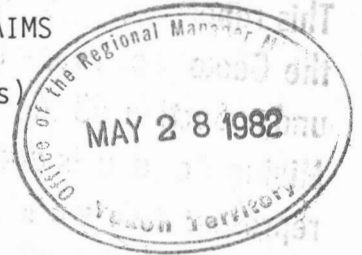




GEOPHYSICAL INVESTIGATION OF THE CLARE CLAIMS
(Electromagnetic and Magnetometer Surveys)



SELWYN PROJECT, EARN LAKE AREA, MAYO MINING DIVISION, Y.T.

Lat: 62° 54'N

Long: 134° 50'W

NTS: 105 L15

Field Work performed within the period March 1 - April 4, 1982

Claims: CLARE 43-48, 55-64, 66

May 12, 1982

Alan R. Scott

091032



This report has been examined by
the Geological Investigation Unit
under Section 53(4) of the Quartz
Mining Act and is allowed as
representative work to the amount
of \$ 5,100.

P. Walker

for Regional Manager, Exploration and
Geological Services for Commissioner
of Yukon Territory.

001082

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Introduction

During the period March 1 to April 4, 1982, a linecutting and geophysical survey program was completed over portions of Anaconda's Selwyn Project claims. This report is concerned with the portion of that work done on the CLARE claims, Mayo Mining Division.

It describes the methodology of the geophysical surveys, presents the data, and discusses the results.

Location and Access

Anaconda's Selwyn Project is located about midway between the towns of Mayo and Faro, Yukon Territory (Drawing 1). This winter's work was conducted out of a central base camp located on the north shore of Earn Lake, utilizing helicopter support for local access. Access to the base camp was by fixed wing aircraft from Whitehorse.

Ground Control

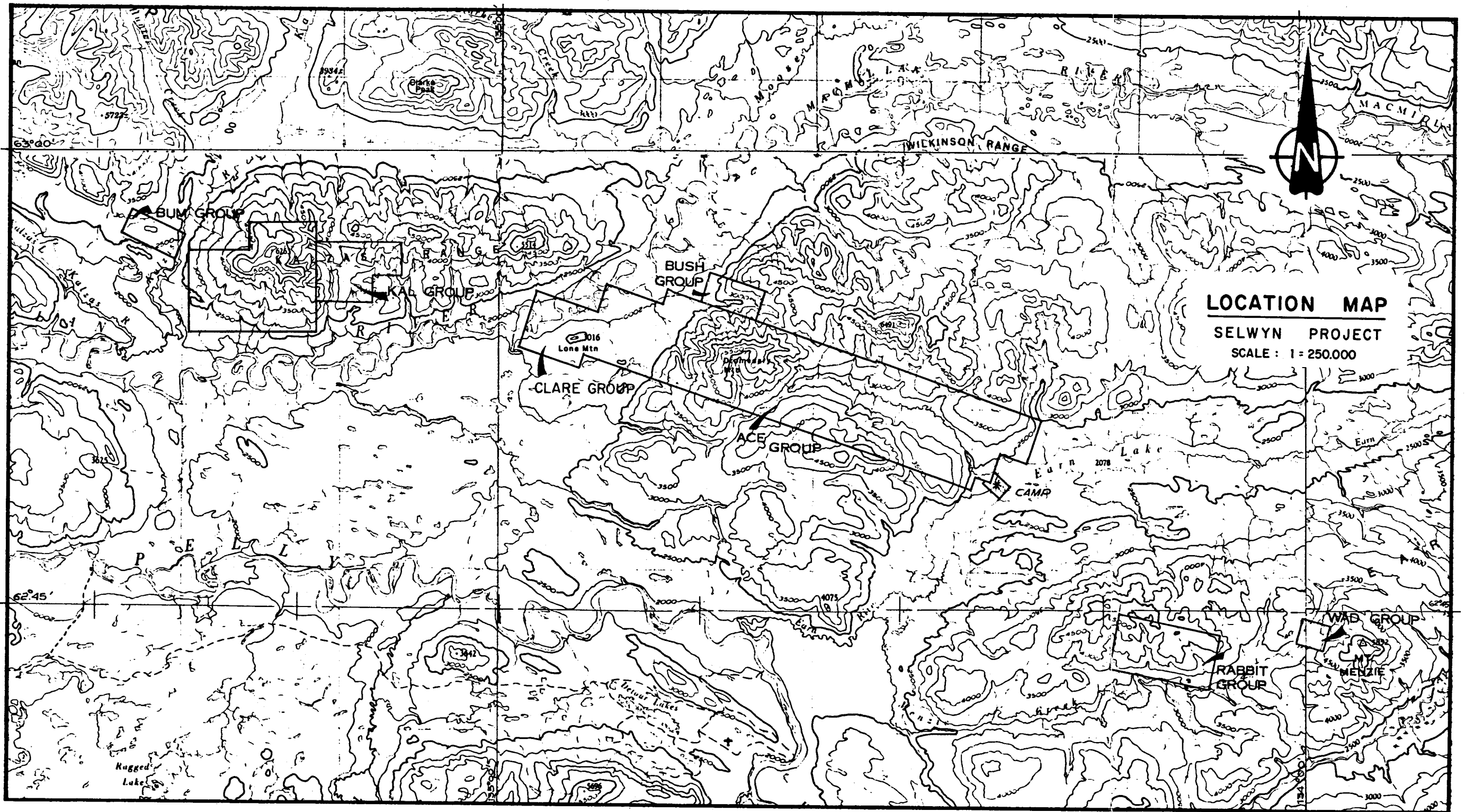
The location of the traverses was chosen by reference to topographic maps, and the traverses were turned off by compass. Linecutting was accomplished by back sighting along pickets, and the quality of the lines is very good. Chaining of stations was by taut chain along the slope, with pickets placed at 25 meter intervals. The angle of slope was measured by inclinometer. The lines were tied in to topographic features wherever possible, for transfer to the location map (Drawing 2).

