MAR 19760005: ATHABASCA

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ELDORADO NUCLEAR LIMITED

EDMONTON ALBERTA

PROJECT # 508

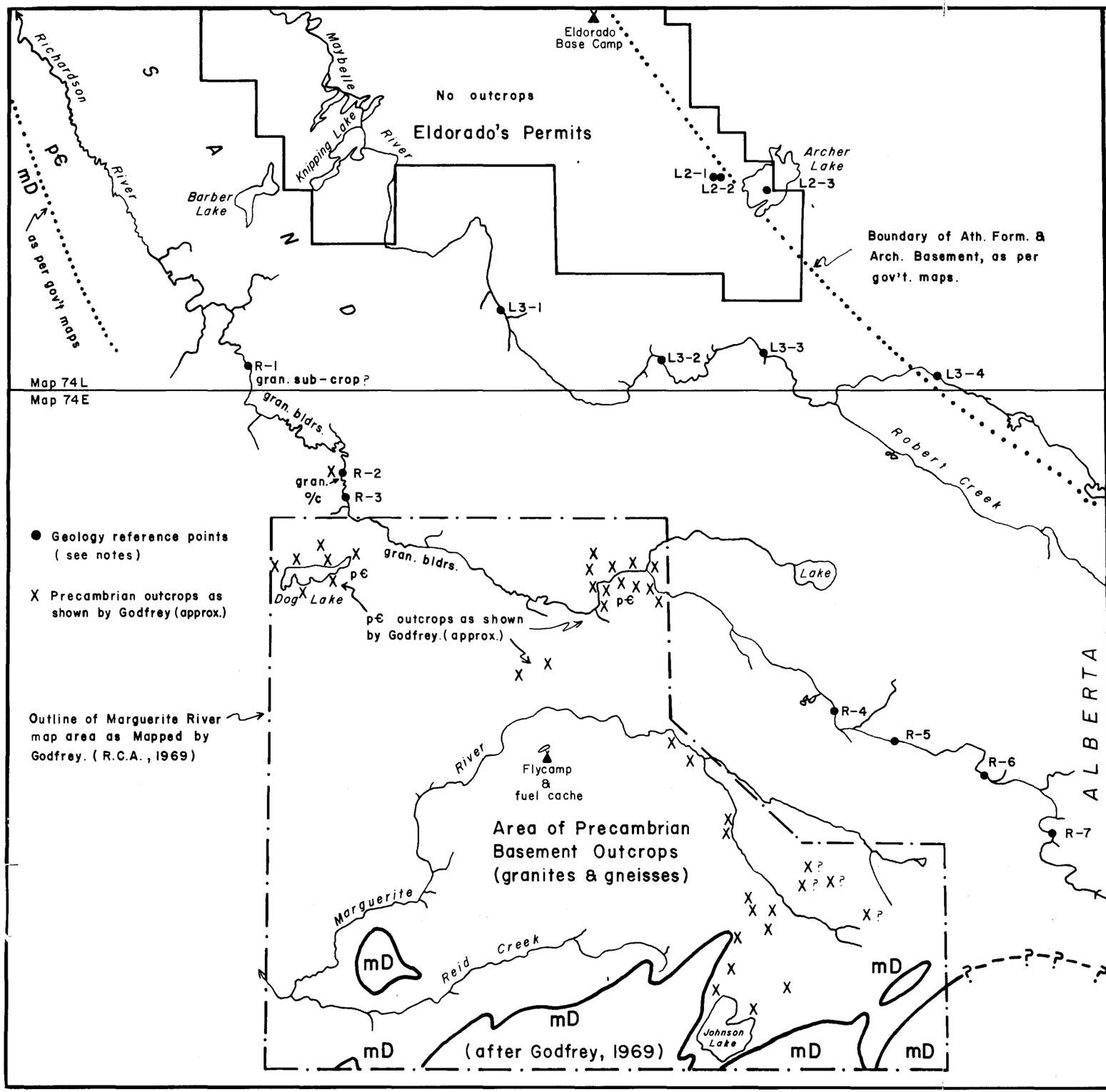
(N.E. Alberta Permits)

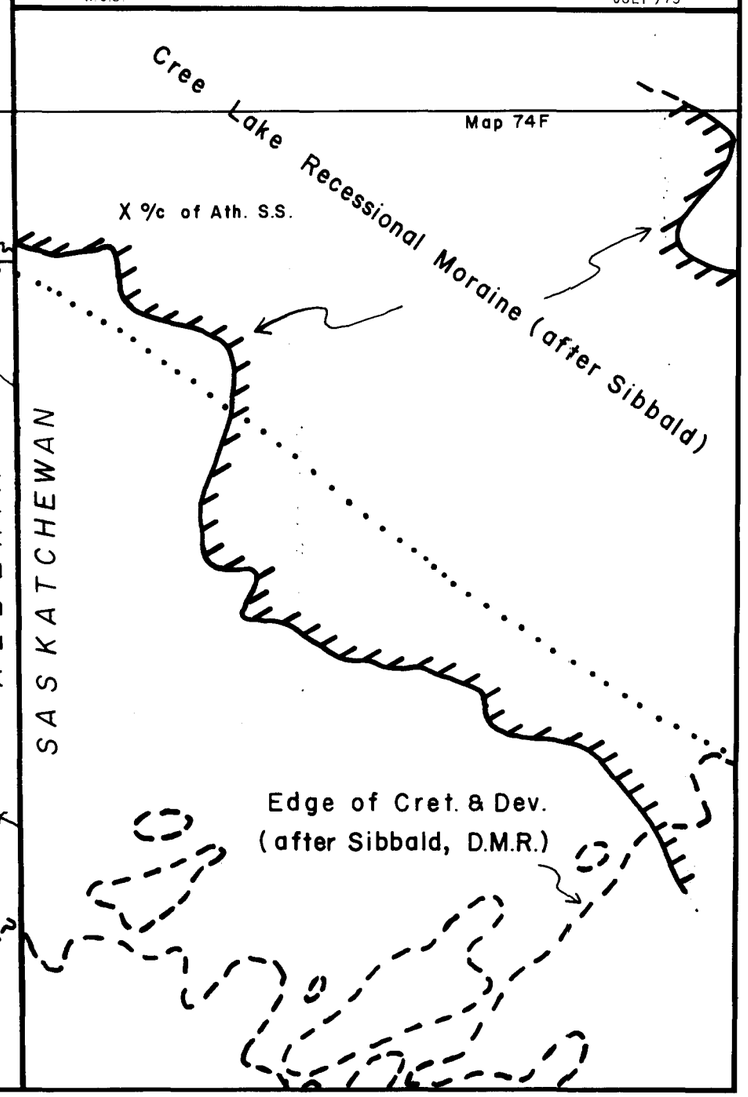
Map to accompany Traverses "R" "L2" & "L3"
Maybelle & Richardson Rivers, by H. Laanela, June 1975

Scale 1:250,000 or Approx. 1" = 4 Miles

Mi. 4 2 0 4 8 12
Km. 5 0 5 10 15 20

W.J.S. JULY /75





QUARTZ MINERAL EXPLORATION PERMIT NO. 185

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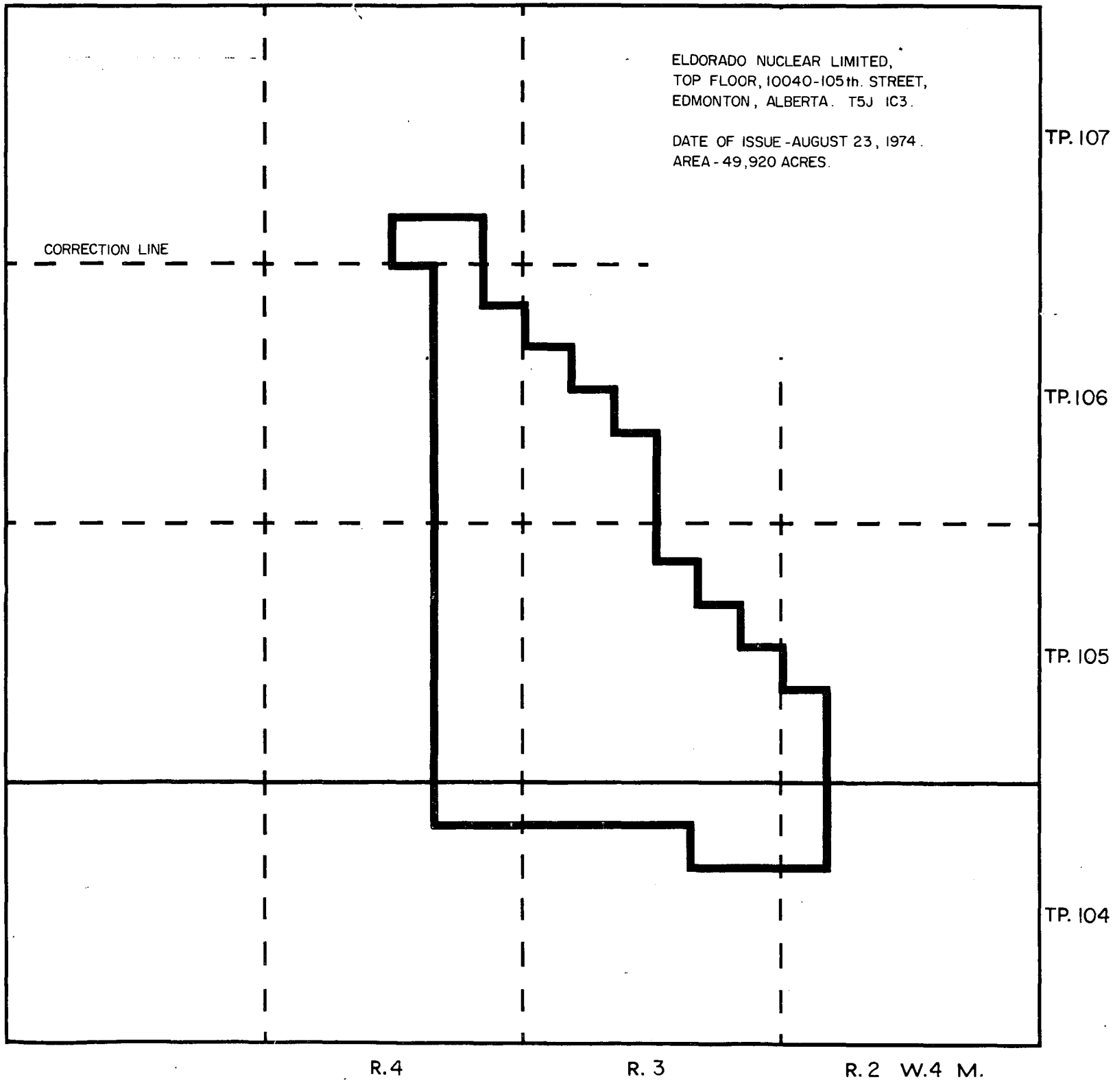

19760005

ELDORADO NUCLEAR LIMITED

EXPLORATION DIVISION

REPORT ON 1975 ACTIVITIES: PROJECT 508

QUARTZ MINERAL EXPLORATION

PERMITS NOS. 185, 186 AND 187

N.E. ALBERTA

March, 1976
Ottawa

XC Director of Minerals, Edmonton, Alberta
M. Moreau
H. Laanela

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ELDORADO NUCLEAR LIMITED

EXPLORATION DIVISION, OTTAWA

PROJECT 508-FIELD ACTIVITIES, Summer, 1975

QUARTZ MINERAL EXPLORATION PERMITS NOS. 185, 186 AND 187

N.E. ALBERTA

I. 1975 FIELD SEASON - SUMMARY

General

Field work on Project 508 started on May 15, 1975, and ended on September 3, 1975. The crew consisted of 9 men:

1 - Supervising Geologist/Party Chief

1 - Junior Geologist

3 - Geological Assistants

1 - Prospector/Expeditor

1 - Cook

1 - Helicopter Pilot

1 - Helicopter Engineer

A Bell G-2 and later a Bell 3B helicopter was based in the camp during the program. A Sikorski S-55 helicopter was used for initial moves to set up camp and for ferrying heavier supplies, fuel, etc. To August 1, 1975, a total of 299.1 helicopter hours had been flown in the project area. In addition, weekly supply trips using a DC3 out of Edmonton were made.

(1) Geological Traverses (Boulder Mapping)

Fifteen geological traverses were done on ground in a NE direction across the permits area by two 2-men teams between June 6th and July 20th. Total length of traverses (estimated) about 375 kilometers. Since no outcrops were found in the permits area, this survey was mainly concerned with mapping the glacial

boulders in the area. Most of the boulders mapped are of Athabasca Sandstone Formation, both "clean" and "dead-oil-stained" variety (in variable proportions). The Aphebian (crystalline basement boulders) were usually less than 1% of total numbers counted, indicating that the entire area is probably all underlain by sandstone. A few occurrences of fossil bearing dolomitic boulders indicate that at some stage there may have been a dolomitic "cap" over the sandstone, probably of Mid-Devonian age.

Additional regional geological traverses were carried out by helicopter along the following major stream courses: Keane Creek, Cross Creek, Archer Creek, Maybelle Creek and Richardson River. Only outcrops seen were the granitic outcrops along Richardson River (mapped by Dr. Godfrey of R.C.A., 1969).

(2) Helicopter-borne Radiometric Surveys

About a week was spent flying reconnaissance radiometric surveys with an airborne scintillometer, both in the permits area and east and north of it. No anomalous radioactivity was encountered. A similar search in the Marguerite River granite outcrop area to the south only indicated that some granitic and gneissic basement outcrops were somewhat higher in radioactivity than others.

(3) Sampling of Lake Waters and Sediments

Both water and bottom sediments were collected from 778 lake sites using a helicopter. Of these, about 180 sample sites were outside the permit boundaries. (About 600 are inside.) Both waters and sediments were sent to Bondar-Clegg Geochemical Laboratory in Ottawa to be analyzed for uranium, copper and nickel. (Lab results are included in Appendix of this report).

(4) Soil Sampling

About 1010 soil samples have been taken on the permits at 200 m. x 400-800 m. intervals. These samples were also analyzed for uranium, copper and nickel by Bondar-Clegg laboratory. (Lab results are included in Appendix of this report).

II REVISED PERMIT AREAS (As submitted in August, 1975)

Quartz Mineral Exploration Permit No. 187

Township 106, Range 6, West of Fourth Meridian

Sections 1, 12, and 13

Township 106, Range 5

Sections 4 to 9 inclusive, 16, 17 and 18

Township 105, Range 6

Sections 25 and 36

Township 105, Range 5

Sections 3, 4, 5, 8, 9, 10, 15 to 22 inclusive, and 27 to 34 inclusive

A total of 36 sections containing an area of 23,040 acres.

Quartz Mineral Exploration Permit No. 186

Township 106, Range 5, West of Fourth Meridian

Sections 1, 2, 3, and 10 to 15 inclusive

Township 106, Range 4

Sections 3 to 10 inclusive, and 15 to 18 inclusive

Township 105, Range 5

Sections 23 to 26 inclusive, 35 and 36

Township 105, Range 4

Sections 19 to 22 inclusive, 27 to 34 inclusive

A total of 39 sections containing an area of 24,960 acres.

Quartz Mineral Exploration Permit No. 185

Township 106, Range 4, West of Fourth Meridian

Sections 1, 2, 11, 12, 13 and 14

Township 106, Range 3

Sections 4 to 9 inclusive, 17 and 18

Township 105, Range 4

Sections 1, 2, 11, 12, 13, 14, 23 to 26 inclusive, 35 and 36

Township 105, Range 3

Sections 1 to 10 inclusive, 15 to 23 inclusive, and 27 to 33 inclusive

Township 105, Range 2

Section 6

Township 104, Range 4

Sections 35 and 36

Township 104, Range 3

Sections 25, 26, and 31 to 36 inclusive

Township 104, Range 2

Sections 30 and 31

A total of 65 sections containing an area of 41,600 acres.

Combined three permit areas equal to 89,600 acres.

III PROPOSED 1976 FIELD PROGRAM

(1) Ground Geophysical Surveys

A geophysical program is necessary to obtain the thickness of the Athabasca Sandstone under the project area.

- Calculation of depth to magnetic features in the basement. This may require a moderate program of ground magnetic survey on selected magnetic features.
- Reflection and/or refraction seismic survey is to be considered. This could be carried out by portable equipment over a few selected lines.

(2) Stratigraphic test drilling which could be combined with target drilling. A maximum of 3,000 feet of drilling in three holes of BQ-size is envisaged.

(3) If those surveys are successful or indicate anomalous conditions, a fill-in geochemical ground program may have to be carried out. In addition Radon-in-water determinations and Track-etch surveys may be advisable.

(4) If all above mentioned programs result in target definition, percussion or core drilling will be necessary to test the target areas.

Phase IV would be carried out in 1976, but later if results warrant further drilling.

The details of 1976 program have to be decided in the field, step by step, as more results become available during the field season. Some, if not all, of the work should be carried out in conjunction with the work to be done on the additional permits since applied for to the south.

IV STATEMENT OF EXPENDITURES

FOR PROJECT 508

(N.E. Alberta Permits 185, 186 and 197)

1975 SEASON

ACTIVITY	TOTAL *	Permit 185	Permit 186	Permit 187
Administration	9,165.55	3,055.20	3,055.20	3,055.15
Research	1,625.00	542.00	542.00	541.00
Property Acquisition	9,335.00	3,112.00	3,112.00	3,111.00
Prospecting (ground)	6,050.23	2,017.00	2,017.00	2,016.23
Airborne Prospecting	7,138.90	2,280.00	2,280.00	2,578.90
Geol. Mapping & Recon.	15,964.25	5,623.00	5,321.00	5,020.25
Lake Sampling (incl. lab)	27,362.79	10,220.00	9,120.00	8,022.79
Soil Sampling (incl. lab)	10,538.62	6,324.62	2,007.00	2,207.00
Radiometrics (ground)	7,161.27	2,494.27	2,287.00	2,380.00
Recruiting	1,225.75	408.58	408.58	408.59
Field Transport	8,003.94	2,667.98	2,667.98	2,667.98
Camp Operation	39,249.15	13,083.05	13,083.05	13,083.05
Freight	8,144.41	2,714.80	2,714.80	2,714.81
Supervision (field)	27,195.32	9,065.11	9,065.11	9,065.10
Clerical & Drafting	3,336.36	1,112.12	1,112.12	1,112.12
Miscellaneous	28.65	9.55	9.55	9.55
Capital Expenditures (excluded)				
TOTALS	181,525.19	64,729.28	58,802.39	57,993.52

* Figures supplied by Accounting Dept. E.N.L., for end of December, 1975. The break-down of figures per permit area is estimated in some instances, e.g., camp operation, administration, etc.

[redacted]

M.J. Moreau,
General Manager,
Exploration Division,
Eldorado Nuclear Limited
Ottawa

V LOCATION AND ACCESS

The Project #508 area (Permit Nos. 185, 186 and 187) is located within the SW edge of the Precambrian Shield in NE Alberta, about 30 miles south of West end of Lake Athabasca and about 20 miles East of Embarras airstrip on Athabasca River. It is about 320 miles north of City of Edmonton and about 120 miles SE of Uranium City. Nearest towns are Fort Chipewyan about 40 miles to NW and Fort McMurray - Waterways about 100 miles to SSW.

The nearest all-weather road from Edmonton ends at Fort McMurray - Waterways (about 250 road miles from Edmonton). From there to the points North the barge traffic operates on the Athabasca River, etc., during the summer months; there is a landing at the sawmill at Embarras airstrip. There is also a "winter road" to Embarras, on the East side of Athabasca River, with a branch track going to Athabasca Lake near Old Fort Point. Another branch track leads from Embarras airstrip to Keane Forestry Lookout Tower, along North edge of the permits. These "winter roads" are, of course, suitable only for transport in winter.

For irregular visits the property can be reached by taking a scheduled flight to Fort McMurray or Fort Chipewyan and thence a bush plane to any of the larger lakes on the property. For exploration purposes the Embarras airstrip offers the nearest float-plane base on Athabasca River. There is also a forestry landing strip near the Keane Tower, but apparently

its surface is too soft for any heavy or larger planes.

The Embarras airstrip has no facilities, but there is a radio-telephone at the nearby sawmill, as well as a radio-telephone and a small store 16 miles further downstream (North); this place is connected by road to the sawmill.

During the 1975 Field Season the Embarras airstrip was used by Eldorado Aviation's DC-3 to drop off supplies and passengers, which were then taken to camp by helicopter. Sometimes supplies, etc., were flown by fixed-wing from Uranium City.

The Base Camp was located on an unnamed large lake near the NE edge of the property. This place offered a good camp site and good landing - take-off approaches, but is now considered to be located too far North-East to be of much use during the following field season. (It is now proposed to move the base camp further SW, either to Knipping Lake on Maybelle River, or, more likely, to a large lake on the recently applied for "new permits" near Richardson River (Township 103, Ranges 4 or 5). Other lakes in the area could be used for alternate or fly-camp sites, if necessary.

Inasmuch larger parts of the area are covered by lakes and muskeg swamp, which have a general NE-SW trend, the summer traversing is particularly hindered in the NW-SE direction. Hence considerable advantage could be taken of winter conditions if any large scale ground surveys and/or drilling is to be carried out here; this also applies to any large scale cutting of survey grids and other similar work.

Lightweight canoes could be used on some of the streams, particularly the Richardson and Maybelle Rivers. However, using the helicopter is the most convenient and speediest way to move about here during the initial stages of exploration.

VI TOPOGRAPHY

Toward the North, SE and NE the topography consists of ice-contact deposits, i.e. rolling hills and "knob-and-basin" terrain, some of which reach heights of hundreds of feet. Toward the south and SE in the permits area the topography consists of fluted and drumlinized out-wash sand and gravel deposits (overidden by glacier), usually quite thick, with undulating and rolling hills. Further west, and along Richardson River, etc., to the south the country is relatively flat, consisting of sandy outwash plains, and aeolian sand (particularly to the west of permits) with some active sand dunes. Outcrops exist only in the Richardson River, Dog Lake and Marguerite River areas.

Much of the ground is covered by numerous lakes and muskeg ~~lakes~~, which often have a SW trend, controlled by the glacial ridges, moraines, eskers, kames, drumlins, etc.

The landforms caused by glaciation are further discussed under "Surficial Geology".

VII SURFICIAL GEOLOGY AND LANDFORMS

The surficial (Pleistocene) geology in NE Alberta has been mapped by L.A. Bayrock of Research Council of Alberta during 1969 and 1970. The results have been presented on two 1:250,000 map sheets, Fort Chipewyan Sheet 74L and Bitumont Sheet 74E, both with marginal notes. References are made to these notes in the following discussion of the glacial, etc, units in the project area:

RECENT:

Alluvial deposits:

Stream alluvium: sand and silt along major streams.

Aeolian deposits:

Wind-blown sheet sand and sand dunes. Mostly to West and NW of project area where they cover large tracts.

PLEISTOCENE:

Glaciolacustrine deposits:

Thin sand cover over glacial outwash; includes abandoned beaches. North of project area, near Athabasca River delta.

Glaciofluvial deposits:

a) Outwash plains, nearly flat to gently undulating. Largely to North and West of the project area, and also covering most of the area along Marguerite and Richardson Rivers to the South. The outwash plains West of Old Fort River contain mainly medium to coarse grained sand derived from the Athabasca sandstone Formation; here they are thicker than to the NE. Approximately 65 feet of outwash sand is exposed on the Athabasca River near Embarras airstrip, and similar thicknesses have been observed on the Richardson and Maybelle Rivers to the East (Bayrock, 1969/70). Two main types are sand outwash plains and gravel outwash plains; the first type consists of medium to coarse grained sand with pebbles and gravel lenses, the second type consists of medium to coarse sand and gravel and may contain large boulders. Also found are meltwater channel sediments, but mostly outside of the project area,

along the Athabasca River valley. Numerous small melt water channels are also associated with the Kame and outwash plain complex (not shown on maps here).

b) Glaciated outwash plains could be considered as the third type of the above outwash plains, consisting of sand and gravel that has been overidden by a subsequent ice advance to form a fluted and drumlimized surface, indicating the direction of ice movement. They are prevalent toward the southern part of the Permits 185-187, and extend southward within 3-4 miles of Richardson River, hence rather central to the area. These contain many rounded to angular cobbles and boulders of sandstone, etc., often in large numbers locally. (Some "slabs" of sandstone may indicate that their source is not far. - H.L.)

c) Drumlins occur in large swarms in the central area; they are generally covered by boulder pavement, are composed of the youngest drift and lay several miles back of the end-moraines. The inter-drumlin areas contain sand and gravel near the surface. The drumlins generally trend to SW and are well shaped. Flutings are also well developed and grade in places into drumlins. They extend, together with small drumlins, onto the outwash plains south of Lake Athabasca, where they become covered by younger outwash deposits.

Ice-Contact deposits:

These are widespread and cover much of the area in the northern part and to the East of Permits 185-187. They also occur along Maybelle and Richardson Rivers toward south. They consist of a complex of Kames, eskers, moulin Kames and crevasse fillings, and vary widely in texture.

a) Kame deposits are ice contact features (perforation deposits) forming mounds, small basins, "kettles", etc, composed of sand and gravel to coarse boulder gravel. Having a local relief ranging from 100 to 600 feet, they form a series of NW trending end moraines in continuation with the Cree Lake Recessional Moraine toward SE in NW Saskatchewan. As end moraines, they mark the different terminal positions of glacial advances (ice fronts). If it is assumed that the

bedrock surface underlying the Kame complexes is concordant with the lowlands to the South and East, then the thickness of these sand and gravel deposits is approximately equal to the local relief (Bayrock, 1969/70).

b) Crevasse fillings, trending mostly NW to SE and associated with the Kame moraines, are relatively high and sinuous, grading into small eskers. They are mostly composed of gravel.

c) Eskers, long sinuous ridges spaced several miles apart and trending SW, are found in the permits 185-187 area and NE of these; they indicate stagnant ice conditions. A number of eskers are found to extend south-westerly across the central drumlinized outwash plains, and generally parallel the drumlins. Toward the NE they often branch-off into crevasse fillings.

VIII BEDROCK GEOLOGY

No outcroppings of bedrock were seen in the project area during the 1975 field work, although in many places boulders (mainly sandstone) were quite abundant and angular, indicating a close-by source.

The Project 508 (Permits #185, 186 and 187) area (and including the adjacent areas examined this summer, particularly to the NE and south) are underlain by the rocks of the Canadian Shield. The Devonian and Cretaceous rocks are outside of this area, farther to the West and South.

Briefly, the main bedrock units are:

Mesozoic: Cretaceous sediments (including rocks at McMurray "tar sands") farthest toward South and West.

Mid-Devonian dolomites, limestones and allied carbonaceous rocks occuring West, SW and South of the permits.
(There may be small remnants of a "dolomite cap" overlying the Athabasca Formation left on some parts of permits area?)

Proterozoic: The Athabasca Formation (Helikian), assumed to underlie most, if not all, of the Permits 185, 186 and 187. It rests unconformably on the crystalline Precambrian Basement Complex. Closest known outcrops occur near South shore of Lake Athabasca and in the Carswell Circular Structure (Cluff Lake area).

Archean and/or Proterozoic: The Precambian Basement Complex, rocks of the Canadian Shield, underlying the Athabasca sandstone. These crystalline rocks consist of granite and allied gneisses, metasediments, metavolcanics, pegmatites and dike rocks. Nearest outcrops are the Aphebian granites and gneisses in the Marguerite River area, and to lesser extent also in the Dog Lake and Richardson River areas, south of permits 185-187. Here they have been mapped by J.D. Godfrey (Research Council of Alberta), 1969, on 1 inch : 1 mile scale.

Of particular economic interest is the major unconformity between the essentially flat-lying, undisturbed Athabasca Formation (Helikian), and the underlying Aphebian basement complex of highly metamorphosed crystalline rocks and its regolithic paleosurface. This boundary has not yet been definitely established in the Precambian part of Alberta South of Lake Athabasca due to lack of outcrops and drill-hole data.

IX RESULTS OF WORK DONE DURING 1975

GENERAL

Field work started on May 15 by flying the crew, etc., to Embarras airstrip and thence by helicopter to base camp site. Ground checking of "Anco anomalies" started on May 21, East and NE of permits. Airborne radiometric and ground prospecting of Marguerite River outcrop areas started on May 29, South of permits. Geological boulder mapping at the permits commenced on June 6 and the helicopter-borne lake sampling program on June 24.

The A-horizon soil sampling started on July 25 in the areas indicated by some initial "highs", high uranium values in lake samples; this lasted until the end of the season.

The camp was closed on September 2, with the crew returning to Edmonton on September 3.

About 780 lake water and a similar number of lake sediments were collected in the permits area (some were taken outside of the permits). Also, some 1,012 A-horizon samples were taken. All samples were shipped weekly to Bondar-Clegg laboratory in Ottawa, and analysed for U, Cu and Ni.

Several reconnaissance type geological and prospecting traverses were made South of the permits #185-187 to find any evidence of the sandstone edge there (no sandstone outcrops were seen).

Due to lack of any previous information regarding the permits area, the planning of the 1975 Field Work was somewhat arbitrary. In general, all of the above work was of the preliminary "grassroots" exploration nature, resulting mainly in outlining several rather indistinct lake-geochemical anomalies.

GEOLOGICAL TRAVERSES AND BOULDER MAPPING

The Project area (Permits 185 to 187) was covered by 15 SW to NE traverses, following the strike of glacial deposits. The purpose: a) to locate any outcrops, b) to locate any Aphebian "windows", c) to determine the extent of "dead-oil-stained" sandstone, d) to find any uraniferous and/or radioactive boulders, and, e) to determine the proximity and depth of source of any boulders. (The results at a), b) and d) were negative).

The above program was initiated after it became fairly apparent that a) there were no outcrops in these permits' area, b) the majority of glacial boulders were sandstone, and c) the sandstone boulders were locally predominantly "dead-oil-stained". This suggested that the Project area was underlain by the sandstone, both the "clean" and "dead-oil-stained" variety, and that the edge of this sandstone was to be found further to SE, - probably outside of the permits' boundaries. Since it would be most difficult to find any uranium mineralization under this sandstone cover (plus heavy glacial drift cover), it became imperative to find any Aphebian "windows", as well as the edge of this Athabasca sandstone. The source and time of emplacement of the oil in the sandstone presented some initial problems, eg. there was some question as to this oilstained sandstone being either of Precambrian age (i.e. Athabasca Formation) or possibly of a later age, such as part of Cretaceous McMurray "tarsands", found some 50-100 miles to the SW.

It is fairly certain now that this oil stain is probably of Cretaceous age(of the same origin as the "tarsands") and that it has been trapped in the Athabasca Formation. Two observations support this idea:

a) In about three locations, two on the permits and another one South of these (North of Richardson River) slabs of dolomitic boulders were found. On two locations these boulders, found in the drift, contain fossils such as jointed crinoid stems,

brachiopods and possibly stromatolites, suggesting that these dolomite boulders are probably of Mid-Devonian age. This would probably correlate with the carbonaceous Methy and Waterways Formations to the South (both in Alberta and Saskatchewan). Some distinct black banding in some dolomite boulders is also similar to the inspissated oil stains found in the sandstone in the area. That these dolomite slabs also have a close and not a too deep source is indicated by their angularity and sharp edges (although some of this may be explained by splitting by later frost action?). Hence it appears that there may have been once a "dolomite cap" covering the sandstone of the area, thus forming a "trap" for the oil moving in from the South. It is also thought that this "cap" was probably not too thick, and that most of it has been removed now by glaciation.

b) Second, the oilstained sandstone boulders are usually quite similar to the "clean" sandstone (except for the oil). For example, some large blocks of typically "clean" Athabasca sandstone were found upon closer examination to contain a few unexpected streaks of oily banding.

Other boulders, again, are much more massively oilstained, some even to the extent that they give off a distinct oily smell on a hot summer day; in such cases only an outer skin of the boulder, say 1 cm thick, is oilfree, so that without breaking it they appear similar to the oil-free or "clean" varieties. Some other boulders also have alternating bands (about 1 cm thick) of clean and oily "fingers", in general having a "zebra-striped" effect partly or throughout.

It must be pointed out, however, that this oil stain is found mainly in the more porous and hence permeable variety of the sandstone. The more typical finer-grained, whitish, compact and denser variety (quartzitic) of Athabasca sandstone does not normally contain any oil, although a few exceptions were seen. It therefore appears that the oil became trapped in the more porous horizons in the sandstone.

These oilstained boulders were often found in large numbers (many hundreds), along drumlinized ridges, making up 90-100% of the total boulders counted. Generally they tended to be quite angular, particularly inthe case at large blocks of more than 1 m in diameter, indicating that they had not moved too far from their place of origin.

The areal limits of the oilstained boulders could be determined toward East and NE with some degree of certainty. The boulders become scarce toward North, West and SE due to heavy sand cover on the outwash plains, and hence no such certainty can be assumed here. (Very limited traversing was done in the Richardson River area to the SW).

The Aphebian basement boulders (including granites, gneisses, pegmatites, metamorphies, etc., of the Canadian Shield) are very scarce in the permits area, and also elsewhere where traversing was done. Only a small area SW of the Base Camp (on Permit 186) contained about 3% of granitic boulders; over the remainder of the area traversed the ratio of the granitic, etc., basement boulders was usually less than 1%. This is taken to indicate that this area is underlain by sandstone and that no basement "windows" exist, - particularly where the sandstone boulders are very abundant. This prediction is much harder to make in the largely sand covered and boulder-poor out-wash areas, of course. Also, the few granite boulders found were all rather well rounded, showing much "wear and tear", having apparently travelled greater distances than the usually more angular and abundant sandstone boulders. Hence most, if not all, granitic boulders appear to be "erratics".

"SHRAT" type scintillometers were used on these traverses; however, no uranium bearing boulders were found. In some instances granitic boulders, being at least several times more radioactive than the overburden and sandstone, could be "picked up" with the scintillometer, even if buried several inches below the surface.

LAKE WATER AND SEDIMENT SAMPLING

About 780 lake sites (including some small ponds and swamps) were sampled for water and/or bottom sediment using a Bell G2, and later 3B, helicopter. Of these, some 180 sites were immediately outside the permits area. These samples included the "follow-up" and "fill-in" sampling of more anomalous areas done during the later part of the season. In a few cases either only a water or only a sediment sample could be taken at a site. The sample numbers are the same for both water and sediment taken at the same site (see Lake sampling Location map). Collector's data and analytical lab results for both types of samples were shown on the same data sheets for convenient comparison and reference.

Water Samples ("LW") were taken from the lake surface into a 100 ml polyethelene bottle. Inasmuch the laboratory (Bondar-Clegg) detection limit is 0.01 ppb of Uranium, no acid was added (the purity of acid may be above this detection limit).

Bottom sediment samples were taken with a tubular sampling tool. These samples were taken about one foot (25 cm) or less below the bottom surface, usually of soft mucky "gyttya" (gray to brownish or pale green slim organic ooze), or less frequently blackish organic mud containing visible plant remains. Some samples also contained minor sand, but as a rule the lakes with hard sandy bottoms (clean sand) could not be sampled.

The sediment samples were put into Kraft-paper envelopes which in turn were put in small sealed plastic envelopes. In camp, the samples were dried in the sun under a plastic-roofed "green-house).

All water and sediment samples were shipped to the Bondar-Clegg laboratory in Ottawa at weekly intervals to be analysed for U, Cu and Ni.

In the area of the permits practically all the lakes and ponds were sampled; the larger lakes were sampled at several sites, usually near the inlets and outlets of water (creeks, seepages from swamps, etc.) along the perimeter. Additional samples were later taken at or near the sites of the initial high uranium values; some of these spurious "highs" could not be repeated by the "follow-up" sampling. The reason for this is not yet clear, - it may either reflect the inaccuracies or contaminations in the sampling and/or analytical procedures, or erratic and strictly local high concentrations of uranium in the sampling medium. Furthermore, there was usually poor correlation (and often none) between the U, Cu and Ni values as well as between the water and sediment samples from the same sites. Hence, aside from one location near Maybelle River, North of Knipping Lake, most of the lake geochemical anomalies in the area of the Permits 185, 186 and 187 are weak, non-correlating, and seem to hold little promise. However, more checking of these anomalies has to be done in 1976.

SOIL SAMPLING

The soil sampling on the Permits 185, 186 and 187 at this preliminary stage consisted of taking organic samples, using air-photo control on pace-and-compass traverses. (No cut-and-chained grid lines were used). This program was designed to cover the maximum area and the largest number of the initial "high" uranium anomalies in the lakes with minimum of time.

Hence no attempt was made to take any soil samples at depth because no soil augers could be used in the generally stony or "bouldery" ground, and digging many holes several feet deep would have been too time-consuming. These samples have the prefix "508-A". Most of the samples were taken within the southern part of the three permits; time did not permit the soil sampling of all anomalous areas. All samples were sent to the Bondar-Clegg laboratory in Ottawa for U, Cu and Ni analysis.

Although this soil sampling program did not test all the possible lake anomalies on the permits, the results so far tend to be discouraging. Most of the U, Cu and Ni anomalies in soil are small and weak, often only "spot" (i.e. single sample) anomalies and there is usually a lack of correlation between the "high" U, Cu and Ni values.

The organic layer is usually very thin (less than 1 inch) throughout the area. In the burned-over (forest fire) areas it may be almost absent, or consisting of mostly sand with some organic material i.e. leaf fragments, mixed in it in the topmost soil layer. Hence it is possibly not a very reliable medium for geochemical sampling in our area here, yet it offers the advantage of speed and convenience of sampling large areas combined with the minimum cost per sample. In comparison, the soil sampling at depth requires at least several times more time and effort, and could therefore be used in more limited areas, eg. in anomalous areas already outlined by lake and surface sampling.

Scintillometer (SRAT-SPP2) readings were taken simultaneously at each soil sample site. Since no anomalous

readings were reported, the results of this radiometric survey were not presented. No radiometric prospecting was done between the sampling sites, although the instruments were switched "on" during the traverse.

APPENDIX A

PROJECT 508

Field Data on Ground and Helicopter-Borne Scintillometer Prospecting

Part A: Follow-up of "Anco" Radiometric Anomalies

Part B: Follow-up of Marguerite River Radiometric Anomalies

(From Field Notes, Summer, 1975)

ELDORADO NUCLEAR LIMITED
Exploration Division
Edmonton, Alberta

PART "A"

FOLLOW-UP OF "ANCO RADIOMETRIC ANOMALIES" DURING MAY-JUNE, 1975

Anco Exploration Limited held several mining exploration permits in northeast Alberta during 1968/69. The airborne geophysics flown during that time by Canadian Aero Mineral Surveys Limited (now Kenting) indicated 35 "doubtful" radioactive anomalies in that area. These were not considered to be significant to warrant ground follow-up work at that time.

Eldorado Nuclear Limited carried out a follow-up survey of these anomalies during May-June, 1975, mainly by ground and helicopter-borne radiometric surveys. The numbers under which these anomalies are described were assigned by Eldorado in 1975. The following is a summary of Eldorado survey, using Saphymo-Stel scintillometers.

A.A. 1 ("Anco Anomaly #1"): Location - Range 2, Township 107, Section 28 (centre). N.E. of N. end of Keane Airship. Airphoto #A15190-134.

Airphoto: On steep ridge S.E. of small lake;end moraine.

Ground check: Steep and high ridge (50-75 meters), with N. face 60% covered with sandstone (quartzite) boulders (angular to subangular, grayish white). Background 20-25 cps (only).

Airborne check:

Comments: Caused by topographic high in contrast with water.

A.A.2.: R2, Twp 107, Section 28 (NW), NW of A.A.1., same photo.

Airphoto: Level, featureless; outwash area?

Ground check: No boulders seen near designated area, very flat lying land. B/G 20-25 cps only.

Airborne check:

Comments: No apparent cause found.

A.A.3.: R2, Twp 107, Section 33 (South). Same photo.

Airphoto: Small draw NW of narrow swamp, in embankment. End moraine?

Ground check: On NE side of a dried lake bed striking NW in the anomaly area. A steep ridge (embankment), in which the lower 1/3 contains white-gray sandstone boulders while the upper 2/3 is rich in pegmatite boulders about 3 m in diameter, rounded to subrounded, containing: quartz 30%, Feldspars 60%, Mica 10%.

Airborne Check:

Comments: Caused by pegmatite boulders with high radioactive B/G, combined with topographic "high".

A.A. 4: R2, Twp 107, Section 27-28 (on boundary). Same photo.

Airphoto: Low relief area, no features. Out-wash?

Ground check: Low relief; very few scattered quartzite - sandstone boulders 3-5 cm in diameter, well rounded. B/G 20-25 cps only.

Airborne check:

Comments: No apparent cause found.

A.A. 5: R2, Twp 107, Section 27 (NW) Same photo.

Airphoto: S. side of a E-W ridge. End moraine?

Ground check: Pink pegmatite boulders found on SE side of NE trending steep ridge, reading 200-300 cps over 20-25 cps B/G, rich in K-feldspars (grainsize 1-1.5 cm long, good to excellent cleavage). Anomaly seems to be displaced to N about 100 cm from photo location.

Airborne check:

Comments: Similar to A.A. 3.

A. A. 6: R2, Twp 107, Section 27 (South). Same photo.

Airphoto: NE side of low ridge striking NW. End moraine.

Ground Check: E side of N-S ridge (not very steep), with scattered sandstone boulders (up to 1 m. in diameter) No anomalous readings.

Airborne check:

Comments: Possibly caused by low topographic "high"?

A.A. 7: R2, Twp 107, Section 27 (SE corner), same photo.

Airphoto: Low ground, no features. End moraine?

Ground check: N. of a small lake (see A.A. 11). Relief quite regular and low (15-20 m. max.), open bush, few small ridges with sandstone boulders (of variety of composition). Some boulders red colored, rounded, with regular bedding; others white-gray with lenses or layers of coarser quartz grains; graded bedding. No anomalous readings, B/G 20-25 cps only. One gneissic boulder seen (low R/A).

Airborne check:

Comments: No apparent cause found.

A.A. 8: R2, Twp 107, Section 23 (W). Same photo.

Ground check: On small sandy point on lake. B/G 10-20 cps, no anomalous readings. Higher sandy ridge to SW. White fine, clean sand with small (few cm.) quartzite pebbles.

Airborne check:

Comments: Probably caused by contrast between lake water and point of land.

A.A. 9: R2, Twp 107, Section 23 (SW). Same photo.

Airphoto: Low NW ridge, W of small creek with narrow swamp. End moraine.

Ground check: As above; low sand ridge with numerous sub-rounded sandstone (quartzite), and a few gneiss and biotite-quartz schist boulders. Also one boulder of dolomite (Carswell Formation ?). The metamorphinic boulders read 50-60 and 30-40 cps (over 20 cps B/G), respectively, Sizes about 30-50 cm diameter.

Airborne check:

Comments: No cause found. Possibly (?) caused by combination of low ridge and higher B/G metamorphic boulders.

A.A. 10: R2, Twp 107, Section 21. Same photo.

Airphoto: "Pock marked" terrain, i.e. kames, kettles and ridges. On W slope of, near top, of small sharp hill.

Ground check: Sharp sand "ridge" between kettles, no boulders. Relief some tens of feet.

Airborne check:

Comments: Apparently caused by sharp topographic relief.

A.A. 11: R2, Twp 107, Section 23-26 (boundary). Same photo.

Airphoto: Low ground, surrounded by low ridges. End moraine.

Ground check: Area indicated is surrounded by several ridges and eskers with good exposure of sandstone boulders on both faces. B/G readings 20-25 cps. only. Boulders gray-white, rounded to sub-rounded; some very coarse sandstone, grains up to 5 mm.

Airborne check:

Comments: No cause found.

A.A. 12: R2, Twp 107, Section 18. Same photo (also #A15165-68)

Airphoto: Low relief area, S. of swampy lake. End moraine?

Ground check: Relief 20 m (max.), burned-over hill between small lakes. Almost all sand, very few sandstone cobbles. B/G 20-25 cps. only, no anomalies found.

Airborne check:

Comments: No cause found.

A.A. 13: R3, Twp 103, Section 22 (S). Photo A 15190 - 135.

Airphoto: S.W. edge of low embankment. End moraine.

Ground check: Area of low relief (max. 10-15 metres Sand, no outcrop or boulders. B/G 20-25 cps only, no anomalous readings.

Airborne check:

Comments: No cause found.

A.A. 14: R2, Twp 107, Sect. 12. Photo as above.

Airphoto: In muskeg swamp near lake shore outwash. Misplaced?

Ground check: Sand 15 cps; ridge to S, 20-30 cps; granite boulders 70 - 80 cps.

Airborne check:

Comment: Probably caused by topographic "high" (ridge) with higher B/G and granite boulder(s).

A.A. 16: R2, Twp 107, Section R (E). Same photo.

Airphoto: Low ridge S. at small depression. Outwash?

Ground check: Sand 15 cps; up to 30 cps on ridges. Granite boulder 160-180 cps.

Airborne check:

Comment: Apparently caused by granite boulders combined with ridge.

A.A. 17: R2, Twp 107, Section 1 (NW). Same photo.

Ground check: Location indicated is sand with some sub-rounded sandstone boulders; 10-15 in high, steep ridge to south. B/G 20 cps in sandy floor, 30 cps along ridge with many boulders. Location misplaced?

Airborne check:

Comments: Probably misplaced; caused by the above ridge?

A.A. 18: R1, Twp 107. Section 7 (s); same photo.

Airphoto: Rather flat spot of the crest of a wide ridge, dropping sharply to swamp to NW. End moraine.

Ground check: Wide sandy area, top of wide ridge; smaller 20 m ridge to S; open forest; some sandstone (whitish) boulders. Anomaly location and ridge both about 25 cps (only).

Airborne check:

Comments: Cause not found, unless location misplaced. Possibly caused by contrast between low/swamp and high embankment of the ridge?

A.A. 19: R1, Twp 107, Section 6 (NW corner); same photo.

Airphoto: Very distinguishable sharp ridge just SE of small lake. Anomaly on N end of small saddle on ridge. End moraine.

Ground check: Sharp, about 50 m high ridge, N-S. Crevasse filling?; Kame-and-kettle terrain to SE. B/G 15-25 cps, spots on ridge up to 30 cps. Much sand, with sandstone boulders along ridge. Some rustier (red) sandstone slabs, N end of saddle read up to 35 cps, from a small area (1-2 m) of 50-60 cps on overburden.

Airborne check:

Comments: Caused by 2-3X B/G readings on sharp ridge.

A.A. 20: R2, Twp 106, Section 34 (w). Photo A-15165-69.

Airphoto: Flat, featureless terrain, wooded. small stand of decidious trees to N. End moraine.

Ground check: About 800 m @ Azimuth 303 degrees True from landing spot on a lake. Hard to find on flat ground covered with jackpine; small aspen grove located, with deeper blacksoil and moss covered sandstone boulders. This reads 30-35 cps (in spots), compared to B/G of 20 cps.

Airborne check:

Comments: Exact location uncertain, but possibly caused by higher readings indicated above.

A.A. 21: R4, Twp 108, Section 22 (NE corner). Photo A-15165-106.

Airphoto: Extremely flat sand covered area. Outwash plain.

Ground check: Over 1 mile walk from Lake.

Airborne check:

Comments:

A.A. 22: R3, Twp 108, Section 30 (E), photo as above.

Airphoto: On N-S trending sand dune, just NE of small swamp. End moraine?

Ground check: Swamp 15-20 cps, sand dunes 6 m high, 20 - 30 cps. Sandstone boulders SE side of sand ridges up to 5 m in diameter, 15-20 cps.

Airborne check:

Comments:

A.A. 23: R4, Twp 109, Section 12; photo as A-15165-88.

Airphoto: Featureless, flat, forested, outwash channel.

Ground check: Low relief (max. 8-10 m). Boulders scarce (sandstone). No ridges. Constant B/G of 25 cps only. Sand.

Airborne check:

Comments: Cause not found. Difficult to locate.

A.A. 24: R4, Twp 109, Section 12; photo as above.

Airphoto: Featureless, flat, forested, Outwash channel. similar to #23.

Ground check: Low relief (max. 8-10 m). Boulders scarce (sandstone). No ridges. Constant B/G of 25 cps only. Sand.

Airborne check:

Comments: Cause not found. Difficult to locate.

A.A. 25: R3, Twp 109, Section 25 (s); photo as above. End Moraine.

Airphoto:

A.A. 26: R3, Twp 109, Section 19 (SE); photo as above.

Airphoto: End moraine.

A.A. 27: R9, Twp 109, Section 24; photo as above.

Airphoto: On S Side of ridge between two kettles. End moraine.

Ground check:

A.A. 28: R4, Twp 109, Section 23; photo as above.

Airphoto: Low relief, outwash plain.

Ground check: Burned area. B/G 20 ± cps.; very few sandstone boulders. Depression 15 m deep 200 m N. Highest readings 35 cps.

Airborne check:

Comments: Cause not found.

A. A. 29: R4, Twp 109, Section 22; photo as above.

Airphoto: Flat featureless out wash plain.

Ground check: Sand ridge 5 m high, few sandstone boulders. Burned. B/G 15-20 cps, highest 35± cps.

Airborne check:

Comments: May be partly caused by topography (ridge).

A.A. 30: R 5, Twp 109, Section 24; photo as above.

Airphoto: Low relief, outwash plain. Small knobs N. & S.

A.A. 31: R5, Twp 109, Section 23; photo as above.

Airphoto: Small sand (?) hills, moderately eroded. On N. trending ridge. Outwash?

A.A. 32: R5, Twp 109, Section 32 (NW corner), West side of Athabasca River channel. No photo. Alluvial plains.

Ground check: None.

Airborne check:

A.A. 33: R5, Twp 110, Section 4? (Exdger). East side of above river channel; no photo. Alluvial plains.

Ground check: None.

Airborne check:

A.A. 34: R1, Twp 105, Section 31. Photo A-15207-124.

Airphoto: Rather flat "bench"; small ridge just to W of location; swamp farther W. End moraine.

Ground check: Wooded area; ridge to NW, with huge sandstone boulders (max. 5 m) B/G readings only, 20-25 cps (constant).

Airborne check:

Comments: Cause not known; may be misplaced? Topographic effect?

A.A. 35: R1, Twp 105, Section 14(N). Photo A-1587-43.

Airphoto: Low relief, wooded area, with same crevasse-filling NW trending low ridges in general area. End moraine.

Ground check: Moderate relief, numerous "eskers" (rather, ridges) and kettles; 50% of ground covered by sandstone boulders (red and gray). B/G at 20-25 cps only.

Airborne check:

Comments: Cause uncertain. Possibly topographic effect?

These are all "Anco" Radiometric Anomalies as shown on the airphoto mosaic by C.A.M.S. Limited, 1969.

[redacted]

ELDORADO NUCLEAR LIMITED

Exploration Division

PART "B"

FOLLOW-UP OF MARGUERITE RIVER

RADIOMETRIC ANOMALIES DURING MAY-JUNE 1975

Reference: Research Council of Alberta map, "Geology of the the Marguerite River District, Alberta", by J.D. Godfrey, 1969. (Scale 1 inch to 1 mile).

Dr. J. D. Godfrey of R.C.A. has indicated on the above map about 15 occurrences of radioactivity (over 2X background) and/or "yellow stain". These were checked out by Eldorado Nuclear Limited during late May-early June, 1975, both by ground and helicopter traverses using scintillometers.

To date the Marguerite River area is the only area in the NE Alberta South of Athabasca Lake where the Precambrian Basement rocks (i.e. granites, gneisses and metamorphics) are known to outcrop; it is also the closest Precambrian outcrop area to Eldorado's permits (Project 508). The nearest of these outcrops (around Dog Lake and along Richardson River) are about 10 miles South of the project areas' southern boundary. Hence they are of some interest, inasmuch they will give some idea of the basement rocks underlying the permits.

A brief description of this area is also given by D.A.W. Blake during his 1952 reconnaissance survey (see: G.S.C. Paper 55-33, "Geological Notes on the Region South of Lake Athabasca and Black Lake, Saskatchewan and Alberta", pp. 3-5). Blake" ... shows the revised boundary (of the Athabasca sandstone formation) as extending from Patterson Lake in Saskatchewan northwestward to the delta of Athabasca River, thus reducing the area mapped as Athabasca sandstone by nearly 2,000 square miles" (page 3, above G.S.C. Paper). In view of the recent discovery of numerous sandstone boulders (with "dead oil stain" and otherwise) over a large part of Eldorado's permits area, this revision appears to be un-substantiated. The Marguerite River outcrop area may be only a large "window" of the Precambrian Basement, and all Precambrian geological contacts south of Lake Athabasca in NW Alberta may need revising.

The main rock types are granites and gneisses occurring as a very large number of small rounded outcrop hills interspersed generally with muskegs. The outcrop areas as shown on Godfrey's map are far more dissected than shown on the map making it very difficult to relocate the map features (eg. anomalies) on the ground. (At this time no airphotos, nor small scale topographic maps were available). Navigation on the ground is usually difficult, hence many of Godfrey's anomalies were not located; or the anomalies, etc. located may not be the same as Godfrey's. Finding suitable landing spots for helicopter presented further problem. Most of the ground work was done by R. Coll. J. K. Russell, R. Tremblay and K. MacNabb.

The radioactive anomalies and/or "yellow-stain" occurences shown on Godfrey's map were numbered MI to M15 by Eldorado; and described thus. Any higher numbered anomalies, etc., were the additional ones located by the present surveys.

A "Saphymo-Stel" ("Shrat") scintillometer equipped with an large external crystal was used in the G-2 helicopter for a "hound-dog" survey, the anomalous readings and flight lines being plotted during the flight on Godfrey's map by K. Geue.

(The following are ground and helicopter-borne survey results, from field notes:)

Occurence M1 (R/A):

Ground check: About 1/4 mile NNE of MR, 7/8 mile N. of a small lake (fuel cache). 500/100± cps on banded, pegmatitic granite, few feet across. No U mineralization. (H. Laanela).

Airborne check: 2,000/300 cps, mostly on NE side of outcrop-hill, striking NE?, narrow, Contact?

Occurence M2 (R/A):

Ground check: About 5/8 mile N of above lake, similar to MI. Three "hot-spots", one to a few feet across, in light, coarse granite, 750,500 and 800 cps/100-150 cps (B/G), respectively, No. U. (H.L.)
(See also M16 and M17, south of here).

Airborne check: 2,500/450 cps, narrow, strike NE? possibly extension of MI. B/G in swamp about 240 cps.

Occurence M3 ("Yellow stain"):

Ground check: "Yellow stain" not found. Descriptive (R.I. Coll):
a) Several o/c's in the area of proposed "yellow stain", likely granitic rock with composition 70% feldspar (40% K-spar, 30% Plag.), 20% quartz, 10% mica, now highly metamorphosed to gneiss (biotite gneiss?). With grains of K-spar up to 15 mm, biotite and quartz fine-grained. Foliation 040 degrees, dip 50 degrees.

b) Very little dark mineral, finer grained, K-spar poor rock, with much less metamorphism. Fractured and jointed in a direction oblique to foliation. Foliation 020 degrees.

Summary: No sign of "yellow stain"; no anomalous R/A readings; B/G about 50-60 cps, on granitic rocks 200 cps maximum. (R.I.C.)

Airborne check: 800/300 cps. Very narrow; strike NE? Length 10-30 m (?) in o/c centre of small hills. Landing site, about 200 m West.

Occurence M4 ("Yellow stain"):

Ground check: Took a compass bearing from landing site and paced towards M4 but could not find appropriate outcrop. (R.I.C.)

Airborne check: 1,500/300 cps. Appears to be "pod"-like, 30 - 40 m. Landing site just N. of it. 1,000/300 cps at SE contact.

Occurence M5 (R/A):

Ground check: Not checked, could not land. (R.I.C.)

Airborne check: 1,800/500 cps. A large (long) anomaly. Count from contact (?) on the E. side of the hill striking N. Landing site in swamp 600 m to N. This anomaly extends from M5 north toward Lake Nine with counts up to 2,000 cps south of the creek (eastern tip of hills) and 1,000 - 1,200 between this creek and the lake. Possible contact?

Occurence M6 (R/A):

Ground check: As above (R.I. Coll).

Airborne check: 1,600/500 cps. A small anomaly ("pod"?). A group of boulders (?) on the N. edge of Axis Creek gives 1,000 cps. Easy access from the creek S. of the anomaly.

Occurence M7 (R/A):

Ground check: As above (R.I.C.)

Airborne check: 1,300/500 cps. in outcrop on rise S of Axis Creek (South of large pool of water in line with M6), on the summit (?). 1,000 cps was recorded about 1 km SE of M5, on a contact (?).

Occurence M8 ("Yellow stain"): (See also M9)

Ground check: Not attempted.

Airborne check: 1,600/400 cps. "Locally" anomalous. Access from the NW, about 600 m. A 'copter other than G-2 (stronger) could land directly on M8.

Occurence M9 ("yellow stain"):

Ground check: Not attempted. About 1/2 km SW of M8.

Airborne check: 1,200/400 cps. Similar to M8 (see).

Occurence M10 ("Yellow stain"):

Ground check: Landing at NE nose of o/c, junction of 2 creeks. Bearing 220, to large o/c and steep ridge. Two "hot-spot", 500 and 450 (over B/G 120 cps). Traverse stopped at end of last o/c; next ridge not checked. (T.K. Russell). ("Yellow stain" not located).

Airborne check: 1,000/450 cps on ridge (second from Reid Creek), near summit. A similar cps where first and second ridge meet. Landing site at E end of ridges.

Occurence M11 ("Yellow stain"):

Ground check: Gneisses (foliation 320 degrees), consisting of quartz, biotite and 2 feldspars, maximum R/A readings 290-320 cps (over B/G of 40-90 cps.) on some coarse grained gneisses. No "yellow stain" was seen. Gneisses from felsic to non-felsic. (R.I.C.)

Airborne check: Erratic readings (small lenses?), from 6-0 - 1,000/350 cps.

Occurence M12 ("yellow stain" & R/A):

Ground check: very felsic gneisses with yellow stain over an o/c area of 10 m x 40 m. Readings 600-620/60 ± cps (i.e. 10 x B/G). Yellow stain is patchy and appears to be concentrated in lenses of white feldspar with quartz. No Mo or mica was found near yellow stain. (R.I.C.).
(Landing site on SW corner of lake; thence to ESE.)

Airborne check: Same as M11 (see).

Occurence M13 ("Yellow stain"):

Ground check: Directly W. of Northern-most tip of an island in Lake Three. Yellow stain found on mafic-poor, felsic-rich, porphyroblastic quartz-monzonite (quartz + 2 feldspars). Some feldspars up to 20 mm in length. Varies from poorly to well foliated gneisses. The yellow stain is restricted to felsic-rich, non-foliated rocks, around quartz and feldspar grains, to an area of some 10 m x 20 m; staining is scarce (less than 1% of surface). (R.I.C.)

Airborne check: 2,800/400 cps; 30 m wide?, strike NW. A small anomaly to W 800 cps; other one to NW, 700 cps (possible extensions of M13?).

Occurence M14 (R/A):

Ground check: Granite-granodiorite outcrop covered with zig-zag traverses; o/c has higher cps. (J.K.R.)

Airborne ~~Ground~~ check: 3,800/400 cps; anomaly correct as marked on map. Up to 1,000 cps to N. (extensions?). Landing site just south of M14.

Occurence M15 (R/A): (SE of M14)

Ground check: B/G on o/c 150 cps, off o/c 30 ± cps. Highest reading 400 cps, in spots.

Airborne check: 1,800/400 cps. Contact? Counts ranging up to 1,000 cps to the NW, up to 2,100 cps to the SE. (Also: Old, yellow plastic bucket @ M15 site) A "galloping" ground check of S extension gave 350/40 cps.

Additional Anomalies found on Ground:

Occurence M16 (R/A):

(South side of small lake described on M1 & M2, near the "fuel-cache" point:)

Ground check: "Hot-spots" on granite o/c's, 500/100-150 cps. (H.L.)

Occurence M17 (R/A):

(North side of the above lake:)

Ground check: E edge of small granite cliff-600/120± cps, 10 m long, along cliff wall (H.L.)

Many other "hot-spots" in granite in the area, a few feet across, several times B/G (H.L.)

Occurence M18 (R/A):

Lake Nine area (see also M5):

Groundcheck:

a) South of Lake Nine: granitic o/c's, quite felsic; B/G 100 cps, o/c 200-300 cps; no strong anomalies (R.I.C.)
b) SW of Lake Nine: Several (granitic) o/c's, 200-300 cps.
c) West of Lake Nine: middle, near contact (?); 1,250/100 cps on large granite o/c about 200 m from lake edge. There seems to be a contact to south of "hot" trend (granite to N., gneiss to S); fissures and fractures.
d) Further N along W side of lake: 900-1, 300/150 cps.
e) On the larger of 2 lakes N of Lake Nine: West side 700/150 cps on well foliated gneisses, very local, often in cracks and fractures. Leaching of U, carried up in solution through fractures. No stain was seen. NW of above larger lake, - 3,500 cps by airborne -, 750/150 on ground; very local, in fractures and fissures in granitic rock. No Mo,...no "yellow stain" was found. Relief is about 50-60m (about surrounding swamp), hence the airborne anomaly may be partly caused by the topographic effect. (R.I. Coll).

For Reference - see map enclosed: (in pocket)

1) "Radioactive Anomalies South of Lake Athabasca,

2) "Marguerite River Area - Reconnaissance Radiometric Surveys, N.E. Alberta (in pocket)

Compilation by: [redacted]

H. Laanela
Exploration Geologist
Eldorado Nuclear Limited

HL/edc

APPENDIX B

PROJECT 508

Field Data Sheets of

Reconnaissance Geological Traverses

(Boulder Mapping)

Summer, 1975

ELDORADO NUCLEAR LIMITED
Exploration Division
Edmonton, Alberta

PROJECT #508

(N.E. Alberta Permits #185, 186, 187)

Field Data Sheets of

Reconnaissance Geological Traverses

June - July 1975

HL/jas/edc
August 1975

XC Director of Minerals
M. Moreau
H. Laanela
P. Clarke
File

GEOLOGICAL TRAVERSE #T1A

(by Dr. H. D. Knipping, R. I. Coll, J. K. Russell, R. J. Tremblay; June 6, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									Photo A-15186-13 (1:38,000); 7 to 3 miles SE of Base Camp:
1	x	?	3	95+	?	< 3	0.03	(large)	Cross bedded, angular bedded ss, partly with "deal oil stain": (A) - oil stain in thin bands in white ss; (B) - oil stain throughout rock, very slight petroliferous odor on fresh breaks. One piece of rounded boulder of granite gneiss (R/A 2 x B/G, SPP2-40-50 c.p.s., probably K40). One piece garnetiferous gneiss and one piece of green amphibolitic gneiss with biotite retrograde after amphibole.
2	x	x	x	80	10±	10±	0.11	8.0	Between 1 and 2: many bldrs. of ss on stoss-slope to NE. About 10% of metamorphic bldrs.; garnetiferous and quartzitic gneiss (latter in meta-gtzite); 4-5 bldrs. of red med. grained granite (120 c.p.s. on SPP2). Remainder: ss bldrs., much black "dead oil stain" in 80% of bldrs.
3	x	?	1	99	?	<1	0.01	(large)	All oil stained ss with (in places) floating frosted qtz. pebbles 1/4"-1/2". "Dead oil stain" throughout or banded. One bldrs. of reddish pegmatite (30/(25-30) c.p.s.). Metamorphics and pegm. is less than 1 0/00. Some fluted flagstone (appears to be not too far from outcrop).
4	x	?	1	99±	?	<1	0.01	(large)	Abundant boulders of black ("dead oil stain") ss, cross bedded; some banded "dead oil stain". One 1 ft. bldr. of amphibolitic gneiss.

continued ...

GEOLOGICAL TRAVERSE #T1A

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
5	x	-	-	99+	-	-	0	(large)	Athabasca ss, oil stained bands.
-									The esker along traverse close to Base Camp contains ss bldrs.
									(H. D. Knipping)
									(End of Traverse)

GEOLOGICAL TRAVERSE #K1

(by Dr. H. D. Knipping and K. T. Geue; June 7, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
-		x?							(A) Rapids in Maybelle River, S of Grayling Lake: Large slabs of ss in river causing rapids. Angular slabs of banded yellowish-grey to white hard ss. This is close to outcrop. (See Traverse K2)
									(B) Between Larocque and Barber Lakes: General - sand covered till, probably dune pebbles are below sand mantle. SPP2 readings 10-15 c.p.s.
1									Pebbles 1 foot below surface up to 1" in diameter; rounded ss, some conglomeratic layers. (N of Larocque Lake)
2		x?	1		?	?			Ss pebbles, 1 red granite gneiss with green amphibole.
3		x?	1		?	?			30 foot ridge mantled by sand. Ss pebbles, hard, yellowish-grey to white; one pebble grey meta-sed. (meta-qtzite).
4	1	x?	x	1?	97?	2-4	0.03?	0.01?	Several large ss pebbles (cobbles). One pebble oil stained, oil in bands 1/4" thick; remainder white ss; 2 pebbles of banded gneiss with biot. about 2-4% of pebbles are metamorphic (Aphebian or Archean). (E of Barber Lake)
5	1	x?	x	1?	97?	2-4	0.03?	0.01?	Ss pebbles or boulders; 2-4% gneiss; 1 pebble oil stained ss, remainder white ss, 1 pebble brick-red ss. (NW of Larocque Lake)
									(H. D. Knipping)
									(End of Traverse)

GEOLOGICAL TRAVERSE #K2

(by Dr. H. D. Knipping; June 9, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(See also Traverse K1) Airphoto A-15186-17 (1:38,000) Location: Twp. 106, R5W4, border between sections 7 and 8; 10.7 miles west of Base Camp, Azimuth 268° True. Maybelle River 2 to 1/2 km. S of Grayling Lake. To check large slabs of ss causing rapids, to indicate bedrock geology nearby:
1	x	-	-	100	?	-	0	(large)	Flat angular slabs of Athabasca ss formation; indication of "dead oil stain" in bands, shale-chip layers (white, soft), shale-chips partly weathered out. Flagstones or slabs are 1 to several feet in diameter or length, thickness averages 1-4". Angularity of slabs almost proves conclusively that Athabasca Formation is sub-cropping (sub-outcropping) nearby.
2	x	-	-	100	?	-	0	(large)	Flat angular slabs of Athabasca ss formation; indication of "dead oil stain" in bands, shale-chip layers (white, soft), shale-chips partly weathered out. Flagstones or slabs are 1 to several feet in diameter or length, thickness averages 1-4". Angularity of slabs almost proves conclusively that Athabasca Formation is sub-cropping (sub-outcropping) nearby. Same geologically. Angular slabs of Athabasca ss formation occur in river. The blocks in the river have a black coating. The water is brownish (Cretaceous terrane derivation?).
3	x	-	-	100	?	-	0	(large)	
4	x	-	-	100	?	-	0	(large)	

continued ...

GEOLOGICAL TRAVERSE #K2

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									On the side of the river are NE trending drumlinoid ridges, which are mantled by sand. It is believed that the river cuts deep into a level just above bedrock. The glacial drift (drumlins, ground moraine) lies on outcrop and is in turn mantled by sand. (H. D. Knipping) (End of Traverse)

GEOLOGICAL TRAVERSE #L1

(by H. Laanela; June 6, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Photo A-15186-11: Traverse by canoe, second lake 1-3 miles SE of Base Camp)
1	-	x	2	0	99±	1±	0.01	0	Small hill, S of narrows. Numerous rounded "clean", white, hard (Athabasca Formation) ss boulders, also two rounded granite boulders. SPP2: B/G 15-20 c.p.s., gran. 50± c.p.s.
2	-	100+	2-3	0	99	1	0.01	0	Probably esker, point N side. Hundreds of rounded "clean" ss boulders, 2-3 rounded granite boulders.
3	2	3	-	40?	60?	0	0	0.67	S shore, E end, off sandy point. Sand covered "park", see only 4-5 boulders: 1 very angular ss with massive oil stain lying on surface; 1 rounded, oil stained ss boulder near shore; remainder rounded "clean", white ss cobbles.
4	-	x	-	0	100	0	0	0	A few 100 feet to E, on shore: many rounded "clean" ss cobbles in fill along shore; some with quartz pebbles (cglm). No oil seen.
5	3	25±	-	10	90	0	0	0.11	E end of lake, mainly low sand hills. 20-30 rounded ss boulders near shore, 3 are oil stained, remainder "clean". All sand further E.
6	x	x	-	10±	90±	0	0	0.11	Point E side of narrows: mainly rounded "clean" ss, some "oily" ss cobbles.
									(H. Laanela)
									(End of Traverse)

GEOLOGICAL TRAVERSE R (RICHARDSON RIVER)

(by H. Laanela; June 10 and June 15, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									June 10: Followed Richardson River by helicopter from Athabasca River to SW of Barber Lake (creek junction): No boulders or outcrops seen, all sand. Swampy.
									June 15: Continued helicopter traverse (from Barber Lake) to Saskatchewan-Alberta boundary. (These traverses took place outside of project area.) Several shallow boulder rapids to Stn. 1.
1									First sizable rapids, boulder strewn point in river, W side. Landed S of it, E side, in swamp. High sand ridge on E side. Location: 5 miles S of S end of Barber Lake. Checked 4 locations here:
(1a)	1	5	2	15±	60±	25±	0.33	0.25	Flat sand plain (E side), S of high sand ridge: 8 small, 3"-6" cobbles as follows: 1 - massive oil stain, subangular; 2 - "clean" pinkish-white, fine, "soft" ss, subrounded; 1 - red, soft, banded concentrically (weathering), hematite?, subrounded; 2 - rather angular, hard, white quartzitic ss; 2 - porphyritic granite-gneiss, rather angular.
(1b)	?	x	-	-	?	-	?	?	High sand hill N of (1a), just SE of point in rapids: Small ss pebbles, well rounded, no oil seen.
(1c)	-	5-6	20	0	20	80	4.00	0	Cut bank, E side, SE of rapids: Base of the above high sandy hill. Many subangular to very angular granitic and gneissic boulders in the deeper part of till (sand). Sizes from a few inches to several feet; about 20+ pieces counted.

continued ...

GEOLOGICAL TRAVERSE R (RICHARDSON RIVER)

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
(1c)									(continued) Also some, more rounded (subround to round) ss pebbles and cobbles, appearing to have a source farther than granitic boulders. One extremely angular ("fresh" broken) block of gneiss in river, size 4' x 3' x 2', near E bank; mafic bands with pink feldspar; there appear to be others (not checked in river). Conclusion: The granite-gneiss boulders are from sub-outcrop nearby and not deeply buried (to NE?).
(1d)	-	-	-	-	-	-	-	-	Rapids and boulder covered point, W side (not reached): Many subrounded to subangular boulders in water, forming rapids. Should be checked at low water, later date.
2	-	-	o/c	0	(0)	100	(o/c)	-	Flying upstream: Gneiss outcrop in middle of river, 5-10 m. long, flown over low, not landed on. Mafic bands, pink feldspar patches. Exact location uncertain, but about 2.5 miles S of edge of Bitumont map sheet R5/Tp103, therefore 2-3 miles N of outcrops of granite mapped by Godfrey (1969) in Dog Lake area.
3	1	6	5				0.7	1.7	About 1 mile farther upstream, grassy landing spot, E side: Boulder rapids, small lakes to E. Many granitic and gneissic boulders in river, mainly subangular to subrounded; some angular. Some gneiss is gray, with mafic streaks, others with pink patches of feldspar. Also some more rounded (to subrounded) ss cobbles and boulders, mostly "soft" type, one has gray patches of "dead oil" stain. 13 chips from river boulders (not representative), as follows: 5 pieces of igneous rock (3 pinkish granite-gneiss, 1 gray gneiss, 1 mainly quartz with white feldspars and mafic spots); 1 limy or dolomitic rock, angular, brecciated appearance (fossils?); 7-ss cobbles, rather well rounded; ; 1 - well rounded with oil stain, 1 - purple (Mn?) stained, subangular;

continued ...

