PREMIER GEOPHYSICS INC.

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ADVANCED TECHNIQUES IN
MINING, GEOTHERMAL AND
PETROLEUM EXPLORATION

Report on

E-SCAN electrical resistivity survey,

Lakelse hot springs,

Lakelse, British Columbia

October, 1983

by

Greg A. Shore

February 28, 1984

This is a report on a survey undertaken by Premier Geophysics Inc., of Vancouver, B.C., under contract from the Geological Survey of Canada, contract # 04SB.23254-3-0240.

O.F.1042

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Figure 12 As Figure 11, but viewer faces northeast.

Figure 13 As Figure 11, but viewer faces east.

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POLE-POLE ARRAY PSEUDOSECTIONS

Facing NORTH: Pseudosections 1 - 15

Facing NORTHEAST: Pseudosections 61 - 70

Facing EAST: Pseudosections 41 - 44

Facing SOUTHEAST: Pseudosections 21 - 32

1.0 SUMMARY

An E-SCAN electrical resistivity survey has been conducted over the hot springs and surrounding area at Lakelse, British Columbia. The survey results suggest a model wherein geothermal fluids enter surficial deposits from bedrock faults in the vicinity of the present hot springs, and then flow laterally northwest toward Lakelse Lake.

The zone of interest is open to the north, and extrapolation of measured data indicate a possibility of the extension of the zone for an undetermined distance to the north.

An extension of survey coverage to the north to test the full extent of the anomaly is recommended prior to planning approaches for detailed examination of the potential resource.

2.0 INTRODUCTION

The hot springs at Lakelse, B.C. were most recently developed for commercial recreational use, by R. Skoglund in 1959. That facility has closed, and at present no commercial use is being made of the springs. The site of the former resort is now cleared and idle.

Present interest in the area centers around possible uses of the hot water resource for a variety of low-temperature geothermal applications, such as aquaculture, silviculture, hothouse agriculture, fish hatchery operations, industrial space heating and processing. The source and delivery modes for the present spring waters have not been studied to date. An evaluation of the quantity, quality and accessibility of thermal waters will be required before proposals for exploitation can be seriously considered. The present resistivity survey is an initial step in determining the nature and location of the hot water resource at Lakelse.

The resistivity survey has been commissioned by the Geological Survey of Canada, under a mandate to encourage and assist in the definition of areas of potential geothermal resources near northern Canadian communities.

2.1 Program objectives

The resistivity survey is intended to map the distribution of earth resistivities in the area around the hot springs. From such data an understanding of the distribution and dynamics of geothermal water flow can begin to be constructed.

2.2 Program authority and management

The survey was commissioned by the Geological Survey of Canada, 100 West Pender Street, Vancouver, B.C. V6B 1R8, under contract #

04SB.23254-3-0240. Dr. Jack G. Souther is Scientific Authority for this contract.

The survey and report preparation were undertaken by Greg A. Shore of Premier Geophysics Inc., 1184 Forge Walk, Vancouver, B.C. V6H 3P9. The field work was completed in October, 1983.

3.0 SCOPE OF THIS REPORT

This report describes the results of a resistivity survey undertaken in the Lakelse Hot Springs area. Some regional and local geological background is given, as it relates to the resistivity method and to the exploration exercise at hand.

A model is proposed to explain present survey results in terms of reasonable geologic conditions, and typical behaviours of geothermal waters elsewhere.

Recommendations are made for a subsequent stage of exploration.

4.0 GEOLOGICAL SETTING

4.1 Regional geological setting

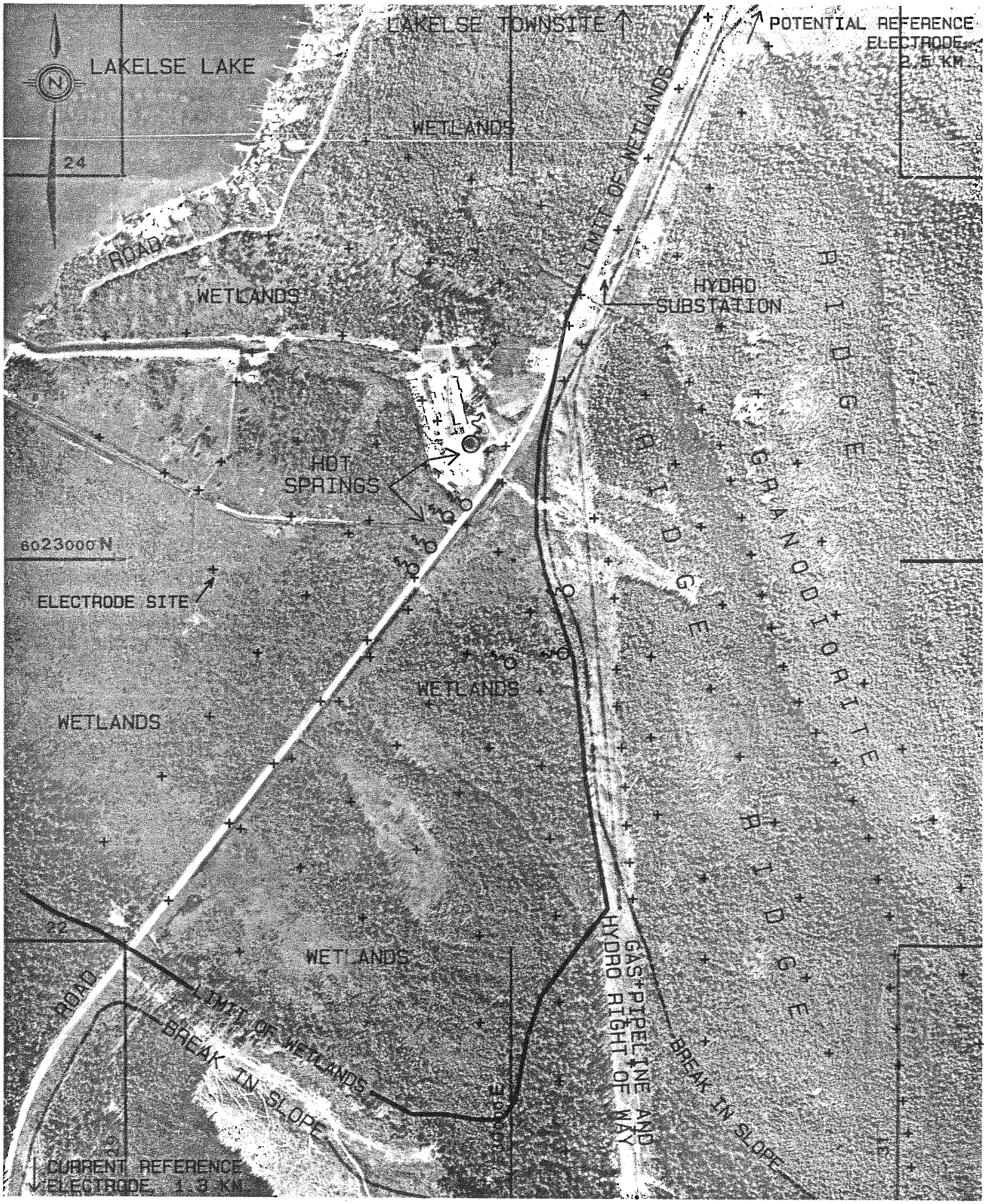
The Kitimat-Kitsumkalum valley system, in which Lakelse lies, is a major north-south depression in a broad area of Coast Intrusion granodiorite (Figure 1). Current mapping in the area leads J. G. Woodsworth of the Geological Survey (pers. comm.) to conclude that this depression is a graben, with a vertical displacement in the Lakelse area of approximately 1 kilometre. At Lakelse, the width of the valley is 6 to eight kilometres. Major fault zones would mark the edge of the graben at both sides.

