

KENNCO EXPLORATIONS, (WESTERN) LIMITED

REPORT

ON

SOIL GEOCHEMICAL SURVEY

LEN NO. 3 GROUP

(Len Mineral Claims No.15-18, 29-32, 35-38, 42 Fr, 45-58, 84 Fr.)

Situated one-half mile south of Huckleberry Mtn.
Omineca Mining Division,
British Columbia

53° 127° NE

Department of
Mines and Petroleum Resources
ASSESSMENT REPORT

NO. 2691 MAP.....

By

R. W. Stevenson, P. Eng.

June 8 to 14, 1970

August 24, 1970

Mining Recorder's Office
RECORDED

1971

AT.....
SMITHERS, B.C.

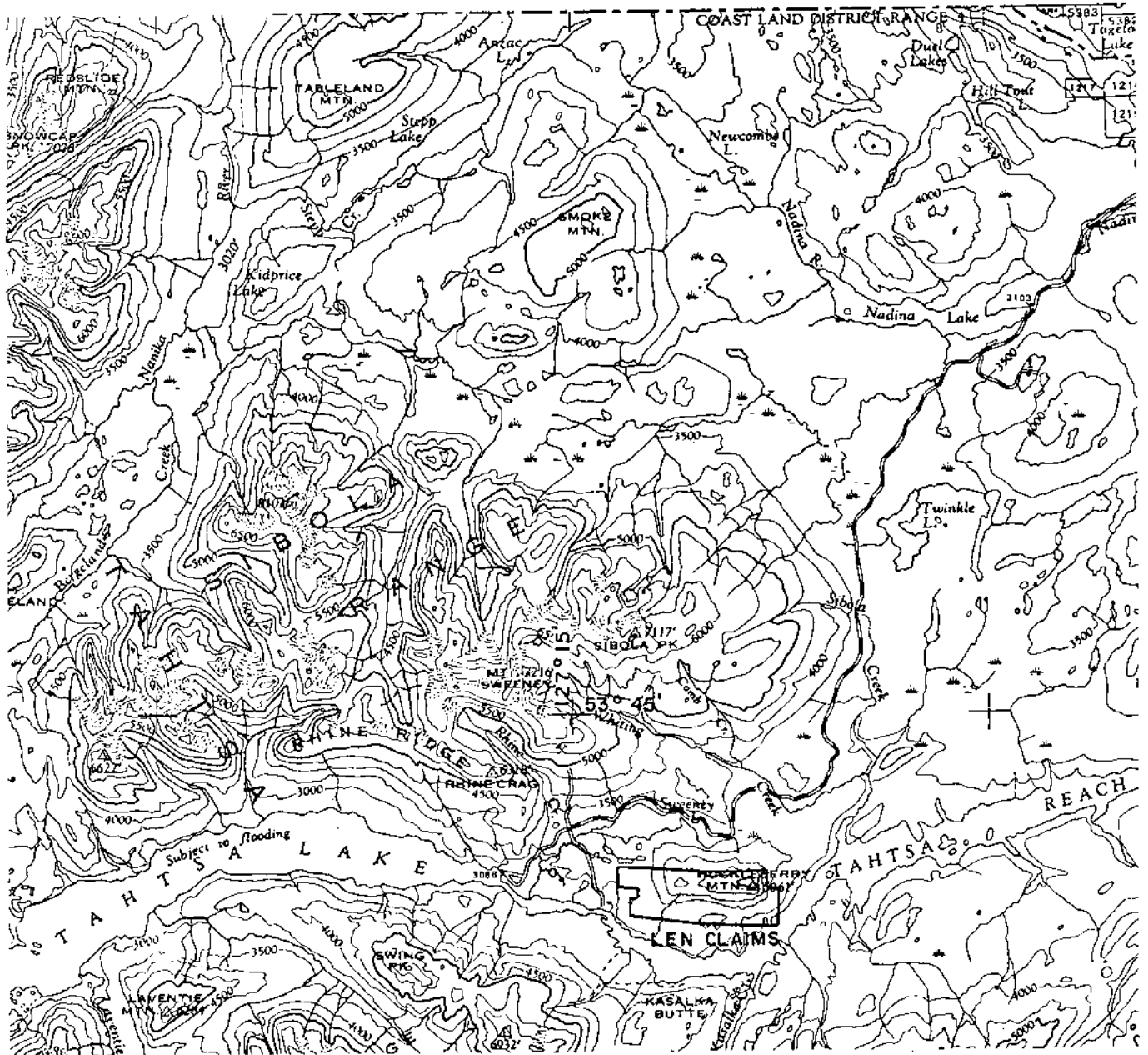
SMITHERS, B. C.

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Kennco Explorations (Western) Limited

LEN CLAIMS

Situated one-half mile south of Huckleberry Mtn.

Omineca Mining Division

British Columbia

Scale :
1 : 250,000

53° 127° N.E.

