

COMINCO LTD.

EXPLORATION

WESTERN DISTRICT

NTS: 92P-2

19 June 1981

G E O P H Y S I C A L R E P O R T

ON

I N D U C E D P O L A R I Z A T I O N A N D M A G N E T I C S S U R V E Y

G A L A P R O P E R T Y

Vidette Lake Area; ^{Clinton}~~Kamloops~~ Mining Division

L A T I T U D E : 51°10'N

L O N G I T U D E : 120°54'W

| | |
|-------------|--|
| MI. | |
| 9223 | |
| NO. | |

Field Work Performed: May 11-16, 1981

On Claims: GALA 1

REPORT BY:

ALAN R. SCOTT

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EXPLORATION
NTS: 92P-2

COMINCO LTD.

WESTERN DISTRICT
19 June 1981

GEOPHYSICAL REPORT

ON

INDUCED POLARIZATION AND MAGNETICS SURVEY

G A L A P R O P E R T Y

Vidette Lake Area; ^{Clinton} Kamloops Mining Division

INTRODUCTION

During the period May 11 to 16, 1981, a Cominco geophysical crew completed an induced polarization/magnetometer survey over portions of the GALA property. The survey was of a reconnaissance nature and consisted of three widely spaced (400 meters) lines across the central portion of the claims group.

The GALA property is located immediately north and east of Vidette Lake. Road access is via the Deadman Creek Road, which turns northerly from Highway #1 some 30 kms east of Cache Creek. The property is some 56 kms by road from the highway turnoff.

This report describes the procedures used on the surveys, presents the data, and briefly discusses the results.

GEOPHYSICAL SURVEYS

Induced Polarization

A Huntec M4 LOPO induced polarization transmitter in combination with two Scintrex IPR-8 receivers were used on the GALA survey. One receiver operator read the first two separations (n=1 and 2) and the other the third separation.

Readings were taken in the time domain using a 2 second on/2 second off alternating square wave signal. The chargeability values plotted are those for the M₂₃₂ window of from 650-1170 milliseconds following cessation of the current pulse. Units of chargeability (IP) response for the IPR-8 receiver are millivolts per volt.

A pole dipole electrode array was used on the survey with an "a" spacing of 50 meters and "n" separations of 1,2, and 3. The current electrode was kept to the west of the receiving dipole on all survey lines.

The apparent resistivity values are given in units of ohm meters and were calculated from the relation:-

$$\text{apparent resistivity} = (V/I) \cdot K$$

where V is the voltage across the measuring electrode pair during the current (I) on period and K is a geometric factor that is constant for a given "a" and "n".





Magnetics

A Scintrex MP-2 total field proton precession magnetometer was used for the magnetics survey. Corrections for diurnal drift were made by reference to a Scintrex MBS-2 base station magnetometer.

DISCUSSION OF RESULTS

The chargeability (IP) and apparent resistivity results are presented in pseudo section format on accompanying plates 208-81-5 to 7. The magnetic field values are plotted in profile form on the sections. The n=1 chargeability and resistivity values are also presented in contour plan form on plates 3 and 4 respectively.

IP anomalies have been categorized on the pseudosections in the following manner:

| | | |
|---|------------------|---|
|  | strong IP high | (>40 $\frac{mV}{V}$ at near separations) |
|  | moderate IP high | (20-40 $\frac{mV}{V}$ at near separations) |
|  | weak IP high | (10-20 $\frac{mV}{V}$ at near separations) |
|  | | (>10 $\frac{mV}{V}$ at further separations) |


The larger portion of the area surveyed has above background chargeability response. The greater than 20 $\frac{mV}{V}$ response areas are indicated by the stippled pattern on the plan.

CONCLUSIONS

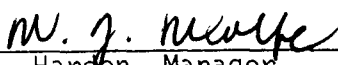
During the early summer of 1981, three widely spaced lines of multi-separation time domain IP and magnetics were surveyed on portions of the GALA claims. The work revealed that most of the survey area is underlain by lithologies giving above background chargeability response, and contains centers of moderate to strong response.

