

3366

KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

SOIL GEOCHEMICAL SURVEY

SAUNDERS NO. 3 GROUP

(Saunders Mineral Claims 96-117, 144-159)

Situated 7 miles southwest of Toodoggone Lake,
Omineca Mining Division,
British Columbia

57°20'N; 127°04'W

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3366 MAP

By

Mining Recorder's Office
RECORDED
JUN 22 1971
AT
SMITHERS, B.C.

R. W. Stevenson, P. Eng.

Work done from August 21 to 27, 1971

November 17, 1971

TABLE OF CONTENTS

	<u>Page</u>
INTRODUCTION	1
LOCATION AND ACCESS	2
SOIL SURVEY FIELD WORK	3
Control Survey Lines	3
Soil Sample Collection	3
Packaging	4
Sample Preparation	4
Analysis	4
INTERPRETATION	5
STATEMENT OF COSTS INCURRED	6

PLATES

<i>A</i> 1 Location Map		1:250,000	
<i>a</i> 2 Plate No. 1	Soil Sample Sites	1" = 200'	Pocket
<i>3</i> Plate No. 2	Copper in Soil	"	"
<i>4</i> Plate No. 3	Molybdenum in Soil	"	"
<i>5</i> Plate No. 4	Zinc in Soil	"	"
<i>6</i> Plate No. 5	Lead in Soil	"	"
<i>7</i> Plate No. 6	Silver in Soil	"	"
<i>8</i> Plate No. 7	Gold in Soil	"	"
<i>9</i> Plate No. 8	Cobalt in Soil	"	"
<i>10</i> Plate No. 9	Nickel in Soil	"	"



Kennco Explorations, (Western) Limited

SAUNDERS CLAIMS

Situated 7 miles southwest of Toodoggone Lake

Omineca Mining Division,
British Columbia

57° 127° SE

LOCATION MAP

R. H. Stevens

Scale:
1 : 250,000

INTRODUCTION

The mineral property discussed in this report is situated about 7 miles southwest of Toodoggone Lake, British Columbia. The exploration work on these claims consisted of a soil geochemical survey on two adjoining survey grids. During the soil sampling, a few silt samples were taken where it was thought that they might contribute to an understanding of any soil anomalies that might be found. The position of the soil survey area is shown on the Location Map. It is on Saunders No. 3 Group of mineral claims.

The personnel employed are listed in the Statement of Costs Incurred. The work was done under the supervision of R. W. Stevenson, P. Eng.

LOCATION AND ACCESS

The property is situated at Latitude 57°20'N; Longitude 127°04'W, about 7 miles southwest of Toodoggone Lake, and 285 miles northwest of Prince George. The soil survey area is at an elevation of about 5500', which is above tree line.

Access to the property is by fixed wing aircraft from Smithers to Black Lake, a distance of about 180 miles, and by helicopter from there. Local travel in the survey area is relatively easy.

SOIL SURVEY FIELD WORK

Control Survey Lines

Two adjacent control grids were established by chain and compass survey in the area to be sampled. Laths and surveyor's flagging were used to mark the stations because the area is above tree-line. The grids were compiled on a map with scale 1" = 200' for plotting the sample results.

Soil Sample Collection

The samples were taken at 100-foot intervals along the grid lines. They were taken from the top of the "B" (rusty) horizon where possible. In much of the grassland area above tree-line, soil horizon development is relatively poor. In some rocky areas, sufficient soil could not be found to take a sample.

The samples were collected by digging a small hole with a mattock or with a trenching tool type of spade. By this means it was possible to examine the soil horizon development. A note was made of the grid line location, the sample number, the depth of sample, the horizon sampled, and the direction of drainage.

Packaging

The samples were placed in 3" x 4 1/2" brown paper envelopes 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 base camp, and partly air-dried. They were then shipped to our laboratory in North Vancouver, where they were oven-dried at 80°C, and 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 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 H. Goddard, laboratory manager. Total extraction from a weighed sample is achieved by digestion with concentrated nitric acid and 70% perchloric acid. Determination of the Cu, Mo, Zn, Pb, Ag, Co, Ni content is made by aspiration in a Techtron AA5 Atomic Absorption Spectrophotometer. To determine the gold content, a weighed sample is digested in aqua regia, filtered, and the gold removed by solvent-solvent extraction in an organic solvent, MIBK (methyl-isobutyl-Keystone). This is aspirated in the Techtron AA5.

INTERPRETATION

The depth of overburden varies from a few inches to probably about 20' over most of the area sampled. Considering the type of soil, it would seem likely that soil geochemistry is a reliable technique on this part of the property. The samples were analysed for total metal content in copper, molybdenum, zinc, lead, silver, gold, cobalt, and nickel.

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, 10 ppm to 19 ppm for molybdenum, 200 ppm to 499 ppm for zinc, 70 ppm to 149 ppm for lead, 2.0 ppm to 3.9 ppm for silver, 0.10 ppm to 0.29 ppm for gold, 50 ppm to 99 ppm for cobalt, and 200 ppm to 499 ppm for nickel. Sample stations that are definitely anomalous are coloured red.