The fault zones along the margins of the graben afford potentially deeply communicating channels in otherwise impermeable rock. Hot springs located at tidewater south of the valleys, and recent eruptive activity and hot springs at Aiyansh north of the graben attest to the regional significance of this north-south structure in terms of crustal weakness.

4.2 Local geological setting

The majority of the survey area, including the area around the hot springs, is covered by glaciofluvial deposits of unknown depth. Clague (1983) describes the area as sand and gravel, with areas of organic peat and muck. It is not known if there are marine clays associated with the area; marine clays are mapped several km north of the survey grid, and pose a potential electrical conductivity disruption threat to any survey. The depth of the surficial deposits might be expected to increase toward the lake, but no firm evidence of bedrock depth through the area is presently available.

Coast Intrusion granodiorite (Duffell and Souther, 1964) is the bedrock throughout the survey area, rising in low hills at the east side of the survey area. The rock appears to be fresh and not substantially altered in the survey area.



PREMIER GEOPHYSICS INC.

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

GSC CONTRACT 04SB.29254-3-0240

LOCATION OF E-SCAN ELECTRICAL RESISTIVITY SURVEY GRID LAYOUT WITH REFERENCE TO TOPOGRAPHIC AND GEOLOGIC FEATURES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 2

5.0 ELECTRICAL RESISTIVITY IN GEOTHERMAL EXPLORATION

Electrical resistivity survey is the leading geophysical tool for geothermal exploration. Its usefulness is based on the fact that several factors common to geothermal environments may singly or in combination contribute to resistivity anomalies measurable by the method.

In crystalline rock environments such as at Lakelse, circulation of waters deep in the earth requires the presence of zones of fractured rock, providing permeable channels in otherwise impermeable rock. Most electrical conduction in non-metallic rocks occurs through water in connected pore space or fractures. The presence of water-filled fault or fracture zones is often detectable with resistivity even without the presence of thermal activity.

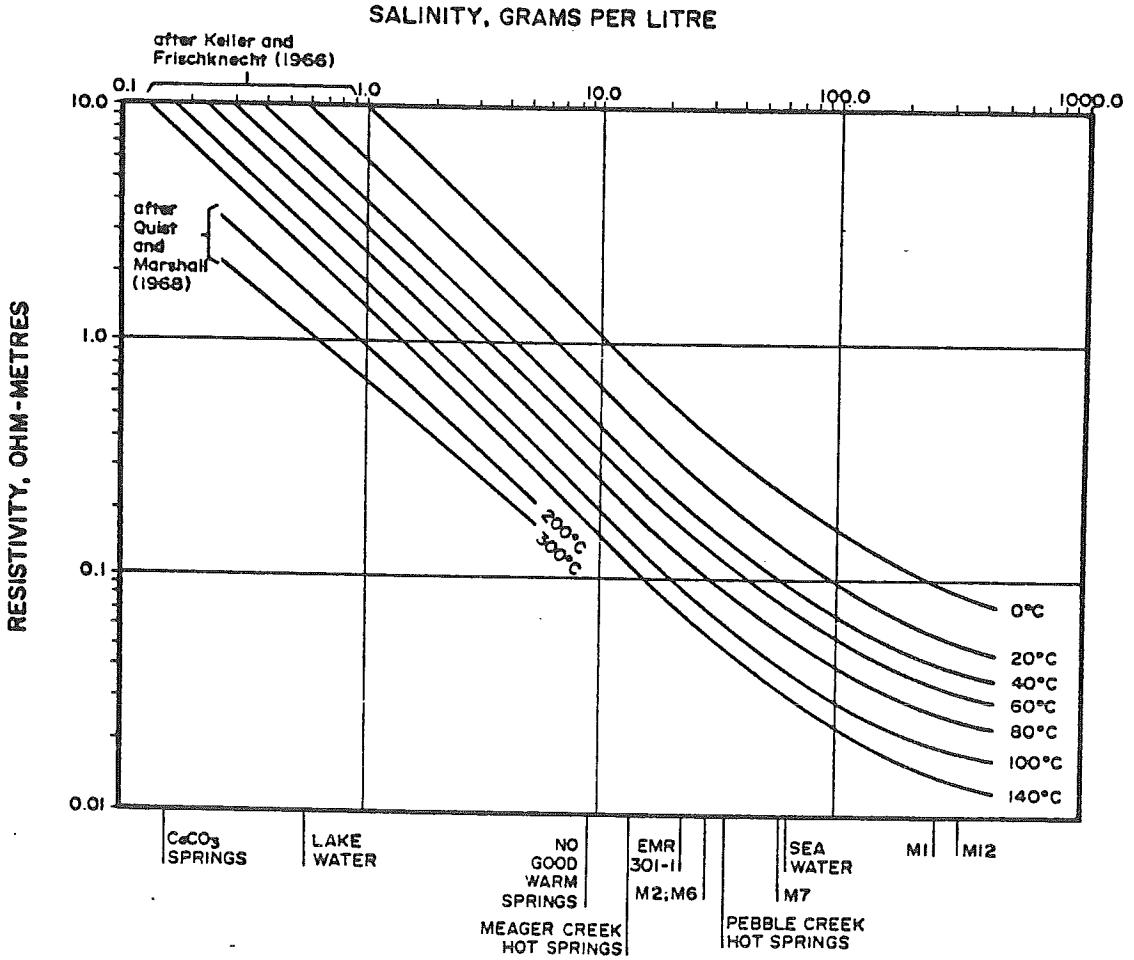
Concentration of dissolved salts in geothermal waters circulating in a convective system (chlorides) or passing through geothermal alteration zones (sulphates) will reduce the water resistivity and elevated temperatures for the fluid will cause still greater reduction in resistivity. Where such waters are in place in fracture zones in crystalline rock such as the Lakelse granodiorite, the resistivity anomaly observed by a survey traverse will be distinct. Leakage of conductive waters into surficial deposits usually produces a large, obvious anomaly, with the porous overburden accumulating a large quantity of conductive waters and precipitates of very low resistivity. Such features are commonly called "outflow plumes", and represent a useful signpost to aid in tracking outflow back toward its source with electrical resistivity survey. Outflow plumes may extend tens of kilometres from their point of origin at a bedrock fracture.

At Lakelse, the granodiorite bedrock would be expected to provide background resistivities of the order of 1000 ohm-metres and up, in relatively unaltered and unfractured state. Geothermal waters in faults in this rock would be expected to provide a measurable anomaly.

The pervasive surficial deposits of the area provide a very porous medium for the accumulation and lateral transportation of thermal fluids leaking from bedrock fractures. The hydrologic gradient from outcropping granodiorite to lake level is very gentle. Fluid flow patterns in these deposits will therefore be expected to be broader and less distinct than those generated in steeper topography, but of possibly lower absolute resistivity value.

Typical glaciofluvial deposits in western British Columbia valleys are moderately resistive, with values of 200 to 400 ohm-metres common. This is in part due to the large volume of fresh rainwater which carries away available salts and minerals. In these valley conditions, local accumulations of geothermal fluids provide very strong anomalies, registering at 10 to 50 ohm-metres.

The survey site at Lakelse presents certain topographical and cultural difficulties for conventional resistivity surveys. The presence of the long interface area between wet surficial deposits and outcropping granodiorite will provide electric field distortions for survey arrays in the vicinity, reducing the interpretability of data from a typical single-orientation survey array. The presence of the pipeline, power lines, and installations at the former resort all present possible sources of direction-sensitive distortion. Without the ability to positively identify the magnitude, shape and directional component of anomalies in these areas, it is not possible to discriminate between the cultural/topographic effects and the effects caused by the geothermal structures and flows.



