94F-16 Kluachesi Lake

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KLUACHESI LAKE AREA, B.C.
RECONNAISSAINCE GEOLOGY AND GEOCHEMISTRY

Report for:
Cyprus Exploration Corporation Limited

FINDLAY CONSULTANTS LIMITED
Morrisburg, Ontario

August 30, 1971

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TITLE	Final Report
PROJECT	Kluachesi Lake Area, B.C. Reconnaissance (Proj. 71009)
COMPANY	Cyprus Exploration Corporation Limited
DATE	August 30, 1971

SUMMARY

About 1,000 claims were staked by various companies and individuals in July, 1971 in the Kluachesi Lake area 75 miles southwest of Fort Nelson, B.C. following reports of a new copper discovery on claims held by McIntyre-Porcupine Mines Limited.

There are reportedly about 8 showings known in the area, 6 on McIntyre-Porcupine ground and 2 on adjoining claims held by Slocan-Ottawa Mines Limited.

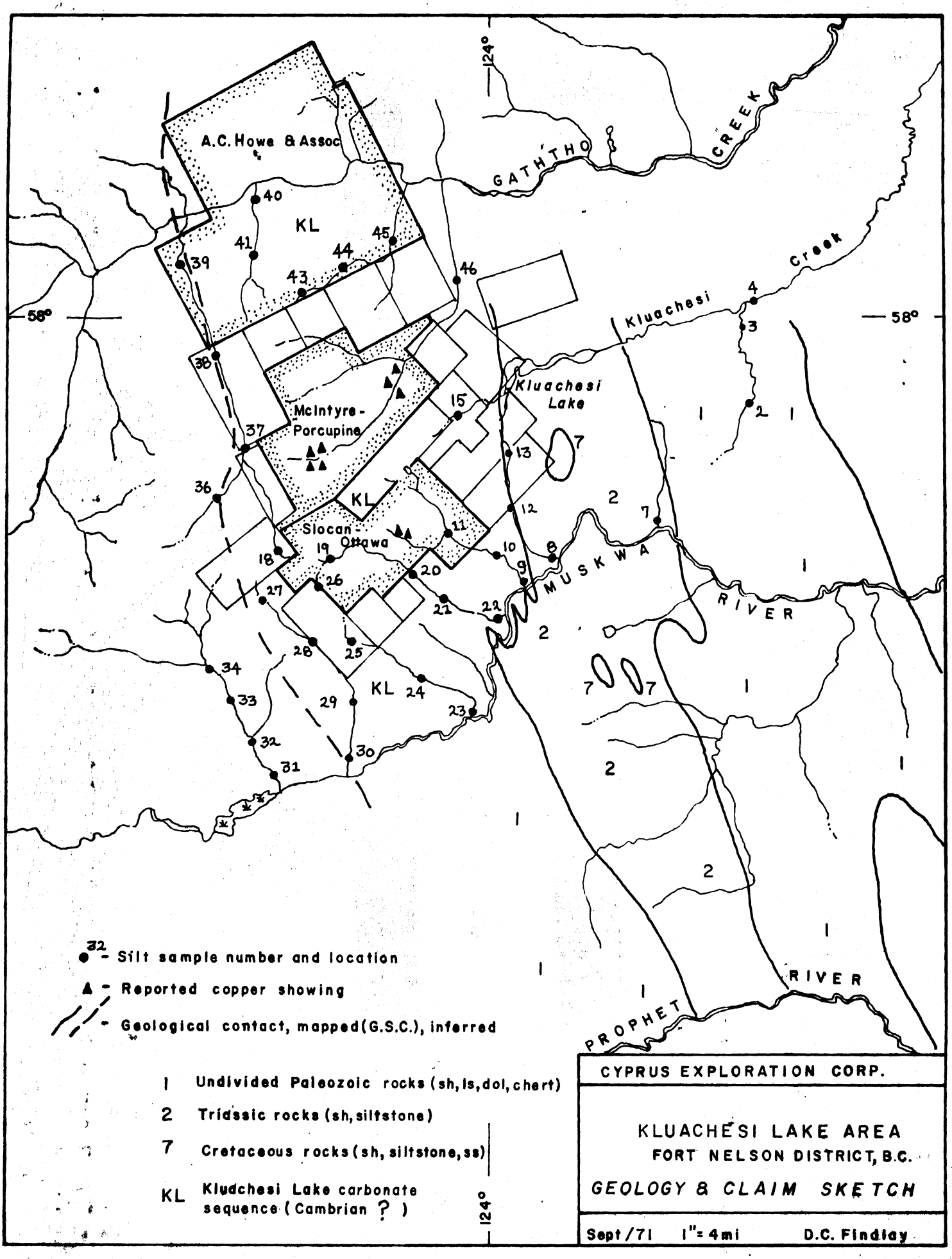
The area is underlain by a gently-dipping sequence of carbonate sedimentary rocks, chiefly limestone, dolomite, dolomitic limestone and intercalated sandstone. The rocks are of uncertain age but may in part be Cambrian.