Zinc is weakly anomalous over all but the northern edge of the survey area. There are also a few strongly anomalous sites. When nearly all the samples are anomalous, it is reasonable to consider raising the lower limit of the anomaly level. However, to do that in this sample grid would ignore the fact that zinc is not this abundant in soil samples in similar terrain elsewhere in the Saunders area. Also, it would fail to show the zinc has a more normal abundance on claim 159, and parts of 116 and 114. Lead is also weakly anomalous in many sample sites. The distribution of anomalous samples is similar to zinc, but is not continuous.

A few scattered sites are anomalous in copper, with an anomaly along 400' of sample line on claim 116. There are only a few scattered sites anomalous in silver, gold, and molybdenum. Cobalt and nickel are not anomalous.


R. W. Stevenson, P. Eng.

November 17, 1971

STATEMENT OF COSTS

The costs incurred on assessment work on the Saunders No. 3 Group of mineral claims were as follows:

Soil Survey Area No. 5

Analysis of 226 soil and 8 silt samples for Cu,Mo,Zn,Pb,Ag,Au,Co,Ni	\$1,287.00
Wages & Board: S.C. Gower, Aug.21,22 @ \$35.00 + \$10.00	90.00
P.R. Archibald Aug.21,22,26,27 @ \$19.00 + \$10.00	116.00
C.P. Archibald Aug.21,22 @ \$16.00 + \$10.00	52.00
M.J. Steven Aug.26,27 @ \$19.00 + \$10.00	58.00
Helicopter setout on the property 2:40 hours @ \$175/hour	466.00
Station markers 100 laths @ 9¢/ea.	9.00
Drafting and Typing	<u>60.00</u>
TOTAL	\$2,138.00

R. W. Stevenson
R. W. Stevenson



LEGEND

- Soil Sample
- Silt Sample

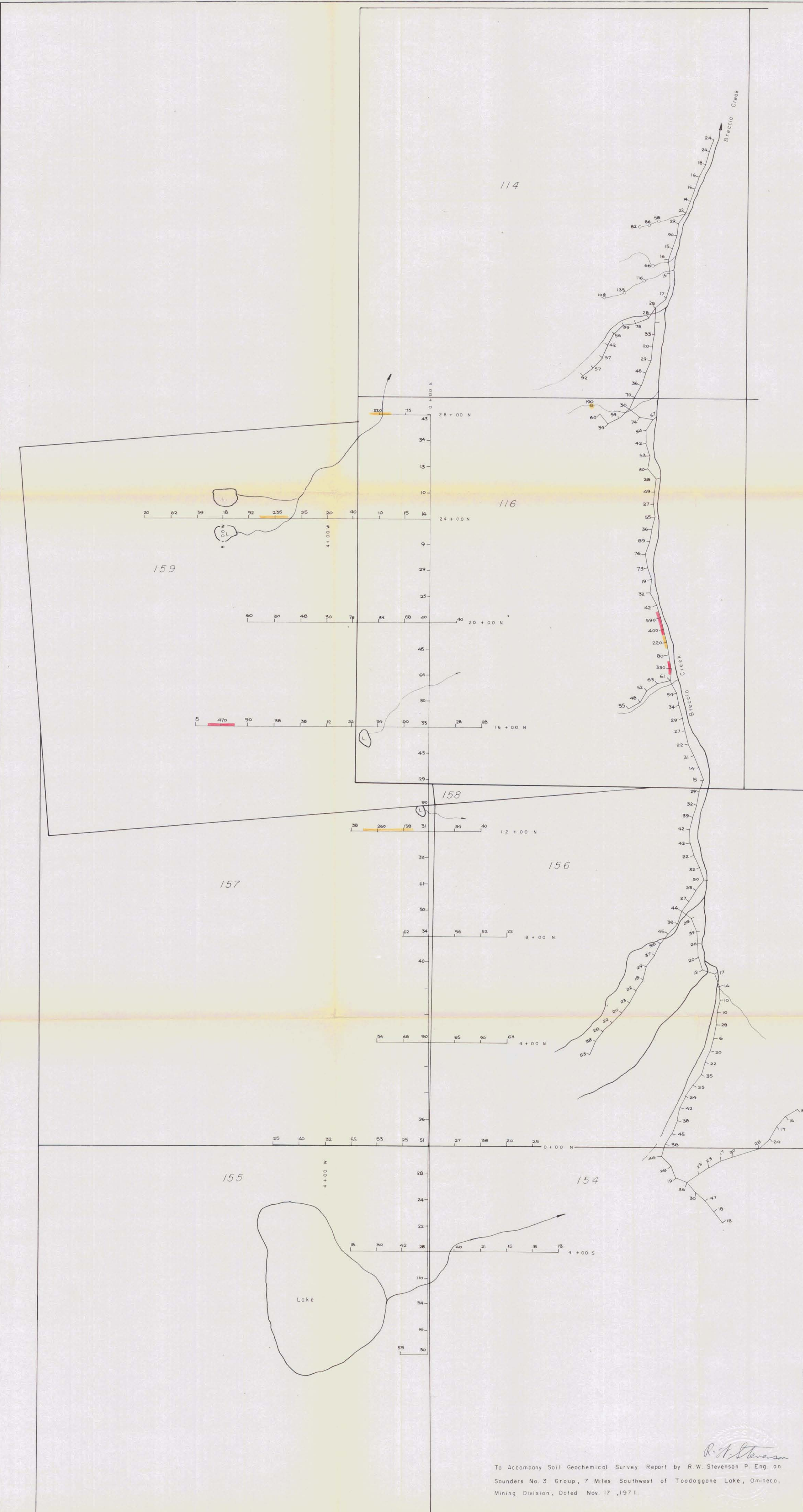
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
 NO. 3366 MAP #2

