3418

KENNCO EXPLORATION, (WESTERN) LIMITED

REPORT

ON

SILT AND SOIL GEOCHEMICAL SURVEYS

CHAPPELLE NO. 6 GROUP

(Chappelle Mineral Claims 81-86, 116, 118, 120, 121, 138, 157, 159, 171, 247-249)

94E 16E

Situated 16 miles northwest of Thutade Lake,

Omineca Mining Division,
British Columbia

57°17'N; 127°02'W

By

R. W. Stevenson, P. Eng.

Work done from June 19 to July 14, 1971

December 1, 1971

TABLE OF CONTENTS

LIST OF ILLUSTRATIONS

INTRODUCTION

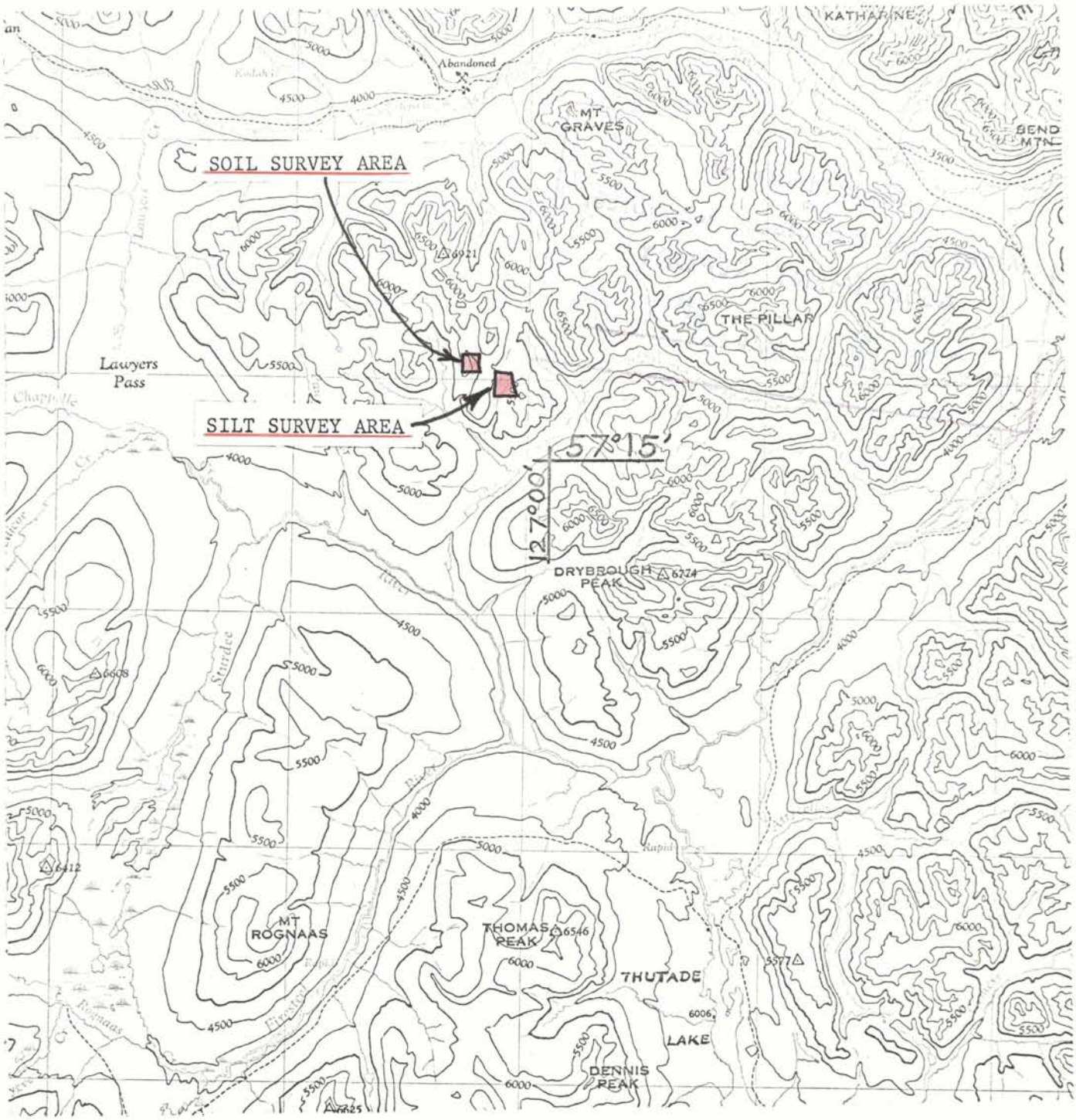
The mineral property discussed in this report is situated about 16 miles northwest of Thutade Lake, British Columbia. The exploration work done on this part of the property consisted of silt geochemical survey in one area, and a soil geochemical survey in another area. The relative positions of these surveys are shown on the Location Map. They are both on Chappelle No. 6 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°17'N; Longitude 127°02'W, about 16 miles northwest of Thutade Lake, and 285 miles northwest of Prince George. The silt survey area is at an elevation of about 5300'; the valley sides are above tree-line, but there is considerable scrub alpine fir in the valley bottom. The soil survey area is at an elevation of about 5600', and 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 areas is relatively easy.



Kennco Explorations, (Western) Limited

CHAPPELLE AREA

Situated northwest of Thutade Lake

Omineca Mining Division
British Columbia

LOCATION MAP of
SURVEY AREA

R. S. V. Stevenson

Scale:
1:250,000

SILT GEOCHEMICAL SURVEY

Silt Survey Field Work

Sample Site Control

Sample sites were plotted in the field, on a topographic map having a scale of 1" = 2640'. This map was obtained by enlarging a portion of the 1:250,000 topographic map. The sampling traverse was started from a point which could be identified easily on the topographic map. Sample site locations were plotted by pace and compass until another easily identifiable checkpoint was reached. The crew was set out by helicopter so as to utilize as much as possible of the working day in sample collection. A drainage base map with a scale of 1" = 10 chains was compiled for use in plotting the sample results for office interpretation.

Silt Sample Collection

In general, the samples were taken at 400 to 800 foot intervals on the main streams, depending on where suitable silt could be found. More detail was added by sampling all the side streams and seepages.

Samples were taken from "active" material; that is under flowing water, either in streams or seepages. The samples were taken with a shovel. Fine-grained silt was selected. Care was taken to avoid high organic material, and well washed clay.

The sample site and number were then plotted on the field map. A note was made of the sample number; the width, depth, and speed of flow of the stream; the type of sediment sampled; and any peculiarities of nearby drainage, such as above or below a pond or swamp.

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. The samples 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 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 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-keytone). This is aspirated in the Techtron AA5.

Interpretation

The purpose of the silt survey was to explore the potential of this part of the property as a guide to further exploration work. The configuration of streams made this a practicable goal. The results are plotted on Plates No. 1 to 9.

Sample stations that are considered to be background are uncoloured. Sample stations that are considered to be only weakly anomalous are coloured yellow; those that are anomalous are coloured red. The weakly anomalous levels vary somewhat with the size of the stream and the drainage area. For example, a value of 300 ppm Cu would be only weakly anomalous in a small seepage, but would be definitely anomalous in a large stream.

Silver is the only metal that is anomalous in the silt samples. It is weakly to strongly anomalous at a number of sites on the east side of the main stream. Copper, lead, and gold are not anomalous; but the values in the main side stream from the east (flowing across Chappelle Claims 157 & 116) are very slightly higher than the average for the rest of the silt survey area. Values for molybdenum, zinc, cobalt, and nickel are uniformly non-anomalous.

SOIL GEOCHEMICAL SURVEY

Soil Survey Field Work

Control Survey Lines

A control grid was established by chain and compass survey. Stations were marked with surveyor's flagging. The grid area extended slightly beyond a small gossan zone. The grid was compiled on a map with scale 1" = 400'.

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.

The samples were collected by digging a small hole with a 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, the direction of drainage, and the type of vegetation.

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. The samples 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 any 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 H. Goddard, laboratory manager.

The analytical procedures used on the soil samples were the same as those used on the silt samples. These are described in the section entitled 'Silt Geochemical Survey'.

Interpretation

The depth of overburden varies from a few feet to probably about 10' over most of the area 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, lead, silver, gold, cobalt, and nickel. The results are plotted on Plates No. 10 to 18.

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 229 ppm for copper, 7 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 for nickel. Sample stations that are definitely anomalous are coloured red.

Silver and lead form well defined, weak anomalies in the southwest part of the survey area. The anomalies are only partly coincident. A few scattered sites are very weakly anomalous in molybdenum. One other site contains 61 ppm molybdenum, but is not anomalous in other metals except silver at 2.5 ppm Ag.

Copper, zinc, gold, cobalt, and nickel are not anomalous.

Vancouver, B.C.