GEOLOGICAL TRAVERSE R (RICHARDSON RIVER)

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
3									(continued) 1 - hard, whitish-gray quartzite; 4 - pinkish to creamy-white, softer, well-rounded cobbles (some with whitish "chalky" spots. Estimate: granitic occurrence not too far, not too deep (subcrop). Flying toward SE, upstream, from R3 to Dog Lake occurrence area of Godfrey's Marguerite River map: numerous shallow rapids with blocks and boulders of angular rocks, appear to be granite-gneiss. No landings. After passing Godfrey's occurrence area on river: Mostly swampy shores, sandy bottom. Infrequent boulders appear rounded, possibly ss? No landings.
4									Shallow stretch of river just SE of small creek issuing from two small lakes on S side of river; landed on S shore:
(4a)	-	8	1	0	90±	10±	0.12	0	About 10-12 round boulders from river, crack and sample 9: 1 - dark, basic (igneous), probably from a dike; 8 - whitish, hard, fine grained ss (Athabasca Formation), one has red-purple stains, one has faintly bluish-gray stain (not oil).
(4b)	1	30	-	3	97	0	0	0.03	Hundreds of well rounded (some are subrounded) ss boulders and cobbles on edge of flat sand plain, N of river. Crack about 30, all ss, no Aphebian (basement). Only one subangular boulder has "fingers" of oil stain in pinkish, softer ss, with white, "chalky" spots. Others are mostly whitish, hard, quartzitic ss (Athabasca Formation); a few (10±) are softer, creamy colored, some with rusty or grayish weathering stains outside. Probably NE of Marguerite River granite contact?, in Athabasca ss?

continued ...

GEOLOGICAL TRAVERSE R (RICHARDSON RIVER)

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
5	-	20	-	0	100	0	0	0	Shallow "boulder"-rapids. Crack 20 well rounded (some subrounded) ss boulders, white, hard; a few with purple staining, one brick-red soft ss. Athabasca Formation? No "basement", nor oil stain.
6	-	40	10	-	50	20	0.25	0	Shallow "boulder"-rapids. Crack open about 40 boulders (all Athabasca Formation) and 10± gran./gneiss boulders in creek. All well rounded (some subrounded).
7	1	7	2	10	70	20	0.25	0.14	Shallow "boulder"-rapids. A few miles from Saskatchwan boundary. 10 round to subround boulders from river: 2 - gran./gneiss; 1 - oil "fingered" dense, white, hard ss, remainder typical Athabasca Formation ss.
									(H. Laanela)
									(End of Traverse)
									P.S. - 1":1 mile sketch map included.

GEOLOGICAL TRAVERSE #T1

(by R. I. Coll and R. J. Tremblay; June 7-11, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse from S of Barber Lake to 5 km. N.E. of Base Camp; about 30 km. Airphoto Control.)
1	-	1	θ		?				Small lake, S of Barber Lake, to SE side of Larocque Lake: No boulders anywhere, aeolian sand only. Small sand ridge between lakes, 320°. Area relief 30-40 m. All dunes and ridges quite wooded. At Stn. 1: One cobble of ss (no oil), well rounded. No Aphebian rx.
2	4	1	θ	80?	20?	0	0	4.0	5 cobbles ss, 4 have finger-like "stringers" of oil stain; well rounded.
3	25±	0?	θ	100?	0?	0?	0	(large)	20-30 cobbles; oily streaks, well rounded to subrounded.
4	10±	5±	θ	65±	35±	0	0	2.0	On "discovery point" (first discovery of oil stained ss by H. D. Knipping; June 5, 1975), Knipping Lake: Flat to subrounded ss cobbles with oily streaks. No boulders; no Aphebian. Drumlin.
5	x	x	-	50	50	0	0	1.0	Few boulders and cobbles of ss, 1/2 with oil; well rounded.
6	1	1	-	?	?				2 large angular vertical ss flagstones, 2 feet diameter (1 oily, 1 without). Likely frost action.
7	6±	4±	-	60±	40±	0	0	1.5	Few scattered cobbles of ss, well rounded.
									(So far: 40% oily ss, 30% clean ss, 30% banded clean ss)

continued ...

GEOLOGICAL TRAVERSE #T1

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
8	1	x	-	?	?				Clean ss boulders, rounded.
9	x	x	-	25	75	0	0	0.33	Boulder field of ss.
10	x	x	2	40±	60±	<1	0.01	0.67	2 Aphebian gneiss boulders; ss: 40% oily, 60% "clean" boulders, some banded, others clean white; vary from quite rounded to quite angular.
11	15±	50±	3	20±	75±	<5	0.05	0.36	3 Aphebian metamorphic boulders, 1 metamorphic-sediment boulder, 2 gneiss boulders; 20-30 ss boulders (70-80% red ss, 20-30% oily ss).
12	x	x	2	15	85±	<1	0.01	0.18	SW end of ridge: Several large flat ss boulders, angular; clean ss, very few with oil. Of 100± boulders, 2 metamorphics, remainder 85% clean and 15% oily ss.
	x	x	x	15	83	2	0.02	0.18	#12 to 1 km. NE (Along esker): Abundant cobbles and boulders, as follows: 15% oily ss, 85% clean ss, 2% gneissic. Some ss shows graded bedding, some conglomeratic.
13	x	x	-	20	80	0	0	0.25	NE of small lake; ridge up to 25 m.; boulders well rounded to angular; poorly sorted ss; 75% well rounded.
14	x	x	1	10	87	3	0.03	0.11	NE along above ridge: Many boulders, mainly ss; 75% rounded, 25% angular. One igneous (Amph.-qtz.-feldspar) boulder.
15	x	x	-	40	60	0	0	0.67	Well rounded ss boulders, SE flank of ridge. No Aphebian.
16	x	x	-	15	85	0	0	0.18	Rounded to subrounded ss boulders, SE side of ridge.
17	x	x	-	60	40	0	0	1.5	Boulder field, 60% oily ss.

continued ...

GEOLOGICAL TRAVERSE #T1

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
18	x	x	-	75	25	0	0	3.0	Boulder field on small ridge, low relief, ss, 75% oily ss, well rounded to subrounded.
19	x	x	-	85	15	0	0	5.3	As above. Along ridge. Ss.
20	x	x	-	80	20	0	0	4.0	As above. Along ridge. Ss, well rounded.
21	x	x	-	60	40	0	0	1.5	N of small lake to S end of ridge (drumlin): Varying sized boulders 6" to 10 feet, with variable rounding.
22	x	x	1	70	29±	1	0.01	2.4	To NE along above ridge: 1 large ss boulder, 15 feet diameter above ground; 1 granite boulder.
23	x	x	1	60	39	1	0.01	1.5	Leaving above ridge, SE side. Ss boulder.
24	x	x	-	60	40	0	0	1.5	Well to subangular ss boulders.
25	-	-	-	-	-	-	-	-	(Swamp, no boulders).
26	-	x	-	0	100	0	0	0	Lots of small boulders, rounded to subrounded. No oil, no Aphebian.
27	x	x	-	5	95	0	0	0.05	Patchy boulder field, rounded to subangular ss; very few with oil stain.
28	x	x	-	3	97	0	0	0.03	Scattered boulders, large - 1-2 meters - 1 with oil stain.
29	x	x	-	20	80	0	0	0.25	Ridge along N side of Base Camp lake, to NE, relief 25 m. maximum. Good number of ss boulders, no massive oil stain, no Aphebian; subrounded.

continued ...

GEOLOGICAL TRAVERSE #T1

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
30	x	x	-	30	70	0	0	0.42	To NE and higher on same ridge: large angular to subangular ss boulders.
31	x	x	-	30	70	0	0	0.42	At N end of lake: large boulder field, well glaciated on surface. Most are red-bedded ss, some flagstones; some frost-heaved angular boulders.
32	x	x	-	10	90	0	0	0.11	Mixed boulders, some angular, some rounded, mostly red ss, 1-3 feet diameter.
33	x	x	-	10	90	0	0	0.11	Variety of angular and rounded ss boulders.
34	x	x	1	4-5	95	<1	0.01	0.05	Numerous rounded to angular boulders, all sizes. One well rounded basement boulder.
35	x	x	-	5	95	0	0	0.05	Numerous ss boulders of varying roundness.
36	x	x	-	5	95	0	0	0.05	Boulder field, round to angular ss; base of peninsula.
37	-	-	-	-	-	-			Ridge, no boulders. Sand.
38	x	x	-	3	97	0	0	0.03	Rounded to angular ss boulders, medium to large size.
39	-	x	-	0	100	0	0	0	Rounded to angular ss boulders, all sizes. No oil stain.
40	-	x	-	0	100	0	0	0	Large amount of boulders along ridge perpendicular to lake. No oil stain.
									(R. I. Coll)
									(End of Traverse)

GEOLOGICAL TRAVERSE #T2

(by J. K. Russell and K. MacNabb; June 7-11, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse from 3 km. SW of Currie Lake to about 8 km. ENE of Base Camp; about 32 km. Airphoto Control)
1	-	-	-	0	0	0	-	-	Very few boulders, mainly sand (terminal moraine).
2	-	100+	3	0	97±	<3	<0.03	0	Lake shore: Hundreds of very red ss cobbles. Three granite boulders.
3	-	5	-	0	100	0	0	0	Sand to head of beach, no boulders; a few cobbles of ss, "clean".
4	-	-	-	0	0	0	0	0	Moraine to Currie Lake. Thick sand, no boulders. Sand beach.
5	-	1	-	0	?	0	0	0	Sandy flats, vegetation shows "lineation". One small "clean" ss boulder, very red.
6	-	15	-	0	100	0	0	0	15± ss cobbles, well rounded, in fluted structure. Relief 10 m., mainly sand.
7	-	50±	1	0	99±	<1	0.01	0	Rounded ss cobbles on beach, in hundreds. Lake bottom mostly sand.
8	-	2	-	0	?	0	0(?)	0	Sand, with 1-2 well rounded ss cobbles.
9	-	1	-						High sand ridges around Nash Lake. One rounded ss boulder.
10	x	x	-	40	60	0?	0	0.67	White, mainly rounded to subrounded ss (5% subangular).

continued ...

GEOLOGICAL TRAVERSE #T2

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
11	20±	1	-	90	5	0?	0	20.0	Lee (SW) end of drumlin; about 20 well rounded ss boulders.
12	x	x	-	90	5	0	0	20.0	Drumlin: Same as #11. Average values for the whole drumlin.
13	x	x	-	20	80	0	0	0.25	Moraine. Rounded ss cobbles (about 50).
14	2	18	-	10	90	0	0	0.11	About 20 large boulders of ss.
15	x	x	-	15	85	0	0	0.18	Small drumlin or fluting. Small well rounded cobbles of ss (about 30-40), mainly pink color.
16	x	x	-	5	95	0	0	0.05	About 50 large well rounded ss boulders. Esker.
17	x	x	-	20	80	0	0	0.25	Esker, 10 m. high. Ss boulders, more angular, some "clean" ss flagstones.
18	x	x	-	65	35	0	0	1.86	Esker. Rounded 60%, subangular 30%, and angular ss boulders 10%; some flagstones.
19	x	x	1	35	64	<1	0.01	0.55	Drumlin W of lake. Medium to large oil stained, 10% subangular or flaggy ss; fairly large, mainly round, "clean" ss boulders (total 100±). 1 granite-gneiss cobble, rounded.
20	x	x	1	65	34	<1	0.01	1.85	50-60 boulders. Some very large blocks of oily ss; most boulders rounded; some subrounded "clean" ss. One diabase (?) boulder.
21	1	-	-	?	0	0	0	?	One large block of subrounded oil boulder.
22	x	x	-	70	30	0	0	2.33	Esker. Large number of medium to very large boulders. Oil stained ss in larger blocks.

continued ...

GEOLOGICAL TRAVERSE #T2

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
23	x	x	-	90	10	0	0	9.0	Over 50 large and very large subangular ss boulders. Frost heave?
24	x	x	-	85	15	0	0	5.67	Drumlin. Large to very large blocks of (mainly oil stained) ss, some oil stained "fingers"; some clean ss blocks; subrounded or subangular. Close to outcrop?
25	x	x	-	50	50	0	0	1.0	About 30 small rounded ss boulders in drift.
26	x	x	-	80±	20±	0	0	4.0	Drumlin. Frequent large and very large (up to 10 feet) ss boulders. No Aphebian. Mostly rounded, some flat and subangular. Clean ss usually pink. Hematite?
27	x	x	-	10	90	0	0	0.11	Esker. Medium to large, subrounded to well rounded ss boulders, very little oil stain (esker material from farther NE?). No Aphebian. Much purple and/or interbedded ss.
28	x	x	2	95	3	2	0.02	32.0	Esker. Many boulders mainly rounded. Two Aphebian, rounded boulders. Almost entirely oil sandstone.
29	x	x	1	5	94	1	0.01	0.05	Drumlin. Subrounded to subangular, medium to large (some large blocks) ss boulders (5±% are oil stained). One medium size rounded granite gneiss boulder. Total more than 50 boulders.
30	-	x	-	0	100	0	0	0	Esker. A number of angular and flagstone predominantly pink ss boulders showing crossbedding and scouring.
31	-	x	-	0	100?	0	0	0	Lee end of drumlin. Medium to large boulders well rounded. Stoss end had same features and percentages of boulders.

continued ...

GEOLOGICAL TRAVERSE #T2

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
32	-	10	-	0	100	0	0	0	About 10 small boulders, all clean ss. Sand hills and knobs (end moraine?).
33	-	x	-	0	100	0	0	0	A series of eskers and small knobs. About 150 "clean" ss boulders; no oil stain or Aphebian. Boulders medium sized, mostly well rounded. (J. K. Russell) (End of Traverse)

GEOLOGICAL TRAVERSE #T3

(by R. I. Coll and R. J. Tremblay; June 13-17, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse from sand of dunes, about 4 km. NNW of Barber Lake, to NE, toward Keane Creek. About 32 km.)
1	-	-	-	0	0	0	-	-	Aeolian sand with rough topography, no occurrences or boulders. Lakes here surrounded by swamps and sand.
2	-	3-5	-	20	80	0	0	0.25	4-6 ss boulders, less than 1 ft. diameter; 1 with oil "stringers".
3	-	12-20	-	10	90	0	0	0.11	12-20 ss boulders, less than 1 ft. diameter; 2 with oil stain.
4	-	x	-	0	100	0	0	0	Scattered rounded all "clean" ss boulders.
5	-	x	-	0	100	0	0	0	Stoss side of steep ridge. Scattered rounded all "clean" ss boulders. No Aphebian.
6	-	x	-	0	100	0	0	0	Steep side of ridge covered with all "clean" rounded ss boulders.
7	-	x	-	0	100	0	0	0	On ridge. Numerous all "clean" ss boulders. No Aphebian.
8	-	x	-	0	100	0	0	0	End of ridge. Numerous all "clean" ss boulders. No Aphebian.
9	1	200±	0	<1	99	0	0	0.01	Scattered ss boulders, one with "streaky" oil stain.
10	x	x	x	10	90	0	0	0.11	Ridge S of lake: Many boulders ss, well rounded to angular.

continued ...

GEOLOGICAL TRAVERSE #T3

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
11	-	x	-	0	100	0	0	0	Well rounded, scattered "clean" ss boulders.
12	-	x	-	0	100	0	0	0	Rounded, scattered "clean" ss boulders.
13	x	x	-	50	50	0	0	1.0	Large scattered ss boulders. "Massive" oil stain.
14	x	x	-	30	70	0	0	0.43	Scattered ss boulders, varying sizes; rounded to angular.
15	x	x	1	25	74	<1	0.01	0.34	Lake shore: Numerous boulders, well rounded; one basement rock.
16	x	x	-	15	85	0	0	0.18	Scattered boulders, mostly oil-free; well rounded. No basement rock.
17	-	x	-	0	100	0	0	0	Scattered ss cobbles, no oil stains.
18	-	5	-	0	100	0	0	0	Very scattered boulders. No oil stains.
19	-	100	-	0	100	0	0	0	Small mound of well rounded boulders.
20	x	x	-	5	95	0	0	0.05	Esker; rounded to angular boulders; fine grained with oil stains; boulders of varying sizes.
21	x	x	x	5	94	1±	0.01	0.05	High relief: 50 m. maximum; well rounded to angular boulders. One well rounded metamorphic boulder.
22	x	x	-	2	98	0	0	0.02	High (~50 m.) steep sided esker; one large (~40 cm.) dolomite boulder; oil stains occur as streaks.
23	x	x	1	5	95	1	0.01	0.05	NW along same esker as preceeding station; one granitic boulder.

continued ...

GEOLOGICAL TRAVERSE #T3

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
24	x	x	-	10	90	0	0	0.11	Small ridges, lots of boulders and cobbles, angular to subrounded, both white and red ss; no massive oil stain. No Aphebian (basement) rock.
25	x	x	-	10	90	0	0	0.11	Small ridges, lots of boulders and cobbles; less than 1 foot diameter. Both red and white varieties of ss, angular to subrounded; no massive oil stain, only "streaks". Some ss boulders exhibit both varieties red and white. Red colour quartz grains appear to have hematite coatings? Little or no feldspar.
26	x	x	-	6	94	0	0	0.06	Red ss boulder field on small ridge of low relief; 200 to 300 boulders. Ss boulders exhibit good crossbedding and are angular to subangular. Oil stain occurs in "streaks" only.
27	x	x	1	5±	94±	<1	<0.01	0.05	Along small ridge: mixed percent of white and red ss, very little oil stain. One very rounded basement boulder of quartz monzonite; low biotite.
28	x	x	-	2	98	0	0	0.02	Scattered boulders along traverse. A few conglomerates with clasts having maxiumum diameter 2-3 mm.; most appears to be ss with conglomeratic surfaces only, as texture often does not continue throughout the boulders. Very low percent of oil on the rounded ss; more quartzites than any other.
29	x	x	-	2±	97±	<1	<0.01	0.02	Steep ridge, 045°. Numerous angular and rounded ss boulders, mostly oil free (some with faint staining); also red ss with iron rich shale chips and flakes 2-5 cm. in diameter. One basement rock.

continued ...

GEOLOGICAL TRAVERSE #T3

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
30	x	x	-	3	97	0	0	0.03	Continuing along same ridge; relief about 50 m.; poplars. Variety of red and white "clean" ss with a few oil stained boulders; some conglomeratic ss. No Aphebian basement rock.
31	x	x	1	2±	97±	<1	<0.01	0.02	Very steep ridge, relief about 70 m.; poplar and birch. Numerous ss boulders, red and white. One Aphebian boulder.
32	x	x	-	3	97	0	0	0.03	Small ridge, with scattered ss boulders and cobbles, a few with oil stain; rounded to angular. No Aphebian.
33	-	x	-	0	100	0	0	0	Clean bush, pine. Very scattered boulders, all "clean", well rounded ss.

(R. I. Coll)

(End of Traverse)

GEOLOGICAL TRAVERSE #T4

(by J. K. Russell and K. MacNabb; June 13-18, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDERS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse starting 4 km. SE of Currie Lake, to NE. About 30 km. Airphoto Control)
1	10	10	0	50	50	0	0	1.0	Drumlin: very low relief; generally large subangular to subrounded boulders, some very large blocks of clean and oil stained sandstone.
2	x	x	-	30	70	0	0	0.43	Drumlin: boulders are smaller and more rounded, especially clean sandstone which is well rounded.
3	x	x	1	5	40* (±54)	<1	0.01	0.12* (0.05)	Edge of swamp, probably an old outwash plain: 54% of the rocks cracked yielded dolomite (Carswell Formation?).* * Generally all the boulders are subangular, but any angularity could be caused by frost action.
4	3	17	1	15	85	<1	0.01	0.18	Edge of swamp, little Carswell?dolomite* (<1%), 1 granitic gneiss noted. Boulders were subrounded and medium sized.
5	x	x	-	25	75	0	0	0.33	Drumlin: boulders were well rounded and medium sized. No dolomite nor Aphebian noted.
6	3	20	1	5	94	<1	0.01	0.05	Drumlin: boulders fairly rare, medium sized and well rounded. The clean sandstone was more rounded than the oil stained sandstone.

continued ...

* Probably mid-Devonian dolomite.

GEOLOGICAL TRAVERSE #T4

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
7	x	x	1	50	50	<1	0.01	1.0	Great number of boulders sampled ≃100. Subangular to subrounded and medium to large in size. 1 granitic rock and 1 dolomite boulder were noted.
8	6	4	0	60	40	0	0	1.5	Few boulders but increase in oil sandstone; medium sized and rounded although oil stained boulders were subangular.
9	x	x	2	9	90	<1	0.01	0.1	Many boulders sampled (≃100), 2 granitic boulders noted. Medium sized and subrounded.
10	x	x	0	5	95	0	0	0.05	Drumlin side: sampled ≃50 boulders which were subrounded with less than 5% subangular. No Aphebian rock. 3 boulders of dolomite.
11	x	x	0	15	85	0	0	0.18	Stoss end of drumlin: sampled ≃100 boulders, subrounded and medium to large. Less than 5% dolomite present on margins of swamp. (Always seems to occur in this location type.)
12	0	x	0	0	100	0	0	0	Along swamp and ridge contact: sampled ≃100 boulders, subangular (from frost action?). No Aphebian or oil stained sandstone noted.
13	x	x	0	20	80	0	0	0.25	Along drumlin: sample size ≃60 boulders and blocks, subangular. Larger boulders were generally clean sandstone, no Aphebian.
14	6	14	0	30	70	0	0	0.43	Island of boulders in swamp: huge blocks of sandstone sitting vertical, perhaps carried on back of ice. No Aphebian. sample size was 20 boulders.

continued ...

GEOLOGICAL TRAVERSE #T4

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
15	x	x	0	45	55	0	0	0.82	Side of drumlin: sampled >50 boulders, subrounded clean sandstone and angular oil stained sandstone, medium to large boulders. No Aphebian.
16	x	x	0	35	65	0	0	0.54	Side of drumlin: boulders are large and subangular and the clean sandstone is usually in larger blocks. No Aphebian.
17	x	x	1	35	65	<1	0.01	0.54	Sand ridge: sampled ≈50 boulders, sub-well rounded with <10% angular. 1 Aphebian boulder.
18	x	x	0	30	70	0	0	0.43	W side of drumlin: sampled >100 boulders. No Aphebian and decreasing oil stained sandstone, boulders larger and rounder than at Station 17.
19	x	x	0	25	75	0	0	0.33	Sampled ≈50 boulders. Subrounded. Hematite rich clean sandstone. Most of the clean sandstone is pink or purple.
20	x	x	0	15	85	0	0	0.18	Ridge along lake shore: sampled ≈35 boulders. No Aphebian, subrounded and large boulders.
21	x	x	0	30	70	0	0	0.43	Stoss end of fluting: sample size ≈100 boulders. No Aphebian, large subrounded boulders; less than 5% blocks.
22	x	x	0	10	90	0	0	0.11	On ridges and esker: large blocks and boulders, sampled ≈150; subangular, about 15% hematite rich sandstone, no Aphebian.
23	-	x	-	0	100	0	0	0	30± boulders on esker, near swamp. Small, subrounded, no oil stain; no Aphebian (basement) rock.

continued ...

GEOLOGICAL TRAVERSE #T4

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
24	1	x	1	1	98	1	0.01	0.01	Side of drumlin, over 100 boulders, one with oil stain, one granite, 98% "clean" sandstone. Small to medium size, about 80% rounded, about 15% large angular to subangular blocks of sandstone.
25	x	x	1	10±	90±	1	0.01	0.11	Eskers: about 50 large subrounded to subangular boulders, mainly clean sandstone, some oil stained; one Aphebian granite boulder.
26	x	x	-	15	95	0	0	0.16	Ridges W of lake: about 50 subangular boulders and large block of sandstone. No Aphebian. Oil stain mainly in large blocks.
27	x	x	-	5	95	0	0	0.05	Eskers (? or small drumlins?): about 50 small to medium size rounded to subrounded, mainly "clean" sandstone boulders. About 5% subangular. No Aphebian.
28	2	x	1	2	97	1	0.01	0.02	Drumlin E of lake: about 100 large boulders or blocks of rounded to subangular sandstone. Two blocks oil stained, one Aphebian. Remainder "clean" sandstone, of which 90% is purple coloured sandstone.
29	-	50±	-	0	100	0	0	0	Half way along a drumlin: much sand, with "heaps" of boulders, usually large blocks about 5 feet across, all clean sandstone. No oil, no Aphebian noted. 90% subrounded, 10% angular (due to frost action); 90% purple stained; good planar bedding.
30	-	x	-	0	100	0	0	0	To river; same as 29. About 90% purple sandstone.

continued ...

GEOLOGICAL TRAVERSE #T4

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
31	-	50	-	0	100	0	0	0	River bed: about 50 boulders of clean sandstone, less than 60% purple. Other whiter (due to leaching by river?). Mostly subangular, about 10% rounded. No oil, no Aphebian.
32	-	x	1	0	99	1	0.01	0	Drumlins and ridges: about 150 medium sized boulders, mainly "clean" sandstone. No oil stain; one Aphebian. About 50% of sandstone is purple, remainder yellow, pink or white. Sub-rounded, about 5% of blocks subangular.
33	-	-	-	-	-	-	-	-	No boulders so far, only sand.

(J. K. Russell)

(End of Traverse)

GEOLOGICAL TRAVERSE #T5

(by R. I. Coll and R. J. Tremblay; June 18-20, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse from sand dunes W of Maybelle River to NE, past Edwards Lake, towards Keane Creek. About 28-30 km. Airphoto Control)
1	-	x	-	0	100	0	0	0	Few scattered boulders; all clean ss; one vertical flagstone; no basement rock.
2	-	-	-	-	-	-	-	-	No boulders (sand only).
3	-	-	-	-	-	-	-	-	No boulders.
4	-	-	-	-	-	-	-	-	No boulders.
5	-	3	-	0	100	0	0	0	All boulders are oil free, well rounded, actually cobble size; ridges and hills with relief up to 50 m.
6	-	-	-	-	-	-	-	-	No boulders (sand only).
7	-	-	-	-	-	-	-	-	No boulders.
8	-	x	-	0	100	0	0	0	Scattered rounded - angular boulders on stoss slope of ridge.
9	x	x	-	0.5	99.5	0	0	<0.01	Numerous boulders (2-3 feet diameter) on ridge/esker, oil stain is faint.

continued ...

GEOLOGICAL TRAVERSE #T5

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
10	-	x	-	0	100	0	0	0	Ridge (esker) S of Edwards Lake, relief 50 m. Numerous "clean" ss boulders, well rounded to subangular on all sides. No oil stain.
11	-	x	-	0	100	0	0	0	Ridge to NW, relief about 30 m. Boulders of "clean", round to subangular ss on SW side only. No oil stain. Esker?
12	-	-	-	-	-	-	-	-	Sandy ridge, low topography (maxiumum 10 m.); no boulders.
13	-	-	-	-	-	-	-	-	Sandy, wooded, moderate to low relief, no boulders. Lakes are swampy to sandy, no boulders.
14	-	15+	-	0	100	0	0	0	A few rounded, all "clean", ss boulders; on point.
15	-	-	-	-	-	-	-	-	Sandy wooded ridges, with swampy lakes; no boulders.

(R. I. Coll)

(End of Traverse)

GEOLOGICAL TRAVERSE #T6

(by J. K. Russell and R. J. Tremblay; June 19-20, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many" boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse from a small lake, 12 km. SW of Archer Lake, to NE towards Keane Creek. About 22 km. Airphoto Control)
1	x	x	1	50	49±	1±	0.01	1.0	About 50 boulders sampled from 1 to 2, between swamps; boulders are scarce along this leg of traverse; mainly sand. Small well rounded to subrounded ss boulders.
2	-	-	3	0	0	?	?	0	Three granite (Aphebian) boulders.
3	14	10	1	59±	40±	<1	<0.01	1.5	Small ridge, about 25 well rounded small boulders. Clean ss is generally white. Oil stains are thick.
4	10	30	1	24±	75±	<1	<0.01	0.33	Lake shore: many ss flagstones, mostly subrounded boulders. Flagstones may be broken up, larger boulders (frost action?). One oily ss has conglomerate layer.
5	10	25	1	70±	29±	<1	<0.01	2.33	Several drumlins or flutings: large to moderate sized, well rounded to subrounded boulders, mainly ss; one granitic gneiss. Much sand.
6	x	x	-	25	75	0	0	0.33	Along side of drumlins: about 100 boulders, mostly "clean" ss, medium to large size, well rounded. Most "clean" ss is white, about 10% purple. Not much along shore line, about 20 boulders: 5 with oil, 15 clean ss, no Aphebian (from #6 to lake shore).

continued ...

GEOLOGICAL TRAVERSE #T6

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
7	x	x	-	15	85	0	0	0.18	Drumlin: about 150 large boulders and blocks (blocks 1 m. plus in diameter about 15%, subangular to subrounded. Many flat stones, apparently caused by frost action on larger boulders.
8	-	x	-	0	100	0	0	0	Off drumlin, close to lake shore: less than 50 subrounded large boulders and blocks of all "clean" ss.
9	x	x	-	50	50	0	0	1.0	Side of drumlin: about 40 large subangular to subrounded oily and clean ss boulders. Oil stain fairly massive in most boulders; "clean" ss is pink.
10	x	x	-	55	45	0	0	1.2	Along drumlin and lake shore: same type boulders as in 9, with some increase in oily ss. Pink "clean" ss.
11	x	x	-	30	70	0	0	0.43	Across a swamp on ridge: huge blocks and boulders up to 1.5 m. in height; boulders well rounded to subrounded. Increase of "clean" ss.
12	x	x	-	15	85	0	0	0.18	Sandy ridge E shore of a lake: mainly sand; some 25 large ss boulders sampled. Subrounded.
13	x	x	-	<5	95+	0	0	0.05	Ridge leading to a lake; same boulders across river. About 30 medium sized well rounded mainly clean ss boulders, less than 1 foot (25 cm.) in diameter.
14	-	x	-	0	100	0	0	0	Sand ridge (drumlin?): all "clean" subrounded to subangular (10%) boulders.

(J. K. Russell)

(End of Traverse)

GEOLOGICAL TRAVERSE #L2

(by H. Laanela; June 20, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
1	x	x	3	60±	40±	1±	0.01	1.5	(Helicopter traverse downstream along Gross Creek, thence along Maybelle River, thence up stream along Archer Creek, to Archer Lake.) See map with Traverse "R". Gross Creek: All swampy, no boulders or rocks. Unnavigable section of Maybelle River between these tributaries: some small boulders rapids (riffles); not landed. Boulders in creek bed, small, mostly rounded. Archer Creek: few riffles, not many boulders. Mostly very swampy and unnavigable (by canoe). Some boulders seen in sand, both sides (not checked). S - bend in Archer Creek; land on NW side: 3 small hill-islands in muskeg, inside bend, all covered with hundreds of boulders and larger blocks. Station #1 on the first long esker-like ridge to E: Hundreds of subrounded (mainly) to subangular boulders and cobbles along ridge. Boulders closer to swamp (i.e. lower) are more angular, also broken (frost?). Only 3 rounded basement cobbles (2 rusty altered granitic, 1 dark coarse grained igneous rock). Remainder are variety of ss boulders, mainly subround (more rounded on ridge top). About 60% are oil stained (from massive stain to odd "stringers"), about 40% continued...

GEOLOGICAL TRAVERSE #L2

(continued)

STNS.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A+B)	A/B	
									appear "clean" (N.B. Aside from oil stain, both ss's appear rather similar). Some ss purplish colored, often banded or with dark and purplish spots. Most "clean" ss is fine grained, whitish to creamy. Selection of samples (chips) taken.
2									Two small drumlin-like hills 50-100 m. farther west:
									a) In muskeg, between #1 and 2: Many angular blocks and slabs at ss; apparently some frost-heaving. Sizes up to 2 m. Both clean and oily varieties.
	x	x	-	70±	30±	0	0	2.33	b) On hills: One large block (5 m.) frost-broken sub-angular ss, contains both massive oil stain and "stringers"; also some relatively "clean", pinkish-white parts. Also hundreds of smaller blocks (1 m.±) and subrounded to subangular boulders of sandstone, both with and without oil stain. Some very purple, banded (often convuluted) ss ("clean"). No basement rocks. A variety of samples taken. Frost action probably limited. The profusion of large boulders and blocks of ss, and their angularity suggests a bedrock source not far away.
3	x	x	-	30±	70±	<1	< 0.01	0.43	"Camp" island on Archer Lake (Esker remnant): Many 100's of rounded to subrounded (some subangular) boulders and cobbles. One granite boulder; 70% boulders mainly hard, whitish, fine quartzite ss (Athabasca Formation); about 30% contains oil stain (massive and streaks), these appear to be softer and more porous. Some purplish stain on ss. Selection of samples taken.

continued...

(H. Laanela)

(End of Traverse L2)

GEOLOGICAL TRAVERSE #L3

(by H. Laanela; June 21, 1975)

Reference: A = ss with oil stain, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders.

N.B. - "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
1									(Helicopter traverse upstream along Maybelle River, starting from Knipping Lake, toward ESE.) See map with Traverse "R". From Knipping Lake to Gross Creek, - sandy bottom, swampy shores, sand plains, only very occasional boulders. No landings. Riffles with small boulders between Cross and Archer Creeks. First sizable rapids with large blocky boulders on rapids and on sand flat to E. Land on E. side, swampy shore. 1a) Sand flat with 20± small rounded pebbles and cobbles: 3 Aphebian (granite etc.), rest 2/3 clean, 1/3 oily ss. Much travelled.
	x	x	1	80±	20±	< 1	0.01	4.0	1b) About 100 m. farther SE, opposite rapids: several 100 large ss slabs and blocks near river, more on top of sand toward E, sizes from 10-20 m. up to 2-3m. in length or across. Only 1 subangular granite boulders. Remainder are 80+ % only ss (mostly massive stain, some streaks), and about 20% (or less?) "clean" ss (similar otherwise to oily ss). Some "clean" ss is indistinguishable from the oily variety, except for oil stain. This ss is very angular to subangular, a few smaller boulders are also subrounded, eg.

continued...

GEOLOGICAL TRAVERSE #L3

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
2	x	x	-	95	5±	0	0	19.0	eg. 80% Angular 15% Subangular, and 5% Subrounded ss boulders The angularity does not appear to be caused by frost action. Some pieces are rather flat and slabby. A large variety of samples taken. 1c) Similar large angular blocks on rapids and creekbed (not checked), assumed to be "oily" ss also. The angularity suggests a bedrock source rather close. Further upstream. Boulder rapids; large area of boulders and blocks, also slabs, on sand plain E and opposite of rapids. Land on swampy shore to s: Situation very similar to L3 - 1b/1c; large flat (some low ridges) sandy park-like area, covered with many 100's of oil bearing (massive and streaky) ss boulders, all rather angular. Sizes up to several inches across or long. Small % (I5%) "clean" ss, appears to be very similar to "oily" variety (except for oil stain). Same ss also coarse and gritty, may show poor bedding. No basement boulders at all. Also no distinct white, hard, fine grained quartzite boulders (Athabasca Formation type). Selection of samples taken. Rapids assumedly same ss; angular blocks. No frost action. continued...

GEOLOGICAL TRAVERSE #L3

(continued)

STNS.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
3	x	x	-	75	25	0	0	3.0	Further upstream: Boulder rapids; large area of angular boulders E of rapids. Land E side of creek: Situation very similar to #2. Check an area at about 200 m. x 500 m, - many hundreds of ss boulders, and blocks. Slight decrease of "oily" ss. A few hard white quartzite boulders. No basement or granite rocks. Estimate: Oily ss (mainly streaks, less massive stain here) about 75% (or more?); "clean" ss, - 25% or less (otherwise similar to "oily" kind). Also: Angular 25% ± Subangular 50% ±, and Subrounded 25% ± ss boulders, There is little evidence of frost action (except for a few flat thin flagstones obviously broken away from larger blocks, same "slabby", up to 2 m. across. In general: slight decrease on oil and angularity.
4	-	x	1	0	99+	<1	<0.01	0	Further upstream (on edge of map 74L): Land near boulder rapids. E. side. Esker like ridge, with pot-holes and kames further uphill; many hundreds of boulders: All well rounded to subrounded clean ss boulders and cobbles; no oil seen. Ss here appears to be more guartzite, harder, whiter (Athabasca Formation). About 10% are softer, purple stained ss. One block mafic igneous rock. (H. Laanela) (End of Traverse L3)

Project #508

GEOLOGICAL TRAVERSE #T8

(by R. J. Tremblay, and K. MacNabb; June 24-26, 1975)

Reference: A = ss with oil, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders.

N.B. - "X" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse from small lake 4 km S.W. at Harwood Lake, to NE, NE of Archer Lake. About 22 km. Airphoto control).
1	±25	±25	-	50	50	0	0	1.0	Well rounded to subangular boulders. The oil occurs as thin stains or almost massive.
2	x	x	-	60	40	0	0	1.5	Well rounded to subangular boulders, generally 30 cm or less less in diameter.
3	x	x	-	55	45	0	0	1.2	Well rounded to subangular boulders up to 3 m. in size, and averaging about 1 metre. Oil occurs as thin stains or massive.
4	x	x	-	50	50	0	0	1.0	Well rounded to angular boulders generally 20 to 30 cm. in size.
5	x	x	-	45	55	0	0	0.82	About 50 rounded to angular ss boulders;
6	x	x	-	50	50	0	0	1.0	Well rounded to angular boulders
7	x	x	-	30	70	0	0	0.43	Well rounded to angular (several flagstones); most boulders 20-30 cm. in diameter, a few up to 2 m. Oil texture both thin stain and massive.

continued...

GEOLOGICAL TRAVERSE #T8

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
8	x	x	-	65	35	0	0	1.8	Well rounded to angular boulders; several flagstones occur. Most boulders are 10-20 cm. in diameter, a few are up to 2m. Oil texture again is as thin stain or massive.
9	x	x	-	50	50	0	0	1.0	Rounded to subangular boulders; 5 or 6 of them.
10	-	4	-	0	100	0	0	0	Boulders of "clean" sandstone generally 15-20 cm in diameter.
11	~25	~25	-	50	50	0	0	1.0	Rounded to subangular boulders (about 50 of them) generally 10-20 cm. in diameter, with a few up to 1 meter. Oil occurs massively or as thin stains.
12	x	x	-	20	80	0	0	0.25	Small well rounded boulders (5-15 cm in diameter)
13	x	x	-	15	85	0	0	0.18	Well rounded to subangular boulders, ranging from 5 to 50 cm. in diameter.
14	x	x	-	25	75	0	0	0.33	Rounded to subangular boulders generally 10-30 cm. in diameter. Oil stains are mainly in thin bands.
15	x	x	-	15	85	0	0	0.18	Rounded to angular boulders 10-40 cm. in diameter. Oil stains occur in thin bands. One metamorphic rock 20 cm. in diameter, well rounded, mainly quartz, plag., plus some biotite.
16	x	x	-	10	90	0	0	0.10	Well rounded, 5-20 cm. in diameter.

continued...

GEOLOGICAL TRAVERSE #T8

(Continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
17	x	x	-	40	60	0	0	0.67	Well rounded boulders (about 15), some up to 2 m. in diameter, the others generally 20 - 30 cm.
18	x	x	1	15	85	1	0.01	0.18	Well rounded 10-20 cm. in diameter. One well rounded porphyroblastic gneiss.
19	x	x	1	5	95	1	0.01	0.05	Well rounded to subangular boulders, 5-20 cm. in diameter. One small rounded boulder of fine grained quartz-felds.-biotite gneiss, similar to the type found at the preceding station.
20	x	x	-	10	90	0	0	0.10	Rounded to subangular boulders, 5-20 cm. in diameter.
21	x	x	1	15	85	1	0.01	0.18	Small rounded boulders (about 15 of them). One quartz monzonite. Monzonite boulder about 15 cm. in diameter.
22	x	x	-	2	98	0	0	0.02	Small well rounded boulders, generally 15-10 cm. in diameter. (some to to 15 cm.)
23	x	x	-	10	90	0	0	0.10	Small (5-15 cm.) well rounded boulders; 2 or 3 are 1 or 2 m. in diameter. 95% of the rocks contain oil in weak amounts. The few large boulders are massively oil stained.
24	x	x	-	10	90	0	0	0.10	About 50 rounded boulders, many up to 1-2 m. in diameter.
25	3	3	-	50	50	0	0	1.0	Six large subangular boulders, about 2 m. in diameter.
26	-	-	-	-	-	-	-	-	Six large subangular boulders, about 2 m. in diameter. No boulders (end of second day of traverse).

continued...

GEOLOGICAL TRAVERSE #T8

(Continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
27	0	15	0	0	100	0	0	0	Small (5-15 cm.), well rounded boulders (about 15 of them)
28	-	x	x	0	99	< 1	.01	0	Small well rounded boulders. One basement rock.
29	x	x	-	80	20	0	0	4.0	Rounded to angular boulders; about 25 boulders of which ~15 are 20-40 cm. in diameter and 10 are 2-3 m. in diameter. Oil stain is weak to massive. The larger boulders are those which contain oil.
30	x	x	x	1	98	1	.01	.01	Along an esker; well rounded to rounded boulders, 5-40 cm. in diameter. Two granitic boulders, one a fine grained quartz monzonite and the other a biotite granodiorite.
31	x	x	x	<1	99	1	.01	.01	Well rounded to angular boulders, generally 15-45 cm. with some up to 1 m. Five granitic boulders, well rounded, fine grained foliated granodiorite to quartz monznite. The esker is covered with boulders.
32	x	x	x	<1	99	1	.01	.01	On top of a dome along the esker; boulder size similar to previous section (31), the larger boulders being more scarce. 8 very well rounded granitic or gneissic boulders.
33	?	?	3-4	?	?	?	?	?	Well rounded to subangular boulders. 3 or 4 granites or or gneisses.
34	-	-	-	-	-	-	-	-	End of Traverse #T8

(R. J. Tremblay)

(End of Traverse)

GEOLOGICAL TRAVERSE #T7

(by R. J. Tremblay and K. MacNabb; June 27-29, 1975)

Reference: A = ss with oil, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders.

N.B. - "x" denotes "many boulders" i.e. uncounted numbers.

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse to NE in NW corner of property. Airphoto control)
1	-	-	-	-	-	-	-	-	Start traverse #T7. No boulders.
2	-	-	-	-	-	-	-	-	Sand only, no boulders.
3	-	x	-	0	100	0	0	0	About 50-75 round to angular boulders 10-40 cm. in diameter. They are found on the slope following the river. Many boulders of the same size occur on the river bed, but none can be identified as outcrop.
4	-	-	-	-	-	-	-	-	Sand only, no boulders.
5	-	-	-	-	-	-	-	-	Many boulders lie on the river bed. The size range is similar to station 3, except that several boulders are much larger (up to 1 m.). No outcrop identified.
6	-	-	-	-	-	-	-	-	No boulders
7	0	100	0	0	100	0	0	0	A dozen boulders, 5-25 cm. in diameter; well rounded.
8	-	-	-	-	-	-	-	-	No rocks; end of day's Traverse.
9	-	-	-	-	-	-	-	-	Begin next section; no rocks

continued...

GEOLOGICAL TRAVERSE #T7

(Continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
10	-	-	-	-	-	-	-	-	Sand only, no rocks
11	-	-	-	-	-	-	-	-	No rocks
12	-	6	-	0	100	0	0	0	Six small boulders, 5-20 cm., well rounded.
13	-	50	-	0	100	0	0	0	Small well rounded boulders, 5-20 cm. in diameter.
14	-	x	x	0	99	1	.01	0	Numerous small boulders are found on most of this lake shoreline. Generally they range 5-10 cm. in diameter, with several up to 30 cm. They are well rounded. A variety of granitoid rocks are found as small boulders.
15	-	-	-	-	-	-	-	-	No boulders.
16	-	x	x	0	99	1	.01	0	Numerous small boulders are found between this station and the preceding station. Generally they range 1-10 cm in diameter with several up to 20 cm. They are well rounded. Again a variety of granitoid rocks are found as small boulders. End of today's section.
17	-	x	-	0	100	0	0	0	Numerous rounded to subangular boulders lie along the shoreline of this. They are found above present water level. Size range 1-20 cm.

continued...

GEOLOGICAL TRAVERSE #T7

(Continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
18	-	-	-	-	-	-	-	-	No boulders
19	-	x	-	0	100	0	0	0	About 20 well rounded to subangular boulders. Size range generally 25 cm. to 75 cm. with about 8 or 9 being 2 m. or more.
20	-	x	-	0	100	0	0	0	About 20 boulders; size range 20 cm. to 1 m. with a few at 2 m. in diameter. They are well rounded to angular.
21	-	x	-	0	100	0	0	0	About 10 well rounded boulders 25 cm - 1 m in diameter.
22	-	-	-	-	-	-	-	-	End of Traverse #T7. No boulders.

(R. J. Tremblay)

(End of Traverse #T7)

GEOLOGICAL TRAVERSE #T9

(by R. J. Tremblay and K. MacNabb; June 30-July 3, 1975)

Reference: A = ss with oil stain; B = "clean" ss; C = basement rock.

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Intermediate traverse between T4 and T6. Airphoto control)
1	-	-	-	-	-	-	-	-	Start Traverse; no boulders.
2	x	x	1	40	60	<1	0.01	0.67	Numerous boulders along this line from the preceding station; generally they are 10-25 cm. in diameter, with some up to 1m.; well rounded to subangular. One metamorphesed granodiorite boulder ~ 15 cm. in diameter.
3	x	x	-	30	70	0	0	0.43	About 15-20 rounded boulders. 10-30 cm. in diameter.
4	x	x	2	30	70	<1	0.01	0.43	Rounded to subangular boulders, generally 10-50 cm. with a few up to 2 m. in diameter. Two metamorphosed granodiorite boulders.
5	x	x	1	60	40	<1	0.01	1.5	Rounded to angular boulders, 10-40 cm. in diameter with few up to 2 m. one granitoid rock.
6	x	x	1	40	60	<1	0.01	0.67	Rounded to angular boulders, 10-40 cm. in diameter with a few up to 2 m. One granitoid rock; a granodiorite.
7	x	x	-	30	70	0	0	0.43	Rounded to angular boulders; generally 10-40 cm. in diameter with a few up to 1 - 1.5 m.
8	x	x	-	60	40	0	0	1.5	Rounded boulders; most 10-60 cm. in diameter, a few 1.5-2m.

continued...

GEOLOGICAL TRAVERSE #T9

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
9	x	x	-	60	40	0	0	1.5	Rounded to angular boulders generally 10-60 cm. in diameter with several up to 1-2 m.
10	x	x	-	85	15	0	0	5.7	Medium to large boulders (at least a few hundred since the preceding station) rounded to subangular; general size 25 cm. - 1 m. with several up to 2-3 m. Oil content is weak to massive. About 90% of the larger boulders are oil stained.
11	x	x	-	80	20	0	0	4.0	Several hundred boulders occur since the preceding station with a general size range 25 cm - 1 m. with several up to 2-3 m. Oil stain is again weak to massive, and about 85% of the larger boulders contain oil.
12	x	x	-	80	20	0	0	4.0	Rounded to angular boulders (several hundred of them) with general size range 25 cm. - 1 m. with several up to 1.s - 2 m. Oil stain weak to massive.
13	x	x	-	60	40	0	0	1.5	Several hundred rounded to angular boulders with a general size range 25 cm. - 75 cm. with several up to 1.0 - 1.5 m. in diameter. Oil stain weak to massive.
14	x	x	-	40	60	0	0	0.67	Several hundred rounded to angular boulders with a general size 30 cm. - 1 m. in diameter. Oil stain weak to massive.
15	-	-	-	-	-	-	-	-	End of day's section.

continued...

GEOLOGICAL TRAVERSE #T9

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
16	-	-	-	-	-	-	-	-	Begin day's section; no boulders
17	x	x	-	60	40	0	0	1.5	Several hundred boulders occur between this station and the last. They are generally large, 25 cm. - 1 m. with many between 1 m. 2 m; They are rounded to subangular. Oil content is weak to massive.
18	x	x	-	60	40	0	0	1.5	At least one thousand boulders occur between this station and the last station. They are generally large: 25 cm - 1 m. in diameter, with many between 1 & 2 m, and several up to 3 - 3.5 m. They are rounded to angular. About 80% of the larger boulders contain oil; oil content is weak to massive.
19	x	x	-	50	50	0	0	1.0	At least one thousand ssT boulders occur since the last station; They are generally slightly smaller than at the preceding station: 15-75 cm. in diameter, with many from 1.0 - 1.5 m. and several up to 2-3 m. in diameter. They are rounded to subangular.
20	x	x	-	50	50	0	0	1.0	Several hundred boulders, generally 15-75 cm. in diameter with many 1.0 - 1.5 m. and several up to 2 m. in diameter; Rounded to subangular.
21	x	x	-	55	45	0	0	1.22	Several hundred boulders, generally 15-75 cm. in diameter with a few up to 2-3 m. Rounded to angular.

continued...

GEOLOGICAL TRAVERSE #T9

(Continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
22	x	x	-	45	55	0	0	0.82	Several hundred boulders; size range 15-75 cm. with many 1.0 - 1.5 m. in diameter and a few up to 2.0 - 2.5 m. in diameter. Rounded to angular. Oil stain is weak to massive.
23	x	x	-	40	60	0	0	0.67	Several hundred boulders; generally they are 15-75 cm in diameter with many at 1.0 - 1.5 m., and a few up to 2.0 - 2.5 m. in diameter. Rounded to angular. End of day's section.
24	-	-	-	-	-	-	-	-	Start day's traverse; no boulders.
25	x	x	-	60	40	0	0	0.15	About 100 boulders since the preceding station. Rounded to subangular; generally 20 cm - 75 cm. in diameter with several up to 2 m. in diameter. Oil stain is weak.
26	x	x	-	50	50	0	0	0.10	About 100 ssT boulders since the preceding station. Rounded to subangular, generally 15-75 cm. in diameter, with several up to 1.5 m.
27	x	x	1	40	60	<1	0.01	0.67	Rounded ssT boulders; generally 15-75 cm. in diameter; some up to 2.5 m. in diameter. One well rounded granodiorite boulder (25 cm. in diameter).
28	x	x	-	30	70	0	0	0.43	Rounded ssT boulders generally 1.0 - 50 cm. in diameter; some up to 1.5 - 2.0 m.

continued...

GEOLOGICAL TRAVERSE #T9

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
29	x	x	x	30	70	<1	<0.01	0.43	Rounded to subangular ssT boulders generally 10-50 cm. in diameter with some up to 1.0-1.5 (a few hundred of them). Also two rounded hornblende quartz-monzonite boulders (20 cm. in diameter). One 20 cm. rounded, quartz feldspar-biotite gneissic rock (sample taken)
30	x	x	x	25	75	<1	<0.01	0.33	Rounded to angular ssT boulders (about a thousand since the last station); general size 15 cm. - 1 m. in diameter with several up to 2 m. Oil content is from fine to massive. One granitoid rock (well rounded)
31	x	x	x	20	80	0	0	0.25	Rounded to angular ssT boulders (a few hundred); general size range 15 cm. - 1 m. in diameter with several up to 2 m.
32	x	x	-	10	90	0	0	0.11	About 50 ssT boulders; generally 15 cm. - 1 m. in diameter with one boulder 5 m. in diameter.
33	-	-	-	-	-	-	-	-	End of Traverse #T9; no rocks.

(R. J. Tremblay)

(End of Traverse)

GEOLOGICAL TRAVERSE #T10

(by R. J. Tremblay and K. MacNabb; July 4-5, 1975)

Reference: A = ss with oil, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders.

N.B. - "x" denotes "many boulders", i.e. uncounted numbers.

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse SW to NE, SE corner of permits, about 12-13 Km. airphoto control).
1	-	-	-	-	-	-	-	-	Begin day's traverse; no boulders.
2	x	x	-	50	50	0	0	1.0	About one hundred SST boulders since the preceding station; generally 15-75 cm. in diameter, with some up to 1.75 m; well rounded to subangular.
3	x	x	1	55	45	<1	< 0.01	1.22	A few hundred SST boulders since the last station; Rounded to subangular; gnerally 15-75 cm. in diameter with several up to 1.75 m. (75% of the larger boulders contain oil); one quartz monzonite boulder - well rounded.
4	x	x	-	55	45	0	0	1.22	Several hundred. SST boulders since the last station; rounded to angular; generally 15-75 cm. in diameter, with several up to 2 m.
5	x	x	-	50	50	0	0	1.0	A few hundred SST boulders; rounded to angular; generally 15 - 75 cm. in diameter.
6	x	x	-	55	45	0	0	1.22	A few hundred SST boulders since the last station. Generally 15-75 cm. in diameter, with many 75 cm. - 1.5 m.

continued...

GEOLOGICAL TRAVERSE #T10

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(continued from station 6) and a few about 2.0 m. in diameter. Oil stains are weak to massive.
7	x	x	1	75	25	<1	< 0.01	3.0	Several hundred SST boulders since the last station. Rounded to subangular; generally 20 cm. - 1 m. in diameter with many between 1.- and 1.5 m. and several at 2.0 - 2.5 m. in diameter. The larger boulders tend to contain oil stains. One 40 cm., well rounded amphibole-feldspar-quartz-garnet (almandine) gneiss boulder (sample taken).
8	x	x	1	45	55	<1	< 0.01	0.82	Several hundred SST boulders since the last station. Rounded to subangular; generally 20 cm. - 1 m. in diameter with many between 1.0 and 1.5 m. One quartz-monzonite boulders (well rounded)
9	x	x	-	30	70	0	0	0.43	Boulders are generally smaller than with the preceding station; rounded to subangular.
10	x	x	-	30	70	0	0	0.43	Several hundred boulders since the last station; generally 20 cm. - 1 m. in diameter with many being 1.5 - 3 m. in diameter (5% of total rock count) End of day's section.
11	-	-	-	-	-	-	-	-	Begain day's section; no rocks

continued...

GEOLOGICAL TRAVERSE #T10

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
12	x	x	1	15	85	<1	< 0.01	0.18	A few hundred SST boulders; rounded to subangular; generally 15-75 cm. in diameter with several up to 1.5 m. in diameter. Most of the oil is found in the larger boulders. One rounded granite gneiss boulder giving 45 c.p.s. (background 15 c.p.s.).
13	x	x	-	15	85	0	0	0.18	A few hundred rounded to subangular SST boulders. Generally 15 - 75 cm. in diameter with several up to 1.5 m.
14	x	x	1	5	95	0	0	0.05	About 100 rounded SST boulders since the last station; generally 10-50 cm. in diameter with a few up to 1.0 m. in diameter. One K-feldspar, quartz-biotite gneiss: well rounded; about 45 cm. in diameter.
15	-	-	-	-	-	-	-	-	No rocks, only sand.
16	-	x	-	0	100	0	0	0	About one dozen rounded SST boulders generally 1.0-1.5 m. in diameter.
17	-	-	-	-	-	-	-	-	No boulders, only sand.
18	-	x	-	0	100	0	0	0	About one dozen well rounded boulders; generally 15-30 cm. in diameter, one 50 cm. in diameter.

continued...

GEOLOGICAL TRAVERSE #T10

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
19	-	x	-	0	100	0	0	0	A few small, well rounded SST boulders; generally 5 - 20 cm. in diameter.
20	-	x	-	-	100	0	0	0	Several small rounded boulders since the preceding station; Also, one boulder pile containing about 50 boulders: rounded to subangular, 25 cm. - 1 m. in diameter generally.
									(R. J. Tremblay)
									(End of Traverse #T10)

GEOLOGICAL TRAVERSE #T11

(by R. J. Tremblay and K. MacNabb, July 6 - , 1975)

Reference: A = ss with oil, B = "clean" ss, C = basement rock (igneous and metamorphic) boulders

N.B. - "x" denotes "many boulders", i.e. uncounted numbers.

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(Traverse to NE, between T6 and T8, NW of Archer Lake; airphoto control).
1	-	-	-	-	-	-	-	-	.... Start day's section; no rocks.
2	x	x	-	50	50	0	0	1.0	About 100 SST boulders since the preceding station; rounded size range: 25 cm. - 1 m. in diameter.
3	x	x	-	30	70	0	0	0.43	Rounded SST boulders generally 15 cm. - 1 m. in diameter; rounded.
4	x	x	-	25	75	0	0	0.33	A few hundred small rounded boulders, 5-50 cm. in diameter, with a few up to 1 m. in diameter.
5	x	x	3	15	85	<1	0.01	0.18	Along an esker (average relief about 10 m) a few hundred small SST boulders: rounded to subangular; general size range 5-50 cm. in diameter. Two well rounded quartz-monzonite boulders about 25 cm. in diameter; one well rounded porphyritic hornblende granodiorite.
6	x	x	2	10	90	<1	0.01	0.11	Along same esker as (5); a few hundred small SST boulders rounded to subangular, generally 5-50 cm. in diameter. One granodiarite boulder and one quartz monzonite boulder: well rounded.

continued...

GEOLOGICAL TRAVERSE #T11

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
7	x	x	-	10	90	0	0	0.11	Rounded to subangular SST boulders, generally 15-75 cm. in diameter with some up to 1.0 - 1.5 m. in diameter.
8	x	x	1	30	70	0	0	0.43	Rounded SST boulders; large size range: 15 cm. - 1.5 m. in diameter (many are also subangular). One mylonetic gneiss boulder, rounded, about 25 cm. in diameter.
9	x	x	1	20	80	<1	<0.01	0.25	Rounded to subangular SST boulders: size range 15 cm-1.5 m. in diameter. One granitoid rock, well rounded.
10	x	x	-	30	70	0	0	0.43	Small rounded SST boulders. End of day's section.
11	-	-	-	-	-	-	-	-	Begin day's section; no rocks.
12	x	x	-	30	70	0	0	0.43	A few hundred well rounded to rounded SST boulders; generally 10-75 cm. in diameter with several up to 1.5 m. in diameter.
13	x	x	-	60	40	0	0	1.5	Close to one thousand SST boulders; rounded to subangular; size range 20 cm-2m. in diameter with several 2.0 - 3.0 m. in diameter. At least 40% of the boulders are > 1.0 m. in diameter, and the majority of boulders containing oil, have it in weak to medium amount.

continued...

GEOLOGICAL TRAVERSE #T11

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
7	x	x	-	10	90	0	0	0.11	Rounded to subangular SST boulders, generally 15-75 cm. in diameter with some up to 1.0 - 1.5 m. in diameter.
8	x	x	1	30	70	0	0	0.43	Rounded SST boulders; large size range: 15 cm. - 1.5 m. in diameter (many are also subangular). One mylonetic gneiss boulder, rounded, about 25 cm. in diameter.
9	x	x	1	20	80	<1	<0.01	0.25	Rounded to subangular SST boulders: size range 15 cm-1.5 m. in diameter. One granitoid rock, well rounded.
10	x	x	-	30	70	0	0	0.43	Small rounded SST boulders. End of day's section.
11	-	-	-	-	-	-	-	-	Begin day's section; no rocks.
12	x	x	-	30	70	0	0	0.43	A few hundred well rounded to rounded SST boulders; generally 10-75 cm. in diameter with several up to 1.5 m. in diameter.
13	x	x	-	60	40	0	0	1.5	Close to one thousand SST boulders; rounded to subangular; size range 20 cm-2m. in diameter with several 2.0 - 3.0 m. in diameter. At least 40% of the boulders are > 1.0 m. in diameter, and the majority of boulders containing oil, have it in weak to medium amount.

continued...

GEOLOGICAL TRAVERSE #T11

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	C	C	A	B	C	C/(A + B)	A/B	
14	x	x	-	60	40	0	0	1.5	Several hundred SST boulders; Two general size ranges 10-50 cm. (~25% oil rich) and 50 cm. - 2 m. (about 80% oil rich). Rounded to subangular; Since the larger boulders are more obvious the % estimate is rated at least: 60/40/0; the oil staining is more massive along this section.
15	x	x	-	25	75	0	0	0.33	Rounded to subangular SST boulders; generally 10 cm. - 1m. in diameter.
16	x	x	-	15	85	0	0	0.17	Several rounded to angular boulders.
17	x	x	-	40	60	0	0	0.66	Rounded to angular SST boulders; general size range 20 cm. - 1 m. in diameter, with several 1 m. - 4 m. in diameter.
18	x	x	-	35	65	0	0	0.54	Rounded to angular SST boulders; general size range 20 cm. - 1 m. in diameter, with several 1.0 - 4.0 metres in diameter.
19	x	x	-	40	60	0	0	0.67	Rounded to angular SST boulders (a few hundred of them); general size range 20 cm. - 1 m. in diameter with several 1.0 - 4.0 m. in diameter.

(R. J. Tremblay)

(End of Traverse #T11)

GEOLOGICAL TRAVERSE #T12

(by R. I. Coll and R. J. Tremblay; July 9 ..., 1975)

Reference: "A" = ss with oil; "B" = "clean" ss; "C" = Basement rock (igneous and metamorphic) boulders

N.B. "x" denotes "many boulders", i.e. uncounted numbers.

STN.	NO. OF BLDS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									Traverse to N.E. between T-2andT-4.
1	-	-	-	-	-	-	-	-	Start T-12 - sandy beach, no boulders ...
2	-	-	-	-	-	-	-	-	Continue along traverse - no boulders - all sand.
3	-	-	-	-	-	-	-	-	Continue along traverse - no boulders - all sand.
4	1	9	0	10	90	0	0	0.01	10 small rounded ss blds. 10-20 cm. in diameter, 1 oil stain.
5	-	x	-	0	100	0	0	0	Cobbles occur on sandy slope adjacent to river, 1 to 15 cm. in diameter. They all appear to be clean.
6	9	3	0	75	25	0	0	3.0	Well rounded to sub angular ss boulders. 20-30 cm. in diameter.
7	-	-	-	-	-	-	-	-	End of the day's traverse.
8	-	-	-	-	-	-	-	-	Start Traverse, no boulders, sand.
9	x	x	-	85	15	0	0	5.7	Ridge - covered with ss boulders, rounded to subangular.
10	x	x	-	90	10	0	0	0.0	Continue along ridge, numerous boulders, well rounded to angular, up to 1 m. in diameter.

continued...

GEOLOGICAL TRAVERSE #T12

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
11	x	x	-	60	40	0	0	1.5	Same ridge, numerous boulders, angular to rounded.
12	x	x	-	70	30	0	0	2.3	Numerous boulders - angular to subrounded.
13	x	x	-	65	35	0	0	1.8	SST boulders rounded to angular.
14	x	x	-	60	40	0	0	1.5	Numerous boulders, all sandstone, rounded to angular.
15	x	x	-	60	40	0	0	1.5	Some vary large boulders, up to 10 m. in diameter.
16	x	x	-	50	50	0	0	1.0	Numerous SST boulders - rounded to subangular.
17	-	-	-	-	-	-	-	-	End of day's traverse.
									(R. J. Tremblay)
									(End of Traverse #T12)

GEOLOGICAL TRAVERSE (AIRBORNE) #G1 JUNE 6, 1975

Reference: A = ss with oil B = ss "clean" C = Basement rocks (metamorphic or igneous) boulders

N.B. "x" denotes "many boulders", i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES)
	A	B	C	A	B	C	C/(A + B)	A/B	
1	-	x	x	0	99	1	0.01	0	Anco anomaly #22: Boulders of ss (clean) to 1 m. in diameter, subrounded. (N. of map area).
2	-	x	-	0	100	0	0	0	Clean s.s. boulders to .4 m. in diameter rounded.
3	-	x	x	0	99	1	0.01	0	Clean s.s. (+4% conglomerate) to .7 m. in diameter rounded.
4	x	x	x	80	19	1	0.01	4.0	N.E. of Keane Creek 100° from camp SS up to 3.5 m. in diameter, angular to sub rounded.
5	x	x	x	80	19	>1	0.01	4.0	N.E. corner of "Island" Lake: SS up to 4 m. diameter angular to subrounded
6	x	x	x	50	50	0	0.0	1	½ way between Archer and Burnt Hill lakes SS up to (Pink-White) 3-5 m. in diameter angular to subrounded.
7	x	x	-	40	60	0	.0	.67	2½ miles east of Burnt Hill Lake S.S. boulders to 7-m. diameter some rippling in S.S.
8	-	x	-	0	100	0	0	0	6 miles @ 82° from camp in bottom of Keane Creek angular S.S. slabs.
9	-	-	-	-	-	-	-	-	(Refer to Traverse #L2-3)

(K. Geue)

(End of Traverse #G-1)

GEOLOGICAL TRAVERSE #T13

(by R. Coll and R. J. Tremblay; July 12, 1975)

Reference: A - ss with oil; B = ss "clean"; C = basement rocks (metamorphic and igneous) boulders.

N.B. "x" denotes "many boulders" i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
1	-	-	-	0	0	0	-	-	Start Traverse: - sand, no boulders.
2	0	6	0	0	100	0	0	0	Mostly sand 3 cobbles - 6 m.m. in diameter, clean
3	-	-	-	0	0	0	-	-	Edge of small lake - no boulders - sand.
4	9	4	0	70	30	0	0	2.3	Between station 3 and station 4, 13 boulders sighted 9 have oil stain, up to 1 m. in diameter counted to angular.
5	x	x	-	50	50	0	0	1.0	Boulder field ~ 7,200 boulders varing in size and roundness. End of Day's Traverse. (S.W. of #T1-A)
6	x	x	-	70	30	0	0	2.3	Begin day's section; Numerous boulders - along ridge. round to angular; no aphebian - all sizes
7	x	x	-	70	30	0	0	2.3	Numerous boulders - along ridge; all sizes, rounded to angular.
8	x	x	1	75	24	< 1	< 0.01	3.0	Numerous boulders - along ridge; rounded to angular; one garnet amphibolite boulder.

GEOLOGICAL TRAVERSE #T13

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
9	x	x	-	60	40	0	0	1.5	No granitic rocks; rounded to angular boulders all sizes.
10	x	x	-	70	30	0	0	2.3	Numerous boulders; angular to rounded.
11	x	x	1	60	29	< 1	< 0.01	2.0	Scattered SST boulders; one aphebian boulder - gneiss, well rounded, 25 cm. in diameter.
12	x	x	x	100	0	0	0	0	Common boulders; small and rounded; 20-30 cm. in diameter.
13	x	x	1	0	99	< 1	< 0.01	0	Boulders, angular to rounded; one amphibolite.
									(R. Coll)
									(End of Traverse #T13)

GEOLOGICAL TRAVERSE #T14

(by R. Coll and R. J. Tremblay; , 1975)

Reference: A = ss with oil; B = ss "clean"; C = basement rocks (metamorphic and igneous) boulders.

N.B. "x" denotes "many boulders" i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
1	-	-	-	-	-	-	-	-	Start T-14: No boulders; all sand.
2	-	-	-	-	-	-	-	-	Sand; no boulders.
3	-	-	-	-	-	-	-	-	Sand; no boulders.
4	-	-	-	-	-	-	-	-	Sand; no boulders.
5	8	8	0	50	50	0	0	1.0	Very few scattered boulders, 20 cm. in diameter.
6	-	-	-	-	-	-	-	-	No boulders; - sand.
7	1	0	1	-	-	-	-	-	One boulder of stained ss, 1 boulder of basement rock, granodiorite 20 cm. in diameter.
8	x	x	-	<1	>99	0	0	< 0.01	Numerous boulders, small size 20-30 cm. rounded to subangular - 1 oil stain in approximately 100 rocks.
9	2	x	0	<1	99	0	0	< 0.01	Numerous boulders - 2 with oil stain in > 200, size; small 15-25 cm. rounded to subangular.
10	-	-	-	-	-	-	-	-	End of Day's Traverse - no boulders - sand.

continued...

GEOLOGICAL TRAVERSE #T14

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
									(T14 continued from Knipping Lake, July 16, 1975, by J.K. Russell and H. Laanela).
11	5	11	1	35	65	<1	<0.01	0.54	High sandy banks along river with about 10% of rounded to subrounded pebbles.
12	x	x	-	40	60		0	0.67	Lake shore: rounded ss cobbles and larger angular flagstones.
13	x	x	-	80	20	0	0	4.0	Low sandy ridge: subround boulders and subangular blocks (up to 1 m.), mostly oily ss. No basement rocks.
14	x	x	-	60	40	0	0	1.5	High sandy ridge: boulders field with some large ss blocks, angular to subangular; smaller ones rounded.
15	6	x	-	35	65	0	0	0.54	S.W. end of another ridge toward N.W.: Mainly subangular to subrounded medium to larger boulders of clean and oily ss; some are purplish, with good bedding.
16	x	x	0	45	55	0	0	0.82	650 m. NE along above ridge: mostly clean ss (15/85/0), very low in oily ss. 30 m. further along ridge, large boulder field (50/50/0), some more than 1 m. in diameter.
17	2	x	0	<10	90+	0	0	0.11	1700 m. N. from #15, along ridge; end of esker? Many "clean" ss boulders and pebbles, rounded to subrounded. No Aphebian.
18	3	x	0	10	90	0	0	0.11	Esker, 3 km. NE at #15: Check 30± rounded small ss boulders, very few with oil.

continued...

GEOLOGICAL TRAVERSE #T14

(continued)

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
19	-	x	-	0?	100	0	0	0	High esker, 40 m: Large rounded ss boulders, all "clean".
20	x	x	-	3±	95±	0	0	0.05	High esker, 40 m: Large rounded ss boulders, mostly "clean". No Aphebian (basement) boulders seen. (End of day's traverse) (continued by J. K. Russell and K. MacNabb, July 19, 1975).
21	x	x	-	15	85	0	0	0.18	Small drumlin: Many subangular ss boulders, up to 1 m. diameter.
22	-	-	-	-	-	-	-	-	Sand; no boulders.
23	x	-	1	99±	0	1±	0.01	99+	20 subangular boulders (up to ½ m.), all oily. One granite boulder.
24	x	x	1	40	60	0	0	0.67	Drumlin: Many small sub-angular boulders, up to 1 m. diameter.
25	x	x	-	30	70	0	0	0.43	Many subangular ss boulders, up to ½ m.
26	-	-	-	-	-	-	-	-	Sand; no boulders.
27	x	x	-	20	80	0	0	0.25	About 50 large boulders of ss, up to 2 m. diameter.
28	-	-	-	-	-	-	-	-	Sand; no boulders.
									(R. Coll) (J. K. Russell) (End of Traverse #T14)

GEOLOGICAL TRAVERSE #15

(by J. K. russell and K. MacNabb; July 20-22, 1975)

Reference: A = ss with oil B = ss "clean" C = basement RKS (metamorphic or igneous) boulders.

N.B. - "x" denotes "many boulders" i.e. uncounted numbers

STN.	NO. OF BLDRS.			% OF BLDRS.			RATIOS		ADDITIONAL INFORMATION (FROM FIELD NOTES):
	A	B	C	A	B	C	C/(A + B)	A/B	
1	-	-	-	-	-	-	-	-	Start just Eastof sand dunes - no boulders.
2	-	-	-	-	-	-	-	-	Sand plains, no boulders.
3	0	x	0	0	100	0	0	0	River bed - rapids: some flat angular boulders - flagstone large boulders and some blocks, all clean SST? (compare with #K2 - same area - H. Laanela).
4	0	x	0	0	100	0	0	0	Sandy Ridge: Many small rounded cobbles of clean SST.
5	-	-	-	-	-	-	-	-	Sand - no boulders.
6	0	20	0	0	100	0	0	0	A small boulder train just off the end of the lake. Mainly sand ridges except for these small well rounded boulders. No aphebian or oil SST, 100% clean SST.
7	0	30	0	0	100	0	0	0	Large ridge with many small rounded boulders - Moraine?
8	0	x	0	0	100	0	0	0	Moraines along lake shore. medium sized well rounded clean SST boulders about 15% red SST and most of the white SST is metamorphosed. 1 conglomeratic boulder. (Sample #T15-8)

(J. K. Russell)

(End of Traverse #T15)

END OF GEOLOGICAL TRAVERSING, 1975.