3366 M-2

R. Stevenson

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng on Saunders No. 3 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca, Mining Division, Dated Nov. 17, 1971.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Soil Sample Sites		
DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO.: 1
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	



LEGEND

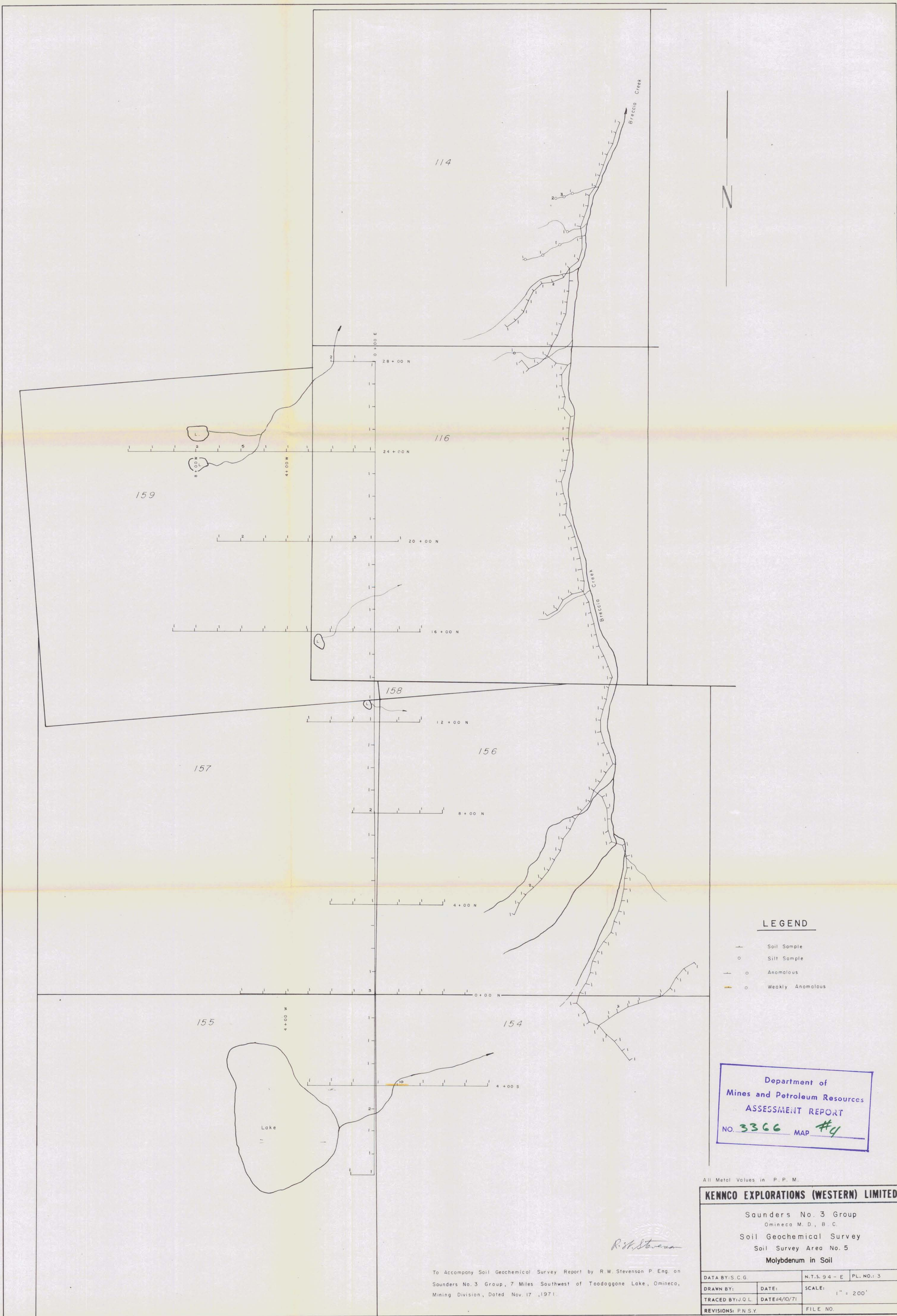
- Soil Sample
- Silt Sample
- Anomalous
- Weakly Anomalous

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3366 MAP #3

All Metal Values in P. P. M.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C. Soil Geochemical Survey Soil Survey Area No. 5 Copper in Soil		
DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO.: 2
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 14/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	

R. A. Stevenson
 To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
 Saunders No. 3 Group, 7 Miles Southwest of Tooodaggone Lake, Omineca,
 Mining Division, Dated Nov. 17, 1971.



