done on the property to determine the extent of the anomalous water, although several assays were obtained that were very low. It is possible that high groundwater levels indicate mineralized bedrock that is presently not exposed.

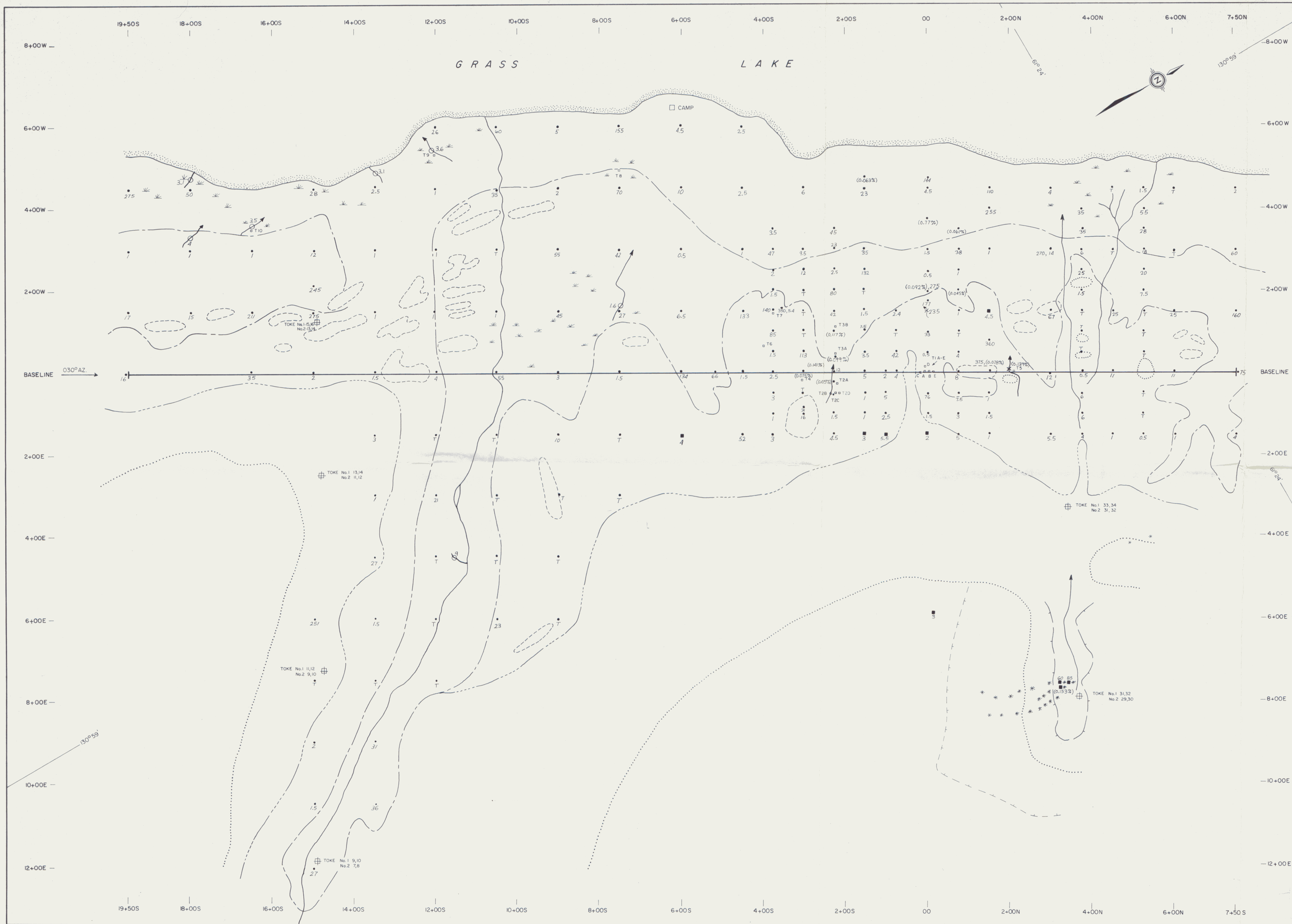
Similar settings elsewhere in Yukon are being actively explored for uranium and at least two will be drilled in 1978. At one of these, potential uranium accumulations at the oxidizing-reducing interface along faults cutting the stock will be the target. The exploration potential is based on the concept that anomalous spring waters are an indication that uranium is readily available to produce economic concentrations in that particular area. The work on the Toke claims whould be filed as assessment and the claims maintained in good standing until this type of occurrence is better understood.

