

93A/12W

INTERIM REPORT ON
GEOPHYSICAL and GEOLOGICAL EXAMINATION
on the

Lime Cap and Copper Ridge Claims

Situated 34 air miles north of 150 Mile House

Quesnel Lake District

Cariboo M.D.

Latitude $52^{\circ}35'N$: Longitude $121^{\circ}47'W$

Owned by:

Milestone Mines Ltd.

by

D.R. Cochrane, P.Eng.

September 26th, 1967
Vancouver, B.C.

1097



GEO-X SURVEYS

VANCOUVER, CANADA

Ltd.

1097

MILESTONE MINES LTD.
Interim Report on Geophysical - Geological Examination

On September 22nd and 23rd, 1967, the author conducted a brief examination of the LimeCap and Copper-Ridge claims, situated near Moorehead Lake, Caribou M.D. on behalf of Minestone Mines Ltd. The following memo describes field procedures and immediate impressions of the situation. Additional data will be available after laboratory analysis of samples.

LOCATION:

The claims are situated 34 air miles north of 150 Mile House, Quesnel Lake District, Caribou M.D., north central B.C. The property is readily accessible by a gravel road, leading from 150 Mile House, through the west portion of the claims, near Moorehead Lake, and on to the settlement of Hydraulic and Likely.

CLAIMS and OWNERSHIP:

Portions of the following full-sized located claims, are owned outright by Milestone Mining Co. Ltd. and were examined:

Lime Cap 1,2,3,4,5,6,7

Copper Ridge 1, 2, 3

*Claim + Line Sketch Map #1
E.M. Profiles # 2, #3*

FIELD PROCEEDURE:

The following work was completed during the two-day examination by the Author and R. Spooner:

1. A few claim posts were checked and tied into topographic features and grids;
2. Portions of the IP and geochemical grids were checked and tied into topographic features;
3. A few geochemical soil samples were taken on an EM crossover not previously sampled.
4. Several lines of a former Ronka EM 16 survey were rechecked;
5. Several areas of outcrop were geologically examined and specimens taken for petrographic studies;
6. A test line of Ronka EM 16 was completed on a copper property to the south, in order to compare these results with those on the Lime Cap and Copper Ridge claims.

PRELIMINARY RESULTS:

1. Claims: Claims appear to have been staked in accordance with the requirements set out in the Mineral Act, Province of B.C. However, there is some confusion in claim numbering, and the position of various claims with respect to each other. Ambiguity also exists in the description of claim locations printed on the "A" forms in the Mining Recorder's office.

2. IP and Geochemical Linecutting Grids: Due to the claim location ambiguity, the IP and Geochemical grids are not precisely in the position plotted on the maps.

3. Geochemical Soil Samples: are presently being analyzed for Cu and Mo in the Vancouver laboratory of Bondar-Clegg and Co.

4. The Ronka EM 16 check on the previous EM survey confirmed the earlier results. An orientation survey, utilizing stations NPG (Jim Creek, Washington), NAA (Maine) and NPM (Hawaii) indicated that best response and sharpest nulls were obtained with NPG (Jim Creek).

Rechecked EM 16 lines are presented on the accompanying figures.

5. Copper stain was observed in the limestone on Lime Cap # 1 and #2, and in the volcanic sequence along the main road on Lime Cap #5 and on the small hill on Lime Cap #7 and Copper Ridge #3. In addition, chalcocite was observed in a few specimens near the ridge. One small outcrop of a pink acidic intrusive was noticed, however no copper stain or sulphide minerals were observable.

6. The Ronka EM 16 results on lines 2, 3 and 4 appear to be response to lithologic change rather than conductivity changes due to sulphides. Soil samples collected in this area are presently being processed. The EM results on line 100, 99 and 99B east of the road are somewhat similar to the results encountered on the copper property to the southeast. The amplitude and persistence of response, on the other hand, suggests changes due to changing lithology. The causes of the conductivity changes on lines 149 to 153 are unknown.

RECOMMENDATIONS:

1. The claim posts and boundaries should be located fairly precisely before detailed work commences. This may be accomplished by transit and chain surveying along available roads, or by tie-in to an accurate base line, which should be established on the property if additional ground work is to be conducted.