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3366 MAP #4

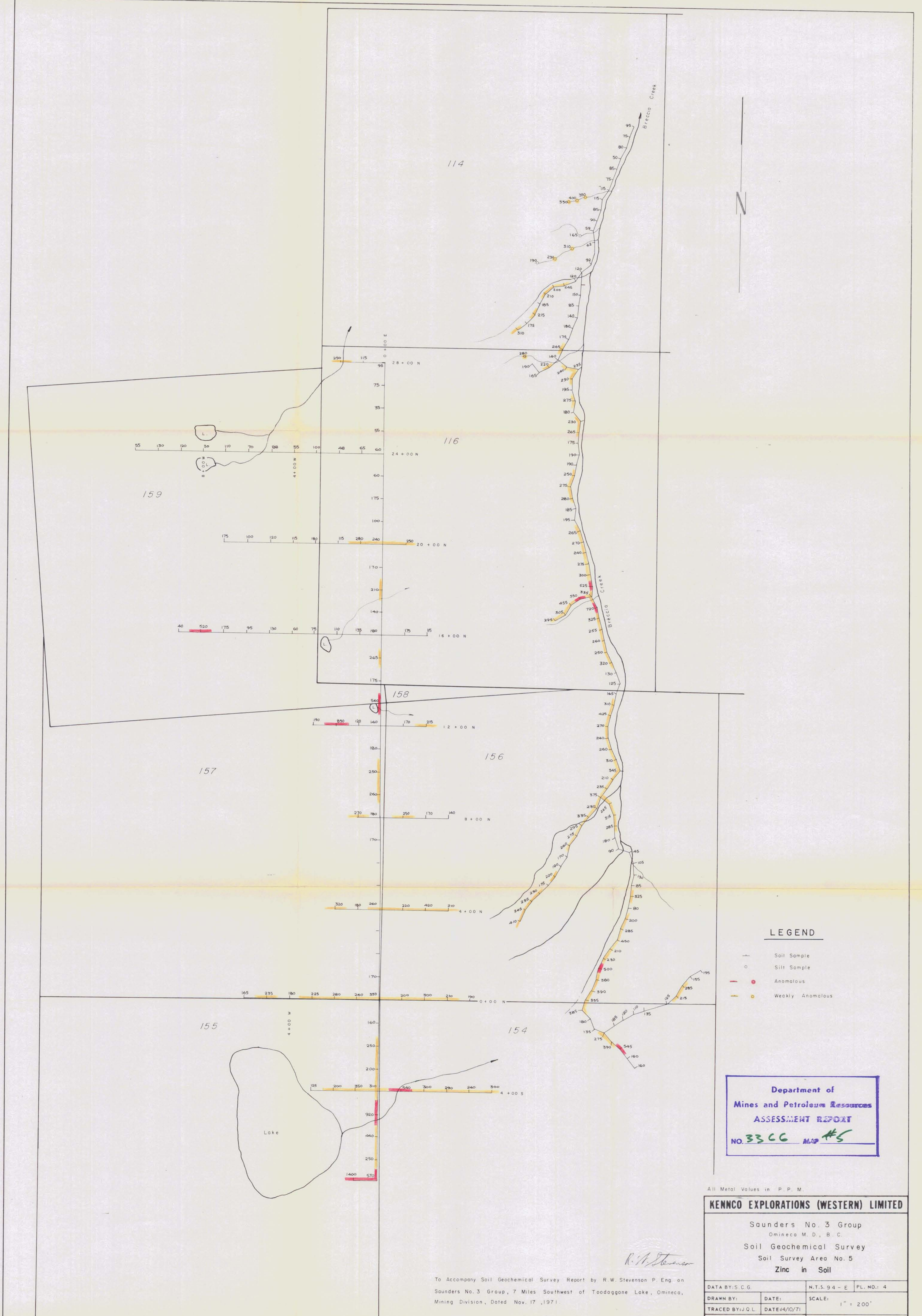
- LEGEND**
- Soil Sample
 - Silt Sample
 - ○ Anomalous
 - ○ Weakly Anomalous

All Metal Values in P.P.M.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Molybdenum in Soil		
DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO.: 3
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.G.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
Saunders No. 3 Group, 7 Miles Southwest of Toodoggone Lake, Omineca,
Mining Division, Dated Nov. 17, 1971.