The effect of temperature and salinity on the resistivity of water. The salinities of cold sea water and lake water are plotted, along with samples of cold, warm and hot spring and drill hole waters from the Meager Creek Geothermal Area, B.C.

(Shore and Schlax, 1982)

The presence of the hot springs provides a starting point for reconnaissance surveys. Several factors indicated that an E-SCAN multidirectional survey should be applied, rather than conventional linear traverse surveys:

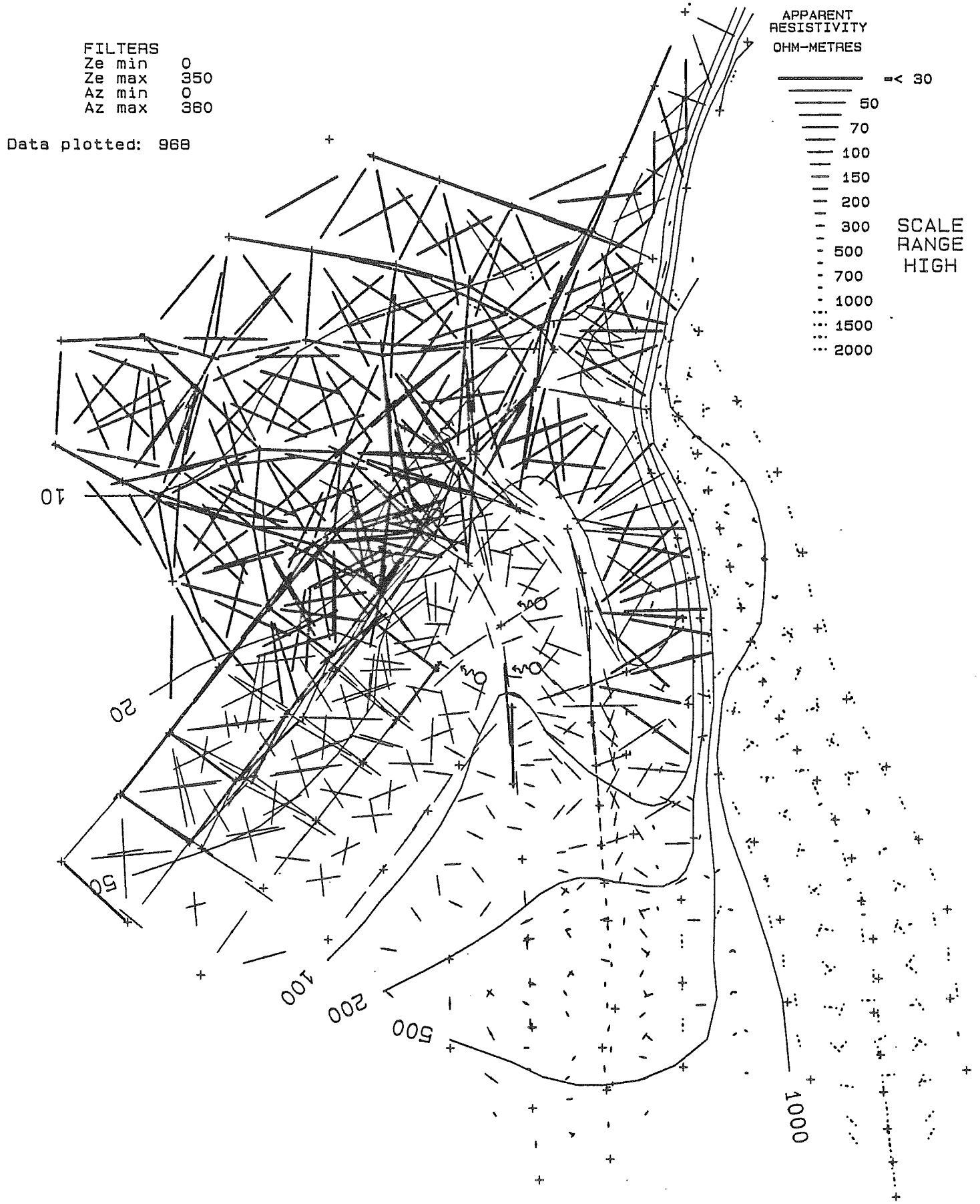
- The cultural and topographic sources of interference noted above could overwhelm the signals originating with the target structures and resistivity distributions unless they could be clearly isolated and filtered. A multidirectional approach is required for this.

- With no prior information on target structure orientation or resistivity distribution, selection of the incorrect single array orientation could fail to detect the zones of interest, or provide a distorted and misleading indication of their location and characterisics. A multidirectional approach requires no assumptions of target location or orientation; all possibilities are automatically tested (Figure 10, 11, 12, 13, 14).

- The extensive and frequently impassable swamps in the main survey area limit the applicability of linear array traverses. E-SCAN's layout mode allows indirect access to electrode sites by any available route, and does not require straight, traversable lines.

- Cost effectiveness of the E-SCAN method is comparable to that of intensive conventional surveying in good terrain, and in difficult conditions such as in the present survey area, substantial cost-effectiveness advantage is obtained.

In the course of the E-SCAN survey operation, 268 current and potential electrode sites were occupied, generating 2257 pole-pole array measurements in all orientations, and at variable depths of penetration (Ze). (Figure 7, 8, 9) Plan plots of data and 41 pseudo-sections were constructed, the latter representing the equivalent of 74 line kilometres of conventional survey traverse. Layout parameters focussed on pole-pole array data for maximum reconnaissance mode discrimination of lateral boundaries and linear features. Subsequent surveys may employ additional vertical discrimination, warranted by the present reconnaissance survey's definition of area characteristics.



PREMIER GEOPHYSICS INC.