2. The copper mineralization observable is interesting and definitely worthy of additional work. The depth of overburden in several interesting areas is not believed

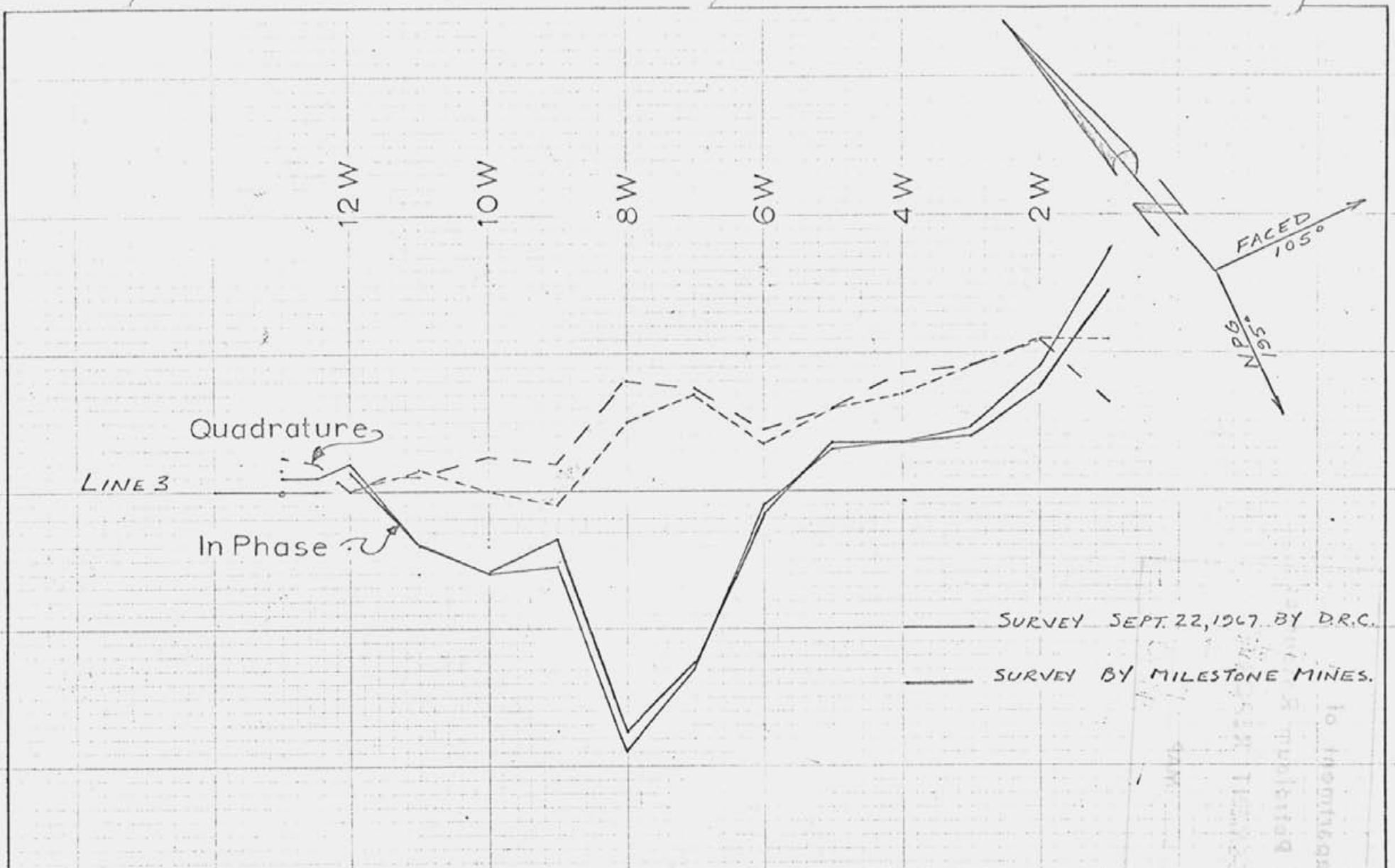
to be excessive, and a cheaper and more effective method of determining the causes of, and evaluating the previously located IP and geochemical soil anomalies would be trenching by bulldozer or backhoe.

3. If additional ground surveys are to be conducted on the remainder of the claim group, a well cut and accurate base line should be established even if bulldozer clearing is necessary, in order to tie in topographic features, claim posts and to accurately set out cross lines.

Vancouver B.C.
Sept. 26th, 1967

Respectfully submitted,


D. R. COCHRANE P. Eng.

— SURVEY SEPT. 22, 1967 BY D.R.C.

- - - SURVEY BY MILESTONE MINES.

SCALE

HOR: 1 in. = 200 ft.