R.W. Stevenson



LEGEND

- Soil Sample
- Silt Sample
- Anomalous
- Weakly Anomalous

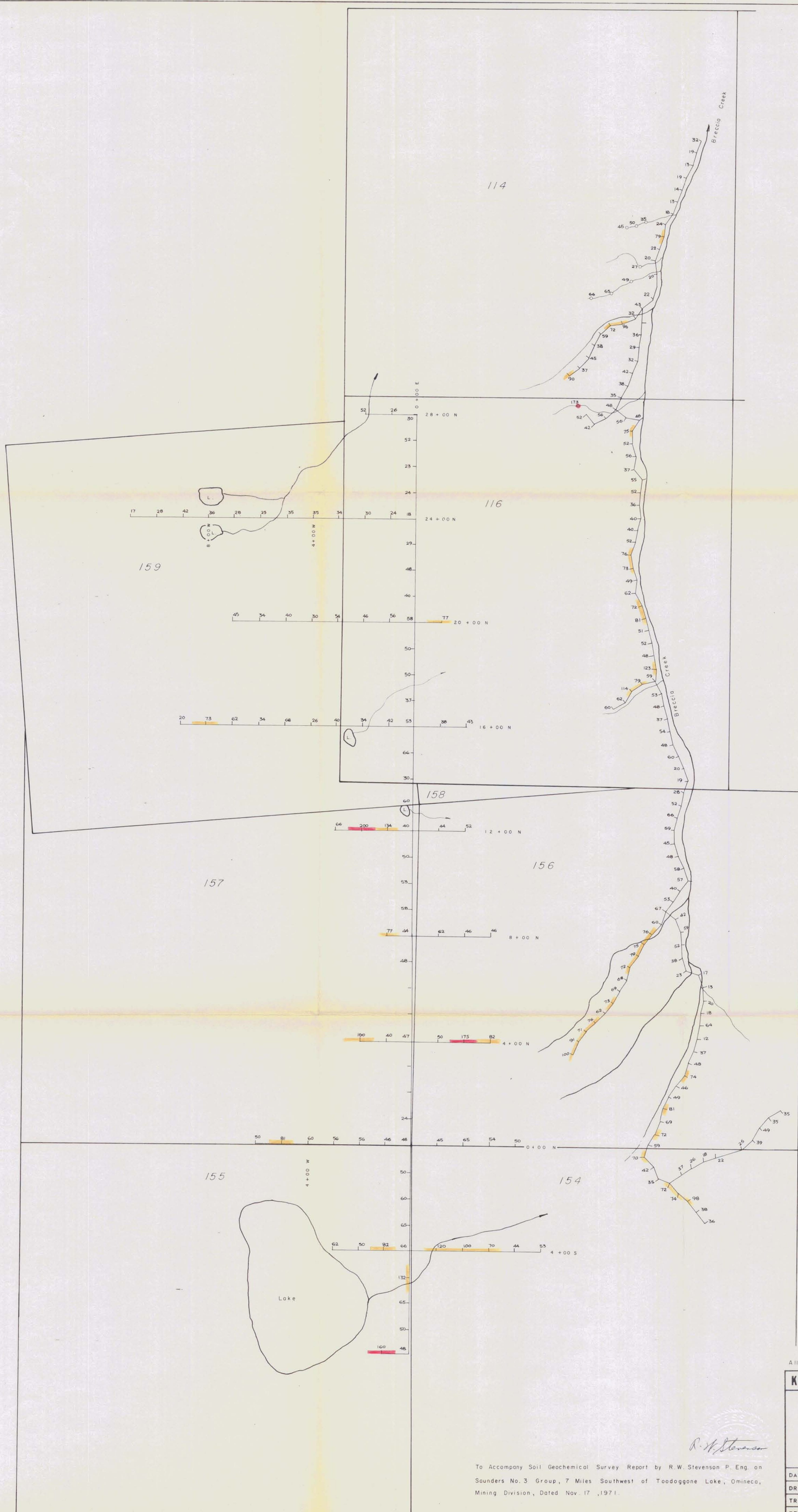
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
 NO. 33 CG MAP #5

All Metal Values in P. P. M.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Zinc in Soil		
DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO.: 4
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
 Saunders No. 3 Group, 7 Miles Southwest of Toodoggone Lake, Omineca,
 Mining Division, Dated Nov. 17, 1971.

R.W. Stevenson



LEGEND

- Soil Sample
- Silt Sample
- Anomalous
- Weakly Anomalous

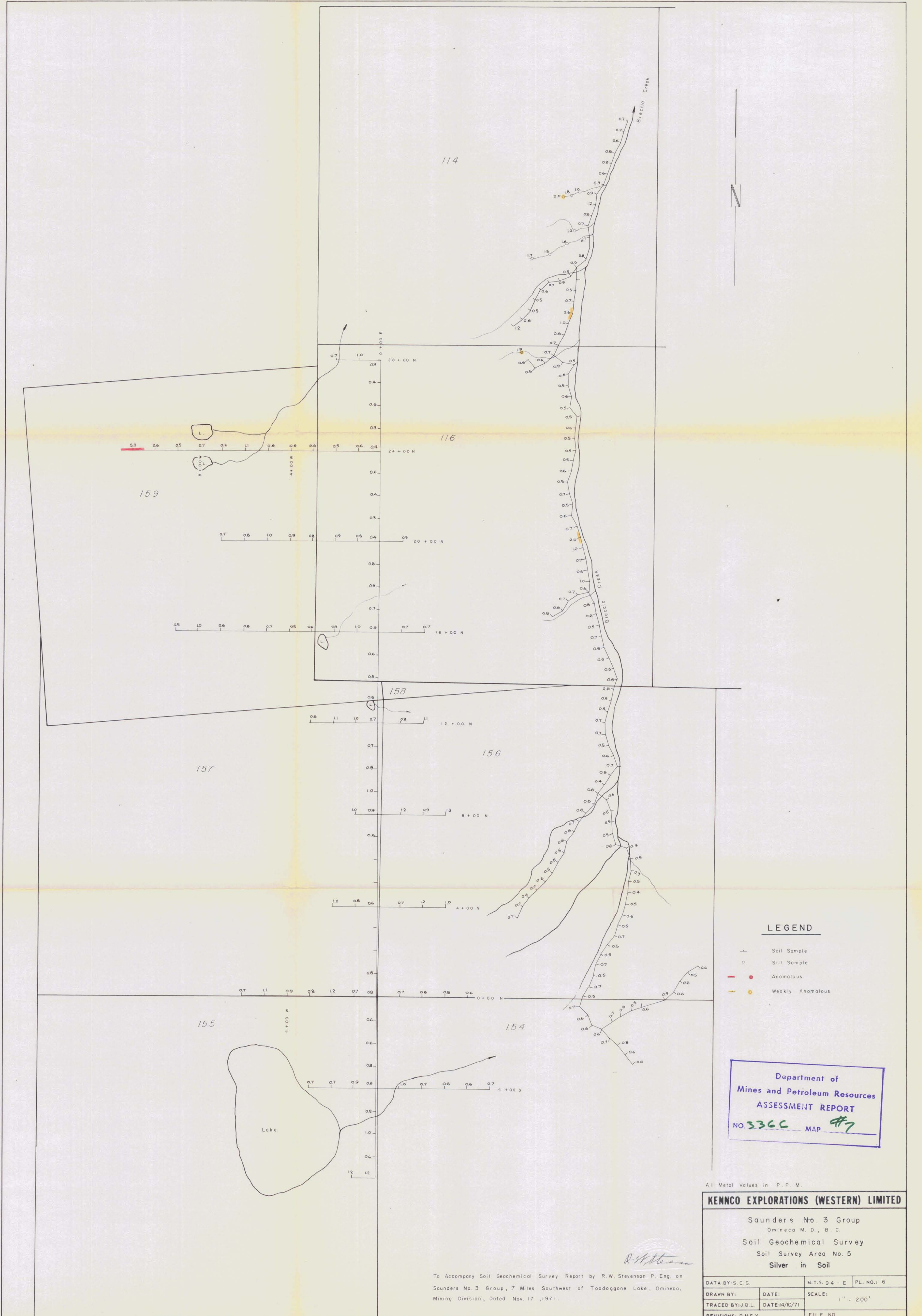
Department of
 Mines and Petroleum Resources
ASSESSMENT REPORT
 NO. 3366 MAP #6

