1874

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REPORT ON

GEOCHEMICAL AND PROSPECTING SURVEY

CARRIED OUT ON THE SQUINGULA PROPERTY

of

CANADIAN SUPERIOR EXPLORATION LIMITED

CLAIMS: JKB 1 - 20 Group (Tag No's 912935 - 912954)

LOCATION: 56° 15'N, 127° 20'W
Squingula River, Omineca Mining Division
56° 127° SE, 110 miles North of Smithers, B.C.

DATES: August 13 - 28, 1968

by

B. H. Kahlert, B. Sc.
Geologist
CANADIAN SUPERIOR EXPLORATION LIMITED

W. Rainboth, B. A. Sc., P. Eng.
Geologist
CANADIAN SUPERIOR EXPLORATION LIMITED

A. GENERAL INFORMATION

1. Location and Access.

The property is located near the mouth of the Squingula River, slightly over 100 miles due North of Smithers, B. C. Access to the property is only by helicopter from a base in Smithers. Supplies would best be brought in by float plane to the head of Bear Lake, then ferried via helicopter to the claims area.

2. Property Description and History.

The JKB claims are staked across an expansive, flat-topped mountain at the northeastern end of the Sicintine Range. The top of the mountain is strongly iron oxide stained, making it conspicuous in the area. The colorful staining is due to the weathering of pyrite which accompanies a small porphyry plug cutting northward across the mountain. The porphyry has cut local sediments and acid to intermediate volcanic flows belonging to the Sustut(?) Group. Contact zones have been strongly altered to clay and kaolinite.

The property was previously staked by Kennco Exploration (Western) Ltd. in 1965. Kennco carried out a short silt and rock chip sampling program, drilled two short packsack diamond drill holes, then let the claims lapse.

B. METHODS OF SURVEYS

1. Sampling Procedure.

   (a) Rock Chip Samples

   The samples were collected by breaking 5-10 gram chips of rock from outcrops with a geologic pick. Approximately 50 grams of chips per sample were collected. Sampling interval was from 200 to 400 feet along traverse lines.

   (b) Silt Samples

   Silt samples were collected from sediments of moving streams and creeks by digging fines from the creek bottom by hand. A helicopter was used to collect samples from streams along which foot travel was almost impossible due to heavy underbrush. The helicopter landed in clearings near the creeks and waited while the sample was taken. Creeks at higher elevation were more accessible on foot and samples were taken at 200 to 400 foot intervals along creek traverses.

2. The samples were packaged in soil sample envelopes supplied by Canada Envelope Company of Montreal and made of "High Wet Strength, Kraft" brown paper with a wet strength of 32 lbs., measuring 3 1/2 inches by 8 1/2 inches when the flap of the envelope is folded.

3. The silt samples were partially dried in the field by suspending them in the bags under the roof of a tent. The bags have holes pierced in them for stringing several together for this purpose. In the laboratory, the samples were dried in a warm oven while still in the bags. The samples were screened through an 80 mesh nylon screen, the fines being used for analysis.

4. The rock chip samples were shipped directly to the laboratory, where they were crushed, pulverized and screened through an 80 mesh nylon screen, the fines to be analyzed similar to the silt samples.

5. The tests for total copper and total molybdenum were all carried out in the laboratory of Barringer Research Ltd., in Toronto. No field tests were carried out.

6. The tests were performed as follows:

(a) Total Copper

A sample of the fines from screening the dried sample was digested with fuming perchloric acid for four hours in a pyrex beaker. The siliceous sediment was allowed to settle and the solution diluted to a measured volume with distilled and de-metallised water. An aliquot of the test solution was then taken and analysed for copper using an atomic absorption spectrophotometer manufactured by Perkins-Elmer. Carefully prepared standards were used for control and the copper analyses were carried out by Barringer Research of Toronto, as were those for total molybdenum.

(b) Total Molybdenum

A 1/4 gram sample of the fines was fused in a nickel crucible with 1 gram of a fusion mixture made up of 5 parts anydrous sodium carbonate, 4 parts sodium chloride and 1 part potassium nitrate. The mixture was fused until frothing ceased and allowed to cool, then 2 millilitres of water added. After standing for several hours, the solution and melt were transferred to a calibrated test tube and adjusted to 5 millilitres with water. The solution was then boiled until the melt disintegrated.