Correlation of these results to geology and geochemistry is required to determine if further work is warranted. Should such an evaluation be encouraging, fill in IP lines and extension of the grid to determine their extent is recommended prior to any target testing.

Respectfully
Submitted:


Alan R. Scott
Geophysicist

Approved for
Release by:

 for
G. Harden, Manager
Exploration,
Western District

ARS/skg

Distribution

Mining Recorder (2)
Western District (1)
Geophysics File (1)

APPENDIX I

IN THE MATTER OF THE B.C. MINERAL ACT
AND IN THE MATTER OF A GEOPHYSICAL PROGRAMME
CARRIED OUT ON PORTIONS OF THE GALA MINERAL CLAIMS
ON THE GALA PROPERTY
LOCATED EAST OF VIDETTE LAKE IN THE ^{Clinton} ~~KAMLOOPS~~ MINING DIVISION
OF THE PROVINCE OF BRITISH COLUMBIA, MORE PARTICULARLY
N.T.S.: 92P-2

S T A T E M E N T

I, Alan R. Scott, of the City of Vancouver, in the Province of British Columbia, make oath and say:-

1. THAT I am employed as a geophysicist by Cominco Ltd., and, as such, have a personal knowledge of the facts to which I herinafter depose;
2. THAT the annexed hereto and marked as "Appendix II" to this statement is a true copy of expenditures incurred on geophysical survey on the GALA Property;
3. THAT the said expenditures were incurred for the purpose of mineral exploration of the above noted claims between the 11th day and 16th day of May, 1981.

Signed: _____
Alan R. Scott, Geophysicist

19 June 1981

APPENDIX II

STATEMENT OF EXPENDITURES

GALA PROPERTY

(Induced Polarization and Magnetometer Surveys)

1. SALARIES

| | | |
|--|---------------------------------------|-----------------|
| G. Nolan, Technician, | May 11-16, 1981; 6 days @ 110.00 = \$ | 660.00 |
| K. McKinnon, geophysicist in training | May 11-16, 1981; 6 days @ 110.00 = | 660.00 |
| J. Allen, helper | May 11-16, 1981; 6 days @ 93.30 = | 559.80 |
| C. Fredrette, helper | May 11-16, 1981; 6 days @ 93.30 = | 559.80 |
| M. Crosby, helper | May 11-16, 1981; 6 days @ 93.30 = | 559.80 |
| P. Evans, helper | May 11-16, 1981; 6 days @ 93.30 = | 559.80 |
| | | <u>3,559.20</u> |

2. EQUIPMENT RENTALS

Induced polarization and magnetometer survey system May 11-16 = \$1,092.00

3. CHARGES PER OPERATING DAY

| | | |
|---|------|------------|
| (towards drafting, report, supervision) | | |
| 4 days IP survey @ 225 | = \$ | 900.00 |
| 2 days mob/demob. | = | <u>N/C</u> |
| | | 900.00 |

4. MISCELLANEOUS EXPENSES

(rooms, meals, consumables) = \$2,231.17

TOTAL EXPENDITURES = \$7,782.37

APPENDIX III

C E R T I F I C A T I O N

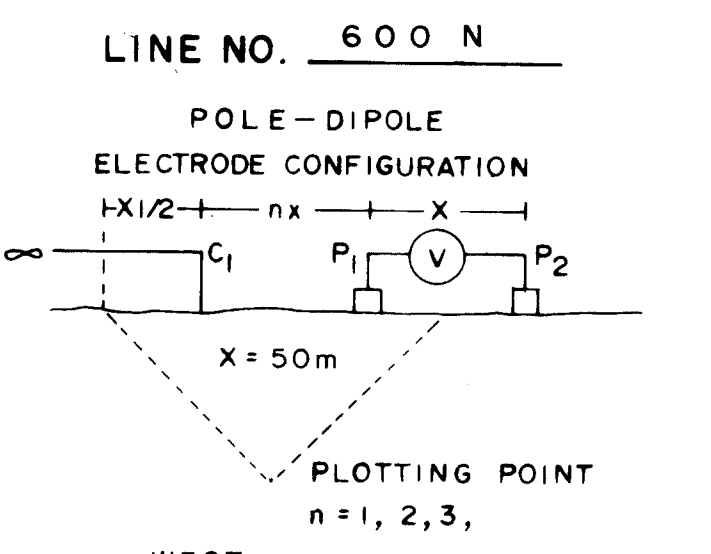
I, Alan R. Scott, of 4013 West 14th Avenue, in the City of Vancouver,
in the Province of British Columbia, do hereby certify:-

