

PETER E. WALCOTT & ASSOC. LTD.

83-#2-#11067
1
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

10,067

A GEOPHYSICAL REPORT

ON

A GROUND ELECTROMAGNETIC

&

MAGNETIC SURVEY

Silica Group, Kamloops N.D.
British Columbia
(50° 40'N, 121° 15'W)
NTS 92-1

FOR

SELCO INC.

Vancouver, B.C.

BY

PETER E. WALCOTT & ASSOCIATES LIMITED
Vancouver, British Columbia

MAY 1962

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ACCOMPANYING MAPS - Scale 1:2500

MAP POCKET

PROFILES OF IN & OUT OF PHASE $f = 1777$ Hz.	W-313-1
PROFILES OF IN & OUT OF PHASE $f = 444$ Hz.	W-313-2
CONTOURS OF TOTAL FIELD INTENSITY	W-313-3

INTRODUCTION.

Between March 10th and 14th, 1982, Peter E. Walcott & Associates Limited undertook a limited electromagnetic and magnetic survey programme over part of the Silica group of claims for Selco Inc.

The surveys were carried out over N 45° E lines turned off at right angles from a N 45° W baseline and chained and picketed at 25 metre intervals. Lines 4 S to 6 N were rechained and repicketed using the secant method of chaining to correct for topographic expression.

Reading of the inphase and quadrature responses of the secondary field were made every 25 metres along the picket lines at frequencies of 444 and 1777 Hz. respectively using a Max-Min horizontal loop electromagnetic system with a coil separation of 150 metres.

Readings of the total intensity of the earth's field were also taken using a GSM-8 proton precession magnetometer.

The E.M. data are presented in profile form and the magnetic data in contour form on Maps W-313-1 to 3 that accompany this report.

The progress of the survey was somewhat hampered by the inability to get readings near cultural conductors, and the need to reverse transmitter and receiver coil positions in a further endeavour to obtain the same.

PROPERTY, LOCATION AND ACCESS.

The property is situated in the Kamloops Mining Division of British Columbia and consists of the Silica group of claims.

The property is located on the east side of the Trans-Canada Highway some 3 miles south of the turn-off to the settlement of Ashcroft, B.C.

The property is readily accessible by 2 wheel drive vehicle by means of the above mentioned highway.

PURPOSE.

The purpose of the survey was to try and obtain indications of massive sulphide mineralization as could be indicated by the favourable geology.

GEOLOGY.

The reader is referred to reports held by Selco Inc.

SURVEY SPECIFICATIONS.

The basic principle of any electromagnetic survey is that when conductors are subjected to primary alternating fields secondary magnetic fields are induced in them. Measurements of these secondary fields give indications as to the size, shape and conductivity of conductors. In the absence of conductors no secondary fields are obtained.

The electromagnetic survey was carried out using a Max-Min electromagnetic unit with the coils in the horizontal plane i.e. maximum coupled.

Readings of the in-phase and quadrature components of the secondary field were made every 25 metres along the picket lines at frequencies of 444 and 1777 Hz. respectively employing coil separation of 150 metres.

All stations were equally spaced on the horizontal plane by using the secant method of chaining so as to have low in-phase noise. Secant chaining was carried out on Line 4 S to 6 N respectively, the rest of the grid being in open flat fields.

The magnetic survey was carried out using a GSM-8 proton precession magnetometer. This instrument measures variations in the earth's magnetic field to an accuracy of ± 1 gamma. Corrections for diurnal variations were made by comparison with readings obtained by the base magnetometer - a similar magnetometer coupled to a MR 10 recorder, manufactured by Canadian Mining Geophysics Limited.

In all 11.3 kilometres of electromagnetic and 12.9 kilometres of magnetic surveying were carried out.

DISCUSSION OF RESULTS.

Although the writer knew that the power line passed somewhere through the property he was unaware of the existence of the other cultural features most notably the irrigation pipe system - the location of which is shown on Maps W-313-1 and 2.