Claims

The CLARE claims are located 3.2 kms west of Mt. Menzie. The NTS sheet for the area is 105 L15. Grant numbers and claim names are listed below:

YA 43599-YA 43615

CLARE 43-48, 55-64, 66



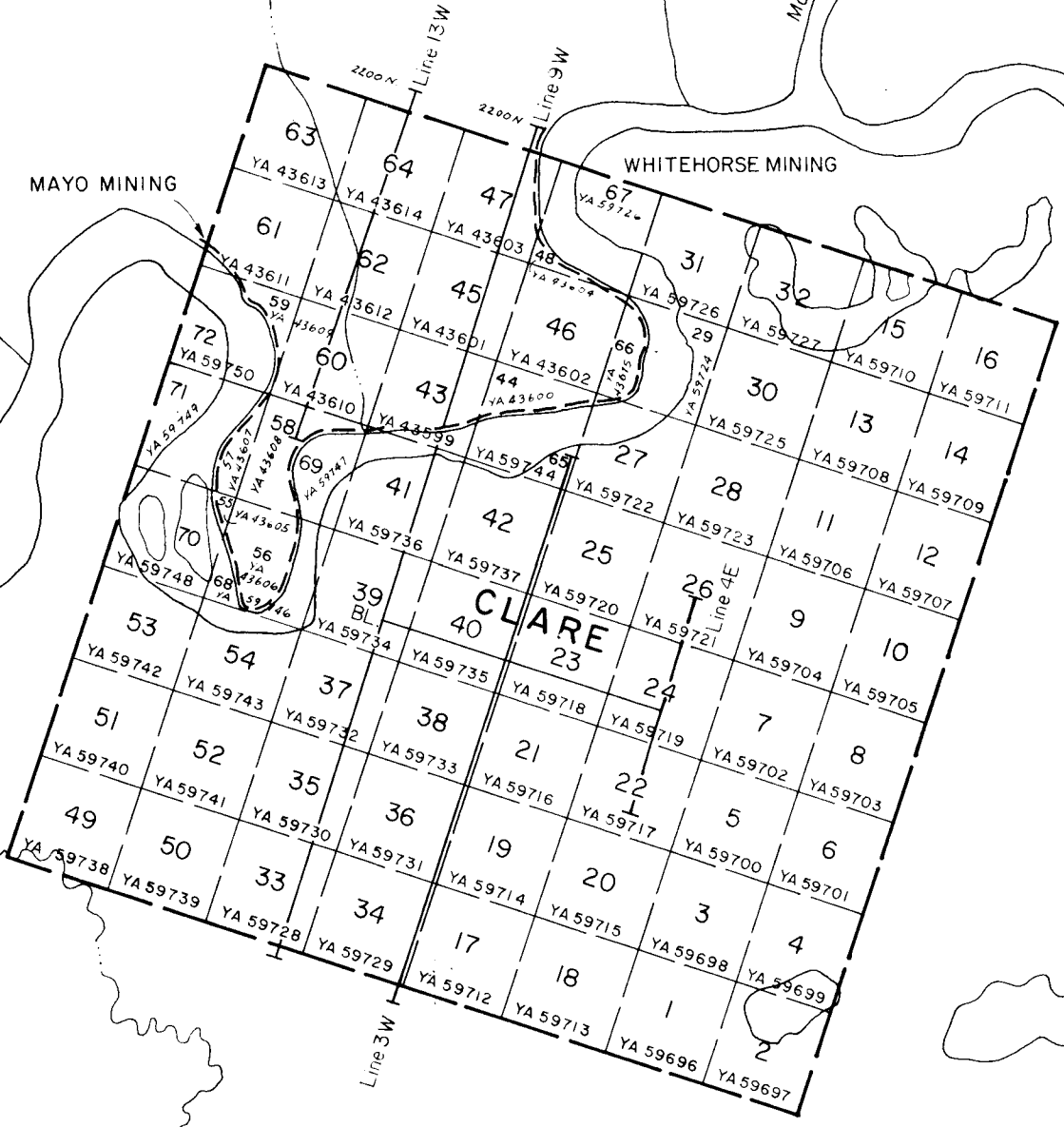
LOCATION MAP
SELWYN PROJECT
SCALE: 1 = 250,000