LOCATION MAP

Department Mines and Petroleum Resources ASSESSMENT REPORT NO. 2691 MAP #1

R. W. Stenson

LIST OF CLAIMS AND DISTRIBUTION OF WORK

Len No. 3 Group

<u>Claim No.</u>	<u>Record No.</u>	<u>Record Date</u>	<u>\$ Soil Geochem Work Ea. Claim</u>	<u>Years Applied</u>
15	15536	July 12	45.00	
29	15817	August 24	192.00	
30	15818	"	67.00	
31	15819	"	148.00	
32	15820	"	22.00	
37	21508	August 2	59.00	
38	21509	"	259.00	
45	78767	August 18	155.00	8
46	78768	"	52.00	8
47	78769	"	37.00	5
51	78773	"	22.00	
52	78774	"	192.00	
53	78775	"	37.00	
54	78776	"	215.00	
55	78777	"	111.00	
56	78778	"	81.00	
57	78779	"	281.00	
58	78780	"	185.00	
			<hr/>	
			\$2,160.00	21
			<hr/>	<hr/>

STATEMENT OF COSTS INCURRED

Soil Geochemical Survey

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

The total cost of the soil geochemical survey on Len No. 3 Group is as follows:

Chemical analysis of 292 samples - Cu, Mo, Pb, Zn, Ni, Co \$1,752.00

Wages & Board:

M.R. Hegge	- June 8,11,13	\$35.00 + \$5.00	120.00
D.R. Reid	- June 8,11,13	\$21.00 + \$5.00	78.00
R.J. Beaty	- June 8,11,13	\$16.00 + \$5.00	63.00
M.H. Holtby	- June 8,11,14	\$21.00 + \$5.00	78.00
E.A. Black	- June 8,11,14	\$18.00 + \$5.00	69.00
			<hr/>
			\$2,160.00

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

Expenditure on Group No. 3 \$2,160.00

INTRODUCTION

The Len No. 3 Group of mineral claims discussed in this report, is situated about one-half mile south of Huckleberry Mountain, British Columbia. The exploration work on these claims consisted of a soil geochemical survey.

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

LOCATION AND ACCESS

The property is situated at Latitude 53°40'N, Longitude 127°10'W, about 77 miles south of Smithers, B.C. This is between Huckleberry Mountain and Tahtsa Reach. The survey area varies in elevation from 3000' to 4500' above sea level. The slope is to the south. It is well timbered with mature alpine fir, lodgepole pine, black spruce, and engleman spruce.

Access to the property is by road along the Tahtsa Lake road. It is approximately 72 miles by road from Houston.

SOIL GEOCHEMICAL SURVEY

Soil Survey Field Work

Control Survey Lines

A pre-existing grid was used for the soil sampling. This gave good control of sample sites, with minimum expenditure.

The base-line direction is east-west. The grid layout gave efficient coverage of the area that was to be sampled, as well as conforming to the claim boundaries. 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. 1. They were taken from the top of the "B" (rusty) horizon. Exceptions to this occurred in rocky places where sufficient soil could not be found to take a sample.

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 was. The soil sample was then taken from 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 mature forest), and the soil type.

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 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 H. Goddard.

A one-gram sample is weighed to within ± 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 ($\text{HClO}_4 \cdot \text{H}_2\text{O}$) is added, and the sample is digested at 200°C on a hot plate⁴ 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, lead, cobalt, and nickel 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 feet 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, lead, cobalt, and nickel.