All Metal Values in P. P. M.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Lead in Soil		
DATA BY: S.C.G.	N.T.S. 94-E	PL. NO.: 5
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	

R. W. Stevenson

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
 Saunders No. 3 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca,
 Mining Division, Dated Nov. 17, 1971.



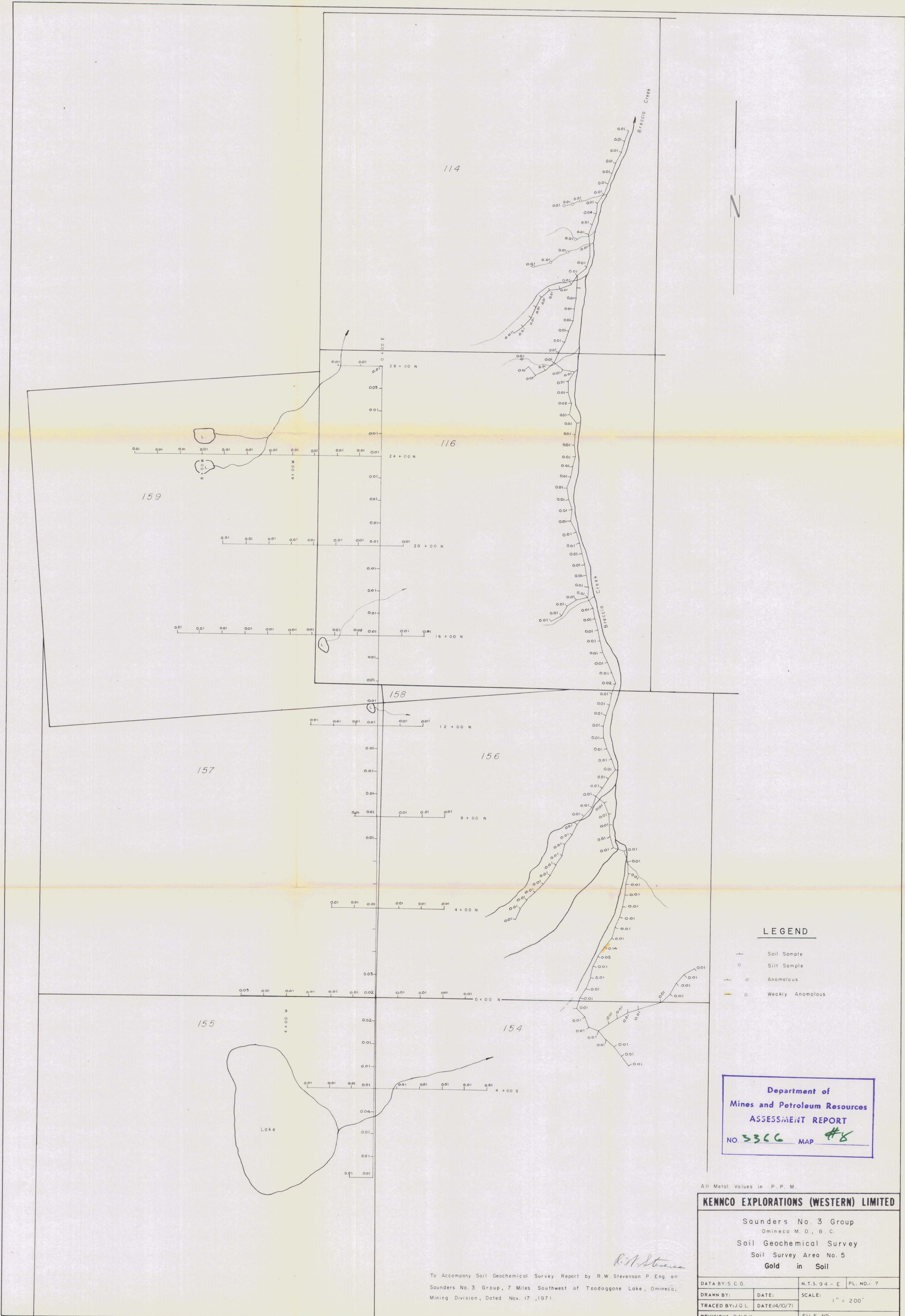
**Department of
 Mines and Petroleum Resources**
ASSESSMENT REPORT
 NO. 3366 MAP #7