APPENDIX C

PROJECT 508

Field Data Sheets of

Lake Water and Sediment Sampling

Summer, 1975

N.T.S. Map: 74L Photo No.: MOSAIC

Project: 508 Lake: BASE CAMP LAKE

Area, prov: NE ALTA. Pptn: RAIN MAY 24,25,26

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: MAY 29 1975

Sampler: J. K. RUSSELL

Sample No. prefix: 508LS or 508LW-

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * USING CANOE	Lab. results (ppm; ppb for U, Cu & Ni in water) U	Cu	Ni				Org. (%)
1			2.3		S	—	?	—	—	80+	—	br-grey	MOUTH OF SWPY BAY, IN-FLOW SEEP. ROCKY SHORES, SAMPLE MAINLY "OOZE" - (fresh. WATER ORGANIC [redacted] RICH SLIMY SEDIMENT) MAY CONTAIN SOME SILT FRACTION. * **	0.5	25	760				
					W	Little turbidity						clear		0.04	N.D.	N.D.				
2			1.8		S	—	?	—	—	80+	—	br-grey	80M FROM S. shore OF BAY, OUT-FLOW SEEP. ROCKY shore, MAINLY OOZE, Perhaps SOME SILT FRACTION.	N.D.	9	400				
					W	No turbidity						clear		0.06	N.D.	N.D.				
3			4.5		S	—	?	—	—	80+	—	br-green	100M FROM N END OF PT., S. SHORE. ROCKY shore, SAMPLE MAINLY OOZE.	0.8	7	12				
					W	VERY clear						clear		0.03	1	N.D.				
4			1.5		S	?	15+	5-	—	70+	—	bl-br	50M FROM SHORE, N. SHORE IS SWP. Decayed CRSE. PLANT MATERIAL MAKES UP ORGANICS. SOME SAND + GRAVEL IN THE AREA but Little IN SAMPLE.	N.D.	4	8				
					W	NO turbidity, very clear						clear		0.03	N.D.	N.D.				
5			3.0		S	?	20	10	-	65		Lt. br.	taken OFF SANDY PT. ON N. SHORE. - FORMS NECK TO NE PART OF LAKE. OOZE AND [redacted] SILT WITH SOME SAND.	N.D.	3	8				
					W	SOME turbidity, SUSPENDED MATERIAL						clear		0.06	N.D.	N.D.				
6			2.7		S	5	20	30	-	30		Lt. Br	INFLOW to Large bay About 80M FROM SANDY shore. SAMPLE TAKEN just OFF SAND BAR where OOZE FIRST STARTS TO OCCUR.	N.D.	3	12				
					W	NO turbidity						clear		0.02	1	N.D.				
7			1.5		S	—	?	—	—	90		green-br.	30M FROM NW. SHORE OF NARROW BAY, INFLOW seepage, SAMPLE ALMOST ENTIRELY OOZE. Bottom very SOFT. BAY APPEARS ALMOST STAGNANT.	N.D.	7	7				
					W	NO turbidity						clear		0.02	N.D.	2				
8			2.3		S	?	15	—	—	70		br-grey	400M up RIVER AT E. END OF LAKE. OUTFLOW AREA, SAMPLE FROM WIDE BAY WITH SANDY SHORES, SOME SWP., SAMPLE MAINLY OOZE.	N.D.	8	8				
					W	very clear						clear		0.02	1	1				
9			0.9		S	—	?	—	—	80+		bl.	SHALLOW BAY WITH SMALL INFLOW CREEK. SWPY SHORE, SE. END OF LK. ORGANICS FROM decayed PLANT MATTER. Pieces of wood still preserved.	N.D.	3	7				
					W	Little turbidity						clear		0.03	N.D.	1				
10			1.8		S	?	5	30	—	50+		bl-br. Lt. br.	15M FROM S. SHORE AT E. END OF BAY. Little INFLOW CREEK, SWP. shoreline. SAMPLE TAKEN FROM OFF SANDY PT., ORGANICS FROM decayed PLANTS MIXED WITH SAND.	N.D.	5	8				
					W	NO turbidity						clear		0.03	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.D. = "not detected"

[** "Gyttja"]

N.T.S. Map: 74L Photo No.: MOSAIC A15186-11+12

Project: 508 Lake: 2 LAKES S. OF CAMP - TO BE NAMED LATER

Area, prov: NE. ALTA. Ppt^n: RAIN MAY 24,25,26

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: MAY 30 19 75

Sampler: JK RUSSELL + K. MacKnabb

Sample No. prefix: 508LS - 508LW-

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * USING CANOE	Lab. results (ppm; ppb for water) U	Cu	Ni				Org. (%)
11			2.6		S	?	?	–	–	80	–	green-br.	100 M FROM SHORE OF SMALL ISOLATED BAY LOW SWAMPY SHORE, INFLOW SEEP, SAMPLE MAINLY OOZE.	N.D.	7	7				
					W	NO turbidity						clear		0.06	1	2				
12			2.1		S	?	?	–	–	80	–	green-br	35 M FROM E. SHORE, MOUTH TO NARROW BAY. LOW SWPY. SHORE WITH SAND Ridges FARTHER BACK., SAMPLE ALMOST ENTIRELY OOZE.	0.2	8	13				
					W	Little turbidity						clear		0.06	1	1				
13			2.5		S	5	10	20	–	40	–	dk. br	15 M FROM SMALL ISLAND NEAR CENTER OF LK. SAND AND ROCK SHORELINE. LK. bottom is COMPRISED OF SAND + GRAVEL + boulders. SAMPLE is MAINLY OOZE WITH SAND.	N.D.	N.D.	2				
					W	NO turbidity						clear		0.02	1	2				
14			9.0		S	10	15	5	–	60	–	dk. br.	65 M FROM N. SHORE NEAR END OF LK. INFLOW SEEPAGE, SANDY, gravelly shore: possible MORAINE. OOZE, SILT, SAND IN SAMPLE. Deepest PART OF LAKE.	N.D.	8	14				
					W	VERY CLEAR						clear		0.02	N.D.	1				
15 (NEXT LAKE)			4.1		S	5	10	15	–	50	–	br.	50 M FROM shore, NARROW INLET TO S. PART OF LAKE, SANDY SHORES. SAMPLE MAINLY OOZE + SAND.	N.D.	4	5				
					W	NO turbidity						clear		0.01	N.D.	N.D.				
16			2.8		S	5	5	5	–	65	–	BL-br	20 M. FROM SHORE, between ISLAND + Pt. ON E. SHORE. LOW SWPY. shoreline. SOFT BOTTOM, MAINLY OOZE.	0.5	5	8				
					W	SOME turbidity						clear		0.02	N.D.	N.D.				
17			2.4		S	?	5	15	–	70	–	br-bL	20 M FROM SHORE AT ENTRANCE TO LARGE BAY. VERY NARROW NECK. LOW SWPY. SHORES BACKED by SOME SANDY Ridges. SAMPLES COMPOSED MAINLY OF OOZE.	N.D.	N.D.	1				
					W	NO turbidity						clear		0.01	N.D.	1				
18			2.0		S	–	?	5	–	75	–	green-br.	25 M FROM SHORE, N. END OF LARGE BAY. OUTFLOW SEEPAGE (?), SWPY. shoreline WITH SANDY BANKS TO W. & E. MAINLY OOZE.	N.D.	5	9				
					W	NO turbidity						clear		0.03	1	1				
19			2.5		S	?	?	1	–	80	–	green-br	50 M FROM SHORE, INLET TO S. PART OF LAKE. LOW SANDY shore. Bottom OF LAKE is SOFT + weedy: MAINLY OOZE.	N.D	4	7				
					W	Little turbidity						clear		0.01	N.D.	N.D.				
20			3.2		S	5	15	–	–	70	–	Br-green	20M FROM shore, INLET FROM PREVIOUS BAY TO LK.; High SANDY + GRAVELLY BANKS MAINLY OOZE IN SAMPLE.	N.D.	5	11				
					W	NO turbidity						clear		0.01.	1.	N.D.				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.: MOSAIC + A15186-11+12

Project: 508 Lake: LAKES S. OF BASE CAMP - TO BE NAMED LATER

Area, prov: NE. ALTA. Pptn: MAY 24, 25 & 26TH RAIN

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 3

Date: MAY 30+31 19 75

Sampler: JK. RUSSELL + K. McKnabb

Sample No. prefix: 508LS – 508LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * USING CANOE	Lab. results (ppm; ppb for water) U	Cu	Ni				Org. (%)
21			2.3		S	?	5	?	–	70+	–	gr. br.	10 M FROM SHORE; EXTREME S. END OF LK. SWPY. SHORELINE, 2 INFLOW CREEKS MAINLY OOZE IN SAMPLE.	0.3	4	10				
					W	SOME turbidity						clear		0.02	N.D.	N.D.				
22 (NEXT LAKE)			2.0		S	?	?	–	–	70+	–	green. br	30 M FROM SHORE IN CENTER OF LARGE S. BAY, SWP. + SAND SHORES. INFLOW AREA FROM ANOTHER LAKE. SAMPLE MAINLY OOZE. VERY SHALLOW LAKE.	1.0	9	12				
					W	NO turbidity						clear		0.03	1	3				
23			1.4		S	5	5	–	–	60+	–	BL-Br	10 M FROM SHORE, NEAR CENTER OF LK. SWPY. SHORELINE. OUTFLOW TO MORE N. LAKE. OOZE SAMPLE.	N.D.	3	6				
					W	VERY CLEAR						clear		0.03	N.D.	N.D.				
24			1.0		S	?	?	–	–	75	–	green-Br	10 M FROM SHORE, OUTFLOW by SEEP. + CREEK, SWPY. SHORES. SOFT BOTTOM SAMPLE MAINLY OOZE.	N.D.	9	9				
					W	LITTLE turbidity						clear		0.04	N.D.	N.D.				
25			2.1		S	?	?	30	–	50	–	Lt. Br. green br.	60 M FROM SHORE AT N. END OF LAKE IN LARGE BAY. SANDY SHORES. SAMPLE WAS SHIFTED FROM INLET. SAMPLE: OOZE + SAND.	N.D.	1	1				
					W	NO turbidity						clear		0.02	1	N.D.				
26			1.3		S	–	–	–	–	75+	–	green br.	20 M FROM SHORE AT S. END OF SAME BAY. INFLOW SEEP. AREA. SWPY. SHORELINE OOZE PREDOMINATES SAMPLE.	0.5	15	11				
					W	NO turbidity						clear		0.03	1	3				
27 (NEXT LAKE)			1.1		S	?	?	–	–	80	–	green br.	60 M FROM SHORE IN CENTER OF SMALL LK. ON RIVER. SWPY. SHORELINE. OUTFLOW OF LARGE LK. TO N. SAMPLE ALMOST ENTIRELY OOZE.	0.5	8	8				
					W	SOME turbidity (SUSPENDED PART.)						clear		0.04	2	2				
					S								END OF SAMPLING by CANOE FROM BASE CAMP.							
					W															
					S								N.B.: "Gyttja" = gray-green to gray-brown, watery organic "gel", common in shallow lakes in this area. Refer to Timperley + Allan, G.S.G, 1973.							
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.: MOSAIC
Project: 508 Lake: SECTION B
Area, prov: N.E. ALTA Pptn: MODERATE RAIN OVERNIGHT

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 24 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508LS-508LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * USING helicopter (G2)	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
28			4.0		S	?	?	—	—	90+		Br-green	SMALL LAKE: 20 M FROM LOW SANDY SHORE. ALMOST PURELY ORGANIC OOZE WITH NO FOREIGN MATERIAL SUCH AS SAND OR decomposed PLANTS etc. ~~VERY~~ good cohesion.	0.4	7	6				
					W	NO TURBIDITY						CLEAR		0.06	2	ND				
29			1.0		S	—	10	—	—	90		Br-BL	MARSHY BAY: 15 M FROM SWPY. SHORE ABUNDANCE OF weeds: sediment CONTAINS ≃ 50% OOZE + ≃ 50% decayed ORGANICS. SLIGHT SILT FRACTION.	0.4	10	12				
					W	SLIGHT TURBIDITY						CLEAR		0.30	1	1				
30			1.3		S	—	5	—	—	95		BL	END OF BAY: 10 M FROM SWPY. SHORE INFLOW SEEPAGE AREA: SAMPLE ALMOST ENTIRELY decomposed ORGANICS - WITH Pieces OF ROOTS + BRANCHES; SOME SILT.	N.D.	6	18.				
					W	NO TURBIDITY						CLEAR		0.10	2	1				
31			1.5		S	—	5	—	—	95		BL	BAY AREA: 10 M FROM SWPY SHORE INFLOW SEEPAGE. > 60% decomposed ORGANICS: NOT AS cohesive AS PREVIOUS ORGANIC RICH SAMPLES.	N.D.	6	6				
					W	"	"					CLEAR		0.10	1	ND				
32			2.7		S	?	?	—	—	90+		Br-green	OFF A NARROW PT.: 15 M FROM LOW SANDY SHORE. good cohesive OOZE SAMPLE VERY LITTLE FOREIGN MATTER.	0.4	9	11				
					W	"	"					CLEAR		0.02	1	1				
33			1.6		S	5	5	—	—	90		Lt. Br	SMALL MARSHY LK: 5 M. FROM SWPY SHORE DRAINAGE FROM ALL AROUND INTO LK. MAINLY decayed ORGANICS WITH SOME OOZE, SILT + clay.	0.4	7	15				
					W	"	"					Brown		0.03	ND	ND				
34			2.0		S	—	—	70	—	30		Br-green	15 M. FROM SANDY SHORE.: SAND PRE-dominates whole LK. bottom. SAMPLE is SAND + OOZE.	N.D.	2	2				
					W	"	"					CLEAR		0.05	1	ND				
35			3.0		S	—	5	25	—	70		Br-BL	OFF group OF SEVERAL ISLANDS: 5 M FROM SANDY SHORES. MAINLY OOZE mixed WITH MINOR AMTS. OF ORGANICS + SILT.	0.4	2	3				
					W	SLIGHT Turbidity						CLEAR		0.08	3	3				
36			1.3		S	—	—	—	—	100		GRY-Br	MOUTH OF CREEK: 10M FROM SWPY SHORE IN INFLOW BAY. good cohesive, VERY FINE, OOZE.	N.D.	5	15				
					W	NO TURBIDITY.						CLEAR		0.05	3	2				
37			2.2		S	—	5	5	—	90		Br-green	BAY AREA: LOW SWPY SHORELINE. SOME SEEPAGE INFLOW. MAINLY OOZE mixed WITH ORGANICS, SILT, + clay.	N.D.	3	4				
					W	"	"					CLEAR		0.03	1	4				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.: MOSAIC

Project: 508 Lake: SECTION B

Area, prov: N.E. ALTA. Pptn: Light overnight RAIN

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 24 19 75

Sampler: J.K. RUSSELL

Sample No. prefix: 508LS - 508LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * G2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
38			2.8		S	—	?	5	—	90+		Br	MOUTH OF STREAM: 10m FROM LOW SWPY SHORELINE. MAINLY OOZE WITH ≈ 15% ORGANICS + SOME SAND. INFLOW AREA.	0.4	13	14				
					W	SLIGHT TURBIDITY						CLEAR		0.04	2	N.D.				
39			3.4		S	—	?	?	—	90+		Br-green	NEAR CENTER OF LK.: 5M OFF OF SANDY SHORED ISL.; BOTTOM HAS QUITE A FEW BLDRS. OOZE SAMPLE.	0.4	10	8				
					W	"		"		(ALGAE?)		CLEAR		0.04	2	N.D.				
40			3.0		S	—	—	—	—	100		Br-green	IN BAY. ESKER SHORELINE TO N. + SWPY SHORE TO S. COMPLETELY OOZE VERY FINE, and NO FOREIGN MATTER. VERY COHESIVE.	0.8	24	11				
					W	NO TURBIDITY						CLEAR		~~0.009~~	1	1				
41			1.7		S	?	?	?	—	90+		Br-grey	SMALL ISOLATED LK. 15M FROM SANDY SHORE. SAMPLE MAINLY ORGANICS WITH SMALLER AMTS OF SILT, CLAY + SAND. ABOUT 15% OOZE.	13.0	11	6				
					W	"		"				CLEAR		~~0.02~~	1	N.D.				
42			1.8		S	15	20	5	—	60		BL	SMALL LK.: LOW SWPY SHORELINE. 5M FROM SHORE. LOTS OF SILT ≈ 10%-20% BULK OF SAMPLE WAS OOZE.	N.D.	12	14				
					W	"		"				CLEAR		0.02	ND	2				
43			1.2		S	?	5	5	—	90		BL	SWPY. SHORE OF LK. -10M OFF SHORE weedy BOTTOM. SOME SILT BUT BULK OF SAMPLE IS ORGANIC (CRSE.) MATTER. PEATY.	N.D.	7	11				
					W	"		"				CLEAR		0.02	2	N.D.				
44			1.3		S	?	—	50	—	50		Br BL	INFLUX SEEPAGE AREA: CREEK MOUTH, 10M FROM LOW SWPY. SHORE. POOR SEDIMENT SAMPLE.	N.D.	10	2				
					W	"		"				CLEAR		0.03	2	N.D.				
45			1.4		S	?	5	—	—	90+		BL	LARGE BAY WITH INFLOWING CREEK. SANDY + SWPY SHORELINE. weedy Bottom SAMPLE MAINLY decayed ORGANICS + SILT (PEAT)	0.4	7	8				
					W	"		"				CLEAR		0.06	1	3				
46			1.2		S	—	30	—	—	70		BL	SWPY SHORE - 20M. weedy Bottom INFLUX FROM CREEK FLOWING THRU LAKE. ORGANIC SAMPLE + SOME SILT, NO OOZE.	N.D.	5	10				
					W	"		"				CLEAR		0.04	5	N.D.				
47			1.5		S	-	10	—	—	90		BL	SANDY SHORED LK. 20M FROM SHORE INFLOWING CREEK - PEAT SAMPLE.	N.D.	6	14				
					W	"		"				CLEAR		0.03	1	N.D.				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC

Project: 508 Lake: SECTION B

Area, prov: N.E. ALTA. Pptn: Light overnight RAIN

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 24 19 75

Sampler: J.K. RUSSELL

Sample No. prefix: 508LW - 508LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * (using G2 'copter)	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
48			2.0		S	–	40	–	–	60		BL	LARGE BAY: LOW SWPY + SANDY SHORES 20M, SAMPLE IS SILT + ORGANICS (PEAT) VERY COHESIVE	N.D.	11	15				
					W	NO TURBIDITY						CLEAR		0.03	1	ND				
49			1.5		S	?	10	–	–	90		BrBL	FROM OFF A PT. IN SMALL LK., LOW SAND SHORES, 10M. OOZE + PEAT IN SAMPLE	0.4	9	10				
					W	"		"				clear		0.02	1	ND				
50			1.8		S	–	30	–	–	70		Br.green	INFLOW AREA FROM SEEPAGE, LOW SWPY + SANDY SHORE, 5M. OOZE SAMPLE WITH SOME SILT. WELL CONSOLIDATED.	N.D.	8	8				
					W	"		"				clear		0.003	ND	ND				
51			1.2		S	–	–	–	–	100		BL	SMALL LK.: INFLOW SEEPAGE, LOW SWPY SHORE, 20M. PEATY, ORGANIC DECAYED MATERIAL.	0.4	12	15				
					W	"		"				clear		0.002	2	2				
52			2.0		S	–	–	–	–	100		Green	SMALL LK.: SANDY SHORE, 10M. VERY FINE OOZE, WELL CONSOLIDATED + QUITE STICKY.	0.8	7	12				
					W	"		"				clear		0.02	1	ND				
53			2.1		S	–	10	–	–	90		Br BL	LAKE CENTER, NEAR OUTFLOW AREA, SWPY SHORE. VERY LOOSE MATTER PEAT SAMPLE + SOME SILT.	0.8	6	8				
					W	"		"						0.01	1	1				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: #508 Lake: SECTIONS B+C
Area, prov: N.E. ALTA Pptn: LIGHT RAIN FOR LAST 2 DAYS

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 1
Date: JUNE 25 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508LW - 508LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * G2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
54			1.8		S	?	?	–	–	95+	[illegible]	Br-BL	MOUTH OF SMALL CREEK. LOW SWPY SHORE WEDDY BOTTOM, 10M FROM SH., INFLOW AREA. PEATY SAMPLE – SILT? CLAY?	0.8	6	5				
					W	NO TURBIDITY						CLEAR		0.02	ND	ND				
55			1.0		S	–	?	60	–	30+		Lt Br	END OF LK. LOW SWPY SHORES, SM. OUTFLOW AREA. SANDY SAMPLE WITH SOME PEAT.	N.D.	2	1				
					W	"		"				CLEAR		0.006	ND	ND				
56			3.7		S	–	–	–	–	100		Br-green	SMALL LK. SWPY SH., WEDDY BOTTOM, DRAINS THRU MUSKEG. SAMPLE COMPLETELY OOZE ≈10M FROM SH., WELL CONSOLIDATED.	0.4	10	9				
					W	"		"				CLEAR		N.D.	ND	ND				
57			2.8		S	–	–	–	–	100		Green	SMALL CHAIN OF LKS. OUTFLOW SEEPAGE THRU LOW SWPY SH. 20M. WELL CONSOL. SAMPLE – MAINLY OOZE WITH ≈5% PLANT MATTER.	0.8	11	10				
					W	"		"				CLEAR		N.D.	2	ND				
58			2.6		S	–	–	–	–	100		Br-green	ISOLATED SMALL LK. LOW SWPY SH., SMALL OUTFLOW CREEK. SAMPLE 10M FROM SHORE COMPLETELY OOZE WITH ≈5% PEAT.	0.4	7	8				
					W	"		"				CLEAR		0.05	1	ND				
59			6.6		S	2+	–	–	–	95+		DK-Green	TOP OF BAY. HIGH SANDY SH., 15M. SOME INFLOW SEEPAGE. VERY DEEP, VERY FINE OOZE SAMPLE, POORLY CONSOL.	0.4	12	18				
					W	"		"				CLEAR		0.07	1	2				
60			0.9		S	–	?	–	–	95+		BL	MOUTH OF SMALL INFLOWING CREEK. 1M. FROM LOW SWPY SH. WEDDY BOTTOM. SAMPLE COMPLETELY PEAT NO OOZE.	N.D.	3	6				
					W	SLIGHT TURBIDITY						CLEAR		0.02	1	ND				
61			3.4		S	–	–	–	–	100		Green	SMALL LK. 10M FROM SWPY SH., SOME SANDY RIDGE TO S. END OF LK. OUTFLOW AREA. WEDDY BOTTOM, ALGAE IN WATER SAMPLE 100% OOZE, POORLY CONSOL.	N.D.	8	9				
					W	VERY TURBID.						CLEAR		0.05	1	ND				
62			1.4		S	?	?	–	–	90		BL	LARGE BAY. INFLOW SEEPAGE, 10M FROM SWPY SH., WEDDY BOTTOM, 60% PEAT 40% OOZE - SOME SILT + CLAY MAINLY PEAT WITH SOME FRESH PLANT MATTER.	0.6	13	20				
					W	SLIGHT TURBIDITY						CLEAR		0.03	2	ND				
63			1.5		S	–	–	–	–	100		BL	INFLOW SEEPAGE AREA: 5M FROM SWPY SH. PEAT 60 OOZE 40 MODERATELY CONSOL.	1.2	8	21				
					W	"		"				CLEAR		0.006	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: Section B+C
Area, prov: N.E. ALTA. Pptn: Light RAIN FOR LAST 2 DAYS.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 25 19 75
Sampler: JK. RUSSELL
Sample No. prefix: 508Lw 508Ls
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * G2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
64			1.5		S	?	?	–	–	90+		Br-BL	ENDOF LK. 15M FROM SWPY SHORE, OUT-FLOW SEEPAGE AREA, weedy Bottom ALGAE IN WATER. SAMPLE PEAT 60% OOZE 40%	0.9	11	14				
					W	Descrptn. of water sample (W) eg. turbitity, clearness, etc.: Slight turbidity						clear		N.D.	1	ND				
65			2.6		S	–	–	–	–	100		BL-green	SMALL LK. CREEK FLOWING IN + OUT OF LK. 5M LOW SWPY SH. Poorly consol. sample, 100% OOZE.	0.4	4	7				
					W	NO turbidity						clear		0.02	1	1				
66			2.0		S	?	?	70	–	30		Br+BL	SMALL LK. OUTFLOW seepage TO S. 10M TO SWPY SH., Rocky + SANDY BOTTOM - POOR SAMPLE - MAINLY SAND.	0.6	1	1				
					W	very clear						clear		N.D.	2	ND				
67			1.4		S	?	?	–	–	95+		BL	BAY OF LK. SMALL INFLOW CREEK, SWPY shoreline, weedy Bottom SAMPLE POORLY CONSOL. PEAT 70% OOZE 30% silt + clay ?	0.6	4	11				
					W	slight turbidity						clear		0.02	1	3				
68			1.2		S	–	–	–	–	100		BL-green	CENTER OF LK. OFF ISL., 20M. SAMPLE 100% OOZE very well consol.	N.D.	6	15				
					W	NO turbidity						clear		0.006	1	ND				
69			1.7		S	?	–	–	–	95+		Br-green	OUTFLOW STREAM AREA, 15M TO SANDY shoreline - SANDY BOTTOM ALSO SAMPLE 80% OOZE 20% PEAT	0.6	3	5				
					W	NO turbidity						clear		0.04	1	4				
70			2.0		S	–	–	–	–	100		BL	SMALL ISOLATED LK. – completely SURR. by SWP. SH. 10M., weedy Bottom, INFLUX SEEPAGE, SAMPLE OOZE + PEAT.	1.2	13	15				
					W	Slight turbidity						Clear		0.03	1	ND				
71			0.9		S	–	–	–	–	100		BL	SMALL LK. – WIDENING OF RIVER FLOWING S. TO LARGER LK. 5M TO SWPY SH. weedy Bottom + very turbid with Algae. PEAT 70% OOZE 30%	N.D.	4	12				
					W	Very turbid						clear		0.02	1	1				
72			1.3		S	–	?	–	–	90+		BL	SMALL ISOLATED LK., 10M TO SWPY SH. weedy BOTTOM. SAMPLE 90% PEAT WITH SOME OOZE + possibly some silt.	0.5	6	8				
					W	Slight turbidity						Clear		0.04	ND	ND				
73			2.3		S	–	–	–	-	100		GREEN	SMALL LK SEEPAGE INFLOW., SWPY SH. Rocky Bottom in places. SAMPLE MAINLY SLIMY OOZE + 3-5% PEAT. POORLY CONSOL.	0.4	6	7				
					W	NO turbidity						Clear		0.10	2	1.				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION B+C
Area, prov: N.E. ALTA. Pptn: LIGHT RAIN FOR LAST 2 DAYS.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 25 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * G2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
74			2.4		S	—	?	—	—	95		BL	SMALL LK., 5M TO SWPY SHORES, SEEPAGE INFLUX, SAMPLE POORLY CONSOL. ALOT OF PLANT MATERIAL PEAT 90% OOZE 10%	N.D.	8	13				
					W	SLIGHT TURBIDITY						CLEAR		0.04	1	ND				
75			2.0		S	—	—	—	—	100		Br-green	LARGE BAY ON LK. 15M TO SANDY SH., SEEPAGE INFLUX - SAMPLE MAINLY OOZE 95% + ≃ 5% PEAT.	N.D.	1	1				
					W	NO TURBIDITY						CLEAR		0.08	1	ND				
76			1.7		S	—	?	—	—	95+		BL	SWPY END OF LK. - 5M OFF SHORE OUTFLOW CREEK, WEEDY BOTTOM. 100% PEAT WITH POSSIBLY SOME SILT.	N.D.	3	5				
					W	NO TURBIDITY						CLEAR		0.01	1	ND				
77			2.4		S	—	?	—	—	95+		BL	INFLOWING CREEK. 15M TO SWPY SH. - BACK OF LK. SH. THERE ARE SANDY RIDGES, WEEDY BOTTOM, FAIRLY CONSOL. PEATY SAMPLE - 60% PEAT 40% OOZE.	0.4	5	12				
					W	NO TURBIDITY						CLEAR		0.002	ND	ND				
78			2.0		S	—	—	—	—	100		Br-green	TOP OF LK. 10M TO SWPY SH., OUTFLOW SEEPAGE. WEEDY BOTTOM. SAMPLE WELL CONSOL. 90% OOZE 10% PEAT	0.4	5	12				
					W	VERY TURBID						CLEAR		N.D.	1	2				
79			2.6		S	?	?	—	—	90		BL	LK. SURR. by SWPY SHORES. 20M. WEEDY BOTTOM, POORLY CONSOL. SAMPLE. MAINLY OOZE + SOME PEAT PRESENT.	0.4	5	10				
					W	SLIGHT TURBIDITY						CLEAR		0.03	1	ND				
80			2.2		S	—	—	—	—	100		Br-green	BAY OF LK., NEAR SEVERAL ISL. SANDY SHORES + SWPY INFLOW AREA. Sample OOZE mixed with ALOT OF FOREIGN PLANT MATERIAL.	0.4	4	5				
					W	NO TURBIDITY						CLEAR		0.13	1	1				
81			2.7		S	—	?	—	—	95+		Br-green	SMALL LK. 5M TO SWPY SH., SEEPAGE INFLUX FROM SURR. SWP., ROCKY BOTTOM SAMPLE WELL CONSOL. OOZE 100%	0.4	5	8				
					W	NO TURBIDITY						CLEAR		0.04	1	ND				
82			3.2		S	—	5	—	—	95		Br-green	BAY IN LK. OFF A SPIT - 5M TO SANDY SH. INFLOW SEEPAGE. ROCKY BOTTOM IN PLACES SAMPLE POORLY CONSOL. MAINLY OOZE.	0.4	8	7				
					W	NO TURBIDITY						CLEAR		0.12	ND	ND				
83			2.0		S	—	10	—	—	90+		BL.	MOUTH OF OUTFLOW CREEK, 10M TO SWPY SH., WEEDY BOTTOM, ALGAE IN WATER. 90% PEAT. + SOME SILT	N.D.	6	6				
					W	VERY TURBID						CLEAR.		0.07	1	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: N.E. Alta Ppt^n:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 25 19 75
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information * G2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
84			1.4		S					100			bn bk	Lake with swampy shore, clear water, sed is soft organic rich jelly like ooze.	N.D.	10	12				
					W							no turbitity	clear		0.11	2	ND				
85			1.7		S		20			80			bn bk	organic jelly like ooze with a silty fraction, swampy to sandy shoreline.	N.D.	6	8				
					W							no turbitity	clear		0.11	1	1				
86			1.8		S		10			90			bn	Swampy shoreline, weeds, sed. mostly organic jelly like ooze with small silt fraction.	N.D.	7	8				
					W							no turbitity	clear		0.05	2	ND				
87			1.2		S		40			60			bn gn	swampy shore, weeds sed jelly like with large fraction of silt.	0.6	6	11				
					W							no turbitity	clear		0.13	ND	ND				
88			1.0		S		25			75			bn bk	swampy shore, weeds, organic stems in sample.	N.D.	4	8				
					W							no turbitity	clear		0.03	1	1				
89			1.5		S		15			85			bk	wood fragments and sticks in peat like ooze.	1.2	4	8				
					W							no turbitity	clear		0.01	1	ND				
90			1.2		S		10			90			bn bk	wood fragments in sample, sed is jelly like bn/bk ooze.	N.D.	6	15				
					W							no turbitity	clear		0.06	1	ND				
91			1.2		S									Rocky to swampy shore, hard bottom, sample impossible to collect, mostly sandy silt. very little ooze.	(No sample taken)						
					W							no turbitity	clear		0.06	2	ND				
92			1.2		S		35			65			bn gn	grassy shore, weeds, organic jelly like ooze with silt fraction.	0.2	5	7				
					W							no turbitity	clear		0.03	ND	ND				
93			2.0		S		10			90			bn	swampy shore, weeds, wood fragments and silt fraction in the organic jelly like ooze.	0.2	5	6				
					W							No turbitity	Clear		0.12	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 25 19 75
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * G2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
94			2.5		S		10			90		bn gn	swampy shore, weeds, wood fragments and silt fraction in organic jelly like ooze.	N.D.	7	11				
					W	no turbitity						clear		0.10	1	1				
95			1.5		S		80	?		20		bn bx	silty almost sandy sed, small fraction of organic jelly like ooze.	0.4	5	8				
					W	no turbitity						clear		0.04	ND	5				
96			2.0		S		40			60		bn bx	swampy shore, weeds, jelly like organic ooze, fair silt fraction.	1.0	6	8				
					W	no turbitity						clear		0.07	ND	2				
97			1.5		S		40	20		40		Grey/white	Grey to white sandy sed, numerous small shells.	0.3	7	18				
					W	no turbitity						clear		0.15	1	3				
98			2.4		S		20			80		Rd bn	organic jelly like sed, small silt fraction.	N.D.	4	7				
					W	no turbitity						clear		0.002	4	8				
99			2.0		S		30			70		gn bn	organic rich jelly like sed, red seeds in sed. ?	0.4	8	12				
					W	no turbitity						clear		0.02	2	ND				
100			2.3		S		30			70		bn bx	twigs and wood fragments in organic rich jelly like ooze.	0.2	7	12				
					W	no turbitity						clear		0.03	1	1				
101			2.1		S		20			80		bn bx	mostly organic jelly like ooze, rocky bottom visable at places from air.	0.4	6	10				
					W	no turbitity						clear		0.08	1	ND				
102			1.3		S		25			75		bn	wood fragments and twigs in jelly like ooze with silt fraction	0.4	4	6				
					W	no turbitity						clear		0.03	ND	ND				
103			2.2		S		40			60		Rd bn	swampy shore, weeds, jelly like ooze. silt fraction	N.D.	5	8				
					W	no turbitity						clear		0.07	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 12

Date: June 27 1975

Sampler: R. Coll

Sample No. prefix: 508 SW/SL

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information * G-2	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
104			1.8		S		25			75			Rd bn	no wood fraction; organic jelly like ooze.	0.6	3	10				
					W			no turbitity					clear		0.08	1	ND				
105			1.5		S		30	10		60			white grey	sandy silty sed, small jelly fraction, lots of shells	0.6	3	20				
					W			no turbitity					clear		0.05	1	6				
106			1.3		S		60	20		20			white grey	sandy silty sed, small fraction of ooze, shells.	0.4	3	22				
					W			no turbitity					clear		0.05	1	3				
107			0.9		S		50	30		20			white grey	silty & sandy light colored sed with black organic clots at a few cm from top of sed sample.	0.3	3	19				
					W			no turbitity					clear		0.05	ND	2				
108			2.5		S		20			80			bn gn	swampy shore, bn/green organic jelly like ooze small silt fraction.	N.D.	5	8				
					W			no turbitity					clear		0.02	ND	2				
109			1.8		S		75			25			bn bk	silty sed, very small jelly like fraction.	N.D	4	6				
					W			no turbitity					clear		0.03	1	2				
110			2.3		S	?	70			30			bn bk	clay-silt with fair fraction of jelly like ooze.	N.D.	6	8				
					W			no turbitity					clear		0.05	1	ND				
					S																
					W																
					S																
					W																
					S																
					W																

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION D+E
Area, prov: N.E. ALTA. Pptn: HEAVY RAIN OVERNIGHT

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 26 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508LS - 508LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
111			1.5		S	–	?	–	–	95+			BL-green	SMALL LK. 15M to swpy shores, INFLOW seepage. SAMPLE 30% PEAT 70% OOZE Possibly SILT present.	1.0	7	11				
					W	NO turbidity							clear		0.06	1	ND				
112			2.0		S	–	?	–	–	100			Br	ISOLATED LK. CENTER. – 20M TO swpy shores. SAMPLE poorly consol. INFLOW seepage. – OOZE.	1.4	80	100				
					W	"				"			clear		0.11	ND	ND				
113			1.6		S	–	?	–	–	100			Br green	END OF BAY. SEEPAGE INFLOW – 10M to swpy sh. Very consol. PEAT 20, OOZE 80	0.9	7	8				
					W	"				"			clear		N.D.	2	3				
114			2.0		S	–	10	–	–	90			Br green	N. END OF LK. 5M TO SANDY + swpy sh. Little seepage. SAMPLE MAINLY OOZE WITH MINOR AMTS OF PEAT MATERIAL.	0.9	7	9				
					W	"				"			clear		N.D.	1	ND				
115			3.3		S	–	?	–	–	95+			Br-green	LARGE LK. – CENTRE, 20M TO SANDY sh. SEEPAGE INFLUX THRU swps. AT ENDS. Weedy BOTTOM – SAMPLE OOZE.	1.1	8	8				
					W	"				"			clear		0.02	1	ND				
116			2.2		S	–	?	–	–	95+			Br-green	CENTER OF SMALL LK. swpy shores, + SANDY SIDES, E. side is a drumlin. well consol. OOZE SAMPLE.	0.6	6	8				
					W	"				"			clear		0.05	1	ND				
117			2.7		S	–	10	–	–	90			BL green	SWPY LAKE sh. – LK. is PART OF RIVER System. Some SANDSH. 30M. SAMPLE IS MAINLY OOZE + silt. ≈ 5% fresh plant MATERIAL.	1.4	9	11				
					W	"				"			clear		0.38	1	1				
118			3.0		S	–	25	–	–	75			BL	LK. PART OF RIVER SYSTEM – 15M to SANDY Ridge sh. INFLUX + OUTFLOW THRU RIVER. Very cohesive OOZE + silt.	0.4	6	14				
					W	"				"			clear		0.02	1	2				
119			2.1		S	5	15	–	–	80			BL	LK. PART OF RIVER SYSTEM 20M to SAND BANKS. – muddy SAMPLE – Peat, OOZE, silt clay.	1.8	6	8				
					W	"				"			clear		0.10	2	ND				
120			1.2		S	–	–	–	–	100			Br	SEPARATE LK. SANDY sides + swpy ENDS – seepage INFLOW SHALLOW LK. SAMPLE OOZE + Peat.	3.0	11	9				
					W	"				"			clear		0.11	1	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: Section D+E
Area, prov: N.E. ALTA. Pptn: HEAVY RAIN OVERNIGHT

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 26 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
121			1.8		S	–	–	–	–	100		Br-green	LK. ON RIVER SYSTEM. 15M to SANDY hi BANKS. MAINLY OOZE WITH 10% PLANT MATERIAL.	1.7	10	12				
					W	NO turbidity						Clear		0.03	1	2				
122			6.0		S	–	–	–	–	100		Br	CENTRE OF LARGE LK., 40m to high SANDY sh. Little seepage, sample unconsol. – ORGANIC sludge + OOZE	1.4	6	8				
					W	"			"			Clear		0.07	ND	7				
123			3.0		S	–	10	–	–	90		BL-green	SMALL LK. Surrby swp. seepage inflow SAND Ridges back of shore sample well consol. – OOZE + SILT.	0.6	7	8				
					W	"			"			Clear		0.02	1	ND				
124			–		S	–	–	–	–	–			NO sediment sample OBTAINED due to ABUNDANCE of bldrs + SAND ON LAKE Bottom.	No Sample						
					W	"			"			Clear		0.02	ND	ND				
125			3.4		S	–	–	–	–	100		Br	LARGE BAY – 20m to sup + sandy sh. – seepage influx – Mod. consol. OOZE + some org. sludge.	N.D.	6	14				
					W	"			"			clear		0.01	1	ND				
126			5.8		S	–	15	–	–	85		Br	LARGE open bay – 60m FROM hi SANDY BANKS. SAMPLE – PEATY ORGANIC MATTER – sludge – poor sample.	0.4	4	5				
					W	"			"			Clear		0.05	1	3				
127			3.0		S	–	–	–	–	100		Br-green	Mouth of 2 bays – 5m to sandy sh. alot of sand in shallower water. SAMPLE is 100% ooze well consol.	0.4	7	11				
					W	"			"			clear		0.05	1	ND				
128					S								NO sediment SAMPLE OBTAINED due to ABUNDANCE OF SAND ON LAKE Bottom.	No Sample						
					W	very clear						clear		0.07	2	ND				
129			5.4		S	–	–	–	–	100		Br	CENTER OF LK. – SANDY Beaches 80m AWAY. ORGANIC sludge with no consistency.	0.4	7	6				
					W	NO turbidity						clear		0.02	1	1				
130		1	15.0		S	?	?	–	–	90		BL	SMALL LK. – swpy ends WITH seepage INFLUX SAMPLE is VERY FINE OOZE + clay etc?	1.4	10	9				
					W	"			"			clear		0.06	ND	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION D+E.
Area, prov: N.E. ALTA. Pptn: HEAVY RAIN OVERNIGHT

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 26 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
131			3.0		S	—	10	—	—	90		Br.green	SMALL LK. IN RIVER SYSTEM ESKER ON 1 SH./SWP FOR OTHER SEEPAGE OUTFLOW - well consol. OOZE SAMPLE	2.1	9	10				
					W	NO TURBIDITY						CLEAR		0.03	1	ND				
132			4.5		S	—	?	—	-	95+		Br.green	BAY OFF OF LARGE LK. - 20M TO hi SANDY BANKS. well consol. SAMPLE OF OOZE.	1.3	5	5				
					W	"			"			clear		0.05	1	ND				
133			1.3		S	—	—	—	—	100		Br	LARGE BAY. 15M to swpy shore. Seepage INFLUX - OOZE + ORGANIC sludge.	1.0	5	6				
					W	"				"		clear		0.05	ND	1				
134			4.2		S	—	15	—	—	85		Br.green	SMALL ISOLATED LK. - 30M to high SANDY BANKS. NO APPARENT seepage. well consol. OOZE SAMPLE.	1.4	6	7				
					W	"				"		clear		0.02	1	3				
135			4.0		S	—	—	—	—	100		Br.green	CENTER OF LK. 50M to swp sh. INFLUX seepage. well consol. OOZE SAMPLE.	0.4	7	6				
					W	"			"			clear		0.17	1	1				
136			6.0		S	—	10	—	—	90		Br.green	CENTER OF LK. IN CHAIN OF LAKES. SANDY SH., seepage THRU LK., OOZE + sludge. / poor consol.	0.6	7	7				
					W	"			"			clear		0.05	4	3				
137			5.1		S	—	—	—	—	100		Dk Br	SMALL LK. - SANDY + swp sh. weedy Bottom, seep. INFLUX FROM swp. SAMPLE well consol. OOZE.	0.5	9	9				
					W	"			"			clear		0.08	2	ND				
138			3.4		S	—	15	—	—	85		BL	RIVER LK. OUTFLOWING CREEK, SANDY SH., weedy Bottom, silt+OOZE SAMPLE very sticky + well consol.	0.6	6	8				
					W	"			"			clear		0.005	1	ND				
139			2.7		S	—	10	—	—	100		Br	swpy sh. LK. - Seepage INFLUX 20% peat 80% OOZE.	1.1	6	9				
					W	"			"			clear		0.03	ND	ND				
140			8.0		S	—	10	—	—	90		BL	SAND BEACHES - SWP AT N. END. INFLUX seepage. poorly consol. FINE sediment SAMPLE. OOZE + SILT.	1.5	9	9				
					W	"			"			clear		0.03	1	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74.L Photo No.: MOSAIC
Project: 508 Lake: Section D+E.
Area, prov: N.E. ALTA. Pptn: Heavy Rain Overnight

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 26 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
141			1.3		S	?	?	–	–	90			BL.	SMALL SWPY LK. – high eskers on sh. PEAT 80% seep. INFLUX PLANT MATTER, silt, clay, present in minor amts.	2.0	13	38				
					W			NO turbidity					clear		0.02	1	2				
142			1.0		S	?	5	95	–	–			Lt Br	LARGE LK. – SWPY – sh. – seep INFLUX weedy BOTTOM, SAND + BLDRS ON LAKE BOTTOM – SANDY SAMPLE.	N.D.	N.D.	1				
					W			"	"				clear		0.04	1	1				
					S																
					W																
					S																
					W																
					S																
					W																
					S																
					W																
					S																
					W																
					S																
					W																
					S																
					W																

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC

Project: 508 Lake: SECTION E+F

Area, prov: N.E. ALTA Pptn: HEAVY RAIN PREVIOUS NIGHT

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 27 19 75

Sampler: J.K. Russell

Sample No. prefix: 508LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
143			2.3		S	–	–	–	–	100		Br.green	SMALL LK., SANDSHORES, SOME SEEP. OUTFLOW THRU SWP., ISAT, OOZE SAMPLE good cohesion	0.9	9	8				
					W	No turbidity						clear		0.10	1	2				
144			1.8		S	5	5	–	–	90		BL Br	END OF LK., SWP. SHORE SEEP: INFLUX weedy BOTTOM: 10M. PEATY MATTER + OOZE	N.D.	2	2				
					W	No turbidity						clear		0.03	ND	ND				
145			1.2		S	?	?	–	–	95+		BL	TOP OF LARGE LK., SWP. SHORE, SEEP. INFLUX 15M. PEATY MATTER 40% GYTTJA 60%	0.9	5	6				
					W	No turbidity						clear		0.04	ND	ND				
146			–		S	—						—	CENTRE OF LK. NEAR ISLAND. SAND. SH. + SOME SWP.	No Sample						
					W	No turbidity						clear	No Sediment – SAND Bottom	0.002	2	ND				
147			2.6		S	–	–	–	–	100		Br.green	SMALL LK. – SWPY SHORES, seep. INFLOW, 50% GYTTJA, 20% PEATY MATERIAL	0.9	9	10				
					W	No turbidity						clear		0.002	1	ND				
148			1.4		S	–	–	60	–	40		Br	END OF LK. SWP. SH. 30M, OUT-FLOW SEEP. LOTS OF SAND. SAMPLE LAYERED OOZE, SAND + PEATY MATERIAL.	N.D	N.D.	1				
					W	No turbidity						clear		0.009	ND	3				
149			5.4		S	?	?	–	–	95+		Green	CENTER OF SMALL LK., SWPY. SH. 20M. GYTTJA, VERY CONSOL. + STICKY	N.D.	6	13				
					W	No turbidity						clear		N.D.	2	ND				
150			2.2		S	–	–	–	–	100		BL	LK OFF PT., SANDY SH. 50% PEATY MATERIAL 50% GYTTJA.	0.4	8	10				
					W	No turbidity						clear		0.03	ND	ND				
151			3.0		S	–	–	–	–	100		Br.green	INLET TO LARGE BAY. 40m to SH. GYTTJA – VERY sludgey + unconsol.	1.0	15	10				
					W	No turbidity						clear		0.06	1	2				
152			3.0		S	–	5	–	–	95		Br.green	SMALL SILT FRACTION MAINLY GYTTJA.	0.9	11	10				
					W	No turbidity						clear		0.03	9	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 27 19 75
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
153			6.5		S		5			95		Gn Bn	small lake, swampy shore, silt fraction is small, jelly like ooze.	1.4	13	14				
					W	Descrptn. of water sample (W) eg. turbitity, clearness, etc.: non turbid						clear		0.04	2	ND				
154			3.0		S		5			95		Gn Bn	Low silt fraction mostly ooze.	0.9	9	12				
					W	non-turbid						clear		0.04	3	1				
155			5.5		S		5			95		Gn Bn	swampy shore, ooze.	1.8	8	8				
					W	non turbid						clear		0.07	ND	2				
156			7.0		S		5			95		Gn Bk	Large lake, swampy to rocky shore, small amt of silt mostly ooze.	0.9	6	9				
					W	non turbid						clear		0.05	1	1				
157			11.0		S		5			95		Gn Bk	Same lake, low ~~ooze~~, silt in ooze.	1.7	8	9				
					W	non turbid						clear		N.D.	2	1				
158			5.0		S		5	5		90		Gn Bk	Same lake, swampy shore shallow sandy silty ooze sand bar in lake.	N.D.	2	2				
					W	non turbid						clear		0.26	1	ND				
159			5.0		S		10			90		Gn Bk	No sand fraction, mostly organic ooze.	1.9	9	9				
					W	non turbid						clear		0.07	1	ND				
160			8.0		S		5	5		90		Gn Bk	Swampy shore, organic rich ooze.	0.1	8	13				
					W	non turbid						clear		0.10	1	ND				
161			2.4		S		5			95		Gn Bk	Swampy, weeds, low silt, ooze.	1.1	6	8				
					W	non turbid						clear		0.11	ND	ND				
162			3.0		S		5			95		Gn Bk	Small silt fraction mostly ooze	0.9	5	8				
					W	non turbid						clear		0.02	ND	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov.: NE Alta Ppt^{n}:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 19

Date: June 27 19 75

Sampler: R. Coll

Sample No. prefix: 508 SL/SW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
163			3.2		S		5			95		Gn Bn	Grassy to swampy shore, low silt, mostly ooze.	1.1	8	10				
					W	non turbid						clear		0.03	1	ND				
164			2.5		S		5			95		Gn Bk	low silt, mostly ooze.	1.0	8	8				
					W	non turbid						clear		N.D.	ND	ND				
165			5.0		S		5			95		Gn Bn	ooze	0.9	7	6				
					W	non turbid						clear		N.D.	ND	ND				
166			11.0		S		10	5		85		Gn Bn	Sandy shore line, sandy to silty ooze.	N.D.	2	3				
					W	non turbid						clear		0.02	1	1				
167			13.0		S			100					no sample - all sand.	No Sample						
					W	non-turbid						clear		N.D.	3	ND				
168			5.5		S		5			95		Gn Bn	Organic rich ooze low silt fraction	0.8	6	6				
					W	non turbid						clear		0.07	2	4				
169			5.5		S		5			95		Gn Bn	Sandy shore, organic rich ooze	1.3	6	6				
					W	non turbid						clear		0.06	1	ND				
170			8.0		S		5			95		Gn Bn	sandy shore, ooze	1.8	7	7				
					W	non turbid						clear		0.07	ND	ND				
171			8.0		S			100					no sample all sand.	No Sample						
					W	non turbid						clear		0.02	2	ND				
172			7.0		S		5			95		Gn Bn	ooze	0.9	8	6				
					W	non turbid						clear		N.D.	1	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic Page No. EU

Project: 508 Lake: Sections F+G

Area, prov: N.E. ALTA Ppt^{n}: Light + Heavy Rain 2 days previous

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 27 19 75

Sampler: J.K. Russell

Sample No. prefix: 508 LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
173			2.0		s	?	15	–	–	85		Br. green	SMALL SWPY LK. Seepage INFLUX SANDY BANKS, OOZE SAMPLE – well consol.	0.9	10	9				
					w	No turbidity						clear		N.D.	1	ND				
174			3.3		s	–	20	–	–	80		Br green	VERY SMALL LK. IN CHAIN OF LKS. SWP. SEEP., 100 M FROM SH. SAMPLE: gyttja.	0.9	7	10				
					w	No turbidity						clear		0.004	ND	1				
175			2.8		s	5	10	–	–	85		Br. green	CENTER OF LARGE LK., SANDY SH. well consol., gyttja	1.4	7	9				
					w	No turbidity						clear		N.D.	1	ND				
176			3.1		s	5	15	–	–	80		Br	SMALL SWPY LK., INFLUX SEEP., Weedy Bottom PEAT SAMPLE WITH LOT OF PLANT MATERIAL.	0.6	4	8				
					w	No turbidity						clear		N.D.	1	ND				
177			4.2		s	15	15	–	–	70		BL	SMALL NECK OF LK., Weedy Bottom INFLOW CREEK, gyttja, well consol., STICKY.	2.0	6	9				
					w	No turbidity						clear		N.D.	1	ND				
178			4.9		s	10	15	–	–	75		BL	CONTINUATION OF SAME LK., SANDY SH., Seepage INFLUX, OOZE WITH SILT – gyttja.	1.3	7	13				
					w	No turbidity						clear		0.002	1	ND				
179			3.0		s	?	5	50	–	45		Lt Br	TOP OF LARGE LK., SOME SEEP. INFLUX, SANDY SH. 60M, gyttja + SAND.	0.3	1	1				
					w	No turbidity						clear		0.05	2	ND				
180			6.0		s	–	10	–	–	90		Br green	S. END OF LK., Weedy Bottom SANDY SH., gyttja SAMPLE.	3.4	10	10				
					w	No turbidity						Clear		0.02	1	ND				
181			4.0		s	–	15	–	–	85		BL	SMALL LK. – SWPY. SEEP. AT S. END. SANDY SH. Sample gyttja WITH SILT FRACTION & STICKY.	0.4	6	10				
					w	No turbidity						clear		0.05	1	ND				
182			0.9		s	–	5	20	–	75		Br	Weedy Bay – MARSHY AREA. 2 INFLOWING CREEKS. SAMPLED: PEAT, SAND, + Pieces OF Roots etc.	1.6	1	2				
					w	No turbidity						clear		0.06	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION F+G
Area, prov: N.E ALTA. Pptn: LT. RAIN PREVIOUS 2 DAYS.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 27 19 75
Sampler: J.K. Russell
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
183			0.5		S	–	10	90	–	–		Br	INFLOWING CREEK. SANDY SH. 20m. Weedy bottom. SAND sample MAINLY.	0.2	N.D.	1				
					W	NO turbidity						clear		0.07	2	1				
184			5.0		S	–	20	–	–	80		Bl.green	END OF LK. SANDY BANKS, seep. INFLUX. – OUTFLOW BAY. gyttja well consol. +STICKY.	1.0	4	7				
					W	NO turbidity						clear		0.04	ND	1				
185			6.4		S	–	15	–	–	85		BL	BAY AT TOP OF LK. Weedy + SANDY SH., SEEPAGE INFLOW, gyttja WITH LARGE SILT FRACTION.	0.9	6	6				
					W	NO turbidity						clear		0.06	ND	1				
186			10.0		S	–	5	–	–	95		Br. green	CENTRE OF LK. – ESKERS FOR SHORE SEEP. INFLUX AT N. END. 100% gyttja. poorly consol. sludge.	0.3	10	12				
					W	NO turbidity						clear		0.06	1	1				
187			7.0		S	–	25	–	–	75		Bl. green	END OF LK., SANDY SH., LITTLE SEEPAGE. gyttja + SILT FRAC. Very well consol. +STICKY.	0.6	4	7				
					W	NO turbidity						clear		0.02	1	ND				
188			8.2		S					100		Bn	centre of small lake, sandy silt influx at N. End. 100% ooze.	0.3	6	5				
					W	NO turbidity						clear		0.02	1	7				
189			7.0		S	–	–	100	–	–		Lt. Br	Completely SAND	0.3	5	5				
					W	NO turbidity						clear		0.02	1	1				
190			16.3		S	–	10	–	–	90		Br. green	top OF LK. – Very SANDY SH. gyttja sample.	0.3	N.D.	1				
					W	NO turbidity						clear		0.03	1	ND				
191			17.0		S	–	10	–	90	–		Br. green	top OF LK. 100m from High SAND BANKS. ORGANICS + gyttja	0.4	7	7				
					W	NO turbidity						clear		0.03	ND	2				
192			4.8		S	–	15	–	85	–		Br. green	S. END OF LK. SANDY SH. Little seepage, gyttja, Poorly consol.	1.1	6	5				
					W	NO turbidity						clear		0.06	1	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC

Project: 508 Lake: SECTION F+G

Area, prov: N.E. ALTA. Pptn: LT. RAIN PREVIOUS 2 DAYS.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 22

Date: JUNE 27 19 75

Sampler: J.K. Russell

Sample No. prefix: 508LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
193			3.5		S	—	10	—	—	90		Br.green	TOP OF LK., High SANDY BANKS 70 m. INFLOWING Creek. gyttja.	2.0	5	4				
					W	NO turbidity						clear		0.09	ND	ND				
194			11.3		S	?	5	—	—	90+		BL	CENTER OF LK. OFF SAND PT. SAMPLE VERY FINE UNCONSOL. gyttja.	3.7	12	14				
					W	NO turbidity						clear		0.07	1	ND				
					S															
					W															
					S															
					W															
					S															
					W															
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					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta. Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 28 19 75
Sampler: R. Coll
Sample No. prefix: 508 SL/SW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
195			3.0		S		10			90		Bk Bn	swampy shore, low silt fraction, sed is jelly like ooze.	0.2	6	11				
					W	non turbid						clear		0.14	3	ND				
196			2.0		S			50		50		Bn White	quite sandy, ½ on top is ooze, ½ on bottom is sand, white	0.3	1	1				
					W	non turbid						clear		0.07	1	1				
197			2.7		S		10			90		Bk Bn	swampy shore, wood fragment and weeds, sed. is of the ooze type.	0.5	6	7				
					W	non turbid						clear		0.06	2	ND				
198			8.0		S		5	5		90		Bk Bn	sandy silty ooze	0.6	6	10				
					W	non turbid						clear		0.05	1	ND				
199			6.0		S		5	5		90		Bk Bn	small sand and silt fraction, mostly organic ooze.	1.1	8	14				
					W	non turbid						clear		0.05	1	ND				
200			2.0		S		5			95		Gn Bn	jelly like ooze ~~with~~ with weeds and stems.	1.8	10	14				
					W	non turbid						clear		0.07	1	3				
201			6.0		S		5	5		90		Bk Gn	darker sed, some lake, wood fragments.	3.3	8	10				
					W	non turbid						clear		0.06	1	1				
202			3.0		S		5	5		90		Bk Bn	silt + sand in ooze.	0.4	3	2				
					W	non turbid						clear		0.06	ND	ND				
203			5.0		S		10			90		Bk Gn	ooze with small silt fraction.	2.3	8	13				
					W	non turbid						clear		0.10	1	3				
204			6.5		S		5			95		Bk Gn	mostly ooze.	1.0	4	6				
					W	non turbid						clear		0.10	1	5				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 28 19 76
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
205			4.0		S		10	10		80			Gn Bk	only a pinch of sed recovered not enough for a sample sandy.	No	Sample					
					W							non-turbid	clear		0.06	ND	ND				
206			3.0		S		5			95			Gn Bk	jelly like ooze low silt.	1.1	9	9				
					W							non-turbid	clear		0.03	3	1				
207			6.0		S		5			95			Gn Bk	slimy ooze ("gyttja")	0.4	7	6				
					W							non-turbid	clear		0.02	ND	ND				
208			6.0		S		5			95			Gn Bk	ooze	1.4	8	9				
					W							non turbid	clear		0.09	ND	3				
209			4.5		S		5			95			Gn Bk	ooze	1.4	10	10				
					W							non turbid	clear		0.09	ND	2				
210			6.2		S		5			95			Bk Gn	ooze	1.4	10	10				
					W							non-turbid	clear		0.06	ND	2				
211			3.5		S		10			90			Bk Gn	ooze	N.D.	6	12				
					W							non turbid	clear		0.07	1	3				
212			5.0		S		5			95			Bk Gn	ooze	0.5	8	9				
					W							non turbid	clear		0.04	1	2				
213			10.0		S		5			95			Bk Gn	ooze	0.9	11	14				
					W							non turbid	clear		0.001	1	ND				
214			6.0		S		5			95			Bk Gn	ooze	0.8	9	9				
					W							non-turbid	clear		0.02	ND	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: Section H+I
Area, prov: N.E. ALTA. Pptn: Heavy Rain Overnight

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 29 19 75
Sampler: J.K. Russell
Sample No. prefix: 508LW/LS.
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
215			1.5		S	–	10	–	–	90			Br. green	END OF LK. - SANDY SH., INFLUX SEEPAGE., GYTTJA, well consol.	0.9	8	9				
					W	NO TURBIDITY							CLEAR		0.006	ND	ND				
216			2.4		S	–	5	–	–	95			Br. green	MIDDLE OF LK., NEAR NECK OF WATER, SANDY SH. SILT + GYTTJA SAMPLE POORLY CONSOL.	0.9	7	7				
					W	NO TURBIDITY							CLEAR		0.06	ND	ND				
217			2.0		S	–	5	–	–	95			Br. green	END OF LK., SWPY SH. OUTFLOW SEEP. GYTTJA POORLY CONSOL.	0.6	12	12				
					W	NO TURBIDITY							CLEAR		0.02	ND	ND				
218					S									MOUTH OF SMALL BAY, SANDY SH. NO SAMPLE – SAND BOTTOM	No	Sample					
					W	NO TURBIDITY							CLEAR		N.D.	3	1				
219			3.3		S	?	10	–	–	90			Br. green	OPPOSITE SIDE OF LK., SAND. SH. WITH SMALL SWP. + INFLUX SEEP. GYTTJA, Moderately well consol.	0.7	8	8				
					W	NO TURBIDITY							CLEAR		N.D.	ND	ND				
220			6.0		S	–	15	–	–	85			Br. green	CENTER OF SMALL LK. SANDY SH SWPY. INFLUX AREA. GYTTJA Mod. consol.	0.6	12	8				
					W	NO TURBIDITY							CLEAR		0.006	ND	1				
221			0.7		S	–	5	–	–	95			Br	SMALL BAY - Well enclosed. SANDY SH. - INFLOW BAY GYTTJA + sludge sample. POORLY CONSOL.	1.1	6	6				
					W	NO TURBIDITY							CLEAR		0.11	ND	ND				
222			4.8		S	–	10	–	–	90			Br. green	VERY SMALL LK., MARSHY BORDERS INFLOWING CREEKS. GYTTJA, SOME CONSOL. 10% PLANT MATTER.	3.9	8	6				
					W	NO TURBIDITY							CLEAR		0.18	ND	ND				
223			4.0		S	?	10	–	–	85+			Br. green	END OF NARROW BAY. High SAND Ridges + some SWPY SH. OOZE. CONSOL.	2.0	5	6				
					W	NO TURBIDITY							CLEAR		0.03	ND	ND				
224			3.8		S	?	10	–	–	90			Br. green	CENTER OF LK. SWPY SH. SEEPAGE INFLUX GYTTJA + 10% PLANT ROOTS etc.	0.9	10	8				
					W	NO TURBIDITY							CLEAR		0.05	1	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC

Project: 508 Lake: Section H+I

Area, prov: N.E. ALTA. Pptn: Heavy Rain Overnight

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 29 19 75 Page No.:

Sampler: J.K. Russell

Sample No. prefix: 508LW/LS.

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
225			-		S									LK. formed by widening of RIVER. SWP + ECKER FORM SH.	No Sample						
					W							NO turbidity	CLEAR	NO SEDIMENT – SAND Bottom	0.06	1	2				
226			4.1		S	–	15	–	–	85			BL	TOP OF LK. SANDY SH, gyttja, poorly consol.	No sample	8	7				
					W			No turbidity					clear		0.08	ND	1				
227			3.5		S	–	5	–	–	95			Br. green	MOUTH OF INFLOWING CREEK. SWPY SH. + SAND BANKS. Weedy Bottom. gyttja well consol.	1.4	8	8				
					W			No turbidity					clear		0.13	1	ND				
228			1.8		S	?	15	–	–	80			Br. green	INFLOWING CREEK., SANDY SH. gyttja, well consol.	0.8	5	5				
					W			No turbidity					clear		0.08	1	1				
229			1.0		S	?	15	–	–	85			BL-grey	TOP OF LK. SANDY SH., SOME SEEPAGE INFLUX THRU SWP. gyttja + PEAT 10-15% PLANT ROOTS.	0.6	5	6				
					W			No turbidity					clear		0.11	ND	ND				
230			2.0		S	?	10	–	–	90			Br. orange	RIVER LK., INFLUX OUTFLOW. SANDY SH. - SWP. ALSO, Weedy Bott., gyttja + PEAT.	1.9	5	4				
					W			No turbidity					clear		0.01	1	ND				
231			1.8		S	–	10	–	–	90			Br	SWPY. END OF LK., OUTFLOW CREEK weedy Bott., SANDY SH. gyttja + 15% PLANT MATERIAL	1.9	5	6				
					W			No turbidity					clear		N.D.	ND	ND				
232			6.0		S	5	20	–	–	75			Br. green	MOUTH OF RIVER, INFLOWING SANDY SH. VERY FINE gyttja.	1.4	3	4				
					W			Slight turbidity					clear		0.05	ND	1				
233			4.3		S	–	10	–	–	90			Br-green	RIVER LK. NEAR DUNES. SAND SH. INFLOW gyttja - poorly consol.	1.4	4	5				
					W			No turbidity					CLEAR		0.07	3	ND				
234			5.7		S	–	10	–	–	90			Br. Orange	CENTER SMALL LK. WITH CREEK FLOWING OUT. 25% PLANT Roots 75% gyttja.	1.0	10	8				
					W			No turbidity					clear		0.02	ND	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION H+I.
Area, prov: N.E. ALTA. Pptn: HEAVY RAIN OVERNIGHT

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 29 19 75
Sampler: J.K. Russell
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
235			3.7		S	5	20	–	–	75		Br. green	SMALL MARSHY LK., SAND SH. weedy bottom, SILT + gyttja well consol. + sticky	2.9	6	8				
					W	NO turbidity						clear		0.05	ND	ND				
236			5.0		S	?	25	–	–	75		Br. green	LARGE BAY - ESKER FORMS ISL. SANDY SH. gyttja with large silt FRAC. well consol. + sticky	2.1	7	7				
					W	NO turbidity						clear		N.D.	1	3				
237			15.2		S	?	25	–	–	75		Br. green	OPPOSITE BAY to EAST. Similar sample.	1.1	9	7				
					W	NO turbidity						clear		0.06	ND	ND				
238					S								END OF LK. SANDY SH. NO sediment - SAND Bott.	No Sample						
					W	NO turbidity						clear.		0.07	2	1				
239			4.3		S	?	15	–	–	85		BL	S. END OF LK. OFF AN ISLAND. SWP. SH. Seepage influx gyttja + peat 30% poorly consol.	0.8	6	7				
					W	NO turbidity						clear		0.04	1	2				
240			6.3		S	5	5	–	–	90		Br BL	TOP BAY OF LAKE, SANDY SH. seepage influx, gyttja, poorly consol.	0.05	9	12				
					W	NO turbidity						clear		0.10	1	1				
241					S								center OF LK. - SANDY SH. NO sediment - SAND	No Sample						
					W	NO turbidity						clear		0.03	ND	ND				
242					S								SMALL LK. SAND ~~SH~~ SHORE. Seepage influx from swp. NO sediment - SAND.	No Sample						
					W	No turbidity						clear		0.03	1	ND				
243			6.5		S	–	10	–	–	90		Br. green	Bottom END OF LK. Seep. OUTFLOW SAND SH. gyttja	1.4	8	9				
					W	NO turbidity						clear		0.03	ND	ND				
244			5.0		S	–	10	–	–	90		Br. green	center SMALL LK. SANDY SH. weedy bottom gyttja + PLANT MATTER.	0.6	9	8				
					W	NO turbidity						clear		0.23	ND	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: N.E. Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: ~~Feb~~ June 29 1975
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
245			1.5		S		5			95		Gn Bn	swampy + grassy shore weeds, ooze	2.1	6	10				
					W	non turbid						clear		0.05	2	ND				
246			1.5		S					100		Black	lake/pond - entirely weed covered on surface. ooze with odor (stench)	8.0	7	12				
					W	non turbid						clear		0.04	1	2				
247			5.0		S					100		Rd/Bn	ooze	0.8	8	5				
					W	non turbid						clear		0.04	ND	ND				
248			2.0		S								no sample, hard bottom on 6 tries.	No Sample						
					W	non turbid						clear		0.07	1	1				
249			1.5		S			60		40		Gn Gy.	mostly sand bottom, very little silty sed.	N.D.	1	1				
					W	non turbid						clear		0.19	9	3				
250			3.5		S			50		50		Bn Gy	sandy sed.	0.3	1	1				
					W	non turbid						clear		0.07	ND	2				
251			3.0		S		5			95		Rd Bn	Reddish ooze.	1.1	7	6				
					W	non turbid						clear		0.07	ND	1				
252			6.0		S		5			95		Bn	ooze - no sand.	0.4	7	7				
					W	non turbid						clear		0.004	3	ND				
253			8.0		S		5			95		Bn	ooze - no sand	0.4	8	8				
					W	non turbid						clear		0.02	2	ND				
254			5.0		S								no sample, hard bottom on 6 tries.	No Sample						
					W	non-turbid						clear		0.01	2	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: N.E. Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 29 19 75
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
255			4.0		S					100		Bn Br	ooze	No sample	10	10				
					W	non-turbid						clear		0.02	ND	ND				
256			6.0		S								No sample - all sand	No Sample						
					W	non turbid						clear		0.05	1	1				
257			7.0		S					100		Gn Bn	ooze - no sand	0.2	8	12				
					W	non turbid						clear		0.04	2	2				
258			7.0		S					100		Gn Bn	ooze - no sand	2.0	7	6				
					W	non turbid						clear		0.12	ND	ND				
259			7.0		S					100		Bk	ooze	0.6	6	9				
					W	non turbid						clear		0.06	ND	1				
260			4.5		S					100		Bn Br	ooze	1.3	10	10				
					W	non turbid						clear		0.05	ND	ND				
261			6.5		S					100		Bn Gn	ooze	2.0	8	8				
					W	non turbid						clear		0.05	ND	ND				
262			2.5		S					100		Bn	ooze	1.8	11	10				
					W	non-turbid						clear		0.03	ND	2				
263			3.5		S					100		Bn	ooze - stems & weeds, wood fragment	0.9	6	6				
					W	non turbid						clear		0.03	ND	ND				
264			3.0		S					100		Bn Br	ooze	0.4	7	7				
					W	non turbid						clear		0.11	2	ND				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake: Section J
Area, prov: N.E. ALTA. Pptn: Light RAIN LAST Few days.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 30 19 75
Sampler: J. K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
265			3.0		S	?	15	40	–	45		Wht+Br	LARGE BAY, SANDY SH., ESKERS INFLOW BAY, SAND + PEAT	0.1	8	8				
					W	NO TURBIDITY						CLEAR		0.05	1	2				
266			10.0		S	?	10	–	–	90		Br green	CORNER OF LK. SANDY SH., OOZE SAMPLE, POORLY CONSOL.	0.4	11	9				
					W	SLIGHT TURBIDITY						CLEAR		0.08	ND	1				
267			10.2		S	?	15	–	–	85		BL	CENTER OF Lg. LK., SANDY SH., FINE OOZE + SILT, POORLY CONSOL.	1.6	11	14				
					W	SLIGHT TURBIDITY						CLEAR		0.05	1	ND				
268			4.8		S	–	10	–	–	90		Br green	CENTER OF SMALL LK., SUPY SH. + SAND Ridges to N., WEEDS, gyttja SAMPLE.	0.4	8	10				
					W	NO TURBIDITY						CLEAR		0.06	1	N.D.				
269			6.3		S	5	10	–	–	85		Br green	CENTER OF LONG NARROW BAY. SANDY SH. gyttja, POORLY CONSOL.	N.D.	6	12				
					W	NO TURBIDITY						CLEAR		0.01	2	5				
270			8.2		S	–	15	–	–	85		Br green	CENTER OF ARM OF LK. SANDY SH. gyttja, well consd.	N.D.	6	12				
					W	NO TURBIDITY						CLEAR		0.01	1	N.D.				
271			5.0		S	–	10	20	–	70		BL+Lt.Br	CENTER OF E. side of LK. SANDY SH. gyttja + SAND.	0.4	2	3				
					W	NO TURBIDITY						CLEAR		0.03	2	N.D.				
272			5.9		S	?	15	–	–	80+		green	MOUTH OF INFLOWING CREEK SANDY SH., gyttja, well CONSOL.	N.D.	7	14				
					W	NO TURBIDITY						CLEAR		0.02	2	2				
273			4.4		S	–	5	–	–	95		Grey	RIVER SYSTEM LK. LOW SWAMPY SH. ALL PEAT, POOR CONSOL.	0.3	2	2				
					W	NO TURBIDITY						CLEAR		0.01	1	N.D.				
274			6.3		S	–	10	–	–	90		Grey Brown	LARGE BAY; hi SANDY SHORE; PEAT + gyttja POORLY CONSOL.	0.6	5	5				
					W	NO TURBIDITY						CLEAR		0.005	1	N.D.				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake: 5
Area, prov: N.E. ALTA. Pptn: Light Rain Previous Few days

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: JUNE 30 19 75
Sampler: J. K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
275			5.3		S	?	10	–	–	90		Bl green	CENTER OF LK. SANDY SH + SWP INFLUX SEEPAGE GYTTJA well consol.	1.1	13	14				
					W	No turbidity						Clear		0.01	1	N.D.				
276			4.4		S	?	15	–	–	85		Br Bl	SMALL BAY – SANDY LOW SH. 50% PEAT 50% GYTTJA	0.1	2	2				
					W	No turbidity						Clear		0.01	2	N.D.				
277			12.4		S	–	–	–	–	100		Br green	CENTER OF LK. – INFLOW CREEK SANDY SH. GYTTJA – poorly consol.	0.6	8	7				
					W	No turbidity						Clear		0.03	2	N.D.				
278			8.5		S	–	10	–	–	90		Br green	CENTER OF LK., SANDY SH. GYTTJA	0.8	2	2				
					W	Very clear						Clear		0.02	1	2				
279			8.6		S	?	15	–	–	80+		Br Bl	Center of SMALL LK. – high SAND SH. GYTTJA WITH silt FRACTION, V. well consol.	N.D.	10	12				
					W	No turbidity						Clear		N.D.	1	1				
280			4.3		S	10	25	–	–	65		Br green	Center of Lg. LK. ON RIVER SAND AND SWPY. SH., INFLOW CREEK GYTTJA – V. well consol.	0.2	6	12				
					W	No turbidity						Clear		0.002	2	1				
281			0.7		S	10	35	–	–	55		Br	WIDENING OF RIVER Weedy Bottom SANDY BANKS, PEATY SAMPLES 15% PLANTS etc + SILT FRACTION	N.D.	4	10				
					W	No turbidity						Clear		0.002	1	1				
282			6.0		S	–	–	–	–	100		Lt. Br	CENTER OF LK., SANDY SH. LITTLE SEEPAGE. GYTTJA	0.3	8	8				
					W	No turbidity						Clear		N.D.	1	N.D.				
283			4.9		S	–	10	–	–	90		Br green	CENTER OF SMALL LK. Weedy Bottom, SWPY SHORE. GYTTJA – mod. consol.	1.1	7	7				
					W	No turbidity						Clear		0.05	N.D.	N.D.				
284			9.6		S	?	15	–	–	85		Br green	CENTER OF SMALL KETTLE LK. SANDY SH. GYTTJA.	0.6	11	8				
					W	No turbidity						Clear		0.02	N.D.	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake: Section 5
Area, prov: N.E. Alta. Pptn: Rain Last Few Days

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: June 30 19 75
Sampler: J.K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
285				11.0	S									Center of lk. Sandy sh. Little seepage.	No Sample						
					W							No turbidity	Clear	No sediment – sand bot.	0.05	N.D.	N.D.				
286				16.0	S	?	15	–	–	85			Br. green	Center small lk. sandy sh., gyttja, well consol.	0.5	10	8				
					W							No turbidity	Clear		0.02	N.D.	N.D.				
287				5.1	S	–	15	–	–	85			Br. green	Center of long lk. sandy sh., weedy bottom gyttja, well consol.	0.9	11	8				
					W							No turbidity	Clear		0.03	1	1				
288				7.0	S	–	10	–	–	90			Br	Small lk., sandy sh. seepage influx thru low swpy end. gyttja	1.0	8	12				
					W							No turbidity	Clear		0.02	2	2				
289				4.4	S	–	20	–	–	80			Br. green	High sandy shored lk. seepage to river gyttja. well consol.	0.9	14	14				
					W							No turbidity	Clear		0.009	2	2				
290				5.5	S	?	15	–	–	85			Br. green	Small lk connected to another by swamp. sand sh. gyttja – well consol.	0.8	7	7				
					W							Slight turbidity	Clear		0.05	1	1				
291				3.0	S	–	5	–	–	95			Br	Center small lk., swpy. sh. with outflow to larger lk. some sand sh., gyttja.	0.9	7	8				
					W							slight turbidity	Clear		N.D.	N.D.	1				
292 [redacted]				4.5	S	–	5	–	–	95			Br	Center of large bay hi sandy sh., gyttja very poorly consol.	0.6	6	7				
					W							No turbidity	Clear		0.002	N.D.	4				
293				4.9	S	–	15	–	–	85			Br. green	Center of small lk. weedy bottom, sandy sh. some seep. outflow gyttja – well consol.	0.3	9	8				
					W							No turbidity	Clear		0.002	1	1				
					S																
					W																

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION K
Area, prov: N.E. ALTA. Pptn: NONE FOR 2 DAYS

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 2nd 19 73
Sampler: J.K. Russell
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
294			2.4		s	–	15	–	–	85			Br. green	TOP OF LK. INFLOWING CREEK SANDY SH. gyttja, well consol.	0.4	5	6				
					w	NO TURBIDITY							CLEAR		0.01	N.D.	1				
295			2.2		s	–	10	–	–	90			Br green	MOUTH OF NARROW BAY INFLOW, SANDY SH. gyttja, well consol.	0.8	6	9				
					w	NO TURBIDITY							CLEAR		0.005	1	1				
296			5.0		s	?	15	–	–	85			BL. br	CENTER SMALL LK. SAND + SWP. SH., Weedy Bottom gyttja, poorly consol.	0.9	11	8				
					w	NO TURBIDITY							CLEAR		0.02	N.D.	N.D.				
297			4.5		s	5	15	–	–	80			BL	CENTER OF SMALL LK. SWPY. SH., Weedy Bott. gyttja, well consol.	0.3	8	14				
					w	NO TURBIDITY							CLEAR		0.02	1	N.D.				
298			3.0		s	10	25	–	–	65			BL green	CENTER OF SWPY LK. Weedy, Some seep. gyttja.	N.D.	6	14				
					w	NO TURBIDITY							CLEAR		0.01	1	1				
299			3.0		s	–	10	–	–	90			BL Br	BAY OF Lg. LK., LOW SANDY SH. gyttja - poorly consol.	0.9	9	11				
					w	NO TURBIDITY							CLEAR		0.005	1	N.D.				
300					s									CENTER SMALL LK., Some SWP. NO SEDIMENT / SAND	No Sample						
					w	NO TURBIDITY							CLEAR		N.D	1	1				
301			6.2		s	–	15	–	–	85			Br. green	CENTER OF LK ON RIVER SYSTEM SWPY + SANDY SH. gyttja - well consol.	N.D.	6	13				
					w	NO TURBIDITY							CLEAR		0.01	1	1				
302			13.0		s	–	10	–	–	90			Br. green	END OF LK. - INFLOW BAY VERY SANDY SH., gyttja, poorly consol.	2.4	10	11				
					w	NO TURBIDITY							CLEAR		0.02	3	7				
303					s	DUMMYS (salted samples)								DUMMY SAMPLE FOR SALTING PURPOSES (SAME LOCATION AS #304). Both "salted" with Ore.	5.0	12	14				
					w										0.93	2	7				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION K
Area, prov: N.E. ALTA Pptn: NONE FOR 2 DAYS

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 2ND 19 75
Sampler: J.K. RUSSELL
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
304			1.5		S	?	15	–	–	80+		BL	END OF LK., INFLOW CREEK, SWPY SH., WEEDY BOTTOM. - GYTTJA	0.5	15	14				
					W	NO TURBIDITY						CLEAR		0.01	2	3				
305			3.6		S	–	10	–	–	90		Br.green	CENTER OF SMALL LK., SANDY SH. - INFLOW SWP. GYTTJA. well consol.	1.4	6	9				
					W	NO TURBIDITY						CLEAR		0.005	3	2				
306			3.0		S	–	10	80	–	10		Lt. Br	CENTER OF SMALL LK. ON RIVER SYSTEM, SANDY SH. SANDY SAMPLE.	0.2	N.D.	1				
					W	NO TURBIDITY						CLEAR		0.01	2	1				
307			5.0		S	?	15	–	–	85		Br. green	LOCATION TYPE SIMILAR TO 306 ON RIVER SYSTEM GYTTJA	1.5	8	12				
					W	SLIGHT TURBIDITY						CLEAR		0.004	2	3				
308			7.0		S	–	10	–	–	90		Br. green	SWP. LK., CENTER, SANDY SH. GYTTJA AND 10% PLANT MATERIAL.	0.6	8	8				
					W	NO TURBIDITY						CLEAR		N.D.	1	2				
309			17.6		S	5	15	–	–	80		Bl. green	LARGE LK. NEAR MOUTH OF INFLOWING CREEK. LOOSELY CONSOL. GYTTJA.	0.4	10	9				
					W	NO TURBIDITY						CLEAR		0.01	1	1				
310			13.7		S	–	20	–	–	80		Br. green	CENTER OF SMALL KETTLE LK. SANDY SH. LOOSELY CONSOL. GYTTJA.	0.3	10	8				
					W	NO TURBIDITY						CLEAR		0.01	N.D.	1				
311			8.0		S								CENTER OF LG. BAY. SANDY SH. NO SEDIMENT - SAND BOTTOM.	No	Sample					
					W	NO TURBIDITY						CLEAR		0.002	1	1				
312			9.0		S	–	15	–	–	85		Br. BL	CENTER OF SMALL LK. SANDY SH. GYTTJA - POORLY CONSOL.	0.4	8	9				
					W	NO TURBIDITY						CLEAR		0.007	1	N.D.				
313			5.0		S	–	10	–	–	90		Br. green	CENTER LK., SANDY SH, WEEDY BOTTOM GYTTJA.	0.4	8	10				
					W	NO TURBIDITY						CLEAR		0.01	3	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

N.T.S. Map: 74-L
Photo No.: Mosaic
Project: 508
Lake: Section K
Area, prov: NE. ALTA.
Pptn: NONE FOR 2 DAYS

Date: July 2ND 19 75
Sampler: J.K. Russell
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
314			5.7		S	–	15	–	–	85		Br green	Center L.K. on River System weedy Bottom, inflow, outflow Creek, sandy sh., gyttja.	3.3	8	15				
					W	NO turbidity						clear		0.008	2	2				
315			12.2		S	?	10	–	–	85+		BL	Mouth of inflow Bay sandy sh. poorly consol., gyttja	N.D.	N.D.	1				
					W	NO turbidity						Clear		0.04	3	2				
316					S								Inflow creek in Bay. No sediment, sand bottom	No Sample						
					W	NO turbidity						Clear		0.02	2	3				
317			10.0		S	–	10	–	–	90		Br	Center of Lg. L.K. sandy sh. gyttja - well consol.	1.5	8	12				
					W	NO turbidity						clear		0.009	2	3				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: N.E. Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 2 19 75 Page No. 2
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
318			9.2		S	5	5			90			Bk	Black Gy Hja fine	2.0	9	10				
					W	non-turbid							clear		0.004	N.D.	N.D.				
319			7.0		S					100			Bn	Gy Hja	0.9	6	7				
					W	non-turbid							clear		N.D.	1	2				
320			11.0		S		5			95			Bn	Gy Hja	2.1	11	10				
					W	non turbid							clear		0.002	1	2				
321			6.0		S		5			95			Gn Bn	Gy Hja	0.4	8	12				
					W	non turbid							clear		0.007	1	N.D.				
322			9.0		S		5			95			Gn Bn	Gy Hja	1.0	12	13				
					W	non turbid							clear		0.02	2	1				
323			11.0		S		10			90			Gn Bk	Gy Hja	0.8	9	15				
					W	non turbid							clear		0.03	2	1				
324			15.2		S		10			90			Gn Bn	very deep, steep shore line, kettle? Gy Hja	0.9	6	7				
					W	non turbid							clear		0.004	1	N.D.				
325			3.5		S			?						no sample - hard bottom, likely sand.	No Sample						
					W	non turbid							clear		0.002	1	2				
326			16.5		S		5			95			Bn	sandy shore, steep slopes Gy Hja	2.8	6	6				
					W	non turbid							clear		0.01	1	1				
327			13.0		S		5			95			Bn	Gy Hja	1.4	10	8				
					W	non turbid							clear		N.D.	2	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No.