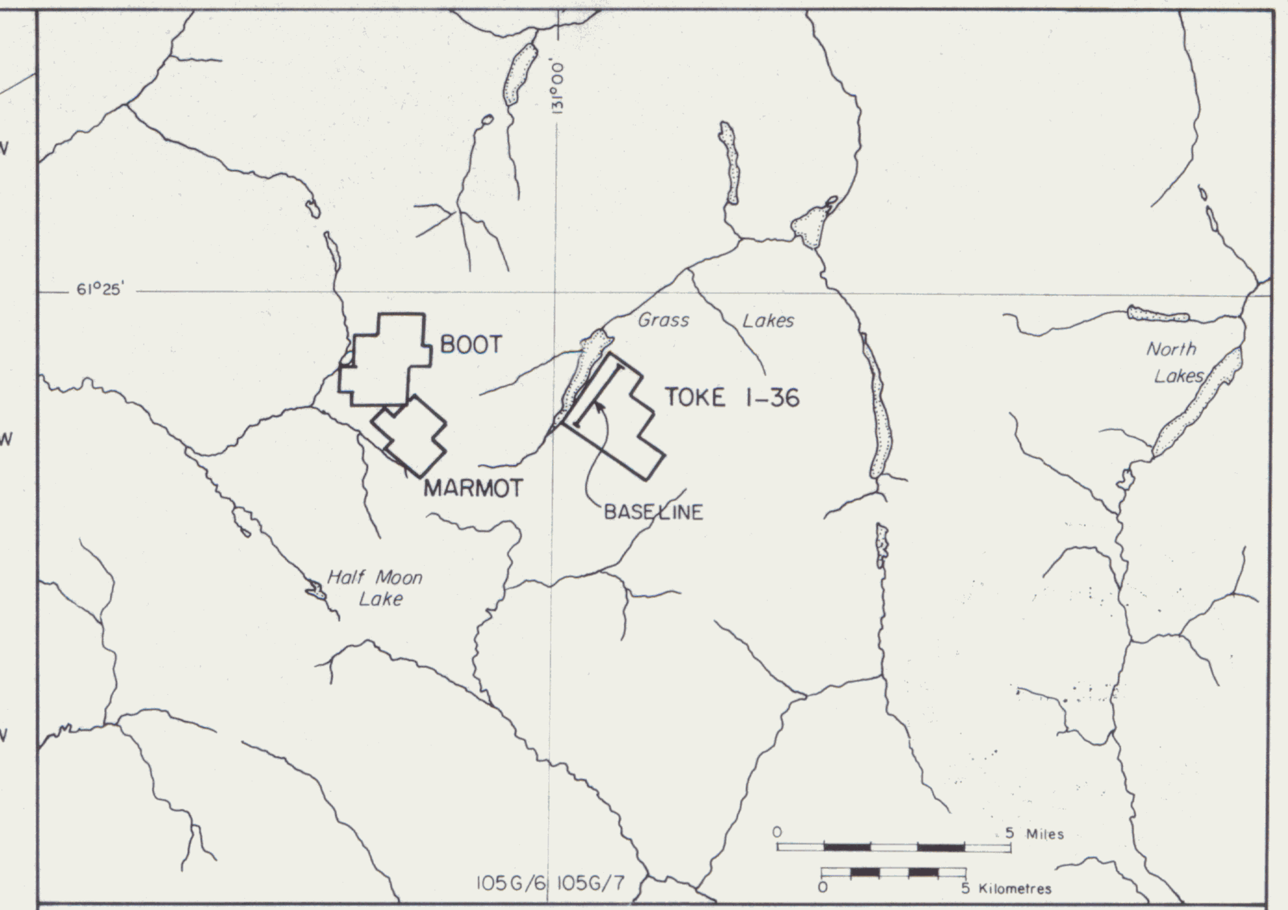
Respectfully submitted,

ARCHER, CATHRO & ASSOCIATES LTD.,

RJC:jm

R.J. Cathro, B.Sc., P. Eng.