December 1, 1971

R. W. Stevenson, P. Eng.

STATEMENT OF COSTS

The costs incurred on assessment work on the Chappelle No. 6 Group of mineral claims were as follows:

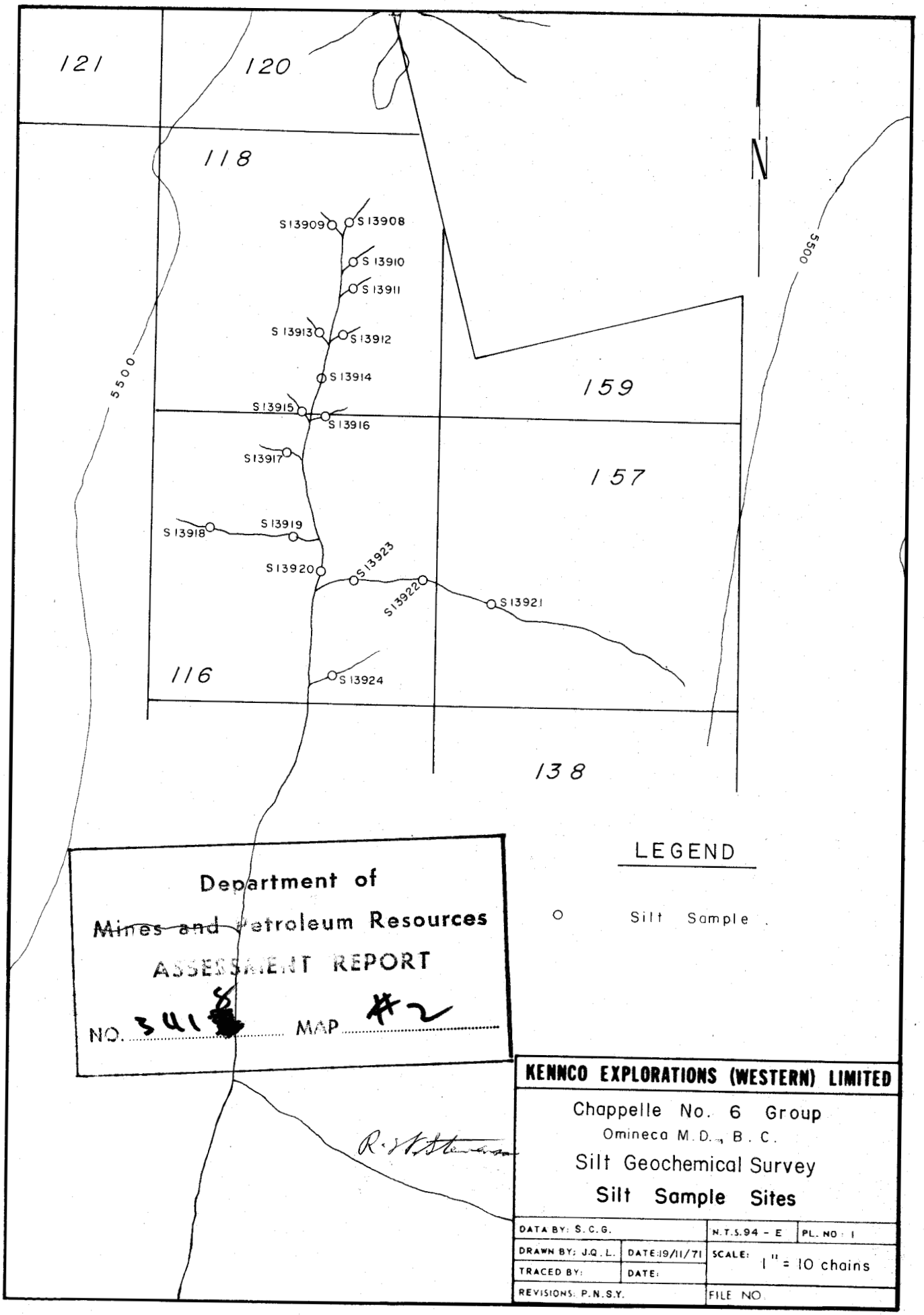
SILT GEOCHEMICAL SURVEY

Analysis of 17 silt samples for Cu,Mo,Zn,Pb,Ag,Au,Co,Ni			$ 93.50
Wages & Board:			
A.B. Flower	June 19	@ $21.00 + $10.00	31.00
D.R. MacKay	June 19	@ $17.00 + $10.00	27.00
Helicopter set-out on the property, 0:30 hrs @ $175/hr			87.00
Drafting			15.00

SOIL GEOCHEMICAL SURVEY

Analysis of 58 soil samples for Cu,Mo,Zn,Pb,Ag,Au,Co,Ni			$319.00
Wages & Board:			
S.C. Gower	July 13	@ $35.00 + $10.00	45.00
P.R. Archibald	July 13,14	@ $19.00 + $10.00	58.00
B. Froebel	July 14	@ $21.00 + $10.00	31.00
Helicopter set-out on the property, 0:40 hrs @ $175/hr			116.00
Drafting & Typing			40.00
		Total =	$862.50

R. W. Stevenson, P. Eng.



Department of
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ASSESSMENT REPORT
NO. 341 MAP #2

LEGEND

○ Silt Sample

R. J. Hannan

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B.C.
Silt Geochemical Survey
Silt Sample Sites

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO : 1
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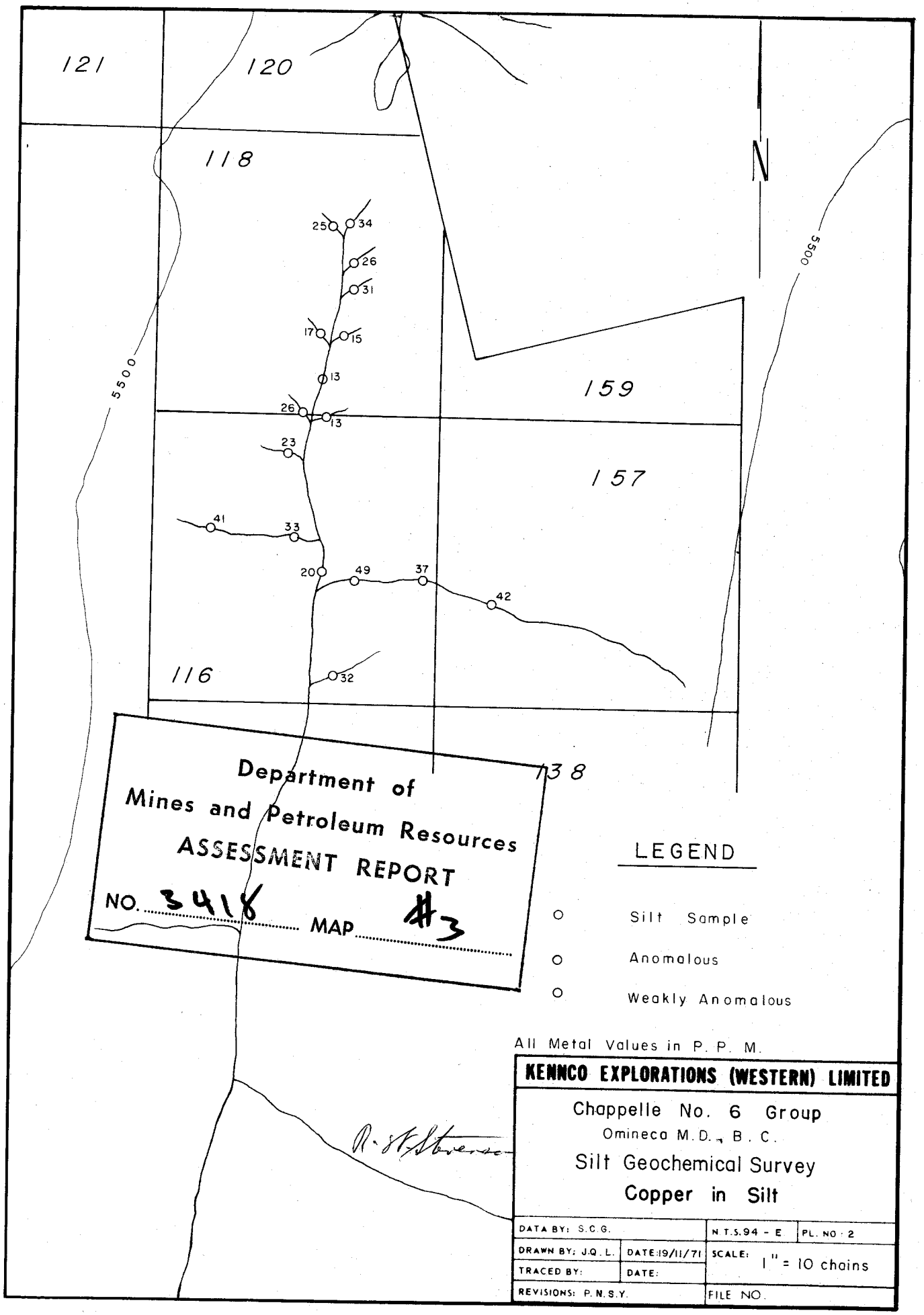
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NO. 3418 MAP #3
LEGEND
Silt Sample
Anomalous
Weakly Anomalous
All Metal Values in P. P. M.
KENNCO EXPLORATIONS (WESTERN) LIMITED
Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Copper in Silt
DATA BY: S.C.G.
N.T.S. 94 - E
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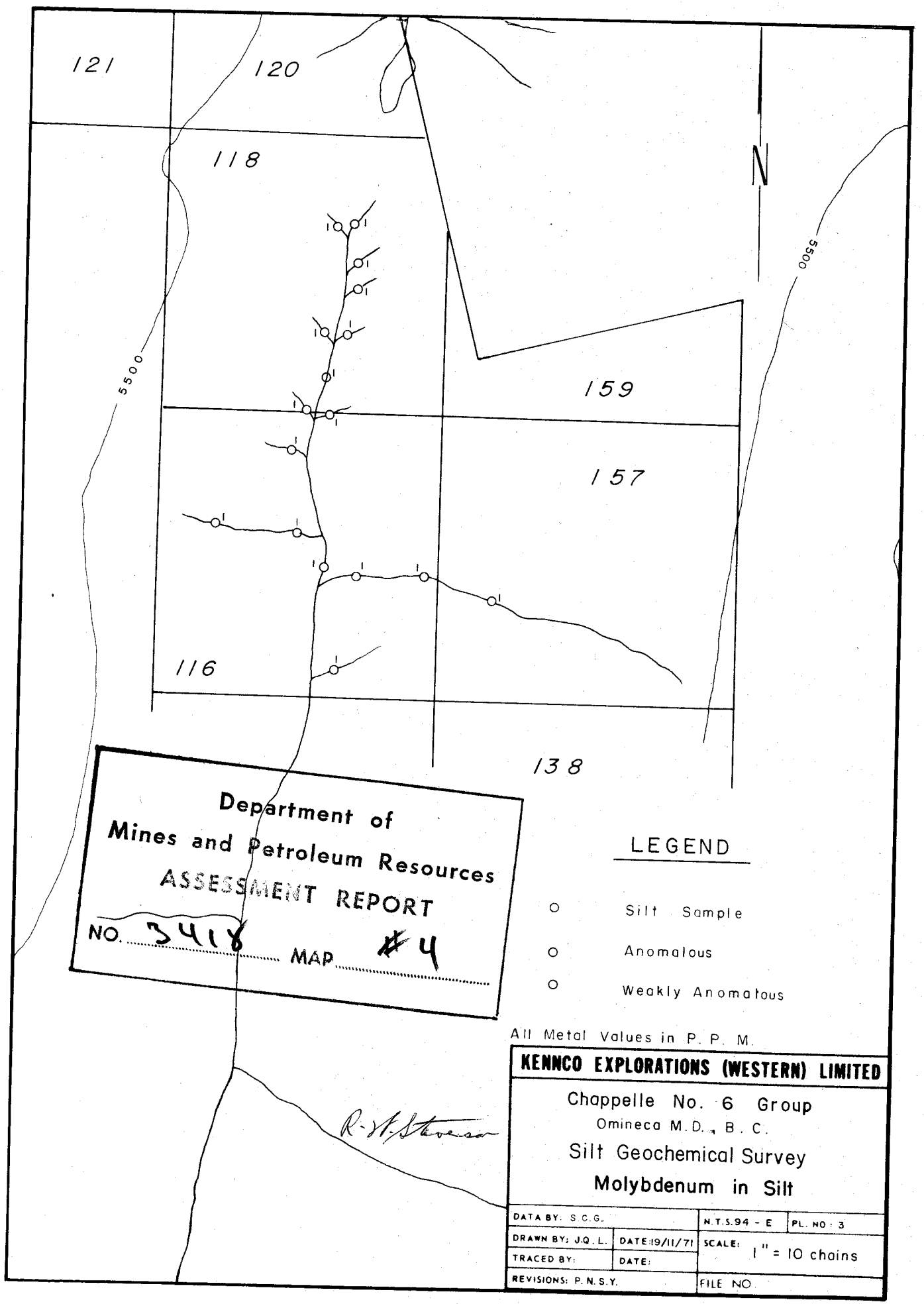