(b) . . . Continued

A 2 millilitre aliquot of the resulting solution was pipetted into 2 millilitres of 2 1/2% hydroxylamine hydrochloride solution contained in a test tube. The tube was shaken to liberate carbon dioxide and left to cool below 30°C. Half a millilitre of 1% dithiol solution (hydrochloric acid) was then added and the mixture shaken gently at intervals over a period of 20 minutes. The resulting green colour developed was compared with a series of similarly prepared standards containing differing amounts of molybdenum. The standard matching the colour of the sample solution was found and knowing the amount of of molybdenum therein the amount of the unknown was found via the formula:

$$\text{molybdenum in p.p.m.} = \frac{10 \times \text{micrograms of molybdenum in the matching standard.}}{}$$

C. GEOCHEMISTRY

1. Area Sampled.

Silt sampling was carried out on most creeks draining the northwest and northeast slopes of the mountain. Samples on the southeast slope were taken at 200 to 400 foot intervals while traversing along the creeks. As the creeks draining the northwest slope were very steep and dangerous to traverse, silt samples were collected in part by traversing and in part by landing in small clearings with a helicopter near the large creek north of the mountain. Rock chip samples were collected along several traverses along the top and slopes of the mountain.

Traverses were controlled by airphotos and altimiters to ensure exact plotting of location of samples.

2. Discussion of Results.

Analyses of the silt samples indicate that the creeks draining the southeast slope drain an area which contains variable amounts of copper and molybdenum mineralization. Results of silts and rock chips from creeks draining the northwest slope show only background values of copper and molybdenum in this area.

Results of the rock chip samples taken over the southeast slope range from background to low anomalous for both copper and molybdenum. This indicates that the silts have probably distributed the metals from small scattered, mineralized areas which were not sampled. Some follow-up prospecting has partially confirmed this theory.

D. CONCLUSIONS

As insufficient work has been carried out to explain all the anomalous readings, a programme of prospecting, geologic mapping and/or rock trenching may have to be carried out to find the source of the high values.

B. H. Kahlert

B. H. Kahlert, B. Sc.,
Geologist.

W. Rainboth

W. Rainboth, B. A. Sc., P. Eng.,
Geologist.

April 28,
1969

APPENDIX A

CLAIM SCHEDULE

CLAIM NAME	TAG NO.	NEXT DUE DATE
JKB #1	912935	Sept. 5, 1969
JKB #2	36	"
JKB #3	37	"
JKB #4	38	"
JKB #5	39	"
JKB #6	912940	"
JKB #7	41	"
JKB #8	42	"
JKB #9	43	"
JKB #10	44	"
JKB #11	912945	"
JKB #12	46	"
JKB #13	47	"
JKB #14	48	"
JKB #15	49	"
JKB #16	912950	"
JKB #17	51	"
JKB #18	52	"
JKB #19	53	"
JKB #20	912954	"

APPENDIX B

DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.
TO WIT:

In the Matter of A Geochemical Survey performed by Canadian Superior Exploration Limited on some JKB claims, Ominica M. D.

I, BERNARD H. KAHLERT

of 2350 West 8th Avenue, Vancouver 9, British Columbia.

in the Province of British Columbia, do solemnly declare that : A geochemical survey was carried out over the JKB Group of claims at the north end of the Sicintine Range, 10 miles north of Smithers, B. C., in the Omineca Mining District, between August 13 and 28, 1968. Expenses incurred are as follows:

1. Wages to:

D. J. Whalen, August 13 - 15, 1968, 3 days @ 21.67	$ 65.00
D. L. Gibson, August 13 - 15, 1968, 3 days @ 15.80	47.40
D. P. Moore, August 13 - 15 and 18 and 26, 1968, 5 days @ 18.45	92.25
D. White, August 13 - 15 and 18 and 26, 1968, 5 days @ 14.20	71.00
B. H. Kahlert, August 13, 1968 1 day @ 23.33	23.33
Total Wages	298.98
2. Geochemical Analyses by Barringer Research Ltd.	249.00
3. Okanagan Helicopters, Helicopter rental 11 hrs. @ 140./hour	1,540.00
Total cost of Survey	$ 2,087.98

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City of Vancouver, in the Province of British Columbia, this 29 day of April, 1969, A.D.

