93-L-16

Geophysical Report On

Electromagnetic & Magnetic Surveys
on the JEN, KETZA & RUM claim groups
Newman Peninsular, N. Babine Lake
Omineca M.D.
On behalf of Bayland Mines Ltd.

Sept. 7/67 D.R.Cochrane, P.Eng.

GEOPHYSICAL REPORT

on

ELECTROMAGNETIC and MAGNETIC SURVEYS

on the

JEN, KETZA and RUM CLAIM GROUPS

Situated on and near

Newman Penninsula, North Babine Lake

Omenica M. D.

Lat. 55°00'N Long. 126°15'W

Work completed between

August 6th to 26th, 1967

On Behalf of:

BAYLAND MINES LTD.

By:

D. R. Cochrane, P.Eng.
September 7th, 1967

604-685-0312
TELEX 04-50404

GEO-X SURVEYS LTD. 627 HORNBY STREET, VANCOUVER 1, B. C.

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Appendix:

GENERAL INTRODUCTION:

Between August 6th and 26th, 1967, a total of 18.8 line miles of linecutting and a Ronka EM 16 survey plus 16.5 line miles of a flux-gate magnetometer survey were completed on three claim groups in the north Babine Lake area. The Jen Group, consisting of 28 full-sized claims is situated on the south end of Newman Penninsula; the Ketza Group, consisting of 13 full sized claims is situated immediately north of the Jen Group on the penninsula; the Rum group, consisting of 9 full-sized claims, is situated on Rum Island, just east of Newman Penninsula.

The claims are owned outright by Bayland Mines Ltd., and work was conducted on their behalf by Geo-X Surveys Ltd.

This report discusses the field proceedure and results of the EM and magnetometer surveys on the three claim groups.

Location and Access;

Newman Penninsula is just over 30 air miles north of the town of Topley, and 40 air miles east of the town of Smithers, B.C. Normal access is via a 27 gravel road which connects Topley on Highway 16 to Topley Landing on Babine Lake. A boat may be rented at the landing for the 10 mile trip north to Newman penninsula.

The Jen group covers the south end of Newman penninsula, and joins claim owned by Granisle Mines to the east. The south boundary of the Ketza Group joins the north Jen Group boundary, and the Ketza's are bounded to the west and north by claims owned by Giant Explorations.

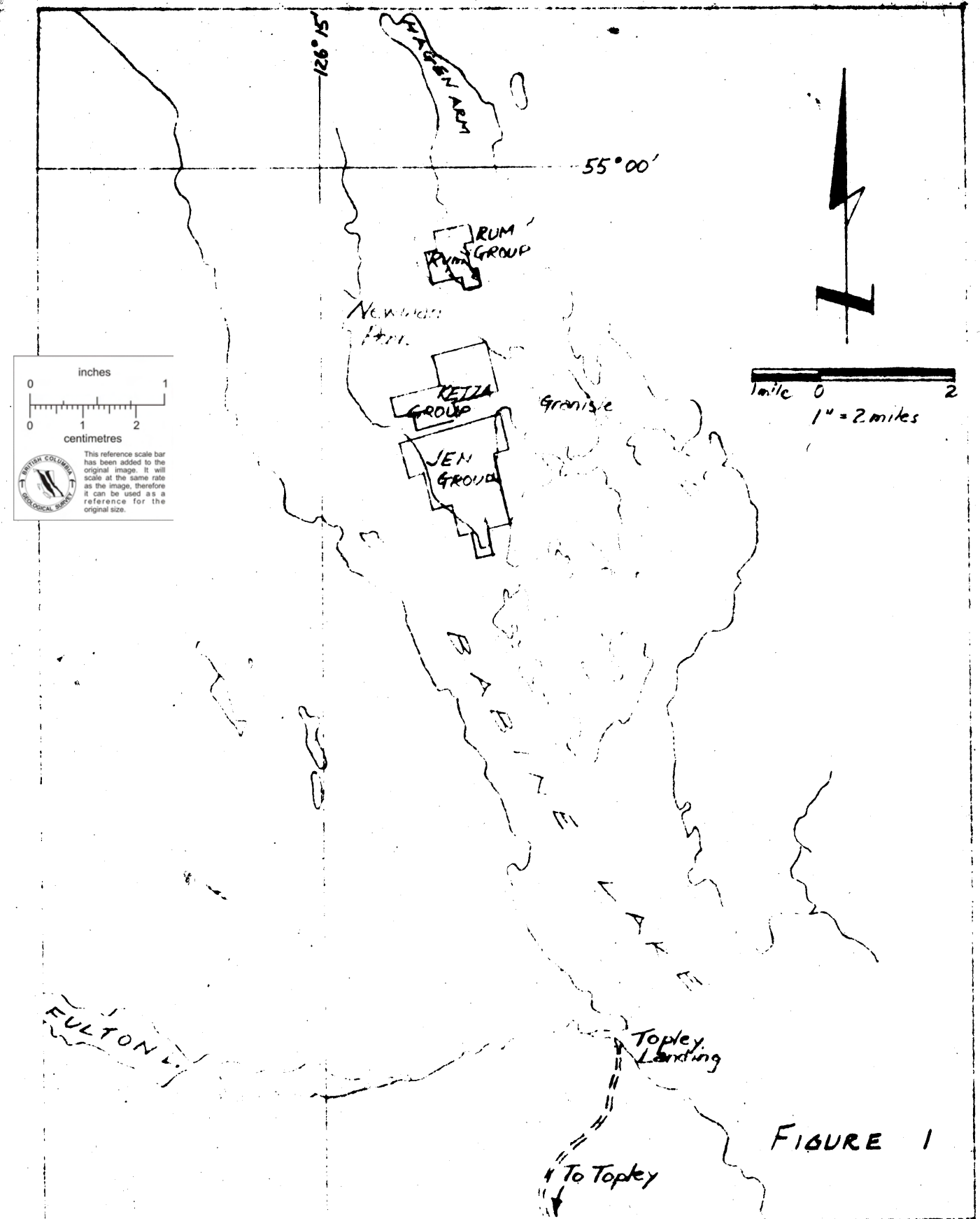


FIGURE 1

LOCATION MAP
JEN, RUM & KEZZA GROUPS
BAYLAND MINES LTD.
OMN B.A.C. DATE: AUG 29 1967

GEO-X SURVEYS Ltd.
627 HORNBY ST., VANCOUVER 1, B.C.

The Rum Group is located on Rum Island, situated 2 miles north of Granisle Mines, in Hagen Arm of Babine Lake. (see Figure 1).

CLAIMS and OWNERSHIP:

The Jen, Rum and Ketza claims are owned outright by Bayland Mines Ltd., registered office at 519 - 1030 West Georgia Street, Vancouver B.C.

Some of the Ketza claims were staked in contravention, and are designated as such by an asterisk in the following table of claim data:

Claim	Record No.	Anniversary date
Ketza 1	26915	September 15
Ketza 3	26917	September 15
Ketza 5 to 7 incl.*	26919-21 incl.	September 15
Ketza 9*	26923	September 15
Ketza 11*	26925	September 15
Ketza 13 - 18 incl.	26927-32 incl.	September 15
Jen 1 to 28 incl.	32473 to 32500 incl.	August 24
Rum 4	32504	August 24
Rum 7 to 14 incl.	32507 to 14 incl.	August 24