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ASSESSMENT REPORT
NO. 3418 MAP #4

LEGEND

- Silt Sample
- Anomalous
- Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Molybdenum in Silt

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 3
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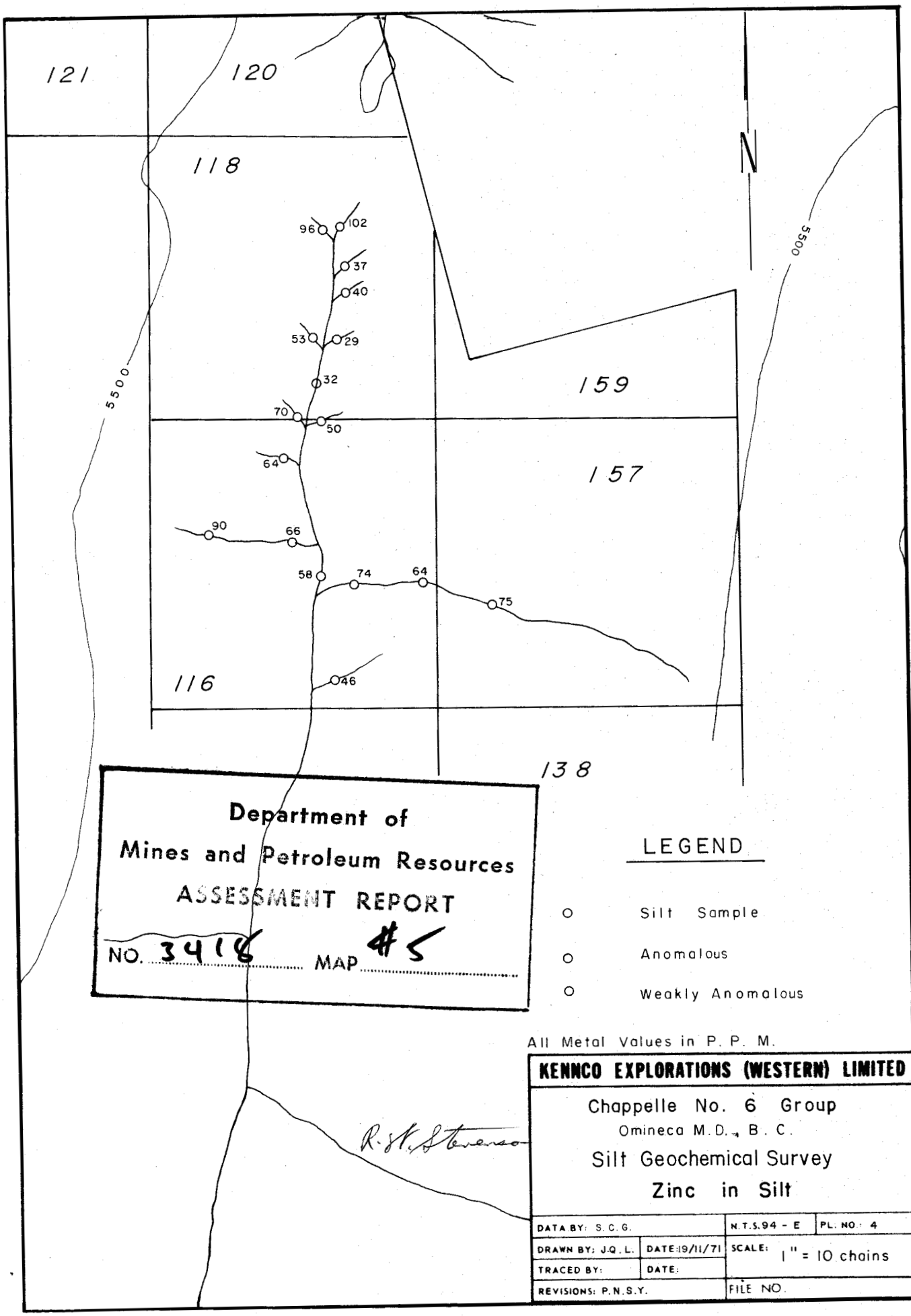

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NO. 3416 MAP #5

LEGEND

- Silt Sample
- Anomalous
- Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Zinc in Silt

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 4
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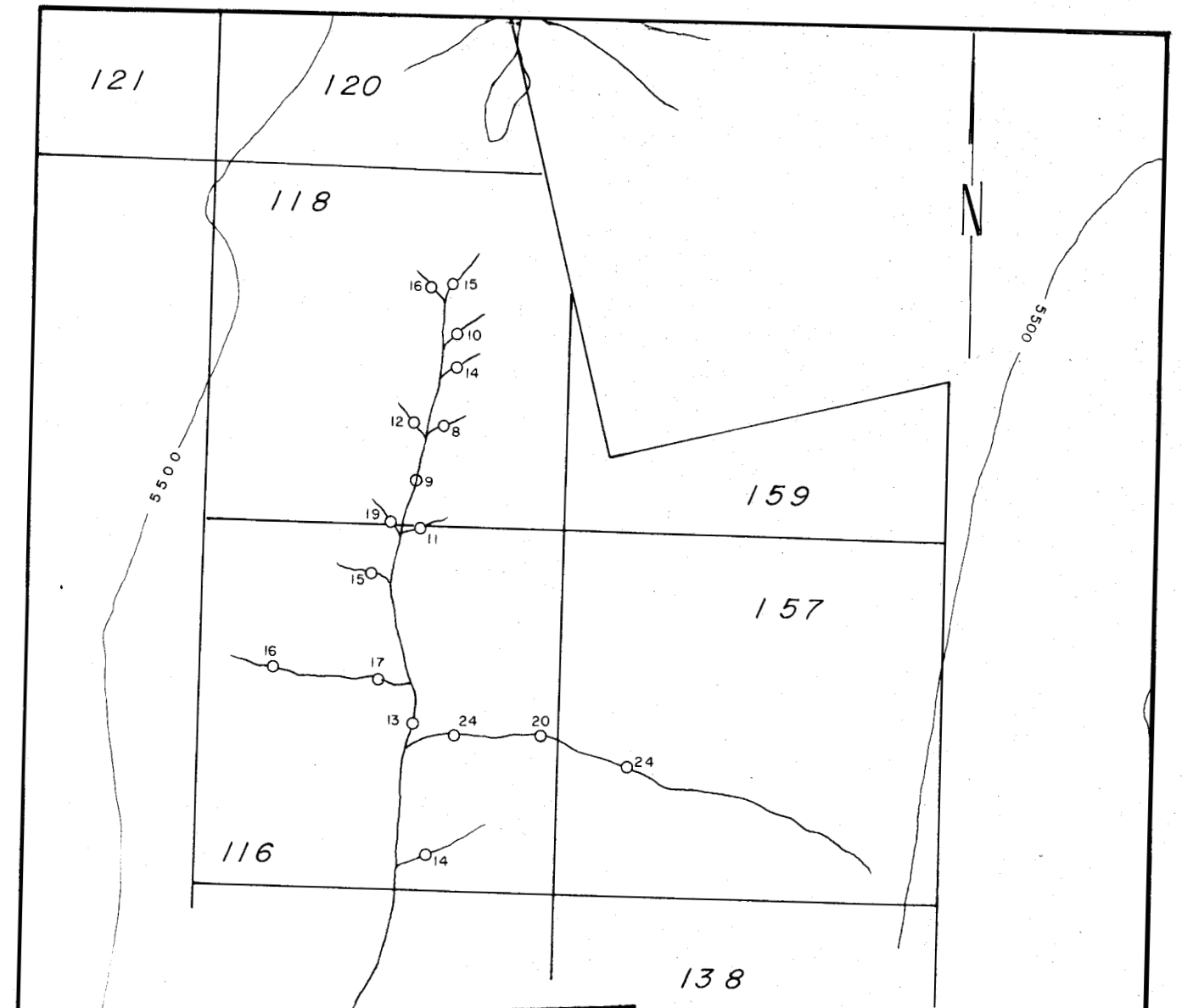

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~~ASSESSMENT~~ REPORT
NO. 3418 MAP #6

LEGEND

- Silt Sample
- Anomalous
- Weakly Anomalous

All Metal Values in P. P. M.

