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LUC SYNDICATE
Burn Project
Geochemical Sampling
Dr. G. R. Webber, August, 1973
4524

REPORT OF EXAMINATION OF
"BURN" PROJECT
KWANIKA CREEK AREA, B. C.

September 7, 1973

G. R. Webber

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INTRODUCTION

This report is based on a three day field visit to the "Burn" Project area (August 3, 4 and 5, 1973) and on the examination of previous reports and maps prepared by others (1, 2). The main purposes of my examination were:

1. To try to determine the direction and distance from which the anomalies have been transported.
2. To suggest further geochemical work, if appropriate, which might lead to a source area.

During the visit to the property I looked at the overburden in some of the old trenches and drill hole sites, examined the topography and surface conditions, and took soil and stream sediment samples, especially in the southern part of the area, to see whether the anomalies in molybdenum and copper extended further south than the limits of the previous work.

RESULTS

Nature of overburden

The overburden in the region of trenching appears to be a glacial till made up of poorly sorted rock fragments, pebbles and boulders, mostly angular, some sub-rounded to rounded. Much of the rock in the overburden appears to be relatively local, but some erratic well-rounded pebbles were seen. A small sample of till examined in detail (about 4 feet down in a profile previously examined(1)) showed it to be made up of gravelly material for the most part. The rock fragments are coated with fine-grained weathering products (clay and iron oxides), but the clay content does not appear to be a high proportion of the material. In general the till appears to have some components that are far travelled but for the most part it is probably relatively local. Previous soil analyses (1) for cold extractable copper showed that the readily extractable copper is low in proportion to the total copper. This suggests that the metal concentrations in the soil are not predominately water transported and adsorbed. There is abundant precipitation in the region and the many small streams flowing down along the valley slope would provide a useful medium for stream sediment sampling.

Soil sampling

Soil and stream sediment sample results obtained in the current examination are indicated on the accompanying map. The highest concentrations of copper and molybdenum were found in the southernmost part of the sampling area near the small pond at the foot of the large cirque in the southwest corner of the map area. Sample RW-36, which contains 1560 ppm Cu, is an organic sample from a boggy spring area with flowing water. Sample RW-35, nearby, containing 400 ppm Cu, is from rather stony soil. Sample RW-37, containing 30 ppm Mo, is from a stream sediment.

Location of claim lines

During the examination of the property two claim posts were found (location indicated on accompanying map). Their location suggests that the ground held does not extend quite as far south (by about 1400 feet) as has been previously estimated on the maps and that it might be advisable to add more claims to the south.

CONCLUSIONS

1. On the basis of the current examination and previous work, it appears that there are two main areas of particular interest for further work. One is the area near line 4000 N 3000 E as outlined previously (1) and the other is at the foot of the large cirque in the southwestern part of the area.
2. The soil anomalies in the area are probably transported, but not far.
3. Some of the anomalies found in the previous work are probably related to the mineralization found in diamond drilling but others lie up slope and up glaciation from the drilling.
4. The two areas of interest lie near a cirque (in the south) and near what may be a poorly developed cirque in the north. One of the factors governing the formation of cirques is the location of structural weakness in bedrock. Strong lineations are visible in air photographs of the region. One in particular appears to run across the foot of the southern cirque area at a bearing of about N 55° W to the col which lies on the main north-south ridge at an elevation of 5485 feet. It is perhaps significant that sample BG 28 (1) has the highest content of Cu (215 ppm) found on the western side of the main ridge and lies near the projection of this lineation. Outside the map area and to the southwest on air photo Al2974-372 there is an even more prominent lineation cutting across two cirque zones. Perhaps the mineralization responsible for geochemical anomalies is concentrated in structural zones near the base of the cirques. This suggests that further reconnaissance exploration might profitably be concentrated further east and west along the structural break evident in the air photograph in the map area, and outside the map area to the southwest along the fracture zones near cirques evident in air photo Al2974-372.
5. Most of the area visited should lend itself well to a combination of soil sampling, stream sediment sampling, float and outcrop sampling.
6. A previous report on the area (2) indicates that an I.P. survey was carried out in the grid area. From the geophysical map it appears that this refers to the confined grid and not to the larger area surveyed by magnetometer. Further I.P. work would appear desirable after the other surveys.
7. There is a tendency for the highest Mo soil samples to be located in a north-south zone centred about 3400 E to 3800 E parallel to, and close to,


the trend of the I.P. anomaly. The projection of this zone to the south passes along a valley forming the north limb of an open area about 3000 feet south of the southernmost line of the grid (L 4000 N). Several soil samples in this area were high in Mo and Cu in the old sampling. The intersection of this north-south zone with the northwest trending slope face which lies near L 4000 N 3000 E might be a favourable location for mineralization. Similarly the intersection of the projection of this zone and the base of the southern cirque might also be a favourable location for mineralization.

RECOMMENDATIONS

- 1. Several inclined drill holes could be placed in the area centred around L 4000 N 3000 E as recommended by G.S.W. Bruce and L. B. Halladay (1).
- 2. Extend baseline south to the southern cirque. Cut cross lines and sample at 100 foot intervals starting at the southernmost limit of previous soil sampling. Drainage and float sampling should also be done, after the grid has been cut, to provide good control. I.P. lines could then be run, guided by the results of the geochemistry.
- 3. Further reconnaissance geochemistry could be done outside the map area, particularly near the strong lineations evident in air photo A12974-372.
- 4. An additional double row of claims should be added to the south of the present claims.