VERT: 1 in. = 20%

MILESTONE MINES LTD.

EM 16 PROFILES

DRAWN BY: T.K.H. - SEPT. 26, 1967

 **GEO-X SURVEYS** Ltd.

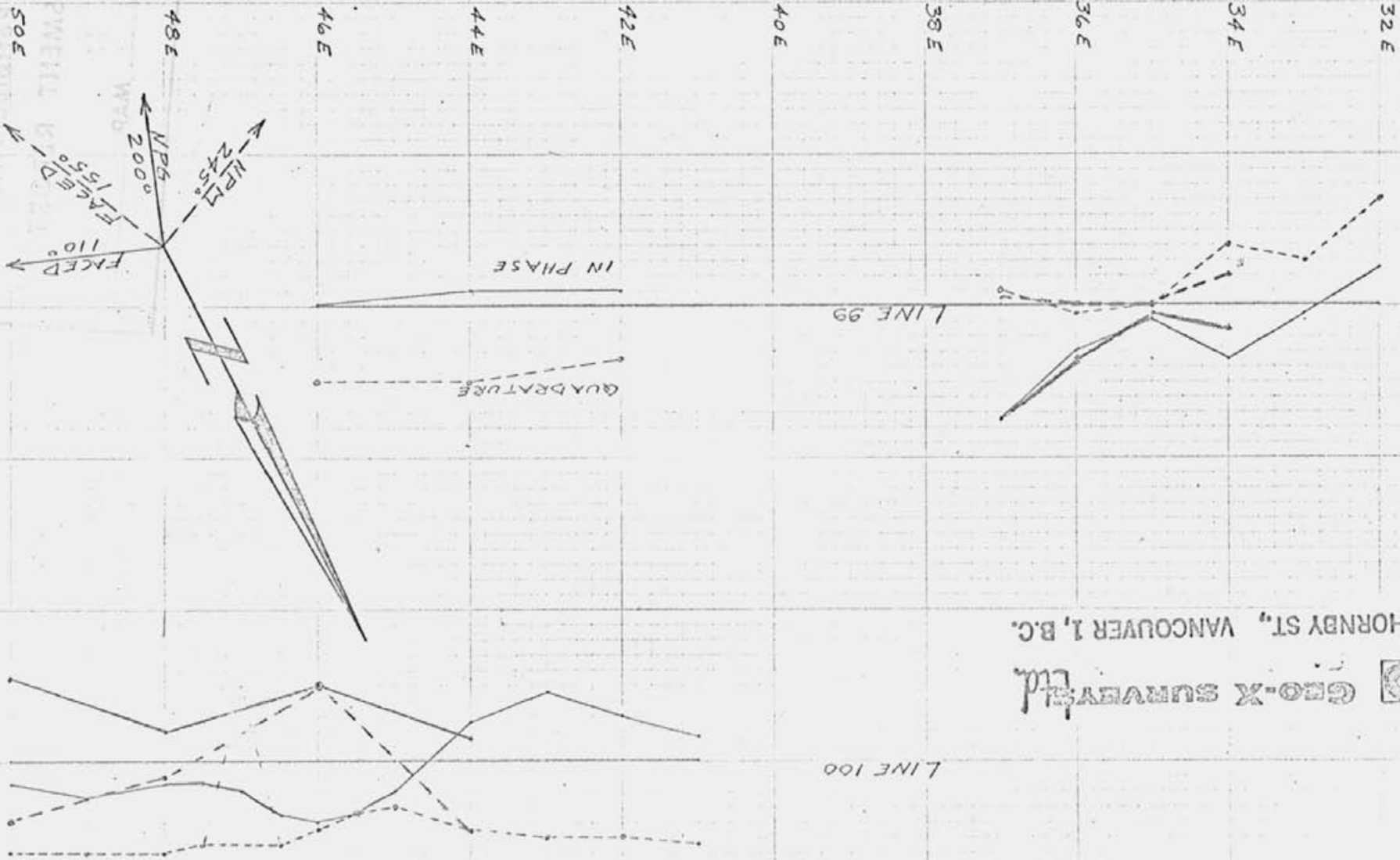
627 HORNBY ST., VANCOUVER 1, B.C.

MILESTONE MINES LTD.
EM 16 PROFILES

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

LINE 100

LINE 99



— N.P.G.
— N.A.A.
— N.P.M.