Date: July 2 1975

Sampler: R. Coll

Sample No. prefix: 508 LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
328			5.0		S		5	5		90			Bn Gn	swampy & sandy shore Gy Hja	2.4	10	10				
					W	non turbid							clear		0.03	1	N.D.				
329			9.0		S		10			90			Bn Gn	Gy Hja	0.5	8	10				
					W	non turbid							clear		0.01	1	3				
330			6.5		S		5			95			Bn Gn	Gy Hja	1.4	9	7				
					W	non turbid							clear		0.005	1	1				
331			5.0		S		5			95			Bn Gn	Gy Hja	1.5	8	7				
					W	non turbid							clear		0.02	2	2				
332			3.0		S		10	80		10			white Bn	sandy shore line, sandy bottom. Little Gy Hja	2.1	6	4				
					W	non turbid							clear		0.04	1	1				
333			3.5		S		10			90			Bn	Gy Hja; a swamp off main lake, weeds + off reeds.	1.6	9	12				
					W	non turbid							clear		0.03	1	3				
334			4.0		S									No sample, sandy shore & hard bottom, steep lake shore with sunken water line.	No Sample						
					W	non turbid							clear		0.04	2	3				
335			2.5		S		5			95			Bk	sandy shore - weeds little Gy Hja, more like a wet soil, wood fragments.	1.4	11	10				
					W	non turbid							clear		0.009	1	2				
336			2.2		S									No sample, sandy hard bottom.	No Sample						
					W	non turbid							clear		N.D.	3	7				
337			3.0		S		10			90			Gn Bk	Gy Hja	0.4	8	15				
					W	non turbid							clear		0.005	2	3				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 2 19 75
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
338			4.0		S		10			90		Bn	Gy Hja	1.4	10	11				
					W	Descrptn. of water sample (W) eg. turbitity, clearness, etc.: non turbid						clear		N.D.	5	2				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake:
Area, prov: N.E. ALTA. Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 3 1975
Sampler: J. K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
339					S									Center small lk. NO sediment - sand bottom.	No sample						
					W							Slight turbidity	Clear		0.005	1	1				
340			3.0		S	?	15	–	–	80+			BL	Inflow bay of lk. Swpy + sandy sh., some peat, gyttja - poorly consol.	0.2	7	10				
					W							No turbidity	Clear		0.004	1	2				
341			9.5		S	–	10	–	–	90			BL. green	Swampy inflow bay. gyttja - well consol.	0.3	7	11				
					W							No turbidity	Clear		0.005	2	1				
342			4.9		S	–	15	–	–	85			BL	Inflowing creek. Sandy sh. gyttja - poorly consol.	N.D.	5	12				
					W							No turbidity	Clear		0.007	3	5				
343					S									Large lk. sand sh. NO sediment - sand bottom	No sample						
					W							No turbidity	Clear		0.01	2	2				
344			12.0		S	5	15	60	–	20			Lt. Br	End of lk. Very sandy shore - mainly sand.	N.D.	N.D.	1				
					W							No turbidity	Clear		0.02	5	2				
345					S									Mouth of inflow bay. No sediment - sand bottom.	No sample						
					W							No turbidity	Clear		0.01	4	3				
346			11.0		S	5	15	–	–	80			Br. green	Lk with inflowing swamp. gyttja - mod. consol.	0.4	9	9				
					W							Slight turbidity	Clear		0.005	2	2				
347			4.2		S	–	10	–	–	90			Br	Swpy. end of lk. Weedy bottom, 10% plant. gyttja - poorly consol.	1.4	8	9				
					W							No turbidity	Clear		0.01	4	2				
348			4.0		S	–	10	–	–	90			Br. green	Center of small lk. Sandy sh., 10% plant. gyttja - well consol.	0.9	9	10				
					W							No turbidity	Clear		N.D.	1	N.D.				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC

Project: 508 Lake:

Area, prov: N.E. ALTA. Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 40

Date: July 3 19 75

Sampler: J. K. Russell

Sample No. prefix: 508LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
349			5.1		S	?	10	–	–	85+		Br. green	CENTER OF LK. SANDY SH. gyttja - well consol.	0.8	6	9				
					W	NO turbidity						CLEAR		N.D.	1	1				
350			6.0		S	5	10	65	–	20		Lt. Br.	Mouth of OUTFLOW BAY weedy Bottom, swp. SH. SANDY SAMPLE.	N.D.	N.D.	1				
					W	NO turbidity						CLEAR		0.002	N.D.	1				
351			3.5		S	–	15	–	–	85		Br. green	END OF LK., SOME SWP. SCOP. gyttja - well consol.	0.4	6	7				
					W	NO turbidity						CLEAR		N.D.	1	3				
352			5.0		S	–	10	–	–	90		Br. green	center OF LK., SWPY INFLOW gyttja, loosely consol.	0.9	9	10				
					W	NO turbidity						CLEAR		0.004	1	N.D.				
353					S								SMALL kettle LK. No sediment - SAND BOTTOM.	No Sample						
					W	NO turbidity						CLEAR		N.D.	1	3				
354			17.0		S	?	15	–	–	80+		BL	END OF LK., SANDY SH. gyttja - fine + loosely consol.	0.5	10	12				
					W	NO turbidity						CLEAR		0.04	2	5				
355					S								very SANDY SH. No sediment.	No Sample						
					W	NO turbidity						CLEAR		0.009	3	2				
356			7.5		S	–	10	–	–	90		Br. green	Center OF SMALL LK., SANDY SH., Some INFLOW BAYS. gyttja + 10% PLANT ROOTS.	2.9	12	10				
					W	NO turbidity						CLEAR		0.03	1	3				
357			4.5		S	–	15	–	–	85		Br. green	CENTER OF SMALL LK. SANDY SH. gyttja - well consol.	5.2	14	12				
					W	NO turbidity						CLEAR		N.D.	N.D.	1				
358			1.8		S	?	?	–	–	90+		Br.	Center of LK. OFF SEVERAL ISLANDS. SWP + SAND SH. 100% PEAT.	5.9	7	8				
					W	VERY TURBID						CLEAR		0.04	N.D.	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake:
Area, prov: N.E. ALTA. Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 41
Date: July 3 19 75
Sampler: J. K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
359			5.0		S	?	15	—	-	85		Bl. green	CENTER OF SMALL LAKE. high SANDY SH., gyttja, well consol.	5.2	8	10				
					W	NO TURBIDITY						CLEAR		0.02	1	2				
360			7.0		S	?	5	90	-	5		Lt. Br	MOUTH OF BAY, INFLOW AREA SANDY-SH.	0.3	N.D.	N.D.				
					W	NO TURBIDITY						CLEAR	SAND SAMPLE	0.02	1	1				
361			.		S								CENTER OF SAME LK.	No Sample						
					W	NO TURBIDITY						CLEAR	NO Sediment - SAND.	0.04	1	2				
362			.		S								S. EDGE OF SAME LK.	No Sample						
					W	NO TURBIDITY						CLEAR	NO Sediment - SAND	0.01	1	1				
363			3.0		S	—	15	—	-	85		Br	Center OF SMALL LK. Swpy. SH., seepage INFLOWS, gyttja.	1.4	9	9				
					W	NO TURBIDITY						CLEAR		0.03	2	1				
364			16.0		S	?	15	-	-	80+		BL	BAY OF LK., high SANDY SH. - gyttja. Loosely consol.	1.5	8	6				
					W	NO TURBIDITY						CLEAR		0.04	2	2				
365			8.6		S	?	10	—	-	90		Br. grey	Edge OF LK. SAND BANKS - gyttja - well consol.	1.4	14	13				
					W	NO TURBIDITY						CLEAR		0.02	2	1				
366			10.0		S	5	15	—	-	80		Br. green	NE. Edge OF LK., SANDY SH. INFLOWING CREEK. gyttja - well consol.	0.9	10	10				
					W	NO TURBIDITY						CLEAR		0.007	1	1				
367			9.0		S	—	10	-	-	90		Br. green	N.W. edge OF LK. SANDY SH. OFF ISLAND. gyttja well consol.	0.1	8	15				
					W	NO TURBIDITY						CLEAR		N.D.	1	1				
368			11.0		S	—	15	—	-	85		Br. green	Bay OF LK., SANDY SH. gyttja - well consol.	N.D.	13	17				
					W	NO TURBIDITY						CLEAR		N.D.	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 4 19 75 Page No. 42

Sampler: J.K. Russell

Sample No. prefix: 508LS/LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
369			1.5		S									Centre of Lk on river system	No Sample						
					W							no-turbidity	clear	no sediment, sand.	0.01	2	5				
					S																
					W																
					S																
					W																
					S																
					W																
					S																
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					S																
					W																
					S																
					W																

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 3 1975 Page No. 12

Sampler: R. Coll

Sample No. prefix: 508 LS/LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
370			8.2		S									No sed sample, sandy shore, sandy bottom.	No Sample						
					W	non-turbid							clear		0.04	1	2				
371			0.5		S									No sample - near in-filling stream sandy to rocky bottom visable.	No Sample						
					W	non turbid							clear		0.02	1	3				
372			4.0		S		5	90		5			White Bn	mostly sand, small organic fraction near drainage stream.	0.3	1	2				
					W	non-turbid							clear		0.01	N.D.	2				
373			3.6		S		5	90		5			White Bn	mostly sand, low organic content.	0.3	2	3				
					W	non turbid							clear		0.11	1	2				
374			3.6		S		10	?		90			Gn Bn	sandy shore - gyttja, fine silt fraction small.	2.5	9	10				
					W	non turbid							clear		0.04	1	2				
375			5.1		S		10			90			Gn Bn	Gyttja, no sand, strong odor.	5.7	12	12				
					W	non-turbid							clear		0.04	1	2				
376			8.2		S		10			90			Black	very fine sed, low Gyttja content, strong odor (peat?)	3.8	11	14				
					W	non-turbid							clear		0.03	1	3				
377			5.0		S									no sample - hard sandy bottom.	No Sample						
					W	non turbid							clear		0.10	1	2				
378			4.8		S		10			90			Gn Bn	Gyttja	1.4	6	6				
					W	non turbid							clear		0.12	1	3				
379			5.6		S		10			90			Gn Bn	Gyttja	1.6	9	15				
					W	non turbid							clear		0.04	N.D.	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 LS/LW Lake:
Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 3 1975
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
380			3.5		S		10			90		Bn Gn	Gy Hja with stems & weeds included.	4.0	15	13				
					W	Descrptn. of water sample (W) eg. turbitity, clearness, etc.: non turbid						clear		0.01	N.D.	3				
381			11.0		S		10			90		Gn Bn	Gy Hja	0.3	10	18				
					W	non-turbid						clear		0.005	N.D.	3				
382			11.0		S		10			90		Black	Gy Hja with some peat?	0.5	6	11				
					W	non turbid						clear		0.01	N.D.	1				
383			2.6		S		10	70		20		White Bn	very sandy sediment, little Gy Hja.	0.5	N.D.	1				
					W	non turbid						clear		0.04	N.D.	1				
384			3.0		S		10	30		60		Grey Bn	sandy Gy Hja.	0.6	6	8				
					W	non turbid						clear		0.04	4	1				
385			3.2		S		10			90		Gn Bn	Gy Hja.	0.5	8	10				
					W	non turbid						clear		N.D.	N.D.	N.D.				
386			3.1		S	10	10			80		Gn Bn	Gy Hja with stems and wood fragments	0.9	7	12				
					W	non-turbid						clear		0.03	1	1				
387			2.9		S		5			95		Gn Bn	Gy Hja with stems and root fragments.	0.6	8	10				
					W	non turbid						clear		0.05	1	1				
388			1.0		S		5			95		Gn Bn	Lots of weeds & stems Gy Hja, mostly organic	0.4	6	12				
					W	non turbid						clear		0.09	1	1				
389			2.4		S		5			95		Gn Bn	Gy Hja.	1.9	14	13				
					W	non turbid						clear		0.04	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No.
Date: July 8 19 76
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
390			9.0		S		5			95		Gn Bn	Gy Hja	1.4	11	17				
					W	non turbid						clear		0.01	1	2				
391			1.5		S								No sample hard sandy bottom visable	No	Sample					
					W	non turbid						clear		0.04	N.D.	1				
392			4.2		S		10	80		10		White Gy	sandy silty sed. low in Organic content	0.4	N.D.	2				
					W	non-turbid						clear		0.02	1	1				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
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					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: N.E. ALTA Pptn: NONE.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 4 1975
Sampler: J.K. Russell
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
Entered here as a duplicate (369)			1.5		S								CENTER OF LK. ON RIVER SYSTEM (on Keane Creek)	~~No Sample~~			see 369			
					W	NO TURBIDITY						clear	NO Sediment - SAND.	~~(Duplicate #)~~						
393			2.0		S								SIMILAR LOCATION	No sample						
					W	NO TURBIDITY						clear	NO Sediment - SAND.	0.02	1	2				
394			6.2		S	–	10	–	–	90		Br. green	CENTER OF BAY. SANDY SH.	1.9	8	8				
					W	QUITE TURBID						clear	gyttja - well consol.	0.03	1	1				
395			11.0		S	–	10	–	–	90		Br. green	CENTER OF ARM OF LK.	1.3	8	9				
					W	NO TURBIDITY						clear	Very SANDY SH. gyttja - poorly consol.	N.D.	N.D.	2				
396			10.7		S	–	15	–	–	85		Br. green	SMALL LAKE - SANDY SH.	1.1	14	10				
					W	NO TURBIDITY						clear	gyttja + silt	0.05	2	2				
397			10.8		S	5	15	–	–	80		Br. green	CENTER SHALLOW LK.	1.4	12	9				
					W	Slight turbidity						clear	SANDY SHORE gyttja - well consol.	0.007	1	2				
398			5.0		S	–	15	–	–	85		Br. green	CENTER OF LK. SANDY SH.	0.9	10	10				
					W	NO TURBIDITY						clear	gyttja - 10% plant roots well consol.	0.009	1	2				
399			15.1		S	–	?	90	–	10		Lt. Br	CENTER Lg. LK.	N.D.	N.D.	1				
					W	NO TURBIDITY						clear	SANDY sample.	0.01	1	2				
400			17.3		S	?	15	–	–	80+		Br. green	CENTER OF LK ON KEANE Cr.	1.1	9	17				
					W	NO TURBIDITY						clear	River System, SANDY SH. gyttja - well consol.	0.01	N.D.	2				
401			8.0		S	5	20	?	–	70+		Br.	CENTER OF LK. ON RIVER	0.6	8	16				
					W	NO TURBIDITY						clear	System - SAND SH. gyttja.	N.D.	N.D.	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-1 Photo No.: MOSAIC
Project: 508 Lake:
Area, prov: N.E. ALTA Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 1 19 75
Sampler: J.K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
402			3.5		s	–	10	–	–	90			Br. green	CENTER SMALL LK., SANDY SH. gyttja well consol.	1.9	10	10				
					w							Slight turbidity	clear	10% PLANT Roots etc.	0.002	N.D.	2				
403					s									CENTER LARGE LK., OFF SANDY PT.	No Sample						
					w							NO turbidity	clear	No sediment - SAND & BLDRS.	0.01	N.D.	1				
404			8.5		s	?	20	–	–	75			BL	LK - SANDSH. Peaty material + gyttja mod. consol.	N.D.	5	13				
					w							NO turbidity	clear		0.02	2	2				
405			7.9		s	–	15	–	–	85			Br. BL	LARGE LK., SANDY SH. gyttja	N.D.	7	15				
					w							NO turbidity	clear		0.05	1	2				
406			4.2		s	–	10	–	–	90			Br. green	CENTER OF LK ON RIVER SYSTEM SANDY SH., gyttja, loosely consol.	2.1	15	13				
					w							NO turbidity	clear		0.09	1	1				
407			9.5		s	?	5	15	–	80			BL	LK ON RIVER SYSTEM. SANDY SH. PEAT 40% gyttja 60% well consol.	1.8	8	12				
					w							NO turbidity	clear		N.D.	1	1				
408			2.0		s	5	15	30	–	50			Lt. Br. + BL	CENTER OF KETTLE LK. SANDY SH., gyttja + SAND.	0.6	1	2				
					w							NO turbidity	clear		0.02	1	N.D.				
409			4.5		s	–	–	–	–	100			Br	CENTER OF LARGE LK. OUTFLOW CREEK.	2.1	8	9				
					w							NO turbidity	clear	gyttja - poorly consol.	0.02	1	N.D.				
410					s									SMALL KETTLE LK. SANDY SHORE	No Sample						
					w							NO turbidity	clear	NO sediment - SAND.	0.02	N.D.	N.D.				
411			5.0		s	–	15	–	–	85			Br. green	CENTER OF LK. SANDY SH. gyttja - mod. consol.	N.D.	6	14				
					w							NO turbidity	clear		0.02	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: N.E. ALTA Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. —
Date: July 4 19 75
Sampler: J.K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
412			1.5		S	–	5	–	–	95		Br	SMALL swpy LK. SANDY Ridges MAINLY Peat – Loosely consol.	0.4	4	4				
					W	NO turbidity						CLEAR		0.04	N.D.	N.D.				
413			3.2		S	?	10	–	–	90		Br. green	SMALL LK. SWP + SAND SH. gyttja – well consol.	0.4	10	10				
					W	NO turbidity						clear		0.02	1	N.D.				
414					S								LK. – SANDY No sediment – SAND Bottom	No Sample						
					W	NO turbidity						clear		0.02	4	3				
415			5.0		S	–	15	–	–	85		Br-green	center small LK. very SANDY gyttja – well consol.	1.2	8	9				
					W	NO turbidity						Clear		N.D.	3	4				
416			2.5		S	–	10	–	–	90		Br-green	CENTER OF LK. SAND + SWP. SH. gyttja – well consol.	N.D.	5	14				
					W	NO turbidity						Clear		0.04	1	N.D.				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 4/75 19 75 Page No. 49

Sampler: R. Coll

Sample No. prefix: 508 LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
417			10.0		S		5			95		black	Cy Hja	1.3	8	9				
					W	non-turbid						clear		0.005	5	2				
418			5.0		S		5			95		Gn Bk	Cy Hja	N.D.	6	14				
					W	non turbid						clear		0.009	1	1				
419			6.0		S		10			90		Bk Br	½ way between a feeding stream and a drainage stream Cy Hja	1.9	8	12				
					W	non turbid						clear		0.01	2	N.D.				
420			7.0		S								no sample - hard sandy bottom	No	Sample					
					W	non turbid						clear		0.02	2	1				
421			7.2		S		40			60		Gn Bk	silty Cy Hja	0.9	11	17				
					W	non turbid						clear		0.08	2	1				
422			1.2		S								hard bottom with visable rocks + sand - no sample	No	Sample					
					W	non turbid						clear		0.009	2	1				
423			2.3		S		10			90		Gn Br Bk	Cy Hja with peat fraction	0.4	9	15				
					W	non turbid						clear	odor	0.04	3	1				
424			2.7		S		20			80		Gn Br	silty Cy Hja	0.9	9	10				
					W	non turbid						clear	slight odor	0.02	2	2				
425			5.0		S		10			80		Gn Br	Cy Hja	1.1	10	9				
					W	non-turbid						clear		0.02	3	3				
426			3.0		S		10			90		Gn Br ~~clear~~	Cy Hja	1.4	15	16				
					W	non turbid						clear		0.02	5	5				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 4 1976 Page No. 20

Sampler: R. Coll

Sample No. prefix: 508LS/LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
427			2.0		S		10			90		Gn Bn	Gy Hja	0.4	8	8				
					W	non turbid						clear		0.02	1	1				
428			1.8		S								hard sandy bottom visable	No	Sample					
					W	non turbid						clear		0.01	1	2				
429			2.1		S		5			95		Gn Bn	Gy Hja	1.5	8	10				
					W	non turbid						clear		0.02	1	1				
430			3.0		S		10			90		Rd Bn	Gy Hja	2.1	8	6				
					W	non turbid						clear		0.04	1	1				
431			2.0		S		20			80		Bn	silty Gy Hja	0.9	7	9				
					W	non turbid						clear		0.07	1	N.D.				
432			1.9		S		10			90		Bn Bk	Gy Hja with peat fraction	1.0	7	9				
					W	non turbid						clear		0.01	1	N.D.				
433			4.2		S		5			95		Gn Bn	Gy Hja	0.8	10	9				
					W	non turbid						clear		0.03	1	1				
434			9.0		S		5			95		Bn	Gy Hja	0.5	12	7				
					W	non turbid						clear		0.03	1	N.D.				
435			3.6		S		5			95		Gn Bn	Gy Hja	0.4	5	6				
					W	non turbid						clear		0.01	2	2				
436			4.0		S		10			90		Bn	Gy Hja	0.8	7	7				
					W	non turbid						clear		0.02	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Ppt^{n}:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 51
Date: July 4 19 75
Sampler: R Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
437			1.6		S		5			95		Bn	Cy Hja	1.1	6	7				
					W	non-turbid						clear		0.002	5	2				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: Section P
Area, prov: N.E. ALTA Pptn: Light overnight RAIN

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 5 19 75
Sampler: J.K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
438			3.4		S	–	10	–	–	90		Br. green	CENTER SMALL LK., SANDY SH. OUTFLOW SEEP.	1.8	10	10				
					W	NO TURBIDITY						CLEAR	GYTTJA + 10% PLANT ROOTS.	0.02	1	4				
439			2.0		S	5	15	–	–	80		Br. green	INFLOW BAY OF LK. SANDY SH.	1.4	8	13				
					W	NO TURBIDITY						CLEAR	GYTTJA - well CONSOL.	0.02	1	6				
440			1.5		S	–	–	–	–	100		BL	OUTFLOW BAY OF LK. Weedy Bottom, SANDY SH.	1.1	8	11				
					W	NO TURBIDITY						CLEAR	PEAT - 15% PLANT ROOTS.	0.02	1	3				
441			1.8		S	5+	15	–	–	80		Br green	CENTER OF LK., SANDY Ridges + SWP. SH.	1.0	8	9				
					W	NO TURBIDITY						CLEAR	GYTTJA. well CONSOL.	0.05	N.D.	2				
442			2.5		S	–	15	–	–	85		Br. green	CENTER OF LK. - JUST OFF SANDY ISL.	2.9	8	9				
					W	NO TURBIDITY						CLEAR	GYTTJA - poorly CONSOL.	N.D.	3	3				
443			5.0		S	10	20	–	–	70		Br green	CENTER OF LK., SANDY SH. BLdr. Bottom.	1.4	10	12				
					W	NO TURBIDITY						CLEAR	GYTTJA - V. well CONSOL.	0.004	2	3				
444			1.4		S	–	20	–	–	80		BL.	INFLOW AREA OF LK. SWPY SH., SAND Ridges in BACK.	1.8	10	15				
					W	VERY TURBID						CLEAR	ORGANIC Rich GYTTJA	0.01	1	2				
445			1.6		S	–	10	–	–	90		Br. green	END OF LK. SWPY SH.	0.9	6	8				
					W	NO TURBIDITY						CLEAR	GYTTJA - well CONSOL.	0.002	2	3				
446			2.3		S	–	15	–	–	85		Br BL	INFLOW BAY OF LK. SWPY. SH. Weedy Bottom	1.3	6	10				
					W	NO TURBIDITY						CLEAR	GYTTJA - 10% PLANT ROOTS	0.01	1	2				
447			3.0		S	–	10	–	–	90		BL	INFLOW BAY OF LK SWPY SH.	0.4	4	4				
					W	NO TURBIDITY						CLEAR	ALL peaty MATTER - Roots etc.	N.D.	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: Section P
Area, prov: N.E. ALTA Pptn: Light overnight Rain

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 5 19 75
Sampler: J.K. Russell
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
448			2.0		S	–	15	–	–	85		Br	Center of Lk. Swpy. sh. gyttja – well consol.	0.8	8	9				
					W	NO turbidity						clear		0.02	2	3				
449			2.2		S	–	20	–	–	80		Br.green	Center of Lk., several inflow swps., sandy sh. gyttja – well consol.	1.0	6	7				
					W	NO turbidity						clear		0.005	1	4				
450			3.0		S	?	15	–	–	85		Br.green	Bay of Lk. sandy sh. Seepage from River gyttja – well consol.	2.1	9	10				
					W	No turbidity						clear		0.005	1	3				
451			2.8		S	–	10	–	–	90		Br.green	Outflow bay to River swpy. sh., weedy Bott. gyttja.	0.3	6	8				
					W	NO turbidity						clear		N.D.	1	2				
452			2.0		S	5	15	–	–	80		Br.green	Center small Lk. Swpy sh. gyttja.	1.0	6	8				
					W	No turbidity						clear		N.D.	1	1				
453			3.5		S	–	15	–	–	85		Br	Inflow bay – weedy Bottom low swpy sh., gyttja + Peat. Loosely consol.	0.4	5	10				
					W	No turbidity						clear		0.004	1	3				
454			3.0		S								Center of Lk., weedy Bottom No sediment – sand.	No Sample						
					W	NO turbidity						clear		0.01	1	1				
455			1.5		S	–	10	–	–	90		Br	Bay of Lk., sand sh. + swpy influx – weedy Bottom gyttja + Peat	1.4	8	10				
					W	NO turbidity						clear		N.D.	1	1				
456			2.1		S	–	–	–	–	100		Br Or	Center of Lk., sandy sh. sludge + gyttja Loosely consol.	1.4	7	7				
					W	No turbidity						clear		0.01	N.D.	2				
457			2.2		S	–	5	–	–	95		Br Bl	Center of Lk. sandy sh. gyttja + Peat – consol.	1.0	7	11				
					W	No turbidity						clear		0.01	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC
Project: 508 Lake: SECTION P
Area, prov: N.E. ALTA Pptn: Light overnight RAIN

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 5 19 75 Page No. 54
Sampler: J.K. Russell
Sample No. prefix: S08LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
458			1.4		S	?	10	-	-	85+		Br	LK ON RIVER SYSTEM SANDY SH. + SWP SEEP.	1.4	6	6				
					W	Descrptn. of water sample (W) eg. turbitity, clearness, etc. NO TURBIDITY						clear	PEAT + GYTTJA	0.01	2	4				
459			1.9		S	?	15	-	-	85		Br. green	LK ON RIVER SYSTEM SWPY SH.	1.1	8	8				
					W	NO TURBIDITY						clear	GYTTJA - well consol.	0.09	2	3				
460			2.1		S	5	15	-	-	80		Br. green	CENTER SMALL LK. SWPY SH. + INFLOW CREEK	1.1	7	13				
					W	NO TURBIDITY						clear	GYTTJA - V well consol.	0.007	1	2				
461			5.0		S	10	20	-	-	70		Br Bl	LARGE BAY. SANDY SH.	N.D.	6	14				
					W	NO TURBIDITY						Clear	GYTTJA. V. well consol.	0.04	1	2				
462			3.5		S	-	20	-	-	80		Bl	ANOTHER BAY INFLOW CREEK, SWP+SAND SH. GYTTJA.	0.3	4	10				
					W	NO TURBIDITY						CLEAR		0.002	1	1				
463			2.7		S	-	10	-	-	90		Br	CENTER SMALL LK. SAND. SH. SOME OUTFLOW	0.5	7	8				
					W	NO TURBIDITY						Clear	GYTTJA + 10% PEAT.	0.06	1	2				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn: nil

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 5 19 75 Page No. 22

Sampler: R. Coll

Sample No. prefix: 508 LS/LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
464			2.2		S		10			90		Bn	Gy Hja with lumps, more consolidated material, high in organics.	0.3	6	7				
					W	non turbid						clear		0.03	N.D.	2				
465			2.0		S		10			90		Bn Gn	Gy Hja	0.8	4	13				
					W	non turbid						clear		0.01	1	1				
466			3.1		S		10			90		Bn	stagnent lake, no visable streams. Gy Hja	0.3	6	8				
					W	non turbid						clear		0.004	1	2				
467			2.5		S		10			90		Bn	Lake with rocky shore, Angular ss boulders, up to 2 meters; Gy Hja.	0.4	7	8				
					W	non turbid						clear		0.009	1	2				
468			2.1		S		10			90		Bn	no visable streams feeding or draining lake. weeds. Gyttja	N.D.	6	6				
					W	non turbid						clear		N.D.	1	6				
469			3.0		S		10			90		Bn	weeds, swampy shore, Gyttja	N.D.	7	8				
					W	non turbid						clear		0.02	2	5				
470			3.2		S		10			90		Bn Bk	lithified sediment sample, red bn grading to Black at 2.5" dep.	0.3	8	10				
					W	non turbid						clear		0.02	1	2				
471			3.5		S		10			90		Bn	Gyttja; swampy shore, no streams	1.4	8	7				
					W	non turbid						clear		0.01	2	3				
472			2.6		S		10			90		Bn Bk	Gy Hja	0.3	4	7				
					W	non turbid						Light Brown		0.01	2	2				
473			2.2		S	15	5			80		Bn	Gyttja with lumps of harder more consolidated clay material.	0.4	5	9				
					W	non turbid						light Brown		0.11	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn: none

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 5 19 75
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
474			2.0		S		10			90		Bn	Gy Hja	0.4	4	8				-
					W	non turbid						clear		0.01	1	4				
475			1.8		S		10			90		Bn	Gy Hja, low silt fraction	0.4	5	9				
					W	non turbid						clear		0.02	1	1				
476			1.8		S		10			90		Bn	weeds, silt and Gyttja lake has swampy shore	0.4	6	8				
					W	non turbid						clear		0.007	1	2				
477			1.2		S	25	25			50		Bn	same lake, clay and silt partially consolidated	0.3	7	7				
					W	non turbid						clear		0.007	1	1				
478			3.5		S	25	25			50		Bn	swampy lake, weeds, clay + silt	0.6	6	13				
					W	non turbid						clear		0.06	2	6				
479			3.0		S		20			80		Bn	Gyttja + silt	0.6	7	8				
					W	non turbid						clear		N.D.	1	5				
480			2.8		S		10			90		Bn	Gyttja + silt	1.6	11	10				
					W	non turbid						clear		N.D.	N.D.	5				
481			4.0		S								sandy shore, drains into Archer, hard sandy bottom, no sediment sample	No	sample					
					W	non turbid						clear		0.02	N.D.	5				
482			3.6		S		40	20		40		Bk Bn	sandy silt and organic sediment	0.4	2	4				
					W	non turbid						clear		0.009	2	2				
483			2.9		S		10			90		Bn	Gyttja, low silt fraction	0.4	6	7				
					W	non turbid						clear		0.005	N.D.	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic

Project: 508 Lake:

Area, prov: NE Alta Pptn: none

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 57

Date: July 5 1975

Sampler: R. Coll

Sample No. prefix: 508 LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
484			2.6		S		20	10		70		white Bn	Gy Hja + silt, sand.	N.D.	4	10				
					W	non turbid						clear		N.D.	N.D.	2				
485			3.2		S		20			80		Bn	Gy Hja + silt	N.D.	4	2				
					W	non-turbid						clear		0.01	1	2				
** 486					S	DUMMYS (salted samples)							salted sample, both water + sediment salted with ~~U_3O_8~~ Uranium ore	55.0	5	101				
					W									3.6	2	3				
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake: Swamp Sampling
Area, prov: N.E. ALTA. Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 6 19 75
Sampler: J.K. Russell + R. Coll
Sample No. prefix: 508LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
487			1.2		S	–	10	–	–	90			BL	SWAMP. weeds, OPEN AREA Peaty MATERIAL, NO drainage SOME gyttja	N.D.	3	10				
					W	NO turbidity							clear		0.03	N.D.	5				
488			1.1		S	–	10	–	–	90			Br. green	Stagnant Lk., Swpy sh. gyttja.	0.9	4	4				
					W	NO turbidity							cloudy		0.009	1	2				
489			2.3		S	–	10	–	–	90			Br	weeds - drainage to the S.W. gyttja - well consol.	N.D.	4	10				
					W	NO turbidity							clear		N.D.	1	4				
490			1.3		S	–	20	–	–	80			Br	Swpy - water 50% peat + plant roots 50% gyttja	0.1	4	7				
					W	NO turbidity							clear		0.002	1	7				
491			1.0		S	–	10	–	–	90			Br	weed covered swp. gyttja + plant frags.	N.D.	1	4				
					W	NO turbidity							clear		N.D.	1	6				
492			2.0		S	–	10	–	–	90			Br	drainage into Larger Swpy Lk. gyttja.	N.D.	4	4				
					W	NO turbidity							clear		0.01	2	3				
493			0.0		S									water only - grassy swp. NO sediment.	No	Sample					
					W	NO turbidity							Brown		0.02	1	3				
494			2.0		S	–	5	–	–	95			Brown	SMALL Lk., swp. gyttja with shells	2.0	12	13				
					W	NO turbidity							clear		0.06	1	5				
495			3.0		S									Swpy Pond NO sediment SAMPLE	No	Sample					
					W	NO turbidity							clear		0.004	1	3				
496			2.4		S	–	10	–	–	90			Br	Swpy Lk. gyttja + silt.	1.8	9	6				
					W	NO turbidity							Lt. Br		N.D.	N.D.	3				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: MOSAIC

Project: 508 Lake: SWAMP SAMPLING

Area, prov: N.E. ALTA Pptn: NONE

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 6 19 75

Sampler: J.K. Russell + R. Coll

Sample No. prefix: 508 LW/LS

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
497					S								SWP. No sediment.	No sample						
					W	No turbidity						Brown		0.004	1	3				
498			2.4		S	–	5	–	–	95		Br. green	SMALL LK., SANDY TO SWPY SH. gytt, jA.	0.4	7	7				
					W	No turbidity						clear		0.002	N.D.	3				
499			1.8		S	–	5	–	–	90		Br	SMALL SWP., SANDY SHR. But weady SH. gytt, jA + silt.	N.D.	4	6				
					W	No turbidity						clear		0.01	1	4				
					S								(END OF PRELIMINARY LAKE SAMPLING)							
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake: Base Camp
Area, prov: NE AHa Pptn: none

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 7/8th 1975 Page No. 60
Sampler: R Coll + J.K. Russell
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Start of "fill-in" + "follow-up" lake sampling! Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
500			5.0		S		5			95			Bn	Gyttja; Duplicate sample # 3	1.8	6	11				
					W			non turbid					clear		0.03	1	6				
501			2.0		S		10	?		90			Bn	Gyttja + some sand. Duplicate sample # 2	0.5	4	6				
					W			non turbid					clear		0.02	2	7				
502			2.5		S			50		50			Bn	Sandy Gyttja Duplicate sample # 1	0.3	2	3				
					W			non-turbid					clear		0.02	2	4				
503			2.6		S									No sed sample - too sandy.	NO	Sample					
					W			non turbid					clear		N.D.	4	7				
504			5.6		S		10			90			Bk	Black organic rich Gyttja stench, little silt.	0.8	6	16				
					W			non turbidity					clear		0.005	4	5				
505			1.9		S		5			95			Gn Bn	small pond, weeds, Gyttja 65%.	N.D.	4	10				
					W			no turbidity					clear		0.009	2	2				
506			5.0		S		5			95			Gn Bn	swampy shoreline, Gyttja	0.3	6	12				
					W			no turbidity					clear		0.02	2	3				
507			8.0		S		5			95			Gn Bn	90% Gyttja; low silt; slight odor.	0.5	8	12				
					W			non turbid					clear		0.01	1	2				
508			3.0		S		10			90			Gn Bn	low silt, Gyttja, no drainage, swampy lake.	N.D.	6	11				
					W			non turbid					clear		0.03	1	2				
509			2.5		S		15			85			Gn Bn	70% Gyttja.	0.8	7	11				
					W			non turbid					clear		0.05	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: Mosaic
Project: 508 Lake:
Area, prov: NE Alta Pptn: None

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 61
Date: July 8/75 19
Sampler: R. Coll
Sample No. prefix: 508 LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
510			4.0		S		10			90		Gn Bn	Gyttja, weeds, large swamp.	2.1	4	10				
					W	non turbid						clear		0.05	N.D.	2				
511			5.2		S		10			90		Bn Gn	Gyttja with silt swampy lake.	0.5	10	20				
					W	non turbid						clear		0.03	2	N.D.				
512			—		S								water only, swamp sample No sed.	No	Sample					
					W	non turbid						Br cloudy.		0.02	N.D.	7				
513			—		S								swamp behind Base Camp No sed.	No	Sample					
					W	non-turbid						cloudy		0.02	1	4				
514			4.6		S		10			90		Gn Bn	Duplicate of #27	2.4	14	8				
					W	non-turbid						clear		0.01	N.D.	7				
515			2.2		S		10			90		Gy Bk	Duplicate of #26	1.1	7	9				
					W	non turbid						clear		0.03	1	4				
516			2.0		S		10			90		Bn	Duplicate of #22	1.5	9	10				
					W	non turbid						clear		0.02	1	3				
517			3.5		S		20			80		Bn Rd	Duplicate of #21 wood fragment	0.8	5	10				
					W	non turbid						clear		N.D	2	2				
518			3.0		S		10			90		Bn	Duplicate of # 16	0.3	7	9				
					W	non turbid						clear		0.008	2	2				
					S								(End of regular sampling program on permits)							
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.: MOSAIC

Project: 508 Lake: BASE CAMP LAKE

Area, prov: N.E. ALBERTA Ppt^{n}: RAIN 21/22ND JULY

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 24 July 1975

Sampler: K.T. GEUE + R. Coll

Sample No. prefix: 508-LS/LW

(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information * (FOLLOW-UP SAMPLING FROM HERE ON:)	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
519			1.3		S							Gn Br	GYTTJA	0.7	1450	8				
					W	NON TURBID							CAMP LAKE	0.02	1	2				
520			3.2		S					5		DK Gn	GYTTJA SOME PLANT FRAGMENTS	N.D.	17	8				
					W	NON TURBID							CAMP LAKE	0.02	N.D.	1				
521			2.1		S							DK Gn	GYTTJA	0.7	23	5				
					W	NON TURBID							CAMP LAKE	0.02	1	1				
522			3.0		S			60				Gy Gn	SAND AND GYTTJA 50 m OFF POINT	N.D	2	N.D.				
					W	NON TURBID							CAMP LAKE	0.007	1	1				
523			2.9		S							Gn Br	GYTTJA	N.D.	6	6				
					W	NON TURBID							CAMP LAKE	0.03	1	3				
524			2.5		S		5			95		Gn Br	Gyttja, low silt weeds + swampy shore	0.7	9	6				
					W	non turbid						clear		0.03	10	2				
525			2.8		S		40			60		Rd Br	swamp, silty sed. Little gyttja	0.7	11	10				
					W	non turbid						Br		0.04	8	2				
526			1.6		S		40			60		Rd Br	drainage to NW, silty sed. Little Gyttja	0.7	6	6				
					W	non turbid						clear		0.02	1	2				
527			1.5		S								no sed sample - hard bottom	No sample						
					W	non turbid						clear		0.04	1	N.D.				
528			1.2		S		40			60		Br	Little Gyttja Silty sed.	0.3	5	5				
					W	non turbid						Br		0.05	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.:
Project: 508 Lake:
Area, prov: NE Alta Pptn.: nil

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 27 1975 Page No. 63
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
529			1.3		S		20			80			Bn	weeds and swampy shore, some silt, Gyttja + other organic sed.	0.7	7	8				
					W			non turbid					clear		0.60	N.D.	1				
530			1.7		S		10			90			Bn Gy	Swampy shore on ¾ of Lake, rocks on ¼ of shore Gyttja with some silt.	0.7	11	10				
					W			non turbid					clear		0.04	1	2				
531			2.2		S		10			90			Bn	Gyttja with some silt.	0.6	8	8				
					W			non turbid					clear		0.04	1	3				
532					S									Swamp sample water only	No	Sample					
					W			non turbid					Bn		0.05	1	3				
533					S									Swamp sample, water only.	No	Sample					
					W			non turbid					Bn		0.04	N.D.	2				
534			2.0		S		20			80			Bn	weeds, Consolidated Gyttja, some silt.	N.D.	8	9				
					W			non turbid					Bn		0.01	2	1				
535			1.2		S		20	10		70			Bn	some gritty sand; mostly organic sed.	N.D.	N.D.	N.D.				
					W			non turbid					clear		0.02	2	2				
536			1.5		S		15			85			Bn Gy	Gyttja, low silt fraction	0.7	10	7				
					W			non turbid					clear		0.08	2	2				
537			2.7		S		10			90			Bn Gy	Gyttja slightly consolidated	ND	6	4				
					W			non turbid					clear		0.005	N.D.	2				
538					S									Swamp sample water only	No	Sample					
					W			non turbid					Bn		0.03	1	N.D.				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.:
Project: 508 Lake:
Area, prov: NE Alta Pptn: Showers

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 27 19 75 Page No. 64
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
539			2.0		S		5			95		Bn	Organic sediment, Gy Hja low silt fraction	N.D.	10	7				
					W	non turbid						clear		0.02	1	N.D.				
540			1.0		S		10			90		Bn	lumpy organic sediment, partly consolidated	0.6	10	8				
					W	non turbid						clear		0.02	1	2				
541			2.0		S								swamp sample water only	0.5	8	8				
					W	non turbid						Bn		0.01	1	N.D.				
542			2.8		S		5			95		Bn Gy	Gy Hja with a small fraction of silt #543	→	10	8				
					W	non turbid						clear		~~N.D.~~						
~~543?~~ 544					S								swamp sample water only.	No sample						
					W	non turbid						Bn								
	Probably error: Lab: #543				S															
					W															
					S															
					W															
542					S									No sample						
					W									N.D.	ND	2				
543					S									0.8	10	8				
					W									0.009	2	2				
544					S									No sample						
					W									0.09	1	ND				

Filler:

check with sampling originals & rewrite this sheet

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.: _____
Project: 508 Lake: _____
Area, prov: NE Alta Pptn: —

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 31 1975 Page No. 62
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
545					S								Swamp sample water only	No	Sample					
					W	non turbid						Bn		0.02	2	N.D.				
546			2.0		S		20			80		Bn	little Gyttja, mostly organic sediment with some silt	0.4	11	9				
					W	non turbid						clear		0.11	4	3				
547			2.5		S		20			80		Gn Bn	silty sediment, high in organic content.	0.7	10	9				
					W	non turbid						clear		0.01	1	3				
548			2.0		S		10			90		Bn	Lumpy partly consolidated Gyttja, low silt fraction	0.4	11	8				
					W	non turbid						Clear		0.02	1	1				
549			2.0		S		10			90		Bn	Lumpy partly consolidated Gyttja, low silt fraction	0.4	10	8				
					W	non turbid						Clear		0.002	N.D.	1				
550			2.0		S		10			90		Bn	Partly Consolidated Gyttja	0.4	9	8				
					W	non turbid						Clear		0.03	N.D.	3				
551					S								Swamp sample only water.	No	Sample					
					W	non turbid						clear		0.009	1	1				
552					S								Swamp sample water only	No	Sample					
					W	non turbid						Bn		N.D.	N.D.	N.D.				
553					S								Swamp sample water only	No	sample					
					W	non turbid						Bn		0.02	1	N.D.				
554			2.2		S		10			90		Bn	consolidated Gyttja and organic sediment.	N.D.	6	7				
					W	non turbid						Bn		0.02	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.:
Project: 508 Lake:
Area, prov: NE Alta Pptn: none

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Page No. 20
Date: July 31 1975
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
555			1.6		S		5			90	5		Black	organic sediment, wood fragments and small peat fraction	N.D.	7	10				
					W	non turbid							Br/clear		N.D.	1	1				
556			1.4		S		8			90	2		Br Bk	some wood fragments mostly silty sed. consolidated.	0.3	8	N.D.				
					W	non turbid							Clear/Br		0.007	1	N.D.				
557			2.1		S		20	10		70			Br	sandy silty sediment	0.3	N.D.	10				
					W	non turbid							clear		0.03	N.D.	N.D.				
558			1.2		S		15			85			Br	partly consolidated organic sediment, 25% Gyttja	07	10	9				
					W	non turbid							clear		N.D.	N.D.	N.D.				
559					S									swamp sample water only	No Sample						
					W	non turbid							Br		N.D.	N.D.	1				
560			5.0		S		10			90			Br Bk	unconsolidated organic sediment.	1.0	14	8				
					W	non turbid							clear		0.01	1	1				
561			1.6		S									hard sandy bottom; water sample only	No Sample						
					W	non turbid							clear		0.02	1	2				
562			4.5		S		10			90			Br	40% Gyttja, 50% organic sed, 10% silt.	0.7	12	8				
					W	non turbid							clear		0.002	1	2				
563			1.8		S		10	5		75	10		Br Bk	wood fragments, sand and silty organic sed.	0.2	6	N.D.				
					W	non turbid							clear		0.02	1	2				
564			2.7		S		10			90			Br	organic sediment unconsolidated	N.D.	76	12				
					W	non turbid							clear		0.03	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74-L Photo No.:
Project: 508 Lake:
Area, prov: NE Alta Pptn: none

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: July 31 1975 Page No. 67
Sampler: R. Coll
Sample No. prefix: 508 LW/LS
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
565			1.8		S		10			90		Br Be	fine organic sediment.	1.2	14	13				
					W	Descrptn. of water sample (W) eg. turbitity, clearness, etc.: non turbid						clear		0.007	N.D.	1				
566			2.5		S		10			90		Bn	silty organic sediment	0.2	8	5				
					W	non turbid						Bn		N.D.	1	2				
567			2.0		S								hard sandy bottom no sediment sample	No	Sample					
					W	non turbid						clear		0.004	1	2				
568			1.8		S		10			90		Bn	organic sediment; little silt	N.D.	6	6				
					W	non turbid						Bn		0.009	N.D.	2				
569			1.0		S								small pond in swamp with sandy edges, no sed sample.	No	Sample					
					W	non turbid						clear		0.005	1	1				
570					S								swamp sample; water only; large angular boulders along swamp shore	No	Sample					
					W	non turbid						Bn		N.D.	1	2				
571					S								swamp sample water only	No	Sample					
					W	non turbid						Bn		N.D.	1	1				
572					S								Swamp sample water only	No	sample					
					W	non turbid						Bn		N.D.	1	1				
					S															
					W															
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: NE. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 1 AUGUST 1975
Sampler: K. T. GEVE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
573			1·1		S					20		DK Br	PEAT AND GYTTJA WOOD AND PLANT FRAGMENTS LAKE OUTLET (?)	0.1	4	4				
					W	N. T.								0.002	N.D.	1				
574			1·3		S					2		Gn Br	CONSOLIDATED GYTTJA SOME PLANT FRAGMENTS. LAKE INLET	N.D.	4	4				
					W	N. T								0.009	1	2				
575			2·3		S							Gn Br	GYTTJA POND	0.5	6	6				
					W	N. T								N.D.	1	N.D.				
576			2·1		S					2		DK Gn Br	GYTTJA SOME PLANT FRAGMENTS	0.2	6	5				
					W	N. T								0.06	1	1				
577			1·9		S					5		DK Gn Br	GYTTJA SOME PLANT FRAGMENTS LAKE OUTLET (?)	0.5	7	4				
					W	N. T								N.D.	N.D.	N.D.				
578			0·9		S					5		cream. ~~Gn~~ Br	CLAYISH SOME PLANT FRAGMENTS	N.D.	6	14				
					W	N. T								N.D.	2	7				
579			2·1		S					5		Gn Br	GYTTJA SOME PLANT FRAGMENTS DRAINAGE WAY	0.3	8	6				
					W	N. T								N.D.	2	3				
580			2·3		S					2		Gn Br	GYTTJA SOME PLANT FRAGMENTS DRAINAGE WAY	0.4	6	7				
					W	N. T								0.007	1	2				
581			1·1		S					5		DK Br	GYTTJA WOOD SOME PLANT FRAGMENTS DRAINAGE WAY	0.47	4	5				
					W	N. T								N.D.	N.D.	N.D.				
582			1·3		S					20		DK Br	GYTTJA SOME WOOD AND PLANT FRAGMENTS	0.5	8	3				
					W	N. T.								0.007	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 1/8 1975
Sampler: K. T. GEUE
Sample No. prefix: 508 - LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
583			1.7		S							Gn Br	GYTTJA DRAINAGE WAY	N.D.	6	6				
					W	N.T.								0.02	1	3				
584			1.4		S							Gn Br	GYTTJA LAKE CENTRE	N.D.	7	6				
					W	N T								0.02	2	1				
585			2.1		S			80		2		grey white	SAND SOME WOOD FRAGMENTS	N.D.	N.D.	N.D.				
					W	N.T.								0.03	1	2				
586			2.0		S					5		Gn Br	GYTTJA SOME PLANT FRAGMENTS	N.D.	9	7				
					W	N.T.								0.05	2	1				
587			1.1		S					2		DK Gn Br	GYTTJA SOME PLANT FRAGMENTS DRAINAGE WAY	N.D.	8	7				
					W	SOME FLOATING MATTER								0.009	3	2				
588			1.7		S							DK Gn Br	GYTTJA	N.D.	8	6				
					W	N.T.								0.01	N.D.	4				
589			1.2		S					90		DK Br	PEAT INLET END	0.1	6	3				
					W	N.T.								N.D.	1	3				
590			1.9		S							DK Gn Blk	GYTTJA DRAINAGE WAY	0.7	11	6				
					W	N.T.								0.004	1	4				
591			1.3		S							DK Gn Br	GYTTJA SHALLOW POND	0.5	9	6				
					W	N.T								N.D.	2	2				
592			1.2		S					5		Br	GYTTJA DRAINAGE WAY SOME PLANT FRAGMENTS	0.4	8	5				
					W	N.T								0.01	1	5				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 1 AUGUST 1975
Sampler: K.T. GELIE
Sample No. prefix: 508-25/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
593			0.6		S					2		GREY BR	GYTTJA	2.2	7	11				
					W	N.T.							SOME WOOD, PLANT FRAGMENTS DRAINAGE WAY	0.002	2	5				
594			1.1		S		5					GREAM BR	GYTTJA (?)	N.D.	7	13				
					W	N.T							DRAINAGE WAY	N.D.	1	6				
595			1.9		S							DK GR BR	GYTTJA	0.3	8	4				
					W	N.T							DRAINAGE WAY	0.004	1	2				
596			1.2		S							GR BR	GYTTJA	0.1	8	5				
					W	N.T							DRAINAGE WAY	0.02	N.D.	3				
597			1.1		S							GR BR	GYTTJA	0.2	8	7				
					W	N.T							DRAINAGE WAY	0.02	3	2				
598			1.5		S							GR BR	GYTTJA	0.3	7	6				
					W	N.T							DRAINAGE WAY	0.004	1	2				
599			1.3		S							DK GR BR	GYTTJA	0.2	8	8				
					W	N.T							DRAINAGE WAY	0.05	1	1				
600			1.4		S							DK GR BR	GYTTJA	0.7	7	9				
					W	N.T							DRAINAGE WAY	0.005	1	2				
601			1.3		S							BLK BR	GYTTJA	N.D.	7	7				
					W	N.T							DRAINAGE WAY	0.02	N.D.	1				
602			1.2		S					5		DK BR	FIRM CONSOLIDATE GYTTJA DRAINAGE WAY	0.3	5	5				
					W	N.T							SOME PLANT FRAGMENTS	0.03	3	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 1 AUGUST 1975
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
603			1.7		S					5		DK Br	CONSOLIDATED GYTTJA LAKE OUTLET END SOME PLANT FRAGMENTS	0.7	6	4				
					W	N.T								0.03	1	1				
604			0.9		S							DK Gn Br	CONSOLIDATED GYTTJA LAKE MIDDLE	0.6	8	8				
					W	N.T								0.04	1	1				
605			1.8		S							DK Gn Br	GYTTJA INLET END	0.5	8	7				
					W	N.T								0.02	1	N.D.				
606			1.1		S							DK Gn Br	GYTTJA DRAINAGE WAY	0.7	8	7				
					W	N.T								N.D.	1	N.D.				
607			1.3		S							Gn Br	GYTTJA	0.4	7	8				
					W	N.T								N.D.	1	1				
608			1.4		S			20				Gn Br	GYTTJA & SAND	0.3	N.D.	N.D.				
					W	N.T								0.01	1	1				
609			1.1		S							Gn Br	GYTTJA POND DRAINAGE WAY	0.7	7	7				
					W	N.T								0.08	2	1				
610			1.4		S							Gn Br	GYTTJA POND DRAINAGE WAY	0.6	10	7				
					W	N.T								0.07	1	2				
611			0.9		S					5		DK Br	CONSOLIDATED GYTTJA DRAINAGE WAY SOME PLANT FRAGMENTS	0.8	8	8				
					W	N.T								0.02	N.D.	2				
612			1.5		S							Gn Br	GYTTJA DRAINAGE WAY	0.6	9	6				
					W	N.T								0.002	N.D.	3				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 808 Lake:
Area, prov: N-E ALBERTA Ppt^{n}:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 1/2 AUGUST 1975
Sampler: K. T. GEVE
Sample No. prefix: 808-25/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
613			1.6		S							Gn Br	GYTTJA	0.7	9	8				
					W	N.T							DRAINAGE WAY	N.D.	2	1				
614			2.3		S							Gn Br	GYTTJA	0.5	11	8				
					W	N.T							DRAINAGE WAY	0.007	1	1				
615			1.5		S							Gn Br	GYTTJA	0.4	13	8				
					W	N.T								0.25	1	4				
616			2.4		S							Gn Br	GYTTJA	0.6	14	7				
					W	N.T								0.03	N.D.	2				
617			2.1		S							Gn Br	GYTTJA	N.D.	180	10				
					W	N.T								N.D.	1	2				
618			2.1		S							BLK Gn	CONSOLIDATED GYTTJA	N.D.	17	8				
					W	N.T							LAKE INLET	0.02	N.D.	5				
619			1.9		S							BLK Gn	GYTTJA	0.3	14	9				
					W	N.T							LAKE OUTLET	0.002	2	2				
620			1.7		S			90				GREY	SAND SOME GYTTJA	0.2	N.D.	N.D.				
					W	N.T							LAKE NARROWS	0.01	2	2				
621			2.1		S							DK Gn Br	GYTTJA	1.0	10	9				
					W	N.T							JOINS DRAINAGEWAY	N.D.	1	N.D.				
622			2.7		S							Br Gn	GYTTJA	1.0	8	7				
					W	N.T							DRAINAGE WAY JOINS ESKER	0.01	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 2 AUGUST 1975
Sampler: K.T. GENE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
623			3.1		S							BLK Gn	GYTTJA	0.3	9	12				
					W	N.T.							DRAINAGE WAY	0.02	N.D.	3				
624			3.2		S			30				Gry Gn	GYTTJA & SAND	0.2	N.D.	7				
					W	N2							DRAINAGE WAY	0.06	1	4				
625			4.2		S					2		Gn Br	GYTTJA	0.4	9	8				
					W	N.T.							SEEPAGE WAY SOME PLANT FRAGMENTS	0.02	2	N.D.				
626			2.8		S							BLK Gn	GYTTJA	N.D.	8	10				
					W	N.T.							SEEPAGE WAY	0.002	1	3				
627			2.1		S		2			2		Br BLK	FIRM CONSOLIDATED GYTTJA POND	N.D.	6	9				
					W	N.T.							SEEPAGE WAY SOME PLANT FRAGMENTS	0.02	1	8				
628			3.9		S							BLK Gn	GYTTJA	N.D.	8	10				
					W	N.T.							SEEPAGE WAY	0.005	1	4				
629			2.1		S							DK Br	GYTTJA POND	0.2	9	7				
					W	N.T.							SEEPAGE WAY	0.009	1	1				
630			1.1		S					5		DK Br	FIRM CONSOLIDATED GYTTJA POND	0.2	8	8				
					W	N.T.							DRAINAGE WAY SOME PLANT FRAGMENTS	N.D.	N.D.	3				
631			1.1		S					5		DK Br	FIRM CONSOLIDATED GYTTJA POND	0.1	6	6				
					W	NT							DRAINAGE WAY SOME PLANT FRAGMENTS	0.04	1	1				
632			1.3		S					5		DK Br	CONSOLIDATED GYTTJA POND	N.D.	8	8				
					W	N.T.							DRAINAGE WAY SOME PLANT FRAGMENTS	0.004	N.D.	3				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 2 AUGUST 1975
Sampler: K.T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
633			2·4		S					2		BLK Br	GYTTJA SEEPAGE WAY	N.D.	8	9				
					W	N.T.							SOME PLANT FRAGMENTS	0.007	1	2				
634			1·1		S			60		10		GRY Br	SAND SOME GYTTJA	N.D.	N.D.	N.D.				
					W	N.T.							SOME PLANT FRAGMENTS	0.03	2	3				
635			1·7		S							DK Br	GYTTJA SEEPAGE OUTLET	0.6	8	6				
					W	N.T.								0.01	N.D.	3				
636			4·2		S							DK Br	GYTTJA POND	1.5	9	5				
					W	N.T.							SEEPAGE THROUGH ESKER	0.06	1	5				
637			3·1		S							Gn Br	GYTTJA POND	3.0	11	5				
					W	N.T.							DRAINAGE WAY	0.07	1	3				
638			3·5		S							Br Gn	GYTTJA POND	1.2	12	6				
					W	N.T							DRAINAGE WAY	0.04	1	5				
639			2·3		S					20		Br	CONSOLIDATED GYTTJA POND	0.7	8	5				
					W	N.T.							SEEPAGE WAY WOOD FRAGMENTS	0.02	1	3				
640			2·2		S					5		Gn Br	GYTTJA POND	0.5	8	6				
					W	N.T							DRAINAGE WAY SOME PLANT FRAGMENTS	N.D.	1	4				
641			1·7		S					30		DK Br	PEAT (?) POND	1.2	6	8				
					W	N.T							SEEPAGE WAY WOOD + PLANT FRAGMENTS	N.D.	N.D.	3				
642			2·4		S							Gry Gn.	GYTTJA	1.0	10	10				
					W	N.T								N.D.	1	4				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 2 AUGUST 1975
Sampler: K.T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
643			3.1		S								Gn Br	GYTTJA POND	0.7	11	8				
					W	N.T.									0.09	N.D.	3				
644			2.1		S								Gn Br	GYTTJA	0.5	12	8				
					W	N.T.									N.D.	N.D.	N.D.				
645			3.2		S								Br Gn	GYTTJA SEEPAGE INLET (?)	0.3	5	4				
					W	N.T.									N.D.	1	1				
646			2.9		S								Gn Br	GYTTJA	0.3	12	8				
					W	N.T									N.D.	N.D.	2				
647			13.1		S								Gn Br	GYTTJA	0.5	12	6				
					W	N.T.									0.009	1	1				
648			5.2		S								Gn Br	GYTTJA	N.D.	7	11				
					W	N.T.									0.004	1	3				
649			14.2		S			90					Gry BLK	SAND SOME GYTTJA	0.3	N.D.	N.D.				
					W	N.T.									N.D.	1	3				
650			3.1		S								Gn Br	GYTTJA SEEPAGE INLET (?)	1.2	8	7				
					W	N.T.									0.007	1	5				
651			9.1		S								Gn Br	GYTTJA LAKE ENTRANCE	1.4	10	8				
					W	N.T									0.01	1	5				
652			7.1		S								Gn Br	GYTTJA	1.2	9	8				
					W	N.T.									0.03	N.D.	4				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA PptID:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 2 AUGUST 1975
Sampler: K.T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org (%)
653			3.5		S								Gn Br	GYTTJA SAND SHORES	1.9	10	12				
					W	N.T.								SEEPAGE WAY	N.D.	1	5				
654			5.1		S								Gn Br	GYTTJA	0.7	4	6				
					W	N.T								OUTLET OF LAKE (SEEPAGE)	N.D.	N.D.	2				
655			8.9		S								Gn Br	GYTTJA	0.5	10	9				
					W	N.T.									0.005	1	3				
656			3.5		S					5			Gn Br	GYTTJA SEEPAGE WAY	0.2	6	6				
					W	N.T.								SOME PLANT FRAGMENTS	N.D.	N.D.	N.D.				
657			3.4		S								Gn Br	CONSOLIDATED GYTTJA	N.D.	10	12				
					W	N.T.								SEEPAGE WAY	N.D.	1	2				
658			2.9		S								Gn Br	GYTTJA	0.1	8	5				
					W	N.T.								SEEPAGE WAY	0.01	1	3				
659			5.1		S								Gn Br	GYTTJA	0.3	1670	12				
					W	N.T.								LAKE CENTRE	0.01	1	1				
660			1.9		S								Gn Br	GYTTJA	0.6	8	6				
					W	N.T.								LAKE NARROWS	0.01	1	2				
661			0.5		S								Gn Br	GYTTJA	0.7	8	6				
					W	N.T.								LAKE SEEPAGE ENTRANCE	0.02	N.D.	2				
662			8.7		S								Gn Br	GYTTJA	2.1	26	6				
					W	N.T.								SANDY SHORE LINE	0.009	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn:

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 2-3 AUGUST 1975
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
663			1.7		S					40			Br	GYTTJA & WOOD SOME PLANT FRAGMENTS	3.3	20	9				
					W	N.T									0.02	1	2				
664			2.4		S								Gn Br	GYTTJA	0.1	8	6				
					W	N.T								STH END OF LAKE	0.03	1	N.D.				
665			2.1		S								Gn Br	GYTTJA NTH END OF LAKE	0.2	8	6				
					W	N.T.								LAKE OUTLET (SEEPAGE)	N.D.	1	1				
666			0.9		S								Br Gn	GYTTJA IN NARROWS	0.5	9	6				
					W	N.T.								LAKE OUTLET END (SEEPAGE)	N.D.	1	4				
667			2.3		S			80					Gry Br	SAND & GYTTJA	N.D.	N.D.	N.D.				
					W	N.T.								SEEPAGE WAY (?)	0.002	N.2	2				
668			—		S								—	Dummy SAMPLE (W)	0.5	N.D.	N.D.				
					W	Dummy SAMPLE							—		20.00	2	3				
669			2.4		S								Gn Br	GYTTJA	0.7	6	6				
					W	N.T									0.13	1	2				
670			2.7		S			10					Gn Br	GYTTJA & SAND	1.0	N.D.	N.D.				
					W	N.T.								SEEPAGE WAY	0.03	2	3				
671			4.0		S									HARD SAND BOTTOM NO SED. SAMPLE	No	Sample					
					W	N.T.								SEEPAGE WAY	0.14	N.D.	3				
672			1.2		S								Gn Br	GYTTJA POND	0.5	5	7				
					W	N.T.								SEEPAGE WAY	0.02	N.D.	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS O/NIGHT. (2nd)