Mineralization is chalcopyrite and bornite, apparently occurring as replacement patches and pods in a dolomite horizon that is stratigraphically low in the local section. Details of the mineralized zones are not known, but available information suggests that they are not of the sedimentary or 'blanket' type.

Stream silt samples (38) collected from various of the creeks draining the local area yielded metal ranges of: Cu 9-38 ppm; Pb 11-28 ppm; Zn 19-180 ppm. None of the values obtained are considered significantly anomalous.

INTRODUCTION

A minor staking rush was triggered in the Kluachesi Lake area in July, 1971 with the release of results of packsack drilling by McIntyre-Porcupine Mines Limited on a 'significant' new copper discovery (Northern Miner, July 29, 1971). During July a total of about 1,000 claims were staked. Subsequently,


A.C. Howe & Assoc
GATHTHO
CREEK
Kluachesi Creek
Kluachesi Lake
McIntyre - Porcupine
Slocan - Ottawa
MUSKWA RIVER
PROPHET RIVER
KL
124°
58°
32 - Silt sample number and location
- Reported copper showing
- Geological contact, mapped(G.S.C.), inferred
1 Undivided Paleozoic rocks (sh, ls, dol, chert)
2 Triassic rocks (sh, siltstone)
7 Cretaceous rocks (sh, siltstone, ss)
KL Kludchesi Lake carbonate sequence (Cambrian ?)
CYPRUS EXPLORATION CORP.
KLUACHESI LAKE AREA
FORT NELSON DISTRICT, B.C.
GEOLOGY & CLAIM SKETCH
Sept/71 1"= 4mi D.C. Findlay

additional mineralization was reportedly discovered by Slocan-Ottawa Mines Limited on their ground adjacent to the McIntyre-Porcupine property (Northern Miner, August 19, 1971). At the time of the writer's visit to the area (August 10) no staking was in progress.

The area was visited August 10 via Bell 206A helicopter chartered from Okanagan Helicopters Limited, Fort Nelson. Reconnaissance traverses were conducted over the general area of staked ground and many of the creeks draining the area were silt-sampled on a reconnaissance scale. The McIntyre showings were not examined, but some information on their occurrence was obtained from McIntyre personnel in Fort Nelson.

AREA AND STAKING ACTIVITY

The area lies about 75 miles southwest of Fort Nelson, B.C. near the junction of N.T.S. 4-mile topographic sheets 94G (Trutch), 94F (Ware), 94K (Tuchodi Lakes) and 94J (Fort Nelson). The geographic coordinates of the approximate centre of the area are: 58-25 N; 124-10 W. Access is by helicopter from Fort Nelson or via floatplane to Kluachesi Lake on the east-central margin of the area. A minimum (Supercub) airstrip is located near a hunting lodge at the northwest end of Kluachesi Lake.

The area lies in the Front Ranges of the Rocky Mountains. Local relief is moderate (about 4,000 feet) but dissected, nearly flat-lying sedimentary strata provide locally precipitous slopes.

The approximate extent of the present staking is shown on the accompanying sketch. The sketch is based on information provided by McIntyre-Porcupine Mines Limited. About 1,000 claims are involved, the largest block (556 claims) reportedly held by A.C. Howe and Associates.