HORIZ. SCALE: 1 INCH - 200 FEET
VERT. SCALE: 1 INCH - 20 PERCENT
DRAWN BY: D.M.F. SEPT 26, 1967

Department of
Mines and Technical
Assessment
505

Prop. Milestone Date Sept 22/67
 Job # 1015 Oper. D.R.C.
 Trans. NPM Bear. 230° Face East

LINE	STA.	In Ph	Quad	REMARKS
X	Y	Z'	Z''	& SLOPE
102	41E	-3	+11	✓ 10m
	42E	-6	+12	✓ 8m
102	43E	-9	+10	✓ 10m
"	44E	-5	+9	
		-3	+9	2 NPM N
102	45E	+4	+6	✓ 10m
"	46E	+7	+7	
102	47E	+8	+9	NPM
"		-10	+10	NPM
102	48E	-17	+11	NPM
"	47E	+14	+10	NPM
"	48E	+13	+11	
"	49	+8	+12	
102	49	-4	+2	NPM
	40E	+5	+12	NPM
102	50	+3	+10	
"	50E	-11	+8	NPM
	43	+		
102	49	+12	+2	NPM
109	46E	-	+10	NPM
99	44E	-2	+10	
99	47E	-2	+7	✓ 10m
99	37E	+15	-2	NPM
"		+15	-1	NPM

SOIL SAMPLING

Prop. Milestone Date Sept 22/67
 Job # 1015 Oper. D.R.C.
 Trans. NPM Bear. 230° Face East

LINE	STA.	HOR.	DEPTH	CLASS	TYPE	COLOUR	REMARKS	Cu	Mo	Pb	Zn
3	41E										
3	42E										
3	43E										
3	44E										
3	45E										
3	46E										
3	47E										
3	48E										
3	49										
3	50										

Prop. Milestone Date Sept 22/67
 Job # 1015 Oper. D.R.C.
 Trans. NPM Bear. 230° Face East

LINE	STA.	In Ph	Quad	REMARKS
X	Y	Z'	Z''	& SLOPE
3	1W	+31%	+35	NPM
"	"	-25	-24	NPM
"	2W	+18	+22	NPM
"	2W	+9	+18	NPM
"	2W	+7	+17	NPM
"	3W	+6	+12	NPM
"	6W	-2	+9	NPM
"	7W	-26	+15	NPM
"	8W	-38	+16	NPM
3	2W	-11	+4	NPM
3	10W	-12	+5	NPM
3	11W	-9	+2	NPM
3	12W	+4	0	NPM
3	13W	+2	+5	NPM
3	245W	+2	+4	NPM
3	1W	+1	-1	NPM
"	11-5W	-2	+2	NPM
12)	11W	-32	+6	NPM

Prop. Milestone Date Sept 22/67
 Job # 1015 Oper. D.R.C.
 Trans. NPM Bear. 230° Face East

LINE	STA.	In Ph	Quad	REMARKS
X	Y	Z'	Z''	& SLOPE
99	35E	+6	+1	NPM
99	36E	+7	0	NPM
99	35E	+8	0	NPM
99	35E	+1	0	NPM
99	34E	+7	-8	NPM
99	33E	+3	-4	NPM
99	32E	+1	-6	NPM
99	30E	-5	-14	NPM



GEO-X SURVEYS Ltd.

- AIRBORNE
- MOBILE
- GROUND GEOMAG
- RONKA EM
- INDUCED POLARIZATION

627 HORNBY STREET, VANCOUVER 1, BRITISH COLUMBIA

TELEPHONE 685-4296 - CODE 604

STATEMENT

Nº 1355

IN ACCOUNT WITH

Belmont Mines Ltd.
 228 E. Harvard St.
 Vancouver B.C.

DATE:

1968, 10/67

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DATE	REFERENCE	DEBIT	CREDIT	BALANCE
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By: 10/16 rem. 10/16/67 400.00-

Engineering Services for
 month of Oct., on the
 time of the Cooper Mine
 claims, Greater N.P.

Professional Engineering
 Services:

1 1/2 field days @ \$150/day 225.00

2 1/4 data processing and
 travelling days @ \$100/day 225.00

Technical Services:

5 hrs @ \$7.50/hr 37.50

Travelling Expenses 96.55 \$384.05



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: $\pm 1\%$ resolution.