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 3 AUGUST 1975
Sampler: K. T. GEUE
Sample No. prefix: 508-26/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
673			3.8		S								DK Gn	GYTTJA NEAR INLET (?)	1.6	6	6				
					W	N.T.								SANDY SHORE LINE	0.009	1	3				
674			4.9		S								Gn BLK	FIRM CONSOLIDATED GYTTJA	1.1	8	7				
					W	N.T								SANDY SHORE LINE	0.01	1	4				
675			2.1		S								Gn Br	GYTTJA POND	3.2	6	6				
					W	N.T								SEEPAGE WAY (?)	0.05	N.D.	4				
676			1.9		S								DK Br Gn	GYTTJA SEEPAGE WAY	0.6	7	6				
					W	N.T.								JOINS RIVER	0.01	N.D.	1				
677			10.1		S									HARD BOTTOM NO SED SAMPLE	No Sample						
					W	N.T.								LAKE CENTRE	0.04	2	2				
678			7.2		S			30					Gn Gray	GYTTJA + SAND	N.D.	N.D.	N.D.				
					W	N.T.								SANDY SHORE LINE	0.005	N.D.	2				
679			9.1		S			5					DK Gn Br	GYTTJA	N.D.	5	3				
					W	N.T								SANDY SHORE LINE	0.01	ND	2				
680			5.4		S			25					Gn	GYTTJA + SAND HARD BOTTOM	0.1	N.D.	N.D.				
					W	N.T								SANDY SHORE LINE	0.004	1	3				
681			6.1		S								Gn Br	GYTTJA	1.4	7	6				
					W	N.T								LAKE CENTRE	0.01	1	3				
682					S									HARD BOTTOM NO SED SAMPLE	No Sample						
					W	N.T.								LAKE OUTLET	0.03	1	4				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 3 AUGUST 1975
Sampler: K.T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
683			1.1		S					20		DK BR	FIRM CONSOLIDATED GYTTJA PLANT FRAGMENTS POND JOINS RIVER	2.9	8	5				
					W	N.T.								0.02	N.D.	3				
684			7.1		S							BLK	CONSOLIDATED GYTTJA CENTRE LAKE CHANNEL.	1.0	8	10				
					W	N.T.								0.03	1	2				
685			7.2		S							Gn BLK	CONSOLIDATED GYTTJA CENTRE OF BAY	0.7	6	8				
					W	N.T.								0.03	1	2				
686			6.4		S			40				Gn gry	GYTTJA + SAND LAKE SEEPAGE OUTLET (?)	0.4	N.D.	N.D.				
					W	N.T								0.02	1	4				
687			7.1		S							Gn Br	GYTTJA POND SEEPAGE	N.D.	9	8				
					W	N.T								0.007	1	N.D.				
688			1.4		S							Gn Br	GYTTJA POND SEEPAGE	0.4	4	6				
					W	N.T.								0.03	ND	ND				
689			3.4		S							Gn Br	GYTTJA SEEPAGE WAY	0.8	4	7				
					W	N.T								0.02	1	2				
690			7.1		S							Gn Br	GYTTJA IN DRAINAGE WAY	0.7	8	9				
					W	N.T								0.002	1	2				
691			3.8		S							Gn Br	GYTTJA POND SEEPAGE WAY	0.7	8	8				
					W	N.T								N.D.	1	1				
692			4.8		S							Gn Br	GYTTJA CENTRE OF LAKE DRAINAGE WAY	0.6	7	7				
					W	N.T								0.03	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 3 AUGUST 19 75
Sampler: K. T. GELE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
693			2.2		S							Br Gn	GYTTJA	3.5	8	7				
					W	N. T.							SEEPAGE WAY	0.03	1	1				
694			5.1		S							Gn BLK	GYTTJA	1.9	8	12				
					W	N. T.							75 m. STH OF 1LS.	0.03	1	2				
695			1.9		S							Br Gn	GYTTJA	3.3	7	8				
					W	N. T.							CENTRE OF NARROW LAKE SEEPAGE WAY	0.23	N.D.	1				
696			.		S								HARD BOTTOM NO SED SAMPLE	No	Sample					
					W	N. T.							RIVER WAY	0.29	N.D.	2				
697			1.8		S			90				Gy Gn	SAND SOME GYTTJA	0.2	N.D.	N.D.				
					W	N. T.							EDDY OF RIVER	0.21	1	3				
698			5.5		S							Gn BLK	CONSOLIDATED GYTTJA	1.2	8	12				
					W	N. T.							LAKE CENTRE	N.D.	N.D.	4				
699			0.9		S			90		5		GREY	SAND SOME PLANT FRAGMENTS	0.1	1	N.D.				
					W	N. T.							RIVER ENTRANCE TO LAKE	0.02	1	1				
700			0.6		S			90		2		Br Gry	SAND SOME PLANT FRAGMENTS	0.2	N.D.	N.D.				
					W	N. T							RIVER OUTLET OF LAKE	0.01	N.D.	2				
701			4.9		S							Gn BLK	GYTTJA	0.6	9	13				
					W	N. T.							CENTRE OF LAKE DRAINAGE WAY	0.01	1	1				
702			7.1		S							BLK	GYTTJA	2.3	12	13				
					W	N. T.							CENTR OF LAKE DRAINAGE WAY	0.02	N.D.	3				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 3 AUGUST 1975
Sampler: K.T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
703					S								HARD SAND BOTTOM NO SED. SAMPLE	No	Sample					
					W	N.T.							INLET TO LAKE	0.03	N.D.	2				
704				3.9	S							Gn BLK	GYTTJA STH END OF LAKE	0.8	7	8				
					W	N.T.							SEEPAGE INLET	0.04	1	2				
705				1.6	S							Br Gn	GYTTJA POND	0.6	6	6				
					W	N.T.							SEEPAGE WAY	N.D.	N.D.	1				
706				5.1	S							Br Gn	GYTTJA	2.5	8	8				
					W	N.T.							SEEPAGE WAY	N.D.	N.D.	1				
707				1.2	S							DK Br	GYTTJA	0.6	9	10				
					W	N.T.							SEEPAGE WAY	N.D.	4	3				
708				1.8	S							Br Gn	GYTTJA POND	1.0	4	6				
					W	N.T							DRAINAGE WAY	N.D.	1	1				
709				1.9	S							Br Gn	GYTTJA POND	0.6	5	8				
					W	N.T.							DRAINAGE WAY	N.D.	N.D.	N.D.				
710				2.2	S							DK Gn Br	GYTTJA	1.0	8	8				
					W	N.T.							DRAINAGE WAY	N.D.	1	2				
711				4.9	S							Gry BLK	GYTTJA	N.D.	6	9				
					W	N.T.								0.005	N.D.	3				
712				2.8	S							Gn BLK	GYTTJA	0.7	5	8				
					W	N.T							SEEPAGE INLET TO LAKE	0.03	1	3				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 3 AUGUST 1975
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
713				3.2	S								DK. Gn Br	GYTTJA LAKE SEEPAGE OUTLET	1.2	6	7				
					W	N.T.									0.01	1	3				
714				4.5	S								BLK Gn	GYTTJA LAKE CENTRE RIVER WAY	1.8	3	8				
					W	N.T									0.01	1	1				
715				3.2	S								Br Gn	GYTTJA	0.6	3	5				
					W	N.T									0.009	1	1				
716				4.2	S								DK Br	CONSOLIDATED GYTTJA DRAINAGE WAY	0.3	3	6				
					W	TURBID							SLT. Br TINT		0.008	1	N.D.				
717				1.7	S								DK Br	FIRM CONSOLIDATED GYTTJA POND DRAINAGE WAY	1.8	4	6				
					W	N.T.									N.D.	1	2				
718					S									SAND BOTTOM NO SED. SAMPLE RIVER WAY	? (1.8)	No	Sample				
					W	N.T.									0.02	1	3				
719				3.1	S								Gn BLK	CONSOLIDATED GYTTJA RIVER RUNS THROUGH LAKE	2.1	8	12				
					W	N.T.									0.03	1	1				
720				7.9	S								Gn BLK	GYTTJA NTH ARM OF LAKE	N.D.	8	8				
					W	N.T.									0.02	1	1				
721				3.2	S								Gn BLK	GYTTJA	0.5	8	12				
					W	N.T.									0.005	1	1				
722				3.5	S								Gn BLK	GYTTJA LAKE SEEPAGE INLET	1.5	9	12				
					W	N.T.									N.D.	1	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 3/4 AUGUST 19 75
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
723			3.8		S							Gn BLK	GYTTJA	1.1	9	12				
					W	N.T.							N.W. CORNER OF LAKE	0.01	N.D.	2				
724			2.1		S					2		DK Br	FIRM CONSOLIDATED GYTTJA POND	3.1	7	12				
					W	N.T.							SOME PLANT FRAGMENTS SEEPAGE WAY	0.06	1	2				
725			4.1		S			60				Gry Gn	SAND + GYTTJA	N.D.	1	N.D.				
					W	N.T.							SEEPAGE WAY	0.02	1	3				
726			2.1		S							DK Br	FIRM CONSOLIDATED GYTTJA	1.4	8	9				
					W	N.T.							DRAINAGE ENTRANCE TO LAKE	0.01	1	2				
727			1.7		S					5		DK Br	FIRM CONSOLIDATED GYTTJA SOME PLANT FRAGMENTS	1.9	11	14				
					W	N.T.							DRAINAGE OUTLET OF LAKE	0.01	1	2				
728			2.9		S							Br Gn	GYTTJA	0.3	8	7				
					W	N.T.							SEEPAGE WAY	0.01	1	2				
729			2.3		S							Br Gn	GYTTJA	0.2	4	5				
					W	N.T.							SEEPAGE WAY	N.D.	1	1				
730			1.1		S			50				Br Gn	2cm SAND 2cm GYTTJA POND	N.D.	N.D.	N.D.				
					W	N.T.							SEEPAGE WAY	0.04	1	1				
731			3.1		S							Br Gn	GYTTJA	0.6	N.D.	7				
					W	N.T.							SEEPAGE WAY	0.007	1	1				
732			2.3		S							Br Gn	GYTTJA	1.1	5	8				
					W	N.T.							SEEPAGE WAY	0.01	N.D.	2				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 4 AUGUST 1975
Sampler: K.T. GENE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information*	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
733			3.1		S							Gn Br	GYTTJA	0.5	1	4				
					W	N.T.							SEEPAGE WAY	0.01	1	2				
734			4.1		S							Gn Br	GYTTJA	0.7	7	7				
					W	N.T.							SEEPAGE WAY	0.06	N.D.	1				
735			2.9		S					10		Gn Br	GYTTJA SOME PLANT FRAGMENTS	1.4	5	6				
					W	N.T.							SEEPAGE WAY	0.02	1	1				
736			5.9		S							BLK Gn	GYTTJA JOINS RIVER	2.0	10	9				
					W	N.T.							ESKER ON 1 SIDE	0.004	1	3				
737			0.4		S							Gn Br	GYTTJA	2.6	9	9				
					W	N.T.							SEEPAGE WAY	0.06	N.D.	3				
738			0.6		S			40				Gn Br	GYTTJA + SAND	0.2	N.D.	N.D.				
					W	N.T.							SEEPAGE WAY	0.02	2	1				
739			0.4		S							Br Gn	GYTTJA	1.3	6	8				
					W	N.T.							SEEPAGE WAY	0.003	1	3				
740			1.1		S							Gn Br	GYTTJA	0.7	5	7				
					W	N.T.							SEEPAGE WAY	0.005	1	5				
741			1.2		S			90				grg BLK	SAND	N.D.	N.D.	N.D.				
					W	N.T.							SEEPAGE WAY	0.04	N.D.	2				
742			1.3		S							Gn Br	GYTTJA	0.6	7	8				
					W	N.T.							SEEPAGE ENTRANCE TO LAKE	0.03	1	4				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA. Pptn: SHOWERS 2/3 AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 4 AUGUST 1975
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
						Descrptn. of water sample (W) eg. turbitity, clearness, etc.														
743			2.2		S							Gn Br	GYTTJA	1.1	5	5				
					W	N.T.								0.05	N.D.	3				
744			2.3		S							Br	GYTTJA	1.0	4	6				
					W	N.T.							SEEPAGE INLET TO LAKE	0.02	N.D.	2				
745			1.1		S			99				Br WHITE	SAND	N.D.	N.D.	N.D.				
					W	N.T.							LAKE OUTLET	0.04	1	4				
746			8.1		S							Gn BLK	GYTTJA	0.4	8	8				
					W	N.T.								0.01	1	2				
747			2.4		S					10		Br Gn	GYTTJA	0.6	2	8				
					W	N.T.							DRAINAGE WAY	0.01	N.D.	2				
748			1.3		S							Gn Br	GYTTJA SOME PLANT FRAGMENTS	0.8	3	6				
					W	N.T.							SEEPAGE WAY	0.09	1	1				
749			3.2		S			20				Gn Br	GYTTJA ↓ SAND	N.D.	N.D.	N.D.				
					W	N.T.								0.01	1	1				
750			6.1		S							Gn Br	GYTTJA	N.D.	2	4				
					W	N.T.							NTH END BARBER LAKE	0.02	ND	1				
751 Maybelle River					S								Silt sample (only) from a creek with higher R/A 5/6 (taken on foot by KG)	N.D.	2	2				
					W									No	Sample					
					S															
					W															

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 11 & 12TH AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 13 AUGUST 19 75
Sampler: K. T. GELLE
Sample No. prefix: 508-25/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water): U_3O_8	Cu	Ni				Org. (%)
752			4.1		S								DK Gn Br	GYTTJA POND	0.2	11	9				
					W	N.T.								SEEPAGE	0.06	2	6				
753			1.9		S								DK Gn Br	GYTTJA POND	0.5	7	6				
					W	N.T.								SEEPAGE	0.08	2	4				
754			1.8		S								Gn Br	GYTTJA	0.2	6	6				
					W	N.T.								STH END OF LAKE	0.08	2	2				
755			2.9		S								Br Gn	GYTTJA SMALL LAKE	0.2	8	7				
					W	N.T.								SEEPAGE (?)	0.03	1	1				
756			3.1		S								Gn Br	GYTTJA	2.6	6	4				
					W	N.T.								SEEPAGE (?)	0.20	N.D.	1				
757			7.1		S								BLK	CONSOLIDATED GYTTJA	0.2	5	6				
					W	N.T.								SEEPAGE INLET (?) 100m S.W.	0.30	N.D.	1				
758			5.8		S								DK Gn Br	GYTTJA EDGE OF SAND DUNES	2.0	4	4				
					W	N.T.								DRAINAGE WAY	0.10	N.D.	1				
759			2.3		S								Br Gn	GYTTJA SEEPAGE	1.1	6	6				
					W	N.T.								SWAMP SHORES	0.20	1	7				
760			0.9		S					2			Br	CLAYISH POND SOME PLANT FRAGMENTS	0.8	3	4				
					W	N.T.								DRAINAGE WAY EDGE OF SAND DUNES	0.20	1	1				
761			0.6		S					S			DK Br	CLAYISH POND	4.0	5	6				
					W	N.T.								DRAINAGE WAY SOME PLANT FRAGMENTS SWAMP SHORE LINE	0.07	N.D.	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

N.T.S. Map: 74L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 11 & 12TH AUGUST

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 13 AUGUST 1975
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S) Cly.	Slt.	Snd.	Grl.	Org.	others	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
762			1.6		S					5		Gn Br	GYTTJA SOME PLANT FRAGMENTS	N.D.	7	7				
					W	N.T.							POND SEEPAGE	0.05	N.D.	1				
763			–		S								SWAMP SEEPAGE WAY	I.S.	I.S.	I.S.				
					W	TURBID						Sh. Br.	SOME FLOATING MATTER	0.03	1	1				
764			2.1		S							Gn Br	CONSOLIDATED GYTTJA POND	0.7	8	12				
					W	N.T.							SEEPAGE WAY	0.07	N.D.	1				
765			0.2		S							Grey Gn Br	CONSOLIDATED GYTTJA POND JOINS RIVER	2.0	5	10				
					W	N.T.							SEEPAGE WAY	0.20	1	N.D.				
766			4.7		S							Gn Br	GYTTJA	0.5	8	7				
					W	N.T.							SAND SHORE LINE	0.04	N.D.	N.D.				
767			6.8		S							DK. Gn Br	GYTTJA	1.7	12	13				
					W	N.T.							SEEPAGE WAY	0.03	N.D.	1				
768			5.8		S							DK Gn Br	GYTTJA	1.5	14	13				
					W	N.T.							SEEPAGE WAY	0.01	1	N.D.				
769			4.9		S							DK Gn Br	GYTTJA POND	N.D.	9	8				
					W	N.T.							SEEPAGE WAY	0.10	1	2				
770			4.1		S							Gn Br	GYTTJA	I.S.	10	9				
					W	N.T.								ND	1	1				
771			6.2		S							Gn Br	GYTTJA SAND SHORE LINE	1.3	14	17				
					W	N.T.							SEEPAGE	0.02	1	1				

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type). I.S. = "insufficient sample"

N.T.S. Map: 74 L Photo No.:
Project: 508 Lake:
Area, prov: N.E. ALBERTA Pptn: SHOWERS 11 & 12 AUG.

ELDORADO NUCLEAR LIMITED

LAKE WATER & SEDIMENT SAMPLING

Date: 13 AUGUST 19 75
Sampler: K. T. GEUE
Sample No. prefix: 508-LS/LW
(LW = lake water LS = lake sed.)

Sample Number	LAKE: N.T.S. Grid Ref.: N'ing	E'ing	Water depth (m):	pH	Smpl. type:	Est. content (%) of sed. sample (S): Cly.	Slt.	Snd.	Grl.	Org.	others	Descrptn. of water sample (W) eg. turbitity, clearness, etc.	Sample color	Remarks and additional information *	Lab. results (ppm; ppb for water) U_3O_8	Cu	Ni				Org. (%)
772			4.1		S								Gn Br	GYTTJA	I.S.	12	12				
					W	N.T.								SEEPAGE (?)	0.04	1	1				
773			2.4		S								Gn Br	GYTTJA	1.5	8	9				
					W	N.T.								SEEPAGE	0.04	1	1				
774			1.9		S								Br Gn	GYTTJA	0.9	6	9				
					W	N.T.								SEEPAGE	0.04	1	2				
775			4.9		S								Gn BLK	GYTTJA	N.D.	8	16				
					W	N.T.								SEEPAGE	0.04	2	1				
776			3.9		S								DK Br Gn	FIRM CONSOLIDATED GYTTJA	N.D.	8	18				
					W	N.T.								SEEPAGE ESKER BOTH SIDES OF LAKE	0.04	1	1				
777			2.5		S								Gn Br	GYTTJA	0.2	6	6				
					W	N.T.								SEEPAGE WAY ESKER ONE END	0.01	2	1				
778			8.2		S								DK Br	GYTTJA	0.5	7	8				
					W	N.T.								DRAINAGE ENTRANCE TO LAKE	0.08	2	1				
					S																
					W																
					S																
					W																
					S																
					W																

(* Eg. lake centre, near shore, in-flow bay, out-flow, swampy lake, rocky lake, shore outcrop (rock type).

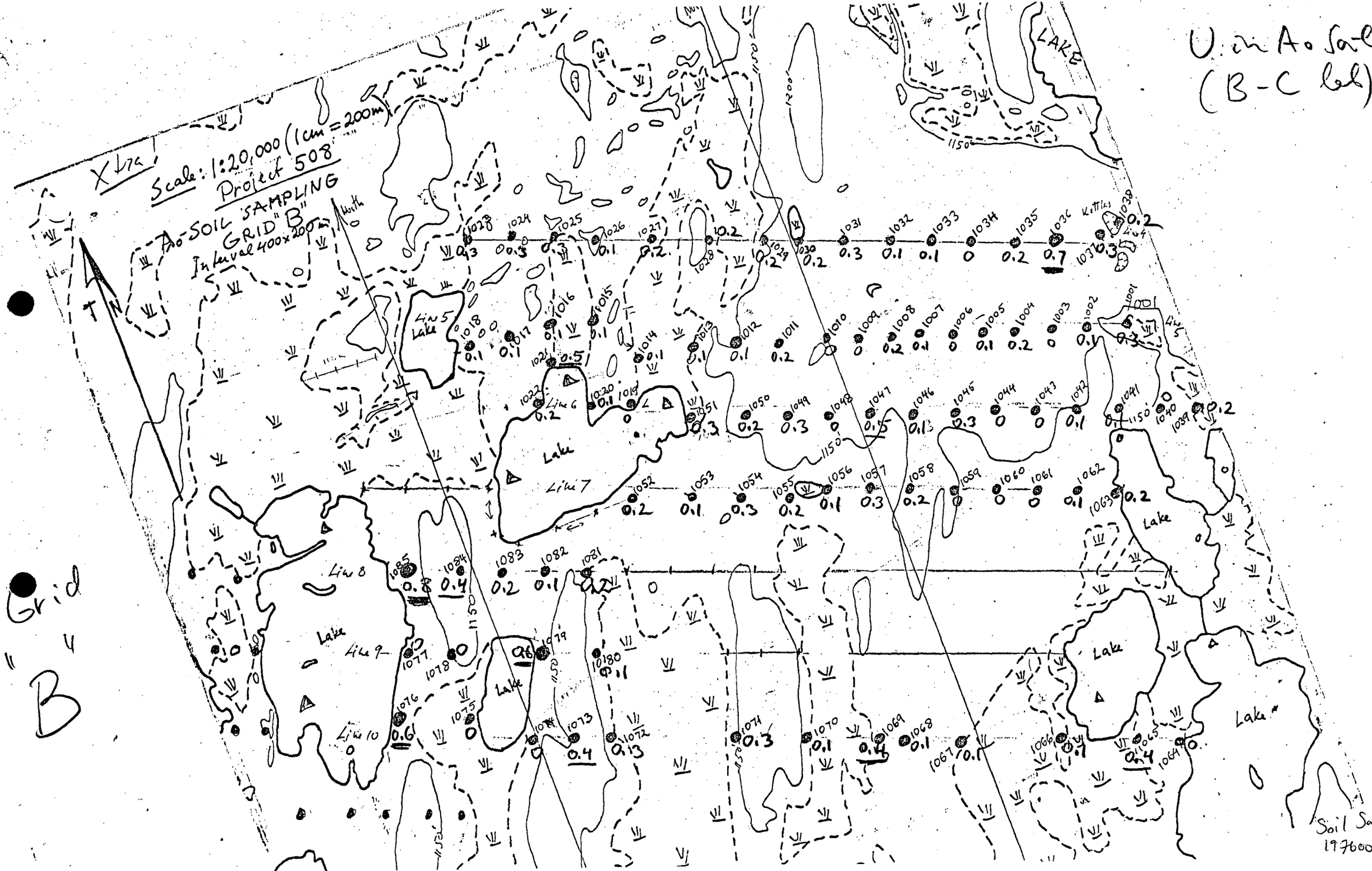
APPENDIX D

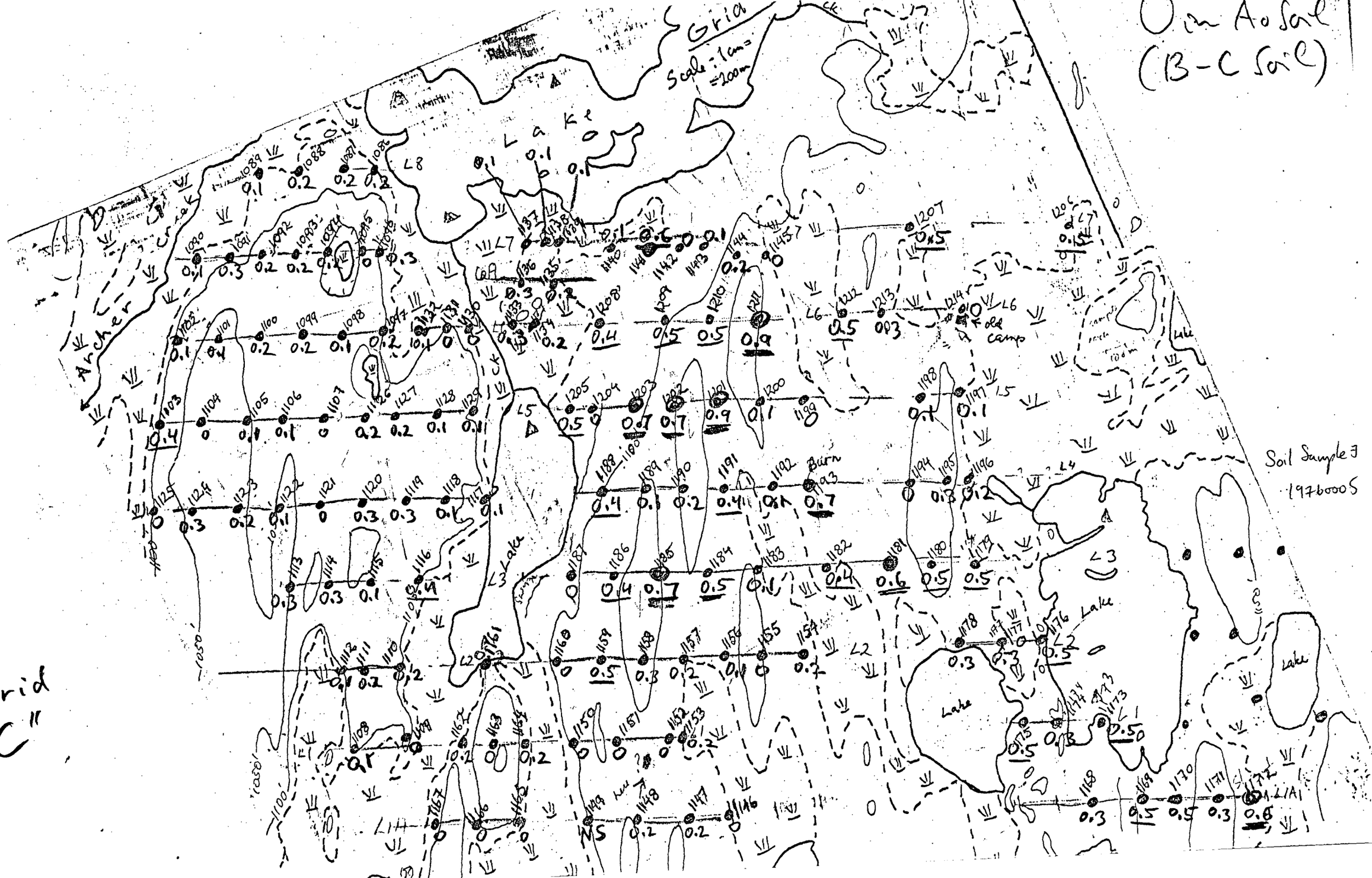
PROJECT 508

Field Location Sketches of Soil Sampling Sites and U-Cu-Ni Values in Soil

Summer, 1975

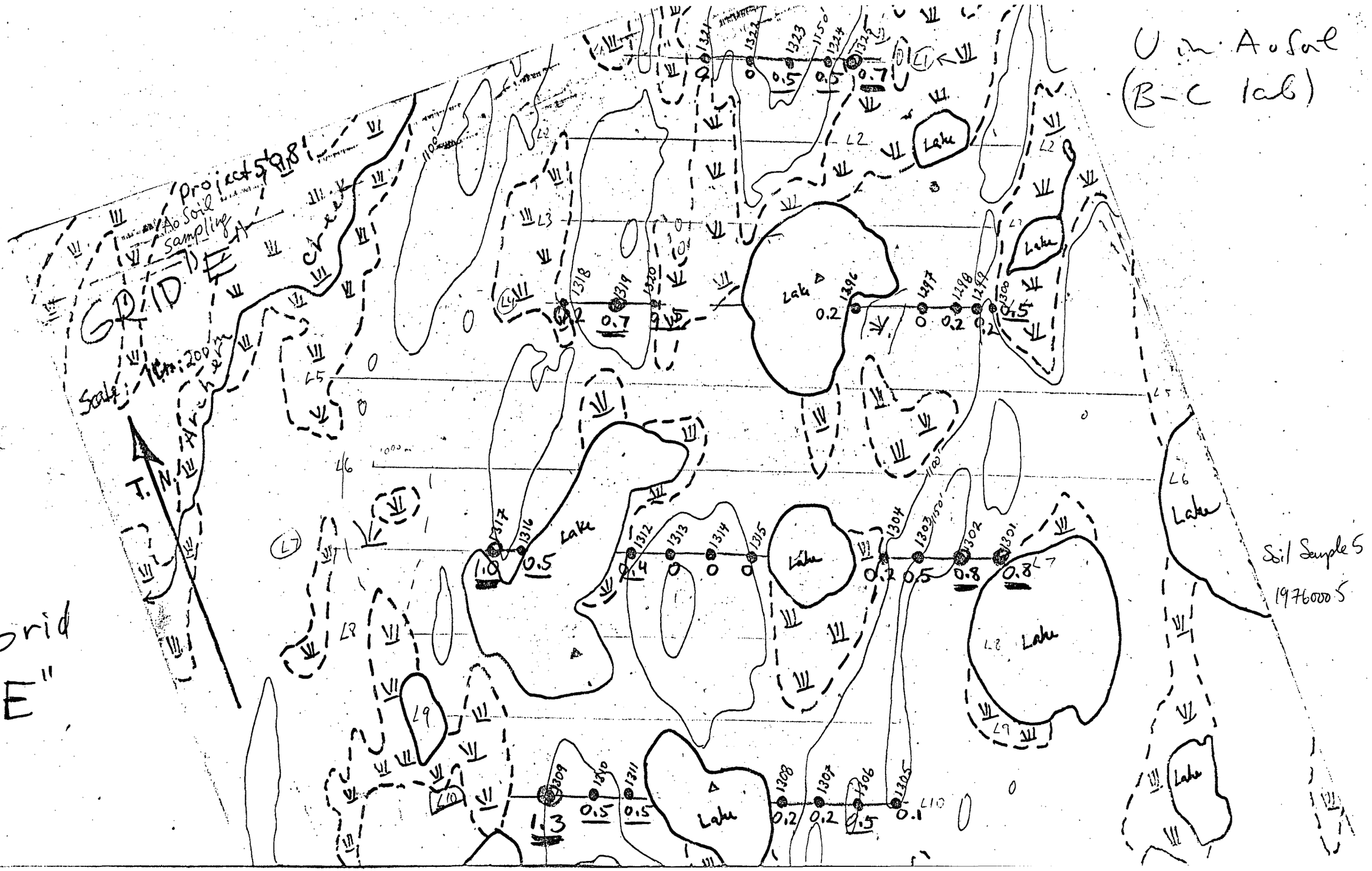
ARCHER LAKE
North
Line 1
Line 2
Line 3
Line 4
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10
Harwood Lake
Lake
Scale:
1:20,000
(1cm = 200m)
Prof. 508
A₀-SOIL SAMPLING
GRID "A"
Interval 400m x 200m
Grid "A"
Soil Sample 1
PPM
O = "N.D."
(i.e. < 0.1 ppm)
Fluorimetric Method
& – 80 mesh fraction used.

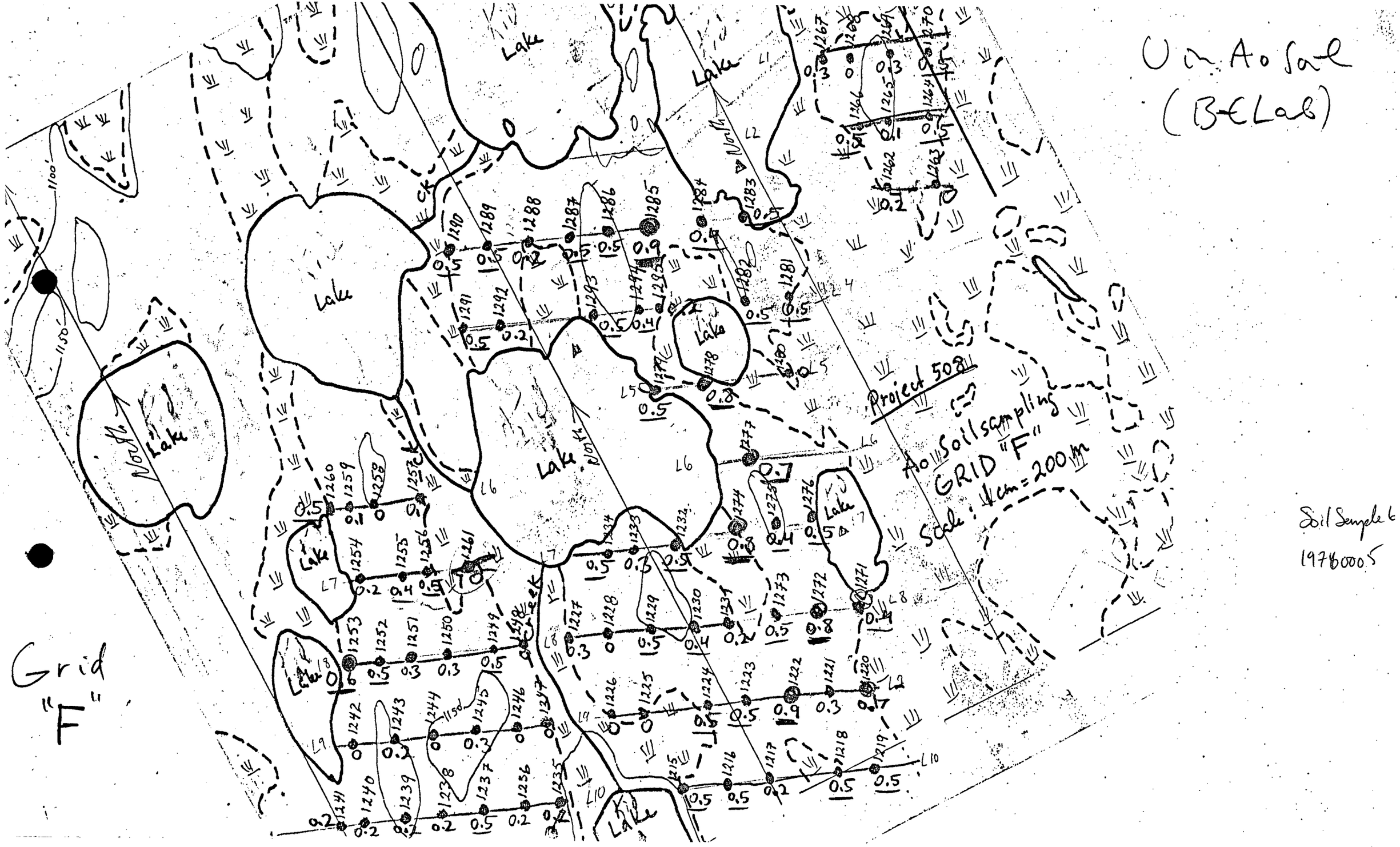

U in A₀ Soil
(B-C lab)
Xtra
Scale: 1:20,000 (1cm = 200m)
Project 508
A₀-SOIL SAMPLING
GRID "B"
Interval 400x200m
Grid "B"
Soil Sample 2
19760005
LAKE
Lake
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10
Kettles
1150
1200



O in Ao Soil
(B-C Soil)
Grid
Scale: 1cm = 200m
Lake
Archer Creek
Lake
Lake
Lake
Lake
Lake
old camp
Burn
Soil Sample #
19760005
Grid
"C"

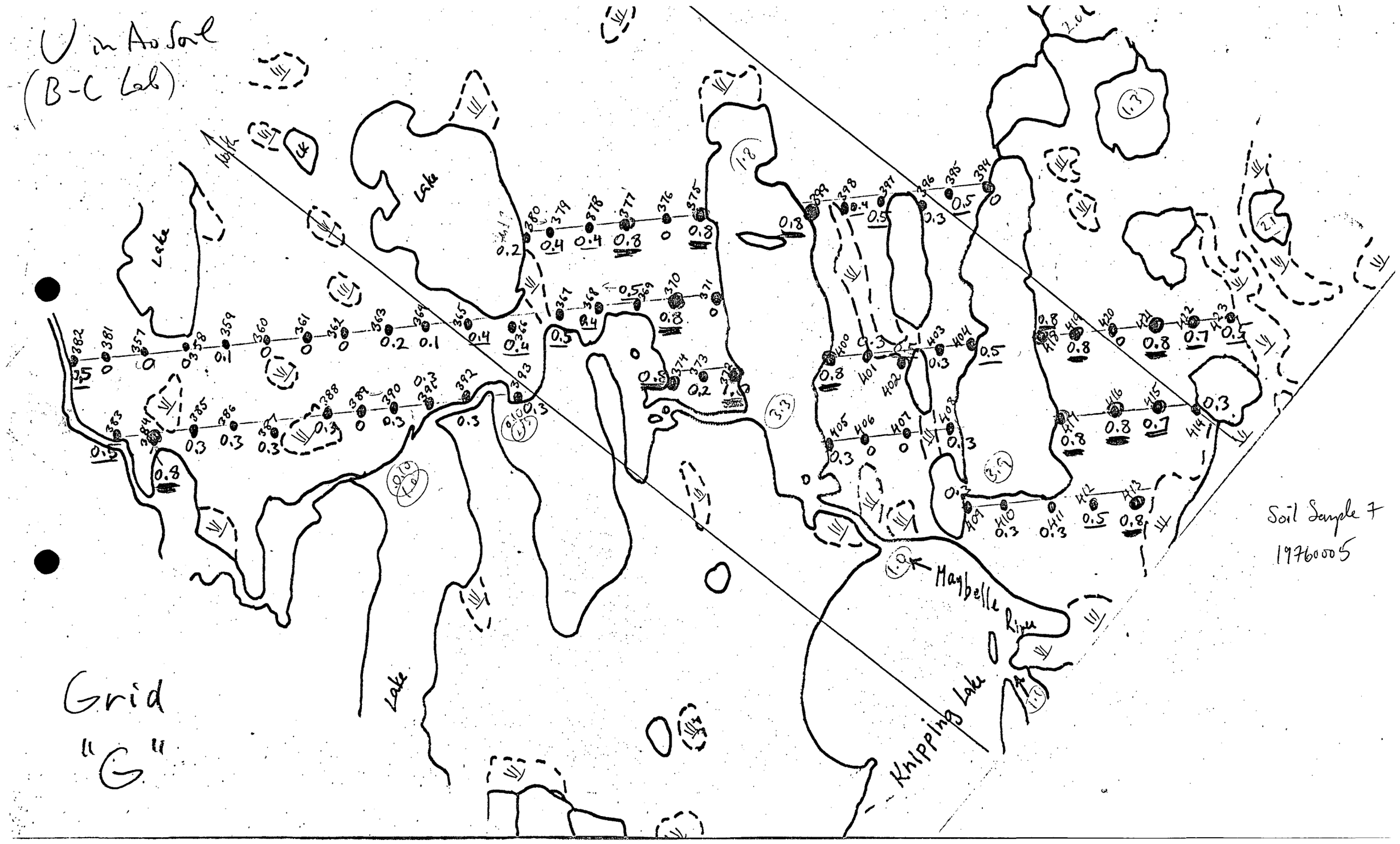
U in Ao Soil
(B-C. Lab)
Grid
"D"
Island Lake
Lake
Archer
CREEK
with original basemap
each 100 m
Soil Sample 4
19760005

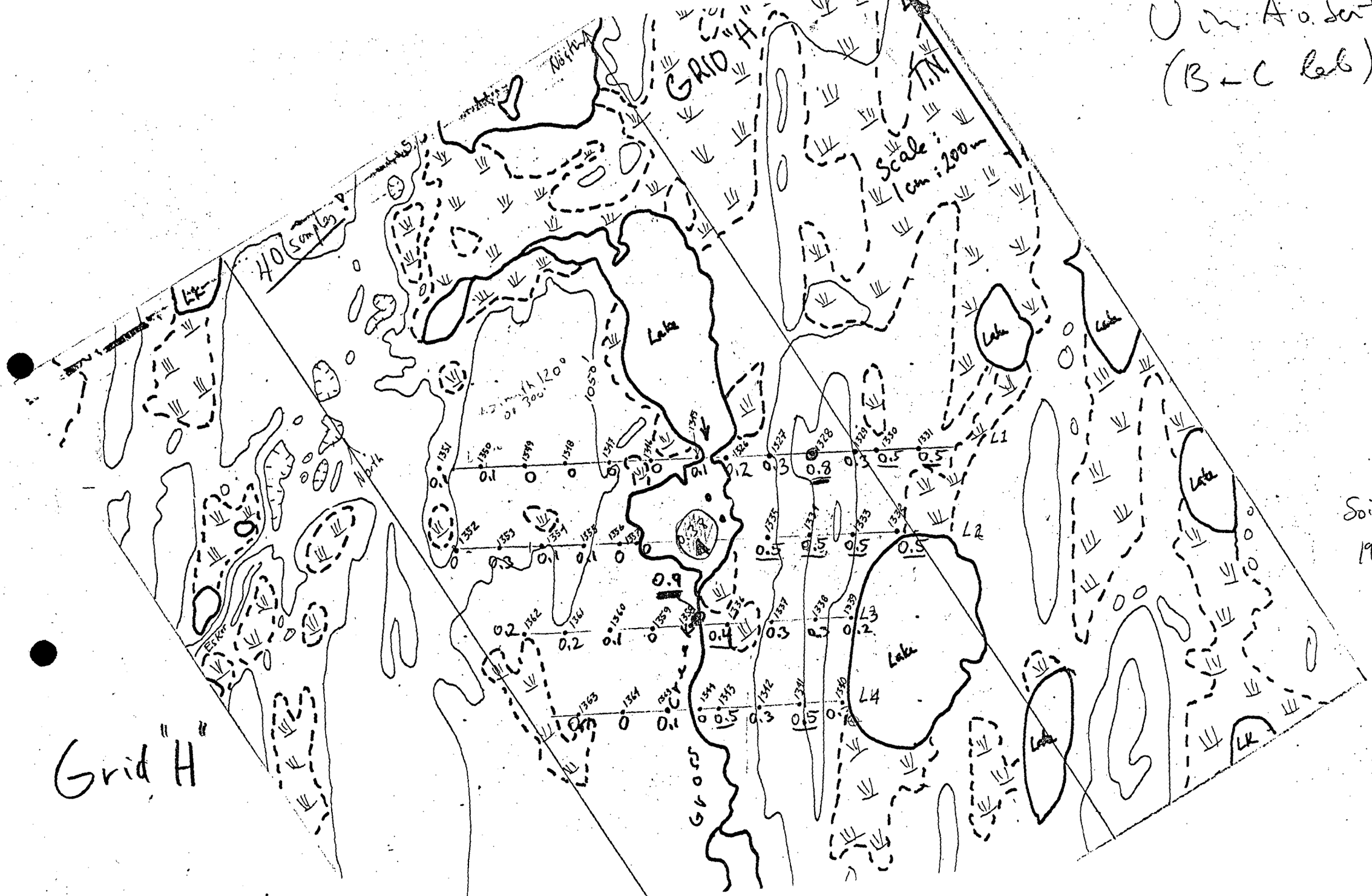

U in Ao Soil
(B-C lab)
Project 598
Ao Soil Sampling
GRID "E"
Scale 1cm:200m
T.N.
Archer Creek
Lake
Soil Sample 5
1976000 5
Grid "E"



U in Ao Soil
(B-C Lab)
Project 508
Ao Soil sampling
GRID "F"
Scale: 1cm = 200m
Soil Sample 6
19780005
Grid
"F"
Lake
North
Creek

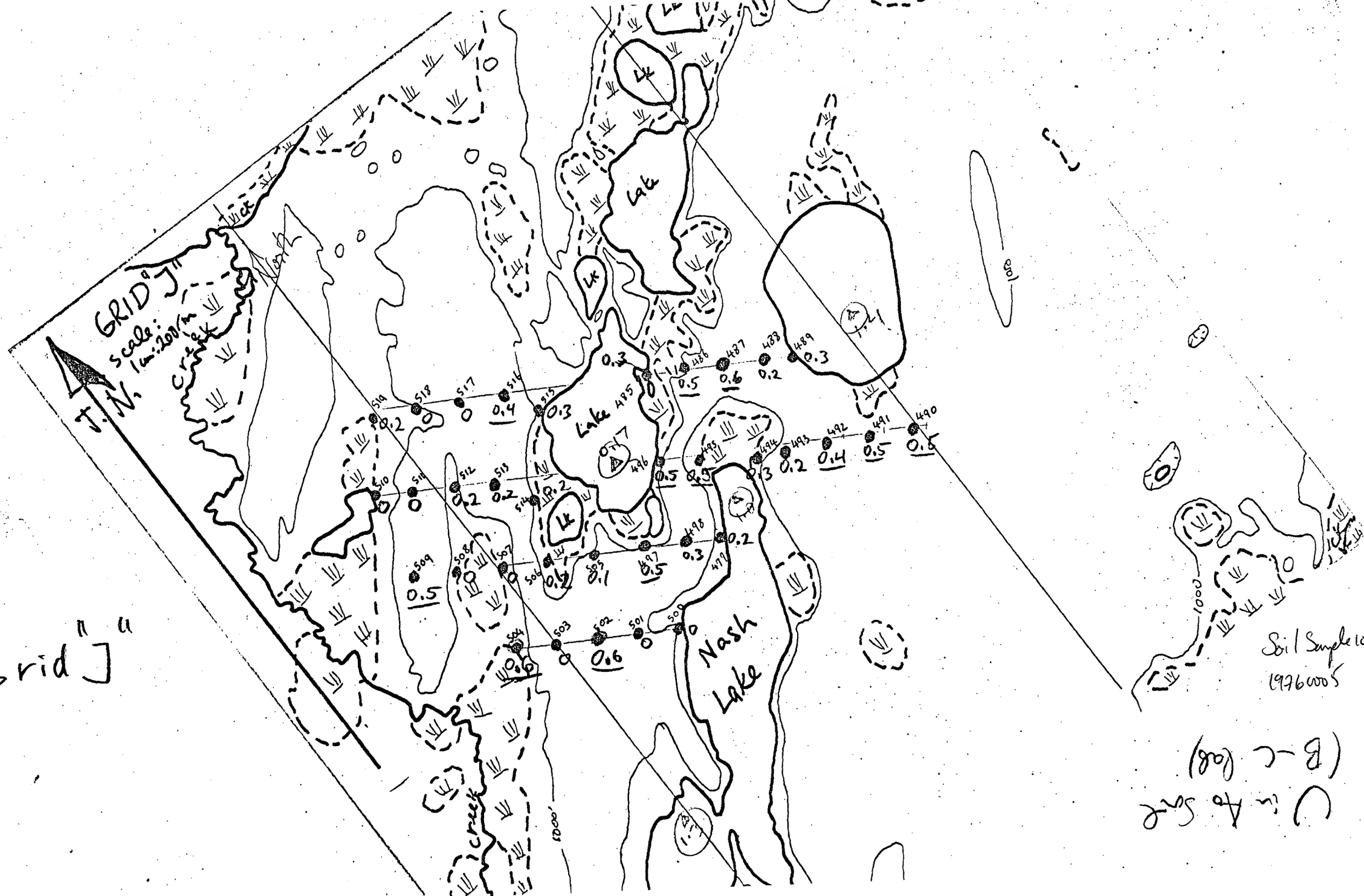
U in Ao Soil
(B-C Lab)



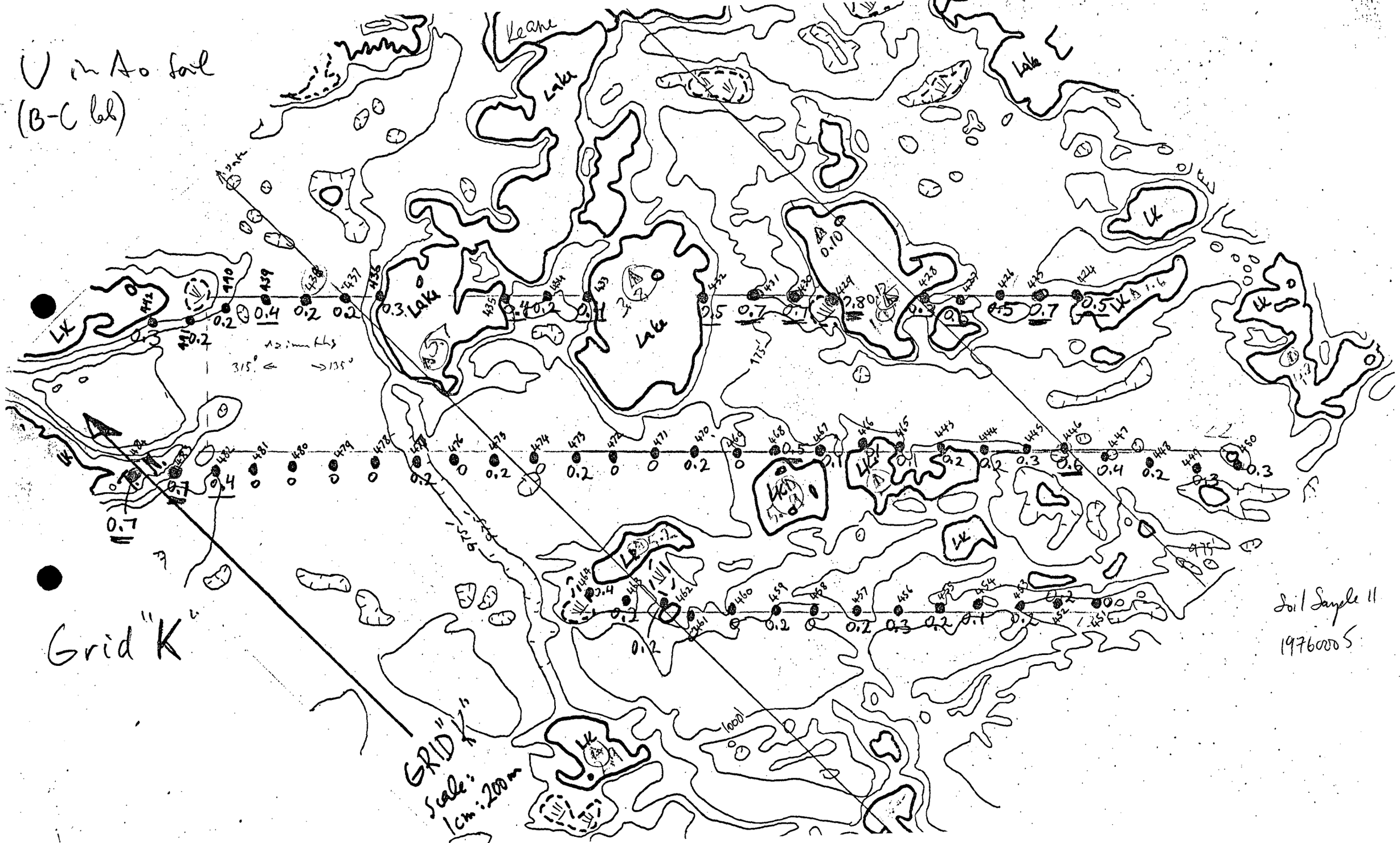


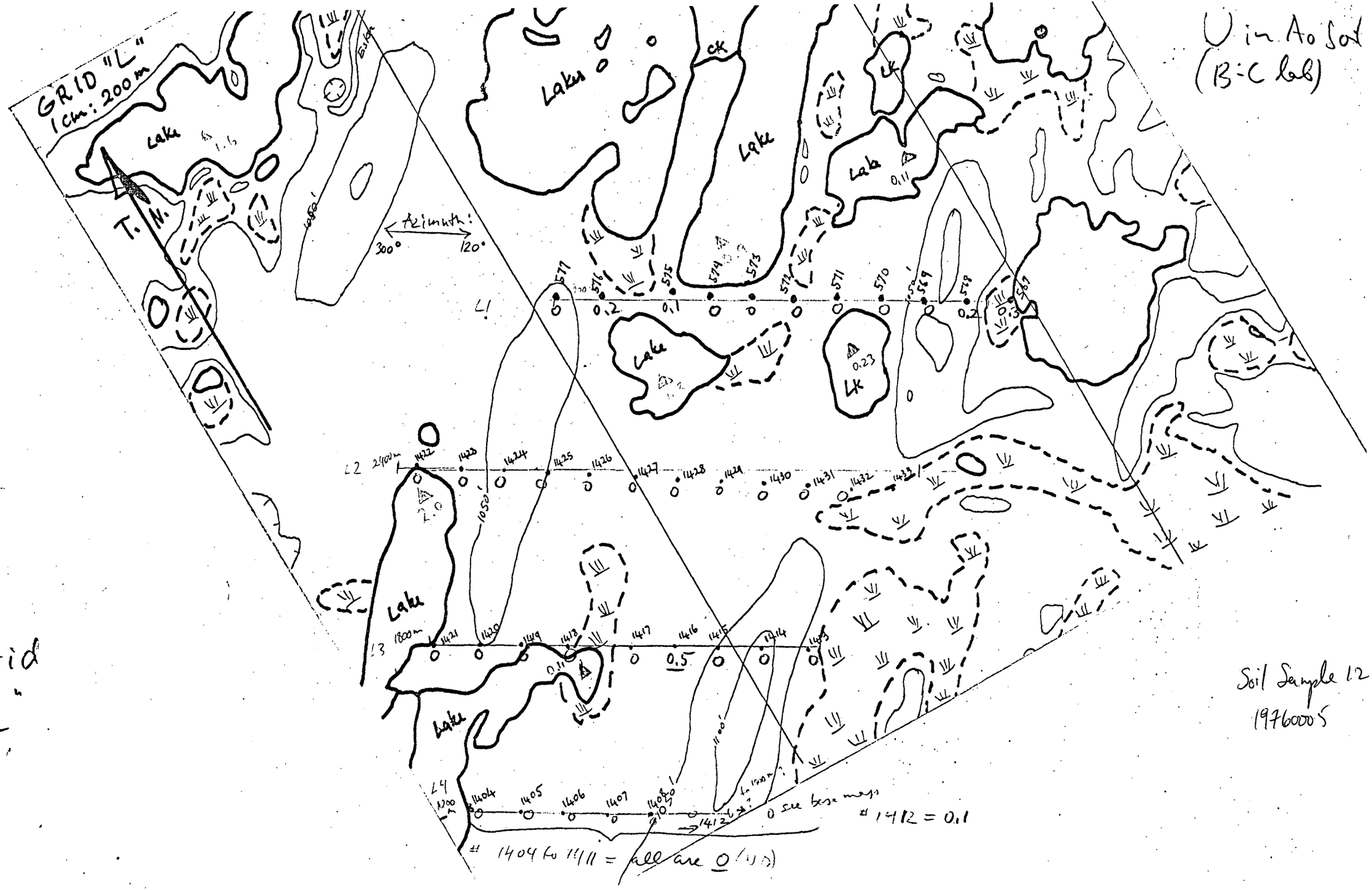
GRID "H"
T.N.
Scale: 1cm : 200m
40 samples
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
North
Esker
Cross
L1
L2
L3
L4
Grid "H"
Soil Sample 8
19760005

U in Ao soil
(B-C lab)
GRID "I"
Scale: 1cm=200m
T. N.
Lake
Larocque Lake
Azimuth of lines:
→ 120° T
← 300° T
Lk
Grid "I"
Soil Sample 9
19760005


GRID "J"
scale: 1cm:200m
J.N.
Creek
North
Lake
Nash Lake
Lk
1000'
Soil Sample 10
19760005
(B-C lab)
U in Ao Sand

Grid "J"

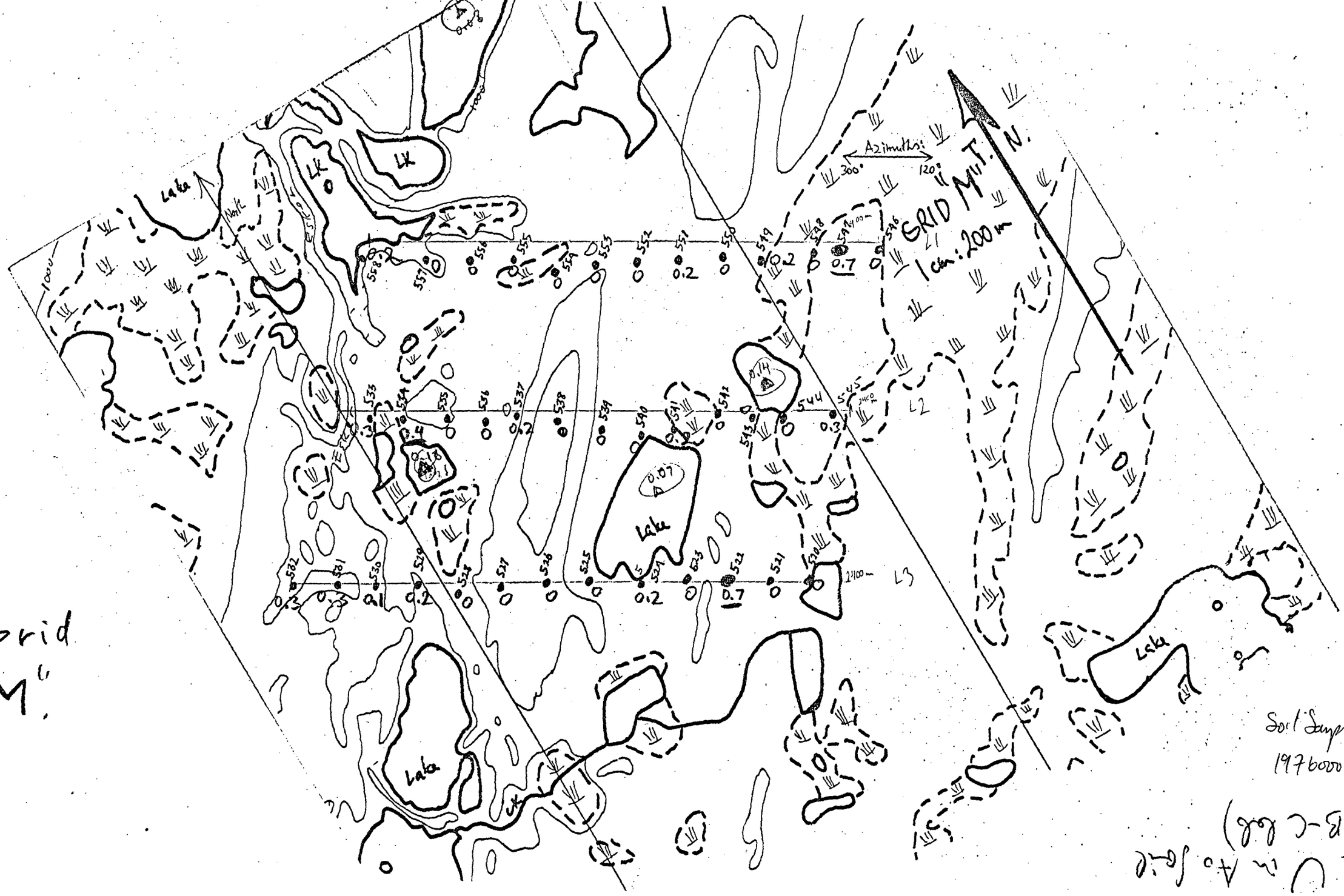

U in Ao soil
(B-C lab)
Grid "K"
GRID "K"
Scale: 1cm:200m
Soil Sample 11
19760005
Lake
Keane
Azimuths
315° ← → 135°
975'
1000'



U in A0 Soil
(B-C lab)

Grid
"L"

Soil Sample 12
19760005

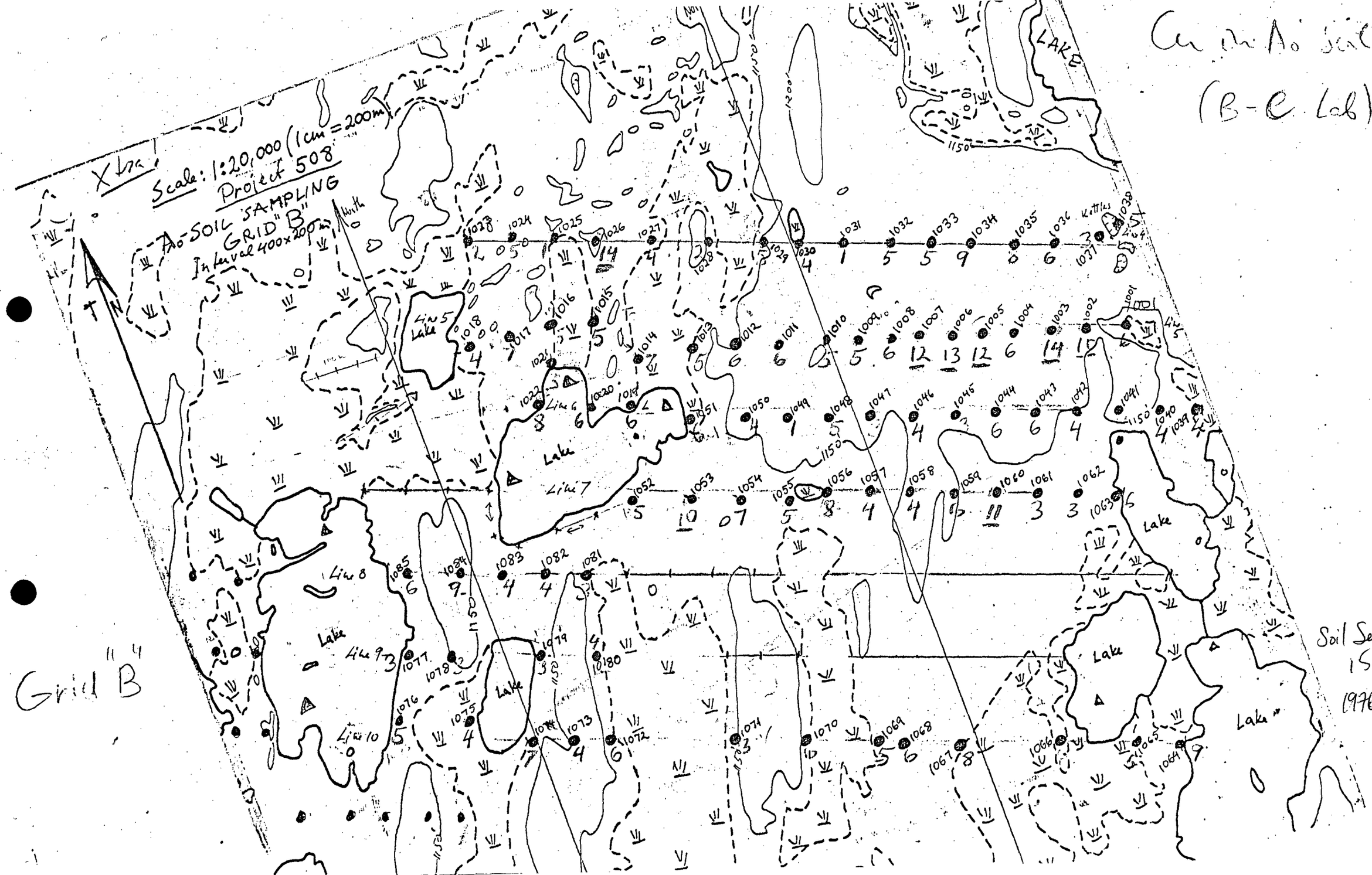


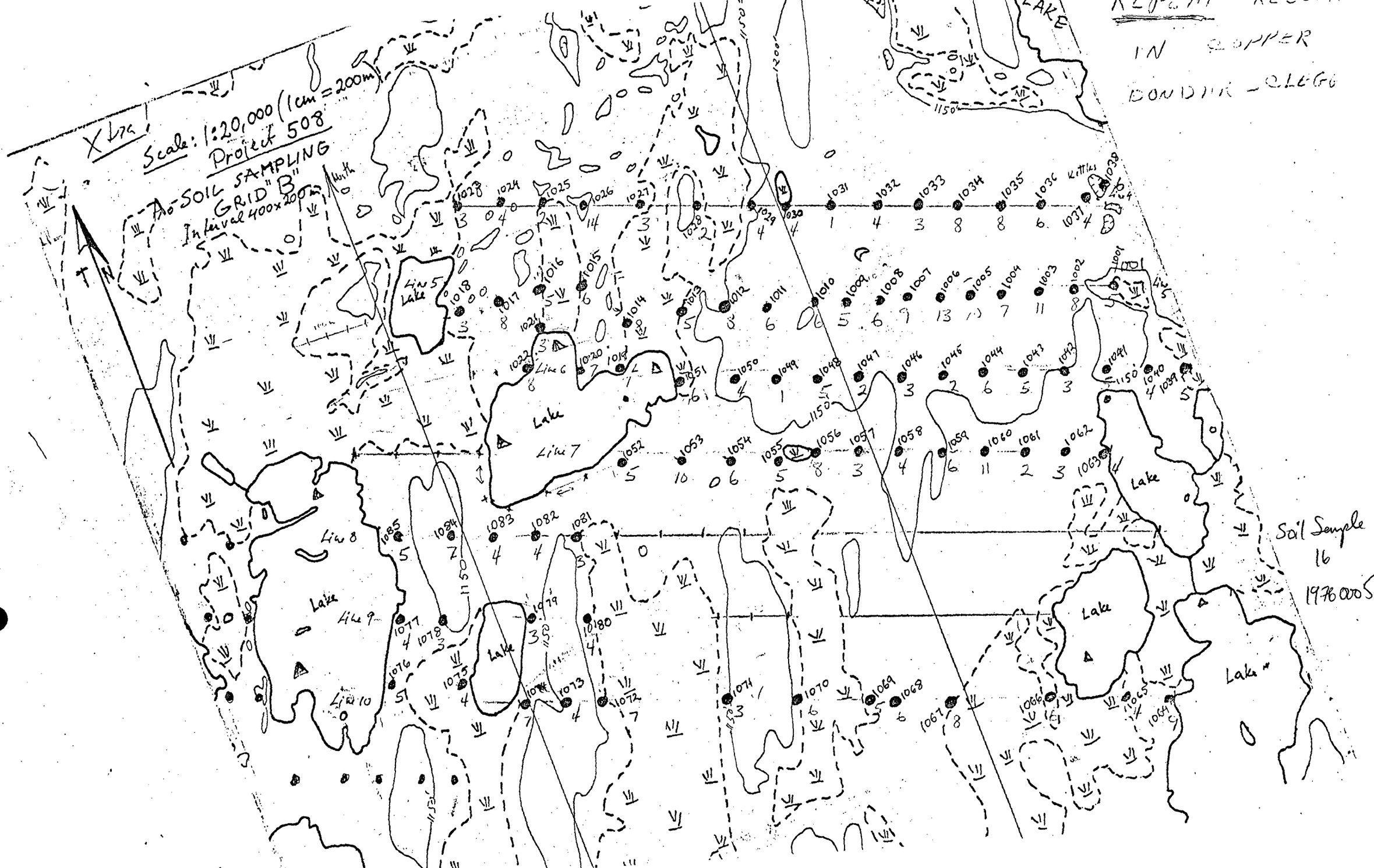
Grid "M"

Soil Sample 13
19760005

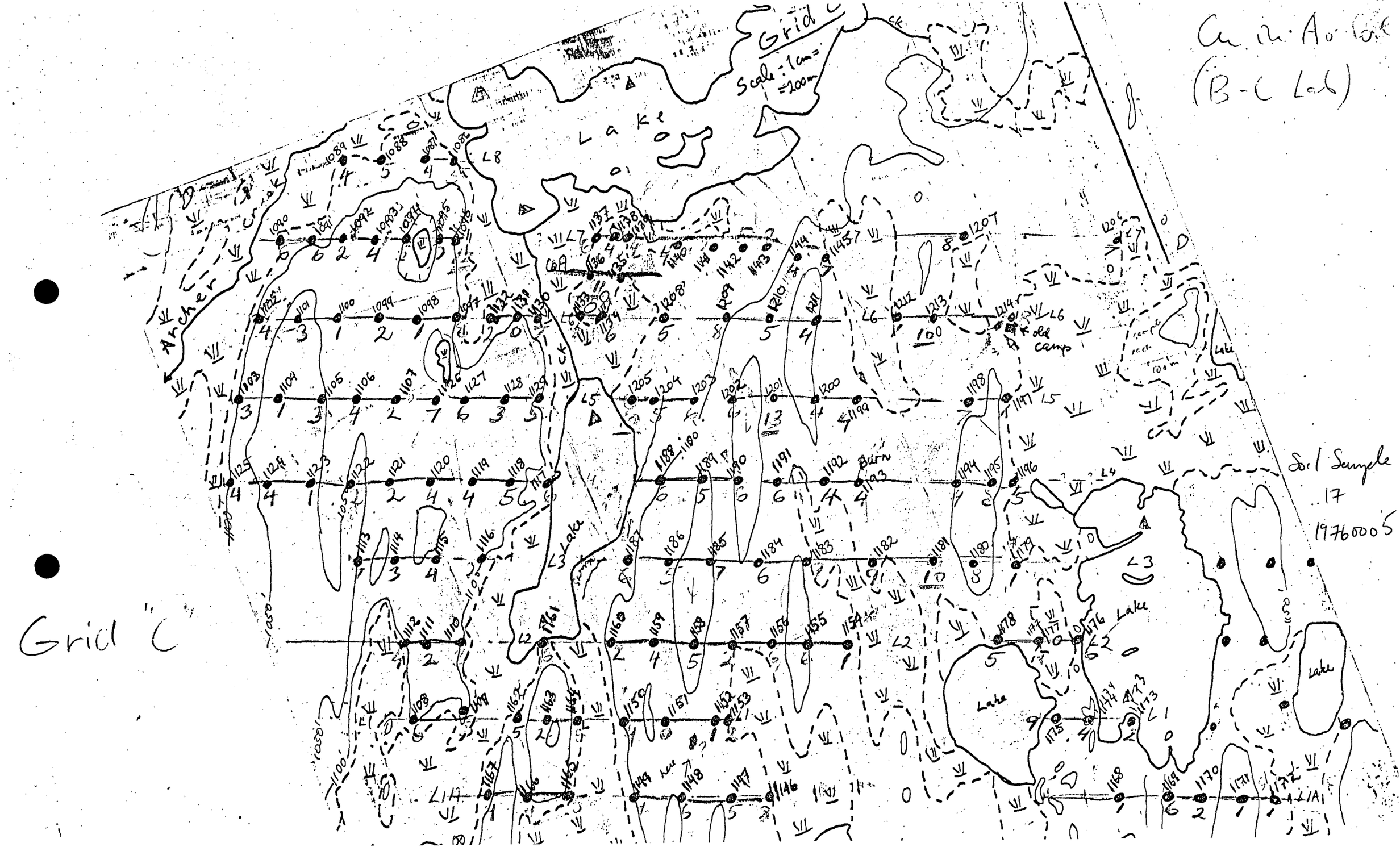
(B-C lab)