As a consequence the results obtained on the E.H. survey on Line 5 N to 12 N are severely distorted by cultural effects. Incidentally most of the pipes must be of aluminum or some other non-magnetic conductive material as no appreciable magnetic response was obtained over and/or near them.

Although most of this system would appear to be motorized for moving back and forth to irrigate the fields the farmer's assistants were not inclined to move them for us to make our traverses.

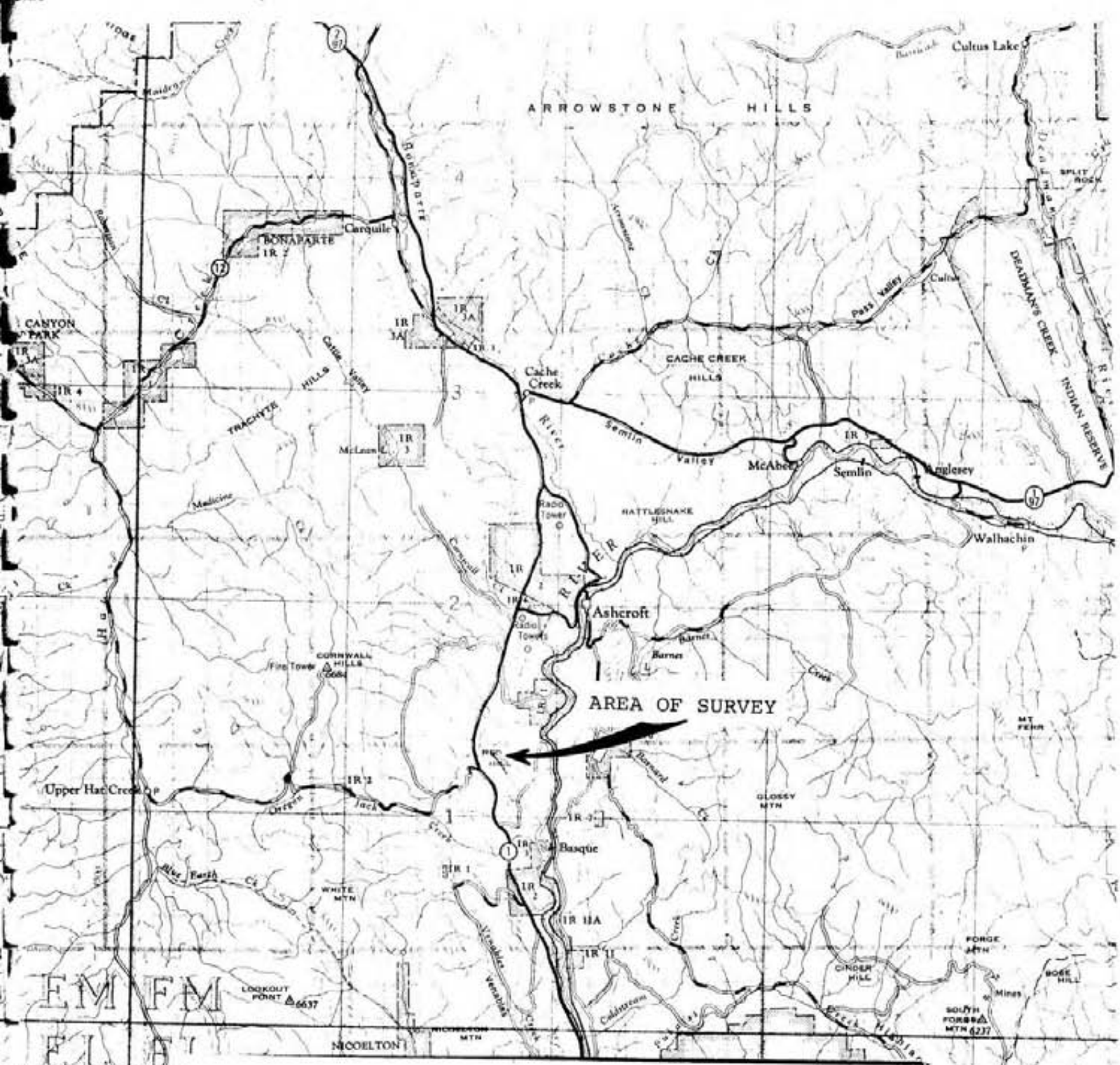
The 444 Hz. response on Lines 4 S to 4 N failed to indicate the presence of any axes of good causative conductive sources.

