AN ASSESSMENT REPORT ON AN INDUCED POLARIZATION SURVEY ON THE PEACH LAKE PROPERTY CLINTON MINING DIVISION BRITISH COLUMBIA

LATITUDE 51°58'NORTH

LONGITUDE 121°22'WEST

NTS 92P/14W

FOR

ASARCO EXPLORATION COMPANY OF CANADA LIMITED

BY

John Lloyd, M.Sc., P.Eng.

and

S. John A. Cornock, B.Sc.

LLOYD GEOPHYSICS INC.

VANCOUVER, BRITISH COLUMBIA

OCTOBER, 1991

Lloyd Geophysics

SUMMARY

From August 13, to September 2, 1991, Lloyd Geophysics Inc. conducted an Induced Polarization (IP) survey on the PEACH LAKE PROPERTY near Lac La Hache, British Columbia for Asarco Exploration Company of Canada Limited.

Four zones showing an anomalous IP response were detected with 3 of them tested by percussion drilling. An additional 400 metres of drilling over 4 holes is recommended to complete the testing of these anomalies.

Additional IP surveying is also suggested for the area north of Zone 4 from lines 200W to 1200W to close off this anomaly.

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APPENDICES

1.0 INTRODUCTION

From August 13, 1991 to September 2, 1991 Lloyd Geophysics Inc. conducted an Induced Polarization (IP) survey on the Peach Lake property near Lac La Hache, British Columbia for Asarco Exploration Company of Canada Limited.

2.0 PROPERTY LOCATION AND ACCESS

The Peach Lake property is located at 51°58'North latitude and 121°22'West longitude in the Clinton Mining Division, NTS 92P/14W (see Figure 1). Access to the property is via the Murphy Lake Road from Lac La Hache, British Columbia for approximately 23 kilometres north and then east along a secondary road for close to 9 kilometres.

3.0 PROPERTY STATUS AND CLAIM HOLDINGS

The Peach Lake Property consists of 6 mineral claims - DORA MC, DORA 1, CLUB 15, PEEWEE 1, PEEWEE 2 and PEEWEE 3 (see Figure 2).

4.0 GEOLOGY

4.1 Regional Geology

The region around the Peach Lake property consists of Triassic age clastic, pyroxene-bearing