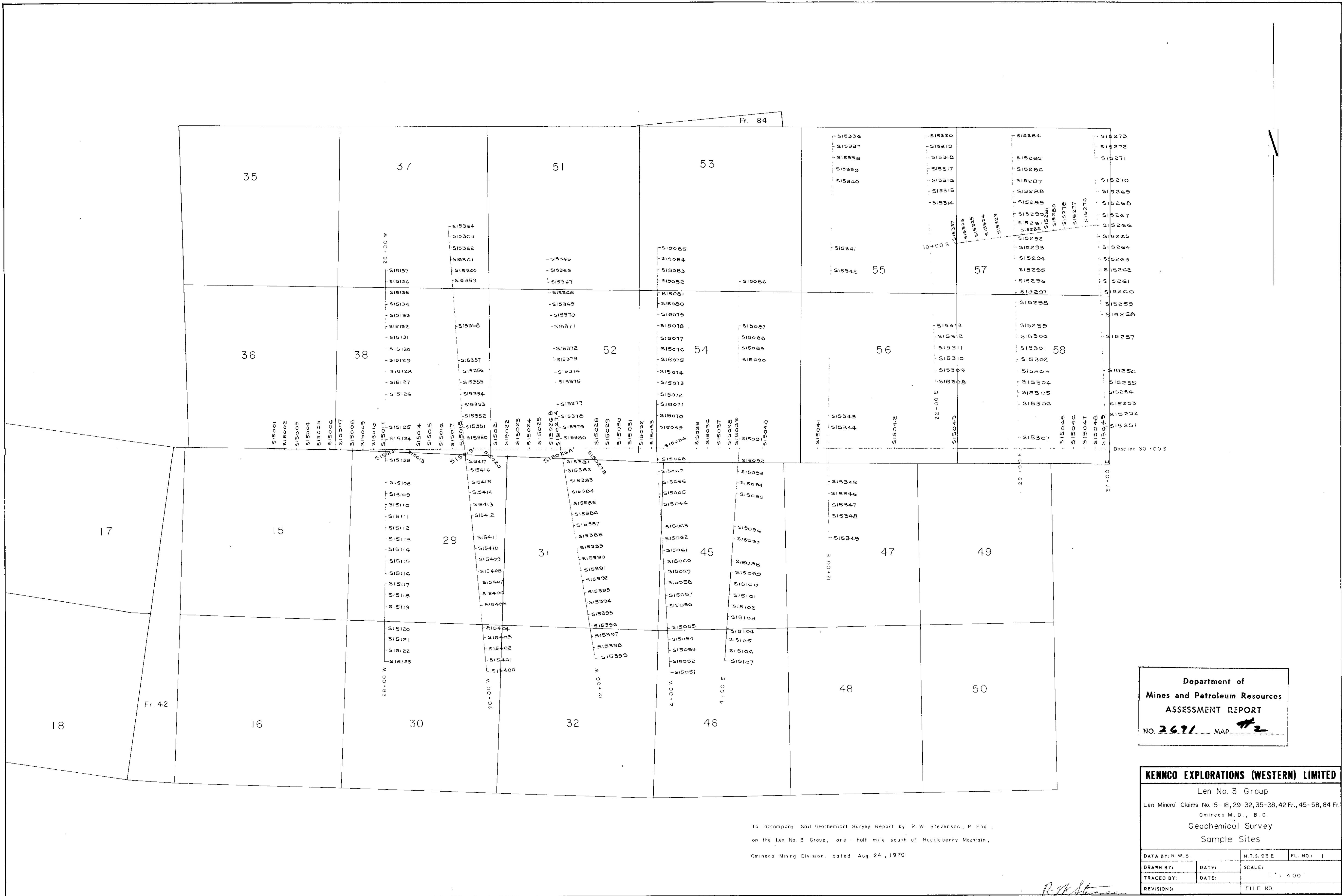
Sample stations that are considered to be background are uncoloured. Sample stations that are considered to be only weakly anomalous are coloured yellow. The weakly anomalous levels are 150 ppm to 299 ppm for copper, 14 ppm to 24 ppm for molybdenum, 300 ppm to 599 ppm for zinc, 80 ppm to 149 ppm for lead, 60 ppm to 119 ppm for cobalt, and 200 ppm to 499 ppm for nickel. Sample stations that are definitely anomalous are coloured red. The results are plotted on Plates No. 2 to 7.

Copper and molybdenum form a moderate anomaly in the central part of the grid area. Zinc and lead are sporadically anomalous to the east of that. Cobalt and nickel are practically non-anomalous, except for a few values on Len No. 54 and 45 claims.

Vancouver, B. C.

