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Mr. G. Simpson,
Cyprus Exploration Corp.,
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Vancouver, B.C.

October 13, 1971

Dear Glen;

This is a brief description of the soils examined on the IDA Group and the results obtained from deep sampling on line 39E, on October 4, 1971

A series of deep samples were taken with a screw auger starting at the baseline up to the crest of the hill on line 39E, and then down the other side past the break in slope where the ground water surfaced. On the baseline near the lake, the topography is gentle with ground water surfacing or near surface. The soils consist of organic matter near the lake past the depth of the auger, which was 4 feet. Some sandy material intermixed with the organics was noted. At depth, the organics had a foul odor, typical of a reducing environment. The pH should be fairly low and consequently mobility of ions will be higher than usual. Holes were driven at intervals away from the lake, and at about 20 feet from the edge of the lake, a clay rich horizon was found beneath the organics. If possible, this horizon should be sampled when approaching the lake. Because of the low pH in this area, and the large amount of ground water, copper values may be lower in the bog than one would expect.

The ground water remained close to the surface up to 39E+7S, which was on a steeper slope and appeared to be well drained. Below 7S the soils consisted of a thick humus layer underlain by a dark brown A horizon which rested on well compacted till. At and above 7S, a well developed podzol soil existed, which had a thick organic layer, a 18-24 inch thick orange A horizon, and a lighter orange B horizon extending to depth. Samples were taken from the top of the B horizon, and at 4 feet which was the maximum depth one could get with the auger.

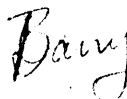
The copper values in samples taken from the middle of the B horizon remain remarkably similar while proceeding from sample 7S to sample 13S. The south side of the hill is steeper, and the ground water surfaces near 15S. The values in the middle of the B horizon are higher in copper than elsewhere on the line, and may indicate either copper mineralization or a volcanic flow higher in copper than the surrounding volcanics. At 18+60S, the sample was in ground water and glacial till. The soil appeared similar to that found at 4+50S.

In summary, samples near the lake will probably be organic, but if taken approximately 20 feet from the lake edge, a clay horizon may be found. Soils which overlay glacial till should be sampled at a depth of 4 feet which should be well in the B horizon. The fellows on the property are familiar with these soil types and should not have many sampling problems. You will probably find that anomalies are lower in absolute values than normal, due to the large dilution caused by the ground water. Movement of ions may be variable depending on the pH of the soil. One would expect the movement in the bogs by the lake to be considerable due to reducing conditions.

I hope this helps your sampling and interpretation, Glen.

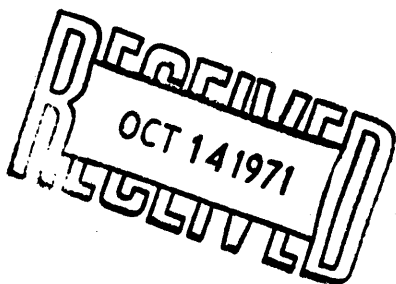
Yours truly,

BARRINGER RESEARCH LIMITED,



B.W. Smee,
Geochemist.

BWS/smr



IDEALIZED SOIL PROFILES
 IDA GROUP
 GARNET EXPLORATION

VERT SCALE 1" = 4'
 NO HORIZONTAL SCALE

— BT, <2 COPPER, molybdenum
 ——— GROUND WATER