The 1777 Hz. on the other hand indicated a few conductor axes, the most prominent being the two located west of the baseline on Lines 3 N and 4 N respectively and undefined to the south. Some further distortion of the quadrature field occurs on Lines 4 N and 5 N to the north of the baseline.

Permeability distortions are also evident most notably on Line 1 N and presumably also on Line 4 N where narrow shallow magnetic anomalies are seen on the results of the magnetic survey.

One strange negative reading was observed on the in-phase component on Line 2 S. This reading was rechecked with the same result. No corresponding large negative reading was obtained on the 444 Hz. where the average slopes are in the order of 20 to 40%.

The magnetic survey showed minor relief over the property as a whole and did not appear to indicate any magnetic difference between the underlying andesites and rhyolites. Small mostly one point anomalies can be seen presumably due to local magnetite.



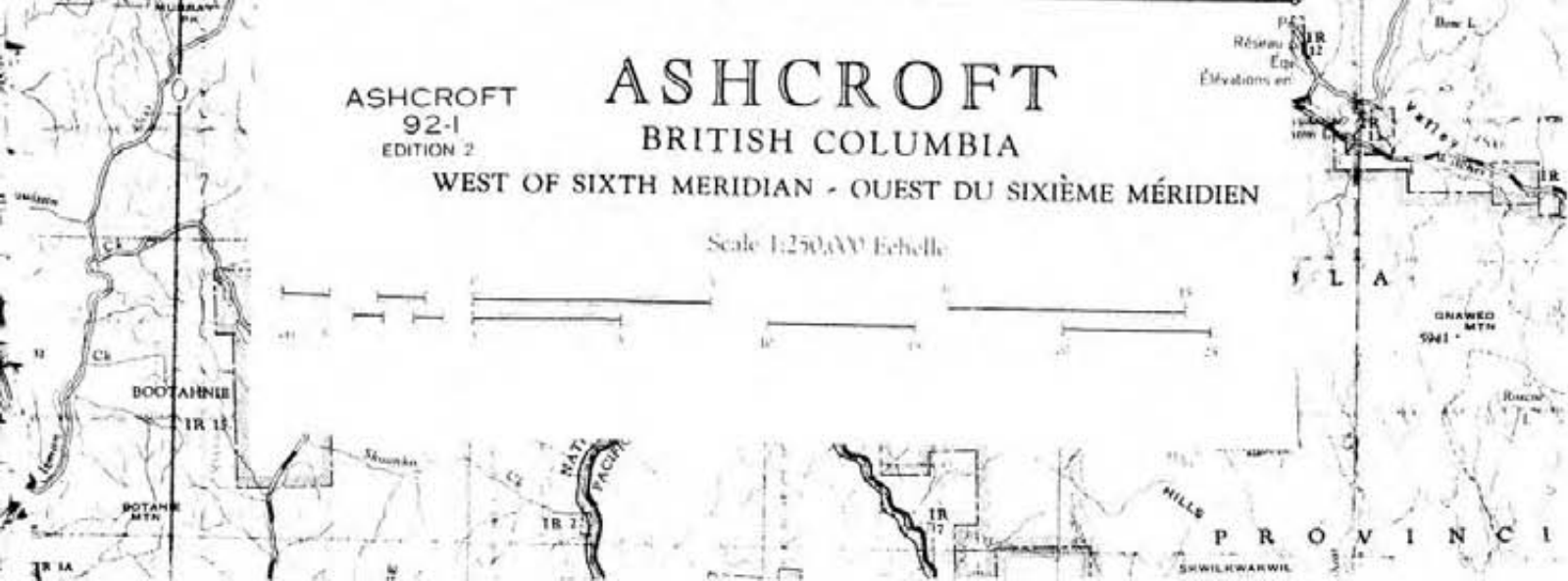
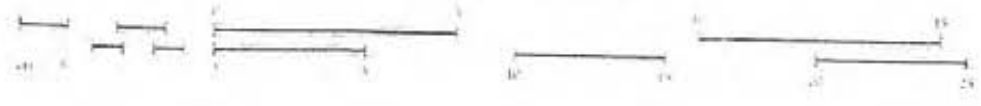
ASHCROFT
92-1
EDITION 2