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

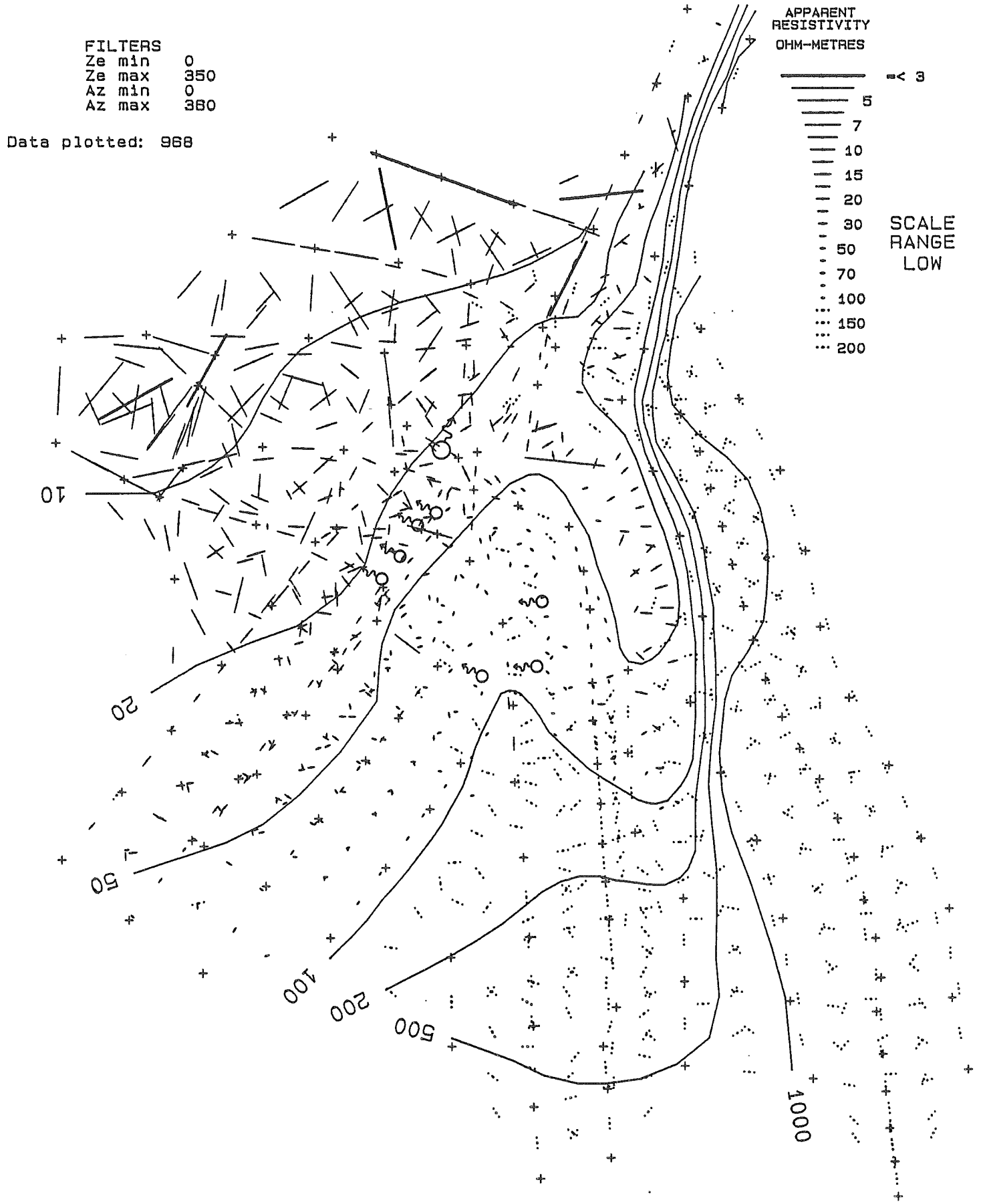
GSC CONTRACT 04SB.23254-3-0240

PLAN PLOT OF MULTIDIRECTIONAL
POLE-POLE APPARENT RESISTIVITIES.
PENETRATION (Ze): 0 TO 350 METRES.
RESOLUTION EMPHASIS: HIGHER VALUES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 3



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E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

GSC CONTRACT 04SB.23254-3-0240

PLAN PLOT OF MULTIDIRECTIONAL
POLE-POLE APPARENT RESISTIVITIES.
PENETRATION (Ze): 0 TO 350 METRES.
RESOLUTION EMPHASIS: LOWER VALUES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 4

6.0 OBSERVATIONS AND INTERPRETATION

6.1 Observations

Within the survey area, four basement faults striking N11°W through N50°E are indicated by resistivity. (Figure 5) Their average strike is consistent with the orientation of the graben forming the Kitimat and Kitsumkalum valleys. (Figure 1) The survey area is at the east side of the valley, in the approximate location of expected graben wall faulting.

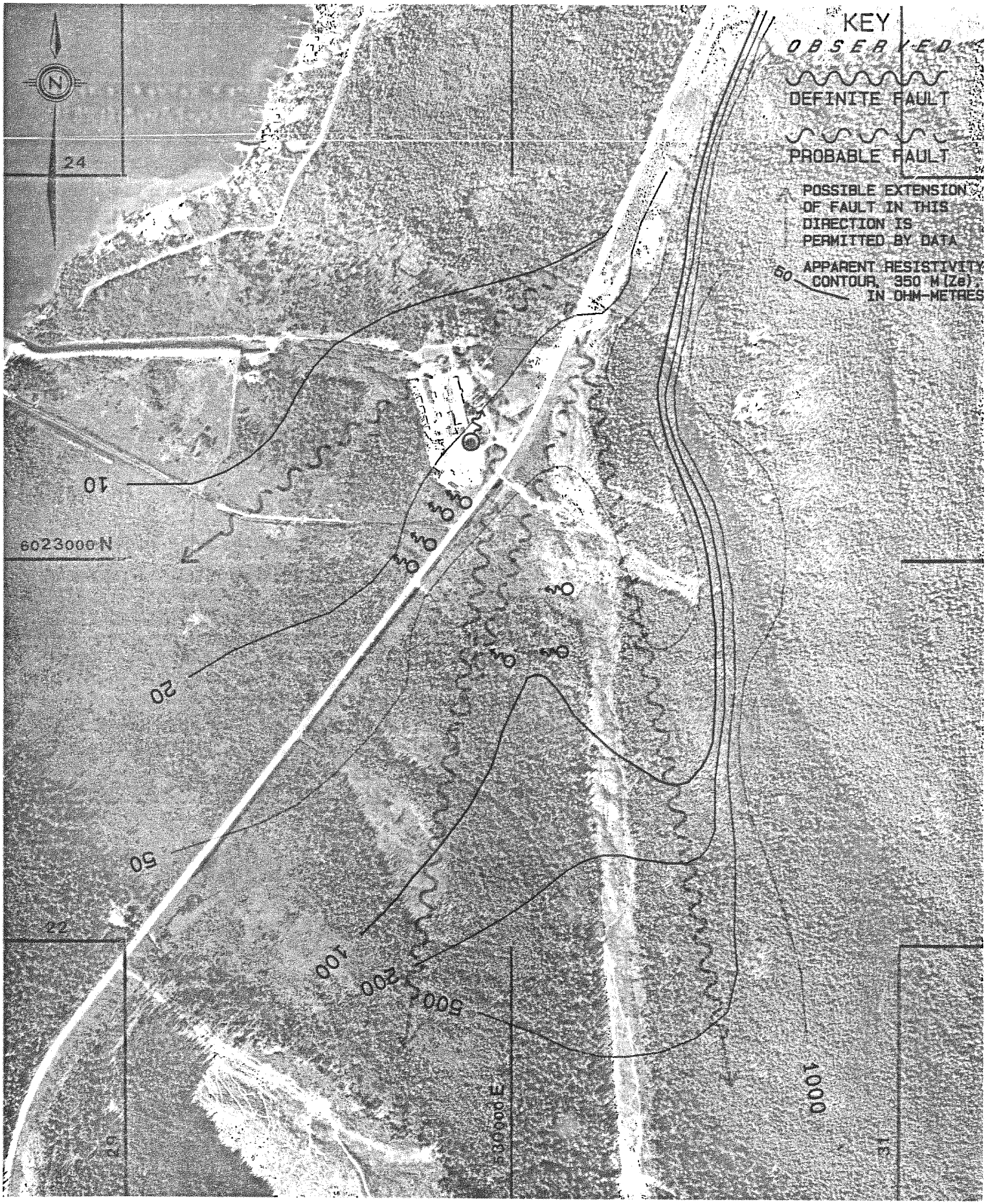
Possible continuation of the faults either north or south is not limited by any of the present data.

The faults converge in a zone beginning near the present hot springs and extrapolated north beyond the limit of present survey coverage.

No information regarding depth to bedrock is available from the present survey for the three westerly faults. The easternmost fault roughly follows present break in slope, with the outcropping granodiorite probably constituting one wall.