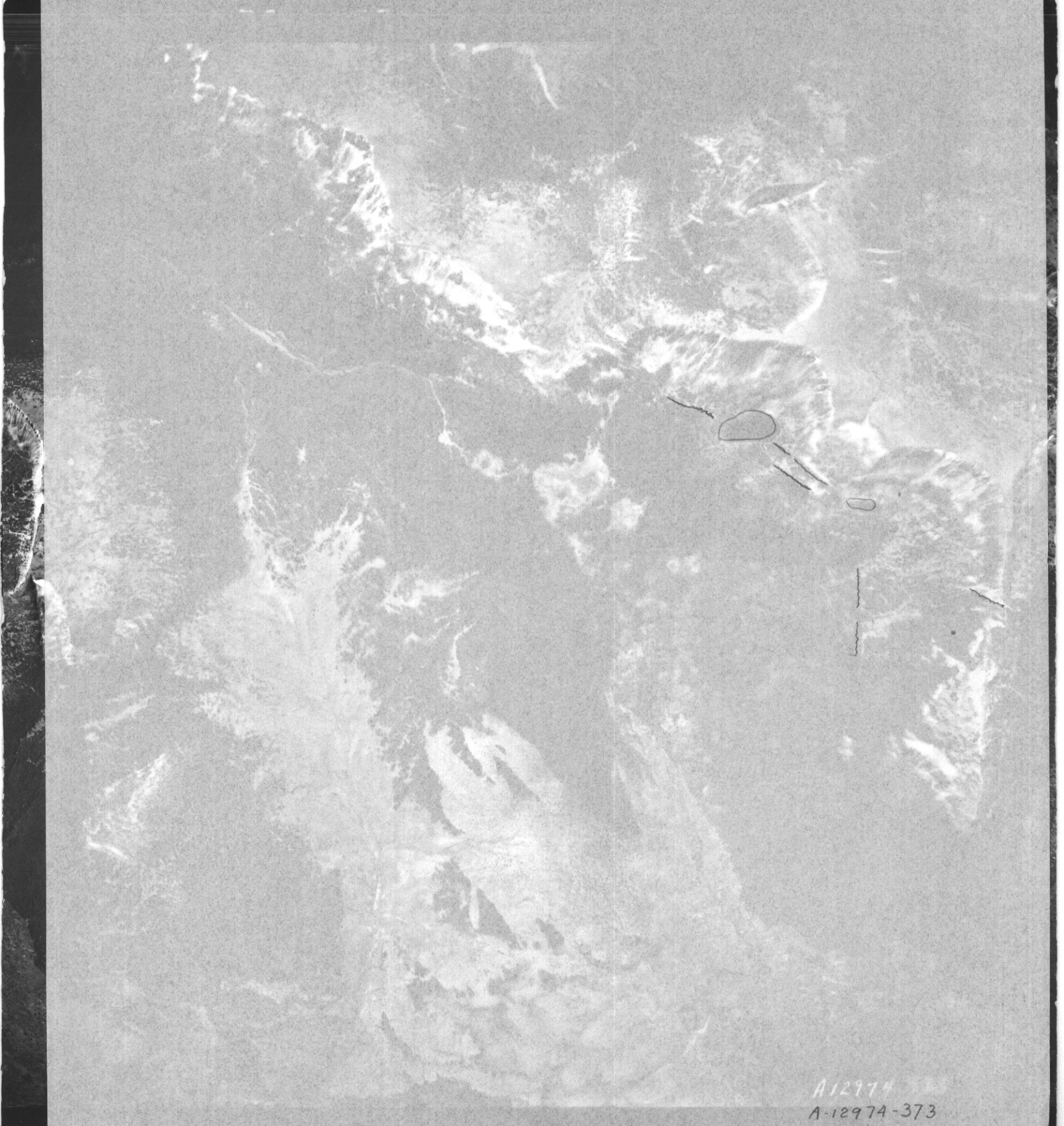
REFERENCES

- 1. Bruce, G.S.W. and Halladay, L. B. Examination report specific project "Burn" Kwanika Creek Area, B. C. July 26, 1973.
- 2. Summary report Burn claim group.



