2326

KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

GEOLOGICAL AND GEOCHEMICAL SURVEYS

PINE NO. 1, 2, 3 GROUPS
(Pine Mineral Claims 1 to 98, 129 to 142 Fr)

Situated 13 miles northeast of Thutade Lake,
Omineca Mining Division,
British Columbia

57° 126° SW

By

R. W. Stevenson, P. Eng.

August 12 to 21, 1969

April 2, 1970

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

STATEMENT OF COSTS INCURRED

Soil Geochemical Survey

A detailed explanation of how the soil geochemical survey expenditures were incurred is given under the section entitled 'Soil Survey Field Work'.

The total cost of the soil geochemical survey on Pine No. 1, 2, and 3 groups is as follows:

Chemical analysis of 209 samples - Cu, Mo, Zn, Pb			$1,254.00
Wages & Board:			
R.W. Stevenson	Aug. 13,16,19	@ $35.00 + $4.50	118.50
S.C. Gower	Aug. 19,21	@ $22.00 + $4.50	53.00
M. Murison	Aug. 12,13,16,18,19,21	@ $17.50 + $4.50	132.00
J.D. Rance	Aug. 12,13,16,18,19,21	@ $16.50 + $4.50	126.00
Helicopter set-out on the property	1:20 hrs	@ $160/hr	226.60
		Total	$1,910.10

The soil geochemical survey was distributed on the three claim groups as follows:

Pine No. 1 claim group	$1,501.10
Pine No. 2 claim group	$ 205.00
Pine No. 3 claim group	$ 204.00

The amount expended on each claim is shown on the list of claims.

LIST OF CLAIMS AND DISTRIBUTION OF WORK

PINE NO. 1, 2, 3 GROUPS

PINE MINERAL CLAIMS NO. 1 to 98, 129 to 142 Fr

Pine No. 1 Group

Claim No.	Record No.	Record Date	Work Ea. Claim	Years Applied
7	59491	June 10	$ 63.00	
9	59493	"	81.00	
11	59495	"	108.00	
13	59497	"	35.00	1
14	59498	"		1
25	59509	"	198.00	
26	59510	"	198.00	
27	59511	"	189.00	
28	59512	"	171.00	
29	59513	"	45.00	
30	59514	"	117.00	
31	59515	"	112.00	1
32	59516	"	184.80	1
33	59517	"		1
34	59518	"		1
35	59519	"		1
36	59520	"		1
135 Fr	75138	July 3		1
136 Fr	75139	"		1
137 Fr	75140	"		1
138 Fr	75141	"		1
139 Fr	75142	"		1
140 Fr	75143	"		1
141 Fr	75144	"		1
142 Fr	75145	"		
			$1,501.10	15

List of Claims and Distribution of Work - cont'd

Pine No. 2 Group

Claim No.	Record No.	Record Date	Work Ea. Claim	Years Applied
65	59901	June 19	$ 86.00	
66	59902	"	43.00	
67	59903	"	76.00	
69	59905	"		1
71	59907	"		1
			$ 205.00	2

Pine No. 3 Group

Claim No.	Record No.	Record Date	Work Ea. Claim	Years Applied
75	60889	July 16	$ 53.50	1
77	60891	"	150.50	1
			$ 204.00	2

INTRODUCTION

The mineral property discussed in this report is about 13 miles northeast of Thutade Lake, B.C., on the southeast side of the Finlay River. The exploration work on these claims consisted of soil sampling. It was done during the period August 12 to 21, 1969. The work on Pine No. 1 and 2 Groups was an extension of a soil survey done earlier in the summer. This was necessary in order to complete the coverage in the area of interest indicated by the previous work. The work on Pine No. 1 Group was also a westward extension of the previous survey.

The work was done under the supervision of R.W. Stevenson, P. Eng.

LOCATION AND ACCESS

The property is situated at Latitude 57°13'N, Longitude 126°43'W, about 270 miles northwest of Prince George. This is about 13 miles northeast of Thutade Lake. It is on the south side of the Finlay River, in the Finlay Valley, an area of subdued topography which is characterized by erratic drainage caused by numerous eskers and both lateral and terminal moraines. The elevation there is from 3400' to 4500' above sea level; and vegetation varies from good stands of mature pine to semi-open swamp areas.