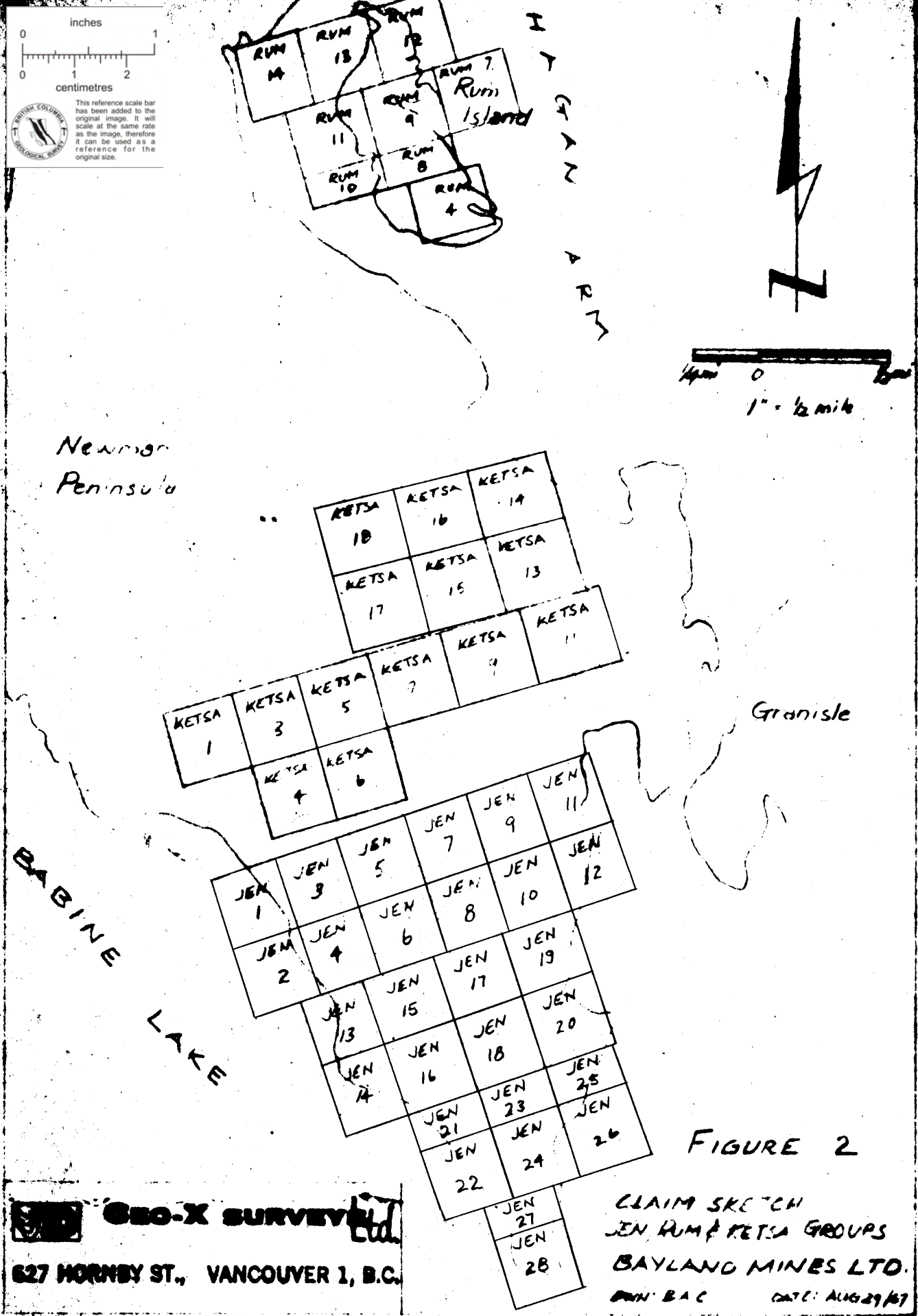


FIGURE 2

GEO-X SURVEYS Ltd.

627 HORNBY ST., VANCOUVER 1, B.C.

CLAIM SKETCH
JEN, RUM & KETSA GROUPS
BAYLAND MINES LTD.
OMINECA M.D. B.C. DATE: AUG 29/67

GEOMORPHOLOGY:

Babine Lake lies within the north central interior plateau physiographic division. It is characterized by a relatively gently rolling surface with isolated monadnocks and small mountain ranges. The most prominent feature in the area is Old Fort Mountain rising just over 5,000 feet from Babine Lake (elevation 2332 feet). North of the Lake, relief increases as the plateau passes into the Babine Range of the Skeena Mountains.

On the south end of Neuman Penninsula, and on Granisle, small circular hills rise out of the normally gently rolling surface, and the hills are generally outcrops of acedic intrusive plugs. The highest point on the Jen group is one such intrusive, and reaches an elevation of approximately 3,000 feet.

Much of the Penninsula and surrounding area is covered by glacial till, and outcrop is only common along the shoreline. The claim groups are covered with well developed stands of balsam, spruce, lodgepole pine and aspen.

Most of the regional trends are north - northwest.

GENERAL GEOLOGY:

The Northern Babine Lake Area was mapped in detal by N.C. Carter and is discussed in the Annual Report of the Minister of Mines, B.C., 1965 pg. 90 - 93.

Mr. Carter indicated that Rum Island and the Rum group is underlain by essentially intermediate volcanic rocks, with a small exposure of docite porphyry at the extreme north end of the island.

The Jen and Ketza groups are underlain dominently by the same fragmental volcanic sequence, however, this sequence is intruded by long, north northwest treding zones of biotite feldspar porphyry, which in turn is overlain by small patches of greywacke and and angular conglomerate.

LINECUTTING:

An old grid, previously estabished on the Ketza Group, was recut and extended at azmuth 170° (true) into the Jen Group, and utilized as a base line.

Line 0, on the Ketza Group (the base line) was recut and chained east for 4500 feet. A parallel cross line 8S was similarly cut to 45E and two west cross lines were cut from 24 and 32 south on the base line to 45W.

On the Jen Group, a total of 8 cross lines were cut, chained and flagged across the penninsula and average 400 feet apart.(see Figure 3).

On the Rum Group, the base line commenced at 0 + 00 on the northwest tip of the island and was cut S 45° E to 43 + 00S on the southeast tip of the island. Perpindicular cross lines were cut, chained and flagged across the island at 400 foot intervals.

The Jen and Ketza Groups share the same grid numbering system, centered (0+00, base line) on the Ketza Group, abour 1/2 way up the east shore of Ketza Lake.

GENERAL FIELD PROCEEDURE:

A Ronka EM 16, and a Sabre Electronics fluxgate magnetometer were used exclusively during the surveys. Specifications of the instruments are contained om Appendix III and IV.

The Sabre Magnetometer is a direct reading digital fluxgate, and readings, obtained at 100 foot intervals on the lines, and the time were recorded on printed standard form vertical component magnetometer field notes. The operator checked into a base station three times per day, recording the time of each check. Field readings were corrected by a standard time-deviation chart, and corrected readings plotted.

During the EM survey, the operator checked a base station in the morning, and again at night. The operator, Mr. T. Wells, utilized station NPG transmitting from Jim Creek, Washington, at 18.6 KC, 250 kw. The apparent station direct varied only slightly from an azmuth of 160° and a "face" direction of 70° was maintained. At each station the coordinates, in phase component, out of phase component, slope and remarks were recorded on standard form Ronka EM 16 field notes.

MAGNETOMETER SURVEY - RUM GROUP:

The magnetometer results of the Rum Group survey are presented in contoured plan as Figure 4-A. Normal background is between 51,000 and 52,000 gammas, and the highest value encountered was 57,780 gammas at 16E, line 0. The regional trends are almost parallel to the base line, azmuth 315°, with a poorly developed cross trend almost north.

The reasonably low amplitude of the vertical component of the earth's magnetic field suggests response from lithologic units alone.

One of the most consistent magnetic highs, designated anomaly M-R-1, lies close to the north end of, and is parallel to, the base line. The anomaly is disrupted in the vicinity of 16 to 20 south (fault?). A second, more irregular magnetic high is located on the northeast portions of lines 0 and 4 south, and is designated anomaly M-R-2.

RONKA EM 16 SURVEY - RUM GROUP:

A profile of the EM 16 results (in phase and quadrature components) is presented as Figure 4-B. True crossovers, (i.e. changes in in phase response from positive to negative when going in the "faced" direction) are classified as minor, moderate and major on the basis of amplitude alone. A series of crossovers has been correlated throughout the gird and is designated conductor EM-R-1, and a parallel zone is EM-R-2. An apparently isolated major crossover on line 0 is named EM-R-3.

Generally the linear conductors EM-R-1 and 2 are characterized by moderate to minor changes in in phase, and reverse crossover quadrature response. The length and continuity of the zones would suggest a lithologic response however, parallel coincident true crossover changes were recorded on lines 0 and 4S on both EM-R-1 and 2. In addition, anomaly EM-R-3 is a major apparently isolated in phase change and should be investigated.