ASHCROFT

BRITISH COLUMBIA

WEST OF SIXTH MERIDIAN - OUEST DU SIXIÈME MÉRIDIEN

Scale 1:250,000 Echelle



SUMMARY, CONCLUSIONS AND RECOMMENDATIONS.

Between March 10th and 14th, 1932, Peter E. Walcott & Associates Limited carried out a small electromagnetic and magnetic survey for Selco Inc. over their Silica property located near Ashcroft, B.C.

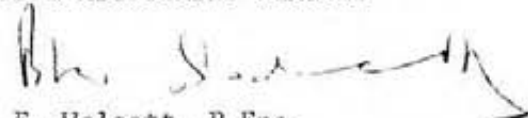
The survey was carried out using a Max-Min horizontal unit and a proton precession magnetometer.

Any useful information obtained on the E.M. survey over the irrigated part of the area was rendered useless - in the writer's opinion - by cultural responses, whereas the results obtained on the other half of the grid were somewhat less than encouraging.

As a result, although the writer is not undertaking the final report, he does not suggest that further work be carried out on the basis of geophysics except maybe to extend the weak conductors on Lines 3 and 4 N to the south to see (a) if they exist and (b) if their conductivity improves with continuing strike length.

Respectfully submitted,

PETER E. WALCOTT & ASSOCIATES LIMITED


Peter E. Walcott, P.Eng.
Geophysicist

Vancouver,
British Columbia

May 1932

APPENDIX

COST OF SURVEY.

Peter E. Walcott & Associates Limited undertook the survey on a daily basis. Report writing and draughting charges were extra so that the total cost of services provided was \$5,937.74.

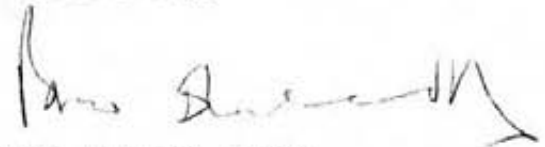
PERSONNEL EMPLOYED ON SURVEY.

<u>Name</u>	<u>Occupation</u>	<u>Address</u>	<u>Dates</u>
Peter E. Walcott	Geophysicist	Peter E. Walcott & Assoc. 605 Rutland Court, Coquitlam, B.C. V3J 3T8	May 27th and May 28th, 1982
R. Summerfield	Geophysical Operator	"	March 10th - 16th, 1982
P. Charlie	"	"	March 10th - 13th, 1982
F. Von Flotow	Helper	"	March 10th - 15th, 1982
G. MacMillan	Draughting	"	April 10th - 15th, 1982
J. Walcott	Typing	"	May 20th, 1982

CERTIFICATION.

I, Peter E. Walcott, of the Municipality of Coquitlam, British Columbia, hereby certify that:

1. I am a Graduate of the University of Toronto with a B.A.Sc. in Engineering Physics, Geophysics Option, in 1962.
2. I have been practising my profession for the last 20 years.
3. I am a member of the Association of Professional Engineers of British Columbia and Ontario.
4. I hold no interest, direct or indirect, in the Silica property nor do I expect to receive any.