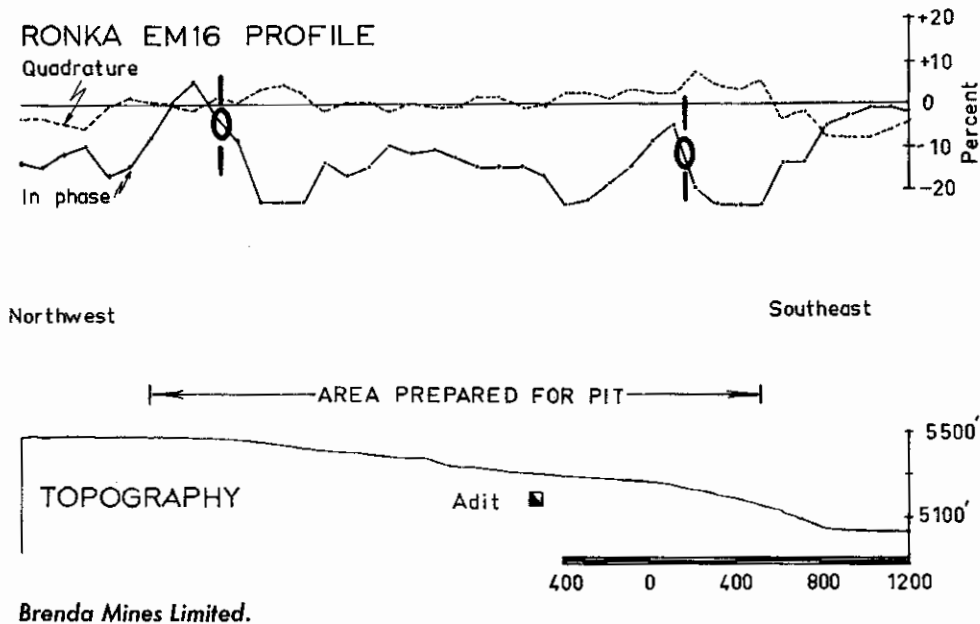
Range of Measurements: In-Phase $\pm 150\%$ or $\pm 90^\circ$, quadrature $\pm 40\%$

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)



DOMINION OF CANADA:
PROVINCE OF BRITISH COLUMBIA.

In the Matter of Mining claims with

To Wit:

MILESTONE MINES LTD.

Moorehead 1-4, Limecap 1-6, Copper Ridge 1 to 5

SUB-MINING RECORDER
RECEIVED
OCT 16 1967
M.R. # 142345 \$ 70.00
VANCOUVER, B. C.

I, CALBERT B. SELMSER

of 2658 Nelson Avenue, West Vancouver

in the Province of British Columbia, do solemnly declare that

A Geophysical and Geological Examination was made by Dr. D. R. Cochrane, P. Eng. and that necessary access bulldozing was performed by Mr. R. W. Thibeault, Box 1013, Quesnel, B. C. This work was performed on the claims as noted above since October 15, 1966 and during this year for assessment work.

Dr. D. R. Cochrane -

1 1/2 field days @ \$150.00
2 1/4 Mapping days @ \$100.00
5 hrs. Technical @ \$7.50

MR. R.W. Thibeault -

Oct 4 - 8 hrs
5 - 8 hrs
6 - 9 hrs
7 - 9 hrs
11 - 8 hrs @ \$12.50
12 - 8 hrs
13 - 8 hrs

And I make this solemn declaration conscientiously believing it to be true, and knowing that it is of the same force and effect as if made under oath and by virtue of the "Canada Evidence Act."

Declared before me at the City
of Vancouver, in the
Province of British Columbia, this 16
day of October 1967, A.D.

Calbert B. Selmsel

Jill Suran
A Commissioner for taking Affidavits for British Columbia or
A Notary Public in and for the Province of British Columbia.
SUB-MINING RECORDER

Department of
 Mines and Petroleum Resources
 ASSESSMENT REPORT
 MAP



- a - Road built to northern EM anomaly
- b - Road built to D.D. site #1
- c - Road built to D.D. site #2
- LINE 3 - EM CHECK LINE
- LINE 99 - EM CHECK LINE
- LINE 100 - EM CHECK LINE



LIME CAP	MILES 2	MILES 4	MILES 6	COPPER RIDGE 6
	MILES 9	MILES 8	MILES 7	
COPPER RIDGE 2	MILES 1	MILES 3	MILES 5	COPPER RIDGE 7



MILESTONE MINES LTD.
 MOOREHEAD LAKE
 CARIBOO M.D.
 CLAIM & LINE SKETCH
 SCALE: 1 inch - 1500 feet

1097