MAGNETOMETER SURVEY - JEN GROUP:

The magnetometer results of the Jen Group survey are presented in contoured plan as figure 5-A. Magnetic background is 51,085 gammas, and four areas deviating significantly from the background are designated anomalies M-J-1, to M-J-4. The maximum value encountered was 56,800 gammas in anomaly M-J-1, and the minimum 47, 180.

In general the magnetic trends are just west of north and are well developed. An east-west cross trend is featured on the east portion of line 84S. To the west of 12 east on the grid the overall birds eye pattern is perhaps more indicative of volcanic response, whereas east of 12 east, there is less amplitude, and a slight change in trend direction.

RONKA EM 16 SURVEY - JEN GROUP:

The Ronka EM 16 data is presented in profile as figure 5-B. True and reverse crossovers are marked and correlated.

In general the EM data is complex, and in an effort to sort out high priority anomalies, the first derivitive of the in phase component was calculated, plotted and contoured and is presented as figure 5-C. The first derivitive is the rate of change of the in phase component per unit length (in this case, 100 feet). The first derivitive plan correlates well with the profiles and on the basis of first derivitive data, four anomalies are designated EM-J01 to 4 inclusive and will be discussed.

On the basis of profile data, two large areas are possible horizontal conductor zones, and on the basis of extent alone, appear to be lithographic in nature.

Anomaly EM-J-1 is centered on 6+00E line 80S, and on line 70S at 8+00E. This anomaly lies within the area classified as a horizontal conductor. Anomaly EM-J-2 is situated at 21+00E between lines 60 and 68. It is characterized by a very sharp in phase change, and a small true crossover quadrature change. This , the in phase to quadrature ratio is very high, suggesting excellent conductivity.

Anomaly EM-J-3 extends south from 13+00E, line 56S to 13+00E, on line 70S. The anomaly is characterized by sharp in phase changes and sharp reverse crossover quadrature changes, and is coincident with a small southerly flowing creek.

Anomaly EM-J-4 is a long, linear, reasonably sharp in phase change extending almost the length of the entire gird, to the west of, and parallel to the base line. Quadrature response is reverse.

Anomaly EM-J-5 is similar to EM-J-4 and both are regional in nature, perhaps more indicative of rapid geological changes than responses to isolated zones of sulphides.

MAGNETOMETER SURVEY - KETZA GROUP:

Just slightly over 2 line miles of a fluxgate magnetometer survey was completed on lines of the Ketza Group. Thre results are presented in profile in figure 6-A. The maximum value encountered was 52,600 at 6+00E on line 0, and the minimum 48,060 at 3+00E line 8S. The background is 51,183 gammas. A magnetic low flanked on both sides by relatively high values focused at 13 E, line 0 may correspond to a similar situation at 22E, line 8S.

RONKA EM 16 SURVEY - KETZA GROUP:

The Ronka EM 16 data is presented in profile in figure 6B.

The amplitude of the inphase changes are very high and can be correlated across the 800 foot line separation. A possible horizontal conductor is indicated on the east end of lines 0 and 8S and is designated EM-K-1. This anomaly exhibits low (negative) in phase response , and near zero quadrature response. A slightly negative quadrature component is situated in and around 38E, line 0, and presents a high in phase to quadrature ration, indicative of high conductivity.

Conductor EM-K-2 to EM-K-4 are moderate to major in phase changes, trending north west across the Ketza Group and are of unknown origin. Similarly anomalies EM-K-5 to 7 are parallel north-west trending

true crossovers, zones of almost identical nature. Of special note is anomaly EM-K-5, a possible horizontal conductor, with a high in phase to quadrature ratio, and in many respects very similar to anomaly EM-K-1.

SUMMARY and CONCLUSIONS:

Between August 6th and 26th, 1967, a total of 18.8 line miles of linecutting and a Ronka EM 16 survey, in addition to 16.5 line miles of a fluxgate magnetometer survey, were completed on three claim groups in the North Babine Lake Area, Omenica M.D. The Jen group of 28 full sized claims, and the Ketza group of 13 full sized claims are located on Newman Penninsula, which is situated 40 air miles east of Smithers, BC. The Rum group of 9 full sized claims are located on Rum Island, immediately east of the penninsula, in Hagen Arm of Babine Lake. The three claim groups are positioned between the operating open pit copper mine of Granisle Mines, and the Newman Copper property of Noranda Mines Ltd.

Two magnetic anomalies, just over 4,000 gammas above background are situated near the north west corner of Rum Island, and two EM conductors run approximately due north across the island. Magnetic anomaly M-R-2 is coincident with the north end of conductor EM-R-2. A third EM conductor, EM-R-3 is apparently isolated, and in addition to the above, should be further investigated.

The Ketza Group magnetometer survey presented only near background results. Extreme changes in conductivity on the Ketza Group EM survey were encountered, and can be correlated across 800 feet. Two possible horizontal conductors were outlined and are very similar in nature, and both contain high in phase to quadrature component ratios. These anomalies, E,-K-1, and EM-K-5 require further investigation.

Four small magnetic anomalies were encountered on the Jen Group, and these lie west of the 12+00E coordinate, which is approximately the boundary of two magnetic provinces. The EM results from the Jen Group are very complex and additional data processing proceedures were employed to priority rate anomalous zones. The first derivitive of the in phase component was calculated, plotted and contoured, and on a "rate of change" basis, five anomalies are discussed, each of which should be investigated by other geophysical and/or geochemical techniques.

Respectfully submitted,

PROFESSIONAL ENGINEER
PROVINCE OF BRITISH COLUMBIA
D. R. COCHRANE

September 7th, 1967
Vancouver, B.C.

D. R. Cochrane, P.Eng.

APPENDIX I

PERSONNEL EMPLOYED AND DATES WORKED:

The following Geo-X personnel were employed on the Bayland project on the jobs and dates set out below:

A. Field Personnel:

Name:	Position:	Dates Worked:	Man Days
A. Beaudoin	Field Supervisor	Aug.7-26	20
T. Wells	Ronka EM 16 oper.	Aug.7-26	20
J. Wiggins	Magnetometer Op.	Aug.3-27	25
C. Woobey	Linecutter	Aug.7-17	11
C. Mollisond	Linecutter	Aug.7-17	11

B. Office Data Processing Personnel:

B. Cochrane	Draftsman	Aug.29-Sept.9	7
D. Cochrane	P.Eng.	Aug.16;Sept.2-12	10
T. Hunt	Draftsman, calculations	Aug.29-Sept.9	6
D. Fritz	Office Super.	Sept.5-9	3
R. Robillard	Draftsman	Sept. 1	1/2

APPENDIX I

PERSONNEL

NAME: COCHRANE, Donald Robert

EDUCATION: B.A.Sc. - University of Toronto
M.Sc. (Eng.) - Queen's University

PROFESSIONAL ASSOCIATIONS: Professional Engineer, (P. Eng.), registered in British Columbia, Ontario, Saskatchewan.

M.C.I.M.M., M.E.I.C., M.G.A.C., M.M.A.C.

EXPERIENCE: Engaged in the Profession since 1962 while employed with Noranda Exploration Co. Ltd., Quebec Cartier Mines Ltd., Meridian Exploration Syndicate.

Experience in West Indies, Central and South America, U.S.A. and Canada.

APPENDIX II

COST BREAKDOWN:

The field work was conducted in two projects as agreed between Geo-X Surveys Ltd., 627 Hornby Street, Vancouver, B.C. and Bayland Mines Ltd., 519-1030 West Georgia Street, Vancouver B.C. The Ketza Group is governed by agreement one, and the Jen and Rum Groups by two.

1. Ketza Group

1.	Linecutting 4.3 line miles @ $90/line mile	$ 387.00
2.	Ronka EM 16, including detail, 4.3 line miles @ $165/line mile	709.50
3.	Fluxgate mag. survey 2.0 line miles @ $105/line mile	210.00
	Total	$1306.50

2.(a) Jen Group

1.	Linecutting 10.8 line miles (including detail) @ $50/line mile	$ 540.00
2.	Ronka EM 16 Survey, including detail & rerun 10.8 line miles @ $135/line mile	1,458.00
3.	Fluxgate mag. survey, including detail 10.8 line miles @ $75/line mile	810.00
	Total	$2,808.00

2.(b) Rum Group

1.	Linecutting 3.5 line miles @ $50/line mile	$ 175.00
2.	Ronka EM 16 survey 3.5 line miles @ $135/line mile	472.50
3.	Fluxgate mag. survey 3.5 line miles @ $75/line mile	262.50
	Total	$ 910.00

The terms and agreements set out in the contract have now been fulfilled.

