79-#212-# 7472

Geophysical Report

on a

V.L.F. - E.M. Survey

on the

SILVER CHIEF PROPERTY

of

TACOMA RESOURCES LTD.

Claims: Silver Chief 1 - 4
Revelstoke M.D.
N.T.S. 82K 11W

Work Dates: October 12 - 14, 1977
July 18 - 22, 1978

Report by: L. Sookochoff, P.Eng.

DATE OF REPORT: July 26, 1978

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ILLUSTRATIONS

INTRODUCTION

A V.L.F. - E.M. survey on the Silver Chief 1 - 4 mineral claims of Tacoma Resources Ltd. was carried out during October 1977 and July 1978.

The work was carried out by the writer and assistant. The line kilometers completed was 6.6. The claims were fully covered except the northern and southern corners mainly due to topographical inaccessibility.

The object of the survey was to determine structural continuity of the known mineralized zones which occur along geological contacts.

PROPERTY

The property is comprised of four contiguous located mineral claims. Particulars are as follows:

Claim Name	Record No.	Expiry Date
Silver Chief 1	11389	June 13, 1979
Silver Chief 2	11390	June 13, 1979
Silver Chief 3	11391	June 13, 1979
Silver Chief 4	11392	June 13, 1979

LOCATION AND ACCESS

The claims are located 17.5 kilometers east of Ferguson B.C. on the north slope of the Index Creek Valley. Index Creek is a westerly flowing tributary of Gainer Creek, which is a northern tributary of Lardeau Creek. Ferguson is near the mouth of Lardeau Creek.

Access from Ferguson is via a secondary road via Lardeau and Gainer Creeks. A four wheel drive vehicle is required for two kilometers along Index Creek to within the western boundary of the property.

GEOLOGY

The Silver Chief lies within the lime dyke mineral belt of the Lardeau District of which the most common deposits contain pods, lenses, and veins of mineralization replacing limestone. The lime dyke mineral belt is comprised of predominantly phyllites, limestones, volcanics and quartzites of the Index formation. Limestone and argillaceous limestones of the Lade Peak formation outcrop in northwesterly trending bands along the crests of the Silver Chief anticlines.

Mineralization has been controlled by folding and related shearing where siderization of the limestone was followed by mineralization emplaced in a sheared, folded or fractured part of the siderite and nearby limestone.

The mineralization on the Silver Chief claims is in the Lade Peak limestone and all but one zone in the northeast Silver Chief anticlinal band.

INSTRUMENTATION AND THEORY

A Geonics Ltd. E.M. 16 receiver unit was utilized for the E.M. survey. This instrument is designed to measure the electromagnetic component of the very low frequency field transmitted at 18.6 KHz from Seattle, Washington.

The E.M. 16 has two receiving coils; one for the pick-up of the horizontal (primary) field and the other for detecting any anomalous vertical secondary field. The coils are thus orthogonal, and are mounted inside the instrument "handle".

The actual measurement is done by first tilting the coil assembly to minimize the signal in the vertical (signal) coil and then further sharpening the null by using the reference signal to buck out the remaining signal. This is done by a calibrated "quadrature" dial.

The tangent to the tilt angle is the measure of the vertical in-phase component and the quadrature reading is the signal at right angles to the total field. All

readings are obtained in percentages and do not depend on the absolute amplitude of the primary signals present.

Basically, the transmitter produces an alternating magnetic field (primary) by a strong alternating current. If a conductive mass such as a sulphide body is within this magnetic field, a secondary alternating current is induced within it which in turn induces a secondary magnetic field that distorts the primary magnetic field. The E.M. receiver measures this distortion.

SURVEY PROCEDURE

As a reference to the grid system on the property, a central fault zone indicated by a depression trending at approximately 240^{o} was utilized. Perpendicular cross lines at 100 meter intervals were traversed with readings taken at 30 meter intervals along these lines. Reading stations were noted with red flagging bearing the appropriate co-ordinates.