August 24, 1970


R. W. Stevenson

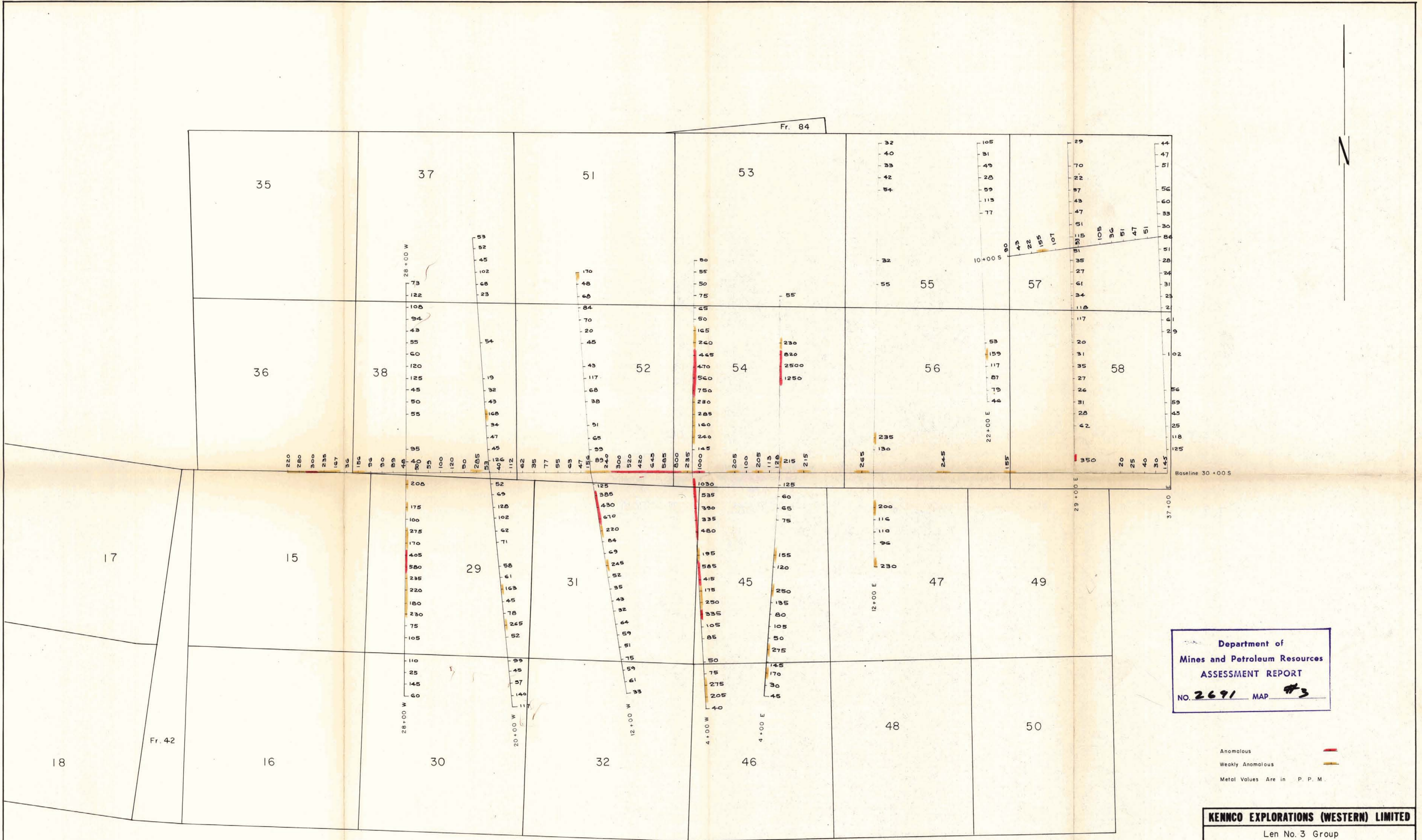


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ASSESSMENT REPORT
NO. 2671 MAP #2

KENCO EXPLORATIONS (WESTERN) LIMITED		
Len No. 3 Group		
Len Mineral Claims No. 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.		
Omineca M. D., B. C.		
Geochemical Survey		
Sample Sites		
DATA BY: R.W.S.	N.T.S. 93 E	PL. NO.: 1
DRAWN BY:	DATE:	SCALE:
TRACED BY:	DATE:	1" = 400'
REVISIONS:	FILE NO.	

To accompany Soil Geochemical Survey Report by R.W. Stevenson, P. Eng.,
on the Len No. 3 Group, one-half mile south of Huckleberry Mountain,
Omineca Mining Division, dated Aug. 24, 1970

R.W. Stevenson



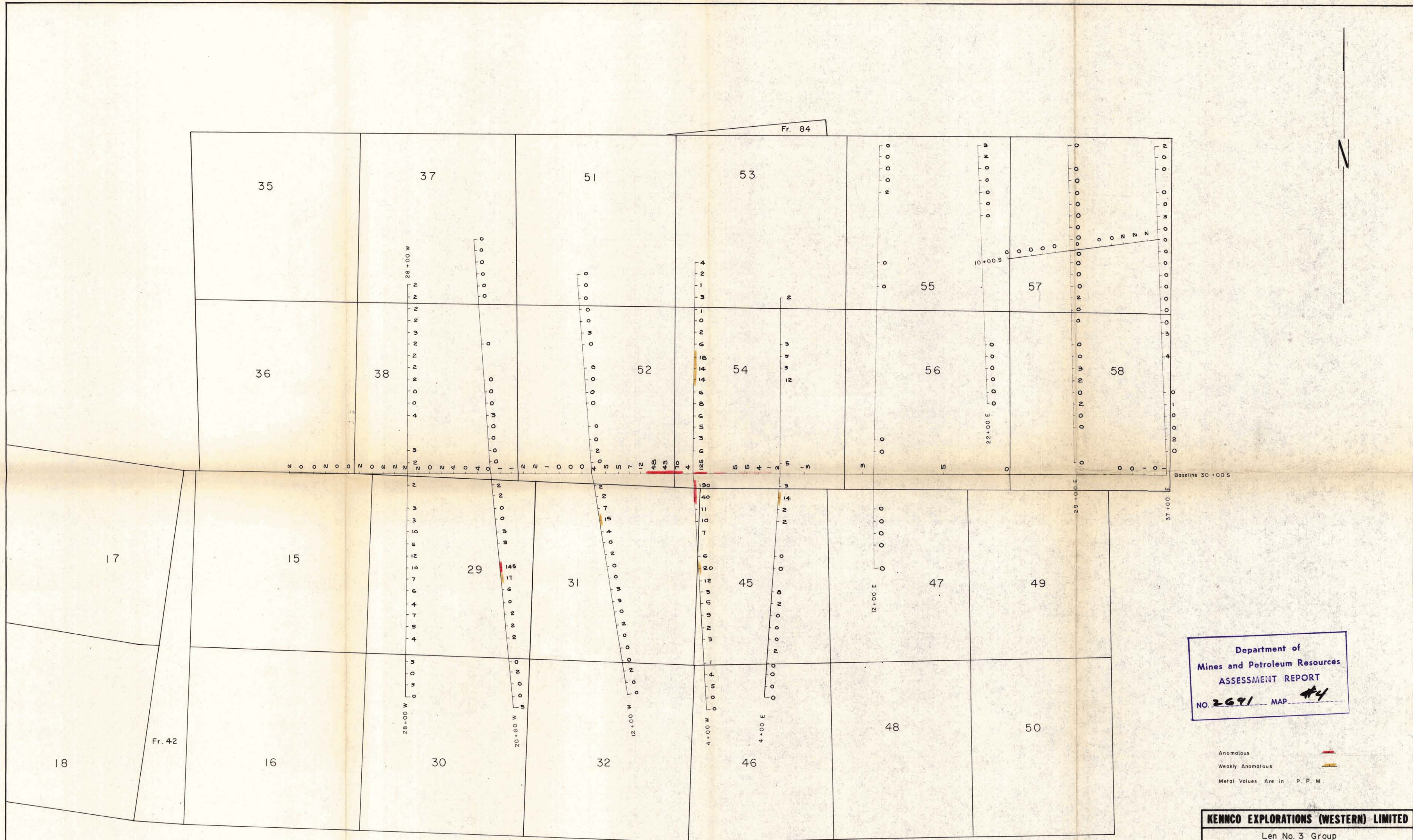
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ASSESSMENT REPORT
NO. 2691 MAP #3