S. L. Sandner

September 13th, 1967 GEO-X SURVEYS LTD. Stanley L. Sandner, President

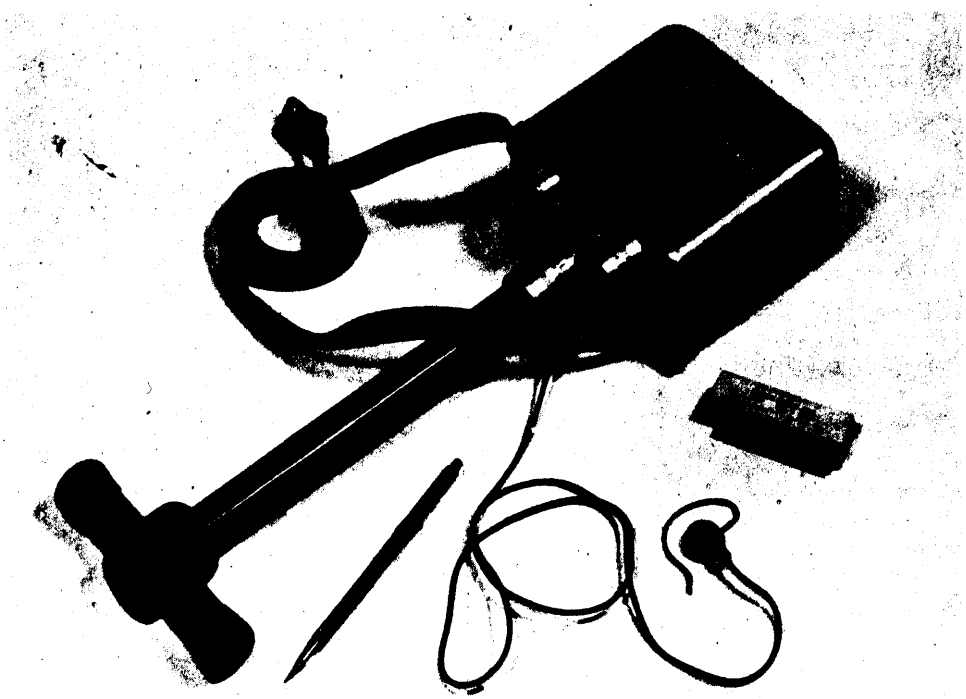
GEO-X SURVEYS ltd.
627 HORNBY ST., VANCOUVER 1, B.C.

RONKA EM 16 ELECTROMAGNETIC INSTRUMENT

SALES, RENTAL AND SURVEYS

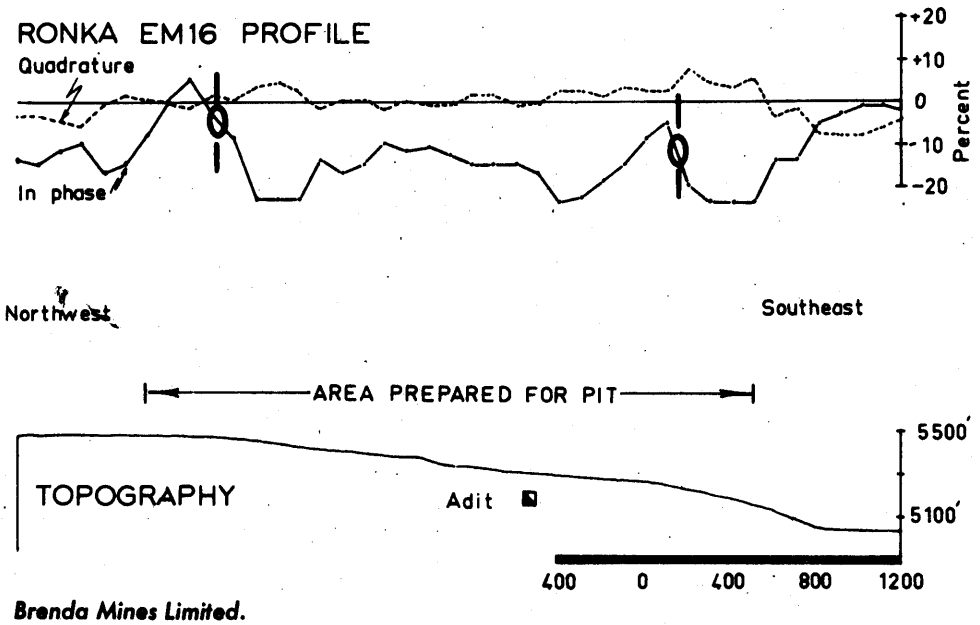
Electromagnetic prospecting has been very successful in mine exploration. Instrumentation and methodology has progressed rapidly, from early units requiring several technicians and several hundred pounds of equipment, to a recent instrument requiring one operator and a compactly designed unit weighing 2.5 pounds. It is now possible to have accurate, easily taken readings more efficiently, rapidly and with less manpower than with older and heavier equipment. Consequently, the cost of surveys is greatly reduced, and the mobility and ease of operation is greatly increased.

The Ronka EM 16 is a VLF radio receiver with two search coils at right angles, employing primary fields between 15 and 25 kilocycles. The real (or in-phase) and imaginary (or quadrature) components of the resultant field are measured by an audible null method. The Ronka EM 16 employs Governmental VLF transmitters for primary field use. These stations, in various parts of the U.S.A. and Europe have vertical antennae with outputs between 85 and 1,000 kilowatts. The inclination of the resultant field at any point is measured by orienting the EM 16 vertical coil in the plane of the resultant field and measuring the attitude of the coil. A second coil, horizontal and at right angles to the vertical coil, receives a perpendicular field, shifts the signal 90 degrees, and is nulled by a dial (quadrature dial).



SPECIFICATIONS

Primary Field:	Horizontal from any selected VLF transmitting station.
Frequency Range:	Approximately 15-25 kc.
Station Selection:	By plug-in units. Two stations selected by a switch on front panel.
Measured Field:	Vertical field, in-phase and quadrature components.
Accuracy of Readings:	± 1% resolution.
Range of Measurements:	In-Phase ±150% or ±90°, quadrature ±40%
Output Readout:	Null-detection by an earphone, real and quadrature components from mechanical dials.
Batteries:	6, size AA penlight cells. Life about 200 hours.
Size:	16 x 5.5 x 3.5 in. (42 x 14 x 12 cm)
Weight:	2.4 lbs. (1.1 kg)



Brenda Mines Limited.

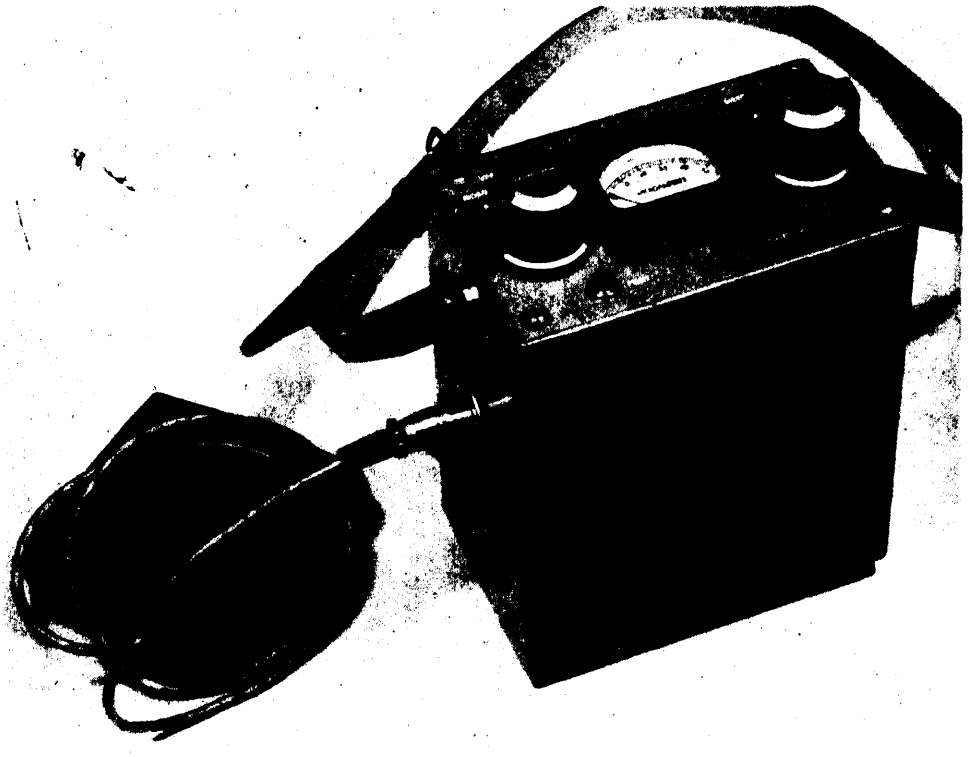
GEO-X SURVEYS ltd.
627 HORNBY ST., VANCOUVER 1, B.C.