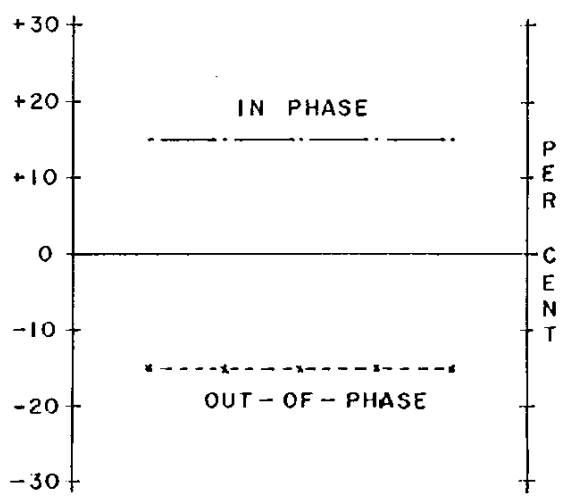
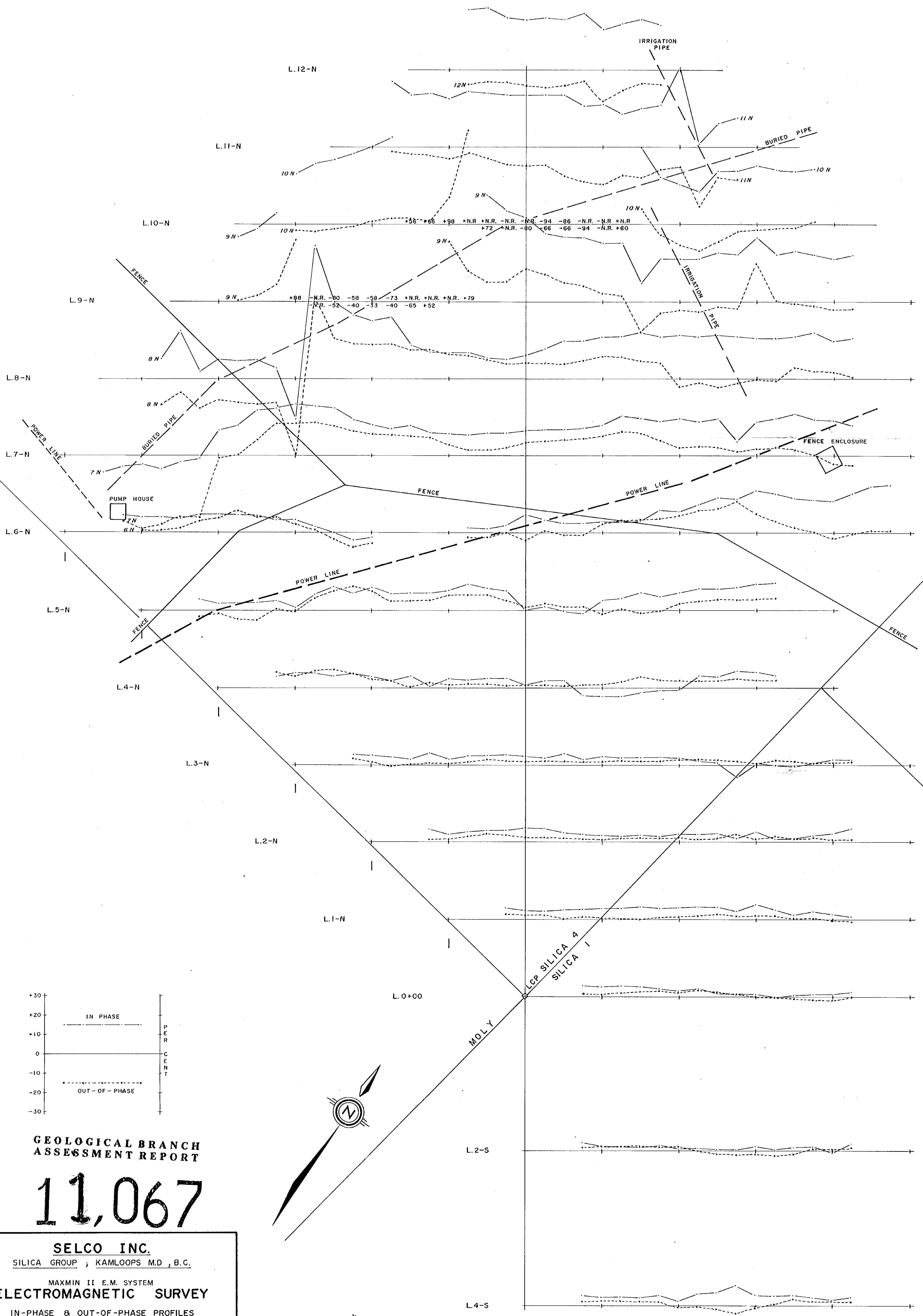