COMPILATION AND INTERPRETATION

The accompanying map shows the E.M. profiles from direct readings as taken in the field.

Because of the topography and mainly the transmitter direction, the grid lines were not at an optimum direction which would have been perpendicular to the strike of the contact zones or structural directions.

Prime anomalous zones in the survey would be indicated by an in-phase cross-over. The only significant anomalous area is at 20 N on line 10 W which in this case could signify an east-west trending fault structure. The possibility of sulphide mineralization in association with this structure should be examined. Other low order sub-anomalous areas and which are not within the approximate 00 N line of known mineral occurrences are probable reflections of topography.

CONCLUSIONS AND RECOMMENDATIONS

The E.M. survey was not successful in delineating continuity of structural zones within which known mineralization occurs. Minor anomalous areas occur in areas of east-west topographically indicated structural breaks, however these localized areas should be examined for potential localization of mineral zones.

In view of the lack of information provided for projection of the mineral zones for testing, testing of the zones along strike could be accomplished by trenching. Testing of the zones for vertical continuity could be accomplished by short diamond drill holes.

Respectfully submitted,

Laurence Sookochoff, P.Eng.
Consulting Geologist

July 26, 1978
Vancouver, B.C.

CERTIFICATE

I, Laurence Sookochoff, of the City of Vancouver, in the Province of British Columbia, do hereby certify:

That I am a Consulting Geologist with the firm of Pan-American Consultants Ltd. of 2602-1055 West Georgia Street, Vancouver, B.C.

I further certify that:

1. I am a graduate of the University of British Columbia (1966) and hold a B.Sc. degree in Geology.

2. I have been practising my profession for the past twelve years.

3. I am registered with the Association of Professional Engineers of British Columbia.

4. This report is compiled from data obtained from an E.M. survey carried out by the writer during October, 1977 and July, 1978 on the Silver Chief 1 - 4 mineral claims. Additional information was obtained from pertinent publications.

5. Neither I or Pan-American has direct or indirect interest in the property described herein, or in the securities of Tacoma Resources Ltd.

Laurence Sookochoff, P.Eng.
Consulting Geologist

July 26, 1978
Vancouver, B.C.