TWO COMPONENT MAGNETOMETER INSTRUMENT AND SURVEYS

Vertical component magnetic data is limited information on the true magnetic situation and therefore, in anomalous areas, provides limited scope for interpretation. By measuring the horizontal component, in addition to the vertical component, the general interpretation, and especially the depth calculations, are greatly enhanced. Two component magnetics permits vector analysis of anomalous areas.

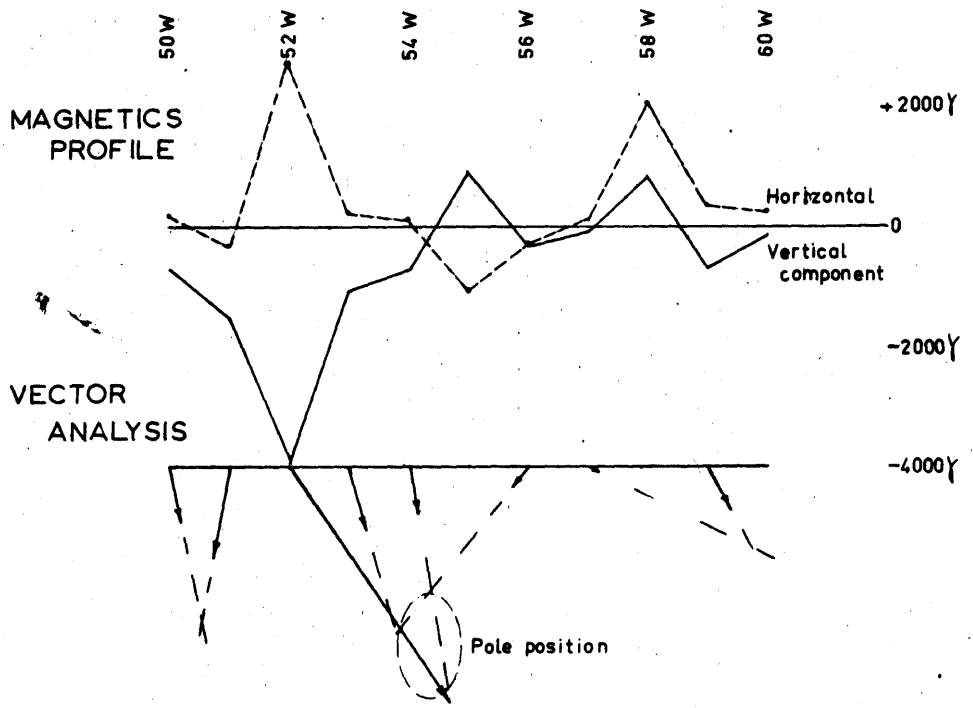
On underground work, or in areas where measurements cannot be carried out on a horizontal plane, the knowledge of both the vertical and horizontal components can be of considerable additional help.

The Geo-X portable ground two-component magnetometer contains two fluxgate elements, one in each plane, with a neutralizing coil for each unit. Neutralization is indicated by a sharp meter null which is found by adjustment of the digital dials. Each dial controls current through neutralizing coil, and dial reading is direct indication of the current required for null, and therefore the amplitude of the magnetic field. In field operation, the instrument is rested on a monopod for stability, and the vertical digital dial rotated to null and the reading is recorded directly. To determine the horizontal component, the instrument must be aligned, by trial and error, into the plane of the field, and then a null is located and directly recorded from the horizontal digital dial.



SPECIFICATIONS

Sensitivity:	Vertical - 20 gammas per dial division. Horizontal - 30 gammas per dial division.
Range:	Vertical - 0 - 100,000 gammas Horizontal - 0 - 30,000 gammas (These ranges can be increased or decreased for specific applications)
Latitude Adjustment:	None required in northern magnetic latitudes.
Type of Readout:	Meter to indicate null plus two digital counting dials to indicate magnetic field intensity at null.
Orientation:	No levels or bubbles required. Vertical reading is non-directional, horizontal reading requires orientation to magnetic north direction.
Weight:	10 pounds.
Dimensions:	4" x 7" x 11".
Power Pack:	Four 9-volt Everready #246 dry cells, or equivalent.



The Diagram shows a profile along line 41 south, on the Oro Denoro Property of West Coast Resources Ltd., near Greenwood, B.C. Mineralization consists essentially of magnetic and chalcopyrite in and near a garnet skarn and quartz diorite contact.

RUM ISLAND

HAGAN ARM

NEWMAN PENINSULA

BABINE LAKE

KETZA LAKE

INDIAN PAINTING POINT

NEWMAN POINT

RUM GROUP

KETZA GROUP

JEN GROUP

L 8S
L 12S
L 16S
L 20S
L 24S
L 28S
L 32S
L 36S
L 24S
L 32S
L 56S
L 60S
L 64S
L 68S
L 70S
L 74S
L 80S
L 84S
L 88S

800 0 800 1600
SCALE IN FEET

TO ACCOMPANY GEOPHYSICAL REPORT ON THE MAGNETOMETER & RONKA E.M 16 SURVEY ON THE JEN, RUM & KETZA CLAIM GROUPS SITUATED ON THE NEWMAN PENINSULA, BABINE LAKE AREA, OMINECA M.D. ON BEHALF OF BAYLAND MINES LTD. BY D.R. COCHRANE, P.ENG., DATED SEPT 7, 1967, VANCOUVER

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D.R. COCHRANE

FIGURE 3

GEO-X SURVEYS LTD.

BAYLAND MINES LTD.
JEN, RUM & KETZA GROUPS
LINE SKETCH

SCALE: 1" = 800'
DATE: AUG. 1967

28+00W 24+00W 20+00W 16+00W 12+00W 8+00W 4+00W 0 4+00E 8+00E 12+00E 16+00E 20+00E 24+00E 28+00E 32+00E 36+00E

LINE 60S

64S

68S

74S

80S

84S

FACE 70°

N 56° W 160°

LEGEND

- Minor Crossover
- Moderate Crossover
- Major Crossover
- Possible Horizontal Conductor
- Crossover Correlation
- Reverse Crossover

To accompany Geophysical Report on the Magnetometer & Ronka EMIL Survey on the Jen, Ruh & Ketza Claim Groups situated on the Newman Peninsula, Babine Lake Area, Omineca, M.D. on behalf of Bayland Mines Ltd. By D.R. Cochrane, P.Eng., dated Sept. 7, 1967, Vancouver, B.C.

20%
10%
0 Vertical Scale: 20%
10%
20%

400 ft. 100 0 200 400 ft.
Scale: 1" = 200'

FIGURE 5-B

Geo-X Surveys Ltd.
1197 Hornby St., Vancouver 5, B.C.

BAYLAND MINES LTD.
JEN GROUP
RONKA EM 16 PROFILES

SCALE: 1" = 200'	DRAWN BY: B.A.C.
DATE: SEPT. 4, 1967	APPROVED BY: D.R.C.

LINE 60S

64S

68S

72S

74S

80S

84S

88S

MJ-1

MJ-2

To accompany Geophysical Report on the Magnetometer & Ronka EM16 Survey on the Jen, Rum & Ketza Claim Groups Situated on the Newman Peninsula, Babine Lake Area, Omineca M.D. on behalf of Bayland Mines Ltd., by D.A. Cochrane, P.Eng. Dated Sept. 7, 1967 Vancouver B.C.

inches
centimetres
This reference scale bar has been added to the original image. It will print out the same size as the image, therefore it can be used as a reference for the original size.