LOCATION MAP

LEGEND

■	rock	in ppm U or (% U_3O_8)
•	soil	in ppm U or (% U_3O_8)
✗	silt	in ppm U or (% U_3O_8)
⊘	water in ppb U	
T	< 0.5 ppm U	

(analysed by Chemex Labs Ltd. North Vancouver)

*	radioactive float occurrence
	break in slope
	base of slope
	limit of talus
	limit of outcrop
	approximate limit of trees
	swamp
	lateral moraine
	hand pit
	claim posts

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Fig. T1

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URANIUM GEOCHEMISTRY

TOKE CLAIM GROUP

FIRTH PROJECT

SCALE 1:5000

100 0 100 200 300 400

Metres

To accompany report dated Dec. 1977

GRASS LAKE
CAMP
BASELINE 030° AZ
BASELINE
19+50S 18+00S 16+00S 14+00S 12+00S 10+00S 8+00S 6+00S 4+00S 2+00S 00 2+00N 4+00N 6+00N 7+50N
8+00W 6+00W 4+00W 2+00W 2+00E 4+00E 6+00E 8+00E 10+00E 12+00E
Kqm
TOKE No.1 13,14 No.2 11,12
TOKE No.1 11,12 No.2 9,10
TOKE No.1 9,10 No.2 7,8
TOKE No.1 33,34 No.2 31,32
TOKE No.1 31,32 No.2 29,30
61°24'
130°59'
LOCATION MAP
BOOT
MARMOT
TOKE 1-36
BASELINE
Grass Lakes
North Lakes
Half Moon Lake
105G/6 105G/7
5 Miles
5 Kilometres
LEGEND
CRETACEOUS
Kqm coarse grained, porphyritic biotite quartz monzonite with white K-feldspar phenocrysts
light brown aplite dikes
PALEOZOIC ?
PPK4 micaceous quartzose gneiss
foliation
waist-level reading of radioactivity using a Scintrex BGS-1S (1.3 cc) KI (Tl) scintillometer
radioactive float occurrence in counts per second
approximate geological boundary
break in slope
base of slope
limit of talus
limit of outcrop
approximate limit of trees
swamp
lateral moraine
hand pit
claim posts
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Fig. T2
ARCHER, CATHRO & ASSOCIATES LTD
GEOLOGY and RADIOMETRIC SURVEY
TOKE CLAIM GROUP
FIRTH PROJECT
SCALE 1:5000
100 0 100 200 300 400
Metres
To accompany report dated Dec. 1977

PIT T1A 0 + 02S, 0 + 00 120 x 100 x 74 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	9	250	190
yellow-brown ash	8	350	39
dark grey-brown clay	11	500	(0.950%)
black charcoal bearing clay	4 - 6	500	(0.676%)
light grey brown, immature sandy clay with quartz monzonite boulders	40	250	360
Total Depth	74	200	

PIT T1C 0 + 19S, 0 + 00 120 x 120 x 65 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	9	130	180
grey clay	4	170	310
intermittant yellow-brown ash	5	170	80
interbedded black and grey clay	17	170	310
light grey-brown sandy clay with large quartz monzonite boulders	30	160	15
Total Depth	65		

PIT T1E 0 + 09N, 0 + 03W 130 x 60 x 62 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	16	240	280
yellow-brown ash	5	330	37
dark grey-brown clay	11	480	(0.096%)
interbedded black and grey organic and carbonaceous clay	15	550	(0.605%)
light grey-brown clayey sand with small angular rock fragments	15	270	120
Total Depth	62	* water sample	80 ppb

PIT T2B 2 + 35S, 0 + 52E 50 x 70 x 68 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	12	180	(0.213%)
yellow-brown ash	5	280	95
dark-grey and black organic clay	10	400	(0.123%)
dark grey and brown clay with large angular quartz monzonite boulders	26	550	(0.132%)
dark grey sandy clay with angular boulders	15	600	(0.287%)
		* water sample	6.5 ppb
Total Depth	68		

PIT T1B 0 + 02N, 0 + 00 100 x 90 x 49 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	5	170	35
yellow-brown ash	10	220	8
dark grey-brown clay	6	230	120
grey-brown and black charcoal bearing clay	12	260	(0.357%)
light grey-brown clayey sand with fist sized angular boulders	16	180	275
Total Depth	49		

PIT T1D 0 + 20 S, 0 + 16W 70 x 70 x 49 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	12	110	80
yellow-brown ash	5	110	8.0
black carbonaceous clay	2	110	50
light grey sandy clay with large angular rock fragments	15	140	2.5
rusty sandy-clay with large angular boulders	15	140	13
Total Depth	49		