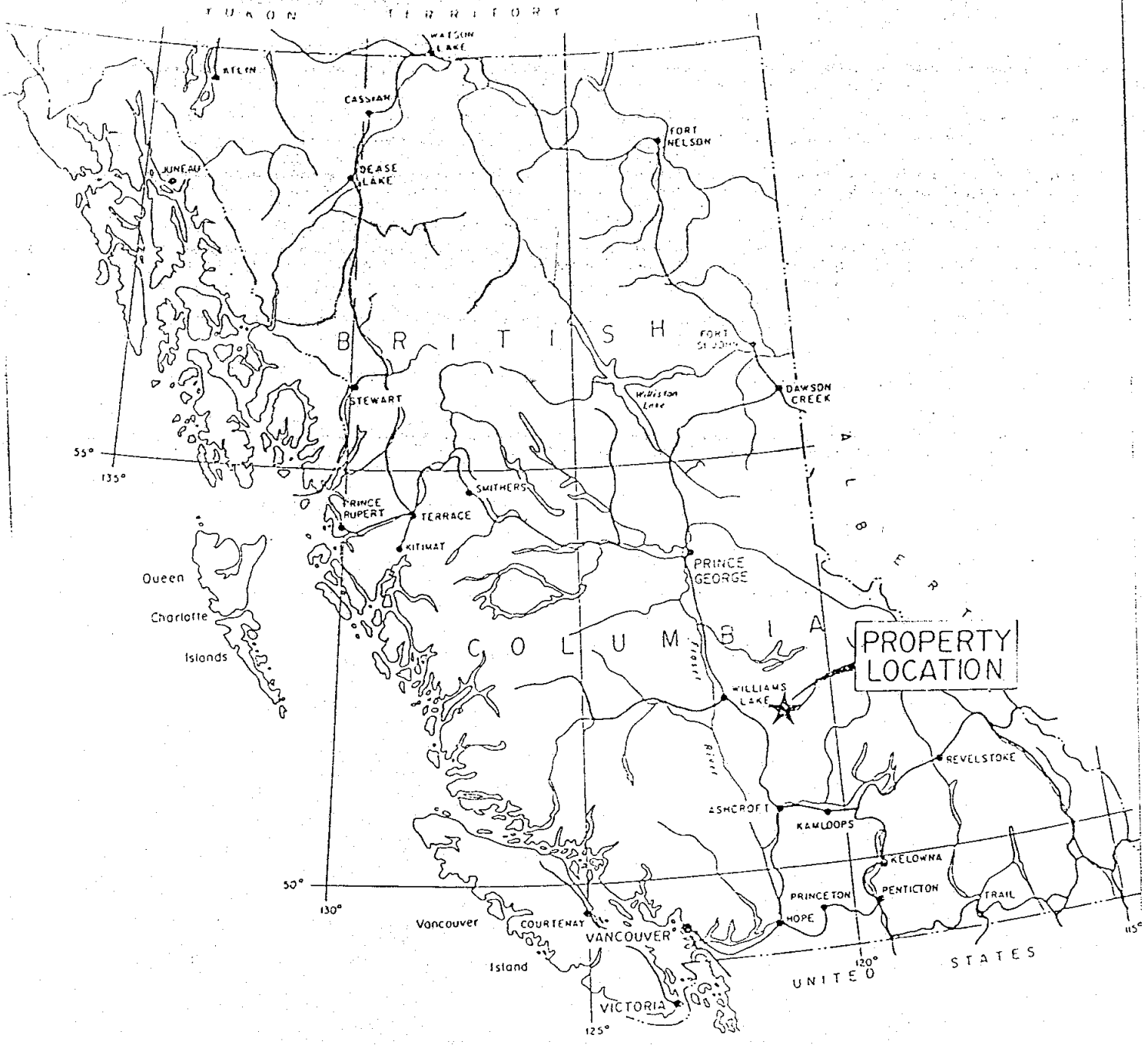


Figure 1

ASARCO EXPLORATION COMPANY OF CANADA LIMITED

PROPERTY LOCATION MAP

PEACH LAKE PROPERTY

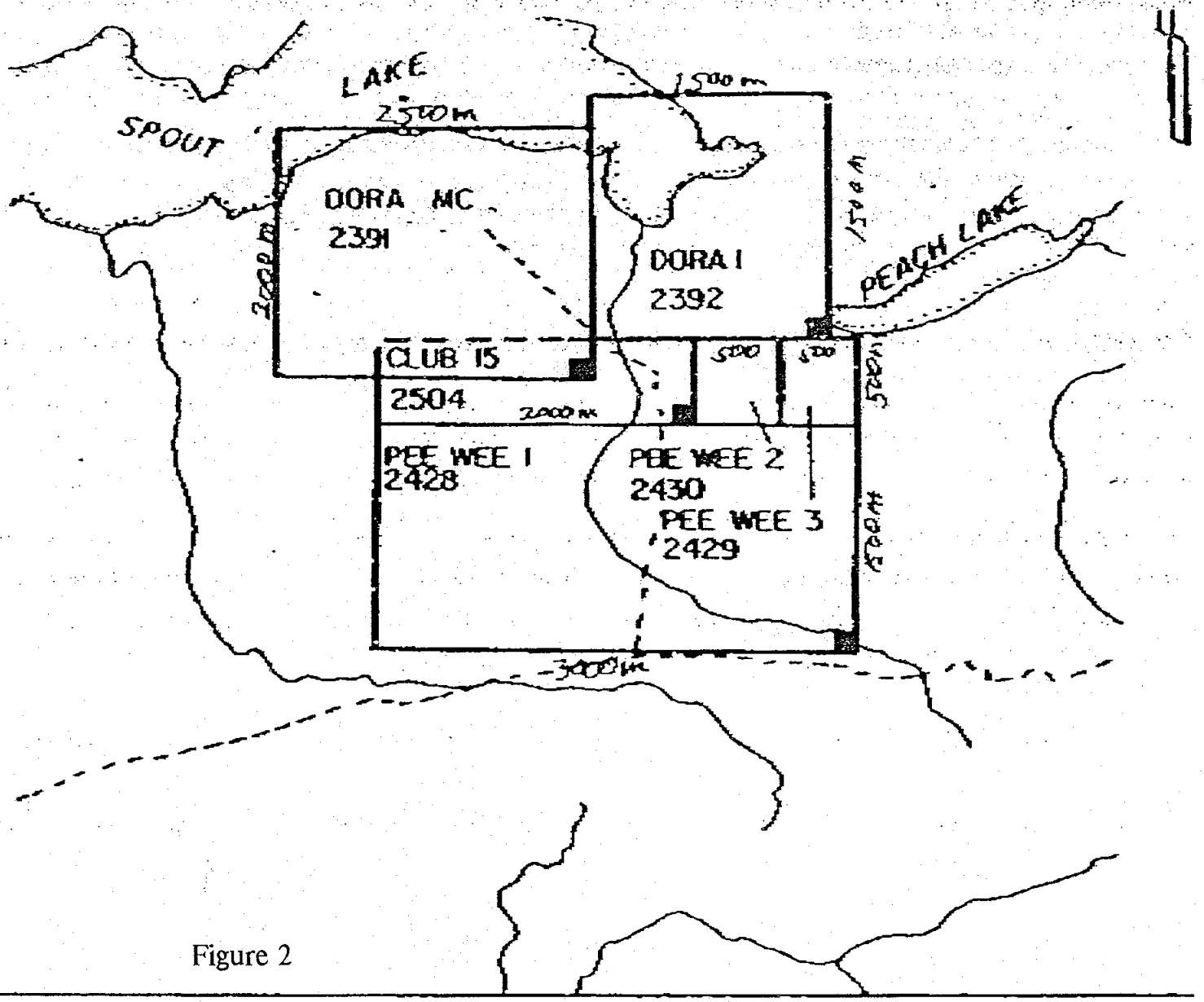

LAKE
SPOUT
2500m
500m
DORA MC
2391
DORA I
2392
PEACH LAKE
CLUB 15
2504
2000m
PEE WEE 1
2428
PEE WEE 2
2430
PEE WEE 3
2429
3000m

Figure 2

porphyritic andesites and breccias of the Nicola Group which have been intruded by a complex plutonic assemblage. This assemblage extends from Peach Lake east to Takomkane Mountain (Campbell, 1961; Campbell and Tipper, 1966). A magnetic high about 8 kilometres in diameter to the south of Peach and Spout Lakes depicts a syenite boss which makes up the westernmost part of the assemblage. Intense metamorphism and metasomatism has been noted near the intrusive contact. Intrusions of fine syenodiorite are present in the Nicola rocks implying a possible contact facies of the main pluton or the syenite boss. Tangent to the eastern rim of the magnetic high is a linear magnetic low which strikes 170°. This low corresponds locally with sheared rocks and probably denotes a major shear zone. Overlaying these rocks, mainly to the west, are Miocene plateau basalt flows.

4.2 Local Geology

The Peach Lake property is underlain primarily by rocks of the Nicola Group. However, Miocene plateau basalts and syenodiorite intrusions are also present to the east.

The Nicola rocks to the east are, upon closer inspection, actually tuff breccias with dark grey-green clasts varying in size from 2 to 8 centimetres. Farther to the west, the rocks range from laminated green and black feldspathic tuffs, greywackes, argillites to silicified limestone all of probable marine origin.

The syenodiorite is a medium-grey rock with a few larger pyroxene crystals scattered randomly throughout. Foliation is common and is oriented by plagioclase laths. Associated with the syenodiorite are small dykes of syenite which intrude into the volcanic rocks and are truncated by the syenodiorite. Small aplitic dykes also occur, both in the syenodiorite and elsewhere.

Metamorphism, Metasomatism and Alteration

A contact aureole was formed when the syenodiorite intruded the volcanic rocks. Kaolinization and incipient growth of epidote is also present, indicating metasomatic alteration.

Alteration occurs in areas where fragments of breccia are replaced with potassium feldspar and some carbonates. This results in the rock being given a pinkish hue. The volcanic rocks are composed of pyroxene crystals set in a granulitic matrix of plagioclase, potassium feldspar, biotite, epidote and minor quartz. However, in the areas of intense alteration, the pyroxene crystals are destroyed to become granoblastic in texture dominated by irregular epidote and actinolite crystals with minor calcite and quartz.

Alteration of the syenodiorite is not intense and is mainly associated with the aplitic dykes and mineralization. Red alteration of the potassium feldspar and plagioclase is common.

Mineralization

Chalcopyrite is the only primary ore mineral of importance. Pyrite and magnetite are also present but very sparse. The chalcopyrite is associated with amphibole, potassium feldspar, tourmaline, aplitic syenite dykes and in dry fractures.

The Peach Lake property strongly resembles to the Cariboo Bell property near Williams Lake in terms of the rock units and their composition. However, brecciation and alteration are not as intense at Peach Lake as at the Cariboo Bell.

5.0 INSTRUMENT SPECIFICATIONS

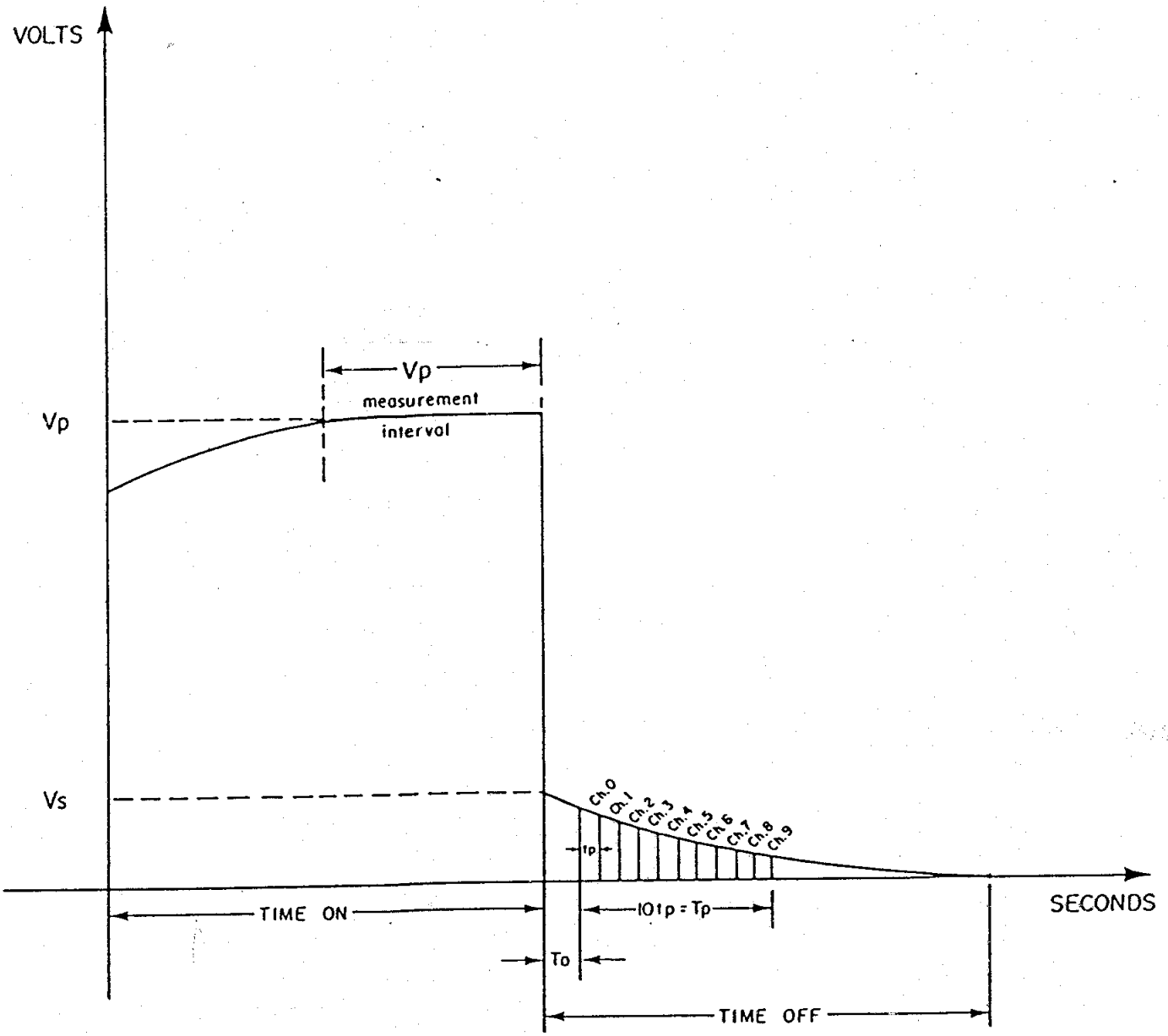
The equipment used to carry out this survey was a time domain measuring system consisting of a Wagner Leland/Onan motor generator set and a Mark II transmitter manufactured by Huntec Limited, Toronto, Canada and a 6 channel IP-6 receiver manufactured by BRGM Instruments, Orleans, France.