All Metal Values in P. P. M.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Silver in Soil		
DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO.: 6
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 14/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
 Saunders No. 3 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca,
 Mining Division, Dated Nov. 17, 1971.

R. W. Stevenson



LEGEND

- Soil Sample
- Silt Sample
- ○ Anomalous
- ○ Weakly Anomalous

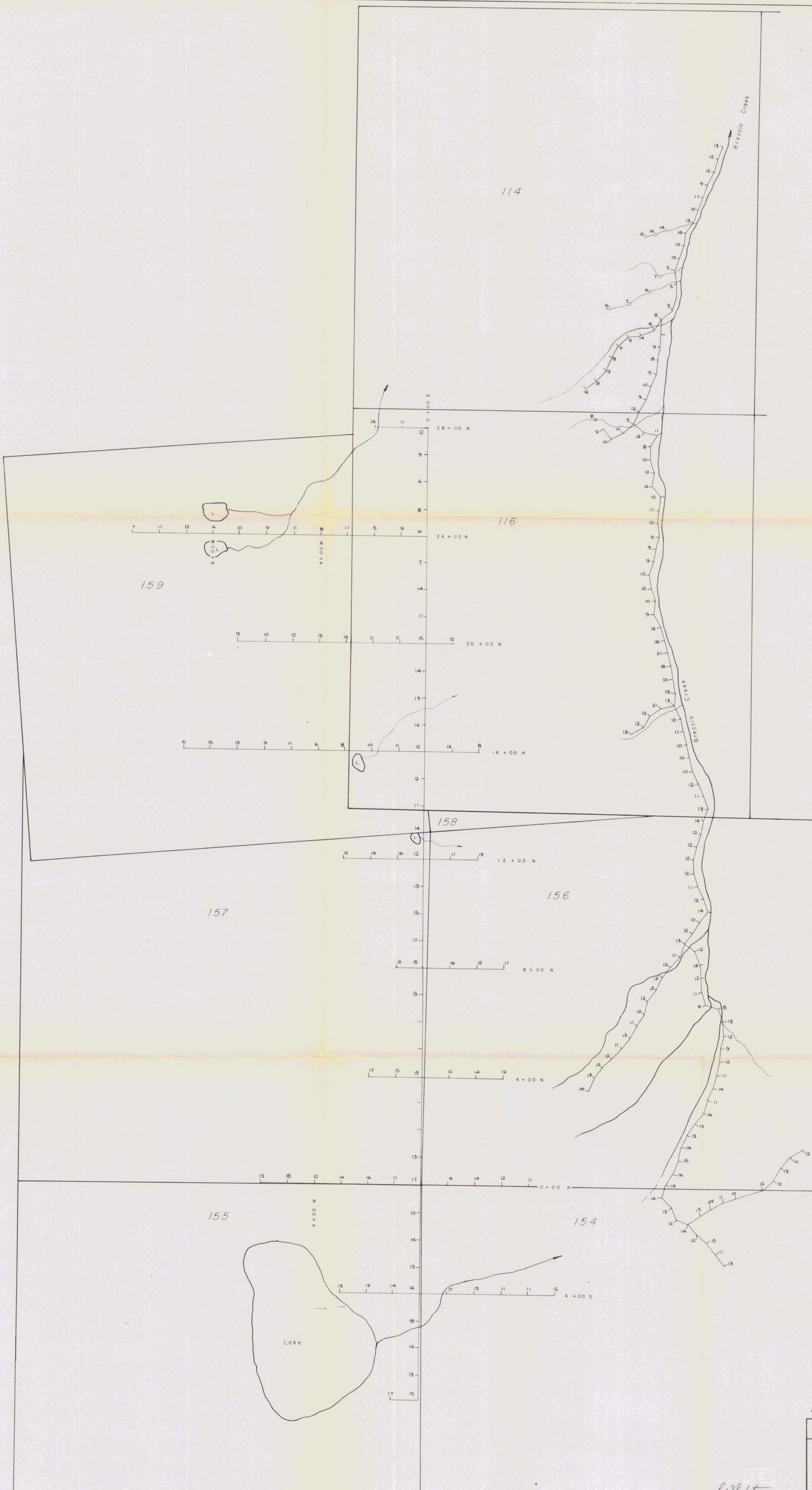
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3366 MAP #8

All Metal Values in P.P.M.

KENNCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Gold in Soil		
DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO. 7
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.	FILE NO.	

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
Saunders No. 3 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca,
Mining Division, Dated Nov. 17, 1971.

R.W. Stevenson



LEGEND

- Soil Sample
- Silt Sample
- ○ Anomalous
- ○ Weekly Anomalous

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3566 MAP #3

All Metal Values in P.P.M.