B. H. Kahlert

Jill Tillman

A Commissioner for taking Affidavits for British Columbia or A Notary Public in and for the Province of British Columbia.

SUB - MINING RECORDER

In the Matter of

Statutory Declaration

(CANADA EVIDENCE ACT)

APPENDIX C

GROUPING OF CLAIMS AND ALLOTMENT OF COSTS AS REPORTED UNDER APPENDIX B

JKB GROUP

CLAIM NAME	NO. OF CLAIMS	TAG NO.	PRESENT DUE DATE	TOTAL WORK APPLIED	ASSESSMENT YEARS CLAIM
JKB 1 - 20	20	912935-954	Sept. 5, 1969	$2,087.98	1

APPENDIX D

QUALIFICATIONS OF PERSONNEL

B. H. KAHLERT

Mr. Kahlert is Geologist with Canadian Superior Exploration Limited and has held this position since 1966. He graduated in 1966 from the University of British Columbia, Vancouver, B.C., with the degree of B. Sc.(Single Major) in Geology. He has been with the Canadian Superior Exploration Limited since graduating.

On the work described in this report, Mr. Kahlert initiated and laid out the programme, carried out part of the sampling and supervised the rest of the work.

JKB
CLAIMS
1-20

JAKE
LAKE

M.R. 13 25 8-12 2 2

D.D.H.

LEGEND

- 1 — PORPHYRY
- 2 — UNDIFFERENTIATED ANDESITE, RHYOLITE, HORNFELS & SEDIMENTS
- GEOLOGICAL CONTACT
- RIDGE
- CREEK
- ROCK CHIP SAMPLE
- SOIL SAMPLE
- P.P.M. Cu. (e.g. 368 / 44)
- D.D.H. DIAMOND DRILL HOLE
- CLAIM BLOCK OUTLINE

N

SCALE

Mile 1/4 0 1/4 1/2 3/4 1 Mile

To Accompany Report By B.H. Kablut, B.Sc, and W. Rainboth, B.A.Sc, P.Eng on JKB Claims, Squingula River, Omineca M.D.