The granodiorite outcropping to the east yields resistivity signatures of 1000 to 3000 ohm-metres. No anomalous signatures have been detected in data in and surrounding the distinct trench located just east of the first outcropping ridge. (Figure 3)

Moderate to high apparent resistivities characterize the outwash fan area at the southeast corner of the survey area. The apparent resistivity signatures decreases to the northwest, to less than 10 ohm-metres near the lake. Step-like drops in apparent resistivity occur in this northwesterly progression. (Figure 3, 4, and pseudosections)



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E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

GSC CONTRACT 04SB.23254-3-0240

BEDROCK FAULTING AS INDICATED BY RESISTIVITY RESULTS. FAULT-BOUNDED BLOCKS PROBABLY LIE DEEPER TO THE WEST, TOWARD CENTRE OF THE GRABEN.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 5

A lobe of lower apparent resistivity extends from north of the hot springs southward along the major break in slope, in apparent association with the independently described fault. (Figure 3, 4, and pseudosections)

Pre-survey operational concerns about the pipeline, power line and possible presence of marine clays have been substantially allayed. Effects from the pipeline and power line corridor are apparent in some data, but do not compromise the geological validity of the basic structural and resistivity indications. If marine clays are present, they are not discernable independently of other phenomena; no suspicious distortions of the data set are apparent.

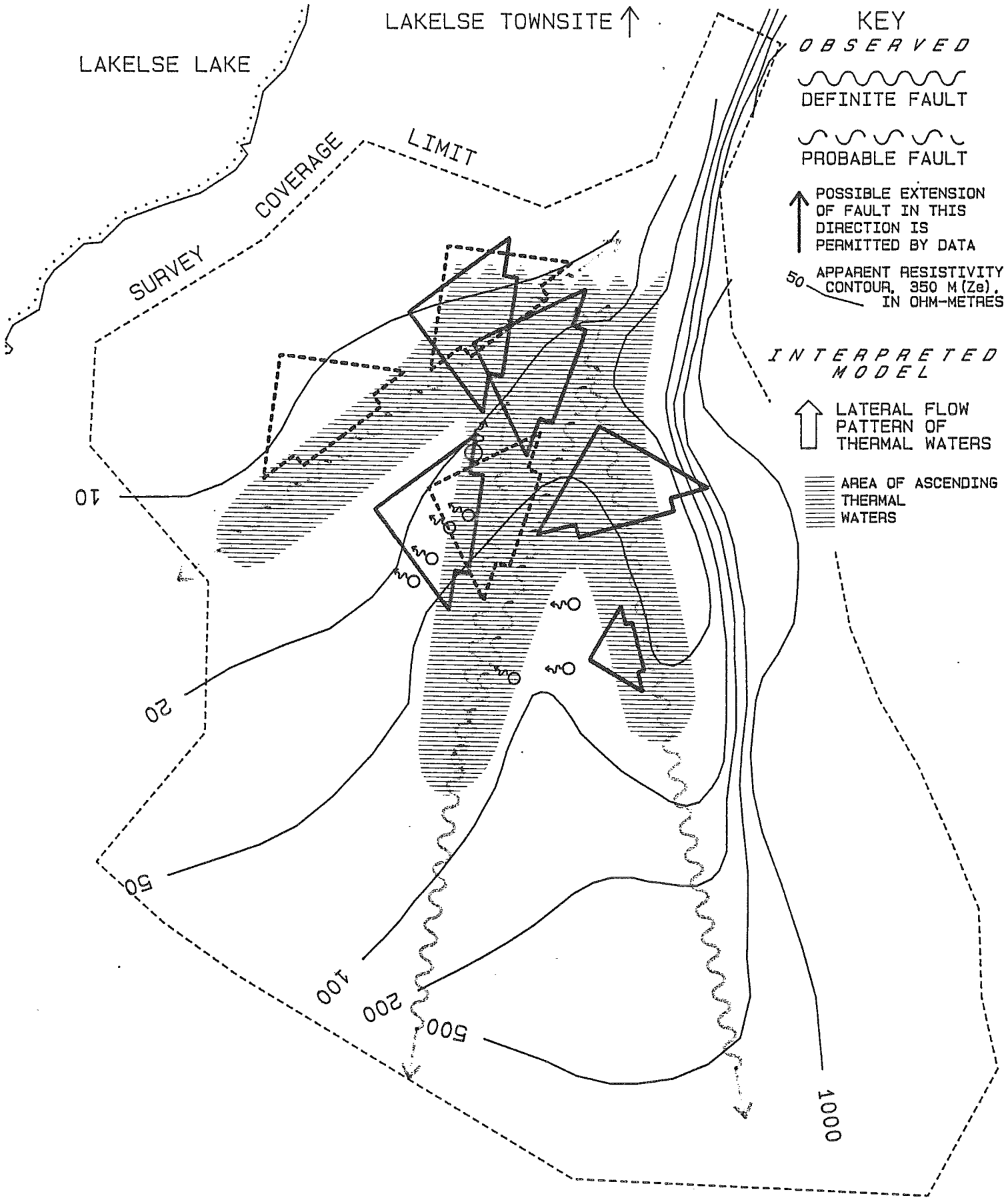
6.2 Interpretation (Figure 6)

The survey area lies over complex faulting marking the east side of the Kitimat-Kitsumkalum valleys graben. The post-formation surface of the graben will have been altered by glacial action, leaving a roughly "U" shaped valley, with local variation perhaps influenced by graben fault locations.

No useful definition of depth of surficial deposits is available from the present data. However, there appears to be a sudden and substantial increase in the depth to bedrock west of the westernmost fault (Figure 6).

Where the four faults pass through the survey area, a complex set of intersections occurs, providing greatly intensified fracturing and disruption. The zone extends from near the hot springs northward toward the townsite, where its definition is obscured by very low resistivities at the north edge of survey coverage.

Heated waters rising along fault permeabilities flow into the



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E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

GSC CONTRACT 04SB.23254-3-0240

MODEL BASED ON RESISTIVITY RESULTS SHOWING THERMAL WATERS ASCENDING IN PERMEABLE FAULT ZONES. LATERAL FLOW TO NORTHWEST FOLLOWS HYDROLOGIC GRADIENT.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 6

porous surficial cover in this zone, and move laterally down a gentle hydrological gradient toward the lake to the northwest. Impermeable clay layers may contain the flow below surface; where the waters encounter an opportunity to ascend through a breach in the layers, the present hot springs are found. The springs do not necessarily directly overlie the bedrock site of water inflow. Similarly, the point of escape of thermal waters from the fault zones into the surficial deposits does not necessarily directly overlie the deep heat source. In both cases, the water may be constrained by impermeable barriers and only find its way to final outflow after lateral travel of up to many kilometres.

The area of ascending waters described in Figure 6 provides a complete, geologically reasonable set of conditions and observations for a convective geothermal system operating in deeply connected fault permeabilities. If no additional insights are obtainable from extended survey coverage to the north, then the usefulness of the presently described model remains intact.

7.0 IMPLICATIONS FOR ONGOING EXPLORATION

The model developed for the present results makes no assumptions about conditions possibly occurring to the north of present survey coverage. The conditions of fault intersection and low resistivities which define the area immediately around and north of the hot springs do not end at the limit of survey coverage. Simple extrapolation of resistivity and structural trends indicates the probability of an extension of the present zone of interest up to another kilometre north, through the area between the Esso service station and the townsite proper. This area is low and wet, presenting a possibility that undisturbed clay layers suppress and laterally deflect any thermal waters present, possibly southward. We have at present no evidence to suggest a northerly limit to the

present zone of interest. We do have evidence of continuing major faulting associated with the graben, and conditions of layered surficial deposits and increasingly sloping land surface which generally support the possibility of an extended resource base to the north, without surface hot spring manifestations.