The Wagner Leland/Onan motor generator supplies in excess of 7.5 kilowatts of 3 phase power to the ground at 400 hertz via the Mark II transmitter.

The transmitter was operated with a cycle time of 8 seconds and the duty cycle ratio: [(time on)/(time on + time off)] was 0.5. This means the cycling sequence of the transmitter was 2 seconds current "on" and 2 seconds current "off" with consecutive pulses reversed in polarity.

The IP-6 receiver can read up to 6 dipoles simultaneously. It is microprocessor controlled, featuring automatic calibration, gain setting, SP cancellation and fault diagnosis. To accommodate a wide range of geological conditions, the delay time, the window widths and hence the total integration time is programmable via the keypad. Measurements are calculated automatically every 2 to 4 seconds from the averaged waveform which is accumulated in memory.

The window widths of the IP-6 receiver can be programmed arithmetically or logarithmically. For this particular survey the instrument was programmed arithmetically into 10 equal window widths or channels, Ch_0, Ch_1, Ch_2, Ch_3, Ch_4, Ch_5, Ch_6, Ch_7, Ch_8, Ch_9 (see Figure 2). These may be recorded individually and summed up automatically to obtain the total chargeability. Similarly the resistivity (ϱ_a) in ohm-metres is also calculated automatically.The instrument parameters chosen for this survey were as follows:



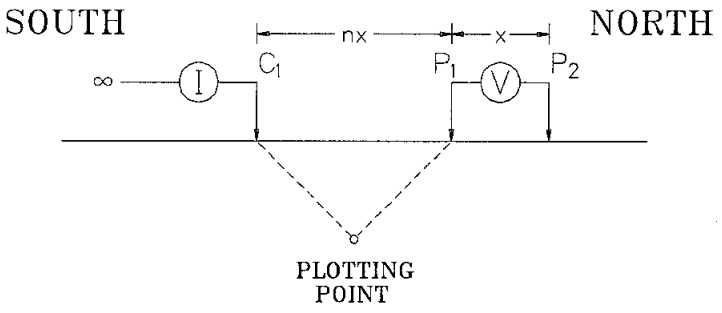
BRGM IP-6 RECEIVER PARAMETERS
Figure 3

Cycle Time (T_c)	= 8 seconds
Ratio $\frac{\text{(Time On)}}{\text{(Time Off)}}$	= 1:1
Duty Cycle Ratio $\frac{\text{(Time On)}}{\text{(Time On)}+\text{(Time Off)}}$	= 0.5
Delay Time (T_D)	= 120 milliseconds
Window Width (t_p)	= 90 milliseconds
Total Integrating Time (T_p)	= 900 milliseconds

6.0 SURVEY SPECIFICATIONS

The IP survey was accomplished using a POLE-DIPOLE array with the current electrode, C_1 SOUTH of the potential dipole (P_1P_2) as shown below:

POLE-DIPOLE ARRAY



x = 50 metres n = 1, 2, 3 and 4

Measurements were taken for x = 50 metres and n = 1, 2, 3 and 4 on lines 200 metres apart. The dipole length (x) is the distance between P_1 and P_2 and determines mainly the sensitivity of the array. The electrode separation (nx) is the distance between C_1 and P_1 and determines mainly the depth of penetration of the array.

7.0 DATA PROCESSING

The data collected was processed in the field at the end of each survey day using a portable computer/printer system. Pseudo-sections were plotted regularly for a review of anomalies, to check data integrity and for inspection by the client. These pseudo-sections were plotted, contoured and printed using in-house software based on the mathematical solution known as kriging.

In the office the data was transferred to mylar using a Compaq 386 computer coupled to a Hewlett Packard Draftsmaster II plotter for preparation of sections and contour maps.

8.0 DATA PRESENTATION

The data gathered from the IP survey described in this report is presented on 14 pseudo-sections, 2 Contour Maps and 1 Local Geology Interpretation Map as follows:

Pseudo-Sections

Line No.	Dwg. No.	Line No.	Dwg. No.
2800W	91325-1	1400W	91325-8
2600W	91325-2	1200W	91325-9
2400W	91325-3	1000W	91325-10
2200W	91325-4	800W	91325-11
2000W	91325-5	600W	91325-12
1800W	91325-6	400W	91325-13
1600W	91325-7	200W	91325-14

Plan Maps

Chargeability 10 Point Triangular Filter	91325-15
Resistivity 10 Point Triangular Filter	91325-16
*Geology Interpretation Map	91325-17

*Geological Interpretation based on writers' interpretation of geophysical data, drill hole information, geological reports and verbal discussions with Mr. Tom Horning of Asarco Exploration Company Limited (Spokane).

9.0 DISCUSSION OF RESULTS

In 1966, the area now known as the Peach Lake property was first discovered as a potential deposit using reconnaissance geochemistry. Since that time the area has been mapped and

prospected extensively to try to determine its areal extent.

From April to September 1967 an airborne magnetic survey was conducted by Lockwood Survey Corporation Ltd. and published by the Department of Energy, Mines and Resources, Ottawa.

In the early 1970's a small reconnaissance IP survey was carried out along the shore of Spout Lake and resulted in the detection of some anomalies.

Lloyd Geophysics Inc. has now completed the 1991 IP survey south of the original IP grid and is the topic now to be discussed in further detail.

A qualitative analysis has been made of the pseudo-sections which accompany this report. These pseudo-sections are not sections of the electrical properties of the subsurface strata and cannot be treated as such when determining the depth, width, thickness of a zone which produces an anomalous pattern.

An IP response depends largely on the following factors:

1. The volume content of sulphide minerals
2. The number of pore paths that are blocked by sulphide grains
3. The number of sulphide faces that are available for polarization
4. The absolute size and shape of the sulphide grains and the relationship of their size and shape to the size and shape of the available pore paths
5. The presence of magnetite, graphite, clay minerals and variably altered rocks
6. The electrode array employed

7. The width, depth, thickness and strike length of the mineralized body and its location relative to the array

8. The resistivity contrast between the mineralized body and the unmineralized host rock

Taking these factors into account, IP is an excellent exploration tool to use on the Peach Lake property to localize mineralized dykes and fractures similar to those found at the Cariboo Bell.

The anomalies selected from the analysis of the data are shown on the individual pseudo-sections and are classified into 4 groups. These are definite, probable and possible and anomalies which have a deeper source.

This classification is based partly on the relative amplitudes of the chargeability and on the resistivity response which is a very helpful parameter to use in this geologic scenario with respect to interpretation. The IP signatures, particularly the resistivity provided good line to line correlation of responses enabling the writer to produce a geologic interpretation map based on the geophysical data, drill hole information, geologic reports and from communication with Mr. Tom Horning.

The IP detected 4 main zones of anomalous response over the grid area (see Dwg. No.91325-15)

Zone 1

Percussion drill hole P91-01, the only drill hole in this zone, encountered nothing more than pyritic, black, carbonaceous argillite. Other rocks noted in the area in outcrop include

greywackes, silicified limestone and other sediments. Analysis of the pseudo-sections has allowed the areal extent of these various units to be determined (See Dwg. No. 91325-17).

It is the writers' interpretation that this zone is part of a sequence of interbedded sedimentary units from an island-arc (?) or marine basin (?) with little or no metamorphic or metasomatic alteration having taken place. No further exploration dy drilling is recommended here.

Zone 2

This anomaly, centered on 2200N/1600N depicts an area known to be associated with hydrothermal metamorphism and metasomatism (skarn). The anomalous zone covers an area approximately 200 by 300 metres with chargeabilities only 5 or 6 milliseconds above background (3 msec).

This is a weak anomaly that has small areal extent. However since chalcopyrite is a common mineral associated with hydrothermal and metasomatic veining, drilling of this target is recommended.

Zone 3

Information from percussion drill hole P91-02 shows Zone 3 (see Dwg. No. 91325-17) to be basaltic crystal tuffs indicating further a marine environment. Based on these facts, this zone is not worthy of further exploration.

Zone 4

Of the 4 zones, this one shows the best potential for containing significant sulphide mineralization. Open to the north and east, this zone only occupies a small region in the northeast corner of the grid.

Outcrops of syenodiorite near line 200W (Mines and Petroleum Assessment Report, 1968) were detected by the IP and their signatures correlated across the grid (see Dwg. No. 91325-17). Percussion drill holes P91-03 and P91-04 are north of these intrusive zones thus drilling is recommended between 1300N and 1700N on lines 200W and 400W. Additional detailed IP coverage should also be considered to the north in an attempt to localize more of these targets.