Anomalous —
Weakly Anomalous —
Metal Values Are in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED			
Len No. 3 Group			
Len Mineral Claims No. 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.			
Omineca M. D., B. C.			
Geochemical Survey			
Copper in Soil			
DATA BY: R. W. S.	N.T.S. 93 E	PL. NO. 2	
DRAWN BY:	DATE:	SCALE:	1" = 400'
TRACED BY:	DATE:		
REVISIONS:	FILE NO.		

To accompany Soil Geochemical Survey Report by R. W. Stevenson, P. Eng.,
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Fr. 84

Fr. 42

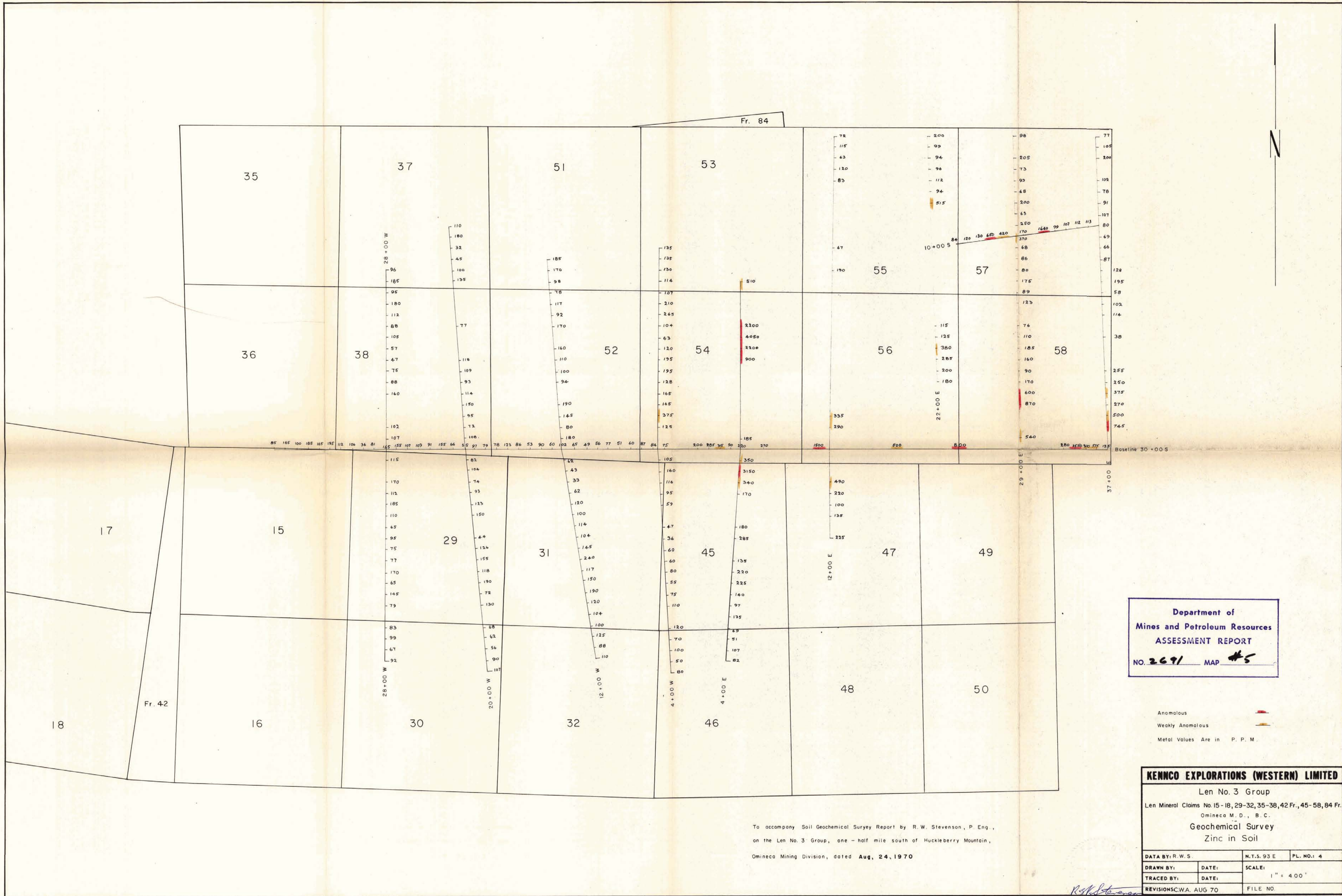
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2691 MAP #4

Anomalous
Weakly Anomalous
Metal Values Are in P.P.M.