R. H. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Lead in Silt

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 5
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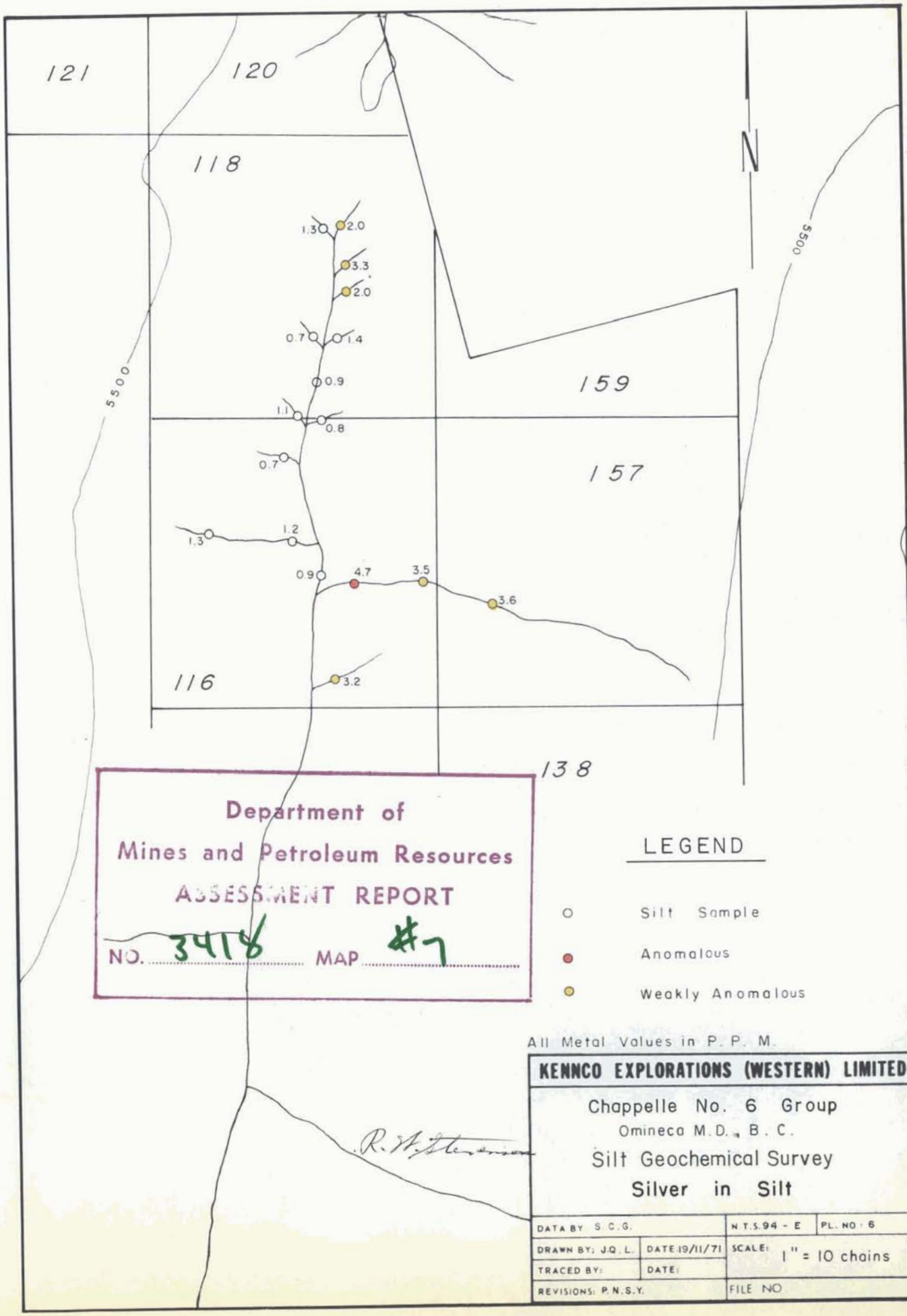

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NO. 3418 MAP #7

LEGEND

- Silt Sample
- Anomalous
- Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Silver in Silt

DATA BY: S. C. G.		N.T.S. 94 - E	PL. NO: 6
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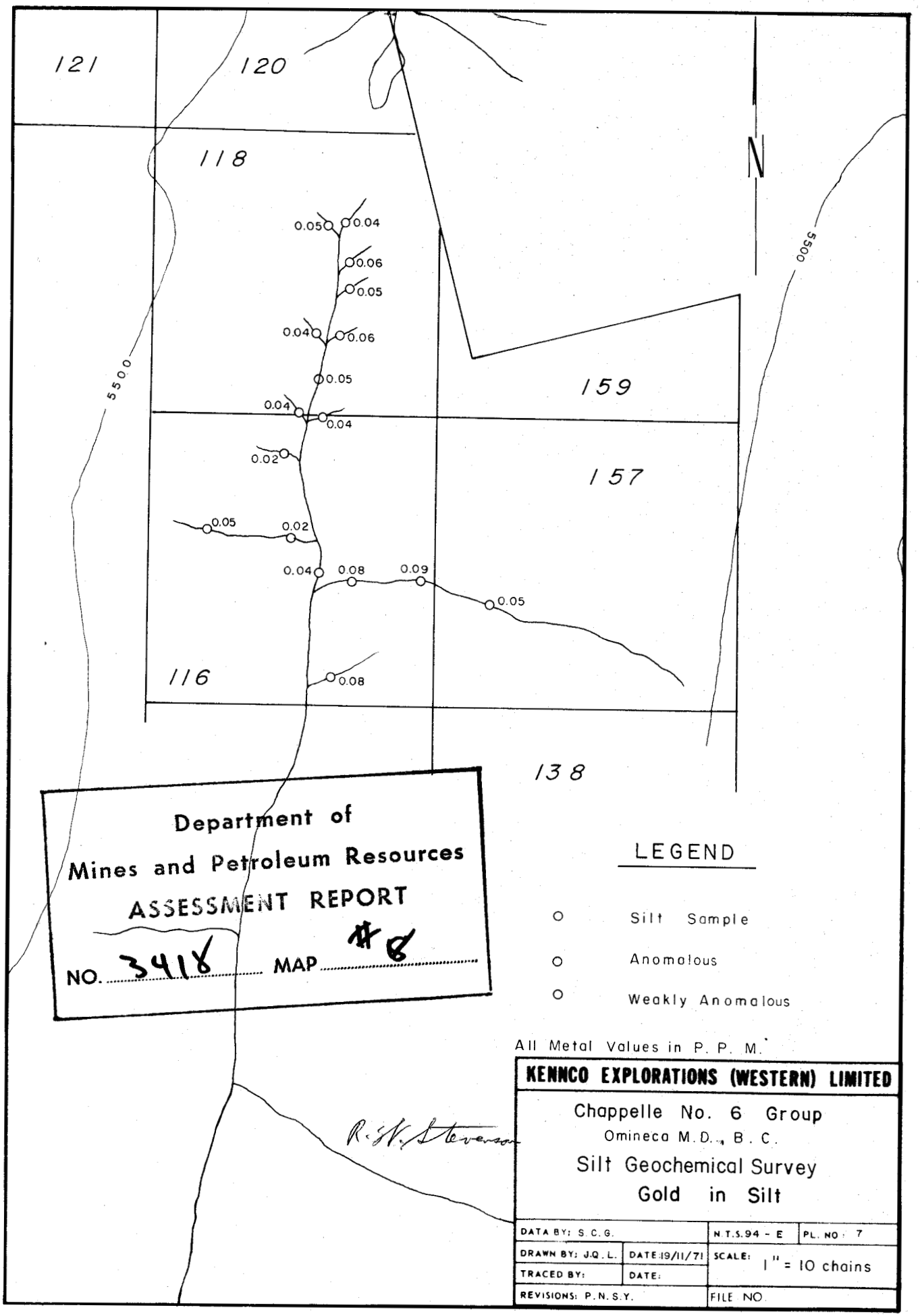
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Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3418 MAP #6
LEGEND
Silt Sample
Anomalous
Weakly Anomalous
All Metal Values in P. P. M.
KENNCO EXPLORATIONS (WESTERN) LIMITED
Chappelle No. 6 Group
Omineca M.D., B.C.
Silt Geochemical Survey
Gold in Silt
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DATE: 19/11/71
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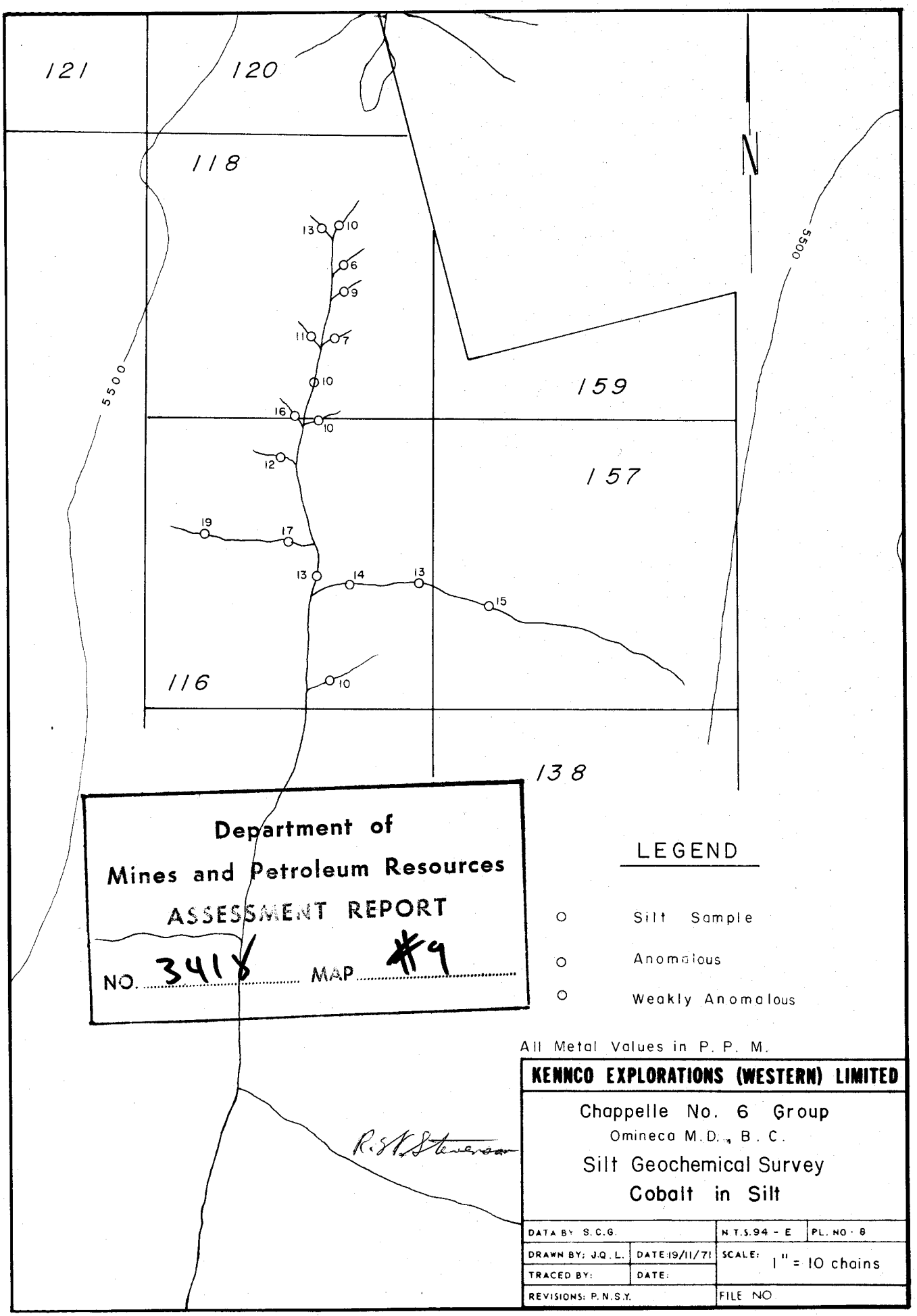
REVISIONS: P.N.S.Y.
FILE NO.
R. N. Stevenson