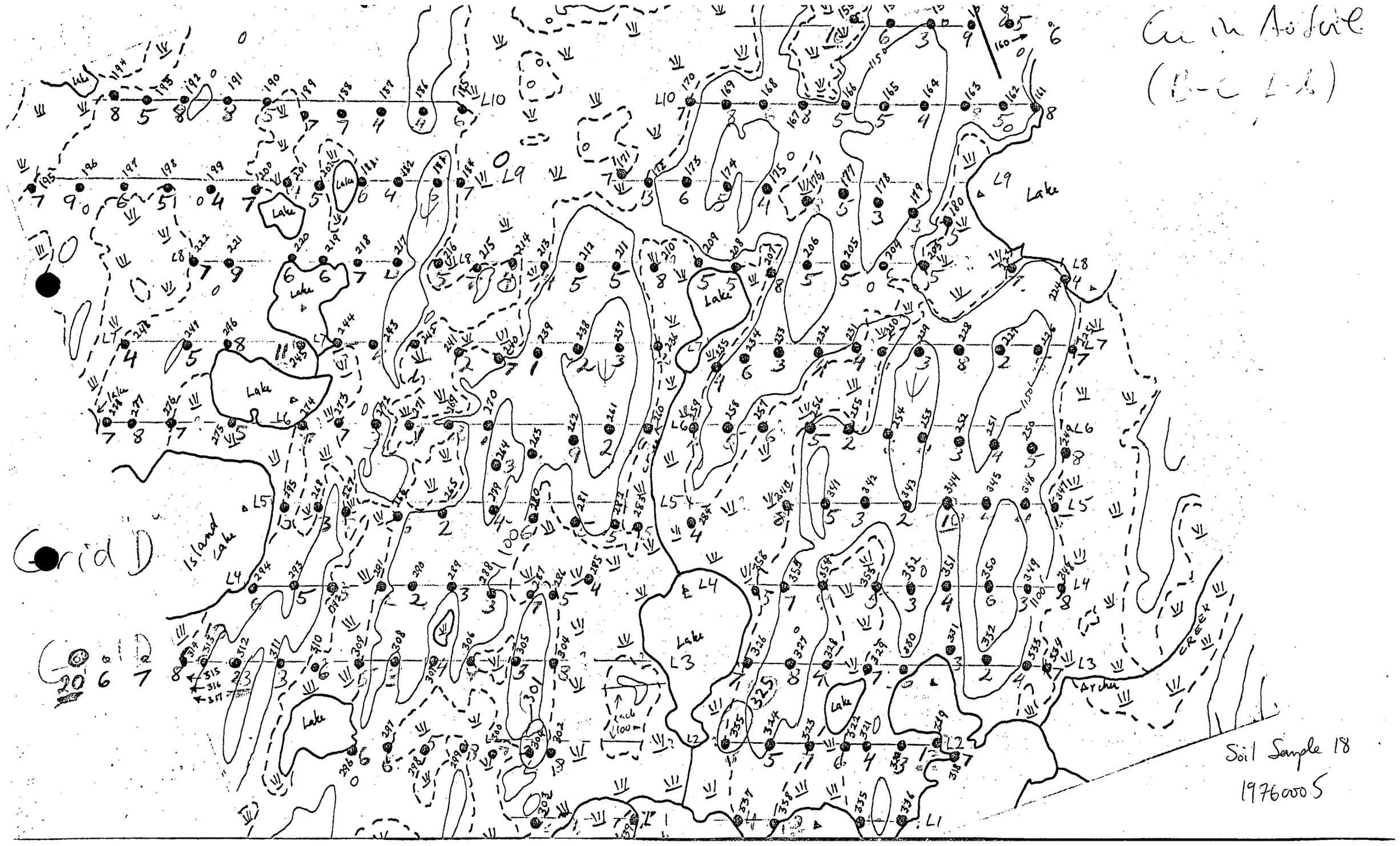
Cu in A₀ Soil
(ppm)
(B.C. Lab)
ARCHER LAKE
North
Line 1
Line 2
Line 3
Line 4
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10
Harwood Lake
Kettles
Lake
Scale:
1:20,000
(1cm = 200m)
Prof. 508
A₀ SOIL SAMPLING
GRID "A"
interval 400m x 200m
TN
Grid "A"
Soil Sample
19760005

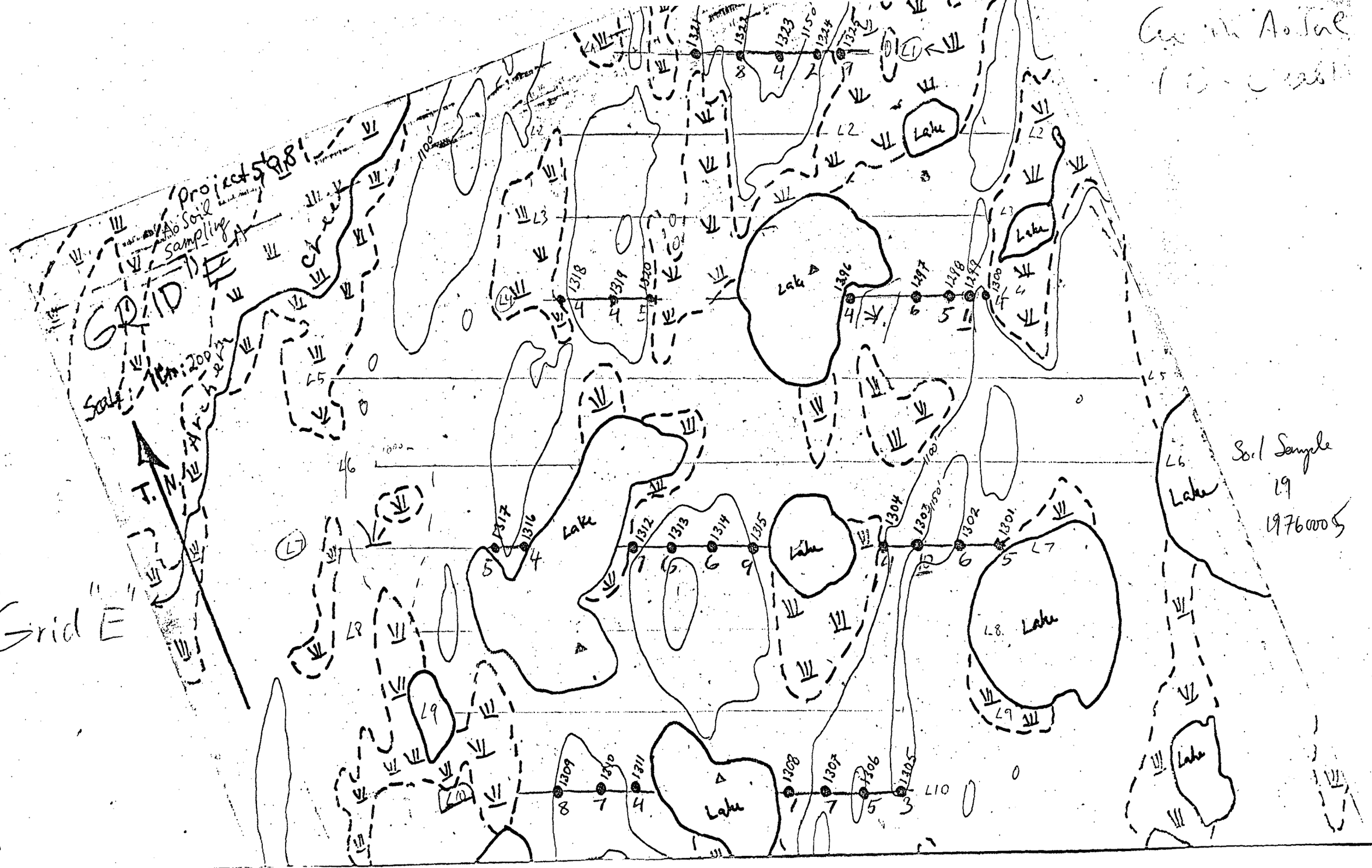

Xtra
Scale: 1:20,000 (1cm = 200m)
Project 508
Ao-SOIL SAMPLING
GRID "B"
Interval 400x200m
North
Line 5
Lake
Line 6
Line 7
Line 8
Line 9
Line 10
LAKE
Kettles
Grid "B"
Soil Sample
15
19760005



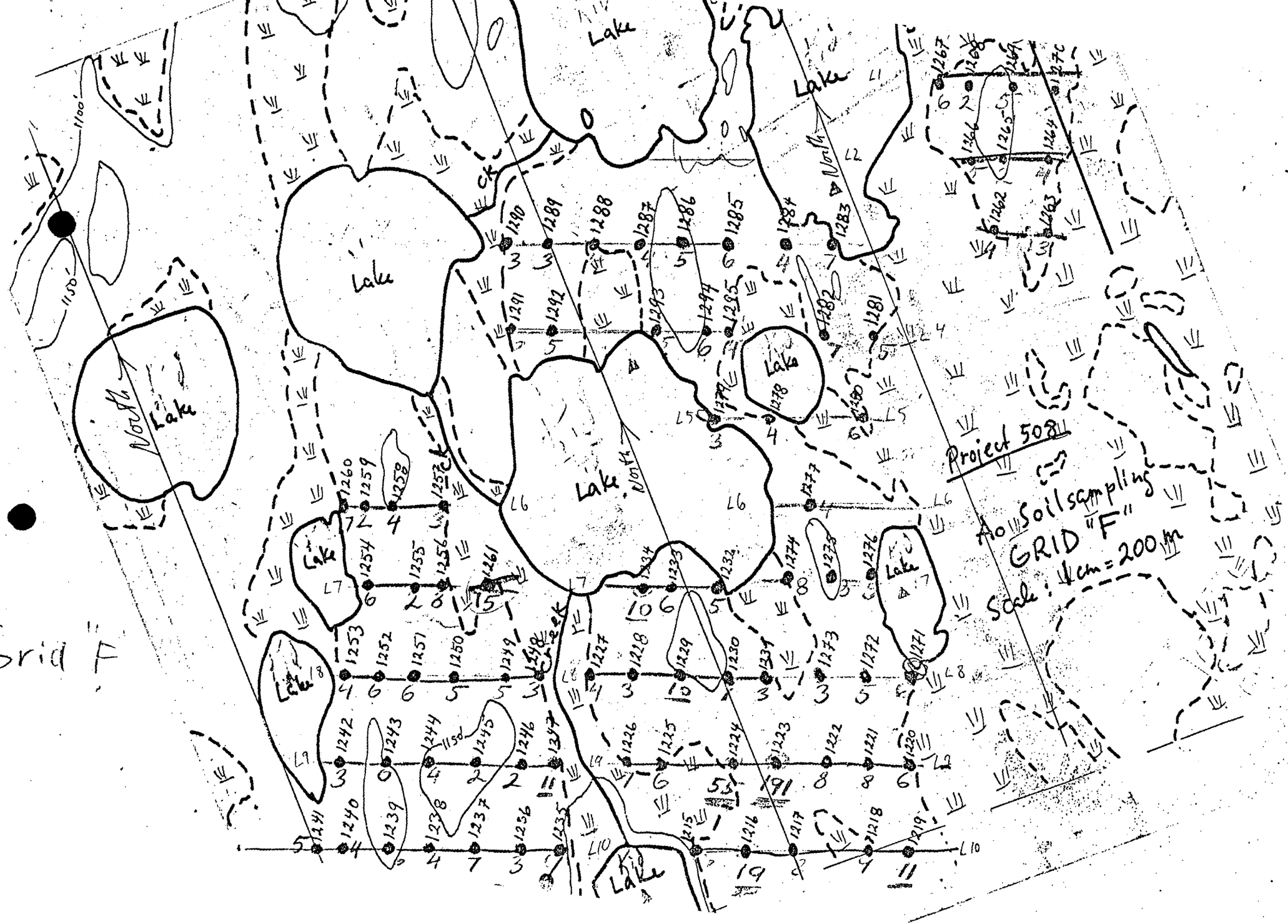
Scale: 1:20,000 (1cm = 200m)
Project 508
A-SOIL SAMPLING
GRID "B"
Interval 400x200m
North
Line 5
Lake
Line 6
Lake
Line 7
Line 8
Lake
Line 9
Line 10
Lake
Lake
Lake
Lake
Lake
Kettles
Soil Sample
16
1976 0005


Grid C
Scale: 1cm = 200m
Lake
Archer Creek
Lake
Lake
Lake
Lake
Lake
old camp
Burn
Soil Sample
17
19760005
Grid "C"


Cu in A-Soil
(B-C L-L)
Grid D
Island Lake
Lake
Archer
CREEK
Soil Sample 18
19760005

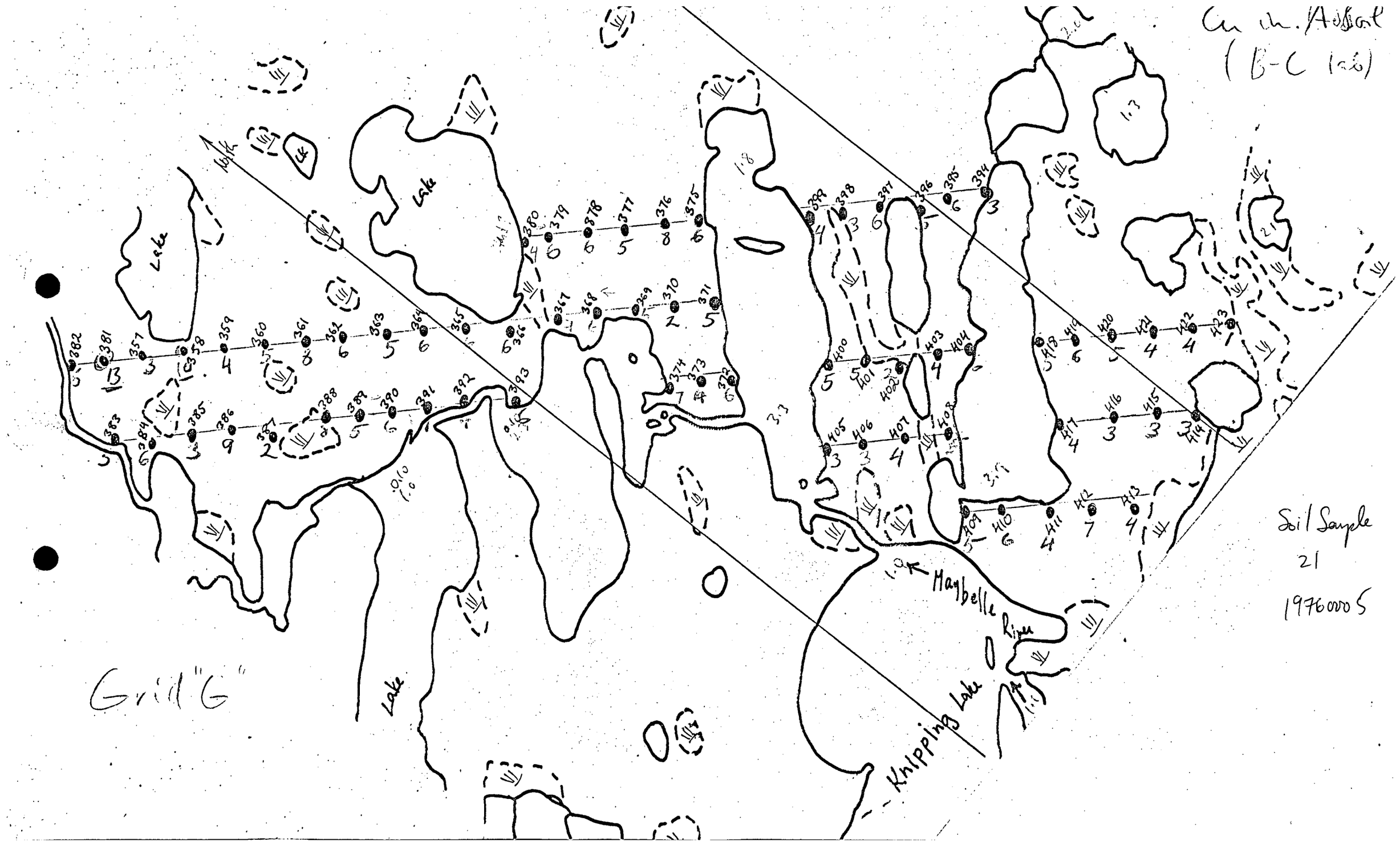


Project 598
Ao Soil Sampling
GRID "E"
Scale 1cm:200m
T.N.
Archer Creek
Grid "E"
Lake
Soil Sample 19 19760005



Grid Ao
(B-C Lab)

Soil Sample 20
19760005


Lake
Lake
Lake
Lake
Knipping Lake
Maybelle River
Grid "G"
Soil Sample
21
19760005

Grid "H"

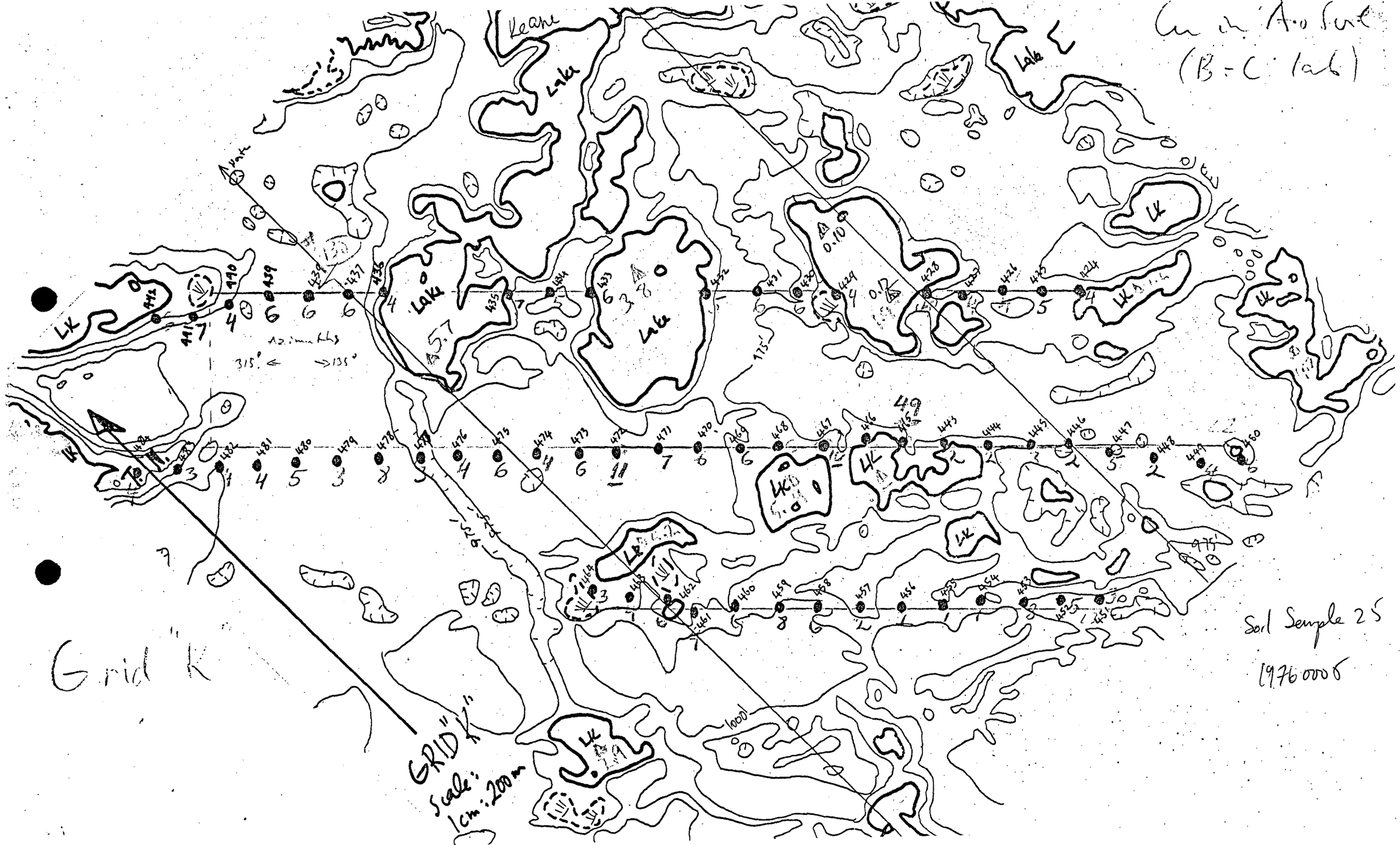
Soil Sample 22
19760005

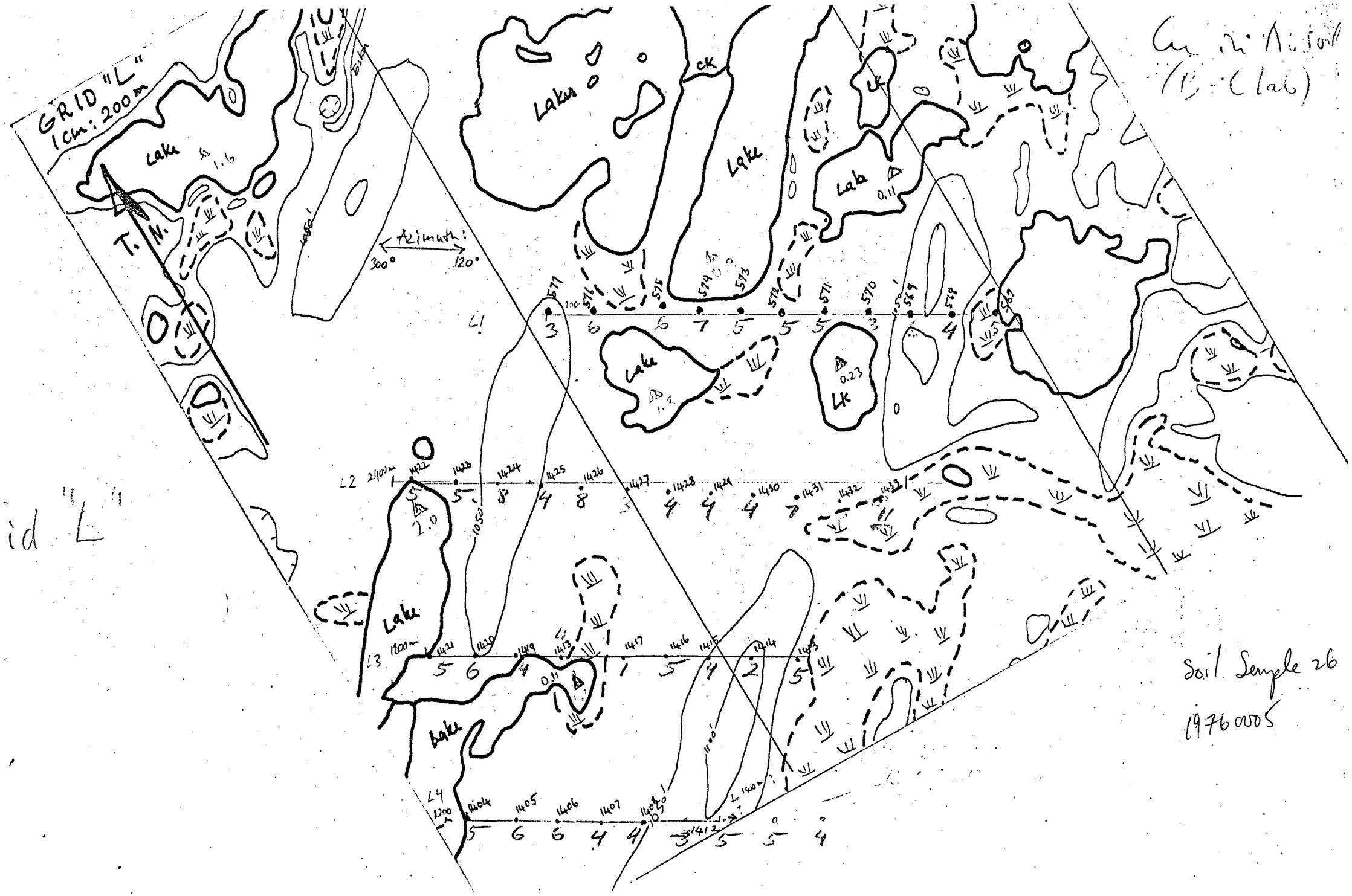
Cu in A. Soil
(B-C lab)
GRID "I"
Scale: 1cm=200m
T. N.
Lake
Larocque Lake
Azimuth of lines:
→ 120° T
← 300° T
0.26
Lk
Grid I
Soil Sample 23
19760005

Grid "J"

Cu in Ao Soil
(B-C lab)

Soil Sample
24
19760005


Cu in A.o Soil
(B-C lab)
Keane
Lake
Lake
Lake
Lake
Lake
LK
LK
LK
LK
LK
LK
LK
LK
LK
Azimuths
315° ← → 135°
975'
1000'
Grid "K"
GRID "K"
Scale: 1cm: 200m
Soil Sample 25
19760006



Grid "L"

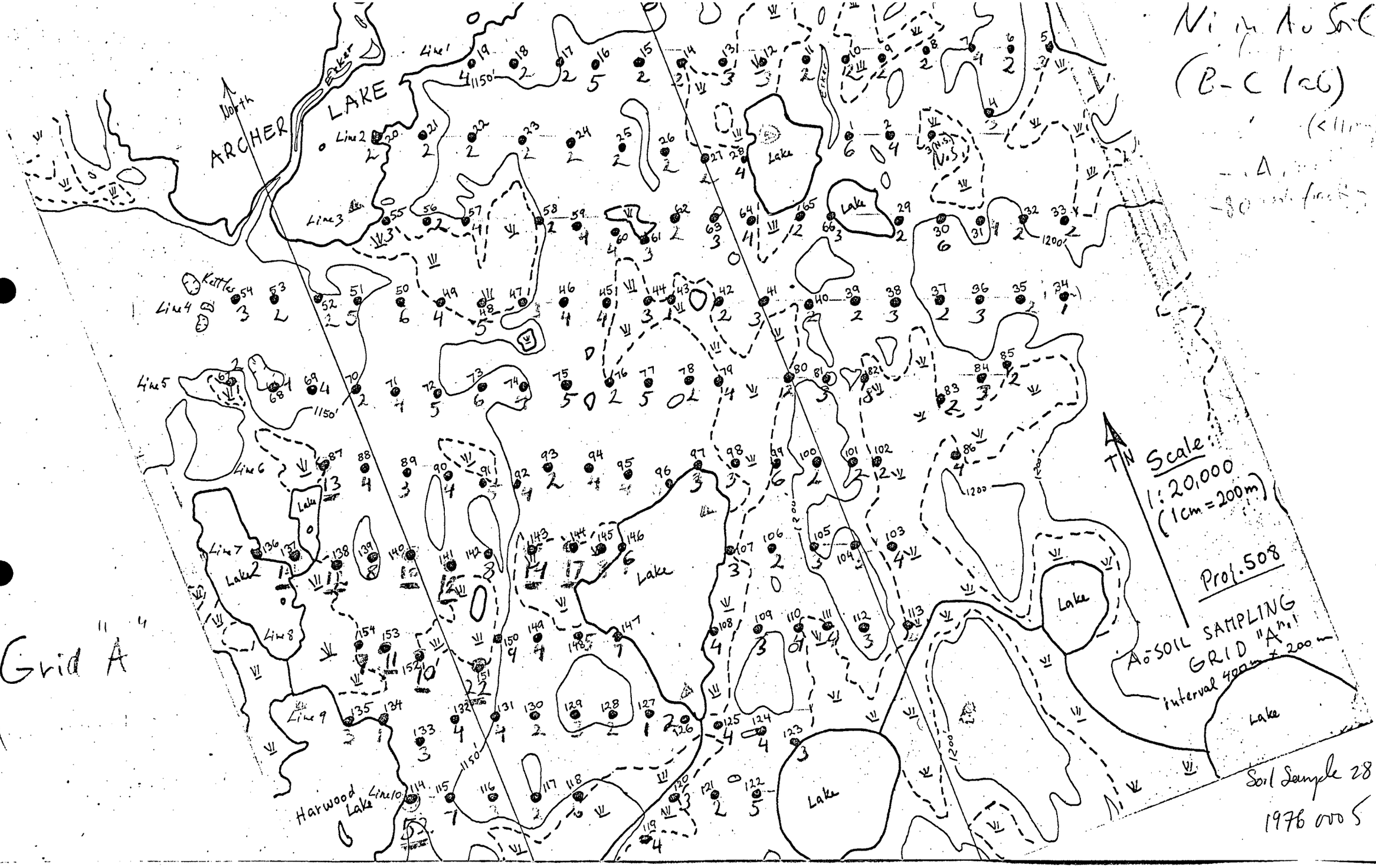
Soil Sample 26
19760005

Cu in Ao Soil
(B-C [illegible])

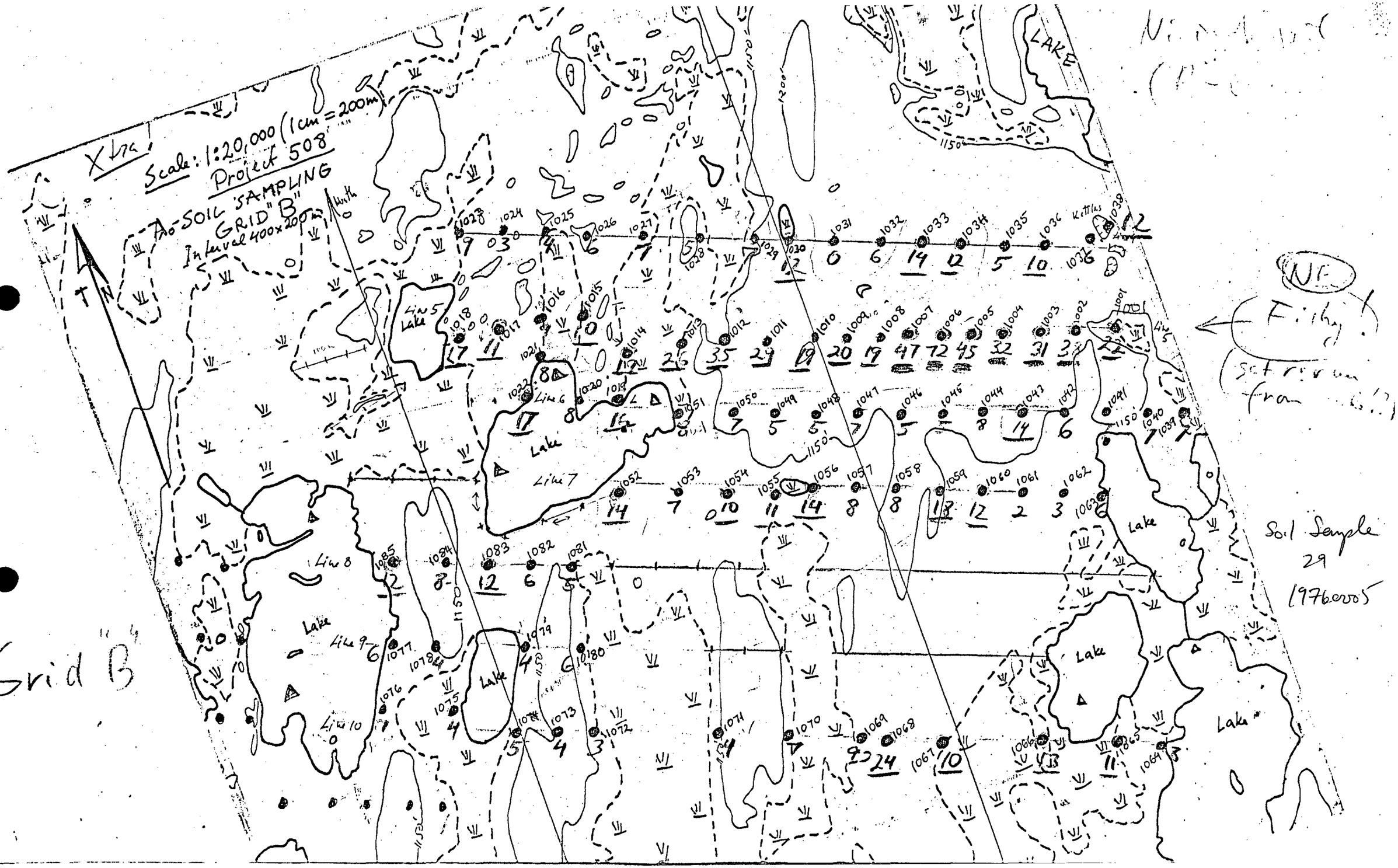
Grid "M"

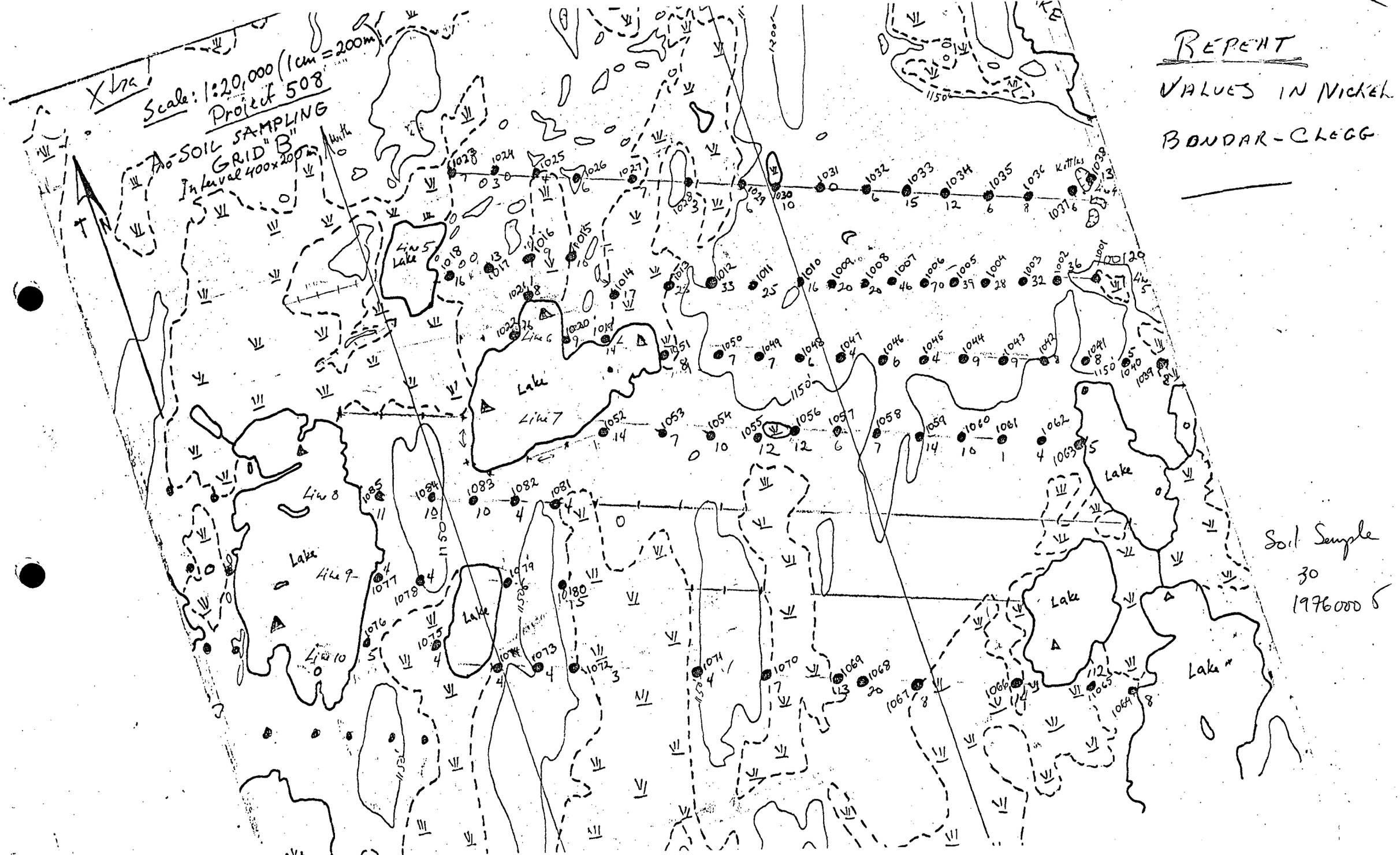
Soil Sample 27

19760005

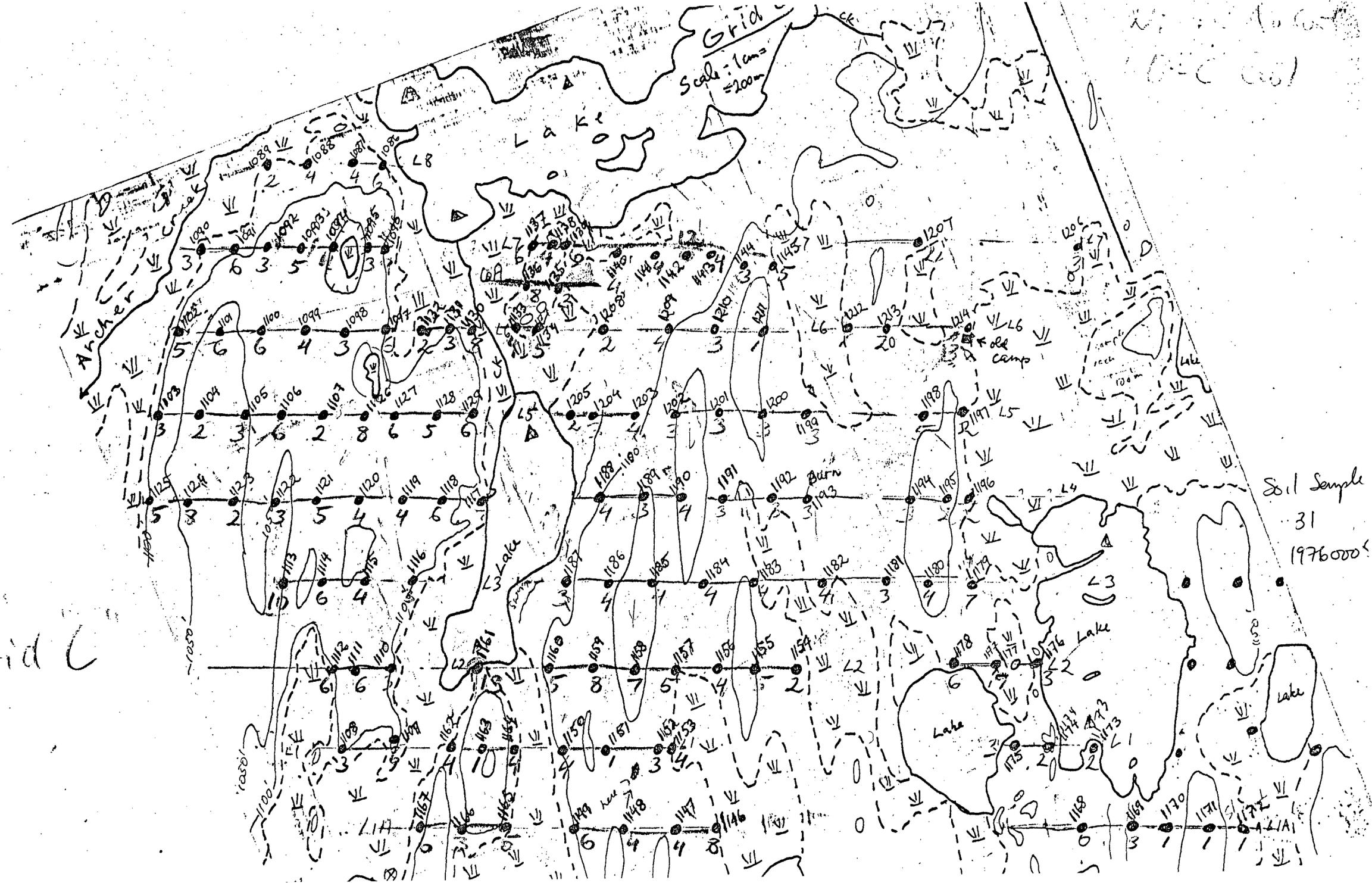


Ni in Ao Soil
(B-C 1:6)
ARCHER LAKE
North
Esker
Line 1
Line 2
Line 3
Line 4
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10
Kettles
Lake
Harwood Lake
1150'
1200'
TN
Scale:
1:20,000
(1cm = 200m)
Prof. 508
Ao SOIL SAMPLING
GRID "A"
interval 400m x 200m
Grid "A"
Soil Sample 28
1976 0005

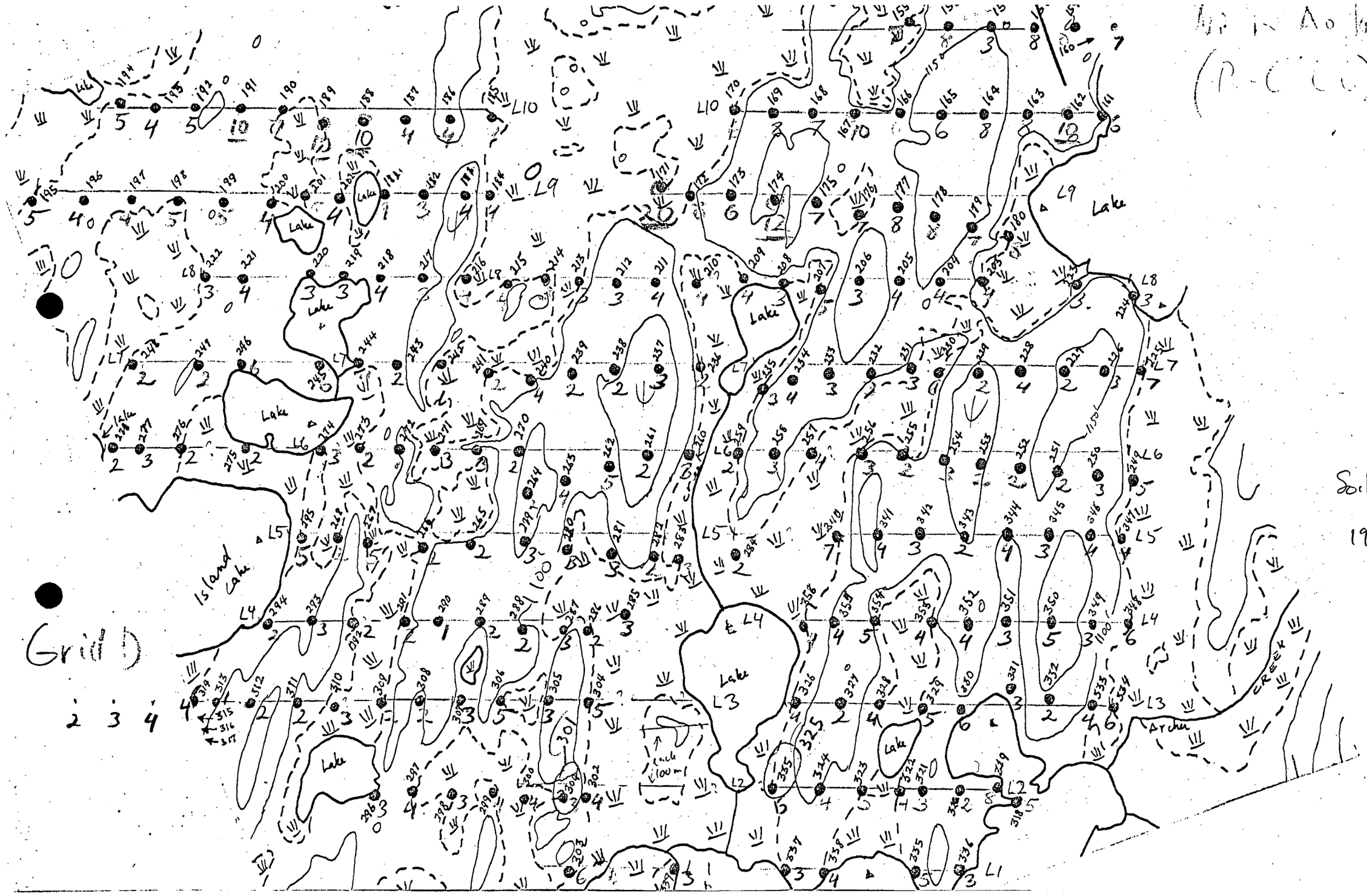

Xtra
Scale: 1:20,000 (1cm = 200m)
Project 508
A0-SOIL SAMPLING
GRID "B"
Interval 400x200m
North
Line 5
Lake
Line 6
Line 7
Line 8
Line 9
Line 10
Lake
LAKE
Kettles
Soil Sample
29
19760005
Grid "B"

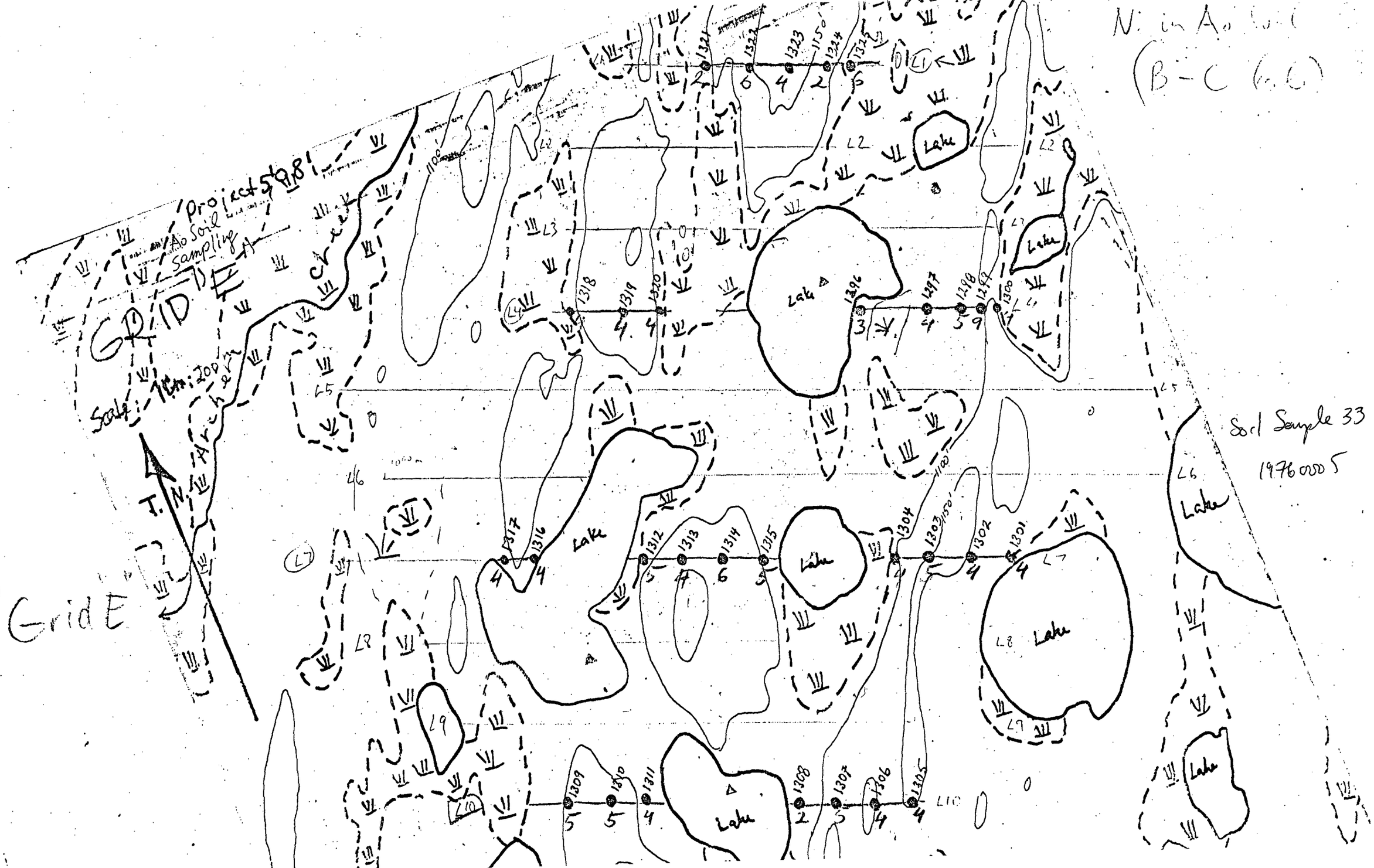


Xtra
Scale: 1:20,000 (1cm = 200m)
Project 508
A₀-SOIL SAMPLING
GRID "B"
Interval 400x200m
REPEAT
VALUES IN NICKEL
BONDAR-CLEGG
Soil Sample
30
1976000 5
Lake
Line 5
Line 6
Line 7
Line 8
Line 9
Line 10
Kettles

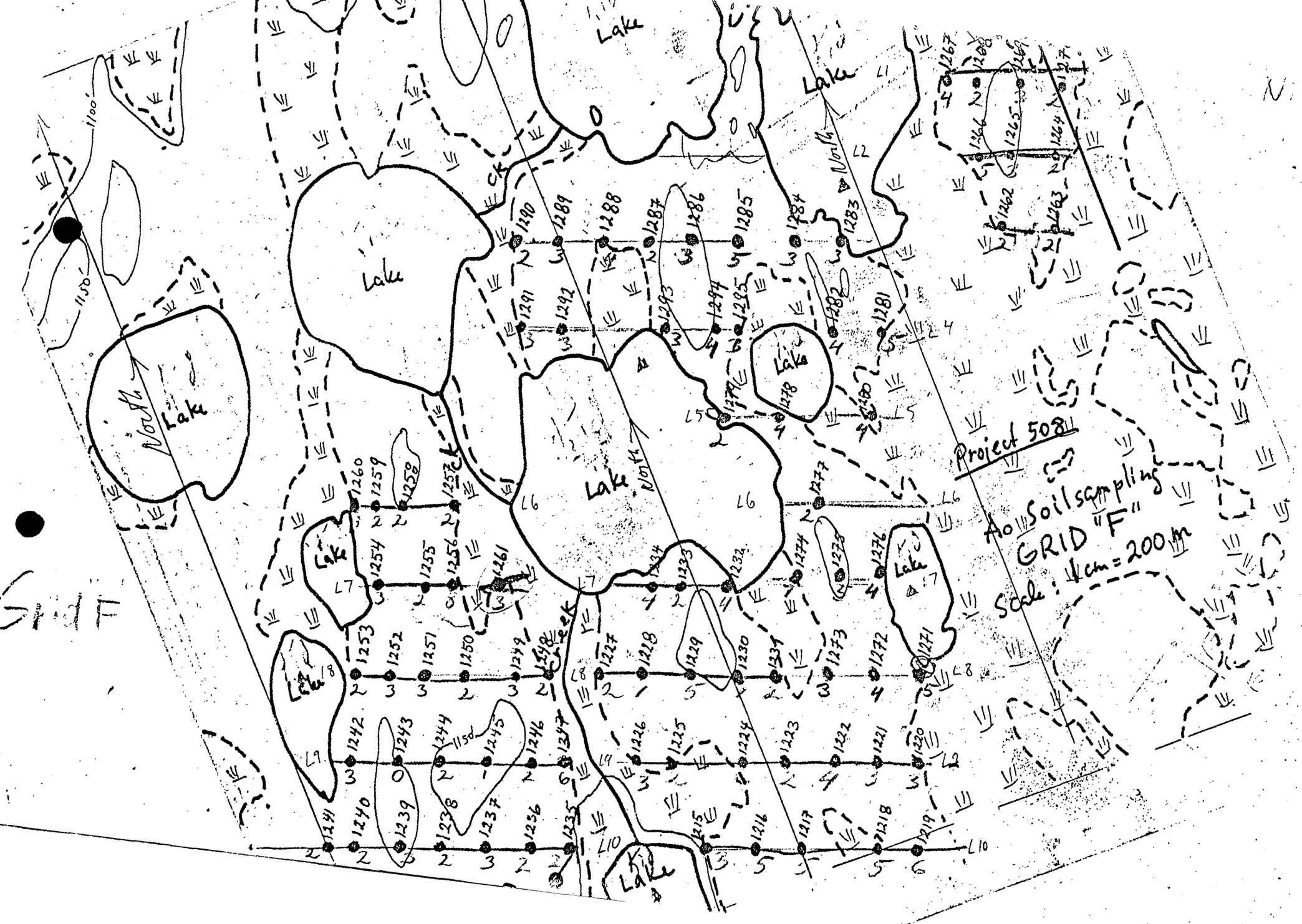

Grid C
Scale: 1cm = 200m
Lake
Archer Creek
old camp
Burn
Soil Sample
31
19760005

Grid C

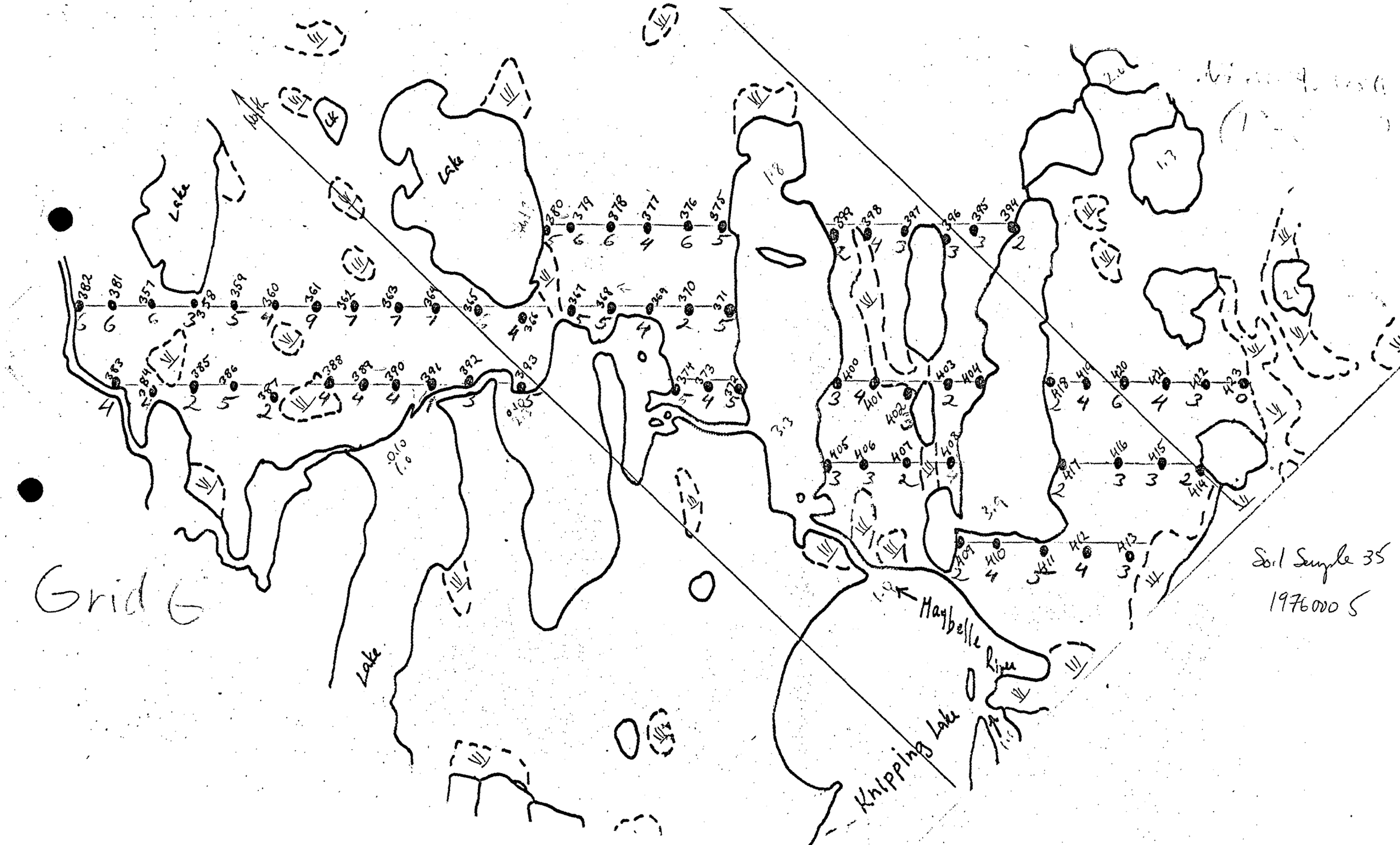

Grid D
Island Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Lake
Archer
CREEK
Soil Sample 32
19760005



Project 598
Ao Soil Sampling
GRID E
Scale 1cm:200m
T.N.
Grid E
Lake
Soil Sample 33
19760005

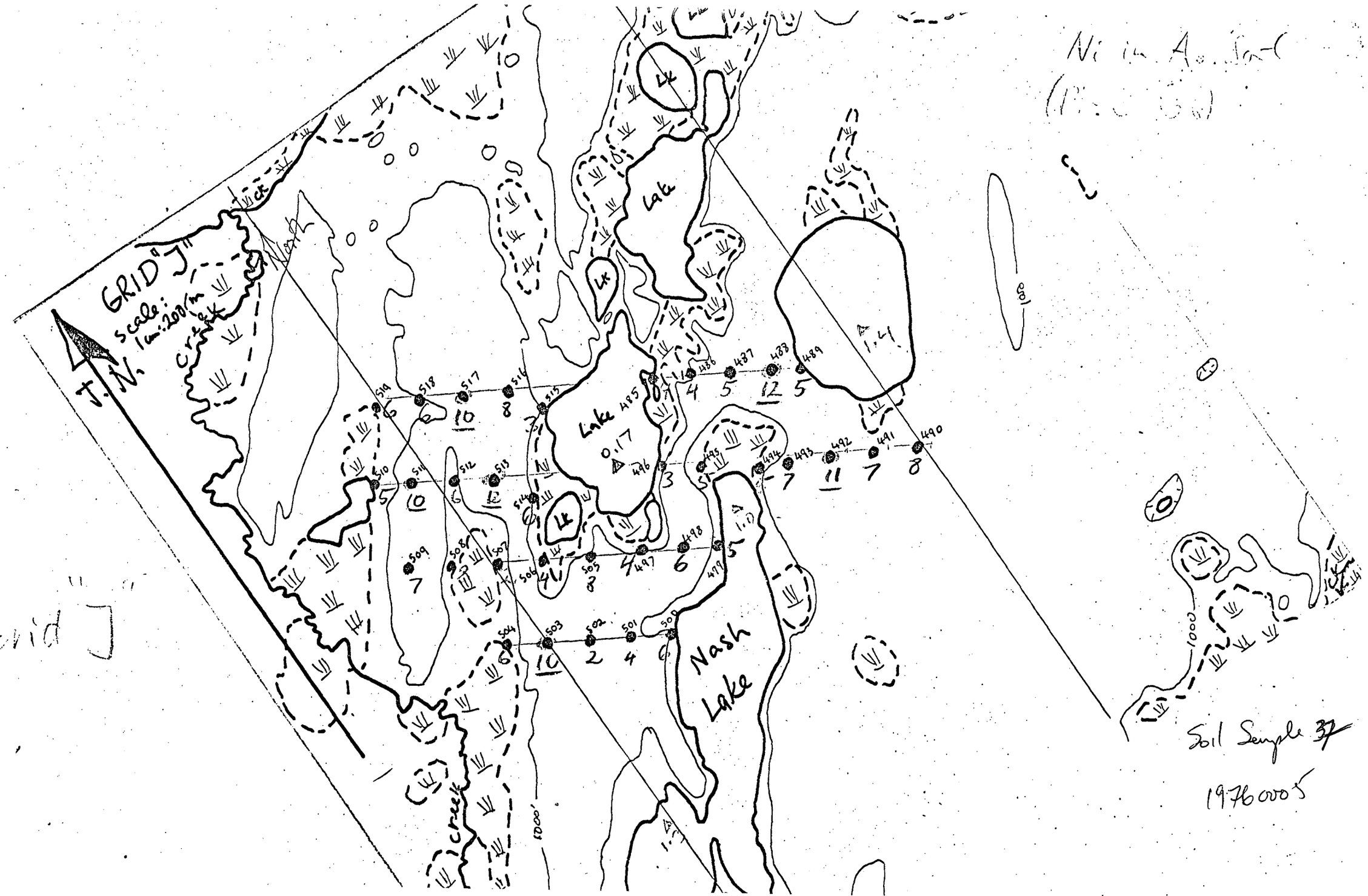


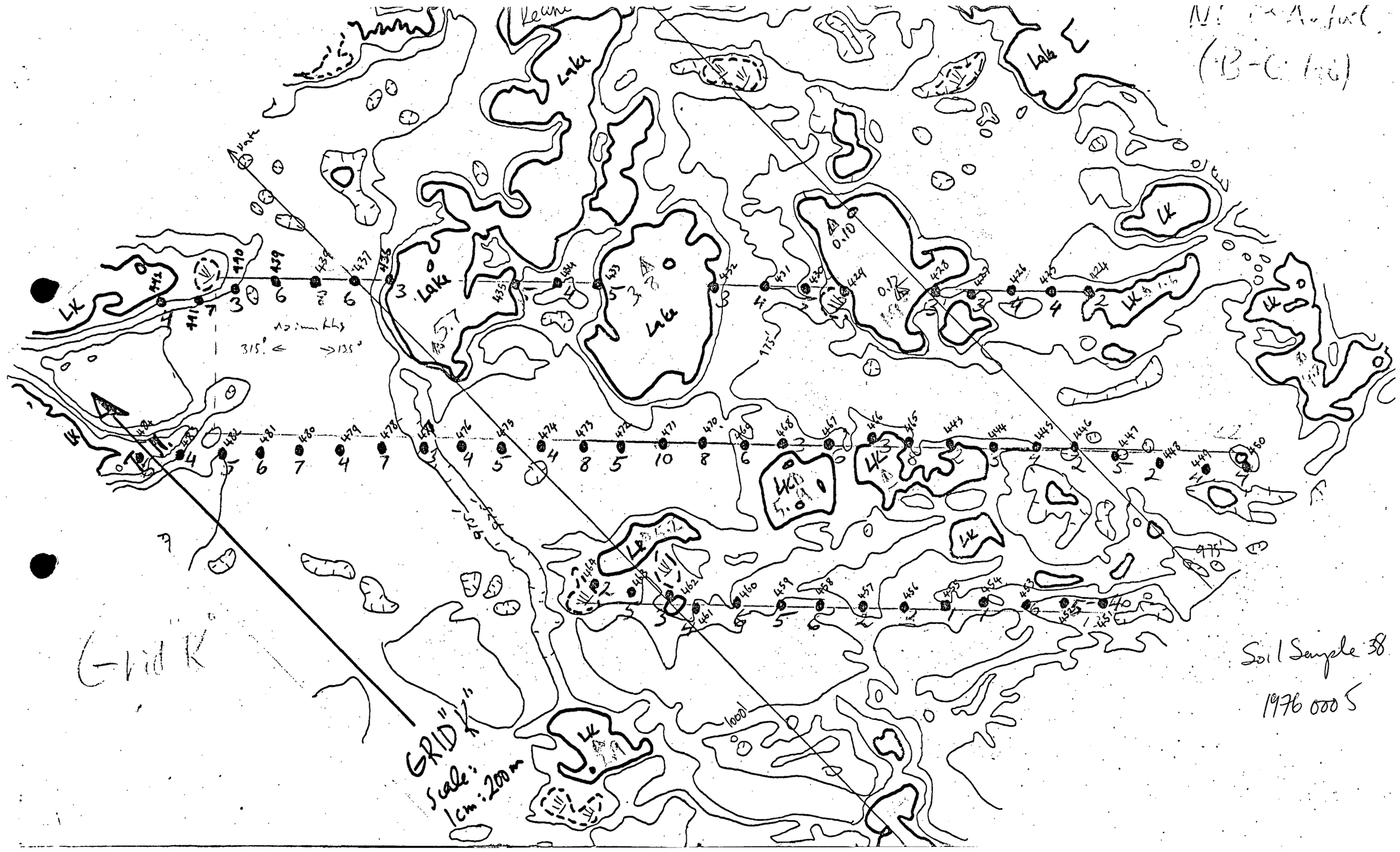
Soil Sample 34
1976 0005


Grid G
Lake
Lake
Lake
Knipping Lake
Maybelle River
Soil Sample 35
19760005

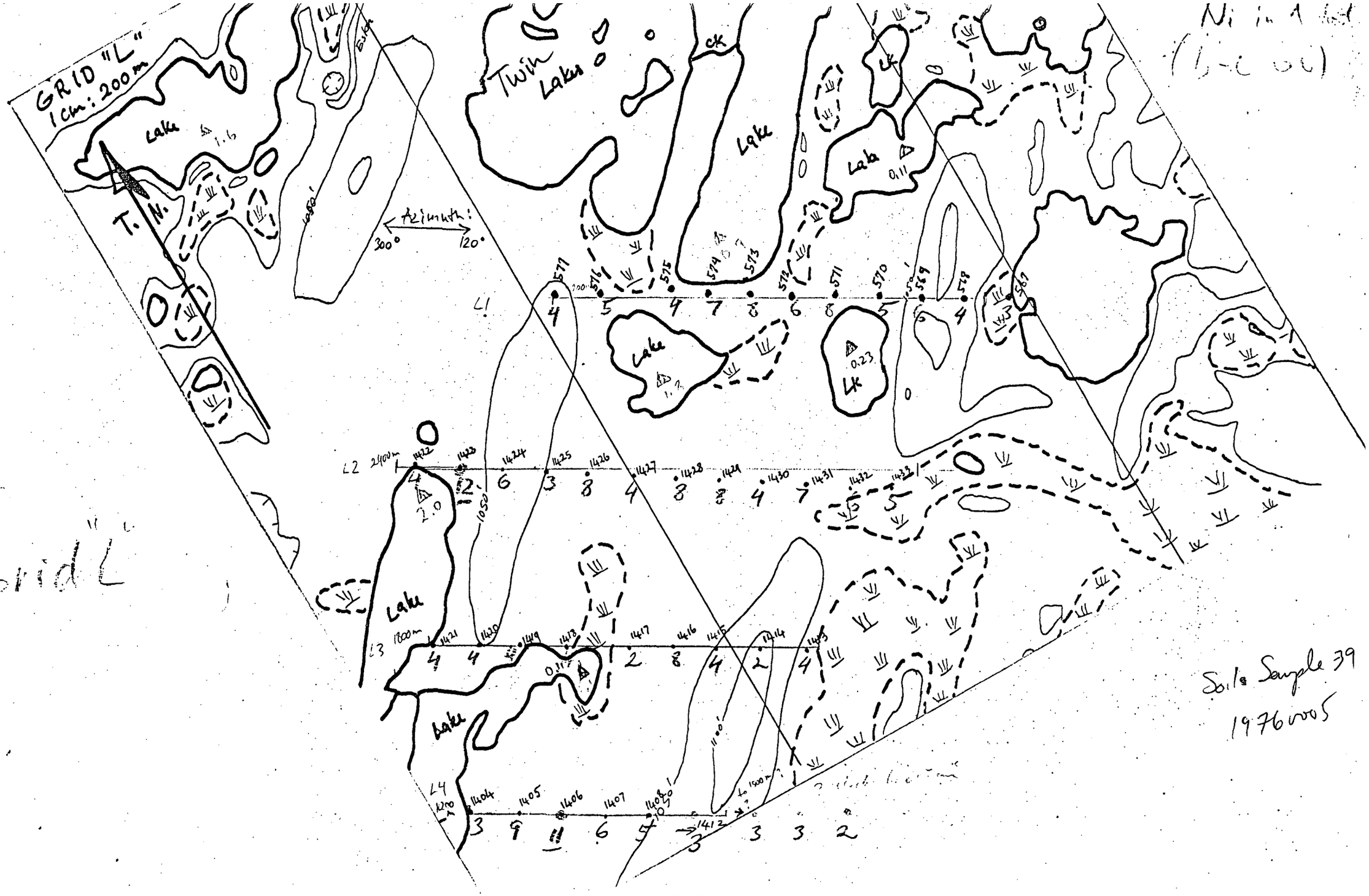
Soil Sample 36
1976 0005

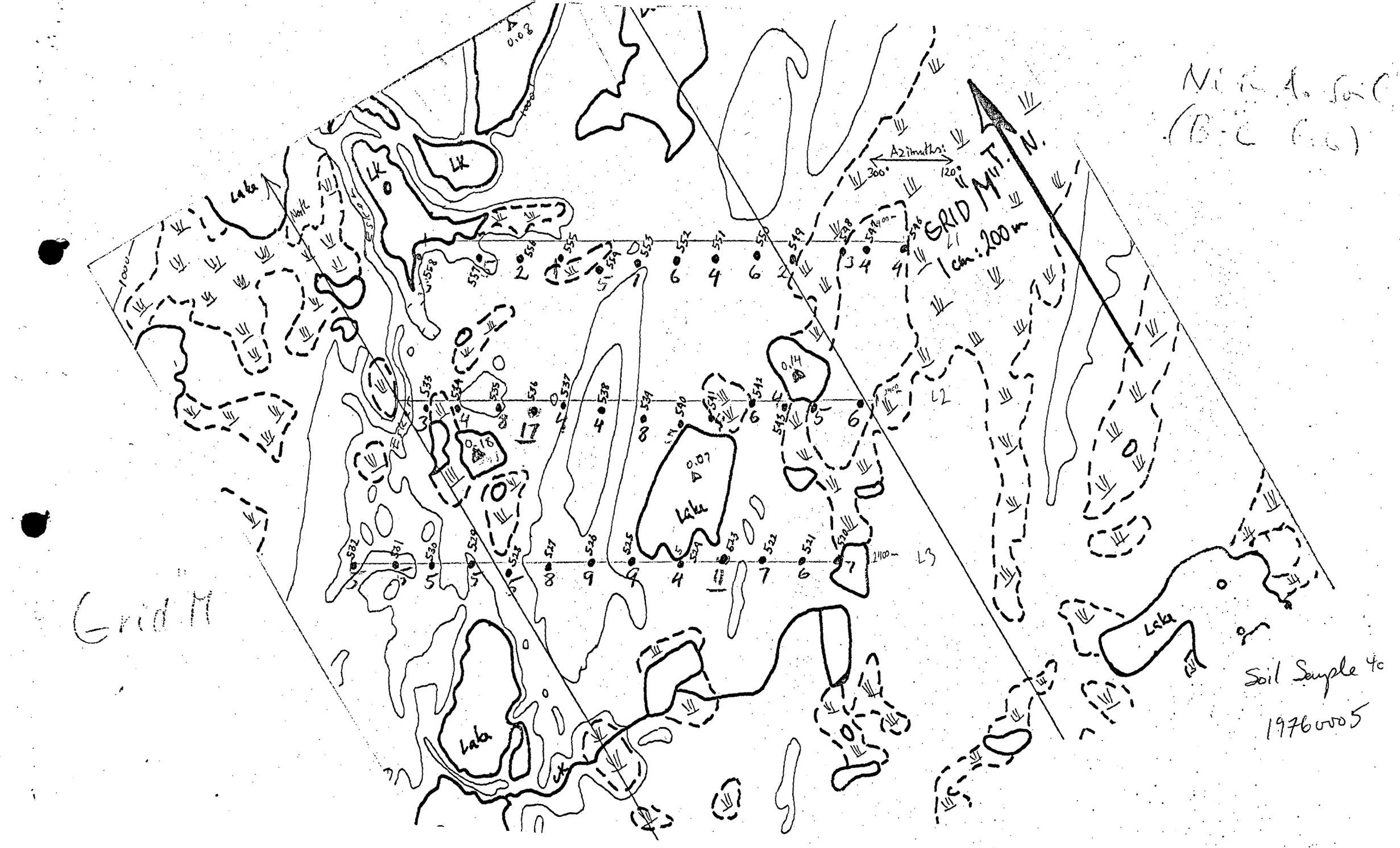
Ni in Ao Sol
(B-C 66)
GRID "I"
Scale: 1cm=200m
T. N.
Lake
Larocque Lake
Azimuth of lines:
→ 120° T
← 300° T
0.26
1000'
Soil Sample 36
19760005


GRID "J"
scale: 1cm:200m
J.N.
Lake
Lake
Nash Lake
Creek
Grid "J"
Soil Sample 37
19760005



Lake
Lake
Lake
Lake
LK
LK
LK
LK
LK
LK
LK
LK
Azimuths
315° ← → 135°
975'
1000'
Grid "K"
GRID "K"
Scale: 1cm : 200m
Soil Sample 38
1976 0005


GRID "L"
1 cm: 200 m
Lake
T. N.
Twin Lakes
Lake
Lake
Lake
Lake
Lake
Azimuth:
300°
120°
L1
L2 2400m
L3 1800m
L4 1200m
Grid "L"
Soils Sample 39
1976 0005



Azimuths:
300°
120°
GRID "M" T. N.
1 cm : 200 m
Lake
Lake
Lake
Lake
Lake
Lake
Grid "M"
Soil Sample 40
19760005

APPENDIX E

PROJECT 508

GEOCHEMICAL LAB REPORTS

(by Bondar-Clegg and Company, Ltd.)

of Lake and Soil Geochemical Surveys, 1975

APPENDIX E

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BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Geochemical Lab Report

508 – Lake Sediments, 1975

Extraction: Cu,Ni-HNO_3-HCl, U-HNO_3

Report No.: 305-5

Method: A.A. Fluorimetric

From: Eldorado Nuclear Limited
Project: 508 (Alberta)

Fraction Used: -100 soils

Date: June 25, 1975

SAMPLE NO.		Cu ppm	Ni ppm	U ppm				REMARKS
								See: Report sample # #508:
508 - LS - 1		25	760	0.5				502
2		9	400	N.D.	Not Detected.			501
3	contamination	7	12	0.8				503
4		4	8	N.D.				CONTAMINATION: New sampling for!
5		3	8	N.D.				
6		3	12	N.D.				
7		7	7	N.D.				
8		8	8	N.D.				
9		3	7	N.D.				
10		5	8	N.D.				
11		7	7	N.D.				
12		8	13	0.2				
13		N.D.	2	N.D.				
14		8	14	N.D.				
15		4	5	N.D.				
16		5	8	0.5				518
17		N.D.	1	N.D.				
18		5	9	N.D.				
19		4	7	N.D.				
20		5	11	N.D.				
21		4	10	0.3				517
22		9	12	1.0				516
23		3	6	N.D.				
24		9	9	N.D.				
25		1	1	N.D.				
26		15	11	0.5				515
27		8	8	0.5				514
NB "x" = resample!								