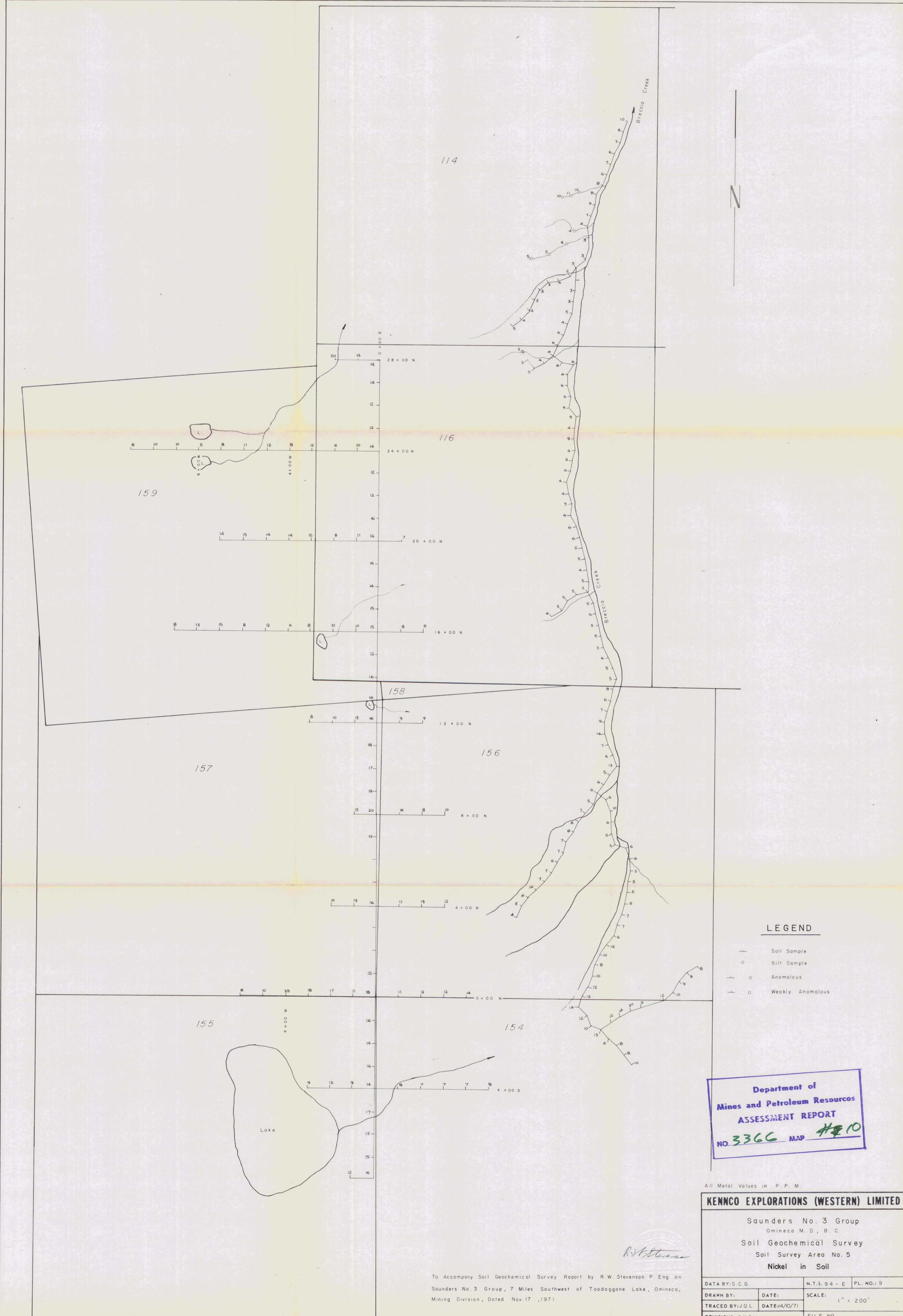
KENCO EXPLORATIONS (WESTERN) LIMITED

Saunders No. 3 Group
 Omineca M. D., B. C.
 Soil Geochemical Survey
 Soil Survey Area No. 5
 Cobalt in Soil

R. Stevenson

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
 Saunders No. 3 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca,
 Mining Division, Dated Nov. 17, 1971.

DATA BY: S.C.G.	N.T.S. 94 - E	PL. NO.: B
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.		FILE NO.



LEGEND

- Soil Sample
- Silt Sample
- ○ Anomalous
- ○ Weakly Anomalous

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 NO. 3366 MAP #210

All Metal Values in P.P.M.

KENCO EXPLORATIONS (WESTERN) LIMITED		
Saunders No. 3 Group Omineca M. D., B. C.		
Soil Geochemical Survey Soil Survey Area No. 5 Nickel in Soil		
DATA BY: S.C.G.	N.T.S. 94-E	PL. NO.: 9
DRAWN BY:	DATE:	SCALE: 1" = 200'
TRACED BY: J.O.L.	DATE: 4/10/71	
REVISIONS: P.N.S.Y.		FILE NO.

To Accompany Soil Geochemical Survey Report by R.W. Stevenson P. Eng. on
 Saunders No. 3 Group, 7 Miles Southwest of Toadoggonne Lake, Omineca,
 Mining Division, Dated Nov. 17, 1971.

R. Stevenson