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NO. 3418 MAP #9

LEGEND

- Silt Sample
- Anomalous
- Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Cobalt in Silt

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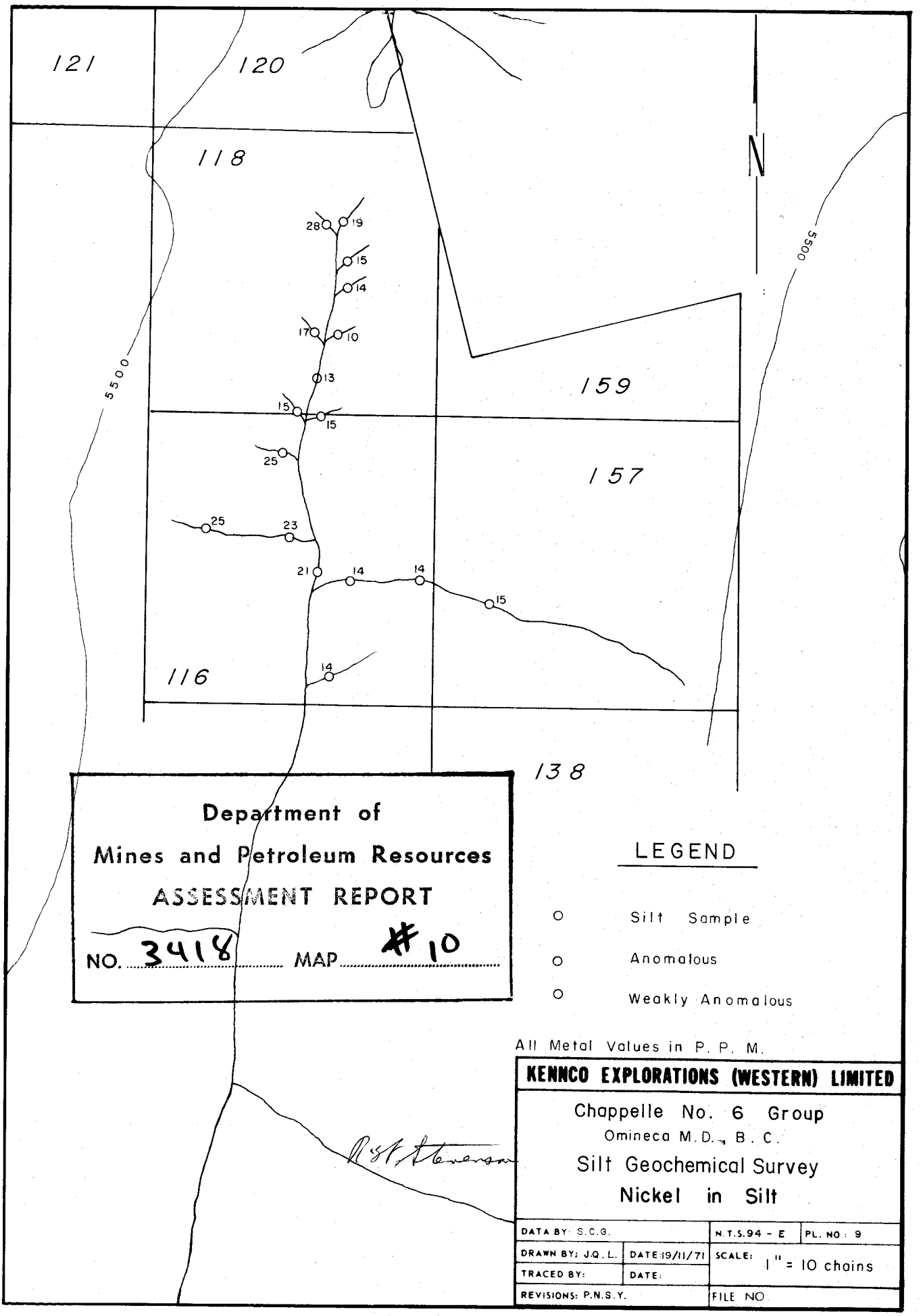

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NO. 3418 MAP #10

LEGEND

- ○ Silt Sample
- ○ Anomalous
- ○ Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M.D., B. C.
Silt Geochemical Survey
Nickel in Silt

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 9
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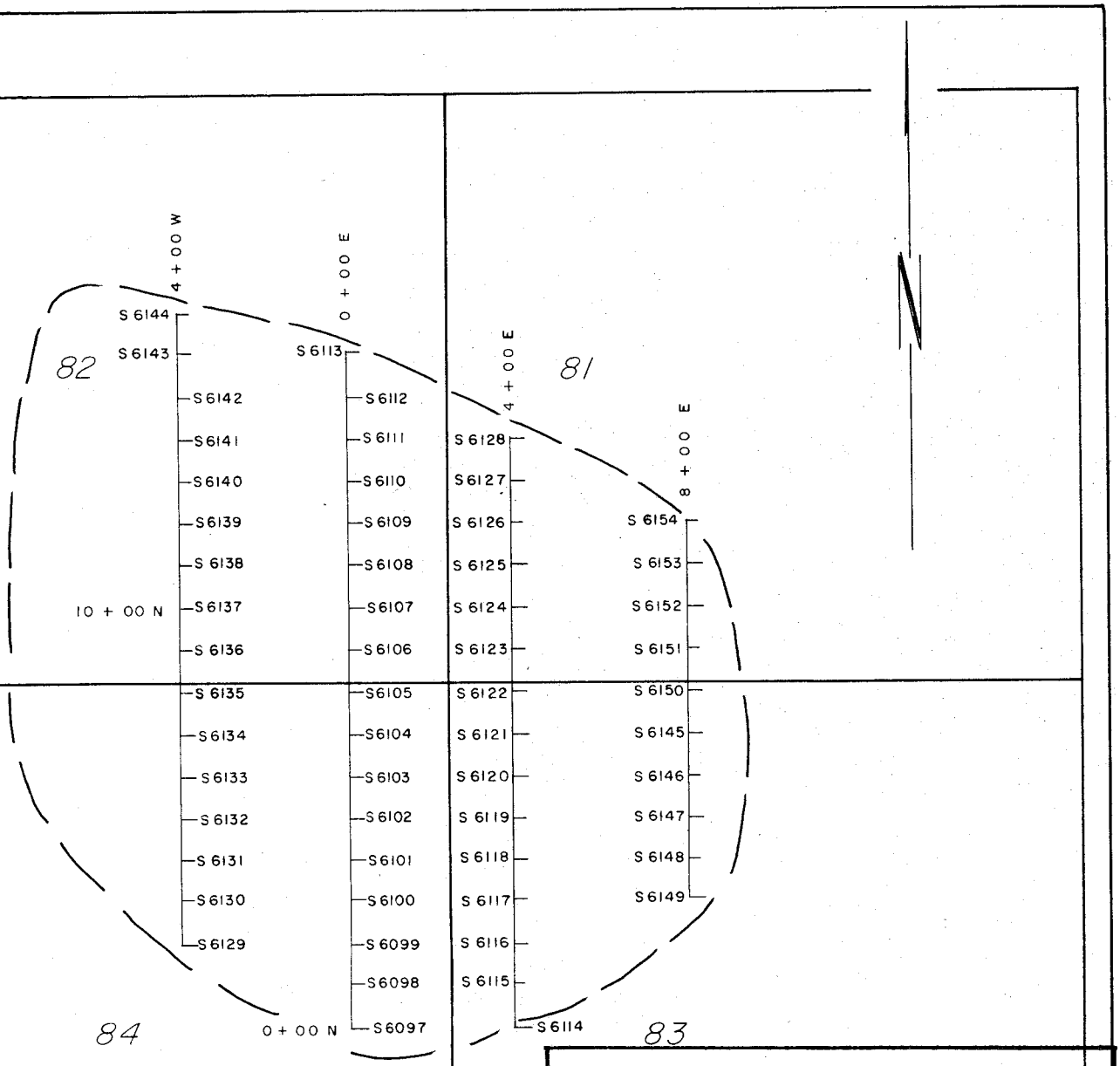

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NO. 3416 MAP #11

LEGEND

— Soil Sample

R. S. V. Stevenson

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Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Soil Sample Sites