Access to the area is by fixed-wing aircraft from Smithers to Pine Lake, a distance of about 175 miles. This is a small lake, about 4000' long, which is situated 3 miles northeast of the Pine area. Local travel on the Pine property is fairly easy, except for the difference in elevation between the showing area and the river level. Small clearings in swamps and in burn areas provide good helicopter access to most parts of the property. Helicopter set-outs were used on the southwest part of the property, so as to minimize travel time between the base camp and the survey area.

SOIL GEOCHEMICAL SURVEY

Soil Survey Field Work

Control Survey Lines

A control grid was established by chain and compass survey, using surveyor's flagging to mark the stations. This gave reasonably good control of the sample sites, with minimum expenditure. The survey area is in the valley of the Finlay River, and the topography is generally subdued. Over most of the area, the vegetation is mature Lodgepole Pine.

The baseline direction is N45°E. For purposes of marking the stations, this was termed Grid North. This direction was chosen so as to give the best coverage across the area of interest. Base camp was in the center of the grid area. On a few lines farthest from camp, crews were set out by helicopter in nearby clearings so as to minimize unproductive walking time. Elevations range from 3800' to 4400' above sea level. A base map with scale 1" = 400' was compiled for use in plotting the sample results.

Soil Sample Collection

The samples were taken at 100-foot intervals along the grid lines. The location of the sample sites is shown on Plate No. 5. They were taken from the top of the "B" (rusty) horizon. Samples were not taken in swampy areas where only the "A" horizon was accessible.

The samples were collected by digging a small hole with a trenching tool type of spade. By this means it was possible to see where the top of the "B" horizon, either with the tip of the spade, or with a small trowel.

A note was then made of the grid line location, the sample number, the depth to the top of the "B" horizon, the direction of drainage, the type of vegetation (i.e. - grass, or scrub forest) and the soil type.

Packaging

The samples were placed in a 3" x 4½" brown paper envelope, on which the sample numbers had been marked. These were closed with a triangular triple fold. (The bags are not anomalous in trace metals).

Sample Preparation

The samples were taken to the base camp, and were oven-dried at 80°C. They were then shipped to our laboratory in North Vancouver, where they were sieved through an 80-mesh size stainless steel screen. (These sieves do not show noticeable wear even after several thousand samples have been sifted). The minus 80 mesh fraction was collected for all the analyses involved.

Analysis

The samples were analysed in the North Vancouver Laboratory of Kennco Explorations, (Western) Limited under the supervision of John Barakso, MSc.

A one-gram sample is weighed to within $\pm$ 2 mgm. making a possible error of 2% at this stage. This is much more accurate than a volumetric scoop.

The sample is placed in a dry test tube, and 1 ml of reagent grade 70% nitric acid is added, or just enough to wet the sample. Four ml of reagent grade 70% perchloric acid ($H\ ClO_4.H_2O$) is added, and the sample is digested at 200°C on a hot plate for four hours. After cooling, the sample is diluted up to 50 ml with distilled water, agitated, and allowed to settle for two hours.

An aliquot of this solution is used for determination of copper, zinc,and lead by atomic absorption spectrophotometer.

An aliquot of this solution is also taken for determination of molybdenum. Ammonium thiocyanate, stannous chloride, and amyl acetate are added to the solution. Molybdenum forms a thiocyanate complex which is removed by solvent extraction in the amyl acetate. This is aspirated in the atomic absorption spectrophotometer to determine molybdenum.

Interpretation

Over most of the area, a good sample which was representative of the "B" horizon was obtained. The depth of overburden varies from a few inches to probably about 30' over most of the areas sampled. Considering the type of soil, it would seem likely that soil geochemistry is a reliable technique on these parts of the property. The samples were analysed for total metal content in copper, molybdenum, zinc, and lead.

Sample stations that are considered to be background are uncoloured. Sample stations that are considered to be only weakly anomalous are coloured yellow. The weakly anomalous levels are 150 ppm to 299 ppm for copper, 15 ppm to 24 ppm for molybdenum, 300 ppm to 599 ppm for zinc, and 80 ppm to 149 ppm for lead. Sample stations that are definitely anomalous are coloured red. The results are plotted on Plates No. 1 to 4.