10.0 CONCLUSIONS AND RECOMMENDATIONS

From a study of the IP data described in this report, additional exploration by drilling is warranted on Zones 2 and 4 only. Initially, 400 metres of drilling over 4 holes is recommended as follows:

Hole No.	Zone	Location	Attitude	Depth
1	4	L400W 1375N	-90°	100 m
2	4	L400W 1650N	-90°	100 m
3	4	L200W 1500N	-90°	100 m
4	2	L2400W 1550N	-90°	100 m

Finally, additional detailed IP coverage should be made to the north of the grid from lines 200W to 1200W in an attempt to localize similar intrusives.

Respectfully Submitted,
LLOYD GEOPHYSICS INC.

John Lloyd, M.Sc., P.Eng.
Geophysicist

S. John A. Cornock, B.Sc.
Geophysicist

(A)

PERSONNEL EMPLOYED ON SURVEY

Name	Occupation	Address	Dates
J Lloyd	Geophysicist	LLOYD GEOPHYSICS INC. 1503-1166 Alberni Street Vancouver, B.C. V6E 3Z3	Oct 25, 1991
J Cornock	Geophysicist	"	Aug 13-Sept 2/91 Oct 21-24/91
J Carver	Geophysical Technician	"	Aug 13-Sept 2/91
D. Collins	Geophysical Technician	"	Aug 13-28/91
A Lloyd	Geophysical Technician	"	Aug 29-Sept 2/91
C Bilquist	Helper	"	Aug 13-Sept 2/91
F VonHeyking	Helper	"	Aug 13-Sept 2/91

(B)

COST OF SURVEY AND REPORTING

Lloyd Geophysics Inc. contracted the IP data acquisition on a per diem basis. The mobilization/demobilization of a 5 man crew and equipment was at a fixed cost. Living and travelling expenses, truck charges, data processing, consumables and map reproduction and interpretation and report writing were additional costs. The breakdown of these costs was as follows:

IP Data Acquisition	$ 21,950.00
Mobilization/Demobilization	775.00
Living & Travelling Expenses	5,618.73
Truck Charges	1,648.40
Data Processing	300.00
Consumables and Map Reproduction	339.50
Interpretation and Report Writing	1,200.00
Sub-Total	$ 31,831.63
G.S.T.	2,228.21
TOTAL	$ 34,059.84

(C)

CERTIFICATION OF SENIOR AUTHOR

I, John Lloyd, of 1503-1166 Alberni Street, in the City of Vancouver, in the Province of British Columbia, do hereby certify that:

1. I graduated from the University of Liverpool, England in 1960 with a B.Sc. in Physics and Geology, Geophysics Option.

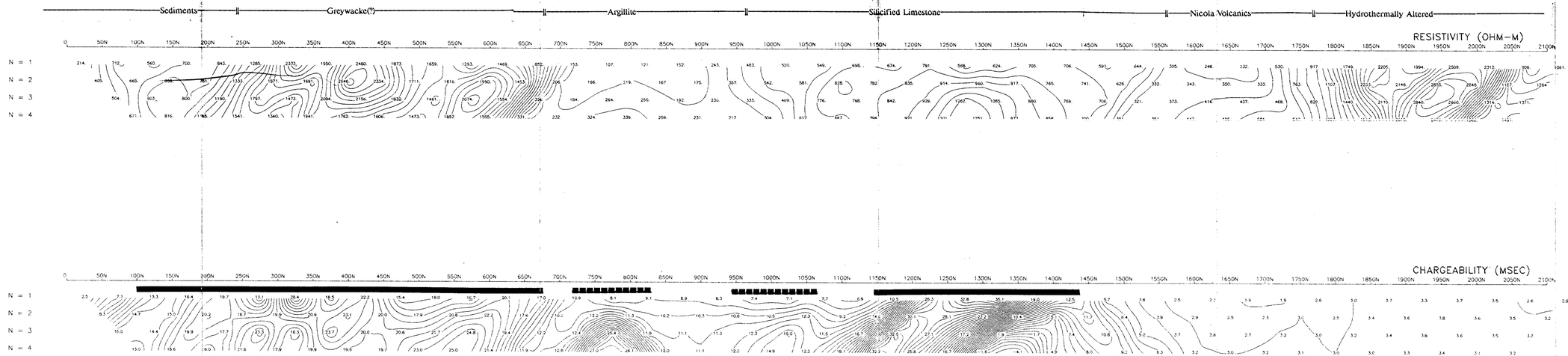
2. I obtained the diploma of the Imperial College of Science and Technology (D.I.C.), in Applied Geophysics from the Royal School of Mines, London University in 1961.

3. I obtained the degree of M.Sc. in Geophysics from the Royal School of Mines, London University in 1962.

4. I am a member in good standing of the Association of Professional Engineers in the Province of British Columbia, the Society of Exploration Geophysicists of America, the European Association of Exploration Geophysicists and the Canadian Institute of Mining and Metallurgy.

5. I have been practising my profession for over twenty-five years.

Vancouver, B.C.



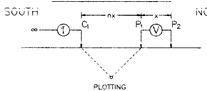
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 2800W

POLE-DIPOLE ARRAY



x = 50m n = 1 – 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

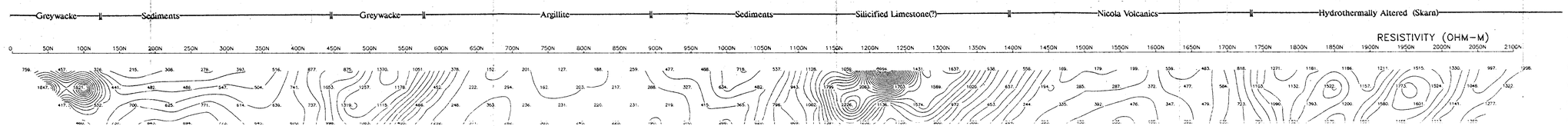
CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

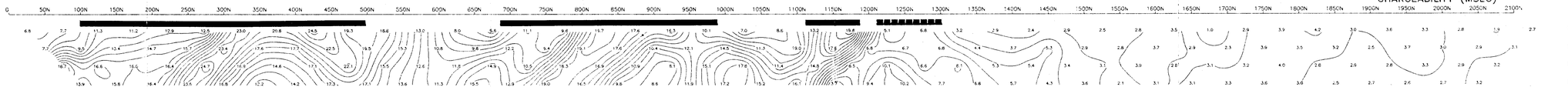
DATE SURVEYED: Aug.22, 1991
Tx. Huntec Mk2 Model 7500
Rx. EDA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY
DRAWING NUMBER : 91325-1





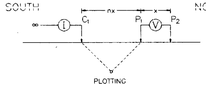
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 2600W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

DATE SURVEYED: Aug.20, 1991
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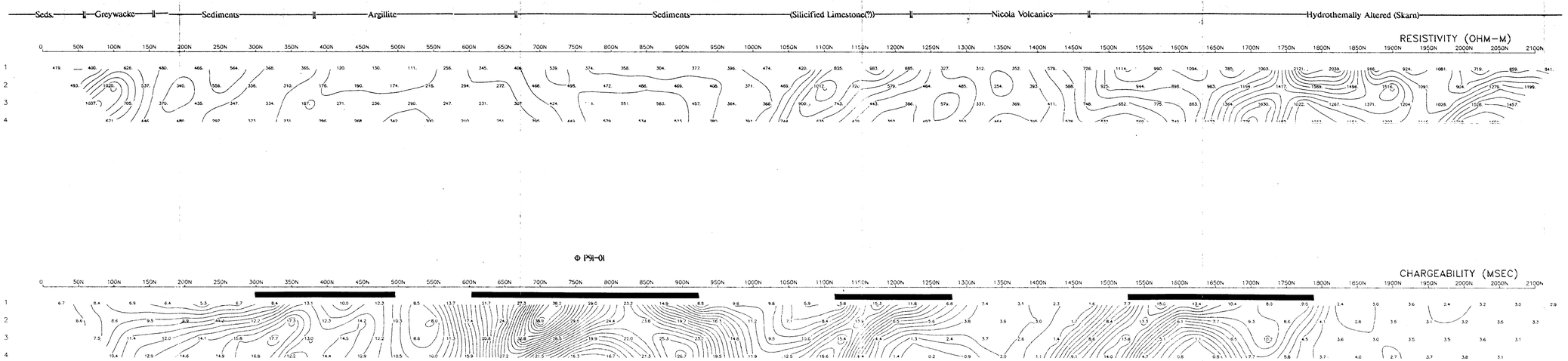
Rx: EDA IP-6

2913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-2



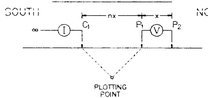
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 2400W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP. CHARGEABILITY : 1.0 (msec)
APP. RESISTIVITY 100 (ohm-m)