1. THAT I graduated from the University of British Columbia in 1970
with a B.Sc. in Geophysics;
2. THAT I am a member of the Association of Professional Engineers
of the Province of Saskatchewan, the Society of Exploration Geo-
physicists of America, and the British Columbia Geophysical Society;
3. THAT I have been practising my profession for the past eleven years.

Signed: Alan R. Scott, Geophysicist

19 June 1981

**COMINCO LTD.
GALA GROUP
CLINTON M.D., B.C.**



CURRENT ELECTRODE WEST OF POTENTIAL DIPOLE
CHARGEABILITY (IP) INTERPRETATION

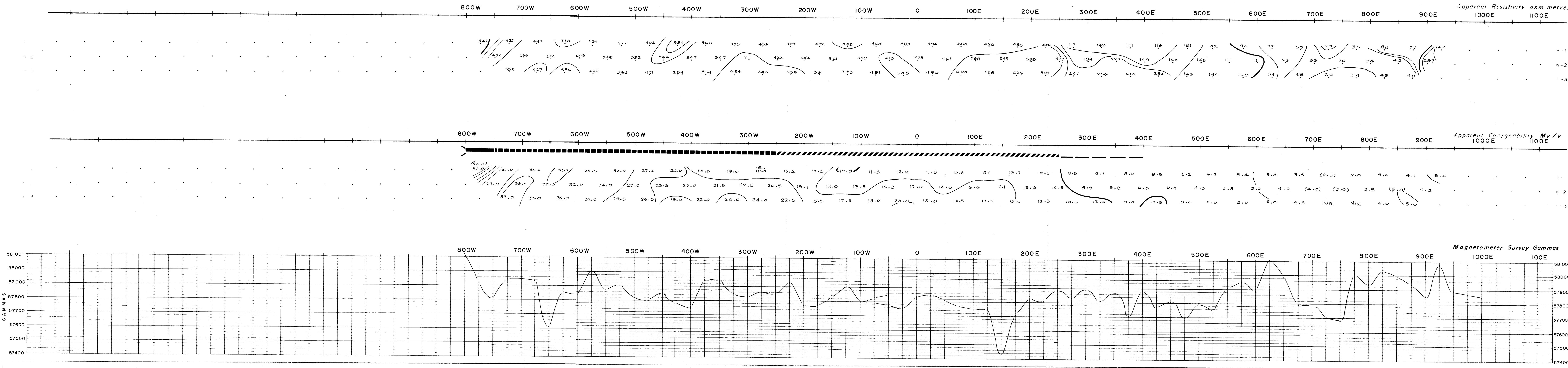
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- ▬ MODERATE CHARGEABILITY HIGH
- ▨ WEAK CHARGEABILITY HIGH
- IP HIGH AT FURTHER SEPARATIONS