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Geochemical Lab Report

Extraction: Cu, Ni - HNO_3-HCl, U - HNO_3

Report No.: 407-5

Method: A.A. Fluorimetric

From: Eldorado Nuclear Ltd., Project: 508(NE Alta)

Fraction Used: -80 soils

Date: July 18, 1975

SAMPLE NO.		Cu ppm	Ni ppm	U ppm	SAMPLE NO.		Cu ppm	Ni ppm	U ppm
508 LS - 28		7	6	0.4	LS - 59		12	18	0.4
29		10	12	0.4	60		3	6	N.D.
30		6	8	N.D.	61		8	9	N.D.
31		6	6	N.D.	62		13	20	0.6
32		9	11	0.4	63		8	21	1.2
33		7	15	0.4	64		11	14	0.9
34		2	2	N.D.	65		4	7	0.4
35		2	3	0.4	66		1	1	0.6
36		5	15	N.D.	67		4	11	0.6
37		3	4	N.D.	68		6	15	N.D.
38		13	14	0.4	69		3	5	0.6
39		10	8	0.4	70		13	15	1.2
40		24	11	0.8	71		4	12	N.D.
41		11	6	13.0	72		6	8	0.5
42		12	14	N.D.	73		6	7	0.4
43		7	11	N.D.	74		8	13	N.D.
44		10	2	N.D.	75		1	1	N.D.
45		7	8	0.4	76		3	5	N.D.
46		5	10	N.D.	77		5	12	0.4
47		6	14	N.D.	78		5	12	0.4
48		11	15	N.D.	79		5	10	0.4
49		9	10	0.4	80		4	5	0.4
50		8	8	N.D.	81		5	8	0.4
51		12	15	0.4	82		8	7	0.4
52		7	12	0.8	83		6	6	N.D.
53		6	8	0.8	84		10	12	N.D.
54		6	5	0.8	85		6	8	N.D.
55		2	1	N.D.	86		7	8	N.D.
56		10	9	0.4	87		6	11	0.6
57		11	10	0.8	88		4	8	N.D.
58		7	8	0.4	89		4	8	1.2

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Geochemical Lab Report

Report No. 407-5

SAMPLE NO.		Cu ppm	Ni ppm	U ppm	SAMPLE NO.				
LS - 90		6	15	N.D.					
91 MISSING 92		5	7	0.2					
93		5	6	0.2					
94		7	11	N.D.					
95		5	8	0.4					
96		6	8	1.0					
97		7	18	0.3					
98		4	7	N.D.					
99		8	12	0.4					
100		7	12	0.2					
01		6	10	0.4					
02		4	6	0.4					
03		5	8	N.D.					
04		3	10	0.6					
05		3	20	0.6					
06		3	22	0.4					
07		3	19	0.3					
08		5	8	N.D.					
09		4	6	ND					
10		6	8	N.D.					

N.D. Not Detected.

WWW

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

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Extraction: U - HNO_3 Report No. 438-5

Method: Fluorimetric From: Eldorado Nuclear Ltd. Project No. 508

Fraction Used: Date: August 5 19 75

RECEIVED AUG - 8 1975

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-LS - 111		1.0			508-LS - 144		N.D.		
12		1.4			45		0.9		
13		0.9			46		Not Received		
14		0.9			47		0.9		
15		1.1			48		N.D.		
16		0.6			49		N.D.		
17		1.4			50		0.4		
18		0.4			51		1.0		
19		1.8			52		0.9		
20		3.0			53		1.4		
21		1.7			54		0.9		
22		1.4			55		1.8		
23		0.6			56		0.9		
24 MISSING 25		N.D.			57		1.7		
26		0.4			58		N.D.		
27		0.4			59		1.9		
28 MISSING 29		0.4			60		0.1		
30		1.4			61		1.1		
31		2.1			62		0.9		
32		1.3			63		1.1		
33		1.0			64		1.0		
34		1.4			65		0.9		
35		0.4			66		N.D.		
36		0.6			68		0.8		
37		0.5			69		1.3		
38		0.6			70		1.8		
39		1.1			72		0.9		
40		1.5			73		0.9		
41		2.0			74		0.9		
42		N.D.			75		1.4		
43		0.9			76		0.6		

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Geochemical Lab Report

Report No. 438-5

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-LS - 177		2.0			508-LS - 214		0.8		
78		1.3			15		0.9		
79		0.3			16		0.9		
80		3.4			17		0.6		
81		0.4			218 MISSING 19		0.7		
82		1.6			20		0.6		
83		0.2			21		1.1		
84		1.0			22		3.9		
85		0.9			23		2.0		
86		0.3			24		0.9		
87		0.6			225 MISSING 26		Insufficient Sample		
88		0.3			27		1.4		
89		0.3			28		0.8		
90		0.3			29		0.6		
91		0.4			30		1.9		
92		1.1			31		1.9		
93		2.0			32		1.4		
94		3.7			33		1.4		
95		0.2			34		1.0		
96		0.3			35		2.9		
97		0.5			36		2.1		
98		0.6			37		1.1		
99		1.1			238 " 39		0.8		
200		1.8			40		0.05		
01		3.3			241 42 43		1.4		
02		0.4			44		0.6		
03		2.3			45		2.1		
04		1.0			46		8.0		
205 MISSING 06		1.1			47		0.8		
07		0.4			49		N.D.		
08		1.4			50		0.3		
09		1.4			51		1.1		
10		1.4			52		0.4		
11		N.D.			53		0.4		
12		0.5			254 55		INSUFFICIENT SAMPLE		
13		0.9			256 57		0.2		

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Geochemical Lab Report

Report No. 438-5

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-LS - 258		2.0			508-LS - 295		0.8		
59		0.6			96		0.9		
60		1.3			97		0.3		
61		2.0			98		N.D.		
62		1.8			99		0.9		
63		0.9			300 301		N.D.		
64		0.4			02		2.4		
65		0.1			Dummy 03		5.0		
66		0.4			04		0.5		
67		1.6			05		1.4		
68		0.4			06		0.2		
69		N.D.			07		1.5		
70		N.D.			08		0.6		
71		0.4			09		0.4		
72		N.D.			10		0.3		
73		0.3			311 12		0.4		
74		0.6			13		0.4		
75		1.1			14		3.3		
76		0.1			15		N.D.		
77		0.6			316 17		1.5		
78		0.8			18		2.0		
79		N.D.			19		0.9		
80		0.2			20		2.1		
81		N.D.			21		0.4		
82		0.3			22		1.0		
83		1.1			23		0.8		
84		0.6			24		0.9		
285 86		0.5			325 26		2.8		
87		0.9			27		1.4		
88		1.0			28		2.4		
89		0.9			29		0.5		
90		0.8			30		1.4		
91		0.9			31		1.5		
92		0.6			32		2.1		
93		0.3			33		1.6		
94		0.4			334 35		1.4		

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Geochemical Lab Report

Report No. 438-5

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-LS - 337		0.4			508- LS - 384		0.6		
38		1.4			85		0.5		
339 40		0.2			86		0.9		
41		0.3			87		0.6		
42		N.D.			88		0.4		
343 44		N.D.			89		1.9		
345 46		0.4			90		1.4		
47		1.4			391 92		0.4		
48		0.9			393 94		1.9		
49		0.8			95		1.3		
50		N.D.			96		1.1		
51		0.4			97		1.4		
52		0.9			98		0.9		
353 54		0.5			99		N.D.		
355 56		2.9			400		1.1		
57		5.2			01		0.6		
58		5.9			02		1.9		
59		5.2			403 04		N.D.		
60		0.3			05		N.D.		
361 62 63		1.4			06		2.1		
64		1.5			07		1.8		
65		1.4			08		0.6		
66		0.9			09		2.1		
67		0.1			410 11		N.D.		
68		N.D.			12		0.4		
369 70 71 72		0.3			13		0.4		
73		0.3			414 15		1.2		
74		2.5			16		N.D.		
75		5.7			17		1.3		
76		3.8			18		N.D.		
377 78		1.4			19		1.9		
79		1.6			420 21		0.9		
80		4.0			422 23		0.4		
81		0.3			24		0.9		
82		0.5			25		1.1		
83		0.5			26		1.4		

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Geochemical Lab Report

Report No. 438-5

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-LS - 427		0.4			508LS - 465		0.8		
428 29		1.5			66		0.3		
30		2.1			67		0.4		
31		0.9			68		N.D.		
32		1.0			69		N.D.		
33		0.8			70		0.3		
34		0.5			71		1.4		
35		0.4			72		0.3		
36		0.8			73		0.4		
37		1.1			74		0.4		
38		1.8			75		0.4		
39		1.4			76		0.4		
40		1.1			77		0.3		
41		1.0			78		0.6		
42		2.9			79		0.6		
43		1.4			80		1.6		
44		1.8			481 82		0.4		
45		0.9			83		0.4		
46		1.3			84		N.D.		
47		0.4			85		N.D.		
48		0.8			486 Dummy NOT ON MAP 87		N.D.		
49		1.0			88		0.9		
50		2.1			89		N.D.		
51		0.3			90		0.1		
52		1.0			91		N.D.		
53		0.4			92		N.D.		
454 55		1.4			493 94		2.0		
56		1.4			495 96		1.8		
57		1.0			497 98		0.4		
58		1.4			99		N.D.		
59		1.1							
60		1.1							
61		N.D.							
62		0.3			N.D. - Not Detected.				
63		0.5							
64		0.3							

BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

EXPLORATION
JUL 25 1975

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Geochemical Lab Report

Extraction: Cu, Ni - HNO_3-HCl

Report No.: 438-5

Method: A.A.

From: Eldorado Nuclear Limited.
Project: 508

Fraction Used: -80 soils.

Date: July 24, 1975

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
50% LS - 111		7	11		LS - 144		2	2	
112		8	10		145		5	6	
113		7	8		146		NO SAMPLE		
114		7	9		147		9	10	
115		8	8		148		N.D.	1	
116		6	8		149		6	13	
117		9	11		150		8	10	
118		6	14		151		15	10	
119		6	8		152		11	10	
120		11	9		153		13	14	
121		10	12		154		9	12	
122		6	8		155		8	8	
123		7	8		156		6	9	
125		6	14		157		8	9	
126		4	5		158		2	2	
127		7	11		159		9	9	
129		7	6		160		8	13	
130		10	9		161		6	8	
131		9	10		162		5	8	
132		5	5		163		8	10	
133		5	6		164		8	8	
134		6	7		165		7	6	
135		7	6		166		2	3	
136		7	7		168		6	6	
137		9	9		169		6	6	
138		6	8		170		7	7	
139		6	9		172		8	6	
140		9	9		173		10	9	
141		13	38		174		7	10	
142		N.D.	1		175		7	9	
143		9	8		176		4	8	

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DM

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Geochemical Lab Report

Report No. 438-5

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
LS - 177		6	9		LS - 214		9	9	
178		7	13		215		8	9	
179		1	1		216		7	7	
180		10	10		217		12	12	
181		6	10		219		8	8	
182		1	2		220		12	8	
183		N.D.	1		221		6	6	
184		4	7		222		8	6	
185		6	6		223		5	6	
186		10	12		224		10	8	
187		4	7		226		8	7	
188		6	5		227		8	8	
189		5	5		228		5	5	
190		N.D.	1		229		5	6	
191		7	7		230		5	4	
192		6	5		231		5	6	
193		5	4		232		3	4	
194		12	14		233		4	5	
195		6	11		234		10	8	
196		1	1		235		6	8	
197		6	7		236		7	7	
198		6	10		237		9	7	
199		8	14		239		6	7	
200		10	14		240		9	12	
201		8	10		243		8	9	
202		3	2		244		9	8	
203		8	13		245		6	10	
204		4	6		246		7	12	
206		9	9		247		8	5	
207		7	6		249		1	1	
208		8	9		250		1	1	
209		10	10		251		7	6	
210		10	10		252		7	7	
211		6	12		253		8	8	
212		8	9		255		10	10	
213		11	14		257		8	12	

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Geochemical Lab Report

Report No. 438-5

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SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 LS - 258		7	6		LS - 295		6	9	
259		6	9		296		11	8	
260		10	10		297		8	14	
261		8	8		298		6	14	
262		11	10		299		9	11	
263		6	6		301		6	13	
264		7	7		302		10	11	
265		2	2		303		12	14	
266		11	9		304		15	14	
267		11	14		305		6	9	
268		8	10		306		N.D.	1	
269		6	12		307		8	12	
270		6	12		308		8	8	
271		2	3		309		10	9	
272		7	14		310		10	8	
273		2	2		311		NOT RECEIVED		
274		5	5		312		8	9	
275		13	14		313		8	10	
276		2	2		314		8	15	
277		8	7		315		N.D.	1	
278		2	2		317		8	12	
279		10	12		318		9	10	
280		6	12		319		6	7	
281		4	10		320		11	10	
282		8	8		321		8	12	
283		7	7		322		12	13	
284		11	8		323		9	15	
286		10	8		324		6	7	
287		11	8		326		6	6	
288		8	12		327		10	8	
289		14	14		328		10	10	
290		7	7		329		8	10	
291		7	8		330		9	7	
292		6	7		331		8	7	
293		9	8		332		6	4	
294		5	6		333		9	12	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 438-5

Page No. 4

Xtra Copy

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 LS - 335		11	10		LS - 383		N.D.	1	
337		8	15		384		6	8	
338		10	11		385		8	10	
340		7	10		386		7	12	
341		7	11		387		8	10	
342		5	12		388		6	12	
344		N.D.	1		389		14	13	
346		9	9		390		11	17	
347		8	9		392		N.D.	2	
348		9	10		394		8	8	
349		6	9		395		8	9	
350		N.D.	1		396		14	10	
351		6	7		397		12	9	
352		9	10		398		10	10	
354		10	12		399		N.D.	1	
356		12	10		400		9	17	
357		14	12		401		8	16	
358		7	8		402		10	10	
359		8	10		404		5	13	
360		N.D.	N.D.		405		7	15	
363		9	9		406		15	16	
364		8	6		407		8	12	
365		14	13		408		1	2	
366		10	10		409		8	9	
367		8	15		411		6	14	
368		13	17		412		4	4	
372		1	2		413		10	10	
373		2	3		415		8	9	
374		9	10		416		5	14	
375		12	12		417		8	9	
376		11	14		418		6	14	
378		6	6		419		8	12	
379		9	15		421		11	17	
380		15	13		423		9	15	
381		10	18		424		9	10	
382		6	11		425		10	9	

PM

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 438-5 Page No. 5

Xha Copy

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 LS - 426		15	16		LS - 464		6	7	
427		8	8		465		4	13	
429		8	10		466		6	8	
430		8	6		467		7	8	
431		7	9		468		6	6	
432		7	9		469		7	8	
433		10	9		470		8	10	
434		12	7		471		8	7	
435		5	6		472		4	7	
436		7	7		473		5	9	
437		6	7		474		4	8	
438		10	10		475		5	9	
439		8	13		476		6	8	
440		8	11		477		7	7	
441		8	9		478		6	13	
442		8	9		479		7	8	
443		10	12		480		11	10	
444		10	15		482		2	4	
445		6	8		483		6	7	
446		6	10		484		4	10	
447		4	4		485		4	12	
448		8	9		487		3	10	
449		6	7		488		4	4	
450		9	10		489		4	10	
451		6	8		490		4	7	
452		6	8		491		1	4	
453		5	10		492		4	4	
455		8	10		494		12	13	
456		7	7		496		9	6	
457		7	11		498		7	7	
458		6	6		499		4	6	
459		8	8			U results to follow.			
460		7	13						
461		6	14						
462		4	10						
463		7	8						

DH

BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: Cu, Ni HNO_3 - HCl
Method: A.A.
Fraction Used:

Report No. 646-5
From: Eldorado Nuclear Limited
Date: August 29 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508LS - 519		1450	8		508LS - 562		12	8	
20		17	8		63		6	N.D.	
21		23	5		64		76	12	
22		2	N.D.		65		14	13	
23		6	6		567-NS 66		8	5	
24		9	6		568, 569, 570, 571, 572 N.S. 68		6	6	
25		11	10		73		4	4	
527-N 26		6	6		74		4	4	
28		5	5		75		6	6	
29		7	8		76		6	5	
30		11	10		77		7	4	
532-NS, 533-NS 31		8	8		78		6	14	
34		8	9		79		8	6	
35		N.D.	N.D.		80		6	7	
36		10	7		81		4	5	
538-NS 37		6	4		82		8	3	
39		10	7		83		6	6	
40		10	8		84		7	6	
Missed #542 41		8	8		85		N.D.	N.D.	
43		10	8	} See data sheet	86		9	7	
544-NS, 545-NS 46		11	9		87		8	7	
47		10	9		88		8	6	
48		11	8		89		6	3	
49		10	8		90		11	6	
551-NS, 552-NS, 553-NS 50		9	8		91		9	6	
54		6	7		92		8	5	
55		7	10		93		7	11	
56		8	N.D.		94		7	13	
57		N.D.	10		95		8	4	
559-NS. 58		10	9		96		8	5	
561-NS 60		14	8		97		8	7	

NS - "No sample taken" (water sample only)

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 646-5

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508LS - 598		7	6		508LS - 634		N.D.	N.D.	
99		8	8		35		8	6	
600		7	9		36		9	5	
01		7	7		37		11	5	
02		5	5		38		12	6	
03		6	4		39		8	5	
04		8	8		40		8	6	
05		8	7		41		6	8	
06		8	7		42		10	10	
07		7	8		43		11	8	
08		N.D.	N.D.		44		12	8	
09		7	7		45		5	4	
10		10	7		46		12	8	
11		8	8		47		12	6	
12		9	6		48		7	11	
13		9	8		49		N.D.	N.D.	
14		11	8		50		8	7	
15		13	8		51		10	8	
16		14	7		52		9	8	
17		180	10		53		10	12	
18		17	8		54		4	6	
19		14	9		55		10	9	
20		N.D.	N.D.		56		6	6	
21		10	9		57		10	12	
22		8	7		58		8	5	
23		9	12		59		1670	12	
24		N.D.	7		60		8	6	
25		9	8		61		8	6	
26		8	10		62		26	6	
27		6	9		63		20	9	
28		8	10		64		8	6	
29		9	7		65		8	6	
30		8	8		66		9	6	
31		6	6		67		N.D.	N.D.	
32		8	8		Dummy (U) 68		(N.D.	N.D.)	
33		8	9		69		6	6	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 646-5 Page No. 3

SAMPLE NO.	Cu ppm	Ni ppm	SAMPLE NO.	Cu ppm	Ni ppm
508LS - 670	N.D.	N.D.	508LS - 711	6	9
671-NS > 672	5	7	712	5	8
673	6	6	713	6	7
674	8	7	714	3	8
675	6	6	715	3	5
677-NS > 676	7	6	716	3	6
678	N.D.	N.D.	717	4	6
679	5	3	NS 718	I.S.	—
680	N.D.	N.D.	719	8	12
682-NS > 681	7	6	720	8	8
683	8	5	721	8	12
684	8	10	722	9	12
685	6	8	723	9	12
686	N.D.	N.D.	724	7	12
687	9	8	725	1	N.D.
688	4	6	726	8	9
689	4	7	727	11	14
690	8	9	728	8	7
691	8	8	729	4	5
692	7	7	730	N.D.	N.D.
693	8	7	731	N.D.	7
694	8	12	732	5	8
696-NS > 695	7	8	733	1	4
697	N.D.	N.D.	734	7	7
698	8	12	735	5	6
699	1	N.D.	736	10	9
700	N.D.	N.D.	737	9	9
701	9	13	738	N.D.	N.D.
703-NS > 702	12	13	739	6	8
704	7	8	740	5	7
705	6	6	741	N.D.	N.D.
706	8	8	742	7	8
707	9	10	743	5	5
708	4	6	744	4	6
709	5	8	745	N.D.	N.D.
710	8	8	746	8	8

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 616-5

Page No. 4

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.				
508LS - 747		2	8						
48		3	6						
49		N.D.	N.D.						
50		2	4						
		✓	✓						
		Note:	N.D. - Not Detected						
			I.S. - Insufficient Sample						
			U results to follow						
		copies							

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

RECEIVED SEP 15 1975

Geochemical Lab Report

Extraction: Cu, Ni HNO_3 - HCl
Report No.: 747-5
Method: A.A.
From: Eldorado Nuclear Ltd.
Project No. 508
Fraction Used:
Date: September 11 19 75

SAMPLE NO.		Cu ppm	Ni ppm					REMARKS
508 - LS - 751		2	2					
52		11	9					
53		7	6					
54		6	6					
55		8	7					
56		6	4					
57		5	6					
58		4	4					
59		6	6					
60		3	4					
61		5	6					
62		7	7					
63		I.S.						
64		8	12					
65		5	10					
66		8	7					
67		12	13					
68		14	13					
69		9	8					
70		10	9					
71		14	17					
72		12	12					
73		8	9					
74		6	9					
75		8	16					
76		8	18					
77		6	6					
78		7	8					
		vv	vL					
		Note: I.S. Insufficient Sample U results to follow						

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction U HNO_3
Method Fluorimetric
Fraction Used

Report No. 646-5
From Eldorado Nuclear Ltd.
Project No. 508
Date September 10 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508LS - 519		0.7			508LS - 562		0.7		
20		N.D.			63		0.2		
21		0.7			64		N.D.		
22		N.D.			65		1.2		
23		N.D.			66		0.2		
24		0.7			68		N.D.		
25		0.7			73		0.1		
26		0.7			74		N.D.		
28		0.3			75		0.5		
29		0.7			76		0.2		
30		0.7			77		0.5		
31		0.6			78		N.D.		
34		N.D.			79		0.3		
35		N.D.			80		0.4		
36		0.7			81		0.4		
37		N.D.			82		0.5		
39		N.D.			83		N.D.		
40		0.6			84		N.D.		
41		0.5			85		N.D.		
43		0.8			86		N.D.		
46		0.4			87		N.D.		
47		0.7			88		N.D.		
48		0.4			89		0.1		
49		0.4			90		0.7		
50		0.4			91		0.5		
54		N.D.			92		0.4		
55		N.D.			93		2.2		
56		0.3			94		N.D.		
57		0.3			95		0.3		
58		0.7			96		0.1		
60		1.0			97		0.2		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 646-5

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
508LS - 598	0.3	508LS - 634	N.D.
99	0.2	35	0.6
600	0.7	36	1.5
01	N.D.	37	3.0
02	0.3	38	1.2
03	0.7	39	0.7
04	0.6	40	0.5
05	0.5	41	1.2
06	0.7	42	1.0
07	0.4	43	0.7
08	0.3	44	0.5
09	0.7	45	0.3
10	0.6	46	0.3
11	0.8	47	0.5
12	0.6	48	N.D.
13	0.7	49	0.3
14	0.5	50	1.2
15	0.4	51	1.4
16	0.6	52	1.2
17	N.D.	53	1.9
18	N.D.	54	0.7
19	0.3	55	0.5
20	0.2	56	0.2
21	1.0	57	N.D.
22	1.0	58	0.1
23	0.3	59	0.3
24	0.2	60	0.6
25	0.4	61	0.7
26	N.D.	62	2.1
27	N.D.	63	3.3
28	N.D.	64	0.1
29	0.2	65	0.2
30	0.2	66	0.5
31	0.1	67	N.D.
32	N.D.	Dummy 68	0.5
33	N.D.	69	0.7

WJM

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 646-9

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
508LS - 670	1.0	508LS - 711	N.D.
NS > 72	0.5	12	0.7
73	1.6	13	1.2
74	1.1	14	1.8
75	3.2	15	0.6
NS > 76	0.6	16	0.3
78	N.D.	17	1.8
79	N.D.	NS! 18	1.5 ?
80	0.1	19	2.1
NS > 81	1.4	20	N.D.
83	2.9	21	0.5
84	1.0	22	1.5
85	0.7	23	1.1
86	0.4	24	3.1
87	N.D.	25	N.D.
88	0.4	26	1.4
89	0.8	27	1.9
90	0.7	28	0.3
91	0.7	29	0.2
92	0.6	30	N.D.
93	3.5	31	0.6
94	1.9	32	1.1
NS > 95	3.3	33	0.5
97	0.2	34	0.7
98	1.2	35	1.4
99	0.1	36	2.0
700	0.2	37	2.6
01	0.6	38	0.2
NS > 02	2.3	39	1.3
04	0.8	40	0.7
05	0.6	41	N.D.
06	2.5	42	0.6
07	0.6	43	1.1
08	1.0	44	1.0
09	0.6	45	N.D.
10	1.0	46	0.4

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 646-5

Page No. 4

SAMPLE NO.		U ppm			SAMPLE NO.				
508LS - 747		0.6							
48		0.8							
49		N.D.							
50		N.D.							
		Pb [illegible]							
		Note:	N.D. -	Not Detected					

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

RECEIVED SEP 17 1975

Geochemical Lab Report

Extraction U_3O_8

Method Fluorimetric

Fraction Used

Report No. 747-5

From Eldorado Nuclear Ltd.
Project No. 508

Date September 15 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508LS - 751		N.D.			508 LS - 500		1.8		
52		0.2			501		0.5		
53		0.5			502		0.3		
54		0.2			504		0.8		
55		0.2			505		N.D.		
56		2.6			506		0.3		
57		0.2			507		0.5		
58		2.0			508		N.D.		
59		1.1			509		0.8		
60		0.8			510		2.1		
61		4.0			511		0.5		
62		N.D.			514		2.4		
63		I.S.			515		1.1		
64		0.7			516		1.5		
65		2.0			517		0.8		
66		0.5			518		0.3		
67		1.7							
68		1.5							
69		N.D.							
70		I.S.							
71		1.3							
72		I.S.							
73		1.5							
74		0.9							
75		N.D.							
76		N.D.							
77		0.2							
78		0.5							
		✓							
		Note:	N.D. - Not Detected						
			I.S. - Insufficient Sample						

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BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Geochemical Lab Report

508-Lake Waters, 1975

Extraction: Cu, Ni, U

Report No.: 306-5

Method: A.A. F.T.

From: Eldorado Nuclear Limited
Project: 508 (Alberta)

Fraction Used: As Received.

Date: July 4, 1975

SAMPLE NO.		Cu ppb	Ni ppb	U ppb				REMARKS
508 LW #1		N.D.	N.D.	0.04				
2		N.D.	N.D.	0.06				
3		1	N.D.	0.03				
4		N.D.	N.D.	0.03				
5		N.D.	N.D.	0.06				
6		1	N.D.	0.02				
7		N.D.	2	0.02				
8		1	1	0.02				
9		N.D.	1	0.03				
10		1	1	0.03				
11		1	2	0.06				
12		1	1	0.06				
13		1	2	0.02				
14		N.D.	1	0.02				
15		N.D.	N.D.	0.01				
16		N.D.	N.D.	0.02				
17		N.D.	1	0.01				
18		1	1	0.03				
19		N.D.	N.D.	0.01				
20		1	N.D.	0.01				
21		N.D.	N.D.	0.02				
22		1	3	0.03				
23		N.D.	N.D.	0.03				
24		N.D.	N.D.	0.04				
25		1	N.D.	0.02				
26		1	3	0.03				
27		2	2	0.04				

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

Geochemical Lab Report

Extraction: Cu, Ni - HNO_3-HCl
Report No.: 408-5
Method: A.A.
From: Eldorado Nuclear Ltd.,
Fraction Used: As Received.
Date: July 22, 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 LW #28		2	N.D.		508 LW #59		1	2	
29		1	1		60		1	N.D.	
30		2	1		61		1	N.D.	
31		1	N.D.		62		2	N.D.	
32		1	1		63		1	2	
33		N.D.	N.D.		64		1	N.D.	
34		1	N.D.		65		1	1	
35		3	3		66		2	N.D.	
36		3	2		67		1	3	
37		1	4		68		1	N.D.	
38		2	N.D.		69		1	4	
39		2	N.D.		70		1	N.D.	
40		1	1		71		1	1	
41		1	N.D.		72		N.D.	N.D.	
42		N.D.	2		73		2	1	
43		2	N.D.		74		1	N.D.	
44		2	N.D.		75		1	N.D.	
45		1	3		76		1	N.D.	
46		5	N.D.		77		N.D.	N.D.	
47		1	N.D.		78		1	2	
48		1	N.D.		79		1	N.D.	
49		1	N.D.		80		1	1	
50		N.D.	N.D.		81		1	N.D.	
51		2	2		82		N.D.	ND..	
52		1	N.D.		83		1	N.D.	
53		1	1		84		2	N.D.	
54		N.D.	N.D.		85		1	1	
55		N.D.	N.D.		86		2	N.D.	
56		N.D.	N.D.		87		N.D.	N.D.	
57		2	N.D.		88		1	1	
58		1	N.D.		89		1	N.D.	

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Geochemical Lab Report

Report No. 408-5

Page No. 2

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 LW #90		1	N.D.		508 LW #126		1	3	
91		2	N.D.		27		1	N.D.	
92		N.D.	N.D.		28		2	N.D.	
93		1	1		29		1	1	
94		1	1		30		N.D.	N.D.	
95		N.D.	5		31		1	N.D.	
96		N.D.	2		32		1	N.D.	
97		1	3		33		N.D.	1	
98		4	8		34		1	3	
99		2	N.D.		35		1	1	
100		1	1		36		4	3	
01		1	N.D.		37		2	N.D.	
02		N.D.	N.D.		38		1	N.D.	
03		1	1		39		N.D.	N.D.	
04		1	N.D.		40		1	N.D.	
05		1	6		41		1	2	
06		1	3		42		1	1	
07		N.D.	2		43		1	2	
08		N.D.	2		44		N.D.	N.D.	
09		1	2		45		N.D.	N.D.	
10		1	N.D.		46		2	N.D.	
11		1	N.D.		47		1	N.D.	
12		N.D.	N.D.		48		n.d.	3	
13		2	3		49		2	N.D.	
14		1	N.D.		50		N.D.	N.D.	
15		1	N.D.		51		1	2	
16		1	N.D.		52		9	N.D.	
17		1	1		53		2	N.D.	
18		1	2		54		3	1	
19		2	N.D.		55		N.D.	2	
20		1	N.D.		56		1	1	
21		1	2		57		2	1	
22		N.D.	7		58		1	N.D.	
23		1	N.D.		59		1	N.D.	
24		N.D.	N.D.		60		1	N.D.	
25		1	N.D.		61		N.D.	N.D.	

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SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 LW #162		N.D.	N.D.		508 LW #198		1	N.D.	
63		1	N.D.		99		1	N.D.	
64		N.D.	N.D.		200		1	3	
65		N.D.	N.D.		01		1	1	
66		1	1		02		N.D.	N.D.	
67		3	N.D.		03		1	3	
68		2	4		04		1	5	
69		1	N.D.		05		N.D.	N.D.	
70		N.D.	N.D.		06		3	1	
71		2	N.D.		07		N.D.	N.D.	
72		1	N.D.		08		N.D.	3	
73		1	N.D.		09		N.D.	2	
74		N.D.	1		10		N.D.	2	
75		1	N.D.		11		1	3	
76		1	N.D.		12		1	2	
77		1	N.D.		13		1	N.D.	
78		1	N.D.		14		N.D.	2	
79		2	N.D.		15		N.D.	N.D.	
80		1	N.D.		16		N.D.	N.D.	
81		1	N.D.		17		N.D.	N.D.	
82		1	2		18		3	1	
83		2	1		19		N.D.	N.D.	
84		N.D.	1		20		N.D.	1	
85		N.D.	1		21		N.D.	N.D.	
86		1	1		22		N.D.	N.D.	
87		1	N.D.		23		N.D.	N.D.	
88		1	7		24		1	N.D.	
89		1	1		25		1	2	
90		1	N.D.		26		N.D.	1	
91		N.D.	2		27		1	N.D.	
92		1	N.D.		28		1	1	
93		N.D.	N.D.		29		N.D.	N.D.	
94		1	N.D.		30		1	N.D.	
95		3	N.D.		31		N.D.	N.D.	
96		1	1		32		N.D.	1	
97		2	N.D.		33		3	N.D.	

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Geochemical Lab Report

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SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.				
508 LW #234		N.D.	N.D.						
35		N.D.	N.D.						
36		1	3						
37		N.D.	N.D.						
38		2	1						
39		1	2						
40		1	1						
41		N.D.	N.D.						
42		1	N.D.						
43		N.D.	N.D.						
44		N.D.	N.D.						
45		2	N.D.						
46		1	2						
47		N.D.	N.D.						
48		1	1						
49		9	3						
50		N.D.	2						
51		N.D.	1						
52		3	N.D.						
53		2	N.D.						
54		2	1						
55		N.D.	N.D.						
56		1	1						
57		2	2						
58		N.D.	N.D.						
59		N.D.	1						
60		N.D.	N.D.						
61		N.D.	N.D.						
62		N.D.	2						
63		N.D.	N.D.						
64		2	N.D.						
65		1	2						
66		N.D.	1						
67		1	N.D.						
		N.D. Not Detected.							
		U Results to follow.							

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

RECEIVED JUL 28 1975

Geochemical Lab Report

Extraction: Cu, Ni.
Report No.: 447-5
Method: A.A.
From: Eldorado Nuclear Limited. Project: 508 (NE ALTA)
Fraction Used: As Received.
Date: July 25, 19 75

SAMPLE NO.		Cu ppb	Ni ppb		SAMPLE NO.		Cu ppb	Ni ppb	
508 LW - 268		1	N.D.		508 LW - 299		1	N.D.	
69		2	5		300		1	1	
70		1	N.D.		01		1	1	
71		2	N.D.		02		3	7	
72		2	2		03		2	7	
73		1	N.D.		04		2	3	
74		1	N.D.		05		3	2	
75		1	ND..		06		2	1	
76		2	N.D.		07		2	3	
77		2	N.D.		08		1	2	
78		1	2		09		1	1	
79		1	1		10		N.D.	1	
80		2	1		11		1	1	
81		1	1		12		1	N.D.	
82		1	N.D.		13		3	1	
83		N.D.	N.D.		14		2	2	
84		N.D.	1		15		3	2	
85		N.D.	N.D.		16		2	3	
86		N.D.	N.D.		17		2	3	
87		1	1		18		N.D.	N.D.	
88		2	2		19		1	2	
89		2	2		20		1	2	
90		1	1		21		1	N.D.	
91		N.D.	1		22		2	1	
92		N.D.	4		23		2	1	
93		1	1		24		1	N.D.	
94		N.D.	1		25		1	2	
95		1	1		26		1	1	
96		N.D.	N.D.		27		2	2	
97		1	N.D.		28		1	N.D.	
98		1	1		29		1	3	

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Geochemical Lab Report

Report No. 447-5

Page No. 2

SAMPLE NO.		Cu ppb	Ni ppb		SAMPLE NO.		Cu ppb	Ni ppb	
508 LW - 330		1	1		508 LW - 366		1	1	
31		2	2		67		1	1	
32		1	1		68		1	1	
33		1	3		69		2	5	
34		2	3		70		1	2	
35		1	2		71		1	3	
36		3	7		72		N.D.	2	
37		2	3		73		1	2	
38		5	2		74		1	2	
39		1	1		75		1	2	
40		1	2		76		1	3	
41		2	1		77		1	2	
42		3	5		78		1	3	
43		2	2		79		N.D.	2	
44		5	2		80		N.D.	3	
45		4	3		81		N.D.	3	
46		2	2		82		N.D.	1	
47		4	2		83		N.D.	1	
48		1	N.D.		84		4	1	
49		1	1		85		N.D.	N.D.	
50		N.D.	1		86		1	1	
51		1	3		87		1	1	
52		1	N.D.		88		1	1	
53		1	3		89		1	1	
54		2	5		90		1	2	
55		3	2		91		N.D.	1	
56		1	3		92		1	1	
57		N.D.	1		93		1	2	
58		N.D.	1		94		1	1	
59		1	2		95		N.D.	2	
60		1	1		96		2	2	
61		1	2		97		1	2	
62		1	1		98		1	2	
63		2	1		99		1	2	
64		2	2		400		N.D.	2	
65		2	1		01		N.D.	2	

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Geochemical Lab Report

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SAMPLE NO.		Cu ppb	Ni ppb		SAMPLE NO.		Cu ppb	Ni ppb	
508 LW - 402		N.D.	2		508 LW - 438		1	4	
03		N.D.	1		39		1	6	
04		2	2		40		1	3	
05		1	2		41		N.D.	2	
06		1	1		42		3	3	
07		1	1		43		2	3	
08		1	N.D.		44		1	2	
09		1	N.D.		45		2	3	
10		N.D.	N.D.		46		1	2	
11		1	1		47		1	2	
12		N.D.	N.D.		48		2	3	
13		1	N.D.		49		1	4	
14		4	3		50		1	3	
15		3	4		51		1	2	
16		1	N.D.		52		1	1	
17		5	2		53		1	3	
18		1	1		54		1	1	
19		2	N.D.		55		1	1	
20		2	1		56		N.D.	2	
21		2	1		57		1	2	
22		2	1		58		2	4	
23		3	1		59		2	3	
24		2	2		60		1	2	
25		3	3		61		1	2	
26		5	5		62		1	1	
27		1	1		63		1	2	
28		1	2		64		N.D.	2	
29		1	1		65		1	1	
30		1	1		66		1	2	
31		1	N.D.		67		1	2	
32		1	N.D.		68		1	6	
33		1	1		69		2	5	
34		1	N.D.		70		1	2	
35		2	2		71		2	3	
36		1	2		72		2	2	
37		5	2		73		1	2	

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Geochemical Lab Report

Report No. 447-5

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SAMPLE NO.		Cu ppb	Ni ppb	
508 LW - 474		1	4	
75		1	1	
76		1	2	
77		1	1	
78		2	6	
79		1	5	
80		N.D.	5	
81		N.D.	5	
82		2	2	
83		N.D.	2	
84		N.D.	2	
85		1	2	
86		2	3	
87		N.D.	5	
88		1	2	
89		1	4	
90		1	7	
91		1	6	
92		2	3	
93		1	3	
94		1	5	
95		1	3	
96		N.D.	3	
97		1	3	
98		N.D.	3	
99		1	4	
500		1	6	
01		2	7	
02		2	4	

U Results to follow

N.D. Not Detected.

SAMPLE NO.		Cu ppb	Ni ppb	
508 LW 503		4	7	
4		4	5	
5		2	2	
6		2	3	
7		1	2	
8		1	2	
9		1	1	
10		N.D.	2	
11		2	N.D.	
12		N.D.	7	
13		1	4	
14		N.D.	7	
15		1	4	
16		1	3	
17		2	2	
18		2	2	

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764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110 TELEX: 053-3548

JUL 30 1975

Geochemical Lab Report

Extraction U

Method F.T.

Fraction Used as received

Report No. 408-5

From Eldorado Nuclear Ltd.

Date July 28 19 75

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 28		0.06			508 LW 59		0.07		
29		0.3			60		0.02		
30		0.1			61		0.05		
31		0.1			62		0.03		
32		0.02			63		0.006		
33		0.03			64		N.D.		
34		0.05			65		0.02		
35		0.08			66		N.D.		
36		0.05			67		0.02		
37		0.03			68		0.006		
38		0.04			69		0.04		
39		0.04			70		0.03		
40		0.009			71		0.02		
41		0.02			72		0.04		
42		0.02			73		0.1		
43		0.02			74		0.04		
44		0.03			75		0.08		
45		0.06			76		0.01		
46		0.04			77		0.002		
47		0.03			78		N.D.		
48		0.03			79		0.03		
49		0.02			80		0.13		
50		0.003			81		0.04		
51		0.002			82		0.12		
52		0.02			83		0.07		
53		0.01			84		0.11		
54		0.02			85		0.11		
55		0.006			86		0.05		
56		N.D.			87		0.13		
57		N.D.			88		0.03		
58		0.05			89		0.01		

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Geochemical Lab Report

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Page No. 2

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 90		0.06			508 LW 126		0.05		
91		0.06			127		0.05		
92		0.03			128		0.07		
93		0.12			129		0.02		
94		0.10			130		0.06		
95		0.04			131		0.03		
96		0.07			132		0.05		
97		0.15			133		0.05		
98		0.002			134		0.02		
99		0.02			135		0.17		
100		0.03			136		0.05		
101		0.08			137		0.08		
102		0.03			138		0.005		
103		0.07			139		0.03		
104		0.08			140		0.03		
105		0.05			141		0.02		
106		0.05			142		0.04		
107		0.05			143		0.10		
108		0.02			144		0.03		
109		0.03			145		0.04		
110		0.05			146		0.002		
111		0.06			147		0.002		
112		0.11			148		0.009		
113		N.D.			149		N.D.		
114		N.D.			150		0.03		
115		0.02			151		0.06		
116		0.05			152		0.03		
117		0.38			153		0.04		
118		0.02			154		0.04		
119		0.10			155		0.07		
120		0.11			156		0.05		
121		0.03			157		N.D.		
122		0.07			158		0.26		
123		0.02			159		0.07		
124		0.02			160		0.10		
125		0.01			161		0.11		

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Geochemical Lab Report

Report No. 408-5

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 162		0.02			508 LW 198		0.05		
163		0.03			199		0.05		
164		N.D.			200		0.07		
165		N.D.			201		0.06		
166		0.02			202		0.06		
167		N.D.			203		0.10		
168		0.07			204		0.10		
169		0.06			205		0.06		
170		0.07			206		0.03		
171		0.02			207		0.02		
172		N.D.			208		0.09		
173		N.D.			209		0.09		
174		0.004			210		0.06		
175		N.D.			211		0.07		
176		N.D.			212		0.04		
177		N.D.			213		0.001		
178		0.002			214		0.02		
179		0.05			215		0.006		
180		0.02			216		0.06		
181 818		0.05			217		0.02		
182		0.06			218		N.D.		
183		0.07			219		N.D.		
184		0.04			220		0.006		
185		0.06			221		0.11		
186		0.06			222		0.18		
187		0.02			223		0.03		
188		0.02			224		0.05		
189		0.02			225		0.06		
190		0.03			226		0.08		
191		0.03			227		0.13		
192		0.06			228		0.08		
193		0.09			229		0.11		
194		0.07			230		0.01		
195		0.14			231		N.D.		
196		0.07			232		0.05		
197		0.06			233		0.07		

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Geochemical Lab Report

Report No. 408-5

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SAMPLE NO.		U ppb			SAMPLE NO.				
508 LW 234		0.02							
235		0.05							
236		N.D.							
237		0.06							
238		0.07							
239		0.04							
240		0.10							
241		0.03							
242		0.03							
243		0.03							
244		0.23							
245		0.05							
246		0.04							
247		0.04							
248		0.07							
249		0.19							
250		0.07							
251		0.07							
252		0.004							
253		0.02							
254		0.01							
255		0.02							
256		0.05							
257		0.04							
258		0.12							
259		0.06							
260		0.05							
261		0.05							
262		0.03							
263		0.03							
264		0.11							
265		0.05							
266		0.08							
267		0.05							

Xtra Copy

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction U

Method F.T.

Fraction Used

Report No. 447-5

From Eldorado Nuclear Ltd. Project: 508 (NE Alta)

Date August 7, 1975 19

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 268		0.06			508 LW 299		0.005		
69		0.01			300		N.D.		
70		0.01			01		0.01		
71		0.03			02		0.02		
72		0.02			Dummy 03		0.93	✓	
73		0.01			04		0.01		
74		0.005			05		0.005		
75		0.01			06		0.01		
76		0.01			07		0.004		
77		0.03			08		N.D.		
78		0.02			09		0.01		
79		N.D.			10		0.01		
80		0.002			11		0.002		
81		0.002			12		0.007		
82		N.D.			13		0.01		
83		0.05			14		0.008		
84		0.02			15		0.04		
85		0.05			16		0.02		
86		0.02			17		0.009		
87		0.03			18		0.004		
88		0.02			19		N.D.		
89		0.009			20		0.002		
90		0.05			21		0.007		
91		N.D.			22		0.02		
92		0.002			23		0.03		
93		0.002			24		0.004		
94		0.01			25		0.002		
95		0.005			26		0.01		
96		0.02			27		N.D.		
97		0.02			28		0.03		
98		0.01			29		0.01		

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WMN

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Xtra Copy

Report No. 447-5

Page No. 2

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 330		0.005			508 LW 366		0.007		
31		0.02			67		N.D.		
32		0.04			68		N.D.		
33		0.03			69		0.01		
34		0.04			70		0.04		
35		0.009			71		0.02		
36		N.D.			72		0.01		
37		0.005			73		0.11		
38		N.D.			74		0.04		
39		0.005			75		0.04		
40		0.004			76		0.03		
41		0.005			77		0.10		
42		0.007			78		0.12		
43		0.01			79		0.04		
44		0.02			80		0.01		
45		0.01			81		0.005		
46		0.005			82		0.01		
47		0.01			83		0.04		
48		N.D.			84		0.04		
49		N.D.			85		N.D.		
50		0.002			86		0.03		
51		N.D.			87		0.05		
52		0.004			88		0.09		
53		N.D.			89		0.04		
54		0.04			90		0.01		
55		0.009			91		0.04		
56		0.03			92		0.02		
57		N.D.			93		0.02		
58		0.04			94		0.03		
59		0.02			95		N.D.		
60		0.02			96		0.05		
61		0.04			97		0.007		
62		0.01			98		0.009		
63		0.03			99		0.01		
64		0.04			400		0.01		
65		0.02			01		N.D.		

BONDAR-CLEGG & COMPANY LTD.

Xtra Copy

Geochemical Lab Report

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SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 402		0.002			508 LW 438		0.02		
03		0.01			39		0.02		
04		0.02			40		0.02		
05		0.05			41		0.05		
06		0.09			42		N.D.		
07		N.D.			43		0.004		
08		0.02			44		0.01		
09		0.02			45		0.002		
10		0.02			46		0.01		
11		0.02			47		N.D.		
12		0.04			48		0.02		
13		0.02			49		0.005		
14		0.02			50		0.005		
15		N.D.			51		N.D.		
16		0.04			52		N.D.		
17		0.005			53		0.004		
18		0.009			54		0.01		
19		0.01			55		N.D.		
20		0.02			56		0.01		
21		0.08			57		0.01		
22		0.009			58		0.01		
23		0.04			59		0.09		
24		0.02			60		0.007		
25		0.02			61		0.04		
26		0.02			62		0.002		
27		0.02			63		0.06		
28		0.01			64		0.03		
29		0.02			65		0.01		
30		0.04			66		0.004		
31		0.07			67		0.009		
32		0.01			68		N.D.		
33		0.03			69		0.02		
34		0.03			70		0.02		
35		0.01			71		0.01		
36		0.02			72		0.01		
37		0.002			73		0.11		

Initial

BONDAR-CLEGG & COMPANY LTD.

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NO.		U ppb		
I 474		0.01		
75		0.02		
76		0.01		
77		0.007		
78		0.06		
79		N.D.		
80		N.D.		
81		0.02		
82		0.009		
83		0.005		
84		N.D.		
85		0.01		
86		>3.6	Precipitate	
87		0.03		
88		0.009		
89		N.D.		
90		0.002		
91		N.D.		
92		0.01		
93		0.02		
94		0.06		
95		0.004		
96		N.D.		
97		0.004		
98		0.002		
99		0.01		
500		0.03		
01		0.02		
02		0.02		

N.D. - Not Detected.

SAMPLE NO.		U ppb		
508 LW 503		N.D.		
04		0.005		
05		0.009		
06		0.02		
07		0.01		
08		0.03		
09		0.05		
10		0.05		
11		0.03		
12		0.02		
13		0.02		
14		0.01		
15		0.03		
16		0.02		
17		N.D.		
18		0.008		

BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: Cu, Ni
Report No.: 613-5
Method: A.A.
From: Eldorado Nuclear Ltd.
Fraction Used:
Date: August 20 19 75

SAMPLE NO.		Cu ppb		Ni ppb	SAMPLE NO.		Cu ppb		Ni ppb
508LW519		1		2	508LW550		N.D.		3
20		N.D.		1	51		1		1
21		1		1	52		N.D.		N.D.
22		1		1	53		1		N.D.
23		1		3	54		1		2
24		10		2	55		1		1
25		8		2	56		1		N.D.
26		1		2	57		N.D.		N.D.
27		1		N.D.	58		N.D.		N.D.
28		1		2	59		N.D.		1
29		N.D.		1	60		1		1
30		1		2	61		1		2
31		1		3	62		1		2
32		1		3	63		1		2
33		N.D.		2	64		1		2
34		2		1	65		N.D.		1
35		2		2	66		1		2
36		2		2	67		1		2
37		N.D.		2	68		N.D.		2
38		1		N.D.	69		1		1
39		1		N.D.	70		1		2
40		1		2	71		1		1
41		1		N.D.	72		1		1
42		N.D.		2	73		N.D.		1
43		2		2	74		1		2
44		1		N.D.	75		1		N.D.
45		2		N.D.	76		1		1
46		4		3	77		N.D.		N.D.
47		1		3	78		2		7
48		1		1	79		2		3
49		N.D.		1	80		1		2

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 613-5

SAMPLE NO.	Cu ppb	Ni ppb	SAMPLE NO.	Cu ppb	Ni ppb
508LW581	N.D.	N.D.	508LW617	1	2
82	1	2	18	N.D.	5
83	1	3	19	2	2
84	2	1	20	2	2
85	1	2	21	1	N.D.
86	2	1	22	1	1
87	3	2	23	N.D.	3
88	N.D.	4	24	1	4
89	1	3	25	2	N.D.
90	1	4	26	1	3
91	2	2	27	1	8
92	1	5	28	1	4
93	2	5	29	1	1
94	1	6	30	N.D.	3
95	1	2	31	1	1
96	N.D.	3	32	N.D.	3
97	3	2	33	1	2
98	1	2	34	2	3
99	1	1	35	N.D.	3
600	1	2	36	1	5
01	N.D.	1	37	1	3
02	3	1	38	1	5
03	1	1	39	1	3
04	1	1	40	1	4
05	1	N.D.	41	N.D.	3
06	1	N.D.	42	1	4
07	1	1	43	N.D.	3
08	1	1	44	N.D.	N.D.
09	2	1	45	1	1
10	1	2	46	N.D.	2
11	N.D.	2	47	1	1
12	N.D.	3	48	1	3
13	2	1	49	1	3
14	1	1	50	1	5
15	1	4	51	1	5
16	N.D.	2	52	N.D.	4

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

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SAMPLE NO.		Cu ppb		Ni ppb	SAMPLE NO.		Cu ppb		Ni ppb
508LW653		1		5	508LW689		1		2
54		N.D.		2	90		1		2
55		1		3	91		1		1
56		N.D.		N.D.	92		1		1
57		1		2	93		1		1
58		1		3	94		1		2
59		1		1	95		N.D.		1
60		1		2	96		N.D.		2
61		N.D.		2	97		1		3
62		1		2	98		N.D.		4
63		1		2	99		1		1
64		1		N.D.	700		N.D.		2
65		1		1	01		1		1
66		1		4	02		N.D.		3
67		N.D.		2	03		N.D.		2
68		2		3	04		1		2
69		1		2	05		N.D.		1
70		2		3	06		N.D.		1
71		N.D.		3	07		4		3
72		N.D.		2	08		1		1
73		1		3	09		N.D.		N.D.
74		1		4	10		1		2
75		N.D.		4	11		N.D.		3
76		N.D.		1	12		1		3
77		2		2	13		1		3
78		N.D.		2	14		1		1
79		N.D.		2	15		1		2
80		1		3	16		1		N.D.
81		1		3	17		1		2
82		1		4	18		1		3
83		N.D.		3	19		1		1
84		1		2	20		1		1
85		1		2	21		1		1
86		1		4	22		1		2
87		1		N.D.	23		N.D.		2
88		N.D.		N.D.	24		1		2

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 613-5

SAMPLE NO.		Cu ppb		Ni ppb	SAMPLE NO.				
508LW725		1		3					
26		1		2					
27		1		2					
28		1		2					
29		1		1					
30		1		1					
31		1		1					
32		N.D.		2					
33		1		2					
34		N.D.		1					
35		1		1					
36		1		3					
37		N.D.		3					
38		2		1					
39		1		3					
40		1		5					
41		N.D.		2					
42		1		4					
43		N.D.		3					
44		N.D.		2					
45		1		4					
46		1		2					
47		N.D.		2					
48		1		1					
49		1		1					
50		N.D.		1					

Note: U results to follow
N.D. - Not Detected

BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: U
Method: F.T.
Fraction Used:

Report No.: 613-5
From: Eldorado Nuclear Ltd.
Date: August 25 19 75

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 519		0.02			508 LW 550		0.03		
20		0.02			51		0.009		
21		0.02			52		N.D.		
22		0.007			53		0.02		
23		0.03			54		0.02		
24		0.03			55		N.D .		
25		0.04			56		0.007		
26		0.02			57		0.03		
27		0.04			58		N.D.		
28		0.05			59		N.D.		
29		0.60			60		0.01		
30		0.04			61		0.02		
31		0.04			62		0.002		
32		0.05			63		0.02		
33		0.04			64		0.03		
34		0.01			65		0.007		
35		0.02			66		N.D.		
36		0.08			67		0.004		
37		0.005			68		0.009		
38		0.03			69		0.005		
39		0.02			70		N.D.		
40		0.02			71		N.D.		
41		0.01			72		N.D.		
42		N.D.			73		0.002		
43		0.009			74		0.009		
544		0.09			75		N.D.		
45		0.02			76		0.06		
46		0.11			77		N.D.		
47		0.01			78		N.D.		
48		0.02			79		N.D.		
49		0.002			80		0.007		

DM

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 613-5

SAMPLE NO.		U ppb			SAMPLE NO.		U ppb		
508 LW 581		N.D.			508 LW 617		N.D.		
82		0.007			18		0.02		
83		0.02			19		0.002		
84		0.02			20		0.01		
85		0.03			21		N.D.		
86		0.05			22		0.01		
87		0.009			23		0.02		
88		0.01			24		0.06		
89		N.D.			25		0.02		
90		0.004			26		0.002		
91		N.D.			27		0.02		
92		0.01			28		0.005		
93		0.002			29		0.009		
595		N.D.			30		N.D.		
595		0.004	Duplicate Sample Numbers		31		0.04		
96		0.02			32		0.004		
97		0.02			33		0.007		
98		0.004			34		0.03		
99		0.05			35		0.01		
600		0.005			36		0.06		
01		0.02			37		0.07		
02		0.03			38		0.04		
03		0.03			39		0.02		
04		0.04			40		N.D.		
05		0.02			41		N.D.		
06		N.D.			42		N.D.		
07		N.D.			43		0.09		
08		0.01			44		N.D.		
09		0.08			45		N.D.		
10		0.07			46		N.D.		
11		0.02			47		0.009		
12		0.002			48		0.004		
13		N.D.			49		N.D.		
14		0.007			50		0.007		
15		0.25			51		0.01		
16		0.03			52		0.03		

PH

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

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SAMPLE NO.	U ppb	SAMPLE NO.
508 LW 725	0.02	
26	0.01	
27	0.01	
28	0.01	
29	N.D.	
30	0.04	
31	0.007	
32	0.01	
33	0.01	
34	0.06	
35	0.02	
36	0.004	
37	0.06	
38	0.02	
39	0.003	
40	0.005	
41	0.04	
42	0.03	
43	0.05	
44	0.02	
45	0.04	
46	0.01	
47	0.01	
48	0.09	
49	0.01	
750	0.02	

NOTE: N.D. - Not Detected.

END of 508 sampling 1975

PH

508

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

SOILS

Proj. 508/1975

Extraction: Cu, Ni, - HNO_3-HCl

Method: A.A.

Fraction Used:

Report No. 616-5

From Eldorado Nuclear Ltd.

Date August 25 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 A 1		4	6		508 A 33		3	2	
2		4	4		34		2	1	
4		4	3		35		3	2	
5		3	3		36		4	3	
6		3	2		37		4	2	
7		4	4		38		5	3	
8		2	2		39		5	3	
9		2	2		40		2	2	
10		2	2		41		4	3	
11		2	2		42		3	2	
12		3	3		43		2	1	
13		2	3		44		5	3	
14		2	2		45		5	4	
15		2	2		46		3	4	
16		6	5		47		3	3	
17		2	2		48		8	5	
18		3	2		49		4	4	
19		5	4		50		5	6	
20		2	2		51		6	5	
21		3	2		52		3	2	
22		2	2		53		2	2	
23		2	2		54		3	3	
24		2	2		55		6	3	
25		N.D.	2		56		3	2	
26		3	2		57		6	4	
27		3	2		58		2	2	
28		4	4		59		6	4	
29		4	2		60		7	4	
30		7	6		61		3	3	
31		8	4		62		2	2	
32		3	2		63		4	3	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

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SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 A 64		8	4		508 A 100		5	2	
65		2	2		01		4	2	
66		7	3		02		3	2	
67		2	2		03		7	4	
68		6	4		04		8	5	
69		3	4		05		5	3	
70		4	2		06		4	2	
71		5	4		07		5	3	
72		6	5		08		2	4	
73		10	6		09		5	3	
74		4	4		10		6	4	
75		5	5		11		5	4	
76		1	2		12		4	3	
77		8	5		13		6	4	
78		3	2		14		5	52	
79		8	4		15		7	7	
80		4	2		16		4	3	
81		6	3		17		3	2	
82		9	8		18		10	6	
83		5	2		19		5	4	
84		6	3		20		3	3	
85		4	2		21		2	2	
86		6	4		22		9	5	
87		9	13		23		6	3	
88		6	4		24		4	4	
89		5	3		25		3	4	
90		7	4		26		4	2	
91		7	5		27		3	1	
92		5	4		28		3	2	
93		4	2		29		5	3	
94		5	4		30		7	2	
95		6	4		31		7	4	
96		5	4		32		6	4	
97		4	3		33		3	3	
98		5	3		34		3	1	
99		9	6		35		4	3	

VL K

2

PH

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 616-5

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 A 136		4	2		508 A 172		3	8	
37		6	14		73		6	6	
38		6	12		74		5	12	
39		10	8		75		4	7	
40		4	10		76		8	7	
41		7	12		77		5	8	
42		5	8		78		3	8	
43		7	14		79		3	7	
44		8	17		80		5	8	
45		8	8						
46		9	6						
47		11	7						
48		6	5		NOTE:	N.D. - Not Detected			
49		3	4			U results to follow.			
50		9	9						
51		5	22						
52		6	10						
53		6	11						
54		6	9						
55		10	7						
56		6	8						
57		3	3						
58		9	8						
59		5	8						
60		6	7						
61		8	6						
62		5	10						
63		8	8						
64		4	8						
65		5	6						
66		5	6						
67		8	10						
68		6	7						
69		8	8						
70		7	6						
71		7	20						

BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Ao Soil G

Extraction: Cu, Ni HNO_3 - HCl
Method: A.A.
Fraction Used:

Report No. 645-5
From: Eldorado Nuclear Limited
Project No. 508
Date: August 29 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508A - 181		6	9		508A - 212		5	3	
82		4	3		13		4	3	
83		6	4		14		4	3	
84		7	4		15		7	4	
85		6	7		16		5	4	
86		4	4		17		4	3	
87		4	4		18		7	4	
88		7	10		19		6	3	
89		7	10		20		6	3	
90		5	7		21		9	4	
91		8	10		22		7	3	
92		8	5		23		7	3	
93		5	4		24		4	3	
94		8	5		25		7	7	
95		7	5		26		5	3	
96		9	4		27		2	2	
97		6	4		28		8	4	
98		5	5		29		3	2	
99		4	5		30		9	6	
200		7	4		31		4	3	
01		4	5		32		4	3	
02		5	4		33		3	3	
03		5	4		34		6	4	
04		6	4		35		4	3	
05		5	4		36		2	2	
06		5	3		37		3	3	
07		8	5		38		2	2	
08		5	3		39		1	2	
09		5	4		40		7	4	
10		8	4		41		2	2	
11		5	4		42		2	2	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 645-5 Page No. 2

SAMPLE NO.	Cu ppm	Ni ppm	SAMPLE NO.	Cu ppm	Ni ppm
508A - 243	4	2	508A - 279	4	3
44	5	4	80	6	3
45	11	6	81	5	3
46	8	6	82	5	2
47	5	2	83	5	3
48	4	2	84	4	2
49	8	5	85	4	3
50	5	3	86	5	2
51	4	2	87	7	3
52	3	2	88	3	2
53	4	2	89	3	2
54	6	3	90	2	1
55	2	2	91	2	2
56	5	3	92	5	2
57	6	4	93	5	3
58	5	3	94	6	2
59	4	2	95	6	5
60	6	3	96	6	3
61	2	2	97	6	4
62	9	5	98	5	3
63	6	4	99	8	4
64	3	2	300	7	4
65	2	2	01	6	3
66	6	2	02	8	4
67	7	5	03	8	6
68	3	2	04	8	5
69	2	3	05	3	3
70	1	2	06	9	5
71	9	3	07	4	3
72	3	1	08	3	2
73	7	2	09	5	2
74	7	3	10	6	3
75	5	2	11	3	2
76	7	2	12	23	2
77	8	3	13	10	1
78	7	2	14	8	4

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 645-5

SAMPLE NO.	Cu ppm	Ni ppm	SAMPLE NO.	Cu ppm	Ni ppm
508A - 315	7	4	508A - 1201	13	3
16	6	3	02	6	3
17	20	2	03	6	4
508A - 1168	1	N.D.	04	5	3
69	6	3	05	10	2
70	2	1	06	7	3
71	1	1	07	8	2
72	1	1	08	5	2
73	2	2	09	8	4
74	4	2	10	5	3
75	9	3	11	4	1
76	6	3	12	1	1
77	8	9	13	10	2
78	5	6	14	8	3
79	1	7	15	6	3
80	8	4	16	19	5
81	10	3	17	8	5
82	9	4	18	9	5
83	9	4	19	11	6
84	6	4	20	6	3
85	7	4	21	8	3
86	5	4	22	8	4
87	6	3	23	191	2
88	6	4	24	55	6
89	5	3	25	6	2
90	6	4	26	7	3
91	6	3	27	4	2
92	4	3	28	3	1
93	4	3	29	10	5
94	4	3	30	1	1
95	8	2	31	3	2
96	5	2	32	5	4
97	1	2	33	6	2
98	7	5	34	10	4
99	4	3	35	6	2
1200	4	3	36	3	2

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 645-5

Page No. 4

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.				
508A - 1237		7	3						
38		4	2						
39		6	3						
40		4	2						
41		5	2						
42		3	3						
43		N.D.	N.D.						
44		4	2						
45		2	1						
46		2	2						
47		11	6						
48		3	2						
49		5	3						
50		5	2						
51		6	3						
52		6	3						
53		4	2						
54		6	3						
55		2	2						
56		8	8						
57		3	2						
58		4	2						
59		2	2						
60		7	3						
61		5	3						
62		4	2						
63		3	2						
64		4	2						
65		2	3						
66		5	5						
67		6	4						
68		2	2						
69		5	3						
70		2	2						
		Note: N.D. - Not Detected U results to follow							

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: Cu, Ni HNO_3 - HCl

Method: A.A.

Fraction Used:

Report No. 748-5

From: Eldorado Nuclear Ltd.
Project No. 508

Date: September 11 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 - A - 318		7	5		508 - A - 349		3	3	
19		13	8		50		6	5	
20		3	2		51		4	3	
21		4	3		52		3	4	
22		6	4		53		5	4	
23		7	5		54		9	5	[redacted]
24		5	4		55		7	4	
25		8	6		56		5	4	
26		7	4		57		3	6	
27		3	2		58		10	3	
28		4	4		59		4	5	
29		7	5		60		5	4	
30		6	6		61		8	9	
31		3	3		62		6	7	
32		2	2		63		5	7	
33		4	4		64		6	7	
34		7	6		65		6	6	
35		6	5		66		6	4	
36		4	3		67		4	5	
37		4	3		68		6	5	
38		10	4		69		5	4	
39		7	3		70		2	2	
40		8	7		71		5	5	
41		5	4		72		6	5	
42		3	3		73		4	4	
43		2	2		74		7	5	
44		10	4		75		6	5	
45		4	3		76		8	6	
46		4	4		77		5	4	
47		5	4		78		6	6	
48		8	6		79		6	6	

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 748-5

Page No. 2

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508 - A - 380		4	5		508 - A - 1306		5	4	
508 - A - 1271		6	5		07		7	5	
72		5	4		08		1	2	
73		3	3		09		8	5	
74		8	7		10		7	5	
75		8	5		11		4	4	
76		5	4		12		7	5	
77		4	2		13		6	4	
78		4	4		14		6	6	
79		3	2		15		9	5	
80		6	4		16		4	4	
81		5	5		17		5	4	
82		7	4		18		4	4	
83		7	3		19		4	4	
84		4	3		20		5	4	
85		6	5		21		2	2	
86		5	3		22		8	6	
87		4	2		23		4	4	
88		4	4		24		2	2	
89		3	3		25		9	6	
90		3	2						
91		6	3		Note: U results to follow				
92		5	3				20		
93		5	3						
94		6	4						
95		4	3						
96		4	3						
97		6	4						
98		5	5						
99		11	9						
1300		4	4						
01		5	4						
02		6	4						
03		10	5						
04		4	4						
05		3	4						

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BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

A. Sorg

Extraction: Cu, Ni HNO_3 - HCl

Report No. 617-5

Method: A.A.

From: Eldorado Nuclear Ltd.

Fraction Used:

Date: August 19 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508-A 1001		6	22		1032		5	6	
02		10	38		33		5	14	
03		14	31		34		9	12	
04		6	32		35		8	5	
05		12	45		36		6	10	
06		13	72		37		3	6	
07		12	47		38		5	12	
08		6	19		39		4	7	
09		5	20		40		4	7	
10		5	19		41		4	7	
11		6	29		42		4	6	
12		6	35		43		6	14	
13		5	26		44		6	8	
14		7	19		45		3	5	
15		5	10		46		4	5	
16		5	9		47		3	7	
17		7	11		48		5	5	
18		4	17		49		1	5	
19		6	16		50		4	7	
20		6	8		51		6	8	
21		3	8		52		5	14	
22		8	17		53		10	7	
23		2	9		54		7	10	
24		5	3		55		5	11	
25		1	4		56		8	14	
26		14	6		57		4	8	
27		4	7		58		4	8	
28		2	5		59		6	18	
29		5	7		60		11	12	
30		4	12		61		3	2	
31		1	N.D.		62		3	3	

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 617-5

SAMPLE NO.	Cu ppm	Ni ppm	SAMPLE NO.	Cu ppm	Ni ppm
1063	6	6	1099	2	4
64	9	8	1100	1	6
65	5	11	01	3	6
66	6	13	02	4	5
67	8	10	03	3	3
68	6	24	04	1	2
69	5	9	05	3	3
70	6	7	06	4	6
71	3	4	07	2	2
72	6	3	08	6	3
73	4	4	09	5	6
74	7	5	10	3	3
75	4	4	11	2	6
76	5	7	12	4	6
77	3	6	13	7	10
78	3	4	14	3	6
79	3	4	15	4	4
80	4	6	16	2	3
81	3	5	17	6	7
82	4	6	18	5	6
83	4	12	19	4	4
84	9	8	20	4	4
85	6	12	21	2	5
86	5	6	22	2	3
87	4	4	23	1	2
88	5	4	24	4	8
89	4	2	25	4	5
90	6	3	26	7	8
91	6	6	27	6	6
92	2	3	28	3	5
93	4	5	29	5	6
94	5	4	30	7	8
95	N.D.	3	31	N.D.	3
96	12	9	32	2	2
97	8	6	33	5	4
98	1	3	34	6	5

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 617-5 Page No. 3

SAMPLE NO.	Cu ppm	Ni ppm
1135	3	3
36	11	8
37	6	6
38	4	4
39	4	6
40	4	4
41	2	4
42	5	12
43	2	4
44	4	3
45	7	5
46	8	8
47	5	4
48	6	4
49	4	6
50	4	4
51	N.D.	1
52	1	3
53	2	4
54	1	2
55	6	5
56	6	4
57	2	5
58	5	7
59	4	8
60	2	5
61	6	13
62	5	4
63	2	1
64	5	4
65	5	5
66	4	3
67	4	6

Note: N.D. - Not Detected
U results to follow

508 Otugo.

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

SEP 16 1975

Geochemical Lab Report

Soils A.

Extraction Cu, Ni HNO_3 - HCl

Report No. 772-5

Method A.A.

From Eldorado Nuclear Ltd.