G. R. Webber

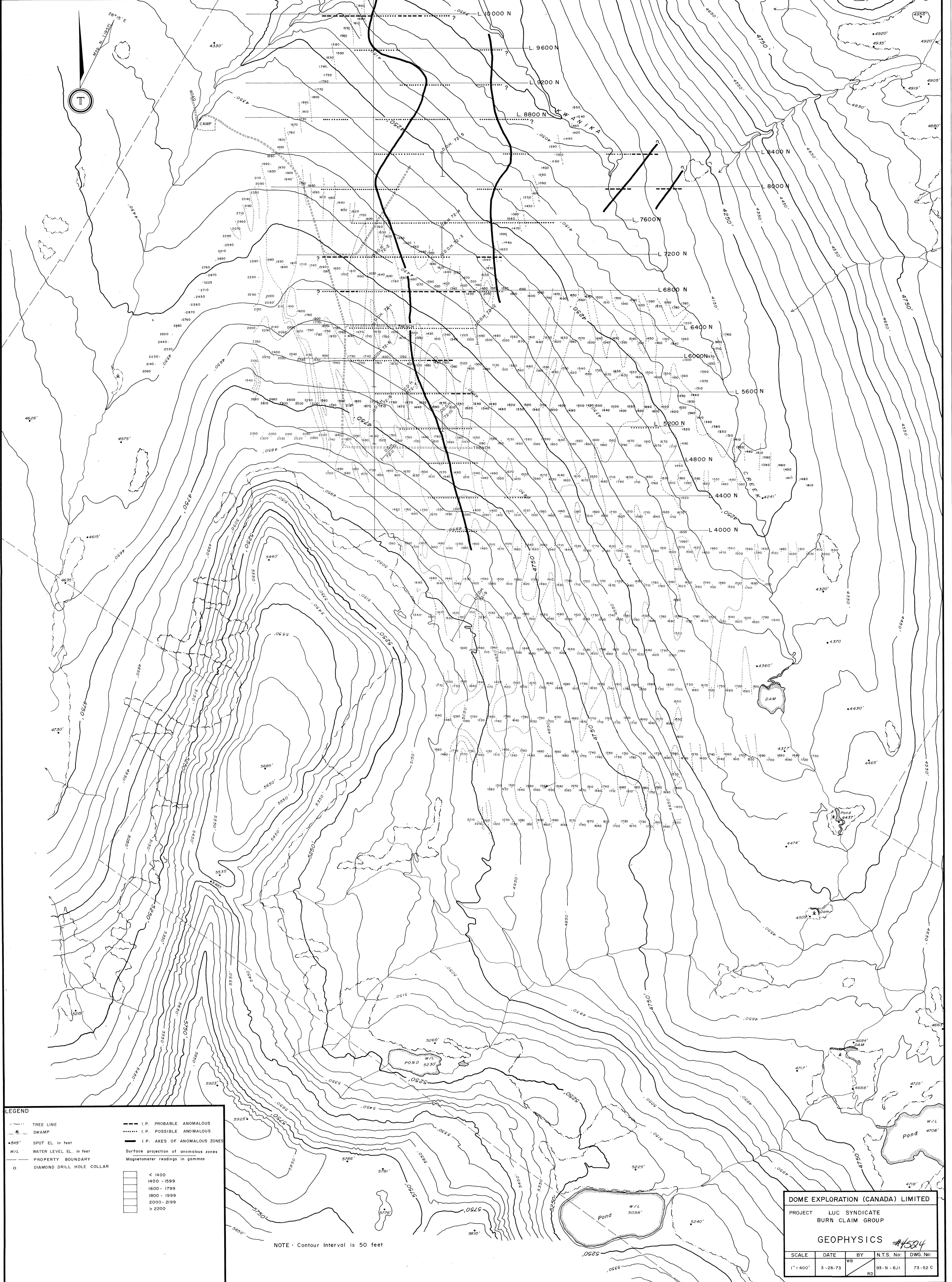
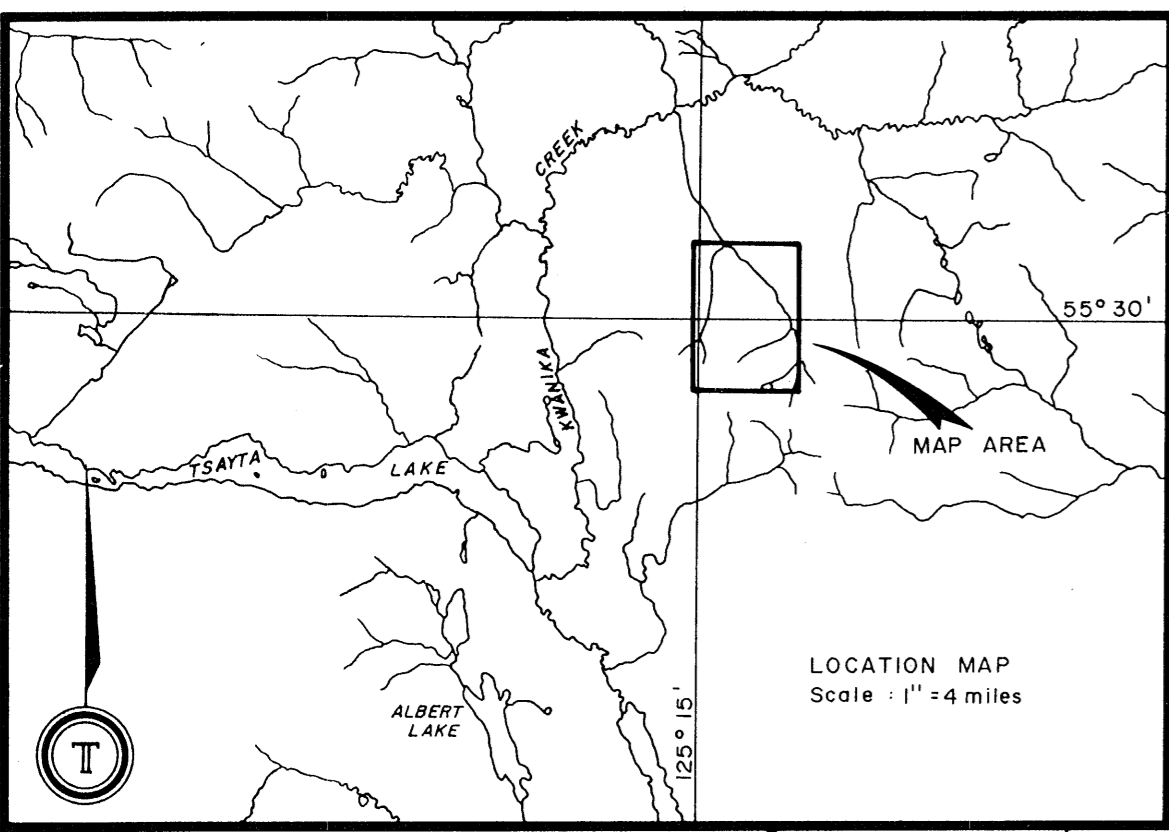
September 7, 1973