PIT T2A 2 + 20 S, 0 + 30E 80 x 70 x 60 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	11	170	320
yellow-brown ash	4	225	23
dark grey brown clay with large boulders of quartz monzonite and intermittent organic and charcoal layers	31	260	260
rusty-grey sandy clay	3	200	58
Total Depth	49		

PIT T2C 2 + 25S, 0 + 48E 80 x 70 x 48 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	13	420	(0.104%)
yellow-brown ash	1	550	145
dark grey-brown clay with intermittent carbonaceous clay beds	19	850	(0.309%)
brownish-grey clay	11	720	(0.413%)
light grey-brown sandy clay	4	570	(0.218%)
Total Depth	48		

Fig. T3

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HAND PIT SOIL PROFILES

TIA-E, T2A-C

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PIT T2D 2 + 16S, 0 + 46E 80 x 75 x 63 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	10	260	190
yellow-brown ash	7	340	85
dark grey-brown organic clays with intermittent carbonaceous and blue-grey clay beds	39	500	(0.148%)
grey-brown sandy clay with small rounded rock fragments	7	350	130
Total Depth	63		

PIT T3A 2 + 23S, 0 + 45W 70 x 80 x 77 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, grass	10	220	(0.120%)
yellow-brown ash	2	260	(0.073%)
dark grey organic clay	25	350	(0.121%)
light grey-brown sand with rounded and angular quartz monzonite boulders	40	190	150
Total Depth	77		

PIT T3B 2 + 23S, 1 + 12W 50 x 50 x 37 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
brown organic soil, roots	12	100	120
yellow-brown ash	2	110	31
dark grey organic clay	3	120	311
light grey-brown clayey sand with large quartz monzonite boulders	20	100	28
Total Depth	37		

PIT T4 3 + 05S, 0 + 12E 70 x 70 x 60 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, grass	8	240	250
yellow-brown ash	5	310	120
dark grey-brown organic clay	40	450	95
light grey-brown organic sand with boulders	7	330	120
Total Depth	60		

PIT T5 2 + 10N, 0 + 01W 85 x 75 x 66 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	9	290	(0.099%)
yellow-brown ash	13	340	330
grey-brown sandy clay	8	380	(0.187%)
grey-brown sandy clay with intermittent black carbonaceous clay beds and large boulders near bottom of pit	36	450 420	(0.178%)
Total Depth	66		

PIT T6 4 + 00S, 0 + 70W 90 x 70 x 51 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	14	200	195
dark grey organic clay	30	310	400
brown sandy clay with large boulders	7	230	70
Total Depth	51		

PIT T7 3 + 75N, 1 + 46W 60 x 55 x 40 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, moss	13	170	8
yellow-brown ash	12	220	60
dark brown organic clay with black carbonaceous horizons, large boulders and sand at bottom of pit	15	280	(0.084%)
Total Depth	40		

PIT T8 7 + 50S, 5 + 00W 90 x 100 x 87 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, grass	10	170	(0.119%)
yellow-brown ash	3	190	105
grey clay with orange-brown horizons	35	240	320
grey clay with intermittent organic horizons	4	390	(0.120%)
grey clay with orange-brown horizons	35	390	(0.058%)
Total Depth	87		

PIT T9 12 + 00S, 5 + 40W 100 x 100 x 73 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, grass	12	140	(0.251%)
dark grey organic clay with roots	6	150	(0.054%)
yellow-brown ash	2	150	220
grey clay with intermittent organic horizons and large quartz monzonite boulders	45	180	(0.061%)
sand and gravel	8	160	(0.044%)
Total Depth	73		

PIT T10 16 + 50S, 3 + 50W 100 x 100 x 58 cm

SOIL DESCRIPTION	THICKNESS (CM)	SCINT READING CPS (BGS-1S)	ASSAY PPM U (% U_3O_8)
peat, roots, grass	13	140	380
yellow-brown ash	5	170	55
dark grey organic rich clay with rounded quartz monzonite boulders	35	180	(0.107%)
sand and gravel	5	150	250
Total Depth	58		

Fig. T4

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HAND PIT SOIL PROFILES

T2D, T3A, T4, T5, T6, T7, T8, T9, T10

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