Peter E. Walcott, P.Eng.

Vancouver,
British Columbia

May 1962

6+00-W 5+00-W 4+00-W 3+00-W 2+00-W 1+00-W BASE-LINE 1+00-E 2+00-E 3+00-E 4+00-E 5+00-E



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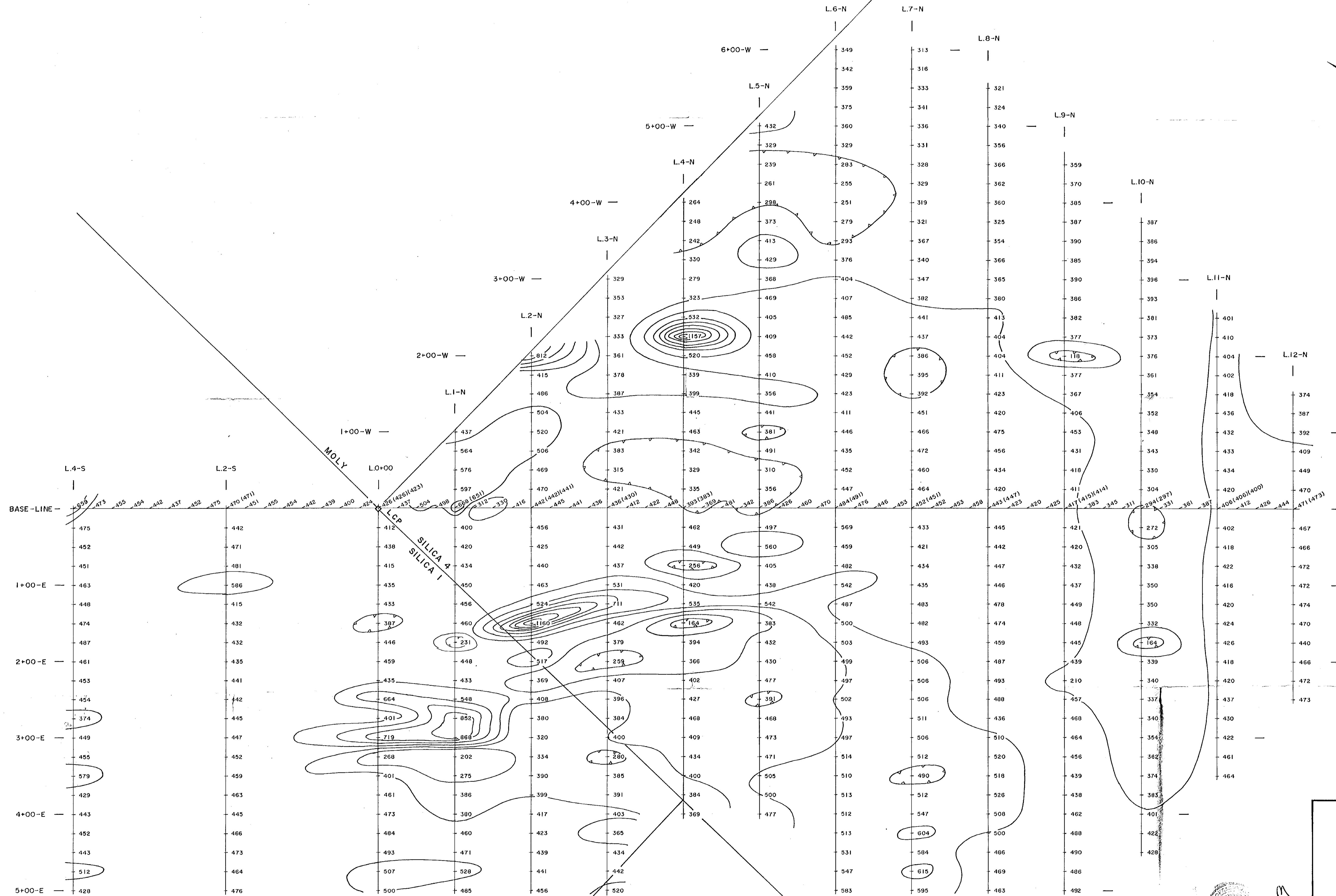
SELCO INC.
SILICA GROUP ; KAMLOOPS M.D., B.C.