Macmillan River

MAYO MINING

WHITEHORSE MINING



ANACONDA Canada Exploration Ltd.

SELWYN PROJECT

CLARE CLAIMS

WHITEHORSE / MAYO MINING DISTRICT

H.H. APR 1982

1" = 1/2 mile 105 L-15 2 4

Geology

The Selwyn project area lies within the Paleozoic aged Selwyn Basin of the Yukon Territory. Units consist of chert, shale and coarser grained clastic sedimentary rocks. Minor Tertiary high level intrusives and cretaceous biotite quartz monzonites occur. The property geology has been described in more detail by Carlson (1982).

Geophysical Surveys

Electromagnetic Surveys - HLEM

An Apex Parametrics Max Min II electromagnetometer was used for the horizontal loop (HLEM) survey. A back up unit was also available in the event of malfunction. All survey lines were previously slope chained and inclinometer surveyed to maintain close tolerances on the coil spacing and coplanarity of the HLEM survey. Corrections were applied to the HLEM data for the normally small changes from the selected coil spacing of 200 meters for the CLARE claims.

Magnetometer Survey

A Geometrics Unimag I was used for the magnetometer survey, and a Unimag II as a base station for correction of diurnal variation. Base station readings were obtained at least hourly at the Earn Lake camp, and maximum observed drift from base reading to reading during the time of the survey, was normally less than 20 gammas.

Discussion of Results

Two lines were cut, chained and surveyed with HLEM and magnetics on the CLARE, Mayo M.D. claims. The results are plotted in profile form on Drawings 3 and 4.

These lines lie in the flood plain of the MacMillan River. The survey was run with a 200 meter coil separation as deep valley fill sediments were

anticipated to occur.

The departure of in phase and out of phase HLEM values from "zero" indicates a conductive response from the river sediments on the order of 50 ohm meters. Thin, possibly bedrock conductors, have been picked from the 1777 Hz out of phase response at 1025 and 1450N on line 13W and at 1060 and 1720N on line 9W. Both lines show flat magnetic field response.

Conclusions

The CLARE claims, Mayo M.D. appear to be underlain by a considerable thickness of conductive flood plain sediments. Conductors' locations noted on the profiles were picked from the 1777 Hz out of phase response.

No further work could be recommended on these claims at this time, on the basis of these geophysical results.