CERTIFICATE OF EXPENDITURES

E.M. Survey - Silver Chief Claims

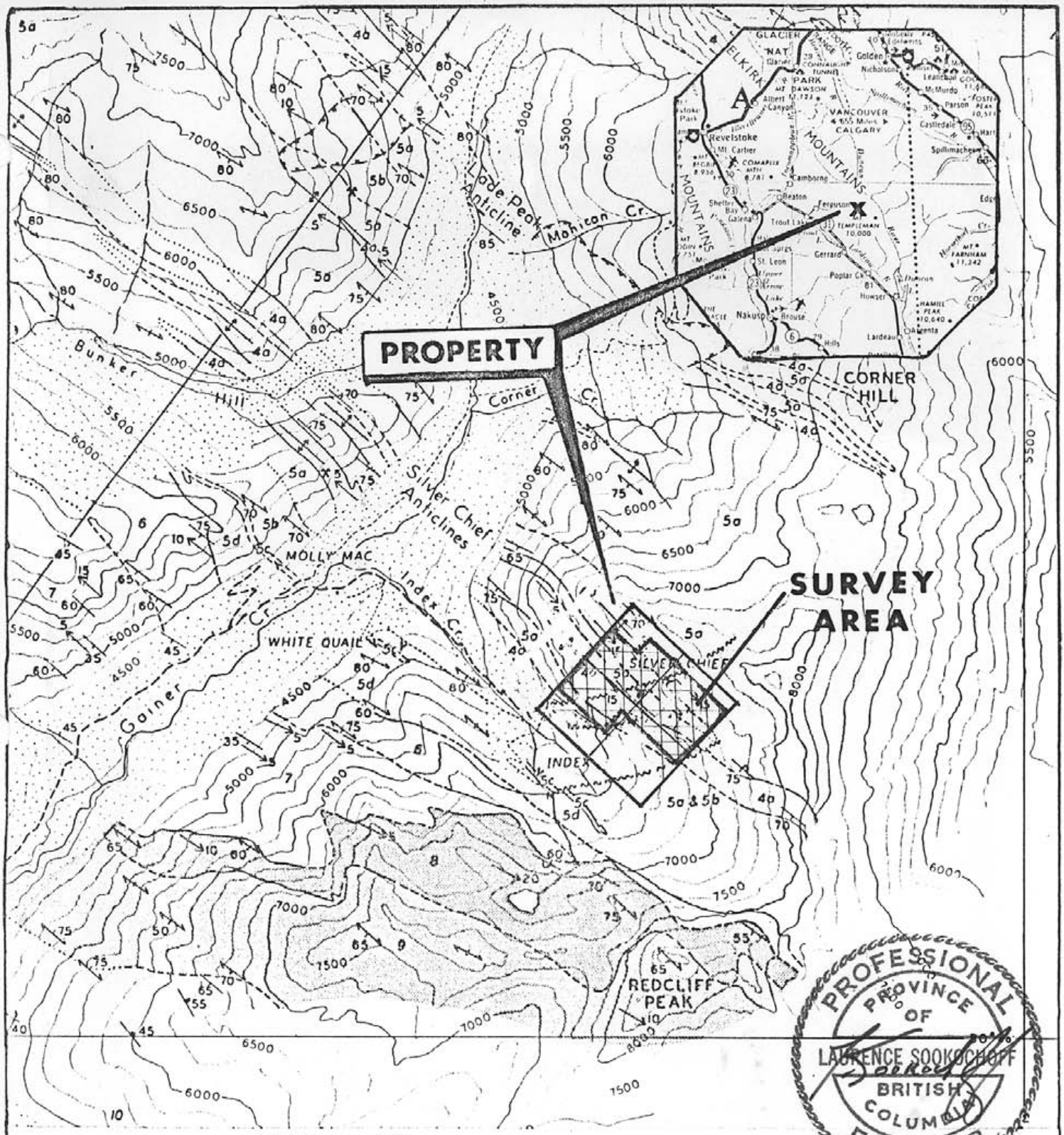
October 12 - 14, 1977

L. Sookochoff	2 days @ $300.00	$ 600.00
G. Sipos assistant	2 days @ 100.00	200.00
Truck Rental	3 days @ 50.00	150.00
Food and Accommodation		90.00
		$1,040.00

July 18 - 22, 1978

L. Sookochoff	3 days @ $300.00	$ 900.00
J. Campbell	3 days @ 100.00	300.00
Truck Rental	5 days @ 50.00	250.00
Report		750.00
Maps, Xerox etc.		200.00
Air Fare - P.W.A.		89.00
Food and Accommodation		120.00
Instrument Rental	(minimum charge)	180.00
		$2,789.00
	Total Expenditure	$3,829.00

L. Sookochoff



LEGEND

INDEX FORMATION

5 Grey and green phyllite, grey limestone, volcanic rocks, minor quartzite
- 5d - altered volcanic rocks
- 5c - Molly Mac limestone
- 5b - grey phyllite, argillite and limestone
- 5a - green phyllite