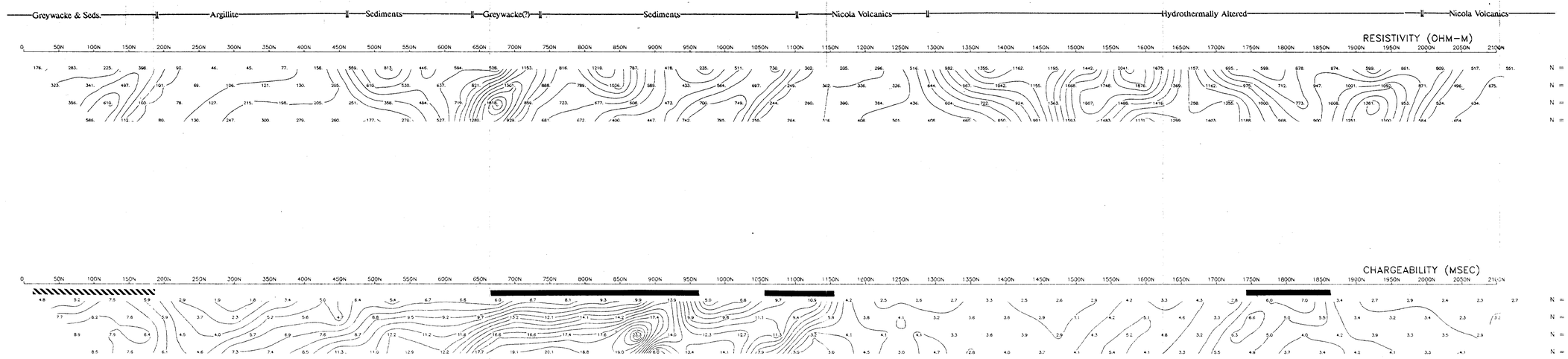
DATE SURVEYED: Aug.19, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-3



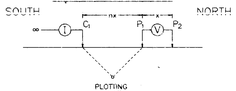
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 2200W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

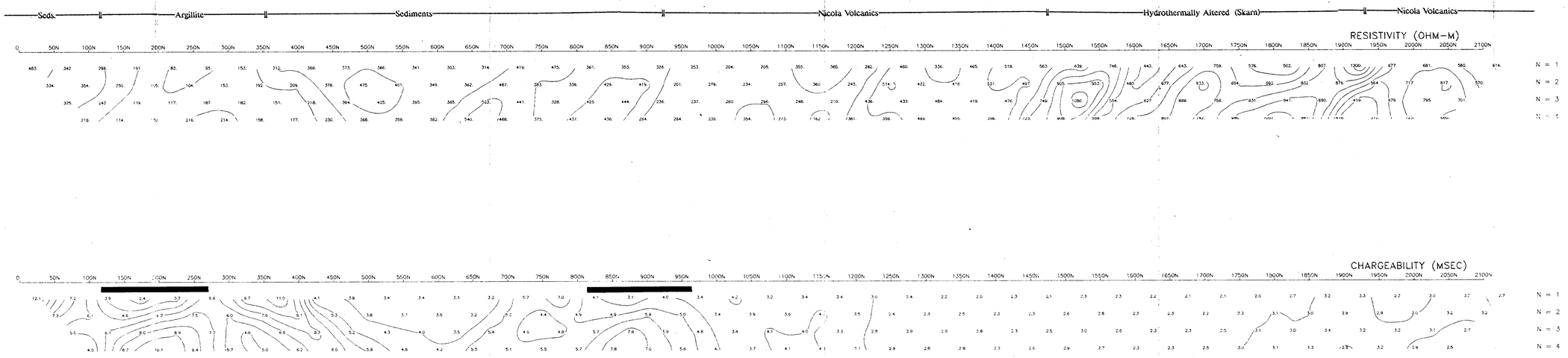
DATE SURVEYED: Aug.18, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-4



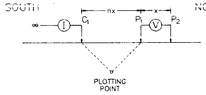
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 2000W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP. CHARGEABILITY : 1.0 (msec)
APP. RESISTIVITY : 100 (ohm-m)

DATE SURVEYED: August 17,1991
Tx: Huntec MK2 Model 7500
Rx: EDA IP-6

2913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

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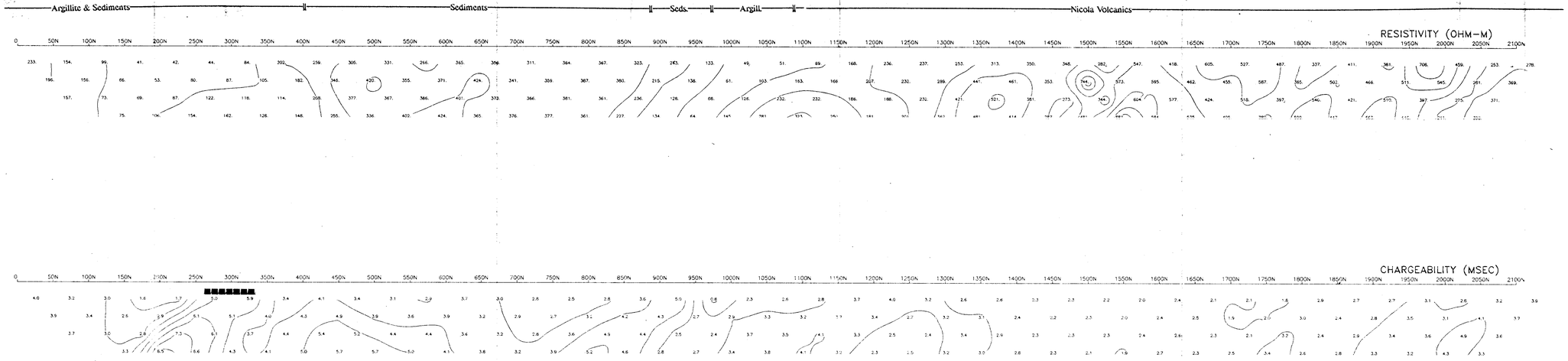


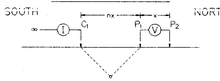
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 1800W

POLE-DIPOLE ARRAY



x = 50m n = 1 – 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

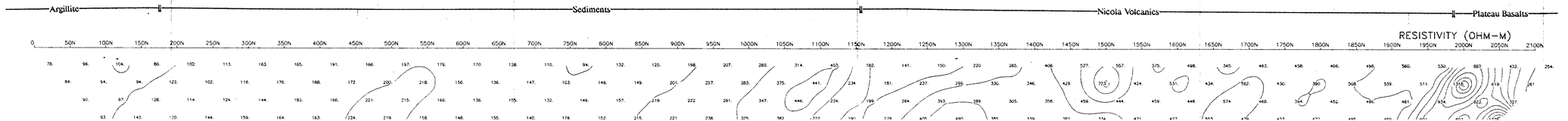
DATE SURVEYED: August 15,16 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

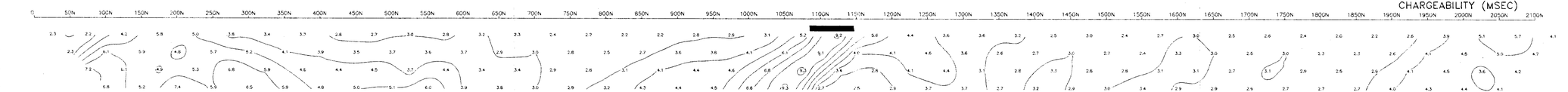
21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-6





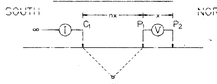
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 1600W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

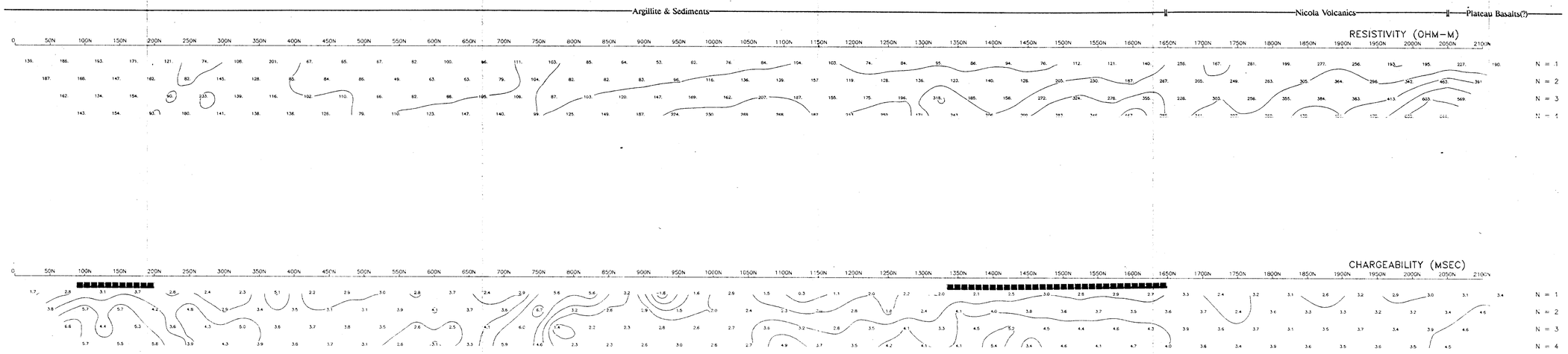
DATE SURVEYED: August 14,15 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-7