Respectfully submitted



Alan Scott
Geophysicist

Distribution:

- (2) Mining Recorder ✓
- (1) IME - Vancouver
- (1) J. Corbett, Chief Geophysicist
- (1) R. Hall, Project Geologist

Appendix I

STATEMENT OF EXPENDITURES - CLARE CLAIMS (linecutting, chaining, HLEM and magnetometer surveys)

1.	Salaries and contract linecutting		
	Eastern Associates, contract linecutting,		
	Mar. 31, April 1, 2 men, 2 days @ 240/man =	960	
	Marthe Archambault, geologist, April 1, 1 day @ 125/day	125	
	T. Crebs, geophysicist, April 1, 2, 2 days @ 190/day	380	
	F. Thrane, tech., April 1, 2, 2 days @ 100/day =	<u>200</u>	
			1,665
2.	Expenses		
	Meals, accommodation, travel expenses =	511	
	Camp charges: 9 man days @ 45/man day =	<u>405</u>	
			916
3.	Charter aircraft		
	Fixed Wing (ALCAN) supply and personnel flights =	1,158	
	Helicopter (TNTA) 4.9 hrs. @ 450/hr =	<u>2,205</u>	
			3,363
4.	Equipment rentals		
	MaxMin II + back up: 2 x 2 days @ 50/day =	100	
	UNIMAG I + UNIMAG II = 2 x 2 days @ 15/day	<u>60</u>	
			160
5.	Charges per survey day (towards drafting, supervision, report)		
	2 days geophysical survey @ 200/day =	<u>400</u>	
			<u>400</u>
	TOTAL EXPENDITURES =		<u><u>6,504</u></u>

Appendix II

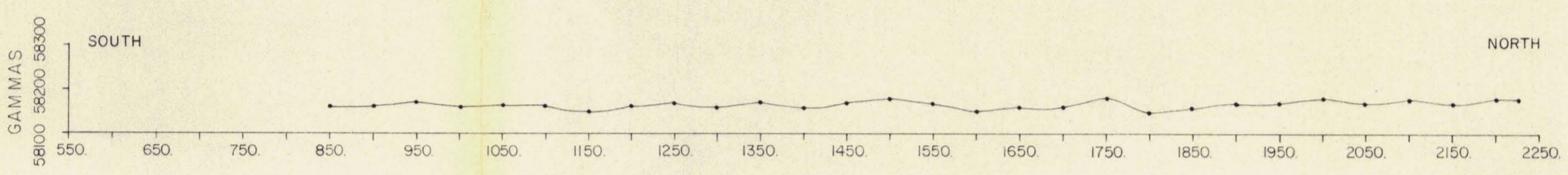
Certification

I, Alan R. Scott, of 4013 W. 14th Avenue, Vancouver, B.C., am employed as a professional geophysicist by Anaconda Canada Exploration Ltd. and have knowledge of the work performed and costs incurred per this report. I further attest that:

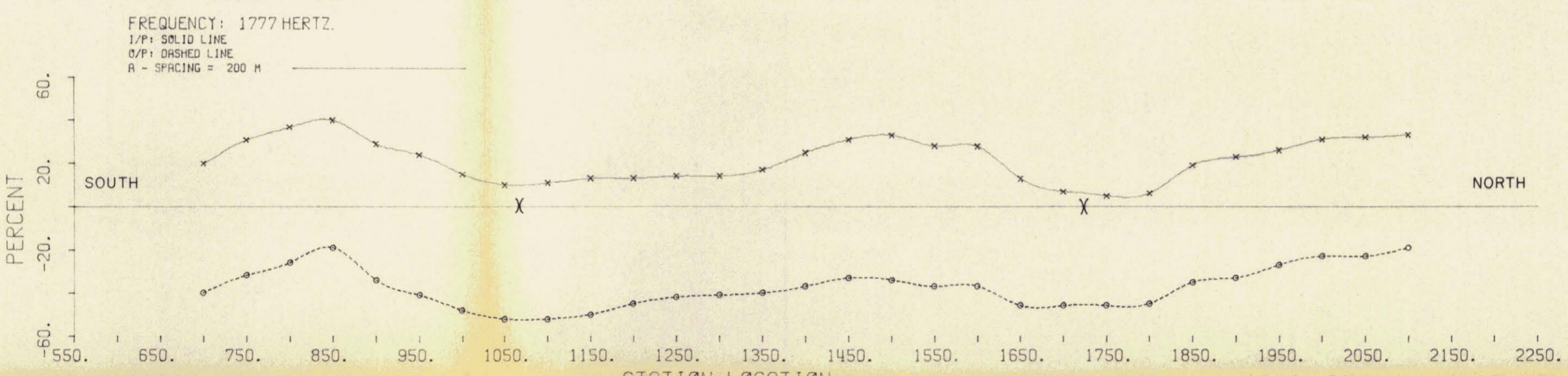
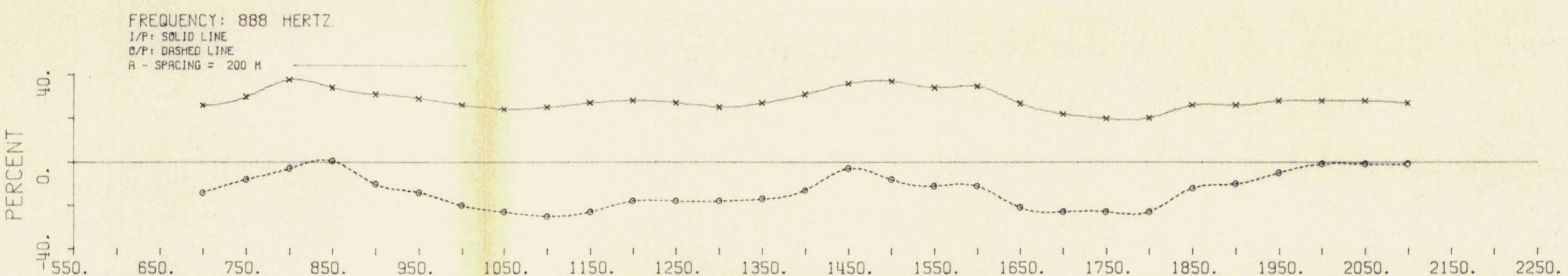
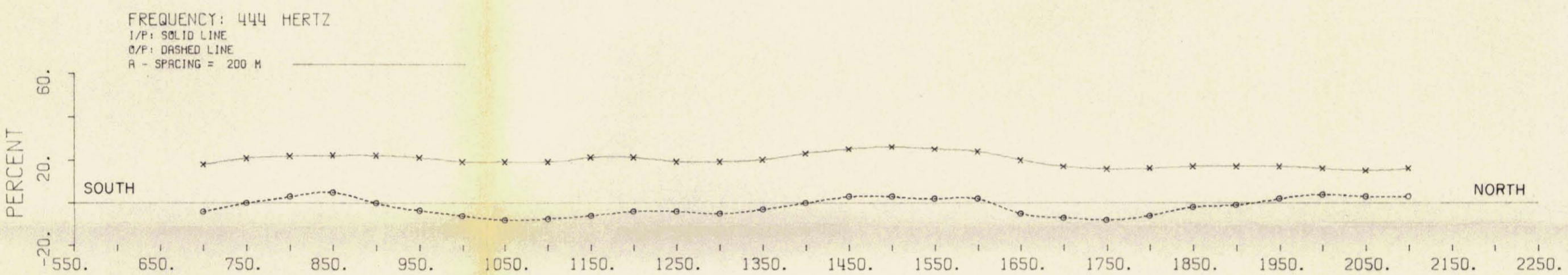
1. I graduated with a B.Sc. (geophysics) from the University of B.C. in 1970.
2. That I am a member of the Society of Exploration Geophysicists, and of the Association of Professional Engineers, Geologists, and Geophysicists of the Province of Saskatchewan.
3. That I have been practicing my profession for the past twelve years.

Alan R. Scott
P. Geophysicist

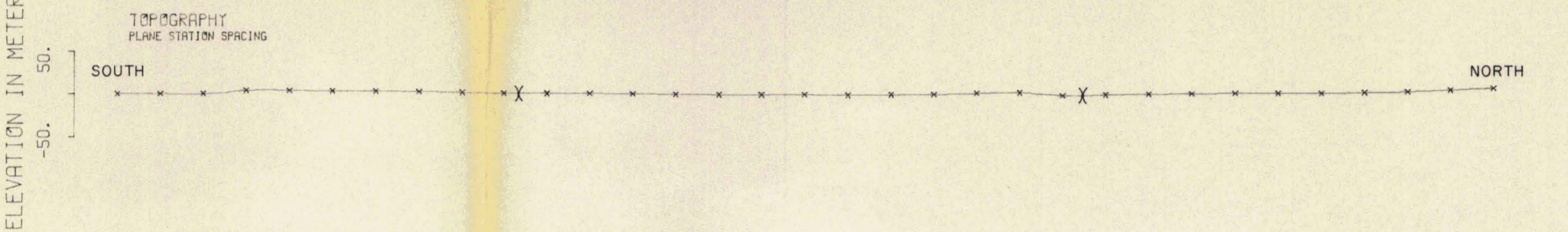
MAGNETOMETER



HORIZONTAL LOOP - EM



SELWYN PROJECT -- LINE CLARE 9 WEST



LEGEND
— X — HLEM Conductor (O/P - 1777 Hz)