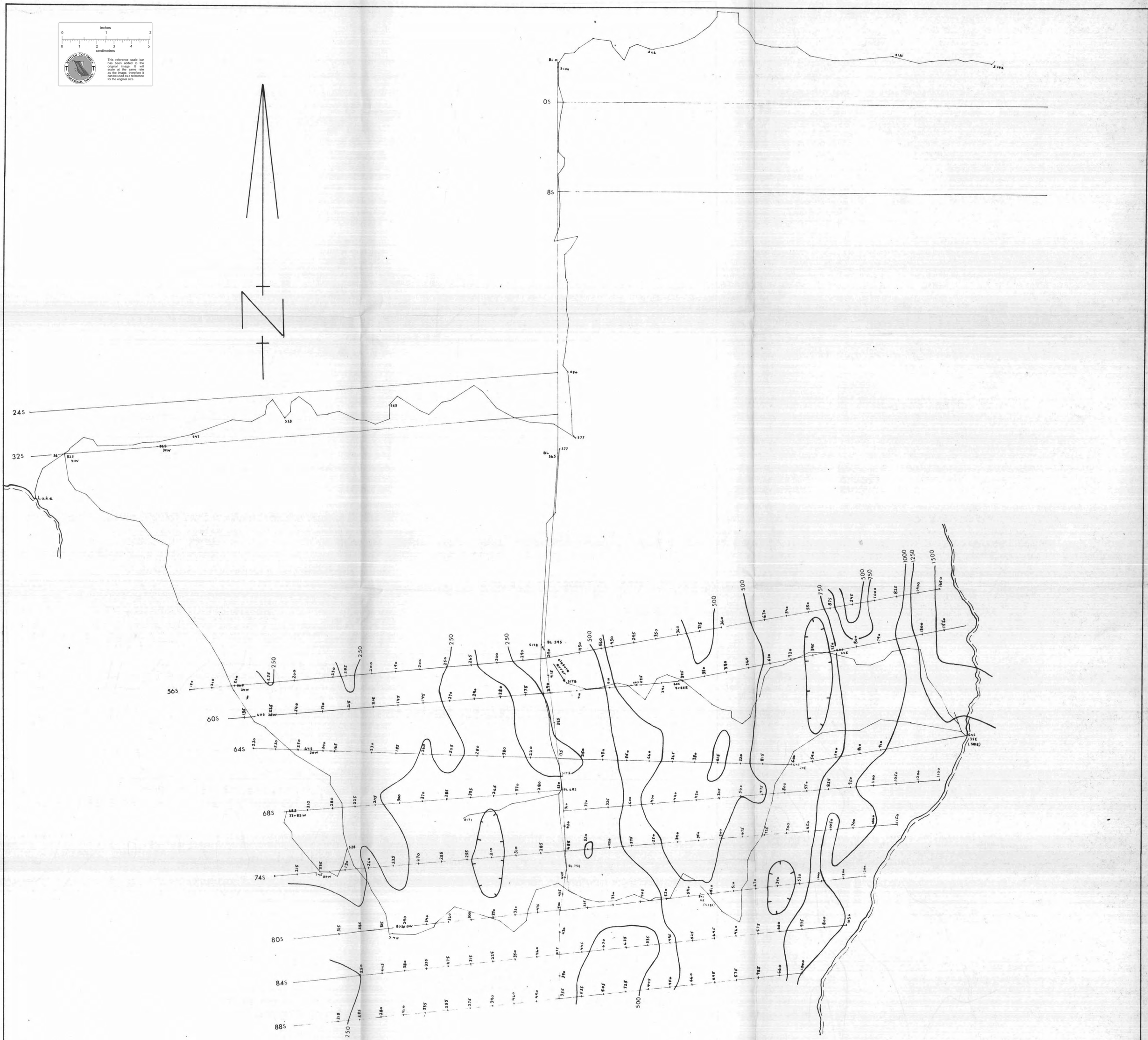
SCALE 1 INCH = 200 FEET

FIGURE 5-A

GEO-X SURVEYS Ltd.
611 HORNBY ST., VANCOUVER 1, B.C.

BAYLAND MINES LTD.
JEN GROUP
MAGNETOMETER CONTOURS

SCALE 1" = 200'
DRAWN BY: T.K.H.
DATE: Sept. 12 '67
APPROVED BY: D.A.C.

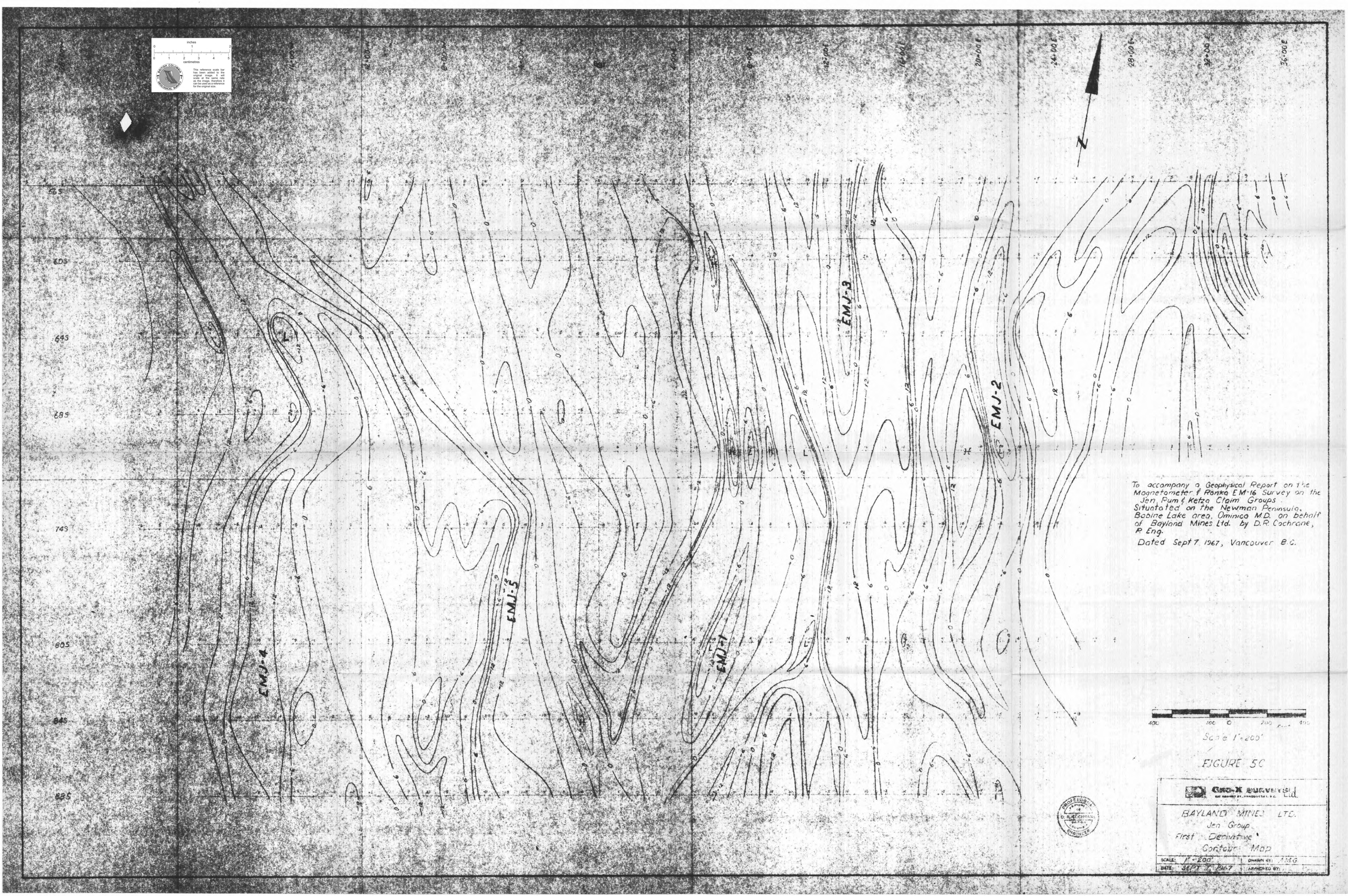


Legend:

- Survey Grid with Sample Locations & Cu Values (ppm Cu in plant ash)
- Control Survey Grid
- Biogeochemical Contours; (ppm Cu in plant ash)
- Lakeshore

Bayland Mines Ltd.		
Biogeochemical Plan		
Newman Project		
feet 0 1200		
J. H. Montgomery	Sept. 8, 1969	Fig. 4

2240579



To accompany a Geophysical Report on the Magnetometer & Ronka EM-16 Survey on the Jen, Rum & Ketza Claim Groups Situated on the Newman Peninsula, Babine Lake area, Omineca M.D. on behalf of Bayland Mines Ltd. by D.R. Cochrane, P. Eng.