Copper (Plate No. 1) is moderately anomalous on claims 32 and 67. These are continuations of adjacent anomalies. Molybdenum (Plate No. 2) is co-anomalous in a few of the samples anomalous in copper. Zinc (Plate No. 3) is widely anomalous on the southwest part of the property, but does not form a well defined zone. Lead (Plate No. 4) is co-anomalous in some of the samples that are anomalous in zinc in the southwest part of the property, but is not anomalous in the northeast part of the property.

Vancouver, B. C.

April 2, 1970

R. W. Stevenson

N

FINLAY RIVER

Pine Group No. 2

Pine Group No. 1

Pine Group No. 3

66 65 67 69 71 129 131 133 35 33 36 31 34 29 32 27 30 25 28 11 14 9 26 7 13 15 17 73 75 77

142 Fr. 141 Fr. 140 Fr. 139 Fr. 138 Fr. 137 Fr. 136 Fr. 135 Fr.

LEGEND

— GEOCHEMICAL SAMPLE SITES
— CLAIM BOUNDARY
— SWAMP
— ANOMALOUS
— WEAKLY ANOMALOUS

(METAL VALUES IN PPM)

2326

TO ACCOMPANY GEOCHEMICAL REPORT BY R.W. STEVENSON, P.ENG., ON THE PINE NO. 1, 2, 3 Groups THIRTEEN MILES NORTHEAST OF TUTADE LAKE, OMENICA MINING DIVISION, DATED April 2, 1970.

R.W. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Pine No. 1, 2, 3 Groups
PINE MINERAL CLAIMS NO. 7, 9, 11, 13, 14, 15, 17, 25-30, 65-67, 69, 71, 73, 75, 77
OMENICA M.D., B.C. 135 Fr. - 142 Fr.
GEOCHEMICAL SURVEY
COPPER IN SOIL

DATA BY: R.W.S.		N.T.S. 94-E	PL. NO.: 1
DRAWN BY:	DATE:	SCALE:	
TRACED BY: MRH	DATE: 23/3/70	1" = 400'	
REVISIONS:			

N

66
65
67
69
71
129
131
133
35
33
36
31
34
29
32
27
30
25
28
11
14
9
26
13
17
15
73
75
77

FINLAY RIVER

Pine Group No. 2
Pine Group No. 1
Pine Group No. 3

135 Fr.
136 Fr.
137 Fr.
139 Fr.
140 Fr.
141 Fr.
142 Fr.

LEGEND

- GEOCHEMICAL SAMPLE SITES
- CLAIM BOUNDARY
- SWAMP
- ANOMALOUS
- WEAKLY ANOMALOUS

(METAL VALUES IN PPM)

2326

TO ACCOMPANY GEOCHEMICAL REPORT BY R.W. STEVENSON, P. ENG., ON THE PINE No. 1, 2, 3 GROUPS THIRTEEN MILES NORTHEAST OF THUTADE LAKE, OMENICA MINING DIVISION, DATED April 2, 1970.

R.W. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Pine No. 1, 2, 3 Groups
PINE MINERAL CLAIMS No.
7, 9, 11, 13, A, 15, 17, 25-36, 65-67, 69, 71, 73, 75, 77, 133
OMENICA M.D., B.C. 135 Fr - 142 Fr.
GEOCHEMICAL SURVEY

MOLYBDENUM IN SOIL

DATA BY: R.W.S.		N.T.S. 94-E	PL. NO.: 2.
DRAWN BY:	DATE:	SCALE:	
TRACED BY: M.R.H.	DATE: 25/3/70	1" = 400'	
REVISIONS:			

N

FINLAY RIVER

Pine Group No. 2

Pine Group No. 1

Pine Group No. 3

66 65 67 69 71 129 131 133 35 33 36 34 31 29 32 27 30 25 28 11 9 14 13 15 17 73 75 77

142 Ft.
141 Ft.
140 Ft.
139 Ft.
138 Ft.
137 Ft.
136 Ft.
135 Ft.

LEGEND

- GEOCHEMICAL SAMPLE SITES
- CLAIM BOUNDARY
- SWAMP
- ANOMALOUS
- WEAKLY ANOMALOUS

(METAL VALUES IN PPM)

2326

TO ACCOMPANY GEOCHEMICAL REPORT BY
R.W. STEVENSON, P. ENG, ON THE PINE NO. 1, 2, 3 GROUPS
THIRTEEN MILES NORTHEAST OF THUTADE LAKE, OMENICA
MINING DIVISION, DATED APRIL 2, 1970.