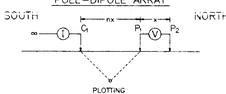
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 1400W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

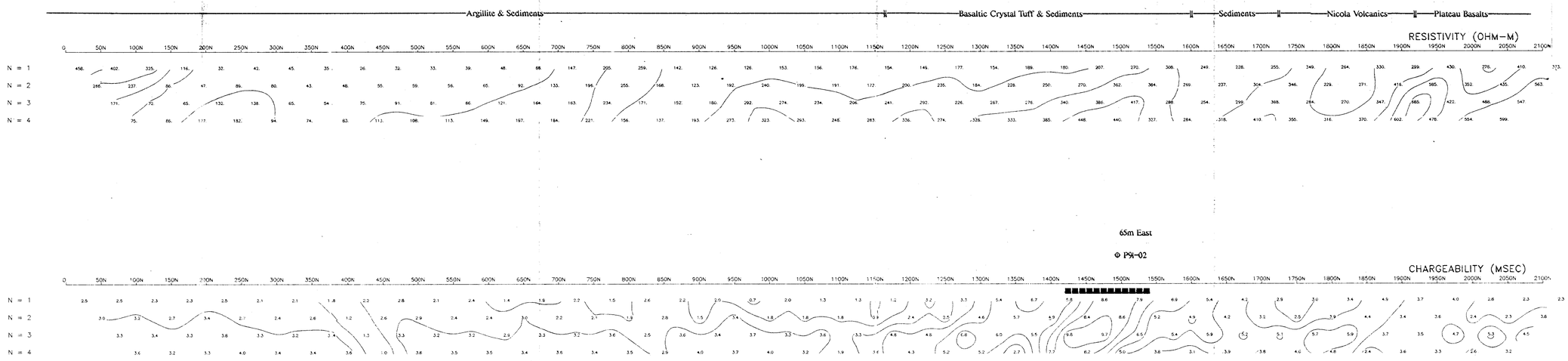
DATE SURVEYED: Aug.31, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-8



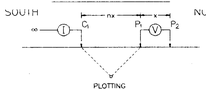
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 1200W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

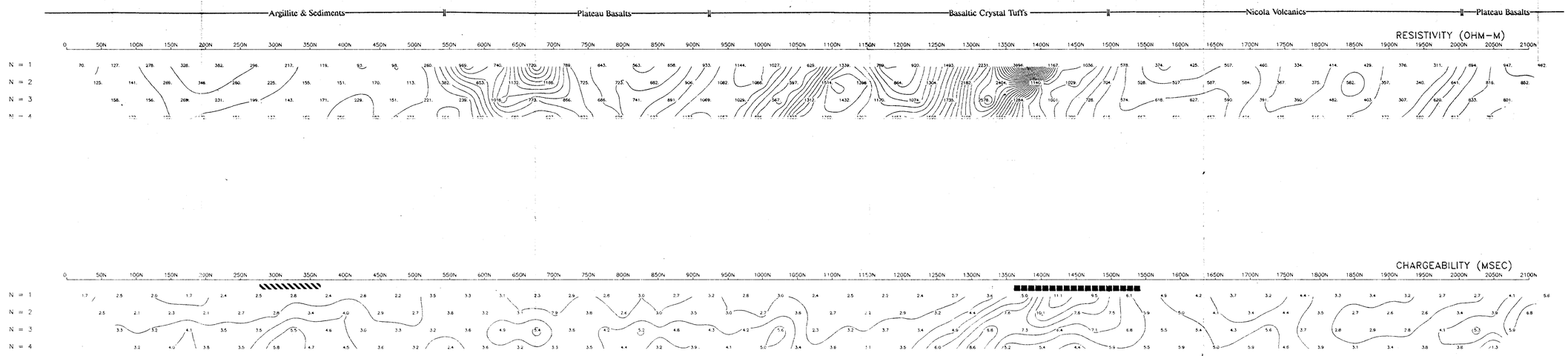
DATE SURVEYED: Aug.29, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

2913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-9



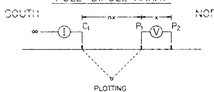
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 1000W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS

APP.CHARGEABILITY : 1.0 (msec)

APP.RESISTIVITY : 100 (ohm-m)

DATE SURVEYED: Aug.28, 1991

Tx: Huntec Mk2 Model 7500

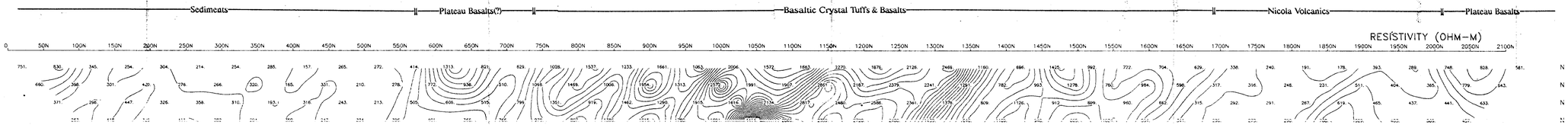
Rx: EDA IP-6

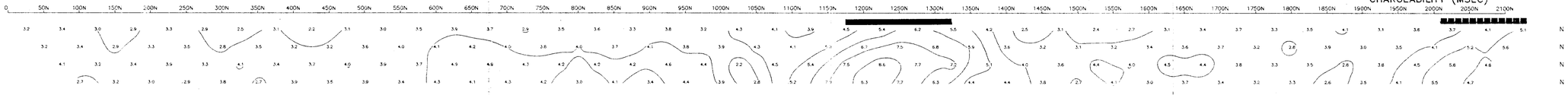
21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-10





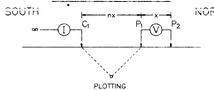
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 800W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

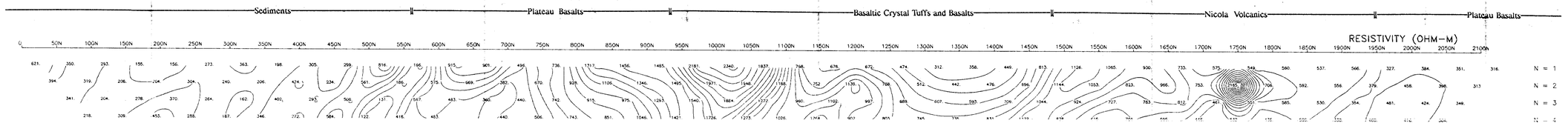
DATE SURVEYED: Aug.27, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

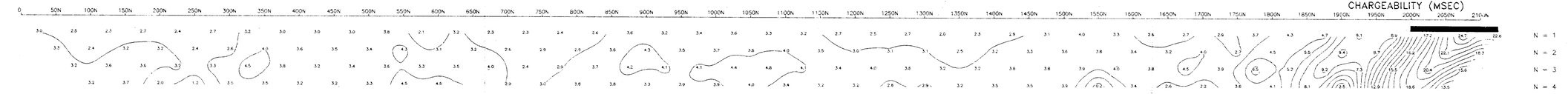
2/913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-11





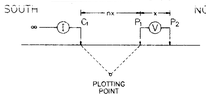
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 600W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP.CHARGEABILITY : 1.0 (msec)
APP.RESISTIVITY : 100 (ohm-m)