The evaluation and proving of an expanded geothermal resource at Lakelse will require drill testing of aquifers in the surficial deposits of the valley, and possibly drill testing of producing basement fault zones. These are tests requiring additional detailed knowledge of depths of surficial deposits, vertical zoning within the deposits, and more precise lateral location of both potential aquifers and basement faults. These detailed studies should wait until reconnaissance studies of the area have defined the full extent of the possible resource, so that these more costly procedures can be properly planned and executed.

8.0 RECOMMENDATIONS

1. Extend E-SCAN resistivity survey coverage north from present survey coverage, through the townsite, and up to a point including the outwash area of Hatchery Creek, to test for extension of zone.

2. Adjust E-SCAN survey parameters to include more detailed vertical resolution of resistivity distributions, without dropping lateral sensitivity.

3. Overlap the south end of the extended coverage with the present zone of interest around the hot springs, with particular emphasis on vertical resolution in this area.

4. Plan to perform Schlumberger array vertical electrical soundings at selected sites to obtain data for computer-assisted resolution of vertical resistivity section, and depth to bedrock.

Respectfully submitted,

ORIGINAL SIGNED

February 28, 1984

Greg A. Shore

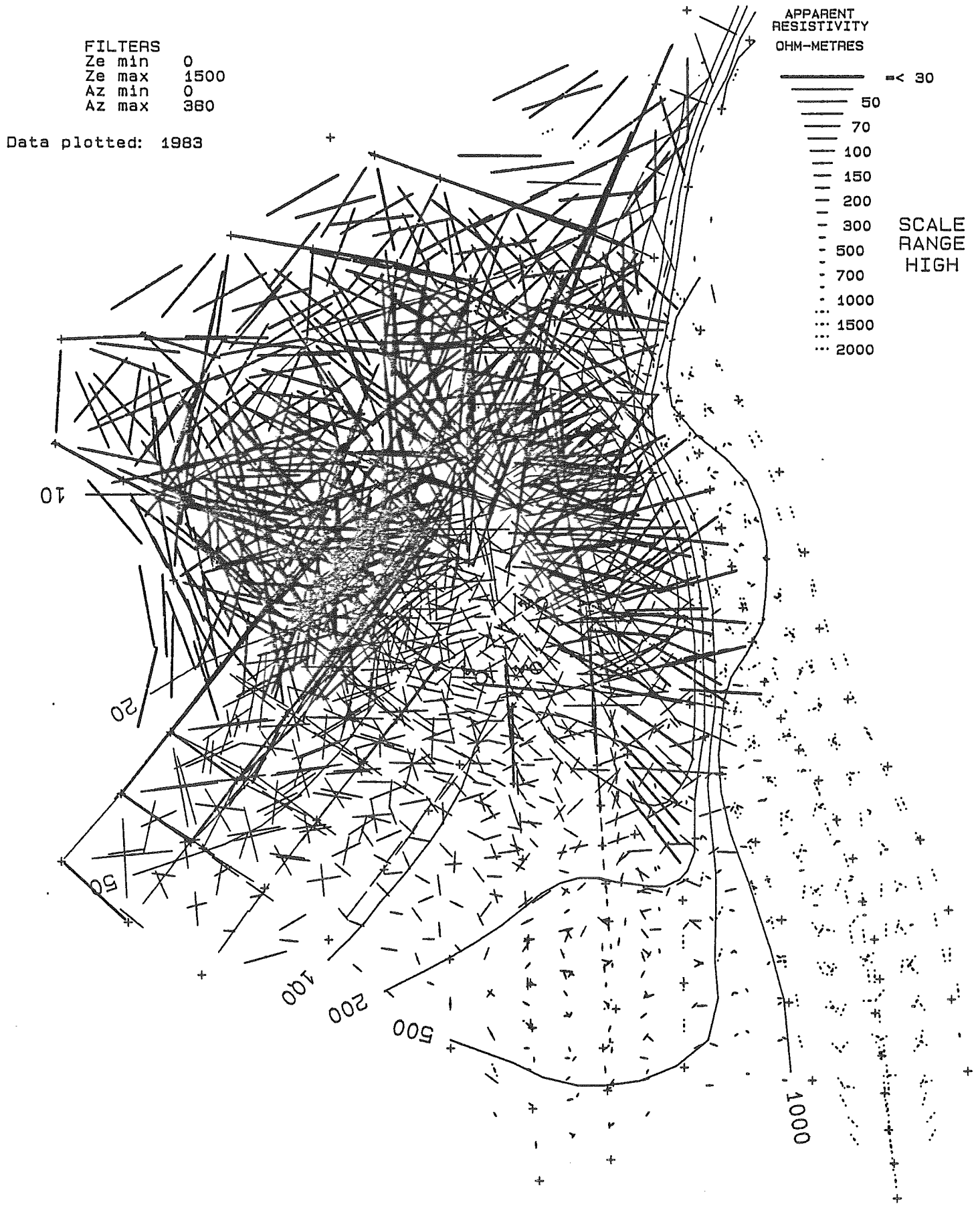
Premier Geophysics Inc.
Vancouver, B.C.

9.0 REFERENCES CITED

Duffell, S. and Souther, J.G., 1964, Geology of Terrace map-area, British Columbia, Geological Survey of Canada Memoir # 329, includes GSC Geology map # 1136A.

Clague, J.J., 1983, Surficial geology, Skeena River - Bulkley River area, British Columbia, Geological Survey of Canada, map set 1557A.

Shore, G.A., and Schlax, M.G., 1982, Co-ordination and review of resistivity survey results from the Meager Creek Geothermal Area, 1974 to 1981; unpublished report to B.C. Hydro and Power Authority.



PREMIER GEOPHYSICS INC.