Dated Sept 7 1967, Vancouver B.C.

400 100 0 200 Feet 100

Scale 1"=200'

FIGURE 5C

GEO-X SURVEYS Ltd.

BAYLAND MINES LTD.
Jen Group
First Derivative
Contour Map

SCALE: 1"=200' | DRAWN BY: A.M.G.
DATE: SEPT. 7, 1967 | APPROVED BY:

PROFESSIONAL ENGINEER D. R. COCHRANE

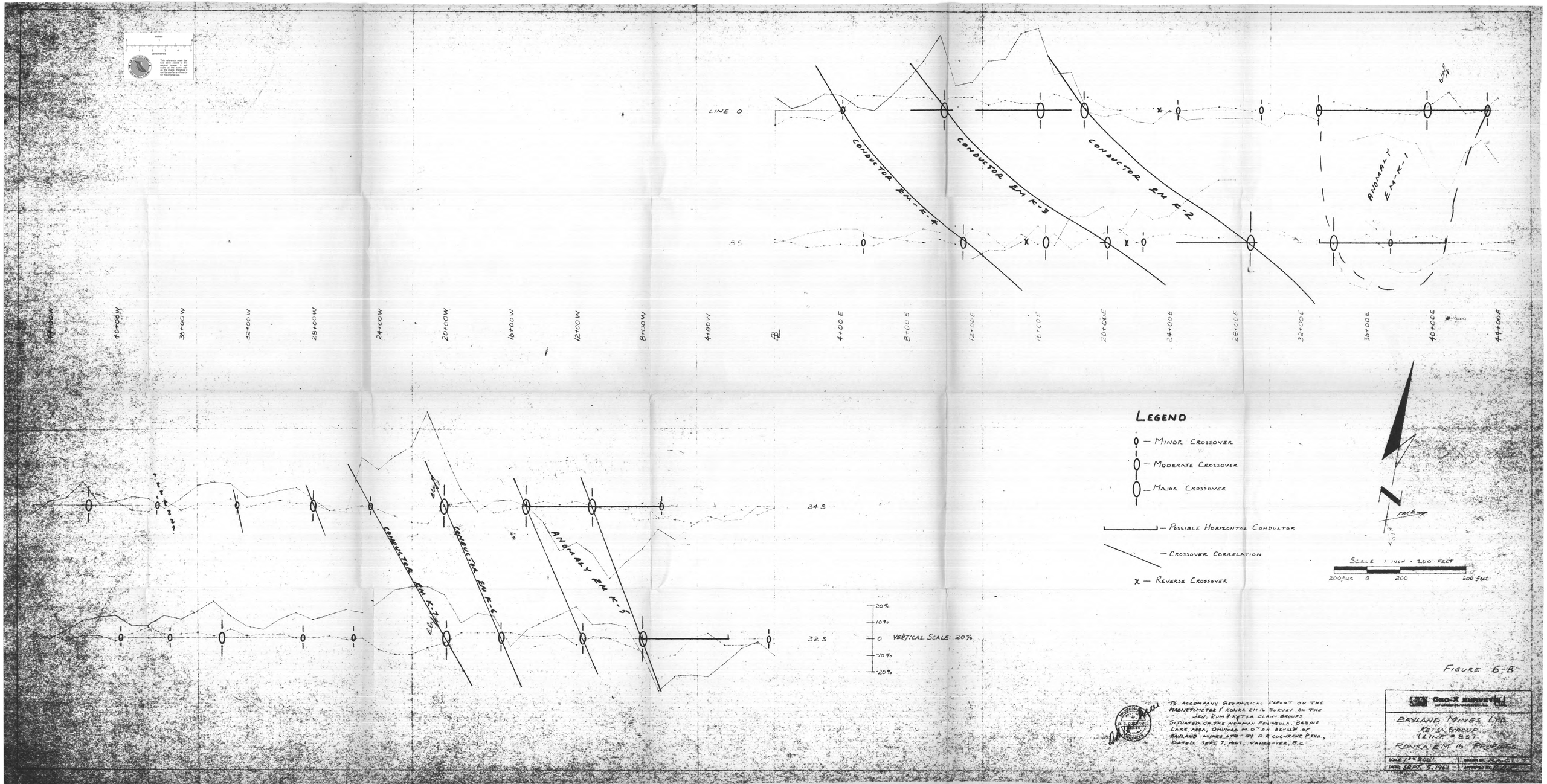


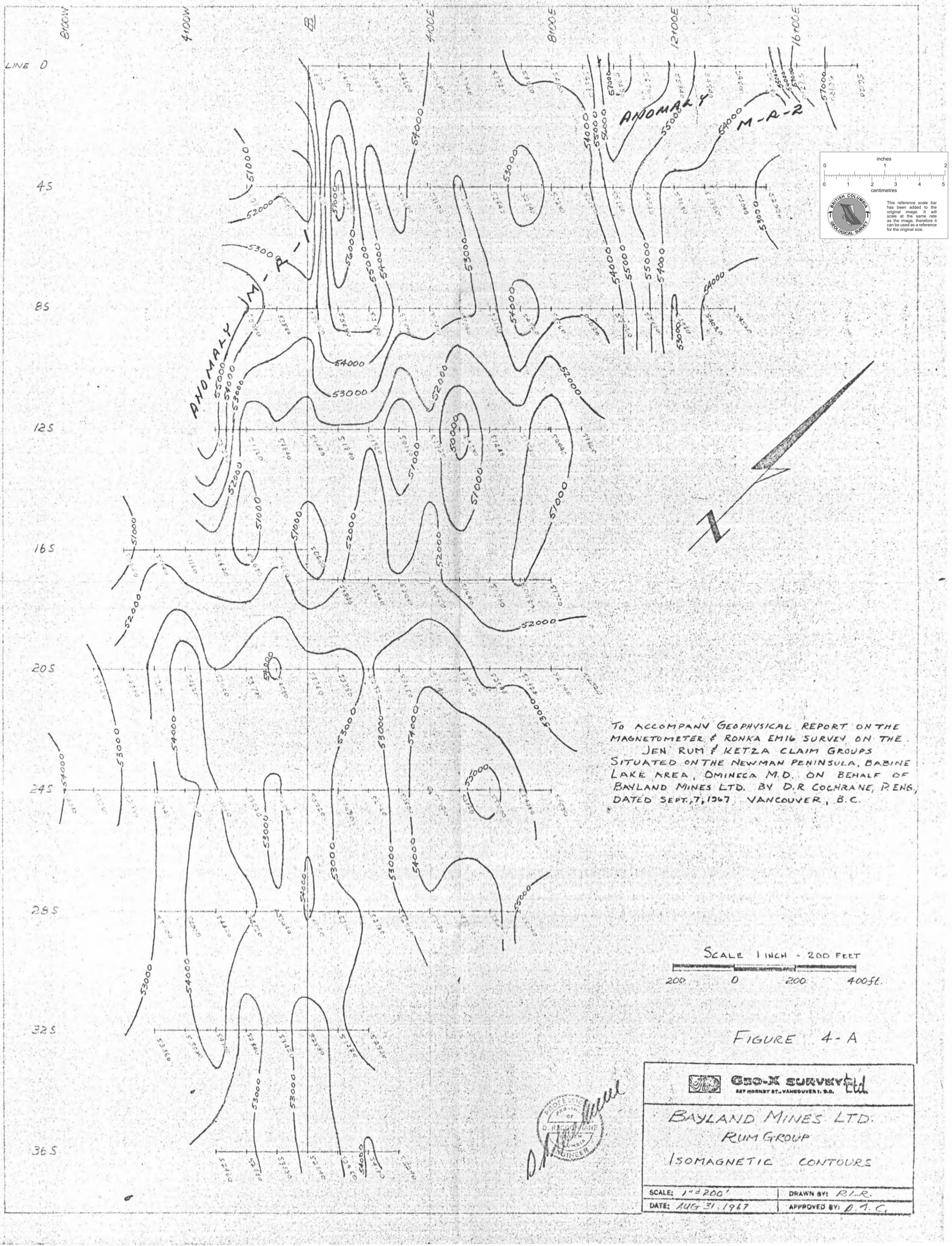
FIGURE 6-B

To accompany Geophysical Report on the Magnetometer & Horizontal Loop EM Survey on the Jen, Rim & Retsa Claim Groups Situated on the Newman Peninsula, Babine Lake Area, Omineca M.D. for Bayland Mines Ltd. by D.A. Cochrane, P.Eng., Dated Sept. 7, 1967, Vancouver, B.C.