A12974
A-12974-373



A-12974-372



LEGEND

- TREE LINE
- SWAMP
- SPOT EL. in feet
- W/L WATER LEVEL EL. in feet
- PROPERTY BOUNDARY
- DIAMOND DRILL HOLE COLLAR
- I.P. PROBABLE ANOMALOUS
- I.P. POSSIBLE ANOMALOUS
- I.P. AXES OF ANOMALOUS ZONES
- Surface projection of anomalous zones
- Magnetometer readings in gammas

< 1400
1400 - 1599
1600 - 1799
1800 - 1999
2000 - 2199
> 2200

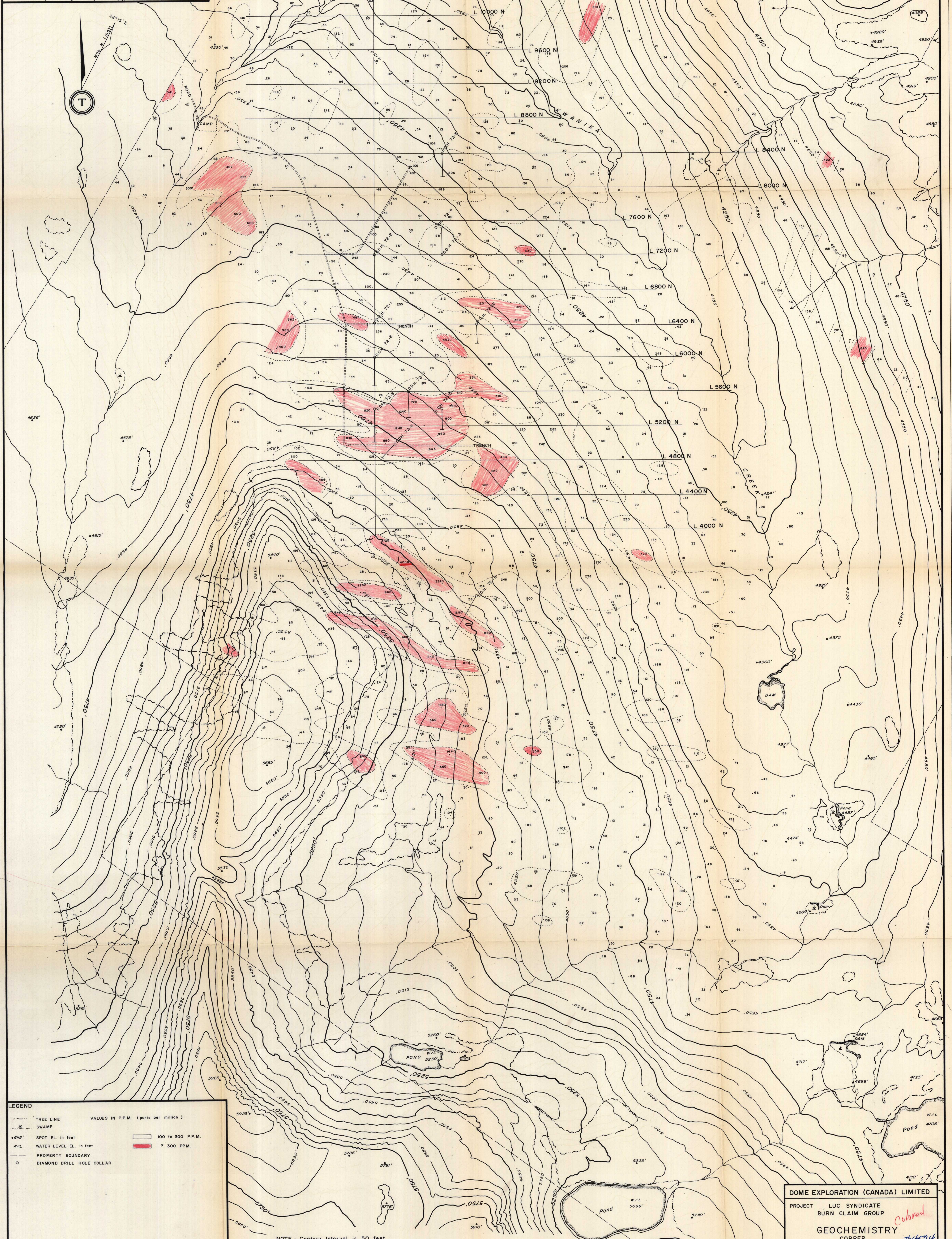