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

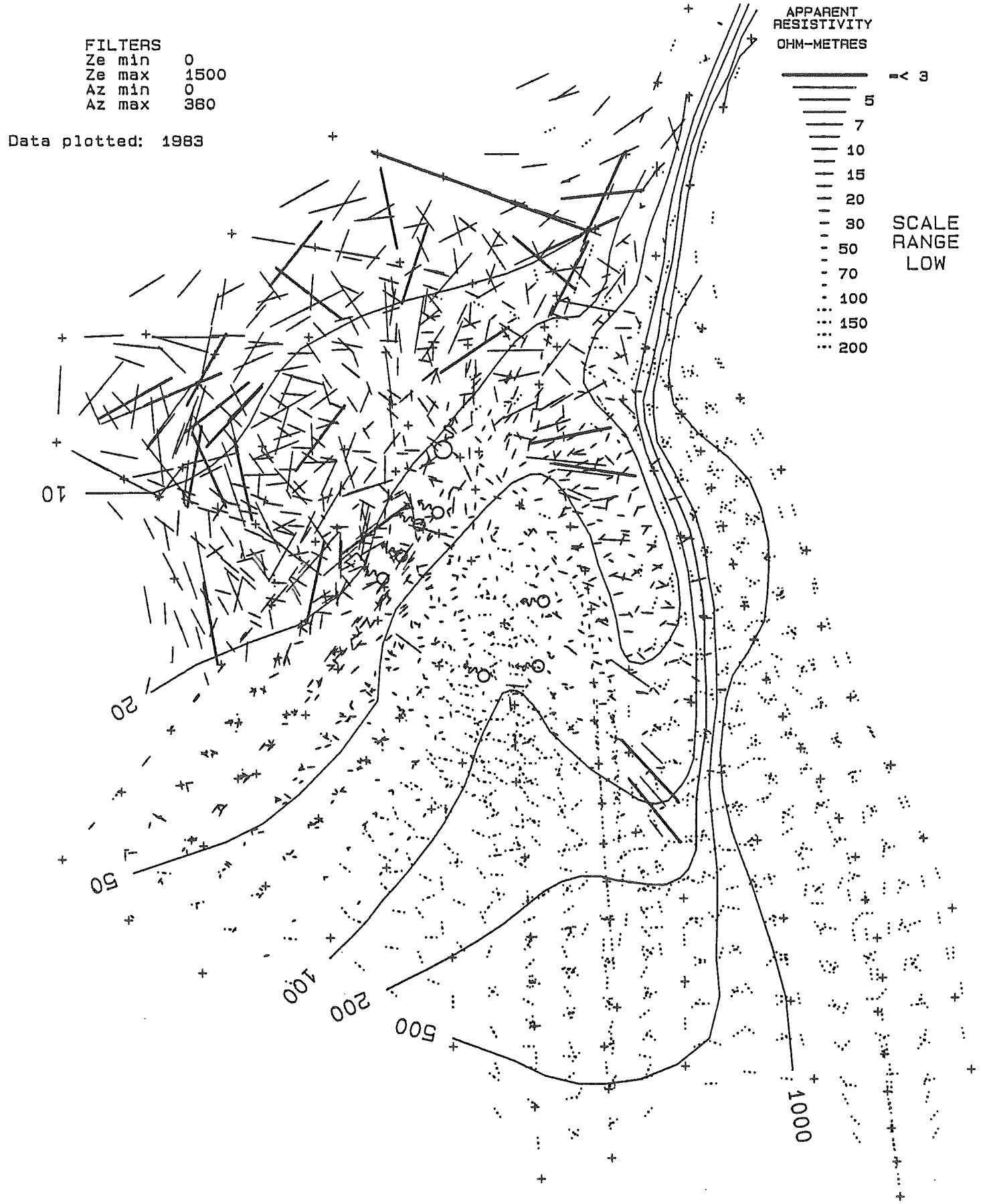
GSC CONTRACT 04SB.23254-3-0240

PLAN PLOT OF MULTIDIRECTIONAL
POLE-POLE APPARENT RESISTIVITIES.
TOTAL DATA SET: Ze 0 TO 1500 METRES.
RESOLUTION EMPHASIS: HIGHER VALUES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 7



PREMIER GEOPHYSICS INC.

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

GSC CONTRACT 04SB.23254-3-0240

PLAN PLOT OF MULTIDIRECTIONAL
POLE-POLE APPARENT RESISTIVITIES.
TOTAL DATA SET: Ze 0 TO 1500 METRES.
RESOLUTION EMPHASIS: LOWER VALUES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 8

GEOLOGICAL SURVEY OF CANADA

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

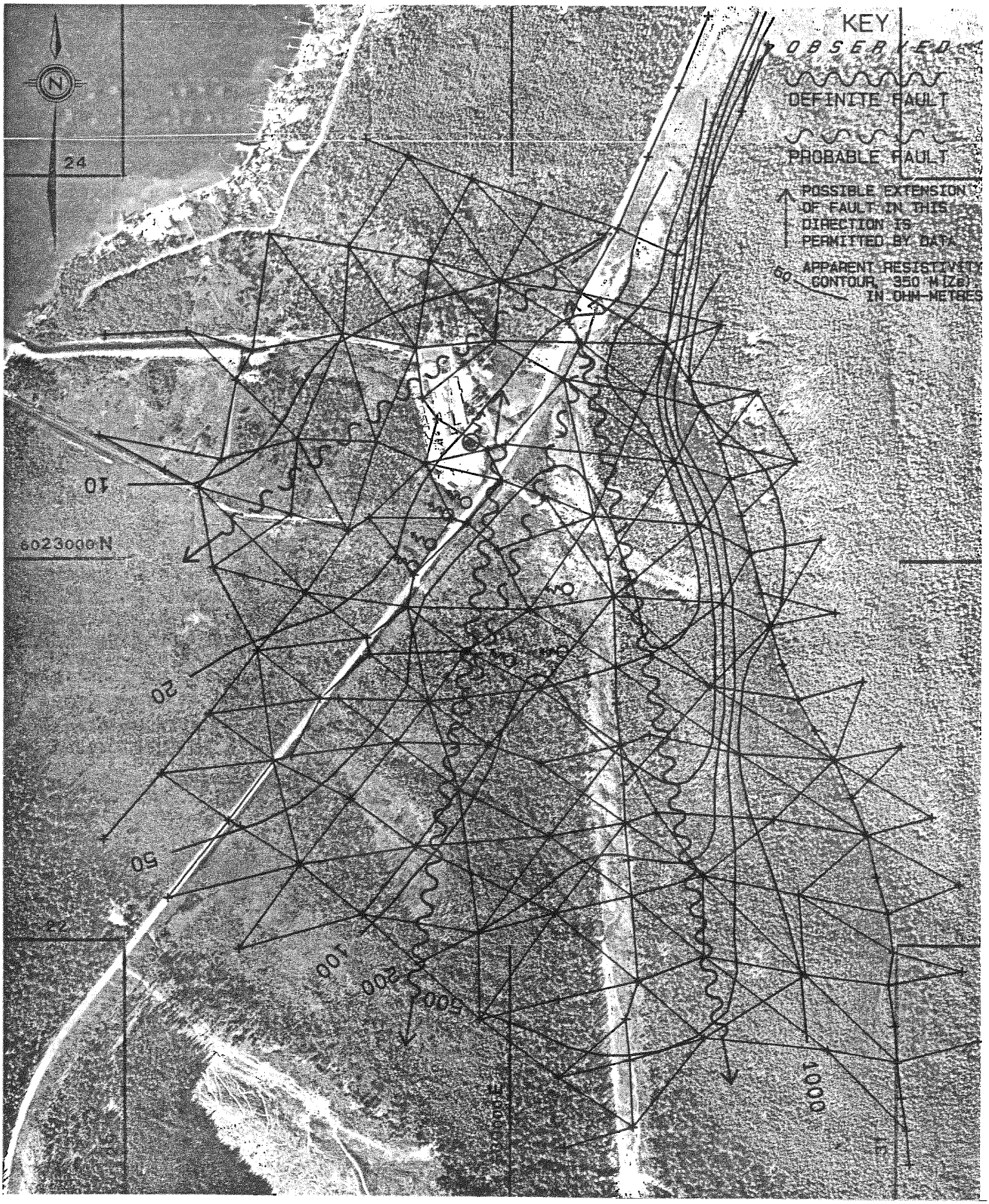
PREMIER GEOPHYSICS INC.

SERIAL NUMBER IDENTIFICATION
OF ALL E-SCAN GRID ELECTRODE SITES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE # 9



PREMIER GEOPHYSICS INC.