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KENNCO EXPLORATIONS (WESTERN) LIMITED		
Len No. 3 Group		
Len Mineral Claims No. 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.		
Omineca M. D., B. C.		
Geochemical Survey		
Molybdenum in Soil		
DATA BY: R.W.S.	N.T.S. 93 E	PL. NO.: 3
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TRACED BY:	DATE:	
REVISIONS:		FILE NO.

R.W. Stevenson



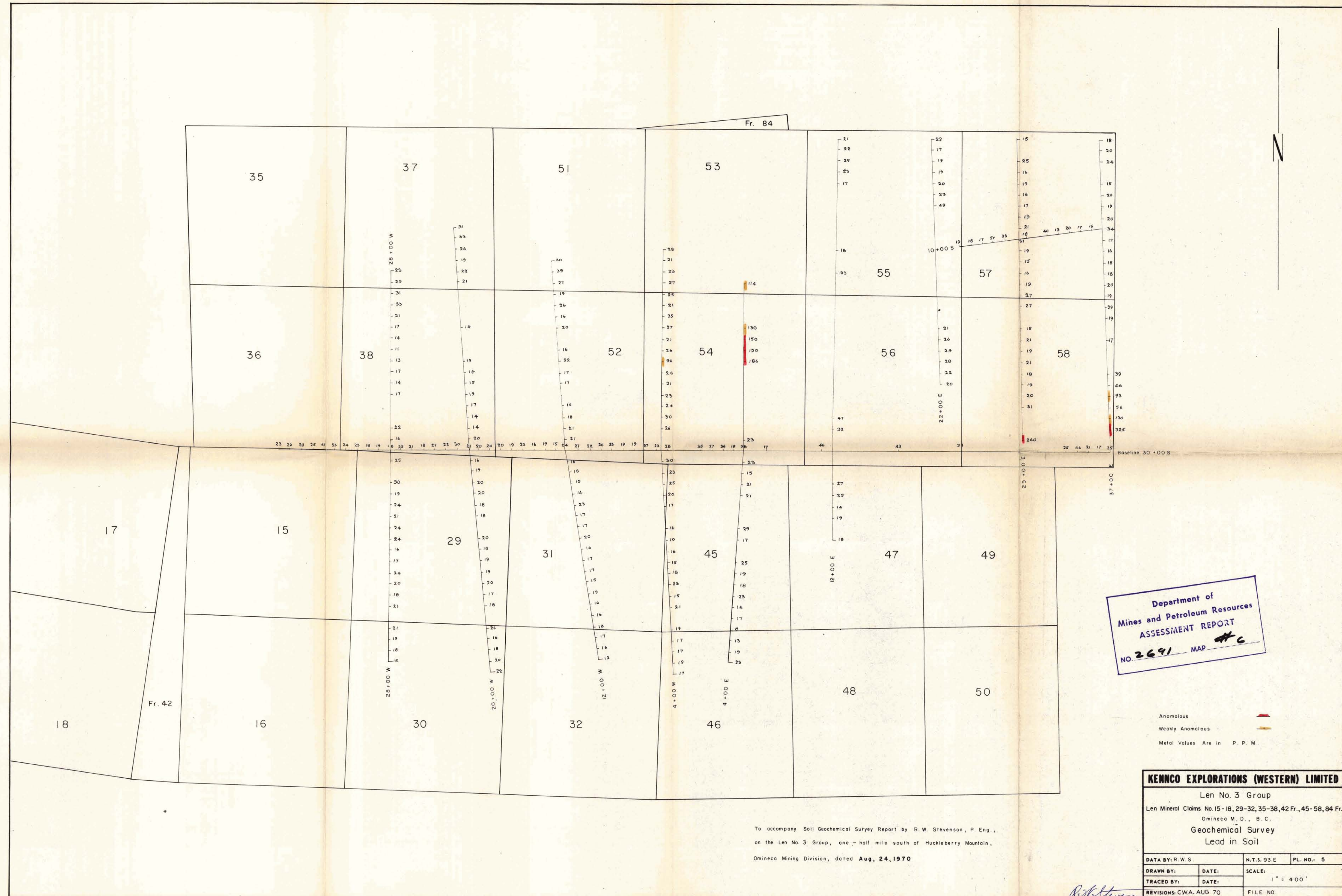
Department of
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ASSESSMENT REPORT
 NO. 2671 MAP #5

Anomalous █
 Weakly Anomalous █
 Metal Values Are in P. P. M.