R. W. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Pine No. 1, 2, 3 Groups
PINE MINERAL CLAIMS No.
7, 9, 11, 13, 14, 15, 17, 25-36, 65-67, 69, 71, 73, 75, 77, 133
OMENICA M.D., B.C. 135 Fr. - 142 Fr.
GEOCHEMICAL SURVEY

ZINC IN SOIL

DATA BY: R.W.S.		N.T.S. 94-E	PL. NO.: 3
DRAWN BY:	DATE:	SCALE:	
TRACED BY: MRH	DATE: 25/3/70	1" = 400'	
REVISIONS:			

N

FINLAY RIVER

Pine Group No. 2

Pine Group No. 1

Pine Group No. 3

142 Fr.

141 Fr.

140 Fr.

139 Fr.

138 Fr.

137 Fr.

136 Fr.

135 Fr.

66 65 67 69 71 129 131 133 35 33 36 31 34 29 32 27 30 25 28 11 9 26 14 13 15 17 73 75 77

LEGEND

— GEOCHEMICAL SAMPLE SITES

— CLAIM BOUNDARY

— SWAMP

— ANOMALOUS

— WEAKLY ANOMALOUS

(METAL VALUES IN PPM)

2326

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2326 MAP #4

TO ACCOMPANY GEOCHEMICAL REPORT BY
R.W. STEVENSON, P.ENG., ON THE PINE No. 1, 2, 3 GROUPS
THIRTEEN MILES NORTHEAST OF THUTADE LAKE, OMENICA
MINING DIVISION, DATED April 2, 1970.

R.W. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Pine No. 1, 2, 3 Groups
PINE MINERAL CLAIMS No.
7, 9, 11, 13, 14, 15, 17, 25-36, 65-67, 69, 71, 73, 75, 77 (33)
OMENICA M.D., B.C. 135 Fr. - 142 Fr.
GEOCHEMICAL SURVEY
LEAD IN SOIL

DATA BY: R.W.S.		N.T.S. 94-E	PL. NO.: 4
DRAWN BY:	DATE:	SCALE:	
TRACED BY: MRH	DATE: 23/3/70	1" = 400'	
REVISIONS:			

N

FINLAY RIVER

Pine Group No. 2

Pine Group No. 1

Pine Group No. 3

66
65
67
69
71
129
131
133
35
33
36
34
31
29
32
27
30
25
28
26
9
11
13
14
15
17
73
75
77

142 Fr.
141 Fr.
140 Fr.
139 Fr.
138 Fr.
137 Fr.
136 Fr.
135 Fr.

64+00N
60+00N
56+00N
48+00N
44+00N
40+00S
32+00S
28+00S
64+00S
72+00S

LEGEND

5130 5131 — GEOCHEMICAL SAMPLE SITES

— CLAIM BOUNDARY

— SWAMP

2326

TO ACCOMPANY GEOCHEMICAL REPORT BY
R.W. STEVENSON, P.ENG., ON THE PINE No. 1, 2 3 Groups
THIRTEEN MILES NORTHEAST OF THUTADE LAKE, OMENICA
MINING DIVISION, DATED April 2, 1970.

R.W. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Pine No. 1, 2, 3 Groups
PINE MINERAL CLAIMS No.
7, 9, 11, 13, 15-17, 25-26, 65-67, 69, 71, 73, 75, 77, 133
OMENICA M.D., B.C. 135 Fr. - 142 Fr.
GEOCHEMICAL SURVEY

SOIL SAMPLE SITES

DATA BY: R.W.S.		N.T.S. 94-E	PL. NO.: 5
DRAWN BY:	DATE:	SCALE:	
TRACED BY: M.R.H.	DATE: 23/3/70	1" = 400'	
REVISIONS:			