DATE SURVEYED MAY 12, 13, 1981

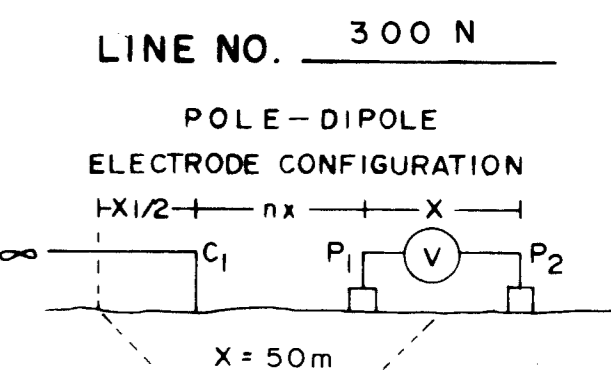
CONTOUR INTERVALS:
APP RES. — 1, 1.5, 2, 3, 5, 7.5, 10 ohm metres
APP CHARG. — 5.0 Mv/v

APPROVED BY: [Signature]
ASSIGNMENT REPORT
DATE: 9223
TRANSMITTER — HUNTEC M 4 LOPO
RECEIVER — IPR-8

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION



**COMINCO LTD.
GALA GROUP
CLINTON M.D., B.C.**



CURRENT ELECTRODE WEST OF POTENTIAL DIPOLE
CHARGEABILITY (IP) INTERPRETATION

- STRONG CHARGEABILITY HIGH
- ▬ MODERATE CHARGEABILITY HIGH
- ▨ WEAK CHARGEABILITY HIGH
- - - IP HIGH AT FURTHER SEPARATIONS

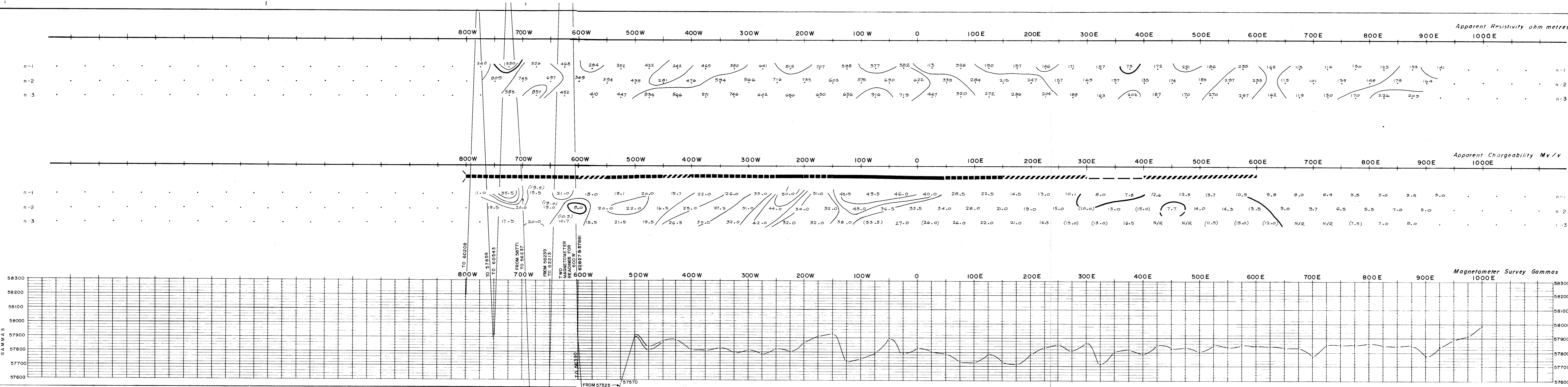
DATE SURVEYED MAY 15, 16, 1981

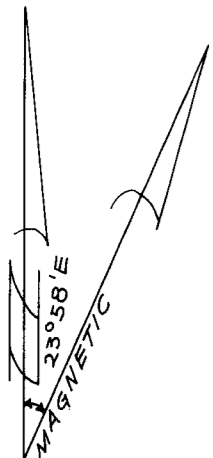
CONTOUR INTERVALS:
APP RES. — 1,1.5,2,3,5,7.5,10ohm metres
APP CHARG. — 5.0 Mv/v