LADE PEAK FORMATION

4a Limestone and argillaceous limestone

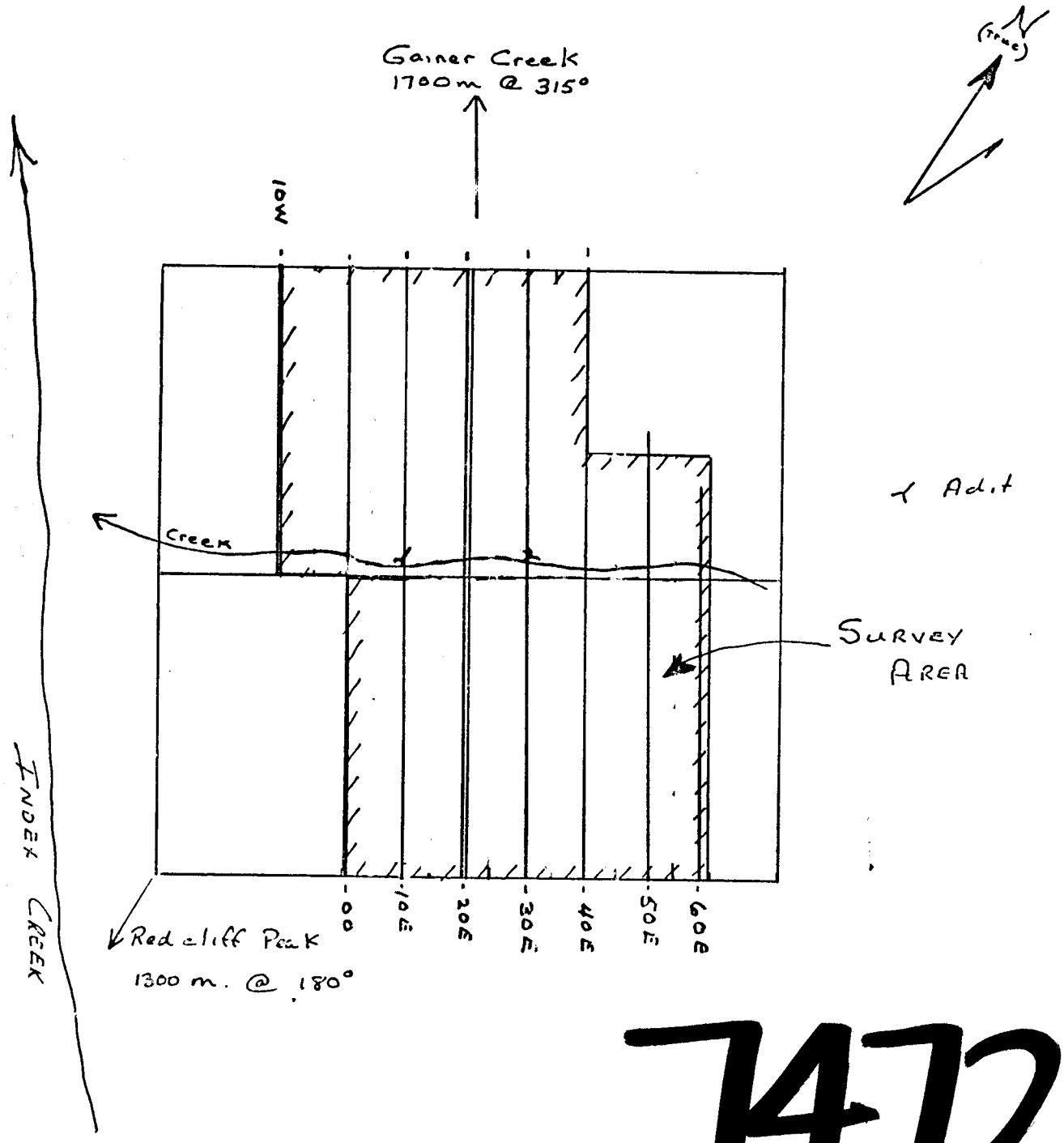
TACOMA RESOURCES LTD.