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 10
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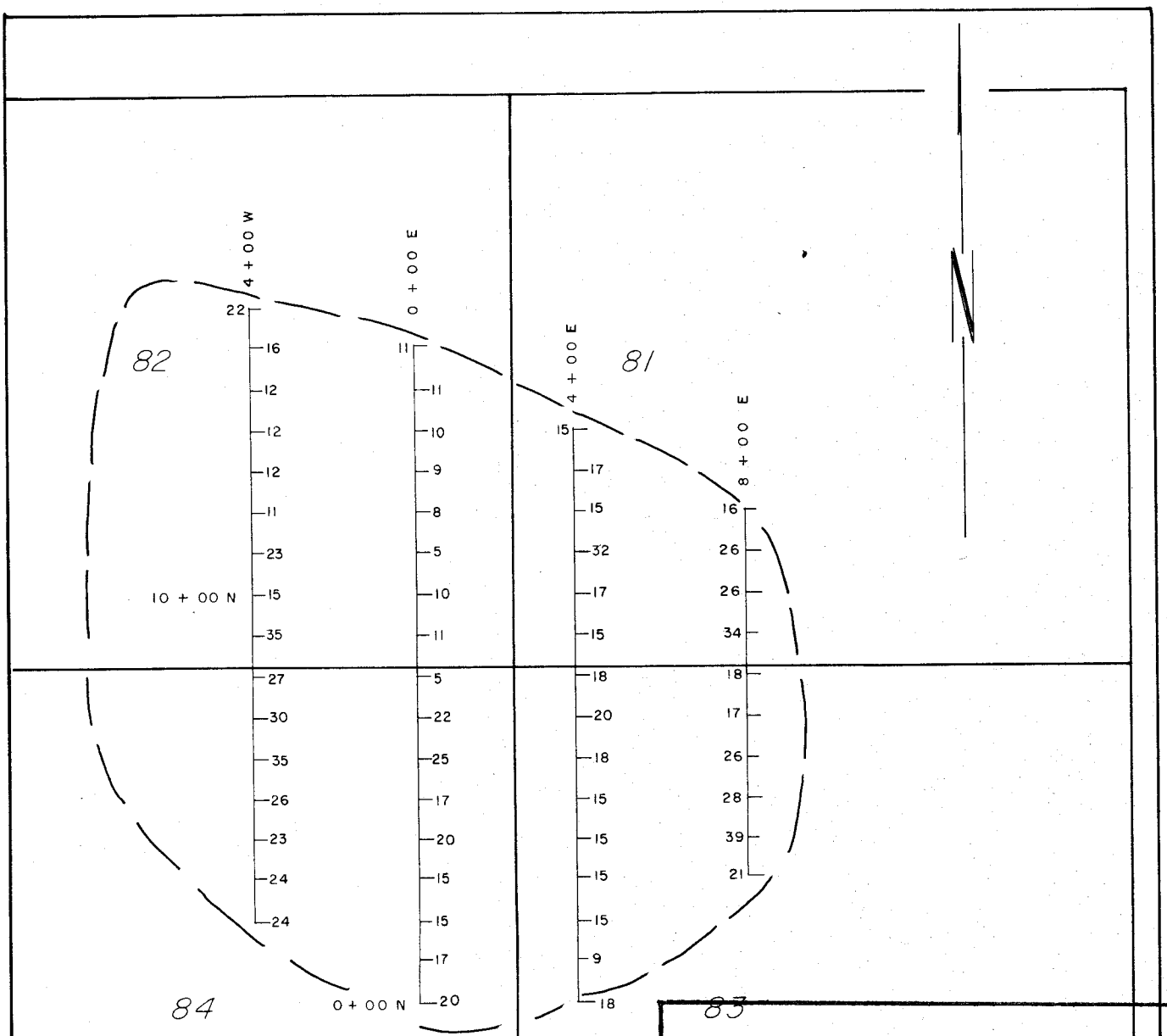

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NO. 3418 MAP #12

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Copper in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 11
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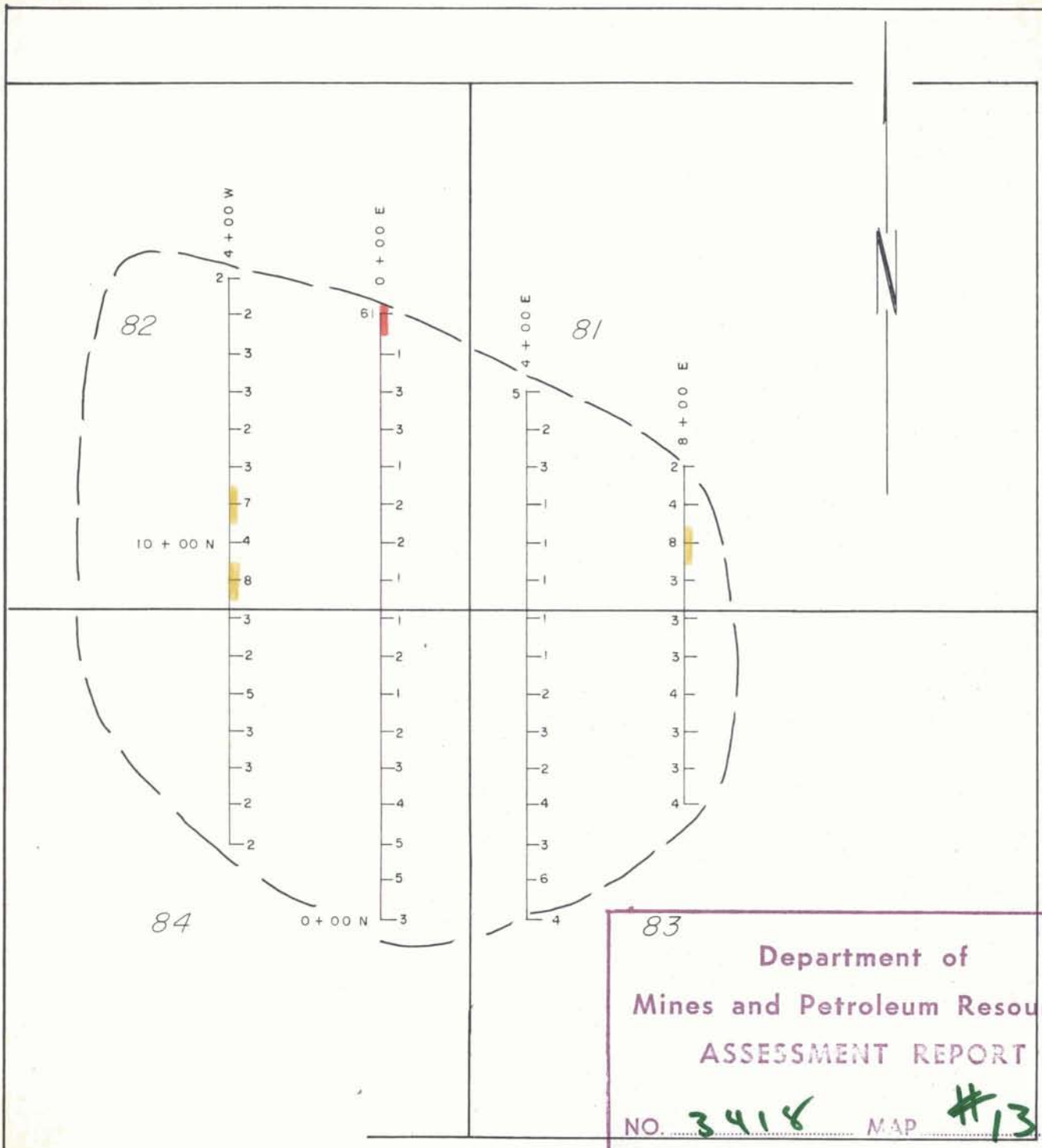

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Molybdenum in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 12
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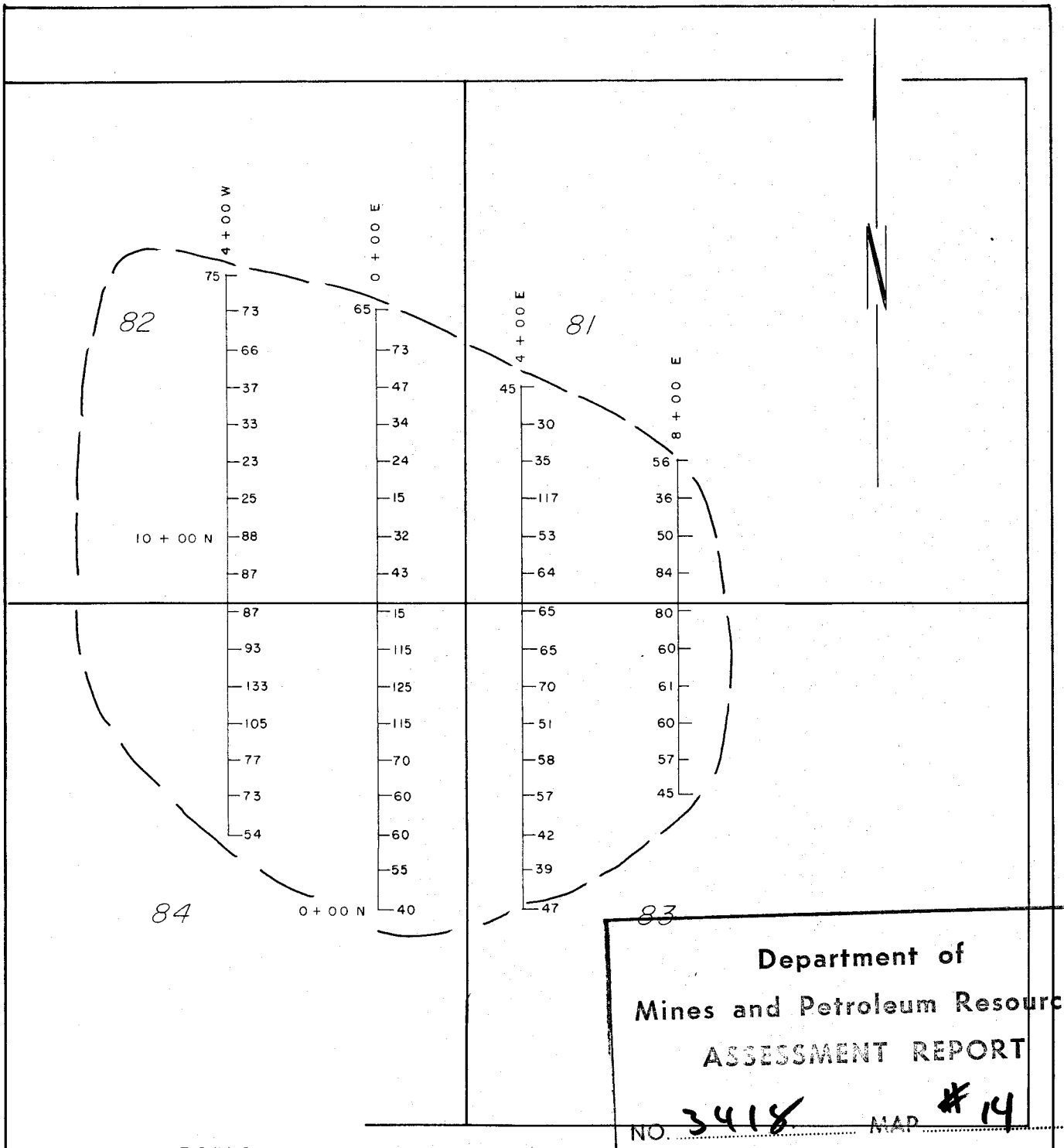