APPROVED
MINERAL RESOURCES BRANCH
ASSESSMENT REPORT
DATE
9223

TRANSMITTER — HUNTEC M 4 LOPO
RECEIVER — IPR-8

INDUCED POLARIZATION AND RESISTIVITY SURVEY
SURVEYED BY COMINCO LTD., EXPLORATION DIVISION

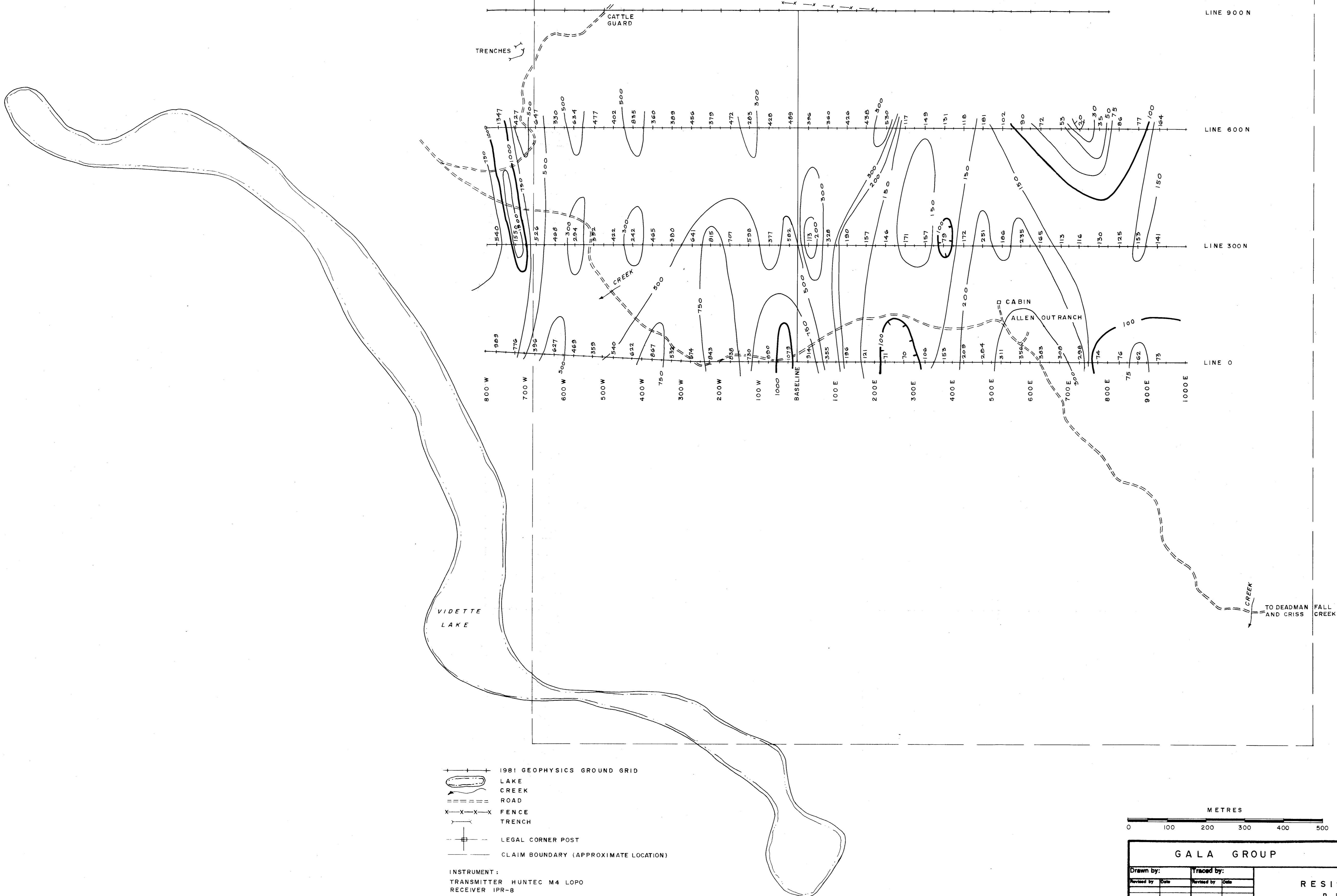




GALA 3
TAG 48824

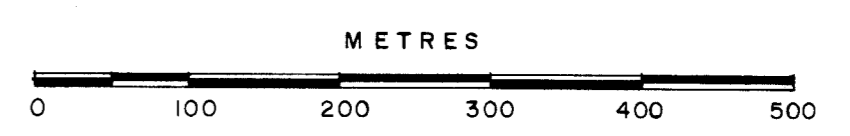
GALA 2
TAG 48823

GALA 1
TAG 48822



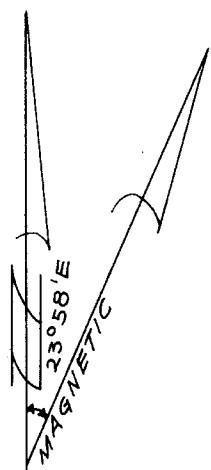
- 1981 GEOPHYSICS GROUND GRID
- LAKE
- CREEK
- ROAD
- FENCE
- TRENCH
- LEGAL CORNER POST
- CLAIM BOUNDARY (APPROXIMATE LOCATION)

INSTRUMENT:
TRANSMITTER HUNTEC M4 LOPO
RECEIVER IPR-8
CONTOUR INTERVAL 1, 1.5, 2, 3, 5, 7.5, 10



| | | |
|---------------|-------------|--|
| GALA GROUP | | NTS 92-P-2W |
| Drawn by: | Traced by: | RESISTIVITY n = 1 CLINTON M.D., B.C. |
| Revised by: | Revised by: | |
| | | |
| | | |
| Scale: 1:5000 | | Date: JUNE 1981 |
| | | Plate: 208-81-4 |