W. Rainboth
P.Eng.

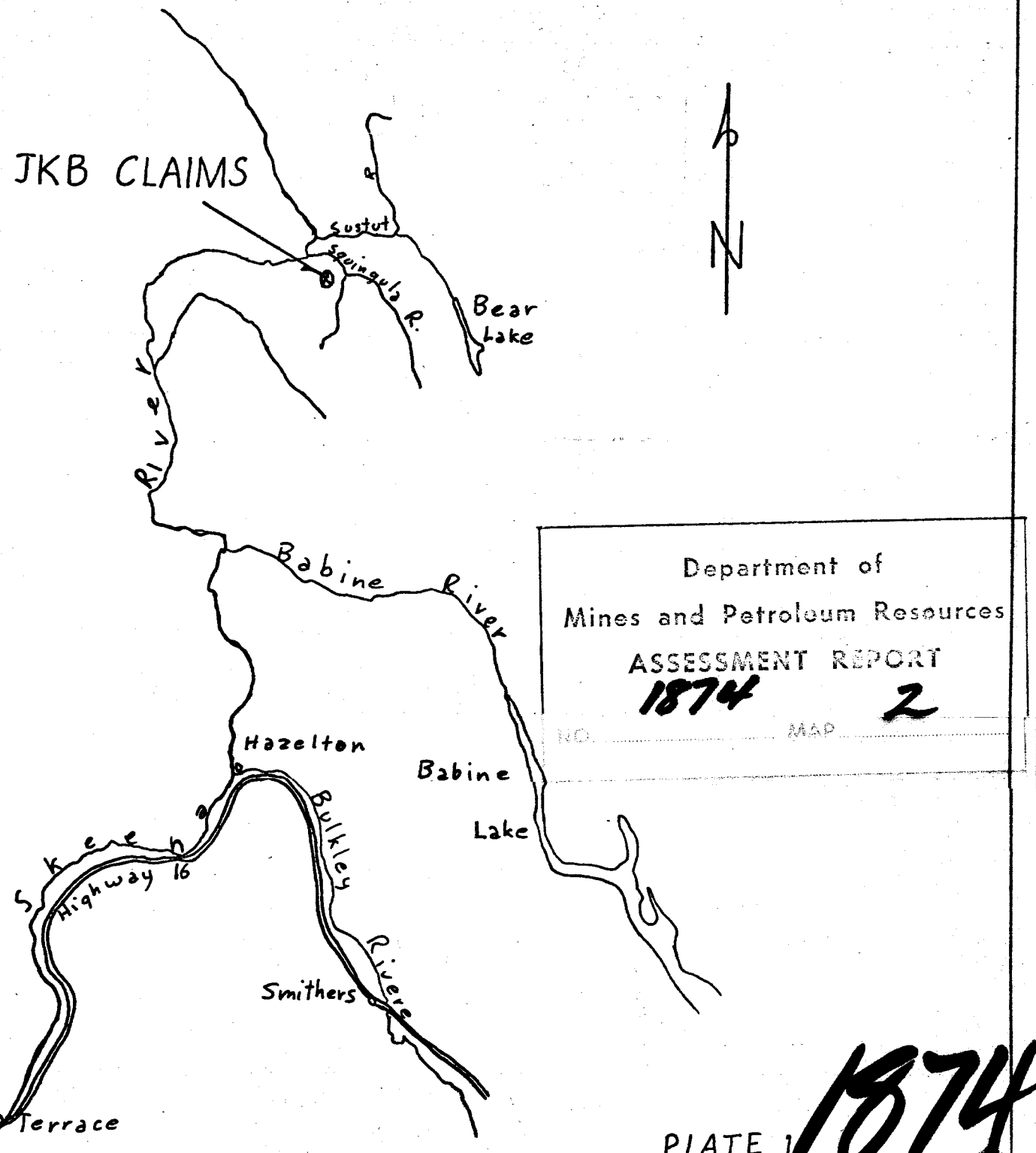
Plate 2 1874

CANADIAN SUPERIOR EXPLORATION LIMITED

MOTASE AREA - J.K.B. CLAIMS

ROCK & SILT SAMPLING
COPPER

OCT., 1968 B.H.K., R.A.D. DWG.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
1874
NO. 2 MAP

PLATE 1 1874

N.T.S.

To Accompany Report By B.H. Kahlert, B.Sc., and W. Rainboth, B.A.Sc., P.Eng., on JKB Claims, Squingula River, Omineca M.D.

1" = 20 miles

W. Rainboth P.Eng.

SCALE.

20 mi 0 20 mi 40 mi 60 mi

CANADIAN SUPERIOR EXPLORATION LIMITED

JKB CLAIMS

LOCATION MAP

Apr. 28, 1969 | B.H.K. | DWG.

JKB CLAIMS

20 18 16 14 12

19 17 15 13 11

1 3 5 7 9

2 4 6 8 10

M.R. 5-12 D.D.H.

N.S.

N.S.

JAKE LAKE

N

LEGEND

- 1 — PORPHYRY
- 2 — UNDIFFERENTIATED ANDESITE, RHYOLITE, HORNFELS & SEDIMENTS
- GEOLOGICAL CONTACT
- RIDGE
- CREEK
- ROCK CHIP SAMPLE
- SOIL SAMPLE
- P.P.M. Mo.
- DDH DIAMOND DRILL HOLE
- CLAIM BLOCK OUTLINE

SCALE

Mile 1/4 0 1/4 1/2 3/4 Mile

To Accompany Report by B.H. Kalbfleisch B.Sc. and W. Rainboth B.A.Sc, P.Eng on JKB Claims Squirrel Rivers, Omineca M.D.

W. Rainboth
P. Eng.

Plate 3 1874

CANADIAN SUPERIOR EXPLORATION LIMITED

MOTASE AREA - J.K.B. CLAIMS

ROCK & SILT SAMPLING
MOLYBDENUM

OCT., 1968 B.H.K., R.A.D. DWG.