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NO. 3418 MAP #14

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

R. K. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Zinc in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 13
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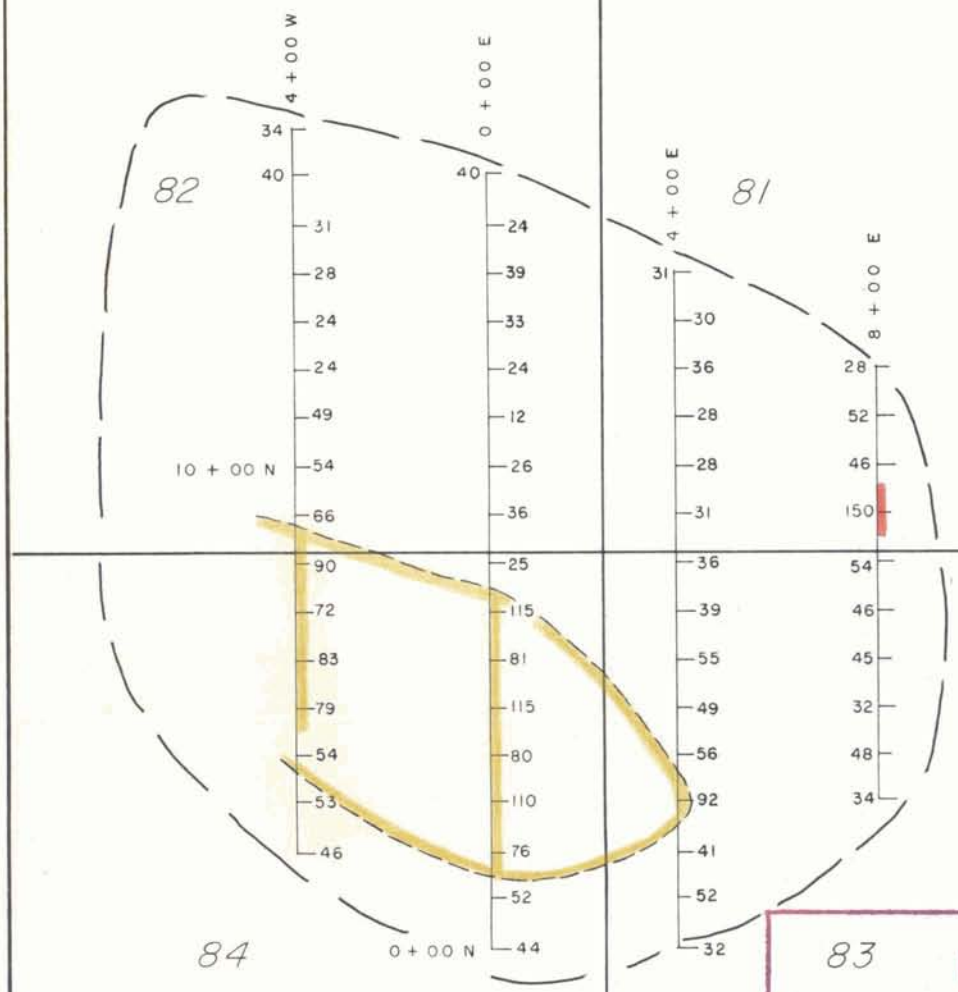

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

R. N. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Lead in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO. 14
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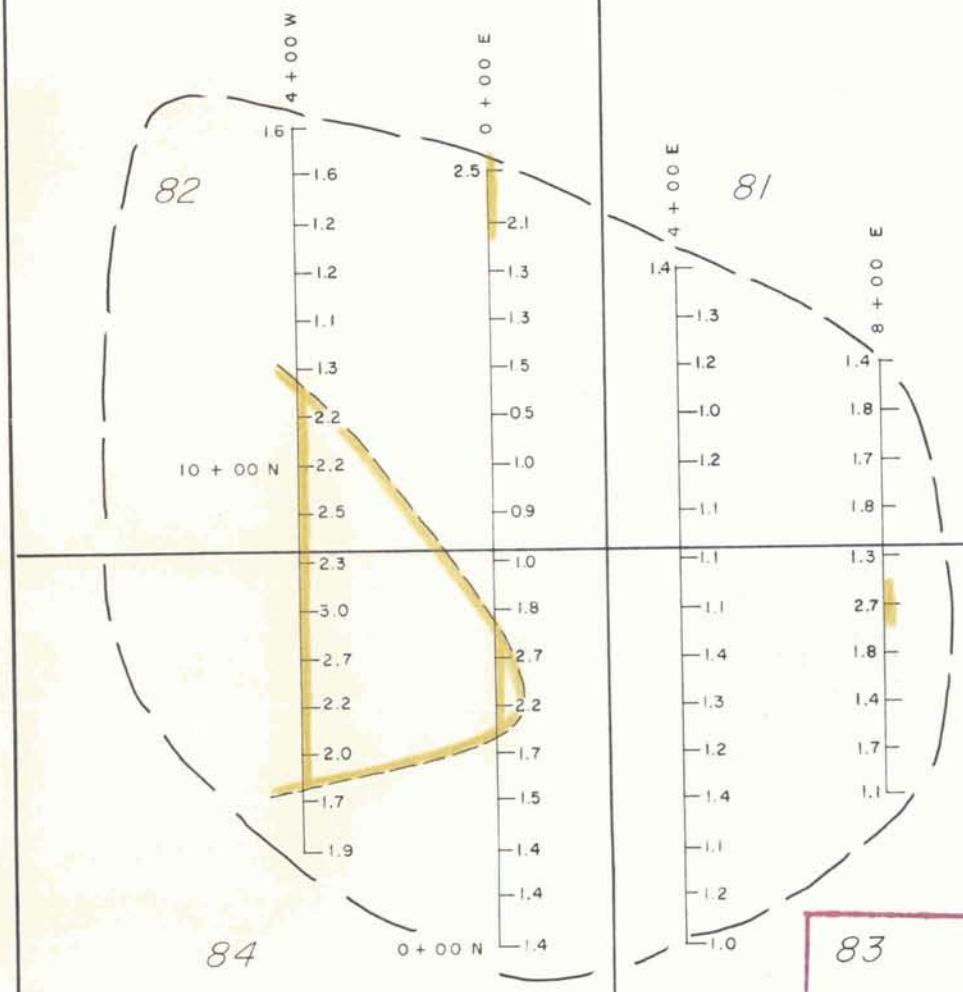

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

R. H. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Silver in Soil

DATA BY S.C.G.		N.T.S. 94 - E	PL. NO : 15
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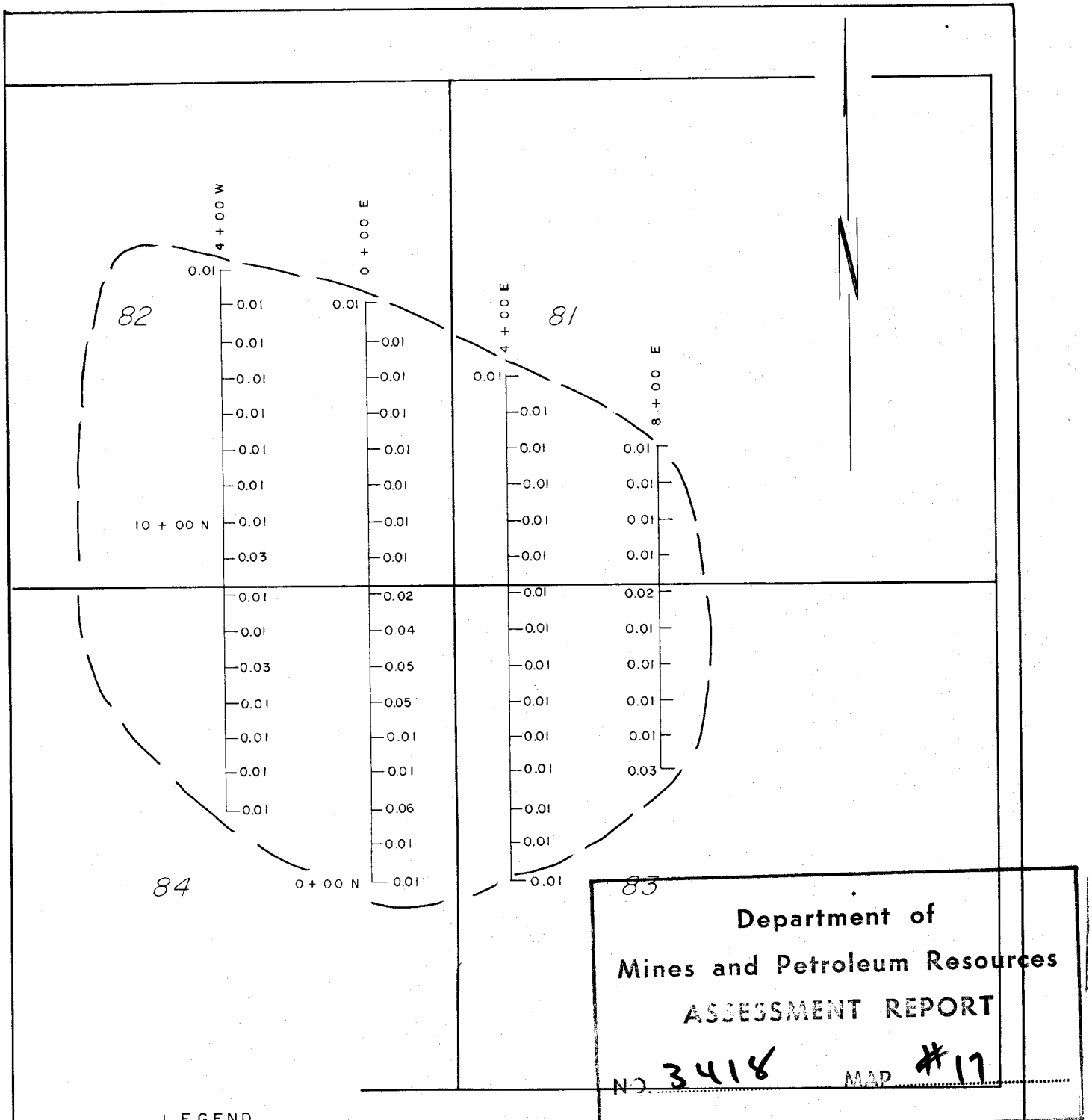