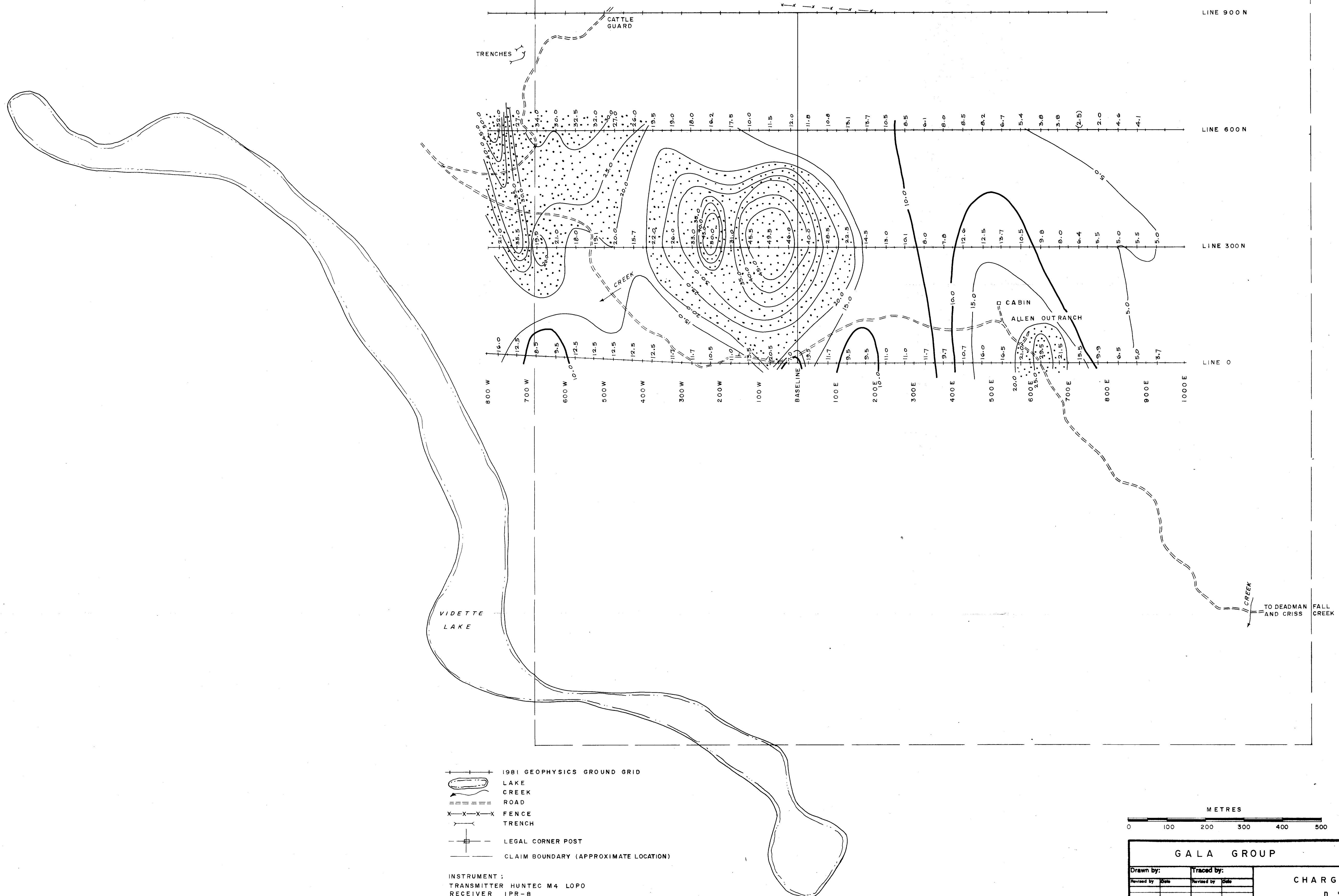
MINERAL RESOURCES BRANCH
APPROXIMATE RESISTIVITY
9223



GALA 3
TAG 48824

GALA 2
TAG 48823

GALA 1
TAG 48822



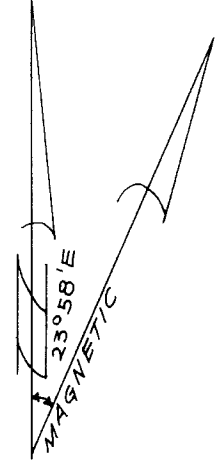
- 1981 GEOPHYSICS GROUND GRID
- LAKE
- CREEK
- ROAD
- FENCE
- TRENCH
- LEGAL CORNER POST
- CLAIM BOUNDARY (APPROXIMATE LOCATION)

INSTRUMENT:
TRANSMITTER HUNTEC M4 LOPD
RECEIVER IPR-8
CONTOUR INTERVAL 5.0 Mv/V
 > 20 Mv/V



| | | | | |
|-------------------|------------|-------------|-------|--|
| GALA GROUP | | | | NTS 92-P-2W |
| Drawn by: | Traced by: | | | CHARGEABILITY n = 1 CLINTON M.D., B.C. |
| Revised by: | Date: | Revised by: | Date: | |
| | | | | Scale: 1:5000 |
| | | | | Date: JUNE 1981 |
| | | | | Plate: 208-81-3 |