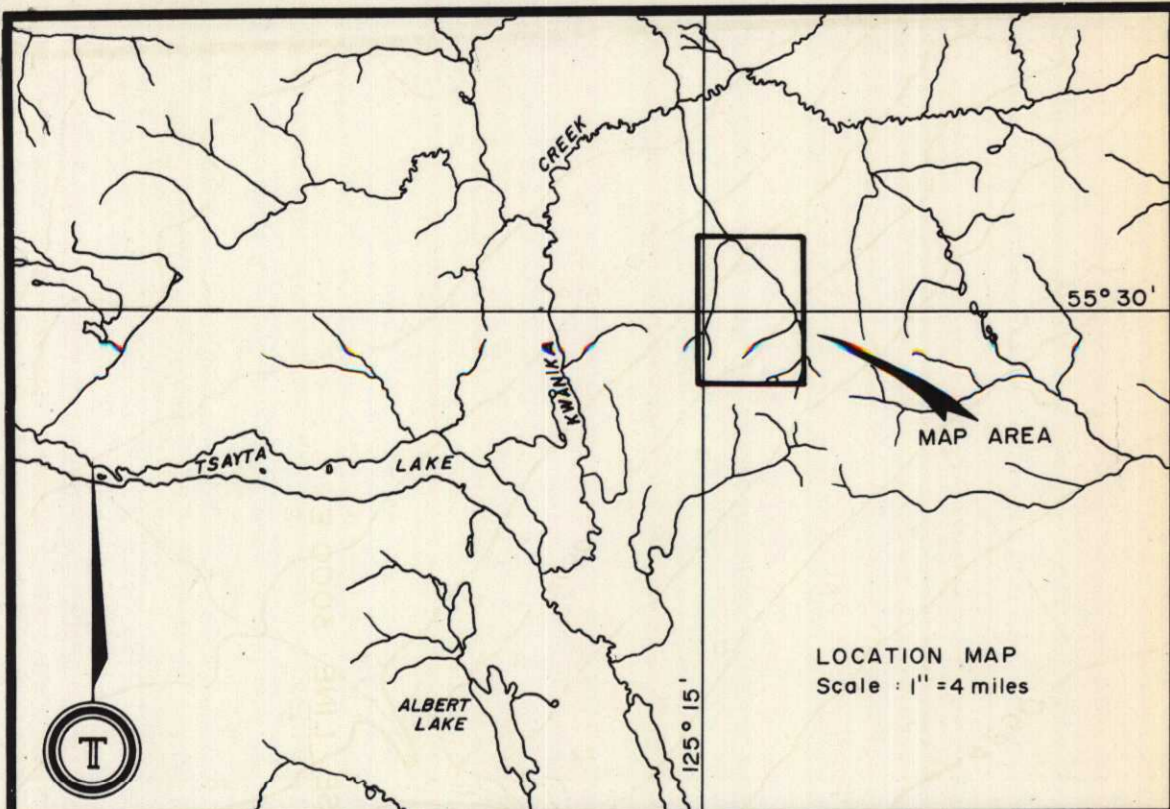
NOTE: Contour Interval is 50 feet

DOMEXPLORATION (CANADA) LIMITED

PROJECT LUC SYNDICATE
BURN CLAIM GROUP

GEOPHYSICS #4524

SCALE	DATE	BY	N.T.S. No.	DWG. No.
1" = 400'	3-28-73	WB	93-N-611	73-52 C



LEGEND

---	TREE LINE	VALUES IN P.P.M. (parts per million)
---	SWAMP	
•	SPOT EL. in feet	100 to 300 P.P.M.
W/L	WATER LEVEL EL. in feet	> 300 P.P.M.
---	PROPERTY BOUNDARY	
○	DIAMOND DRILL HOLE COLLAR	