Geo-X Surveys Ltd.

BAYLAND MINES LTD.
RETSA GROUP
(LINE #85)
RONKA EM 16 PROFILES

SCALE 1" = 200'
DATE SEPT. 5, 1967
DRAWN BY: A.A.C.
APPROVED BY: D.A.C.



TO ACCOMPANY GEOPHYSICAL REPORT ON THE MAGNETOMETER & RONKA EM16 SURVEY ON THE JEN RUM & KETZA CLAIM GROUPS SITUATED ON THE NEWMAN PENINSULA, BABINE LAKE AREA, OMINECA M.D. ON BEHALF OF BAYLAND MINES LTD. BY D.R COCHRANE, P.ENG., DATED SEPT. 7, 1967 VANCOUVER, B.C.

SCALE 1 INCH - 200 FEET

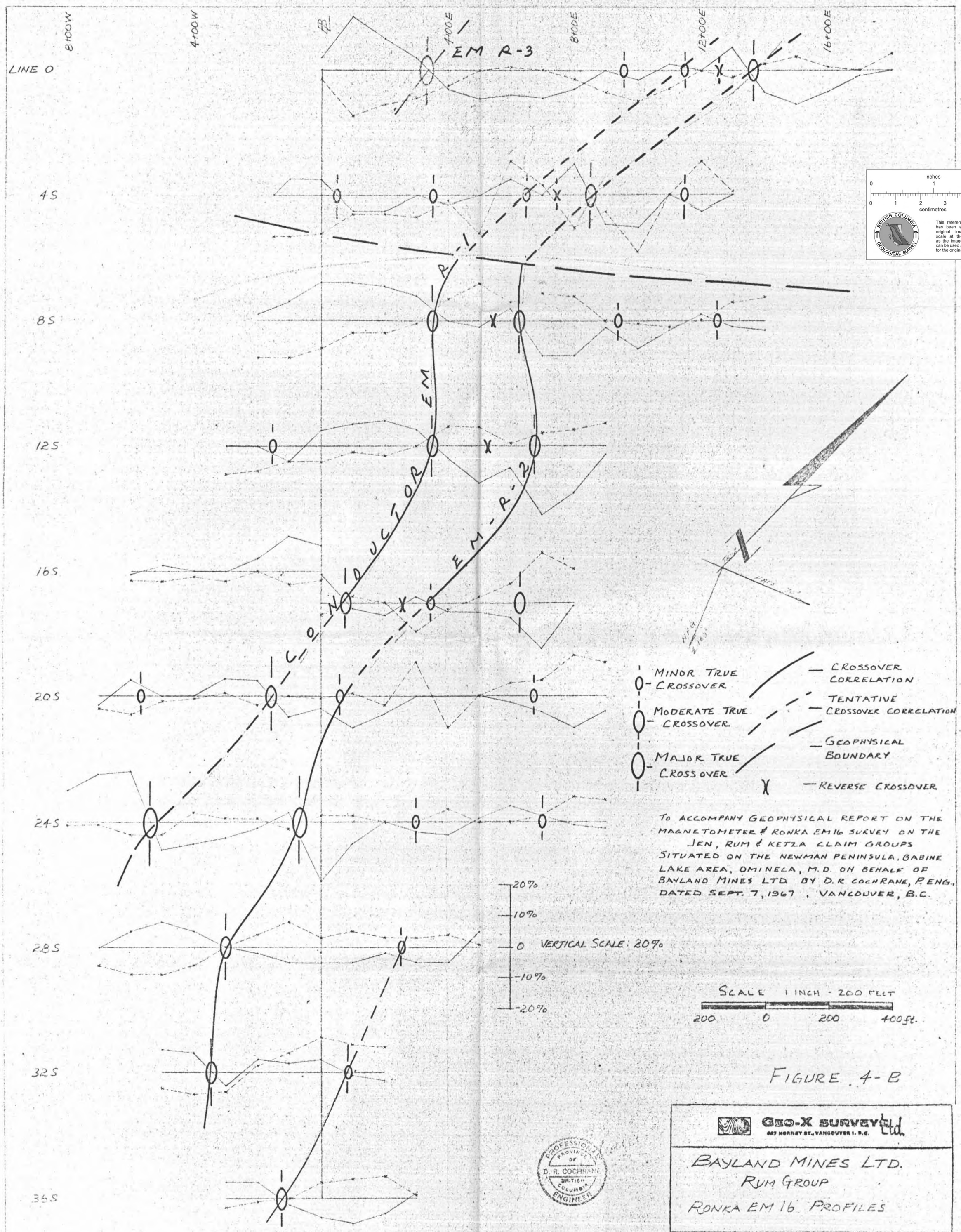
200 0 200 400ft.

FIGURE 4-A

GEO-X SURVEYS Ltd.
627 HORNBY ST., VANCOUVER 1, B.C.

BAYLAND MINES LTD.
RUM GROUP
ISOMAGNETIC CONTOURS

SCALE: 1" = 200'	DRAWN BY: R.L.R.
DATE: AUG 31, 1967	APPROVED BY: D.R.C.



inches
0 1 2
0 1 2 3 4 5
centimetres

BRITISH COLUMBIA GEOLOGICAL SURVEY

This reference scale bar has been added to the original image. It will scale at the same rate as the image, therefore it can be used as a reference for the original size.

TO ACCOMPANY GEOPHYSICAL REPORT ON THE MAGNETOMETER & RONKA EM16 SURVEY ON THE JEN, RUM & KETZA CLAIM GROUPS SITUATED ON THE NEWMAN PENINSULA, BABINE LAKE AREA, OMINECA, M.D. ON BEHALF OF BAYLAND MINES LTD BY D.R COCHRANE, P.ENG., DATED SEPT. 7, 1967, VANCOUVER, B.C.

SCALE 1 INCH - 200 FEET

200 0 200 400ft.

FIGURE 4-B

PROFESSIONAL ENGINEER PROVINCE OF BRITISH COLUMBIA D. R. COCHRANE

GEO-X SURVEYS Ltd.
827 HORNBY ST., VANCOUVER 1, B.C.

BAYLAND MINES LTD.
RUM GROUP
RONKA EM 16 PROFILES

SCALE: 1" = 200'	DRAWN BY: G.A.C.
DATE: AUG 31, 1967	APPROVED BY:

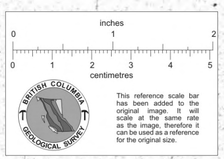
MAG PROFILE : LINE 0

MAG PROFILE OF LINE 8100S

SCALE 1 INCH = 200 FEET

400 0 200 400 Feet

FIGURE 6-A



TO ACCOMPANY GEOPHYSICAL REPORT ON THE MAGNETOMETER & RONKA EM 16 SURVEY ON THE JEN, RUM & KETZA CLAIM GROUPS SITUATED ON THE NEWMAN PENINSULA, BABINE LAKE AREA, OMINECA, M.D. ON BEHALF OF BAYLAND MINES LTD BY D.R. COCHRANE, P.ENG., DATED SEPT. 7, 1967, VANCOUVER, B.C.

GEO-X SURVEY Ltd.
657 HORNBY ST., VANCOUVER 1, B.C.

BAYLAND MINES LTD.
KETSA GROUP

MAGNETOMETER PROFILES

SCALE: 1" = 200'	DRAWN BY: R.L.P.
DATE: SEPT. 5, 1967	APPROVED BY: D.R.C.