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Mines and Petroleum Resources
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NO. 3418 MAP #17

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

R. H. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Gold in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO: 16
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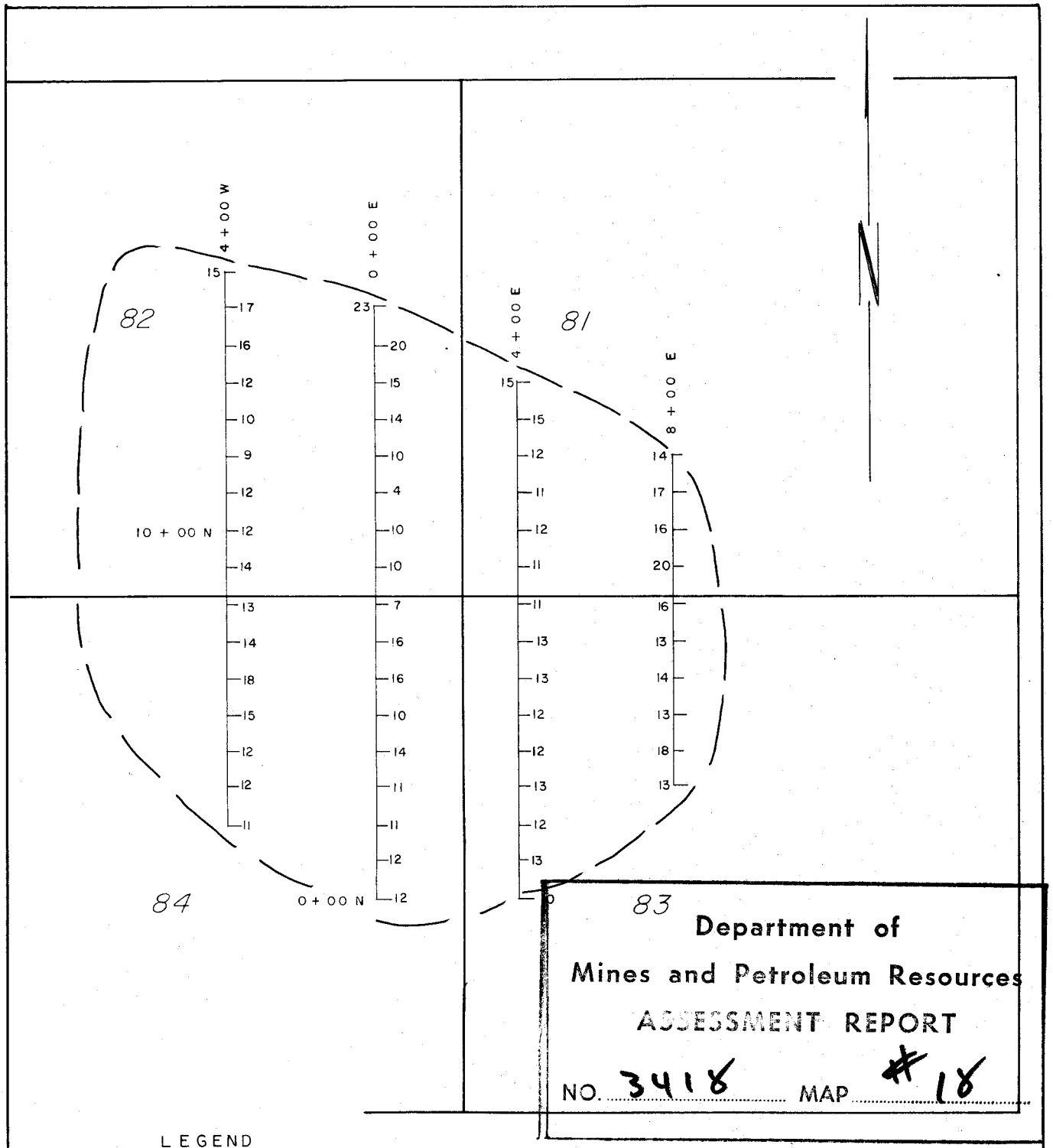
TRACED BY: J.Q.L.	DATE: 27/10/71		
REVISIONS: P.N.S.Y.		FILE NO.	



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 3418 MAP #18

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

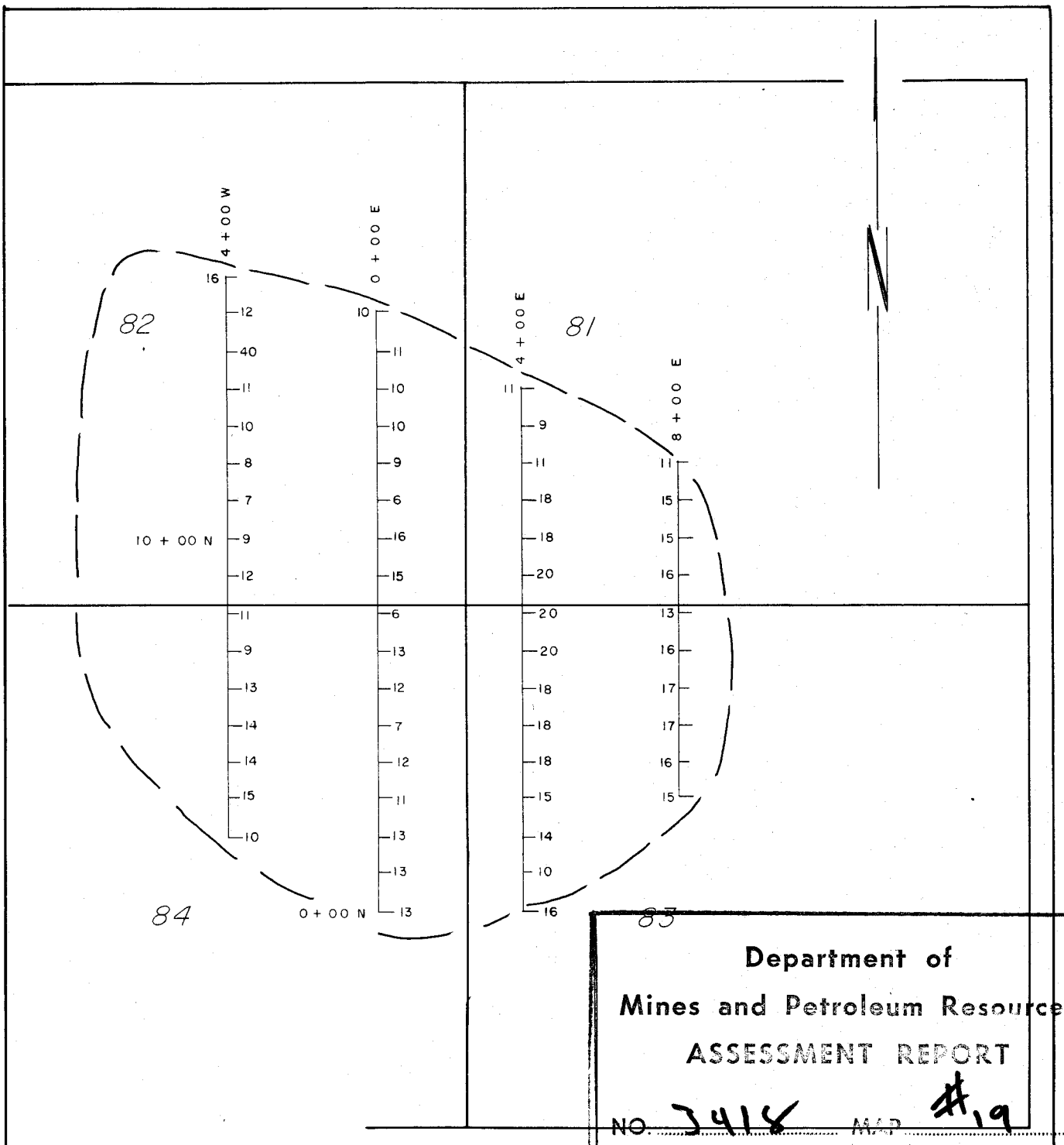
R. H. Stevenson

All Metal Values in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Cobalt in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO.: 17
DRAWN BY: P.A.	DATE: 14/7/71	SCALE: 1" = 400'	
TRACED BY: J.Q.L.	DATE: 27/10/71		
REVISIONS: P. N.S.Y.		FILE NO.	



Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 3418 MAP #19

LEGEND

Soil Sample

Anomalous

Weakly Anomalous

All Metal Values in P. P. M.

R.M. Stevenson

KENNCO EXPLORATIONS (WESTERN) LIMITED

Chappelle No. 6 Group
Omineca M. D., B. C.
Soil Geochemical Survey
Nickel in Soil

DATA BY: S.C.G.		N.T.S. 94 - E	PL. NO : 18
DRAWN BY: P.A.	DATE: 14/7/71	SCALE: 1" = 400'	
TRACED BY: J.Q.L.	DATE: 27/10/71		
REVISIONS: P. N. S.Y.		FILE NO.	