NOTE: Contour Interval is 50 feet

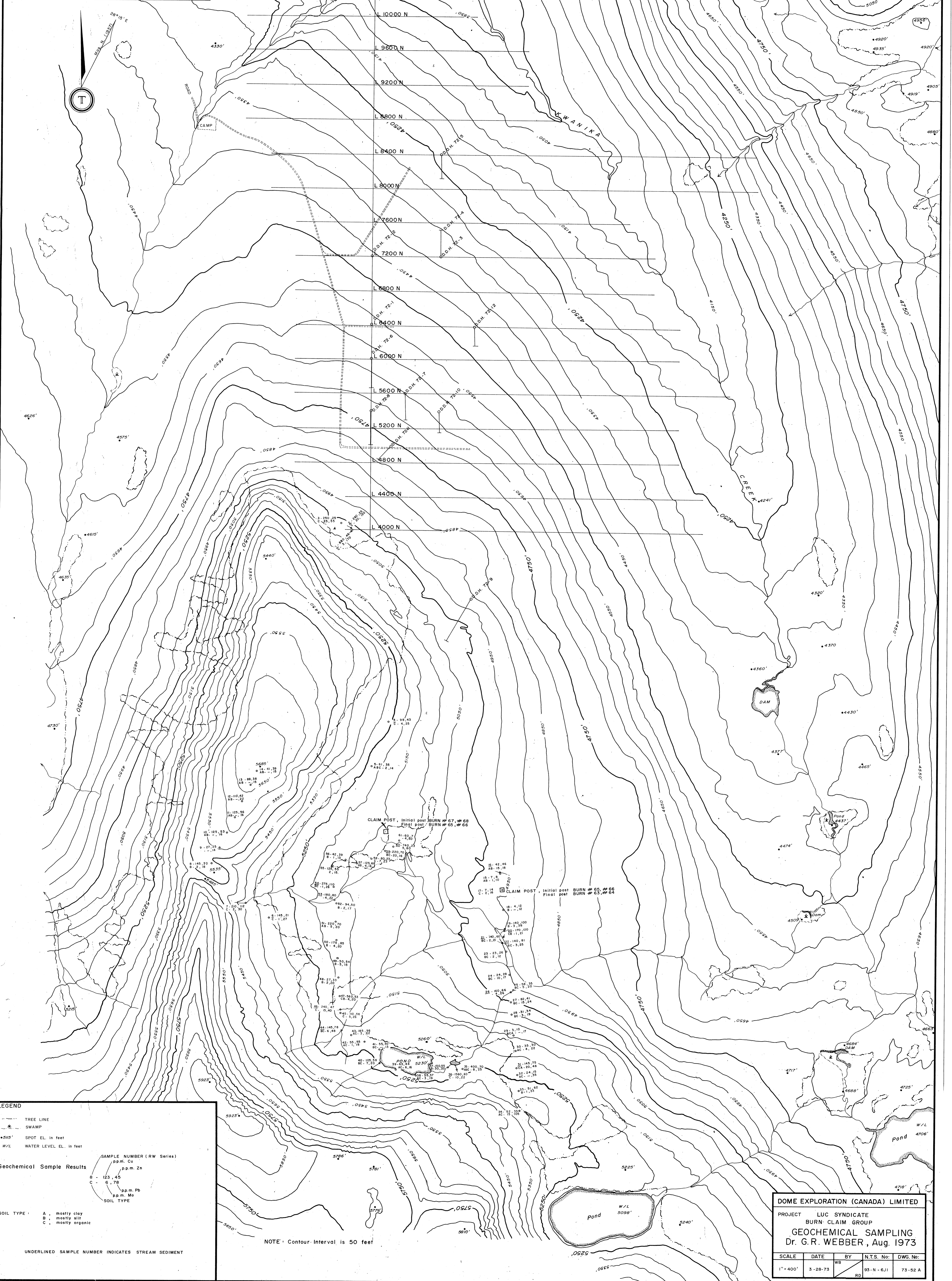
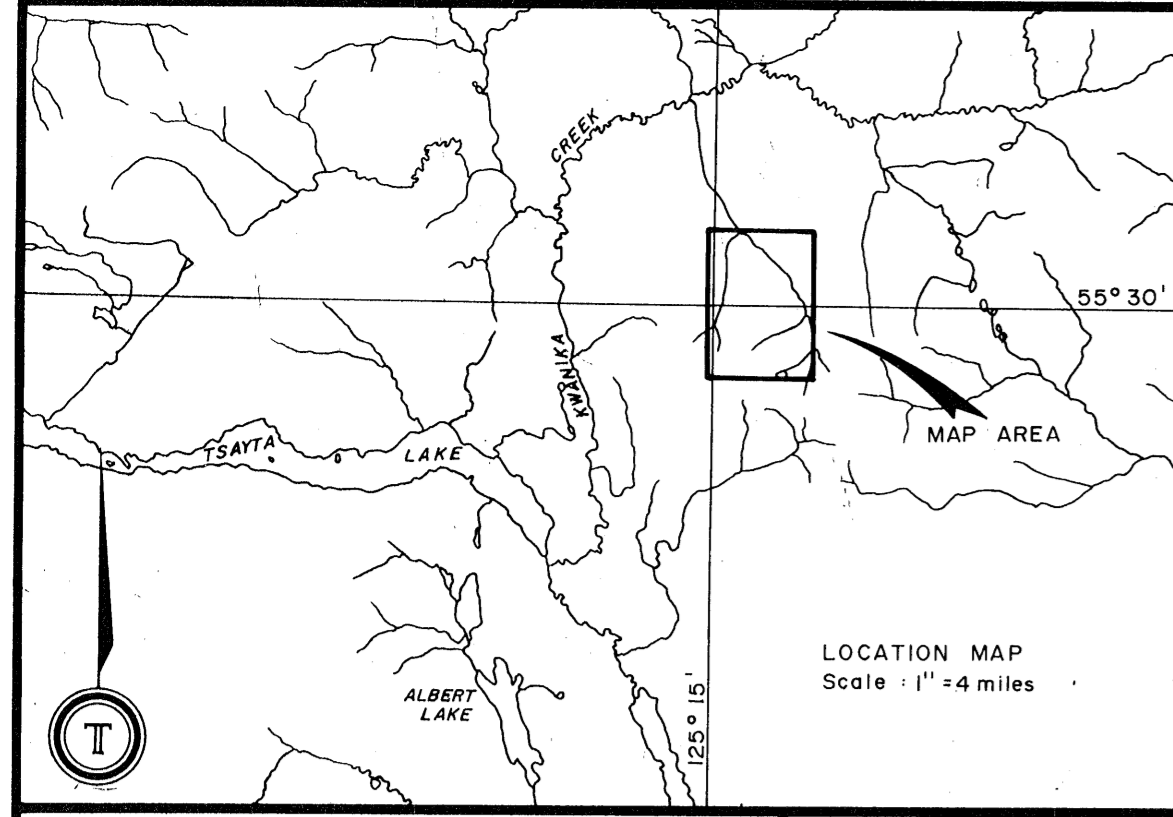
DOME EXPLORATION (CANADA) LIMITED