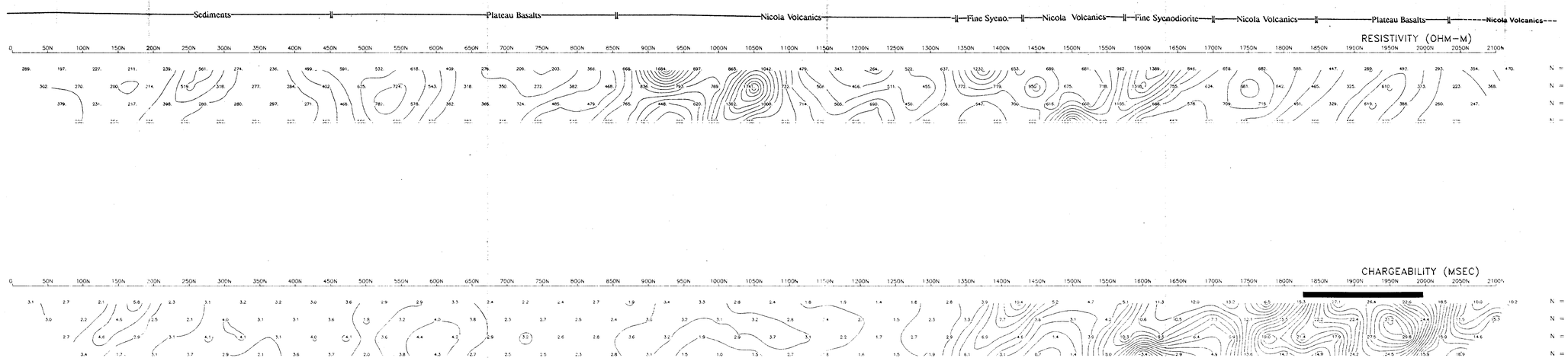
DATE SURVEYED: Aug.26, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-12



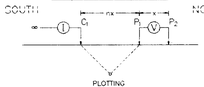
ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 400W

POLE-DIPOLE ARRAY



x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AT DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP. CHARGEABILITY : 1.0 (msec)
APP. RESISTIVITY : 100 (ohm-m)

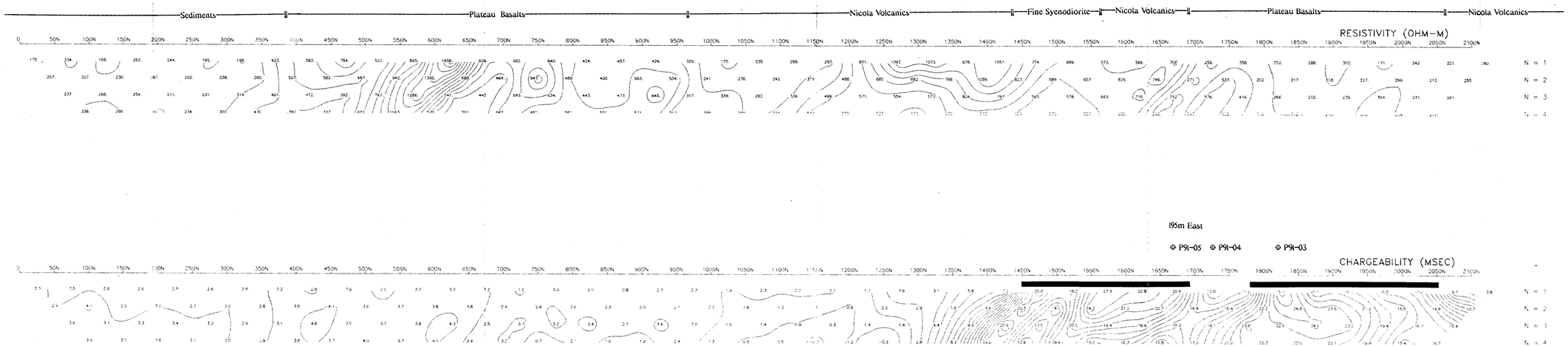
DATE SURVEYED: Aug 24, 1991
Tx: Huntec Mk2 Model 7500
Rx: EDA IP-6

2913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-13



ASARCO EXPLORATION COMPANY OF CANADA

LAC LA HACHE PROJECT

Peach Lake Grid

LINE: 200W

POLE-DIPOLE ARRAY

x = 50m n = 1 - 4

CURRENT ELECTRODE C_1 SOUTH OF POTENTIAL DIPOLE P_1P_2

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE
AS DEPTH

SCALE 1 : 2500

CONTOUR INTERVALS
APP. CHARGEABILITY : 1.0 (msec)
APP. RESISTIVITY : 100 (ohm-m)

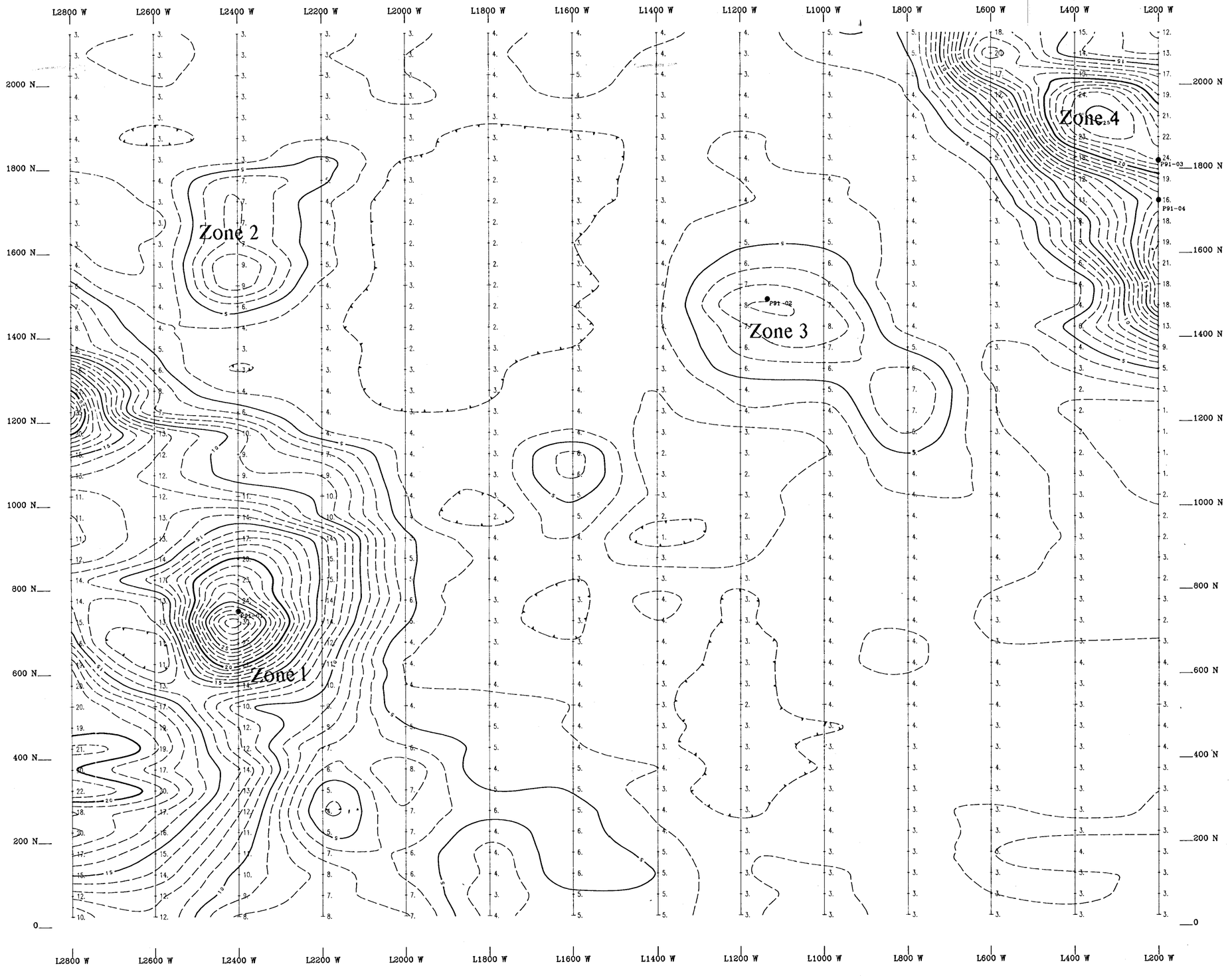
DATE SURVEYED: Aug.28, 1991
Tx: Hunter MG2 Model 7500
Rx: ELIA IP-6

21913

LLOYD GEOPHYSICS INC.