REGIONAL GEOLOGY

Most of the area is unmapped. Geological Survey of Canada maps 12-1963 (Trutch) and 3-1968 (Fort Nelson) cover areas to the east of Kluachesi Lake. Extrapolation of geology from the Trutch sheet suggests that the present area should be underlain chiefly by 'Unit 1' rocks, described as 'Undivided Paleozoic', including shale, limestone, dolomite and chert. These rocks are considered 'Cambrian to Silurian' in age since they are overlain by middle Devonian limestone (Pelletier and Stott, 1963).

LOCAL GEOLOGY

The local area is underlain by a gently-warped sequence of carbonate sedimentary rocks with a general lithologic distribution down the section of:

grey, massive limestone
dolomite and sandstone
dolomite, limestone, dolomitic limestone

Some sandstone members are relatively pure and show incipient metamorphic effects; locally they are paraquartzites.

The carbonate succession trends north to north-northwest, is apparently about 5 miles wide, and is bordered on the east by 'Unit 2' rocks (Triassic shales and siltstones with some limestone) and on the west by a folded sequence of brown and grey shales and shaley limestone of unknown age. The extent of the carbonate belt to the north and south is not known.

MINERALIZATION

Few data are available on the showings in the area. Circumstantial evidence, coupled with an examination of a McIntyre-Porcupine hand specimen, suggest that the showings probably comprise replacement pods of chalcopyrite and bornite, occurring in one of the lower dolomite horizons of the carbonate sequence. On the McIntyre-Porcupine property the western or 'upper' (topographically) group of showings (see sketch) are reportedly the most interesting and these were being diamond-drilled at the time of the writer's visit.

Some of the sandstone horizons in the carbonate sequence carry disseminated pyrite, locally to 1 or 2 per cent, imparting a spotty, rusty-weathering surface to the rock. This was noted particularly on the Slocan-Ottawa ground.

STREAM SILT GEOCHEMISTRY

A total of 38 stream-silt samples were collected from various of the creeks draining the area, and analyzed by Bondar-Clegg and Company Limited, Whitehorse, for Cu, Pb, and Zn. Sample localities are shown on the accompanying sketch and metal values are listed in the Appendix. No significantly-anomalous trends were recorded.

CONCLUSIONS AND RECOMMENDATIONS

The Kluachesi Lake copper occurrences probably represent small replacement zones in dolomite, perhaps similar to some of the copper showings in the Bonnet Plume area of Yukon. To date there seems to be no suggestion that they could be part of a more extensive 'sedimentary' or 'blanket' -type copper environment; however, it must be appreciated that few factual details are available on the showings at this time.

The Kluachesi Lake belt comprises a carbonate stack with a minimum thickness of 4,000 feet and an unknown strike extension. If the rocks are, in part at least, Cambrian in age, the belt could be considered as a potential primary exploration target area, in the light of the known association of stratiform base metal deposits with Cambrian and Eocambrian carbonate sedimentary rocks in the Cordillera.

Morrisburg, Ontario
August 30, 1971

FINDLAY CONSULTANTS LIMITED

D.C. Findlay

D.C. Findlay, F.G.A.C.

REFERENCE

Pelletier, B.R. and Stott, D.F.
1963: Trutch Map-Area, B.C.; Geol Surv. Can. Paper 63-10

APPENDIX

Stream Silt Sample Results, Kluachesi Lake Area, B.C.

Sample No	Cu ppm	Pb ppm	Zn ppm	Sample No	Cu ppm	Pb ppm	Zn ppm
2	26	20	130	39	9	19	22
3	33	20	144	40	13	26	22
4	10	12	68	41	10	26	28
7	9	11	40	43	10	27	48
8	16	16	52	44	10	28	42
9	22	16	39	45	15	20	180
10	28	18	45	46	16	17	32
11	35	25	30				
12	10	12	30				
13	13	15	46				
15	38	27	25				
18	9	26	33				
19	9	28	17				
20	10	26	21				
21	9	21	20				
22	19	21	16				
23	6	26	22				
24	7	24	27				
25	8	24	25				
26	7	24	19				
27	10	24	42				
28	10	26	38				
29	17	23	38				
30	25	23	38				
31	21	19	58				
32	34	21	60				
33	22	22	44				
34	19	22	27				
36	14	17	42				
37	12	24	44				
38	10	20	32				

All analyses by Bondar-Clegg and Co. Ltd., Whitehorse laboratory. Hot aqua regia, AA on -80 mesh grind.