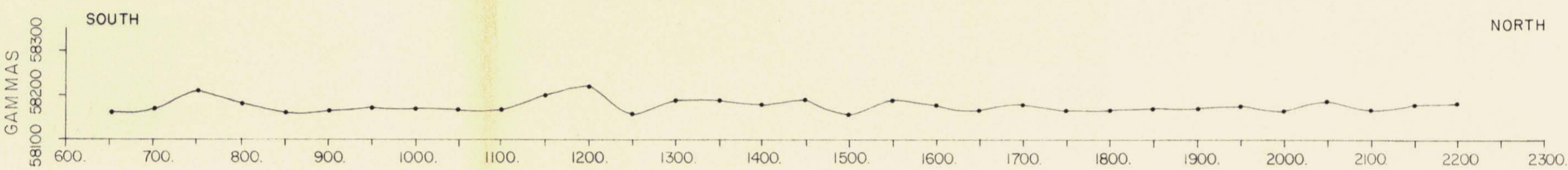
[Signature] 091032

ANACONDA Canada Exploration Ltd. ▲

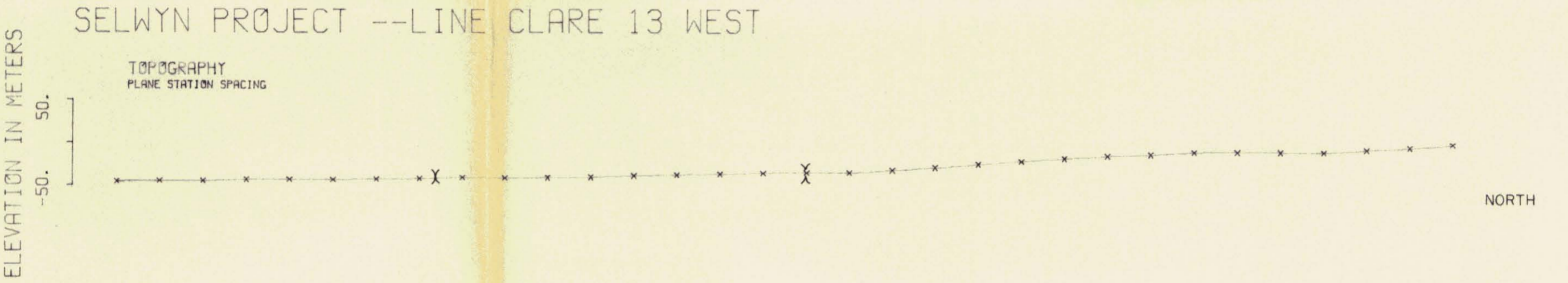
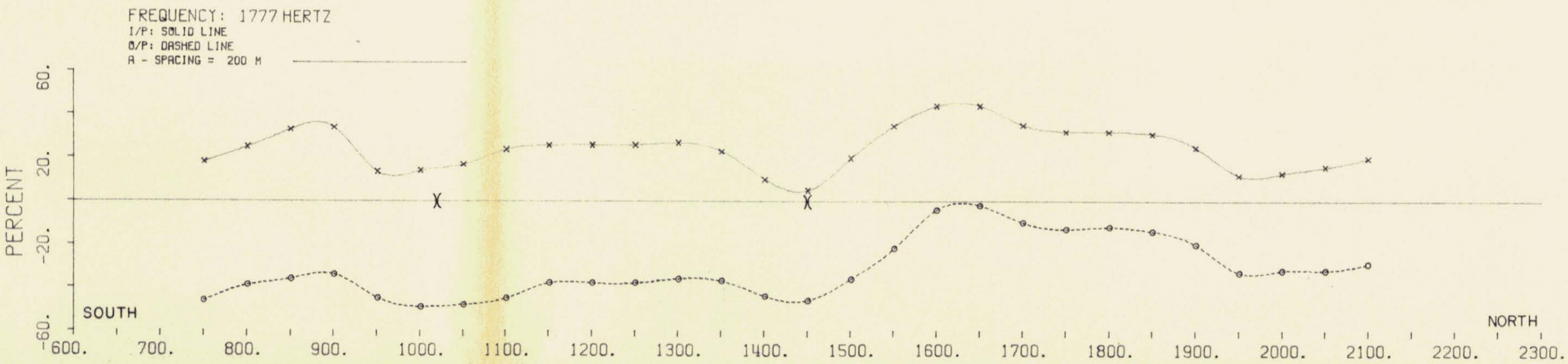
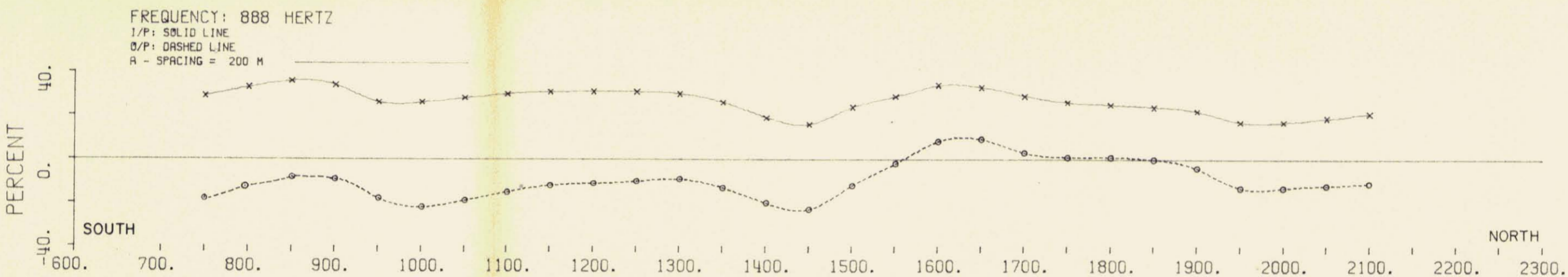
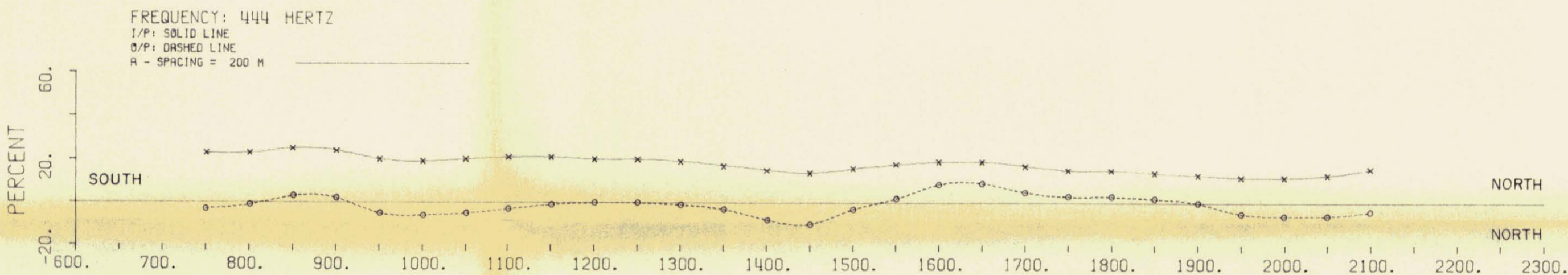
SELWYN PROJECT
GEOPHYSICAL SURVEY PROFILES
CLARE CLAIMS
LINE CLARE 9W

geology by:	drawn by: H. H.	date: APR 1982
scale: 1:5000	n.t.s. 105 L-15	drawing no. 3 of 4

MAGNETOMETER



HORIZONTAL LOOP - EM



LEGEND

HLEM Conductor (O/P - 1777 Hz)

Handwritten signature 091032

ANACONDA Canada Exploration Ltd. ▲

SELWYN PROJECT
GEOPHYSICAL SURVEY PROFILES
CLARE CLAIMS
LINE CLARE-13W

geology by:	drawn by: H.H.	date: APR. 1982
scale: 1:5000	n.t.s. 105 L-15	drawing no. 4 of 4