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 91325-14



LEGEND

INDUCED POLARIZATION SURVEY

POLE-DIPOLE ARRAY

DIPOLE SEPARATION : 50 METRES

CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS

- 1.0 MSEC
- 5.0 MSEC
- 20.0 MSEC

Scale 1:5000

100 0 100 200 300

(metres)

ASARCO EXPLORATION COMPANY OF CANADA LIMITED

LAC LA HACHE PROJECT
Peach Lake Property

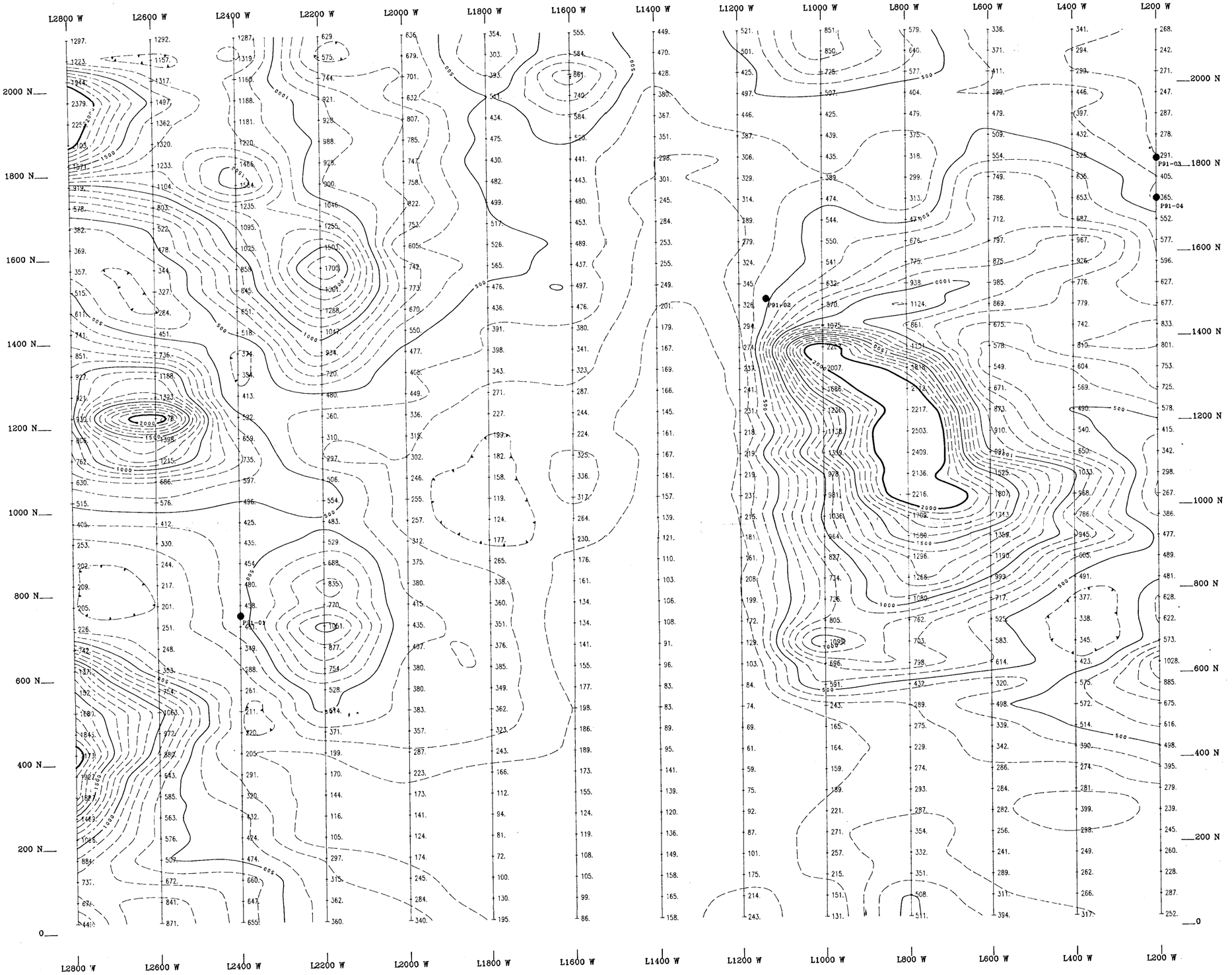
CHARGEABILITY TEN POINT TRIANGULAR FILTER

Clinton Mining Division

Map Scale 1:5000 Drawing: 91325-15

NTS 92P/14W

LLOYD GEOPHYSICS INC.



LEGEND

INDUCED POLARIZATION SURVEY

POLE–DIPOLE ARRAY

DIPOLE SEPARATION : 50 METRES

CURRENT ELECTRODE SOUTH OF POTENTIAL DIPOLE

CONTOUR INTERVALS

- – – – 100 OHM–M
- ——— 500 OHM–M
- ——— 2000 OHM–M

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,913

Scale 1:5000

100 0 100 200 300
(metres)

ASARCO EXPLORATION COMPANY
OF CANADA LIMITED

LAC LA HACHE PROJECT
Peach Lake Property

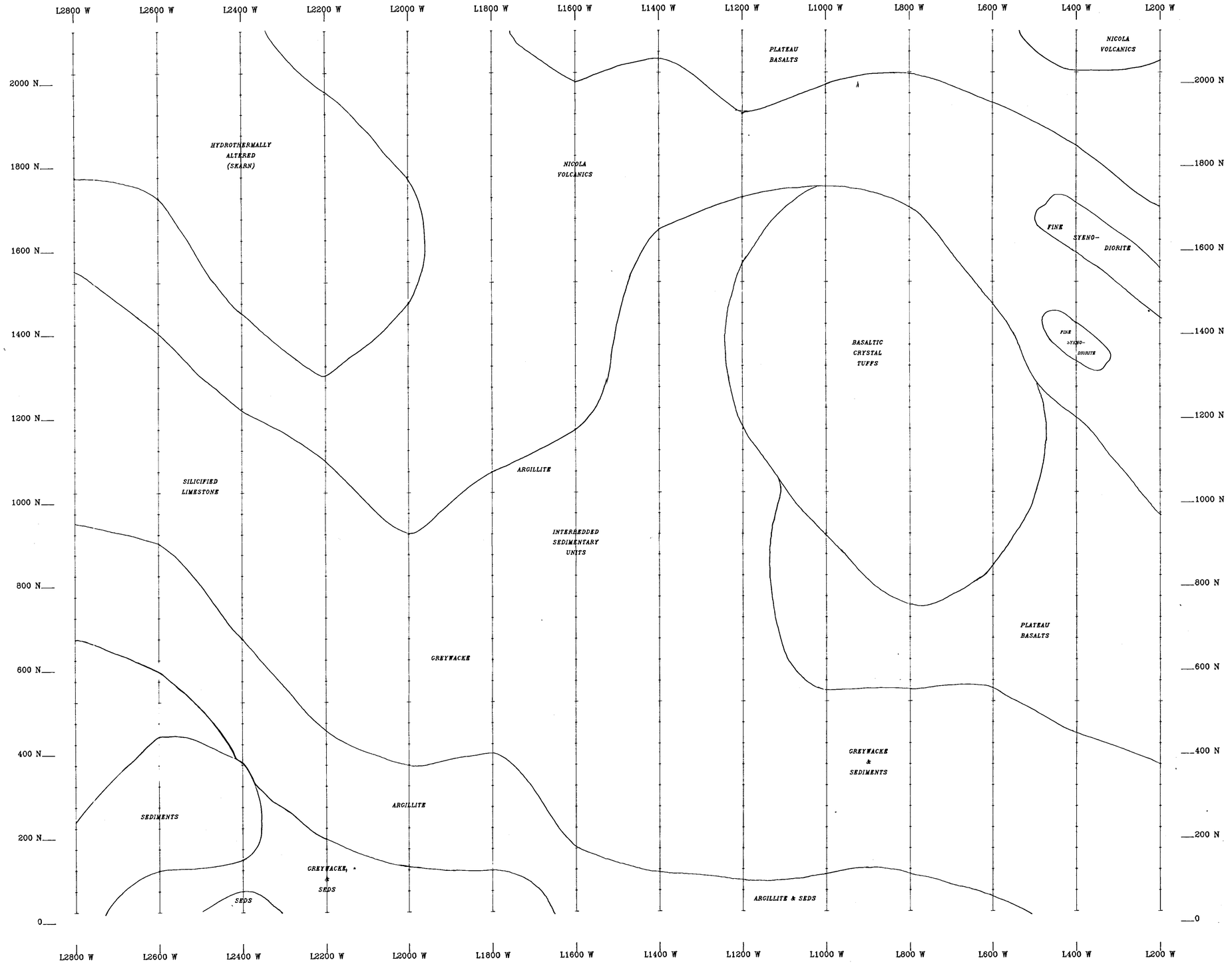
RESISTIVITY TEN POINT TRIANGULAR FILTER

Clinton Mining Division

Map Scale 1:5000 Drawing: 91325–16

NTS 92P/14W

LLOYD GEOPHYSICS INC.



Geology Based Strictly On Writers' Interpretation Of

Geophysical Data, Drill Hole Information

And Verbal Information From Client

Scale 1:5000

100 0 100 200 300

(metres)

ASARCO EXPLORATION COMPANY OF CANADA LIMITED

LAC LA HACHE PROJECT
Peach Lake Property

LOCAL GEOLOGY INTERPRETAION

Clinton Mining Division

Map Scale 1:5000 Drawing: 91325-17

NTS 92P/14W

LLOYD GEOPHYSICS INC.