SILVER CHIEF PROPERTY

LOCATION & GEOLOGY

Scale: 1:36000

July 1978



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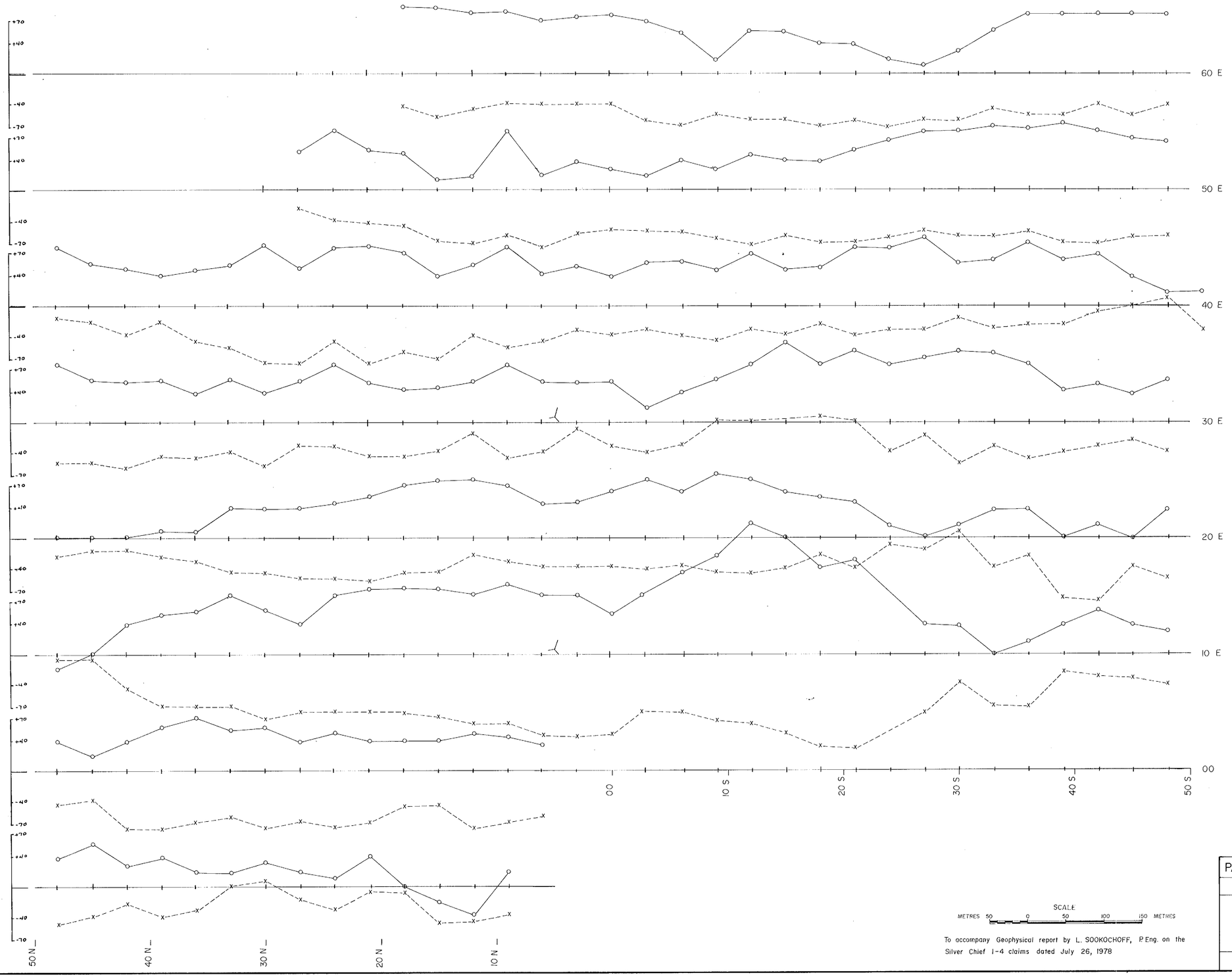
SILVER CHIEF PROPERTY

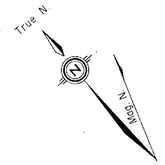
INDEX MAP

100 0 100 200 m

Scale 1:10000

AUGUST 1979





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LEGEND

In-phase profile

Quadrature profile

Adit

SCALE

METRES 50 0 50 100 150 METRES

To accompany Geophysical report by L. SOOKOCHOFF, P.Eng. on the Silver Chief 1-4 claims dated July 26, 1978

PAN-AMERICAN CONSULTANTS LTD.

TACOMA RESOURCES LTD.

SILVER CHIEF PROPERTY

E-M 16 PROFILES

SCALE 1:3000 | JULY 1978