To accompany Soil Geochemical Survey Report by R. W. Stevenson, P. Eng.,
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 Omineca Mining Division, dated Aug, 24, 1970

KENNCO EXPLORATIONS (WESTERN) LIMITED			
Len No. 3 Group			
Len Mineral Claims No 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.			
Omineca M. D., B. C.			
Geochemical Survey			
Zinc in Soil			
DATA BY: R. W. S.	N.T.S. 93 E	PL. NO.: 4	
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TRACED BY:	DATE:		
REVISIONS: C.W.A. AUG 70	FILE NO.		

R. W. Stevenson



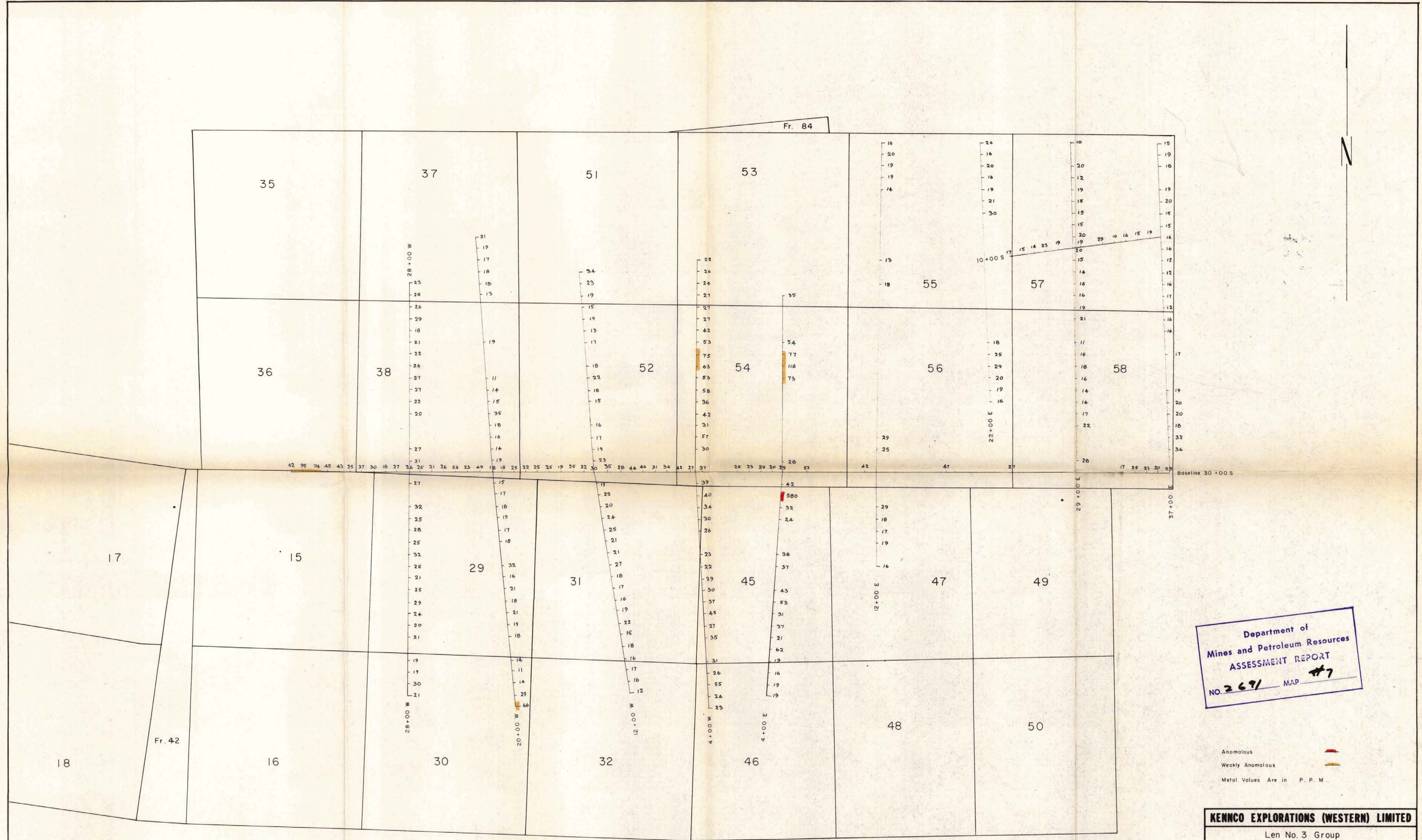
Department of
Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2691 MAP #C

Anomalous
Weakly Anomalous
Metal Values Are in P. P. M.