Fraction Used

Date September 12, 1975 19

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508-A-381		13	6		508-A-412		7	4	
82		6	6		13		4	3	
83		5	4		14		3	2	
84		6	4		15		3	3	
85		3	2		16		3	3	
86		9	5		17		4	2	
87		2	2		18		5	2	
88		8	4		19		6	4	
89		5	4		20		5	6	
90		6	4		21		4	4	
91		7	4		22		4	3	
92		4	3		23		1	N.D.	
93		6	5		24		4	2	
94		3	2		25		5	4	
95		6	3		26		4	4	
96		5	3		27		4	3	
97		6	3		28		4	3	
98		8	4		29		4	3	
99		4	2		30		6	5	
400		5	3		31		6	4	
01		5	4		32		5	3	
02		2	3		33		6	5	
03		4	2		34		5	4	
04		6	3		35		7	5	
05		3	3		36		4	3	
06		3	2		37		6	6	
07		4	4		38		6	8	
08		5	4		39		6	6	
09		5	2		40		4	3	
10		6	4		41		7	7	
11		4	5		42		6	4	

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 772-5

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SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508-A-443		2	2		508-A-1340		4	2	
44		2	3		41		12	7	
45		3	4		42		3	2	
46		2	2		43		1	1	
47		5	5		44		5	3	
48		2	2		45		3	2	
49		4	4		46		5	4	
50		6	4		47		3	2	
51		3	4		48		5	4	
52		5	5		49		3	3	
53		8	6		50		5	4	
54		1	1		51		5	5	
55		1	1		52		3	3	
56		1	2		53		4	4	
57		2	2		54		6	6	
58		6	6		55		2	2	
59		8	5		56		3	3	
60		6	6		57		4	2	
61		4	4		58		5	2	
62		6	3		59		2	2	
63		4	5		60		3	3	
64		3	2		61		7	4	
508-A-1326		10	6		62		6	4	
27		4	3		63		4	6	
28		2	1		64		1	1	
29		6	4		65		5	5	
30		4	3		66		2	1	
31		3	1		67		5	5	
32		2	1		68		1	1	
33		2	1		69		4	3	
34		6	2		70		2	2	
35		2	2		71		2	2	
36		N.D.	1		72		4	4	
37		4	3		73		3	3	
38		4	2		74		5	6	
39		6	2		75		1	2	

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 772-5

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SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.				
508-A-1376		3	4						
77		1	1						
78		1	1						
79		4	4						
80		6	4						
81		4	3						
82		3	1						
83		2	1						

Note: N.D. - Not Detected
U results to follow

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BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

SEP 19 1975

Geochemical Lab Report

Extraction: Cu, Ni HNO_3 - HCl
Method: A.A.
Fraction Used:

Report No. 832-5
From: Eldorado Nuclear Ltd. Project No. 508
Date: September 17 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508A - 465		49	8		508A - 496		5	3	
66		6	3		97		5	4	
67		10	6		98		4	6	
68		6	3		99		6	5	
69		6	6		500		6	6	
70		6	8		01		4	4	
71		7	10		02		3	2	
72		11	5		03		8	10	
73		6	8		04		12	6	
74		4	4		05		8	8	
75		6	5		06		6	4	
76		4	4		07		3	2	
77		3	3		08		4	8	
78		8	7		09		6	7	
79		3	4		10		5	5	
80		5	7		11		7	10	
81		4	6		12		6	6	
82		4	5		13		7	12	
83		3	4		14		5	6	
84		4	6		15		2	3	
85		3	4		16		6	8	
86		3	4		17		9	10	
87		4	5		18		4	6	
88		10	12		19		5	6	
89		4	5		20		8	7	
90		7	8		21		8	6	
91		4	7		22		7	7	
92		10	11		23		6	11	
93		6	7		24		6	4	
94		7	5		25		8	9	
95		4	5		26		9	9	

PM

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 832-5

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508A - 527		7	8		508A - 563		5	4	
28		3	5		64		4	4	
29		6	5		65		6	5	
30		5	5		66		3	4	
31		6	5		67		5	3	
32		7	5		68		4	4	
33		2	3		69		6	6	
34		4	4		70		3	5	
35		6	8		71		5	8	
36		14	17		72		5	6	
37		3	4		73		5	8	
38		6	4		74		7	7	
39		4	8		75		6	4	
40		8	5		76		6	5	
41		7	4		77		3	4	
42		9	6		[redacted] 78		3	6	
43		4	4		508A - 1384		2	2	
44		5	5		85		7	7	
45		6	6		86		3	4	
46		6	4		87		3	3	
47		6	4		88		4	5	
48		3	3		89		4	4	
49		3	2		90		8	5	
50		6	6		91		6	4	
51		5	4		92		6	4	
52		5	6		93		5	5	
53		8	7		94		6	5	
54		6	5		95		14	12	
55		2	1		96		5	4	
56		4	2		97		5	4	
57		4	5		98		4	4	
58		4	3		99		7	6	
59		4	3		1400		9	6	
60		5	6		01		6	4	
61		6	4		02		7	5	
62		7	4		03		5	3	

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PH

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 832-5

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SAMPLE NO.		Cu ppm	Ni ppm	
508A - 1404		5	3	
05		6	9	
06		6	11	
07		4	6	
08		4	5	
09		5	3	
10		5	3	
11		5	3	
12		4	2	
13		5	4	
14		2	2	
15		4	4	
16		5	8	
17		1	2	
18		4	4	
19		4	4	
20		6	4	
21		5	4	
22		5	4	
23		5	12	
24		8	6	
25		4	3	
26		8	8	
27		3	4	
28		4	8	
29		4	8	
30		4	4	
31		7	7	
32		6	6	
33		11	5	

5

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Soils (A₀)

Extraction U HNO_3 Report No. 616-5

Method Fluorimetric From Eldorado Nuclear Limited

Fraction Used Date September 2 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508 A: 1		N.D.			508 A: 33		0.4		
#3-NS 2		N.D.			34		0.1		
4		0.2			35		N.D.		
5		0.2			36		0.1		
6		0.2			37		0.1		
7		0.2			38		0.1		
8		N.D.			39		N.D.		
9		0.2			40		N.D.		
10		N.D.			41		N.D.		
11		0.1			42		N.D.		
12		0.2			43		N.D.		
13		0.1			44		N.D.		
14		0.2			45		0.5		
15		N.D.			46		0.1		
16		0.6			47		N.D.		
17		0.2			48		0.1		
18		0.2			49		0.2		
19		0.1			50		0.3		
20		N.D.			51		N.D.		
21		N.D.			52		N.D.		
22		0.2			53		0.3		
23		N.D.			54		0.3		
24		N.D.			55		0.1		
25		0.1			56		0.1		
26		N.D.			57		N.D.		
27		0.5			58		N.D.		
28		N.D.			59		N.D.		
29		0.2			60		N.D.		
30		N.D.			61		N.D.		
31		N.D.			62		0.1		
32		0.2			63		0.2		

✓✓ (graph) ✓✓

0-18

1.

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 616-5

Page No. 2

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508 A: 64		N.D.			508 A: 100		0.2		
65		N.D.			01		0.2		
66		0.1			02		N.D.		
67		0.2			03		N.D.		
68		N.D.			04		0.2		
69		N.D.			05		N.D.		
70		0.3			06		0.2		
71		0.1			07		0.3		
72		0.6			08		0.2		
73		0.1			09		N.D.		
74		N.D.			10		0.2		
75		N.D.			11		0.3		
76		N.D.			12		N.D.		
77		N.D.			13		N.D.		
78		N.D.			14		0.3		
79		0.1			15		N.D.		
80		N.D.			16		0.2		
81		0.1			17		0.4		
82		N.D.			18		0.2		
83		N.D.			19		N.D.		
84		0.3			20		N.D.		
85		0.2			21		0.6		
86		0.4			22		0.3		
87		N.D.			23		0.6		
88		N.D.			24		0.4		
89		0.1			25		0.2		
90		0.2			26		0.6		
91		0.2			27		0.4		
92		0.2			28		N.D.		
93		0.6			29		0.2		
94		N.D.			30		0.3		
95		N.D.			31		0.1		
96		0.1			32		N.D.		
97		N.D.			33		0.2		
98		N.D.			34		0.1		
99		0.2			35		0.2		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 616-5

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
508 A: 136	0.2	508 A: 172	0.2
37	0.2	73	0.1
38	N.D.	74	0.4
39	0.2	75	0.3
40	0.1	76	0.2
41	0.1	77	0.2
42	N.D.	78	0.1
43	0.2	79	0.1
44	0.1	80	N.D.
45	0.4		
46	0.2		
47	0.1		
48	N.D.		
49	0.1		
50	0.1		
51	N.D.		
52	0.3		
53	0.3		
54	0.3		
55	0.2		
56	0.9		
57	0.1		
58	N.D.		
59	0.1		
60	N.D.		
61	0.1		
62	0.1		
63	0.1		
64	N.D.		
65	N.D.		
66	N.D.		
67	N.D.		
68	N.D.		
69	0.1		
70	0.1		
71	0.2		

Note: N.D. - Not Detected

BONDAR-CLEGG & COMPANY LTD.
764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: U HNO_3
Method: Fluorimetric
Fraction Used:

Report No.: 645-5
From: Eldorado Nuclear Ltd.
Date: September 9 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508A - 181		0.1			508A - 212		0.2		
82		0.4			13		N.D.		
83		N.D.			14		0.2		
84		0.2			15		0.4		
85		0.1			16		0.3		
86		0.2			17		0.1		
87		0.1			18		0.2		
88		0.3			19		0.1		
89		0.3			20		0.5		
90		0.1			21		0.3		
91		0.1			22		N.D.		
92		0.1			23		0.1		
93		0.1			24		0.1		
94		0.1			25		0.3		
95		N.D.			26		N.D.		
96		0.1			27		N.D.		
97		0.1			28		0.1		
98		0.2			29		N.D.		
99		0.1			30		0.2		
200		0.1			31		0.3		
01		0.4			32		0.1		
02		0.1			33		0.3		
03		0.6			34		N.D.		
04		N.D.			35		N.D.		
05		0.1			36		N.D.		
06		N.D.			37		N.D.		
07		N.D.			38		N.D.		
08		N.D.			39		N.D.		
09		0.5			40		N.D.		
10		N.D.			41		N.D.		
11		N.D.			42		N.D.		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 645-5

Page No. 2

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508A - 243		N.D.			508A - 279		N.D.		
44		0.2			80		N.D.		
45		0.1			81		N.D.		
46		N.D.			82		0.1		
47		N.D.			83		0.3		
48		N.D.			84		0.3		
49		N.D.			85		N.D.		
50		0.3			86		0.2		
51		N.D.			87		N.D.		
52		0.2			88		N.D.		
53		N.D.			89		N.D.		
54		N.D.			90		N.D.		
55		N.D.			91		N.D.		
56		N.D.			92		N.D.		
57		N.D.			93		0.1		
58		N.D.			94		0.4		
59		0.1			95		N.D.		
60		0.2			96		0.1		
61		0.2			97		0.4		
62		N.D.			98		0.2		
63		0.2			99		0.2		
64		N.D.			300		0.3		
65		0.2			01		0.2		
66		N.D.			02		0.3		
67		0.4			03		0.3		
68		N.D.			04		N.D.		
69		0.1			05		N.D.		
70		0.1			06		0.1		
71		0.3			07		0.1		
72		N.D.			08		0.1		
73		N.D.			09		N.D.		
74		N.D.			10		N.D.		
75		N.D.			11		0.1		
76		N.D.			12		N.D.		
77		N.D.			13		0.1		
78		N.D.			14		0.1		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 645-5

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508A - 315		N.D.			508A - 1201		0.9		
16		N.D.			02		0.7		
17		0.4			03		0.7		
1168		0.3			04		N.D.		
69		0.5			05		0.5		
70		0.5			06		0.5		
71		0.3			07		0.5		
72		0.6			08		0.4		
73		0.5			09		0.5		
74		0.3			10		0.5		
75		0.5			11		0.9		
76		0.5			12		0.5		
77		0.3			13		0.3		
78		0.3			14		N.D.		
79		0.5			15		0.5		
80		0.5			16		0.5		
81		0.6			17		0.2		
82		0.4			18		0.5		
83		0.1			19		0.5		
84		0.5			20		0.7		
85		0.7			21		0.3		
86		0.4			22		0.9		
87		N.D.			23		0.5		
88		0.4			24		0.5		
89		0.1			25		N.D.		
90		0.2			26		N.D.		
91		0.4			27		0.3		
92		0.1			28		N.D.		
93		0.7			29		0.5		
94		N.D.			30		0.4		
95		0.3			31		0.2		
96		0.2			32		0.5		
97		0.1			33		0.3		
98		0.1			34		0.5		
99		N.D.			35		0.2		
1200		0.1			36		0.2		

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BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 645-5

Page No. 4

SAMPLE NO.		U ppm			SAMPLE NO.				
508A - 1237		0.5							
38		0.2							
39		0.2							
40		0.2							
41		0.2							
42		N.D.							
43		0.2							
44		N.D.							
45		0.3							
46		N.D.							
47		N.D.							
48		N.D.							
49		0.5							
50		0.3							
51		0.3							
52		0.5							
53		0.6							
54		0.2							
55		0.4							
56		0.5							
57		0.1							
58		N.D.							
59		0.1							
60		0.5							
61		N.D.							
62		0.5							
63		N.D.							
64		0.5							
65		0.1							
66		0.5							
67		0.3							
68		N.D.							
69		0.3							
70		0.5							
		Note: N.D. - Not Detected							

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BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

A. Soils
Proj. 508/1975

Extraction U HNO_3 Report No. 617-5

Method Fluorimetric From Eldorado Nuclear Limited

Fraction Used Date August 29 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-A 1001		0.3			1032		0.1		
02		0.1			33		0.1		
03		N.D.			34		N.D.		
04		0.2			35		0.2		
05		0.1			36		0.7		
06		N.D.			37		0.3		
07		0.1			38		0.2		
08		0.2			39		0.2		
09		N.D.			40		N.D.		
10		N.D.			41		0.1		
11		0.2			42		0.1		
12		0.1			43		N.D.		
13		0.1			44		N.D.		
14		0.1			45		0.3		
15		0.1			46		0.1		
16		0.1			47		0.5		
17		0.1			48		N.D.		
18		0.1			49		0.3		
19		N.D.			50		0.2		
20		0.1			51		0.3		
21		0.5			52		0.2		
22		0.2			53		0.1		
23		0.3			54		0.3		
24		0.3			55		0.2		
25		0.3			56		0.1		
26		0.1			57		0.3		
27		0.2			58		0.2		
28		0.2			59		N.D.		
29		0.2			60		N.D.		
30		0.2			61		N.D.		
31		0.3			62		0.1		

✓✓ ✓✓

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BONDAR CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 617-5

Page No. 2

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
1063		0.2			1099		0.2		
64		N.D.			1100		0.2		
65		0.4			01		0.1		
66		0.1			02		0.1		
67		0.1			03		0.4		
68		0.1			04		N.D.		
69		0.4			05		0.1		
70		0.1			06		0.1		
71		0.3			07		N.D.		
72		0.3			08		0.1		
73		0.4			09		N.D.		
74		N.D.			10		0.2		
75		N.D.			11		0.2		
76		0.6			12		0.1		
77		N.D.			13		0.3		
78		N.D.			14		0.3		
79		0.6			15		0.1		
80		0.1			16		0.4		
81		0.2			17		0.1		
82		0.1			18		0.1		
83		0.2			19		0.3		
84		0.4			20		0.3		
85		0.8			21		N.D.		
86		0.2			22		0.1		
87		0.2			23		0.2		
88		0.2			24		0.3		
89		0.1			25		N.D.		
90		0.1			26		0.2		
91		0.3			27		0.2		
92		0.2			28		0.1		
93		0.2			29		0.1		
94		0.2			30		N.D.		
95		N.D.			31		N.D.		
96		0.3			32		0.1		
97		0.2			33		0.3		
98		0.1			34		0.2		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 617-5

SAMPLE NO.		U ppm			SAMPLE NO.				
1135		0.2							
36		0.3							
37		0.1							
38		0.1							
39		0.1							
40		0.1							
41		0.6							
42		N.D.							
43		0.1							
44		0.2							
45		N.D.							
46		N.D.							
47		0.2							
48		0.2							
NS 49		N.S. ~~I.S.~~							
50		N.D.							
51		N.D.							
52		N.D.							
53		0.2							
54		0.2							
55		N.D.							
56		0.1							
57		0.2							
58		0.3							
59		0.5							
60		N.D.							
61		0.2							
62		0.2							
63		N.D.							
64		0.2							
65		N.D.							
66		N.D.							
67		N.D.							

Note: N.D. - Not Detected
I.S. - Insufficient Sample

10.

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: U HNO_3

Method: Fluorimetric

Fraction Used:

Report No. 748-5

From: Eldorado Nuclear Ltd/ Project No. 508

Date: September 15 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508A - 318		0.5			508A - 349		0.2		
19		0.2			50		1.0		
20		N.D.			51		0.4		
21		N.D.			52		0.3		
22		0.2			53		0.2		
23		0.5			54		N.D.		
24		0.2			55		N.D.		
25		0.5			56		0.2		
26		0.2			57		N.D.		
27		0.2			58		N.D.		
28		0.5			59		0.1		
29		0.2			60		N.D.		
30		0.2			61		N.D.		
31		0.2			62		N.D.		
32		0.5			63		0.2		
33		N.D.			64		0.1		
34		0.8			65		0.4		
35		0.8			66		0.4		
36		N.D.			67		0.5		
37		0.7			68		0.4		
38		0.8			69		0.5		
39		0.8			70		0.8		
40		0.8			71		N.D.		
41		0.2			72		1.0		
42		1.8			73		0.2		
43		0.5			74		0.8		
44		2.2			75		0.8		
45		0.5			76		N.D.		
46		1.5			77		0.8		
47		0.2			78		0.4		
48		0.8			79		0.4		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 748-5

SAMPLE NO.	U ppm	SAMPLE NO.	U ppm
508A-380	0.2	508A-1306	0.5
508A-1271	0.4	07	0.2
72	0.8	08	0.2
73	0.5	09	1.3
74	0.8	10	0.5
75	0.4	11	0.5
76	0.5	12	0.4
77	0.7	13	N.D.
78	0.8	14	N.D.
79	0.5	15	N.D.
80	N.D.	16	0.5
81	0.5	17	1.0
82	0.5	18	0.2
83	0.5	19	0.7
84	0.4	20	0.5
85	0.9	21	N.D.
86	0.5	22	N.D.
87	0.5	23	0.5
88	0.2	24	0.5
89	0.5	25	0.7
90	0.5		
91	0.5		
92	0.2		
93	0.5		
94	0.4		
95	0.2		
96	0.2		
97	N.D.		
98	0.2		
99	0.2		
1300	0.5		
01	0.8		
02	0.8		
03	0.5		
04	0.2		
05	0.1		

Note: N.D. - Not Detected

12.

508 - A o soils

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Extraction: U - HNO_3 Report No. 772-5

Method: Fluorimetric From: Eldoradd Nuclear Ltd. Project: 508

Fraction Used: Date: September 16, 1975

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-A-381		N.D.	Not Detected.		508-A-412		0.5		
82		0.5			13		0.8		
83		0.5			14		0.3		
84		0.8			15		0.7		
85		0.3			16		0.8		
86		0.3			17		0.8		
87		0.3			18		0.8		
88		0.3			19		0.8		
89		N.D.			20		N.D.		
90		0.3			21		0.8		
91		0.3			22		0.7		
92		0.3			23		0.5		
93		0.3			24		0.5		
94		N.D.			25		0.7		
95		0.5			26		0.5		
96		0.3			27		0.5		
97		0.5			28		0.3		
98		0.4			29		0.8		
99		0.8			30		0.7		
400		0.8			31		0.7		
01		0.3			32		0.5		
02		0.5			33		0.4		
03		0.3			34		0.2		
04		0.5			35		0.4		
05		0.3			36		0.3		
06		N.D.			37		0.2		
07		N.D.			38		0.2		
08		0.3			39		0.4		
09		0.3			40		0.2		
10		0.3			41		0.2		
11		0.3			42		0.3		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 772-5 Page No. 2

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508-A-443		0.2			508-A-1340		0.3		
44		0.2			41		0.5		
45		0.3			42		0.3		
46		0.6			43		0.5		
47		0.4			44		N.D.		
48		0.2			45		0.1		
49		0.3			46		N.D.		
50		0.3			47		N.D.		
51		N.D.			48		N.D.		
52		0.2			49		N.D.		
53		0.2			50		0.1		
54		0.1			51		0.1		
55		0.2			52		N.D.		
56		0.3			53		0.3		
57		0.2			54		0.1		
58		N.D.			55		0.1		
59		0.2			56		N.D.		
60		N.D.			57		N.D.		
61		N.D.			58		0.9		
62		0.2			59		N.D.		
63		0.2			60		0.1		
64 ✓		0.4			61		0.2		
508-A-1326		0.2			62		0.2		
27		0.3			63		0.1		
28		0.8			64		N.D.		
29		0.3			65 ✓		0.1		
30		0.5			66		N.D.		
31		0.5			67		N.D.		
32		0.5			68		0.1		
33		0.5			69		N.D.		
34		0.5			70		1.3		
35		0.5			71		0.1		
36		0.4			72		0.3		
37		0.3			73		N.D.		
38		0.3			74		0.1		
39		0.2			75		0.3		

✓✓ ✓✓

14.

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 772-5

Page No. 3

SAMPLE NO.		U ~~ppm~~			SAMPLE NO.				
508-A-1376		N.D.							
77		0.1							
78		0.1							
79		N.D.							
80		N.D.							
81		N.D.							
82		0.6							
83		0.4							

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

OCT 22 1975

Geochemical Lab Report

Extraction: U HNO_3

Method: Fluorimetric

Fraction Used:

Report No. 832-5

From: Eldorado Nuclear Ltd. Project No. 508

Date: September 18 19 75

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508A - 465		0.1			508A - 496		0.5		
66		0.1			97		0.5		
67		0.1			98		0.3		
68		0.5			99		0.2		
69		N.D.			500		N.D.		
70		0.2			01		N.D.		
71		N.D.			02		0.6		
72		N.D.			03		N.D		
73		0.2			04		0.6		
74		N.D.			05		0.1		
75		0.2			06		0.2		
76		N.D.			07		N.D.		
77		0.2			08		N.D.		
78		N.D.			09		0.5		
79		N.D.			10		N.D.		
80		N.D.			11		N.D.		
81		N.D.			12		0.2		
82		0.4			13		0.2		
83		0.7			14		0.2		
84		0.7			15		0.3		
85		0.3			16		0.4		
86		0.5			17		N.D.		
87		0.6			18		N.D.		
88		0.2			19		0.2		
89		0.3			20		N.D.		
90		0.5			21		N.D.		
91		0.5			22		0.7		
92		0.4			23		N.D.		
93		0.2			24		0.2		
94		0.3			25		N.D.		
95		0.5			26		N.D.		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 832-5

SAMPLE NO.		U ppm			SAMPLE NO.		U ppm		
508A - 527		N.D.			508A - 563		N.D.		
28		N.D.			64		0.2		
29		0.2			65		N.D.		
30		0.1			66		0.2		
31		0.3			67		0.3		
32		0.3			68		0.2		
33		0.3			69		N.D.		
34		0.4			70		N.D.		
35		N.D.			71		N.D.		
36		N.D.			72		N.D.		
37		0.2			73		N.D.		
38		N.D.			74		N.D.		
39		N.D.			75		0.1		
40		N.D.			76		0.2		
41		0.2			77		N.D.		
42		N.D.			78		N.D.		
43		N.D.			508A - 1384		N.D.		
44		N.D.			85		N.D.		
45		0.3			86		0.2		
46		N.D.			87		0.2		
47		0.7			88		N.D.		
48		N.D.			89		0.1		
49		0.2			90		N.D.		
50		N.D.			91		0.1		
51		0.2			92		N.D.		
52		N.D.			93		N.D.		
53		N.D.			94		N.D.		
54		N.D.			95		N.D.		
55		N.D.			96		N.D.		
56		N.D.			97		N.D.		
57		N.D.			98		N.D.		
58		0.2			99		N.D.		
59		N.D.			1400		N.D.		
60		0.2			01		0.4		
61		0.2			02		N.D.		
62		N.D.			03		N.D.		

BONDAR-CLEGG & COMPANY LTD.

Geochemical Lab Report

Report No. 832-5

Page No. 3

SAMPLE NO.		U ppm			
508A - 1404		N.D.			
05		N.D.			
06		N.D.			
07		N.D.			
08		N.D.			
09		N.D.			
10		N.D.			
11		N.D.			
12		0.1			
13		N.D.			
14		N.D.			
15		N.D.			
16		0.5			
17		N.D.			
18		N.D.			
19		N.D.			
20		N.D.			
21		N.D.			
22		N.D.			
23		N.D.			
24		N.D.			
25		N.D.			
26		N.D.			
27		N.D.			
28		N.D.			
29		N.D.			
30		N.D.			
31		N.D.			
32		N.D.			
33		N.D.			

508
re-run per request Hugo Lamoulin

BONDAR-CLEGG & COMPANY LTD.

764 BELFAST ROAD, OTTAWA, ONTARIO, K1G 0Z5 PHONE: 237-3110

Geochemical Lab Report

Repeat analysis SOILS /1975/508

Extraction: Cu, Ni - HNO_3-HCl

Method: A.A.

Fraction Used: As received

Report No. 1054-5

From: Eldorado Nuclear Limited, Dr Knipping

Date: October 21 19 75

SAMPLE NO.		Cu ppm	Ni ppm		SAMPLE NO.		Cu ppm	Ni ppm	
508-A-.... from 617-5 1001		5	20		1032		4	6	
02		8	36		33		3	15	
03		11	32		34		8	12	
04		7	28		35		8	6	
05		10	39		36		6	8	
06		13	70		37		4	6	
07		9	46		38		6	13	
08		6	20		39		5	8	
09		5	20		40		4	5	
10		6	16		41		5	8	
11		6	25		42		3	8	
12		8	33		43		5	9	
13		5	25		44		6	9	
14		8	17		45		2	4	
15		6	10		46		3	6	
16		5	9		47		2	4	
17		8	13		48		5	6	
18		3	16		49		1	7	
19		7	14		50		4	7	
20		7	9		51		6	8	
21		3	8		52		5	14	
22		8	16		53		10	7	
23		3	7		54		6	10	
24		4	3		55		5	12	
25		2	4		56		8	11	
26		14	6		57		3	6	
27		3	7		58		4	7	
28		2	3		59		6	14	
29		4	6		60		11	10	
30		4	10		61		2	1	
31		1	N.D.		62		3	4	

UNDAR[illegible]LEGG & COM[illegible]NY LTD.

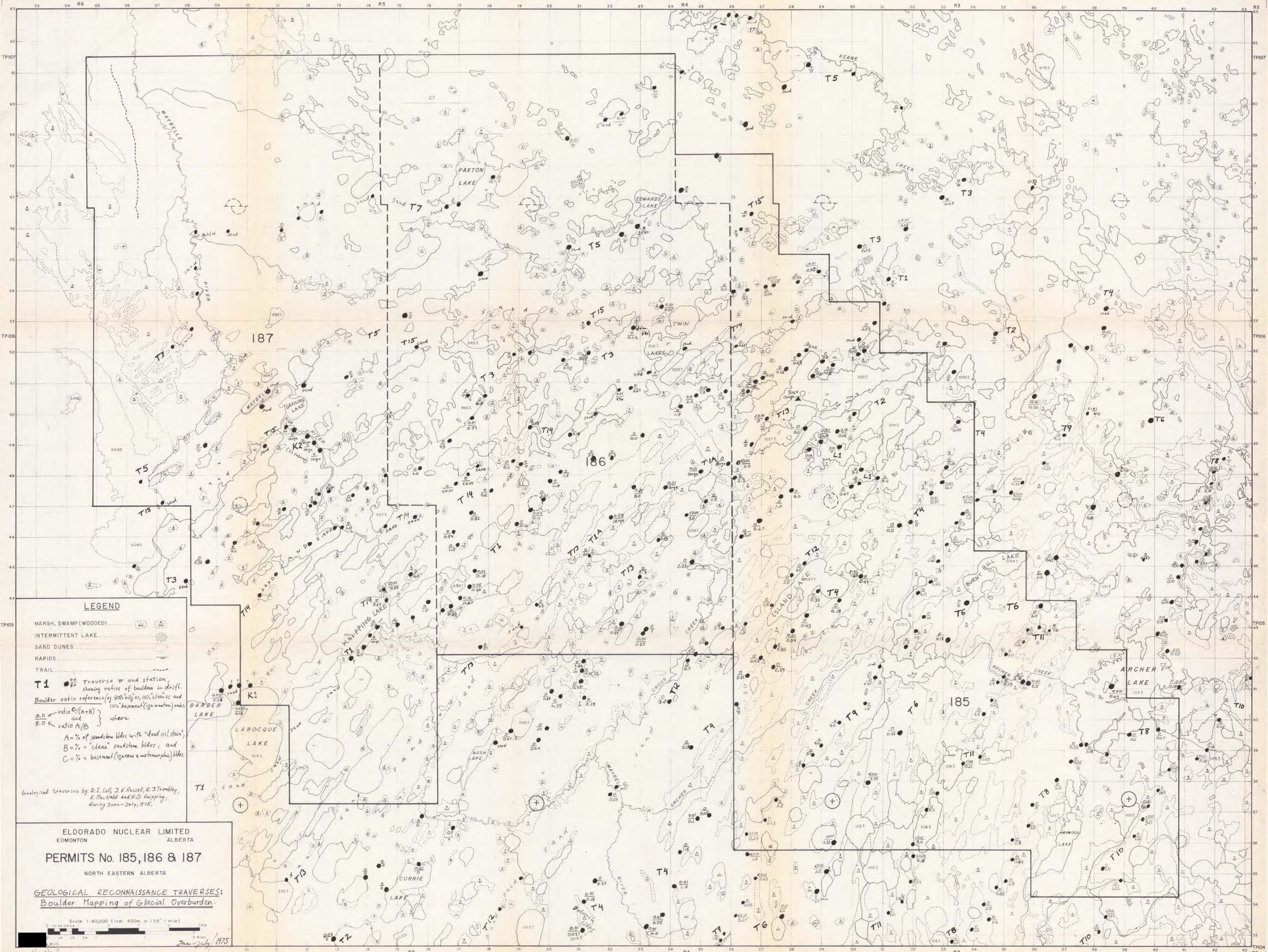
Repeat analysis
SOIL5/508/1975

Geochemical Lab Report

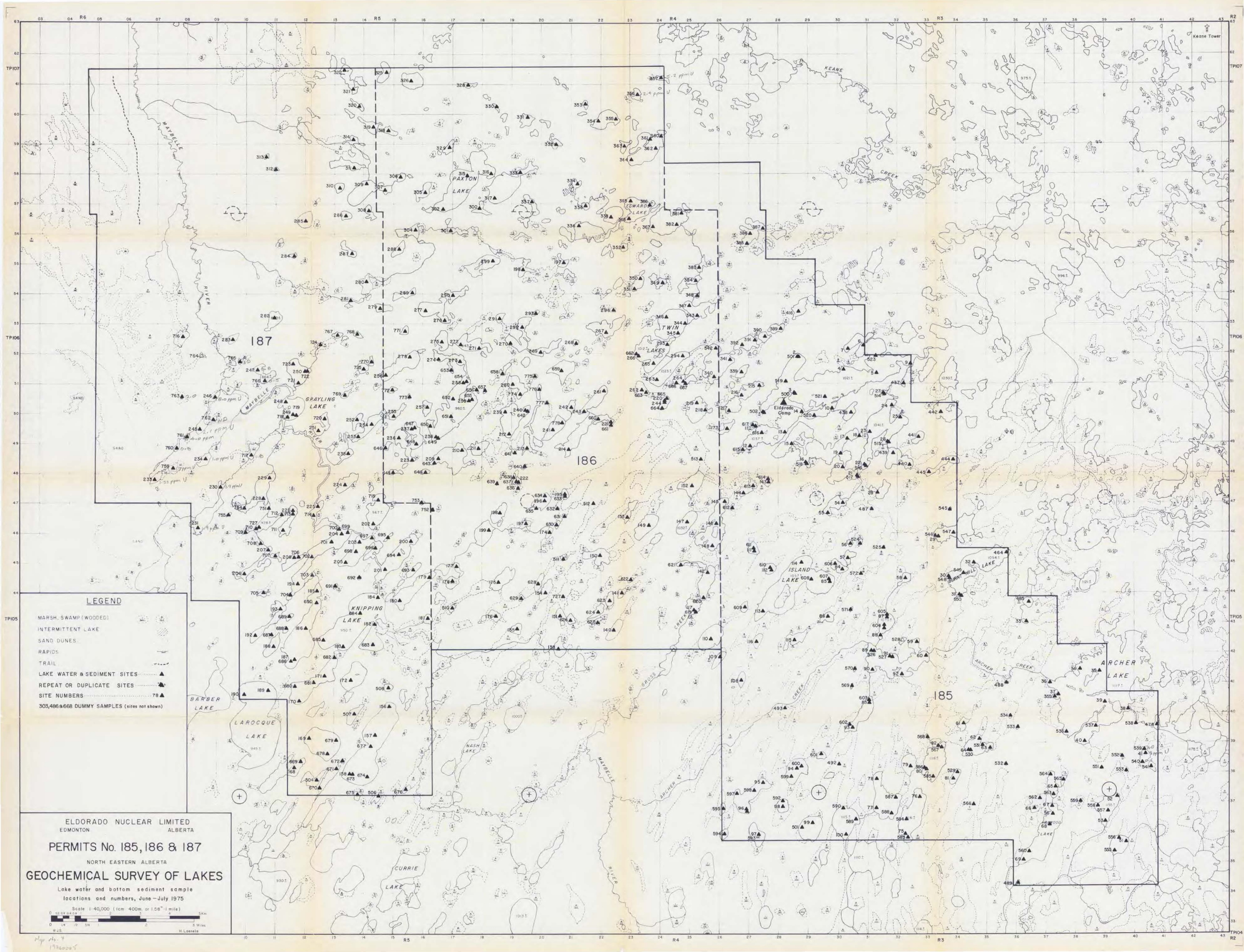
No. 1054-5

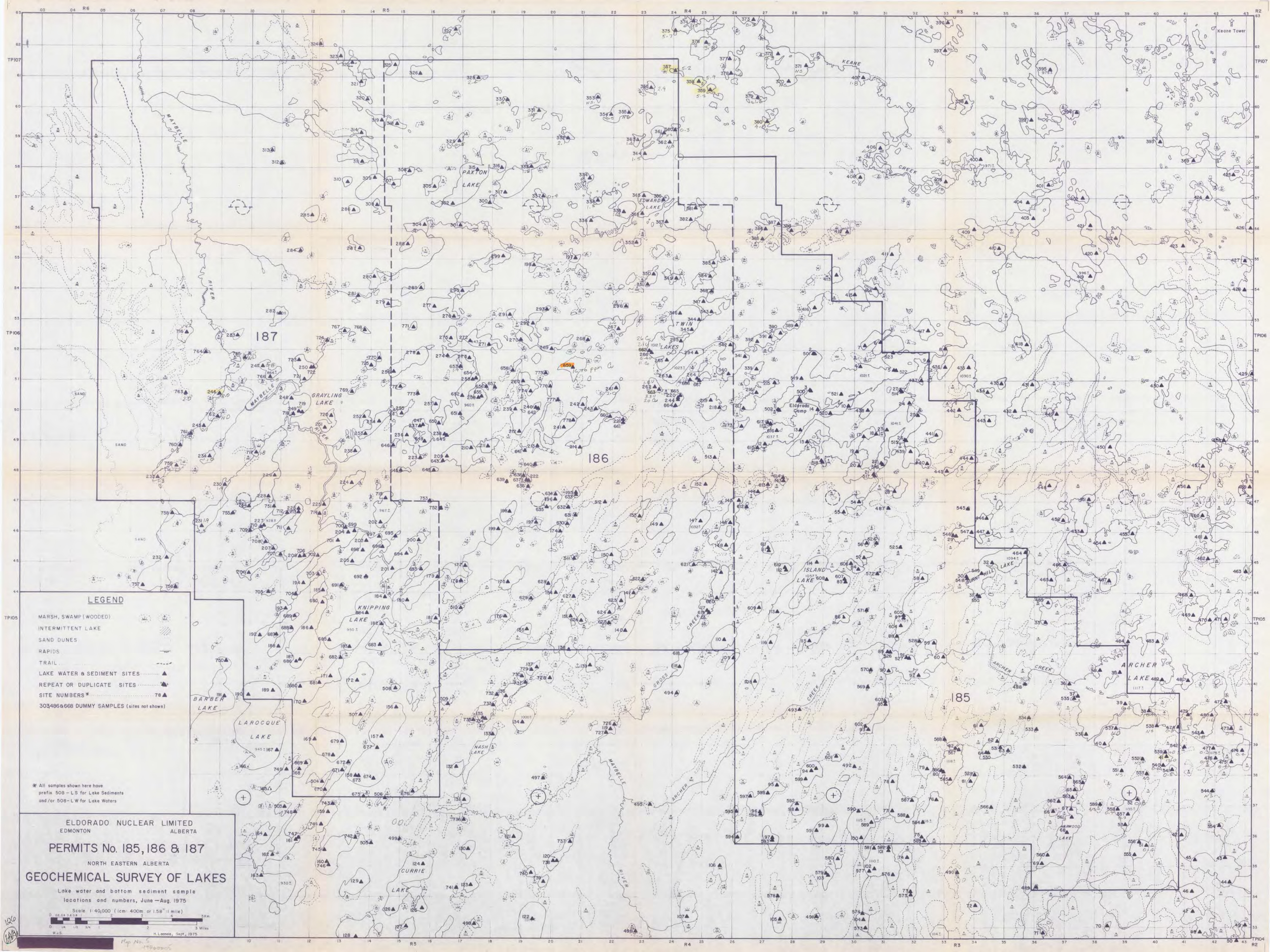
Page No. 2

MPLE NO. 508A		Cu ppm	Ni ppm		SAMPLE NO.				
1063		4	5						
64		9	8						
65		4	12						
66		6	14						
67		8	8						
68		6	20						
69		5	13						
70		6	7						
71		3	4						
72		7	3						
73		4	4						
74		7	4						
75		4	4						
76		5	5						
77		4	4						
78		3	4						
79		3	6						
80		4	5						
81		3	4						
82		4	4						
83		4	10						
84		7	10						
85		5	11						
rom 645-5 1223		205							
1224		62							

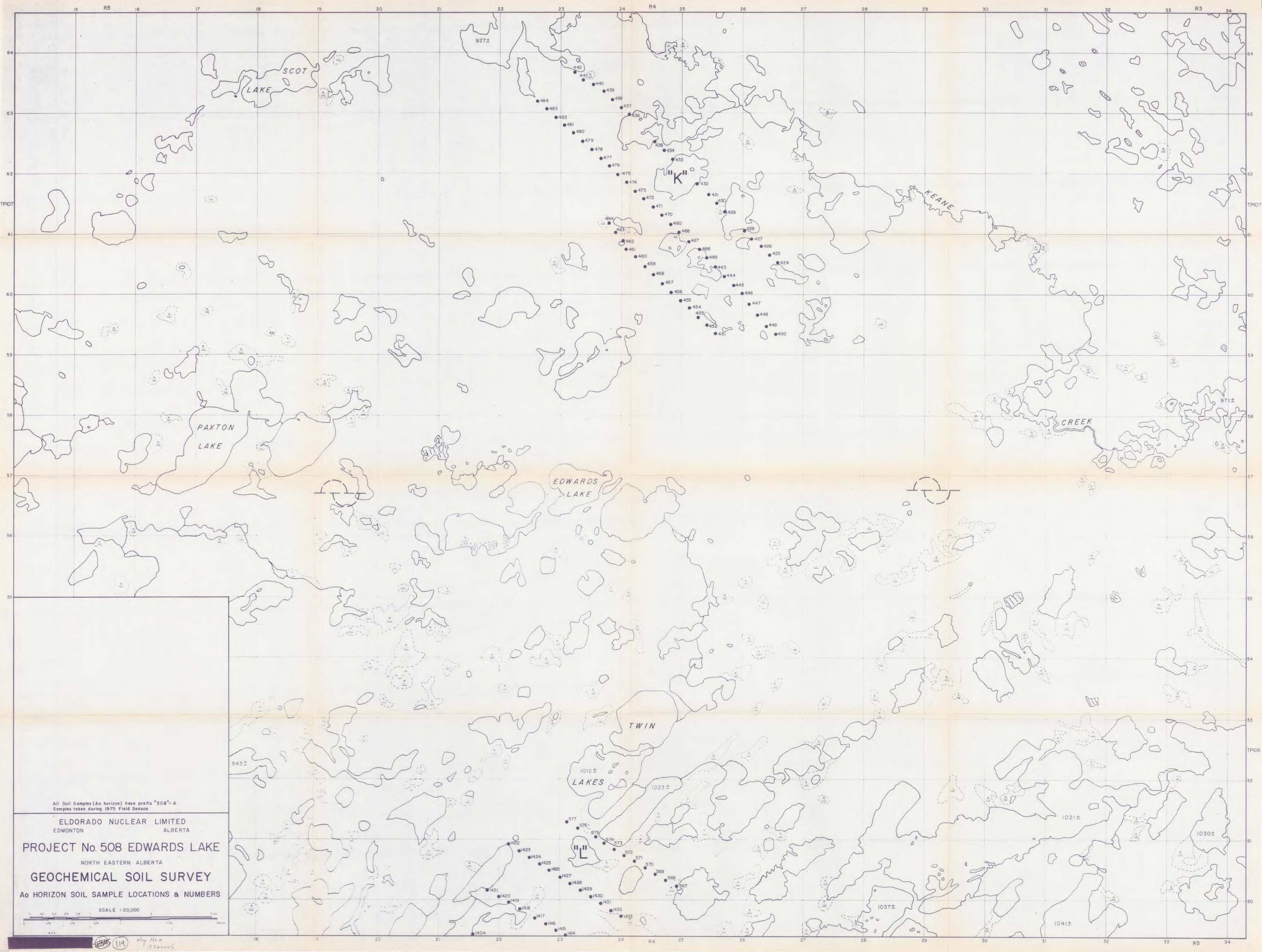


LEGEND
MARSH, SWAMP (WOODED)
INTERMITTENT LAKE
SAND DUNES
RAPIDS
TRAIL
T1 0.11/8.0 Traverse # and station, showing ratios of boulders in drift.
Boulder ratio reference (eg. 80% "oily" ss, 10% "clean" ss and 10% "basement" (ign. + metam.) rocks.
0.11 ← ratio C/(A+B) and 8.0 ← ratio A/B } where
A = % of sandstone bldrs with "dead oil stain",
B = % " "clean" sandstone bldrs, and
C = % " basement (igneous + metamorphic) bldrs.
Geological traverses by: R.I. Coll, J.K. Russell, R.J. Tremblay, K. MacNabb and H.D. Knipping, during June–July, 1975.
ELDORADO NUCLEAR LIMITED
EDMONTON ALBERTA
PERMITS No. 185, 186 & 187
NORTH EASTERN ALBERTA
GEOLOGICAL RECONNAISSANCE TRAVERSES:
Boulder Mapping of Glacial Overburden.
Scale 1:40,000 (1cm 400m. or 1.58" 1 mile)
[redacted]
June–July, 1975
187
186
185
PAXTON LAKE
EDWARDS LAKE
TWIN LAKES
GRAYLING LAKE
KNIPPING LAKE
BARBER LAKE
LAROCQUE LAKE
NASH LAKE
CURRIE LAKE
ISLAND LAKE
BURNT HILL LAKE
ARCHER LAKE
HARWOOD LAKE
MAYBELLE RIVER
KEANE CREEK
ARCHER CREEK
GROSS CREEK

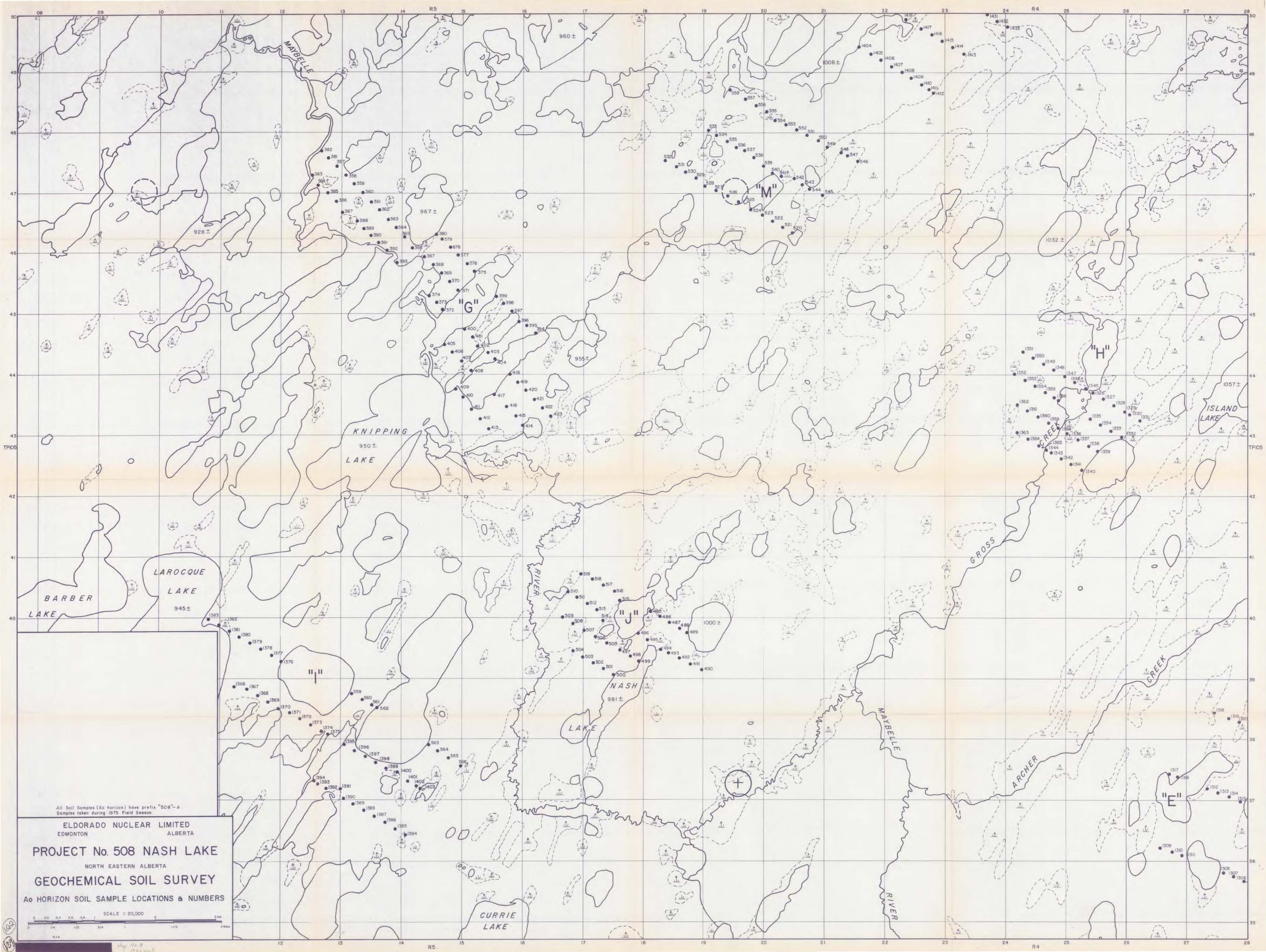

ELDORADO NUCLEAR LIMITED
EDMONTON ALBERTA
PERMITS No. 185, 186 & 187
NORTH EASTERN ALBERTA
GEOCHEMICAL SURVEY OF LAKES
Lake water and bottom sediment sample locations and numbers, June – July 1975
Scale 1:40,000 (1cm 400m, or 1.58" 1 mile)
LEGEND
MARSH, SWAMP (WOODED)
INTERMITTENT LAKE
SAND DUNES
RAPIDS
TRAIL
LAKE WATER & SEDIMENT SITES
REPEAT OR DUPLICATE SITES
SITE NUMBERS 78
303,486 & 668 DUMMY SAMPLES (sites not shown)
187
186
185
MAYBELLE RIVER
GRAYLING LAKE
PAXTON LAKE
EDWARD LAKE
TWIN LAKES
KEANE CREEK
Keane Tower
Eldorado Camp
ISLAND LAKE
BURNT HILL LAKE
ARCHER LAKE
ARCHER CREEK
KNIPPING LAKE
BARBER LAKE
LAROCQUE LAKE
NASH LAKE
CURRIE LAKE
GROSS CREEK
H. Loonela

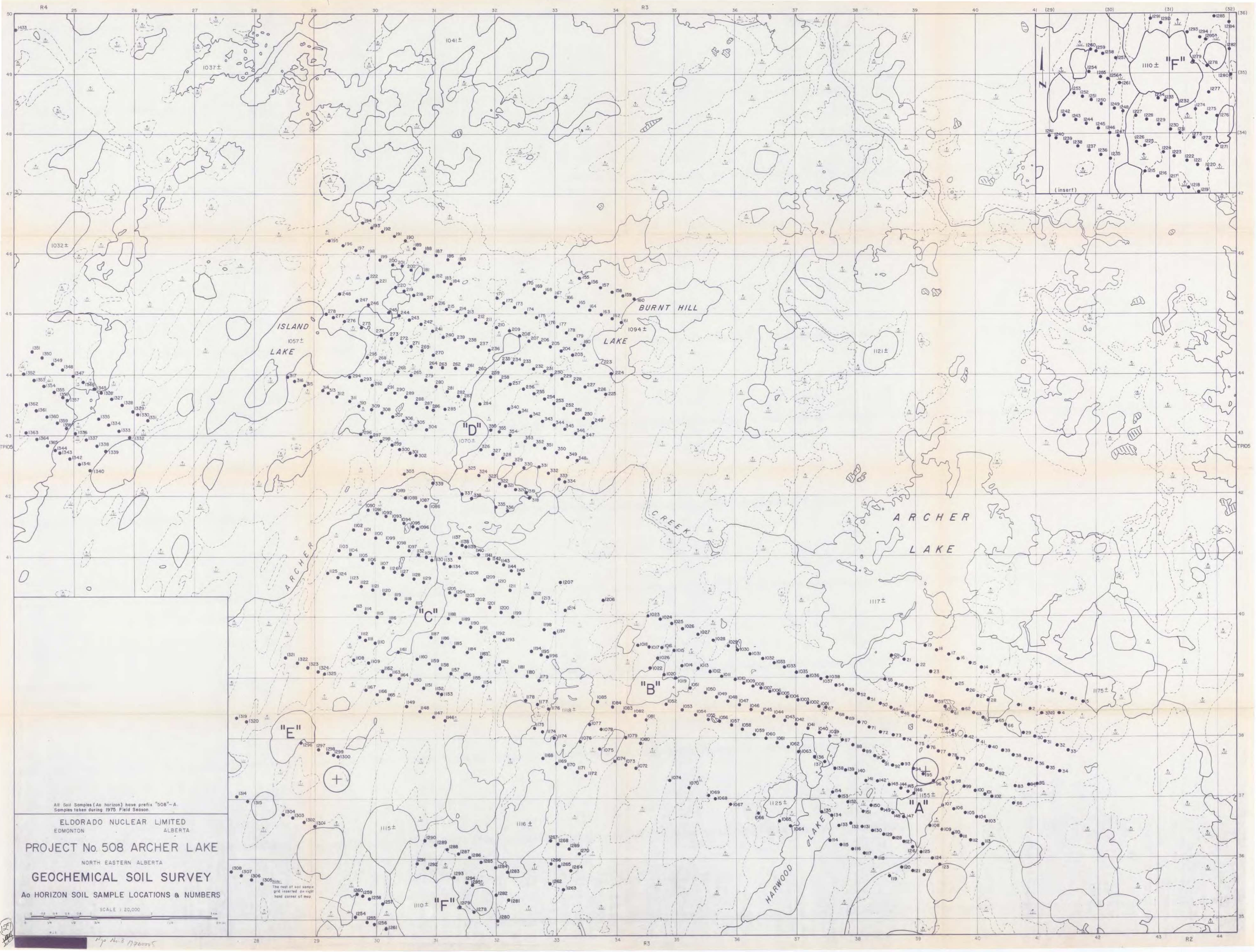


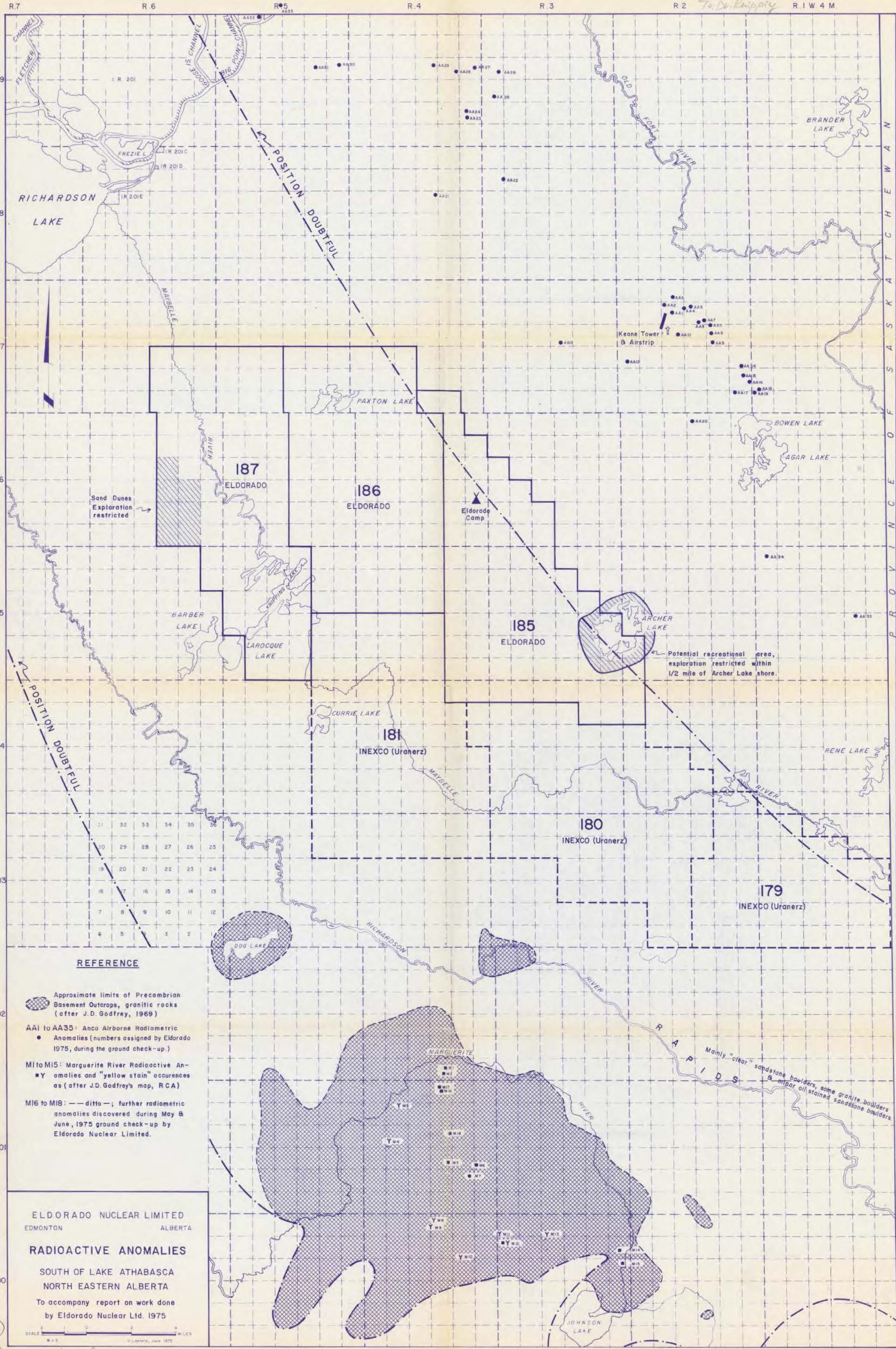
LEGEND
MARSH, SWAMP (WOODED)
INTERMITTENT LAKE
SAND DUNES
RAPIDS
TRAIL
LAKE WATER & SEDIMENT SITES
REPEAT OR DUPLICATE SITES
SITE NUMBERS* 78
303,486 & 668 DUMMY SAMPLES (sites not shown)
* All samples shown here have prefix 508 – L S for Lake Sediments and/or 508 – L W for Lake Waters
ELDORADO NUCLEAR LIMITED
EDMONTON ALBERTA
PERMITS No. 185, 186 & 187
NORTH EASTERN ALBERTA
GEOCHEMICAL SURVEY OF LAKES
Lake water and bottom sediment sample locations and numbers, June – Aug. 1975
Scale 1:40,000 (1cm: 400m or 1.58":1 mile)
W.J.S.
H. Laanela, Sept., 1975
187
186
185
MAYBELLE RIVER
PAXTON LAKE
EDWARDS LAKE
TWIN LAKES
GRAYLING LAKE
KNIPPING LAKE
BARBER LAKE
LAROCQUE LAKE
NASH LAKE
CURRIE LAKE
ISLAND LAKE
BURNT HILL LAKE
ARCHER LAKE
HARWOOD LAKE
KEANE CREEK
GROSS CREEK
ARCHER CREEK
Eldorado Camp
Keane Tower



[redacted] 119 Map No. 6 1976000S


ELDORADO NUCLEAR LIMITED
EDMONTON ALBERTA
PROJECT No. 508 NASH LAKE
NORTH EASTERN ALBERTA
GEOCHEMICAL SOIL SURVEY
Ao HORIZON SOIL SAMPLE LOCATIONS & NUMBERS
SCALE 1:20,000
All Soil Samples (Ao horizon) have prefix "508"-A.
Samples taken during 1975 Field Season.
MAYBELLE
KNIPPING
LAKE
BARBER
LAKE
LAROCQUE
LAKE
NASH
LAKE
CURRIE
LAKE
ISLAND
LAKE
GROSS
CREEK
ARCHER
CREEK
MAYBELLE
RIVER
"G"
"H"
"I"
"J"
"M"
"E"
960±
967±
928±
955±
1008±
1032±
1057±
1000±
981±
950±
945±
R5
R4
TP105

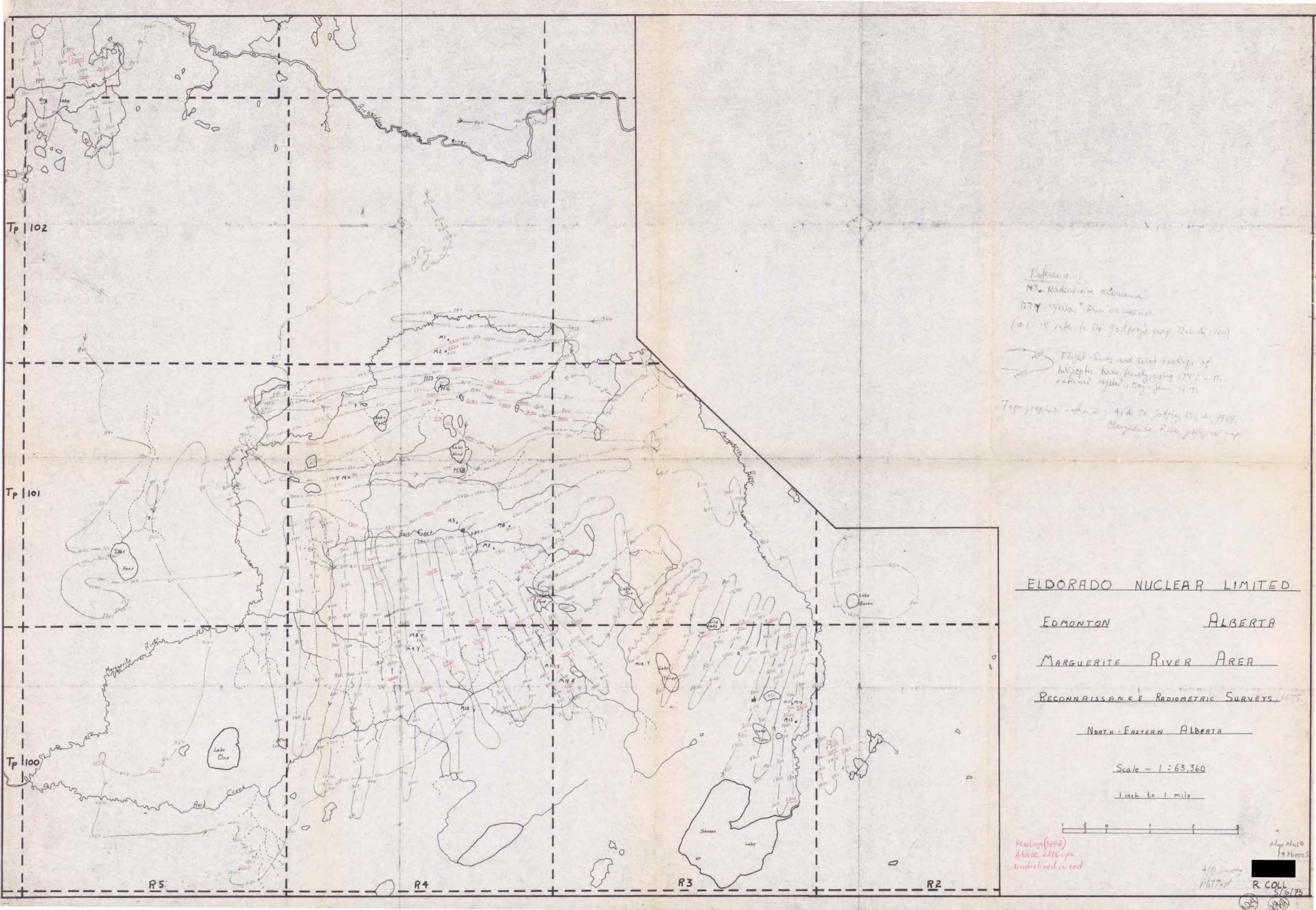

All Soil Samples (Ao horizon) have prefix "508"-A.
Samples taken during 1975 Field Season.
ELDORADO NUCLEAR LIMITED
EDMONTON ALBERTA
PROJECT No. 508 ARCHER LAKE
NORTH EASTERN ALBERTA
GEOCHEMICAL SOIL SURVEY
Ao HORIZON SOIL SAMPLE LOCATIONS & NUMBERS
SCALE 1:20,000
Note: The rest of soil sample grid inserted on right hand corner of map.
ARCHER LAKE
ARCHER CREEK
ISLAND LAKE
BURNT HILL LAKE
HARWOOD LAKE
"A"
"B"
"C"
"D"
"E"
"F"
1037±
1041±
1032±
1057±
1094±
1121±
1070±
1117±
1118±
1125±
1155±
1175±
1115±
1116±
1110±
(insert)
R4
R3
R2
TP105



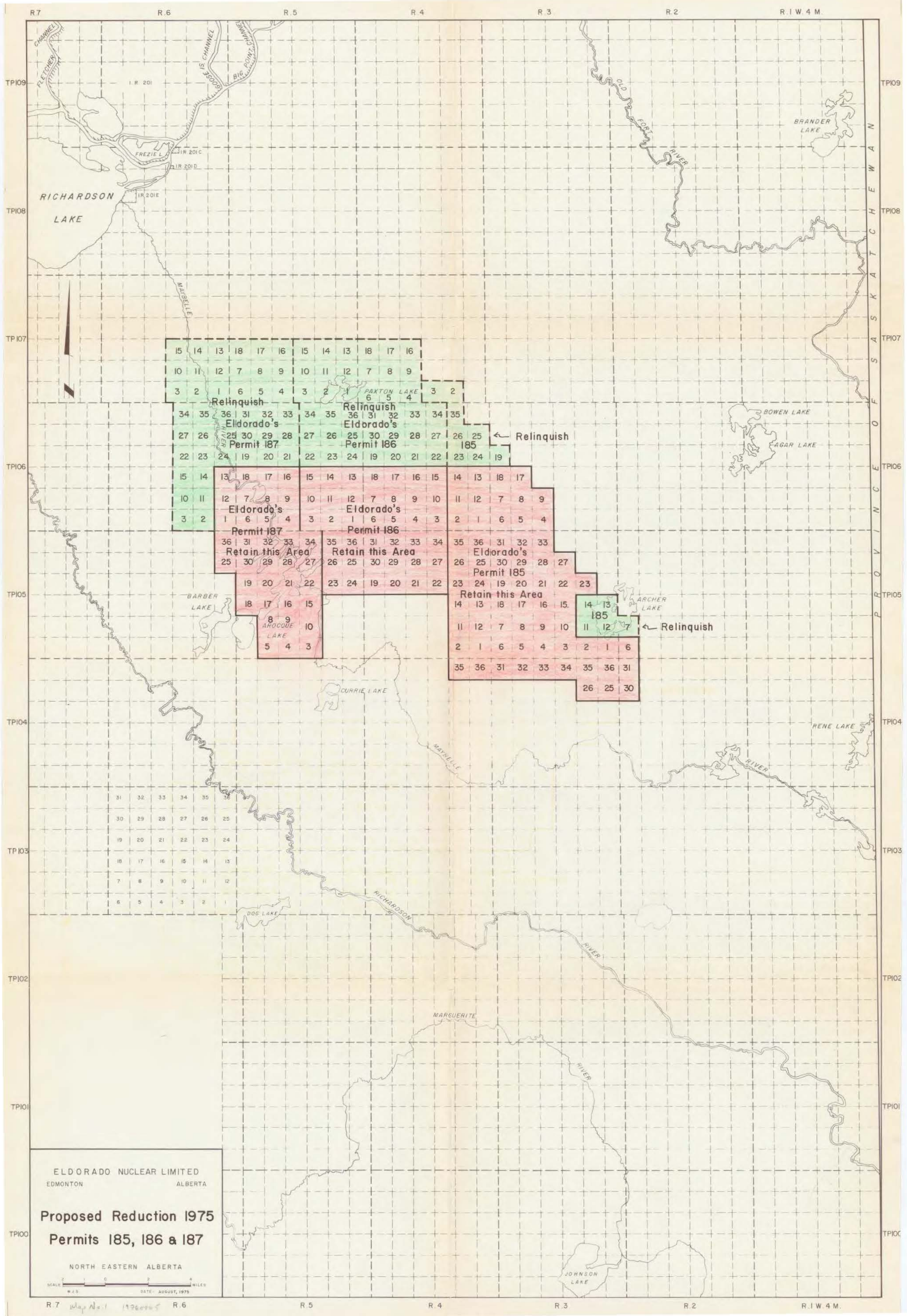
To Dr. Knipping

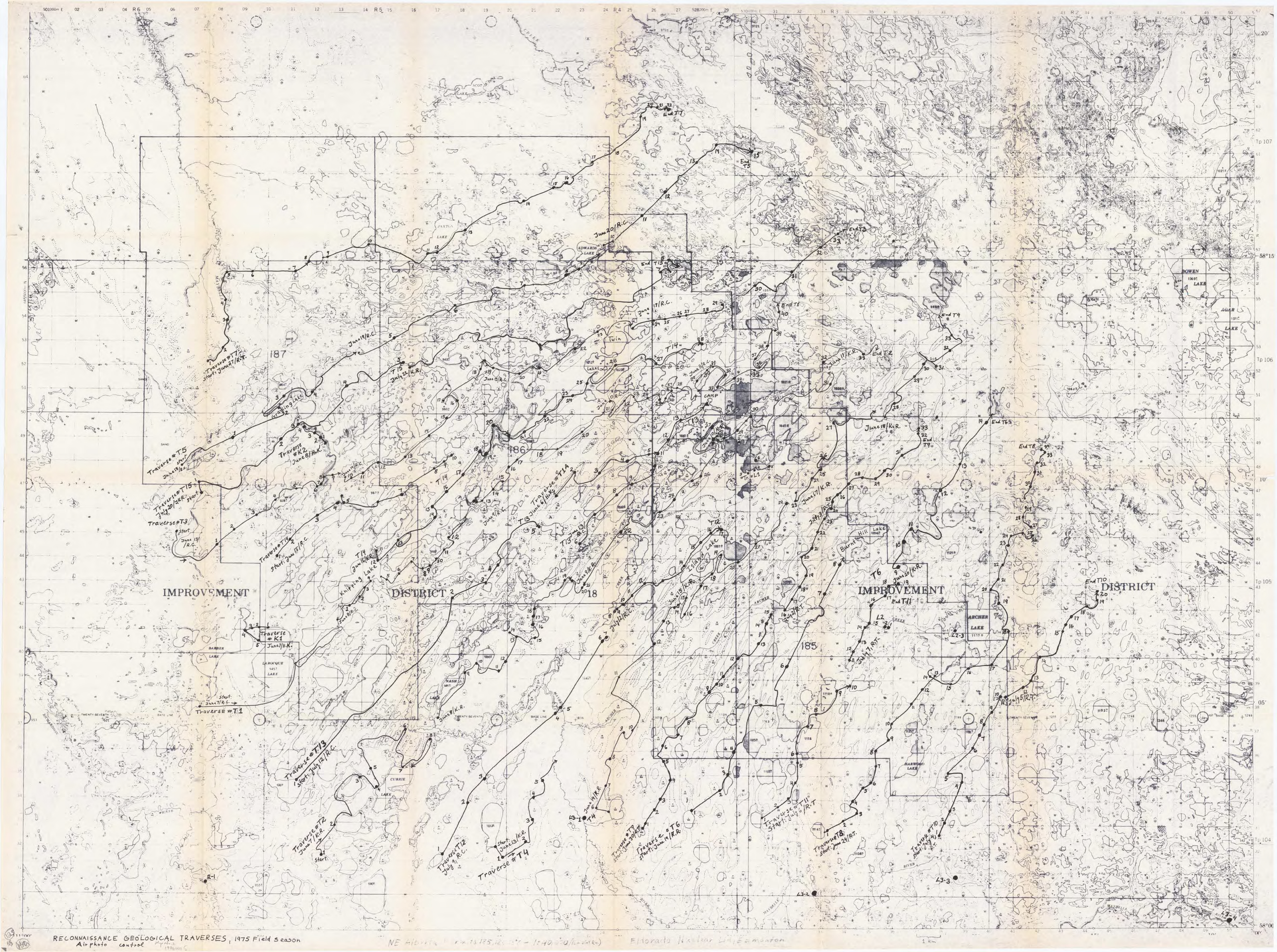
Map No. 9
19760005

120



Tp 102
Tp 101
Tp 100
R5
R4
R3
R2
Richardson River
Marguerite River
Lake One
Lake Four
Lake Nine
Lake Three
Lake Seven
Johnson Lake
Reference:
M3. Radioactive occurrence
M7Y Yellow stain occurrence
(#1-25 refer to Dr. Godfrey's map, R.C.A., 1969)
Flight-lines and scint. readings of helicopter borne survey, using SPP2 with external crystal, May-June, 1975.
Topographic reference: After Dr. Godfrey, R.C.A., 1969, Marguerite River geological map
ELDORADO NUCLEAR LIMITED
EDMONTON ALBERTA
MARGUERITE RIVER AREA
RECONNAISSANCE RADIOMETRIC SURVEYS, 1975
NORTH-EASTERN ALBERTA
Scale - 1 : 63,360
1 inch to 1 mile
Readings (SPP2) Above 2000 cps underlined in red
Map No. 10
[redacted]
R. COLL
5/6/75


R.7
R.6
R.5
R.4
R.3
R.2
R.1 W.4 M.
TP109
TP108
TP107
TP106
TP105
TP104
TP103
TP102
TP101
TP100
PROVINCE OF SASKATCHEWAN
FLETCHER CHANNEL
GOOSE IS. CHANNEL
BIG POINT CHANNEL
I.R. 201
FREZIE L.
IR 201C
IR 201D
IR 201E
RICHARDSON LAKE
MAYBELLE RIVER
OLD FORT RIVER
BRANDER LAKE
PAXTON LAKE
Relinquish
Eldorado's
Permit 187
Permit 186
185
Retain this Area
Permit 185
BOWEN LAKE
AGAR LAKE
BARBER LAKE
AROCOUE LAKE
ARCHER LAKE
CURRIE LAKE
RENE LAKE
DOG LAKE
MARGUERITE RIVER
JOHNSON LAKE
ELDORADO NUCLEAR LIMITED
EDMONTON
ALBERTA
Proposed Reduction 1975
Permits 185, 186 & 187
NORTH EASTERN ALBERTA
SCALE
MILES
DATE- AUGUST, 1975


IMPROVEMENT DISTRICT 18
IMPROVEMENT DISTRICT
187
186
185
Traverse #T1 Start: June 7/R.C.
Traverse #T2 June 7/K.R.
Traverse #T3 June 13/R.C.
Traverse #T4 June 13/K.R.
Traverse #T5 June 18/R.C.
Traverse #T6 June 18/K.R.
Traverse #T7 June 20/R.C.
Traverse #T8 June 24/R.T.
Traverse #T9 June 24/R.C.
Traverse #T10 July 4/R.T.
Traverse #T11 Start: July 6/R.T
Traverse #T12 July 9/R.C.
Traverse #T13 Start: July 12/R.C.
Traverse #T14 Start: June 15/R.C.
Traverse #T15 July 20/K.R.
Traverse #K1 June 7/K.R.
Traverse #K2 June 8/K.R.
Traverse #T1A June 6/K.R.
Traverse #T1B June 18/K.R.
Traverse #T1C June 9/K.R.
Traverse #T1D June 10/K.R.
Traverse #T1E June 11/K.R.
Traverse #T1F June 17/K.R.
Traverse #T1G June 19/K.R.
Traverse #T1H June 20/K.R.
Traverse #T1I June 21/R.T.
Traverse #T1J July 7/R.T.
Traverse #T1K July 5/R.T.
Traverse #T1L June 11/K.R.
Traverse #T1M June 14/K.R.
Traverse #T1N June 9/K.R.
Traverse #T1O June 8/K.R.
Traverse #T1P June 18/R.C.
Traverse #T1Q June 17/R.C.
Traverse #T1R June 20/R.C.
Traverse #T1S June 19/R.C.
Traverse #T1T June 22/K.R.
Traverse #T1U June 15/R.C.
Traverse #T1V June 10/R.C.
Traverse #T1W June 11/R.C.
Traverse #T1X June 17/R.C.
Traverse #T1Y June 18/R.C.
Traverse #T1Z June 19/R.C.
Traverse #T2A June 19/R.C.
Traverse #T2B June 20/R.C.
Traverse #T2C June 21/R.C.
Traverse #T2D June 22/R.C.
Traverse #T2E June 24/R.C.
Traverse #T2F June 24/R.C.
Traverse #T2G June 24/R.C.
Traverse #T2H June 24/R.C.
Traverse #T2I June 24/R.C.
Traverse #T2J June 24/R.C.
Traverse #T2K June 24/R.C.
Traverse #T2L June 24/R.C.
Traverse #T2M June 24/R.C.
Traverse #T2N June 24/R.C.
Traverse #T2O June 24/R.C.
Traverse #T2P June 24/R.C.
Traverse #T2Q June 24/R.C.
Traverse #T2R June 24/R.C.
Traverse #T2S June 24/R.C.
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