PROJECT LUC SYNDICATE
BURN CLAIM GROUP

GEOCHEMISTRY
COPPER *Colored*

#4524

SCALE	DATE	BY	N.T.S. NO.	DWG. NO.
1" = 400'	3-28-73	WB	95-N-611	73-52 D



LEGEND

- TREE LINE
- SWAMP
- SPOT EL. in feet
- W/L WATER LEVEL EL. in feet

Geochemical Sample Results

SAMPLE NUMBER (RW Series)

pp.m. Cu
pp.m. Zn

8 - 123.45
9 - 6.78
10 - 1.23

pp.m. Pb
pp.m. Mo

SOIL TYPE

- A, mostly clay
- B, mostly silt
- C, mostly organic

UNDERLINED SAMPLE NUMBER INDICATES STREAM SEDIMENT

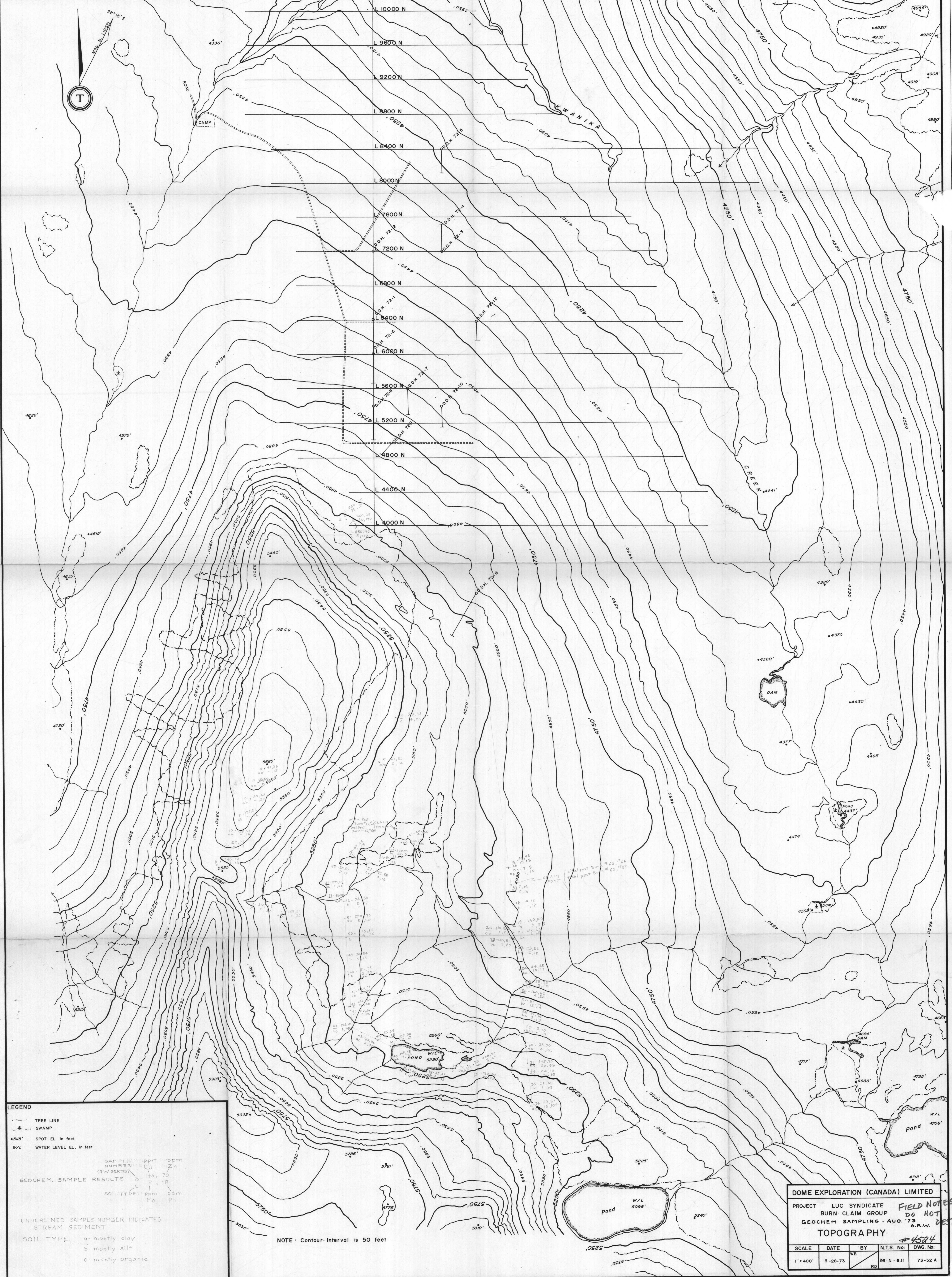
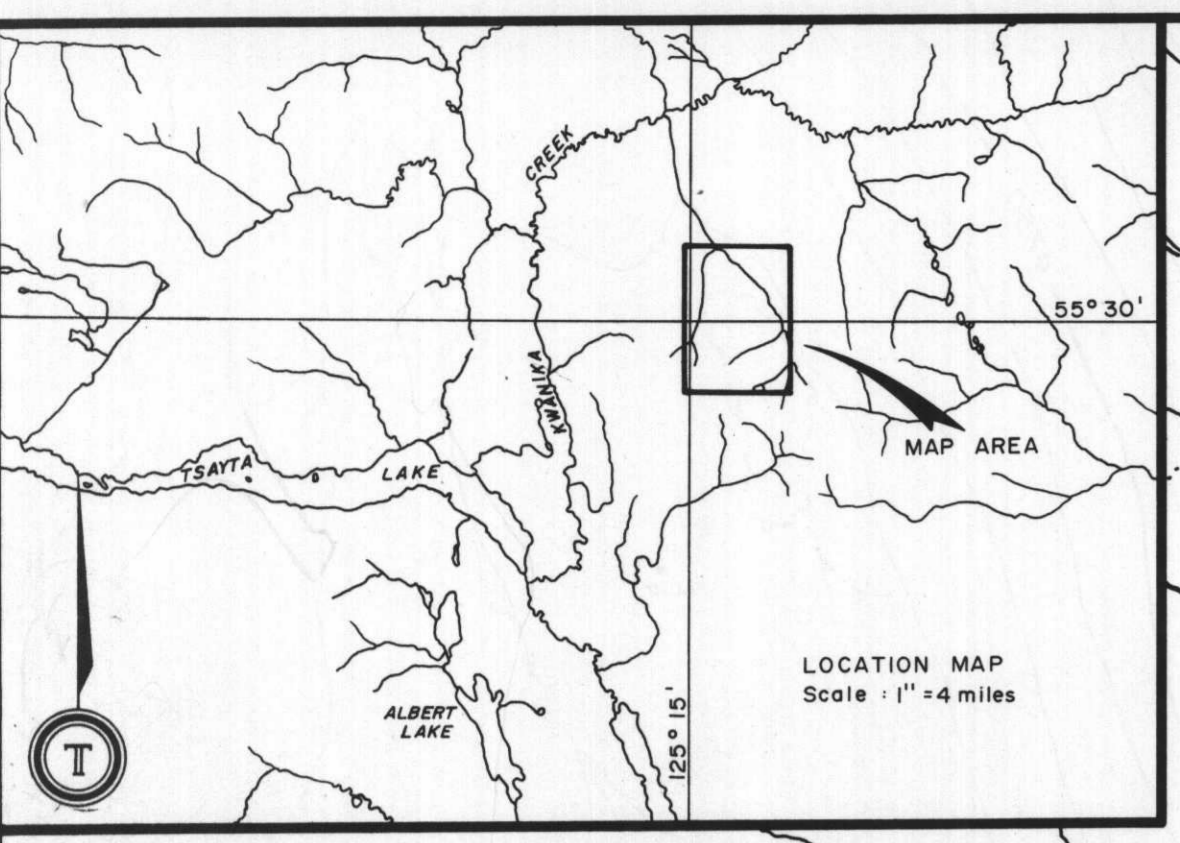
NOTE: Contour Interval is 50 feet

DOMEXPLORATION (CANADA) LIMITED

PROJECT LUC SYNDICATE
BURN: CLAIM GROUP

GEOCHEMICAL SAMPLING
Dr. G. R. WEBBER, Aug. 1973

SCALE	DATE	BY	N.T.S. No.	DWG. No.
1" = 400'	3-28-73	WB	93-N-6.11	73-52 A



LEGEND

--- TREE LINE
 * SWAMP
 * SPOT EL. in feet
 W/L WATER LEVEL EL. in feet

SAMPLE NUMBER (RWASST) ppm ppm
 Cu Zn
 G. 145 70
 C 2 18
 SOILTYPE ppm ppm
 Mo Pb

UNDERLINED SAMPLE NUMBER INDICATES STREAM SEDIMENT

SOIL TYPE: a- mostly clay
 b- mostly silt
 c- mostly organic

NOTE: Contour Interval is 50 feet

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PROJECT LUC SYNDICATE
 BURN CLAIM GROUP
 GEOCHEM SAMPLING - AUG. '73
 G.R.W. DESTROY

FIELD NOTES
 DO NOT DESTROY

TOPOGRAPHY
 #4524

SCALE	DATE	BY	N.T.S. No.	DWG. No.
1" = 400'	3-28-73	WB	88-N-6.11	73-52-A