To accompany Soil Geochemical Survey Report by R. W. Stevenson, P. Eng.,
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KENCO EXPLORATIONS (WESTERN) LIMITED		
Len No. 3 Group		
Len Mineral Claims No. 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.		
Omineca M. D., B. C.		
Geochemical Survey		
Lead in Soil		
DATA BY: R. W. S.	N.T.S. 93 E	PL. NO.: 5
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TRACED BY:	DATE:	1" = 400'
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R. W. Stevenson



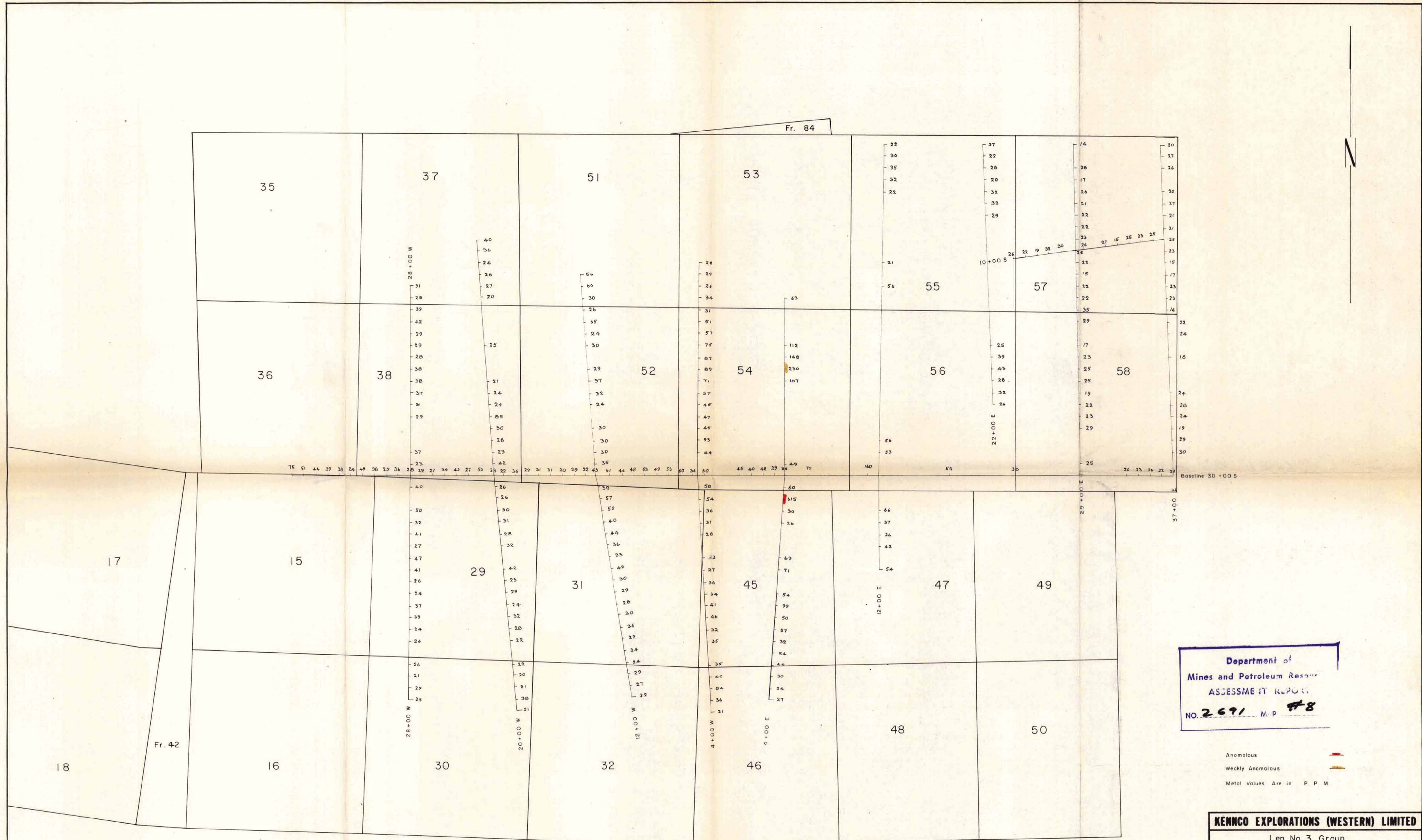
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 ASSESSMENT REPORT
 NO. 2691 MAP #7

Anomalous ■
 Weakly Anomalous ■
 Metal Values Are in P. P. M.

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KENNCO EXPLORATIONS (WESTERN) LIMITED		
Len No. 3 Group		
Len Mineral Claims No. 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.		
Omineca M. D., B. C.		
Geochemical Survey		
Cobalt in Soil		
DATA BY: R. W. S.	N.T.S. 93 E	PL. NO.: 6
DRAWN BY:	DATE:	SCALE: 1" = 400'
TRACED BY:	DATE:	
REVISIONS: C.W.A. AUG 70	FILE NO.	

R. W. Stevenson



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Mines and Petroleum Resources
ASSESSMENT REPORT
NO. 2691 M.P. #8

Anomalous ■
Weakly Anomalous ■
Metal Values Are in P. P. M.

KENNCO EXPLORATIONS (WESTERN) LIMITED		
Len No. 3 Group		
Len Mineral Claims No. 15-18, 29-32, 35-38, 42 Fr., 45-58, 84 Fr.		
Omineca M. D., B. C.		
Geochemical Survey		
Nickel in Soil		
DATA BY: R.W.S.	N.T.S. 93 E	PL. NO.: 7
DRAWN BY:	DATE:	SCALE: 1" = 400'
TRACED BY:	DATE:	
REVISIONS: C.W.A. AUG 70	FILE NO.:	

To accompany Soil Geochemical Survey Report by R.W. Stevenson, P. Eng.,
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R.W. Stevenson