MAXMIN II E.M. SYSTEM
ELECTROMAGNETIC SURVEY

IN-PHASE & OUT-OF-PHASE PROFILES
COIL SEPARATION - 150 METRES ; FREQUENCY - 444 Hz
SCALE 1:2500

PETER E. WALCOTT & ASSOC. LTD.
MARCH - 1982





ADD 57,000 TO EACH READING

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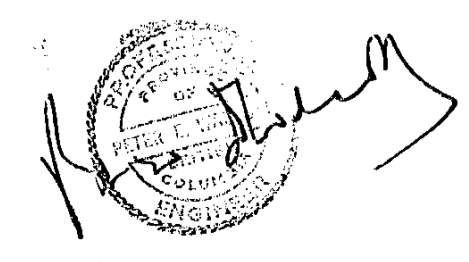
SELCO INC.
SILICA GROUP ; KAMLOOPS M.D., B.C.

MAGNETOMETER SURVEY
CONTOURS OF TOTAL FIELD INTENSITY

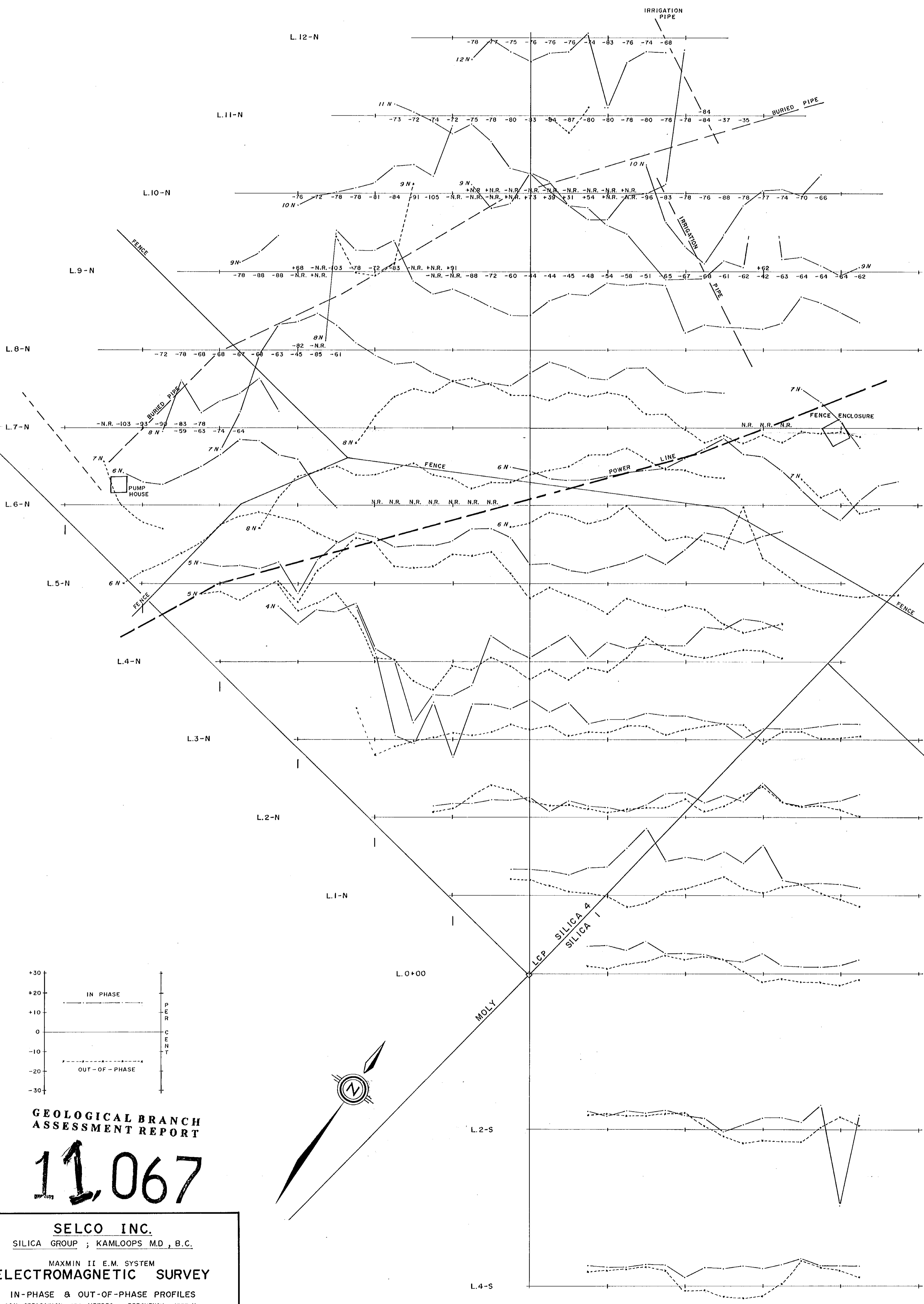
SCALE 1:2500

MAP No. W-313-3

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MARCH - 1982



6+00-W 5+00-W 4+00-W 3+00-W 2+00-W 1+00-W BASE-LINE 1+00-E 2+00-E 3+00-E 4+00-E 5+00-E



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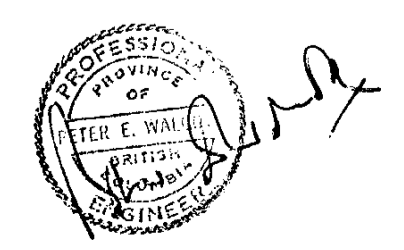
SELCO INC.
 SILICA GROUP ; KAMLOOPS M.D., B.C.

MAXMIN II E.M. SYSTEM
ELECTROMAGNETIC SURVEY

IN-PHASE & OUT-OF-PHASE PROFILES
 COIL SEPARATION - 150 METRES ; FREQUENCY - 1777 Hz
 SCALE 1:2500

PETER E. WALCOTT & ASSOC. LTD.
 MARCH - 1982

MAP No. W-313-1



COST STATEMENTSILICA 1-5 (44 Units)

1.	<u>Grid Preparation</u>	
	March 1982 - 11.325 km	
	4 man days @ \$95.00/man day	\$ 380.00
	4 man days @ \$50.00/man day	200.00
2.	<u>Supervision</u>	
	1 man day @ \$200.00/man day	200.00
3.	<u>Food and Accommodation</u>	
	Accommodation	161.12
	Food	276.08
4.	<u>Vehicle Lease</u>	
	1 week @ \$125.00/week	125.00
5.	<u>Vehicle Operation</u>	
	5 days @ \$20.00/day	100.00
6.	Cost of Ground HLEM and Ground Magnetic Surveys:	
		<u>5,937.74</u>
		<u><u>\$7,379.94</u></u>

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