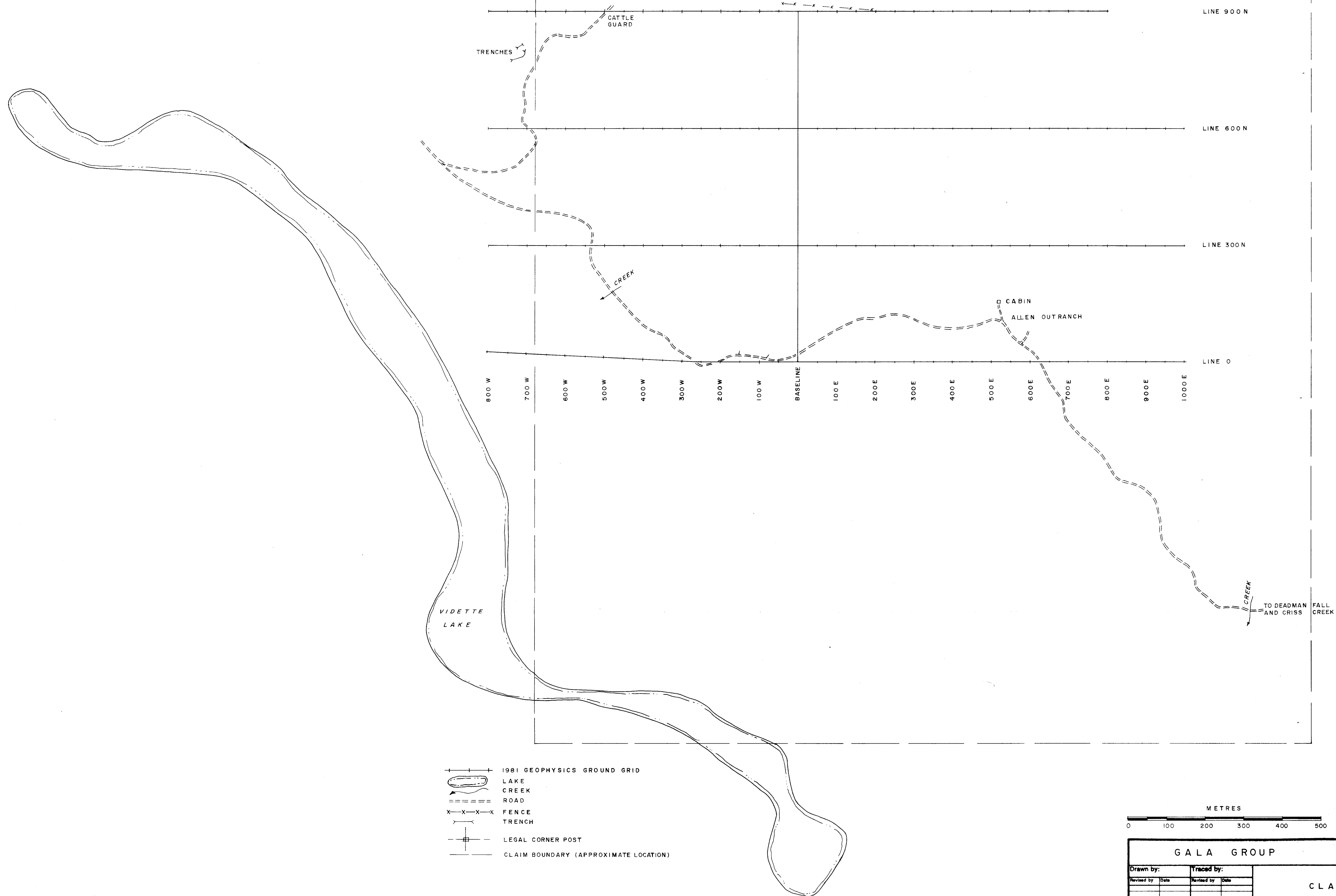
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GALA 3
TAG 48824

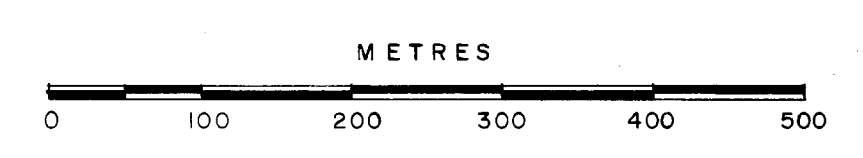
GALA 2
TAG 48823

GALA 1
TAG 48822



MINERAL SERVICES BRANCH
ASSESSMENT REPORT

9223



| | | | | | |
|-------------|-------|-------------|-------|---|--|
| GALA GROUP | | | | NTS 92-P-24 | |
| Drawn by: | | Traced by: | | CLAIM MAP CLINTON M.D., B.C. Scale: 1:5000 Date: JUNE 1981 Plate: 208-81-2 | |
| Revised by: | Date: | Revised by: | Date: | | |
| | | | | | |
| | | | | | |