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

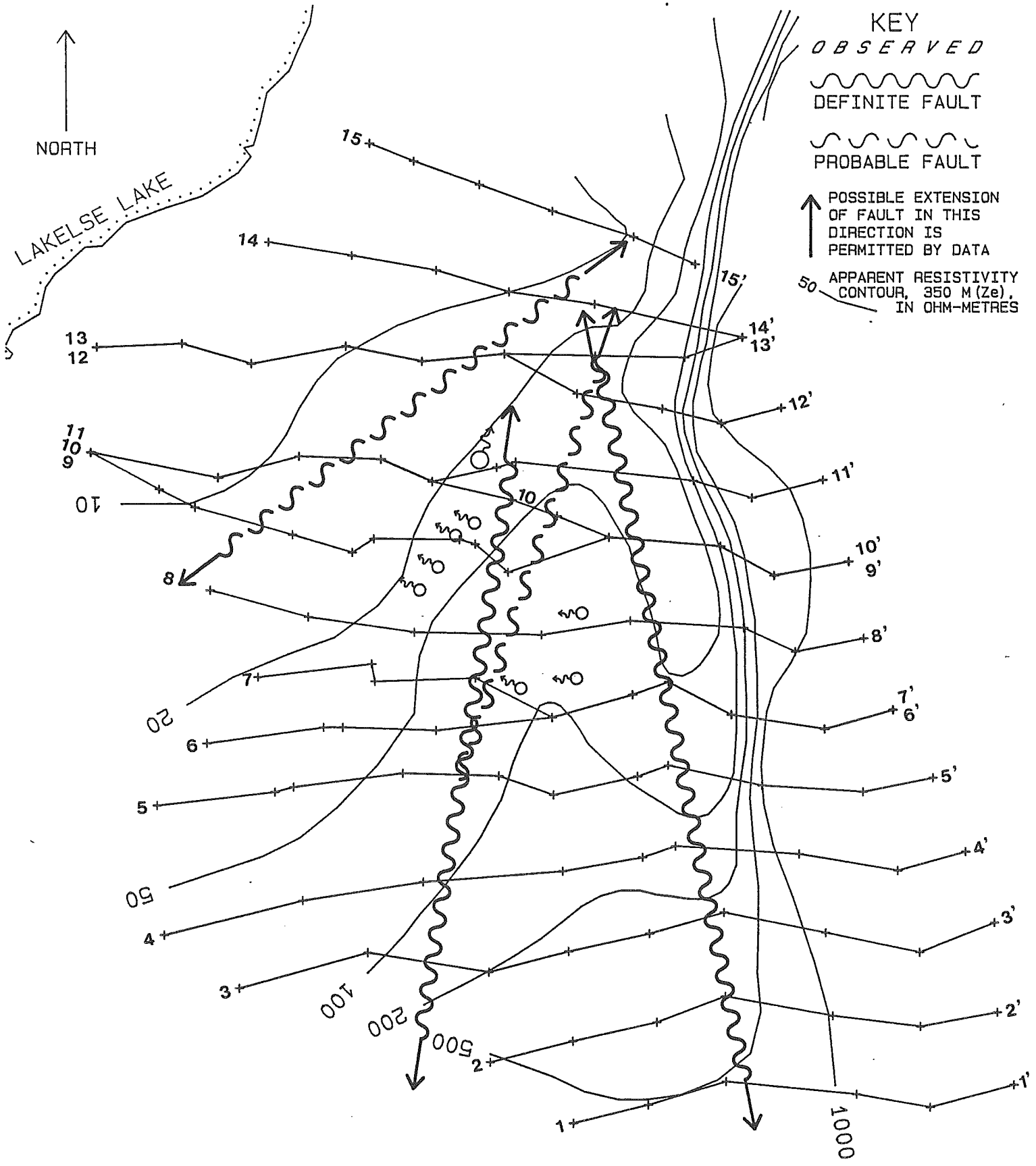
GSC CONTRACT 04SB.23254-3-0240

EFFECTIVE LOCATIONS OF ALL CONSTRUCTED POLE-POLE ARRAY TRAVERSE PSEUDOSECTIONS. FOUR BASIC ORIENTATIONS WERE TESTED FOR EVIDENCE OF LINEAR STRUCTURES OR BOUNDARIES.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE 10



GEOLOGICAL SURVEY OF CANADA

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

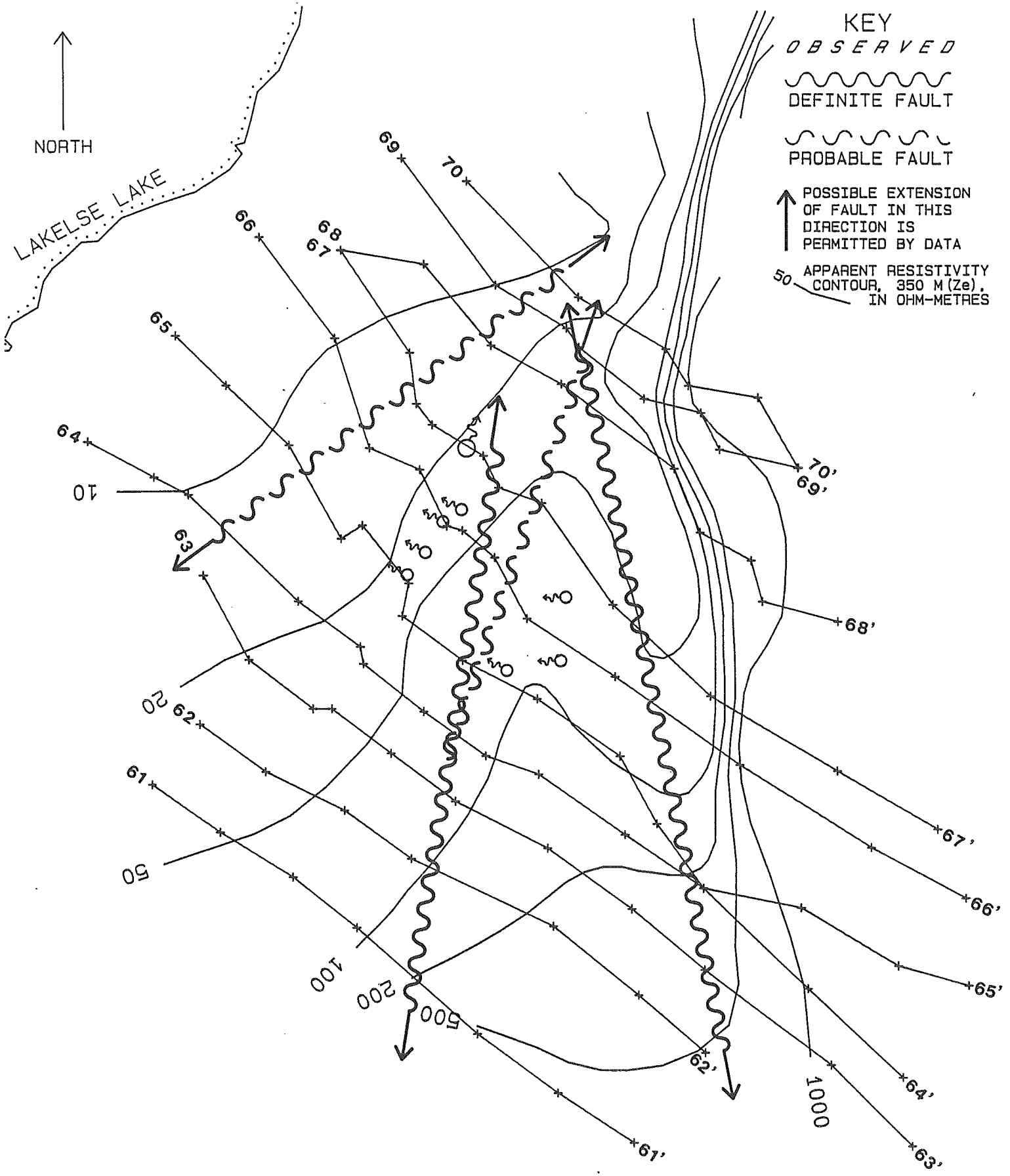
PREMIER GEOPHYSICS INC.

PLOT SHOWING LOCATIONS OF CONSTRUCTED PSEUDOSECTIONS. VIEWER FACES NORTH. RESISTIVITY CONTOURS AND FAULTS ARE SHOWN FOR COMPARISON OF ORIENTATIONS.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE # 11



GEOLOGICAL SURVEY OF CANADA

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

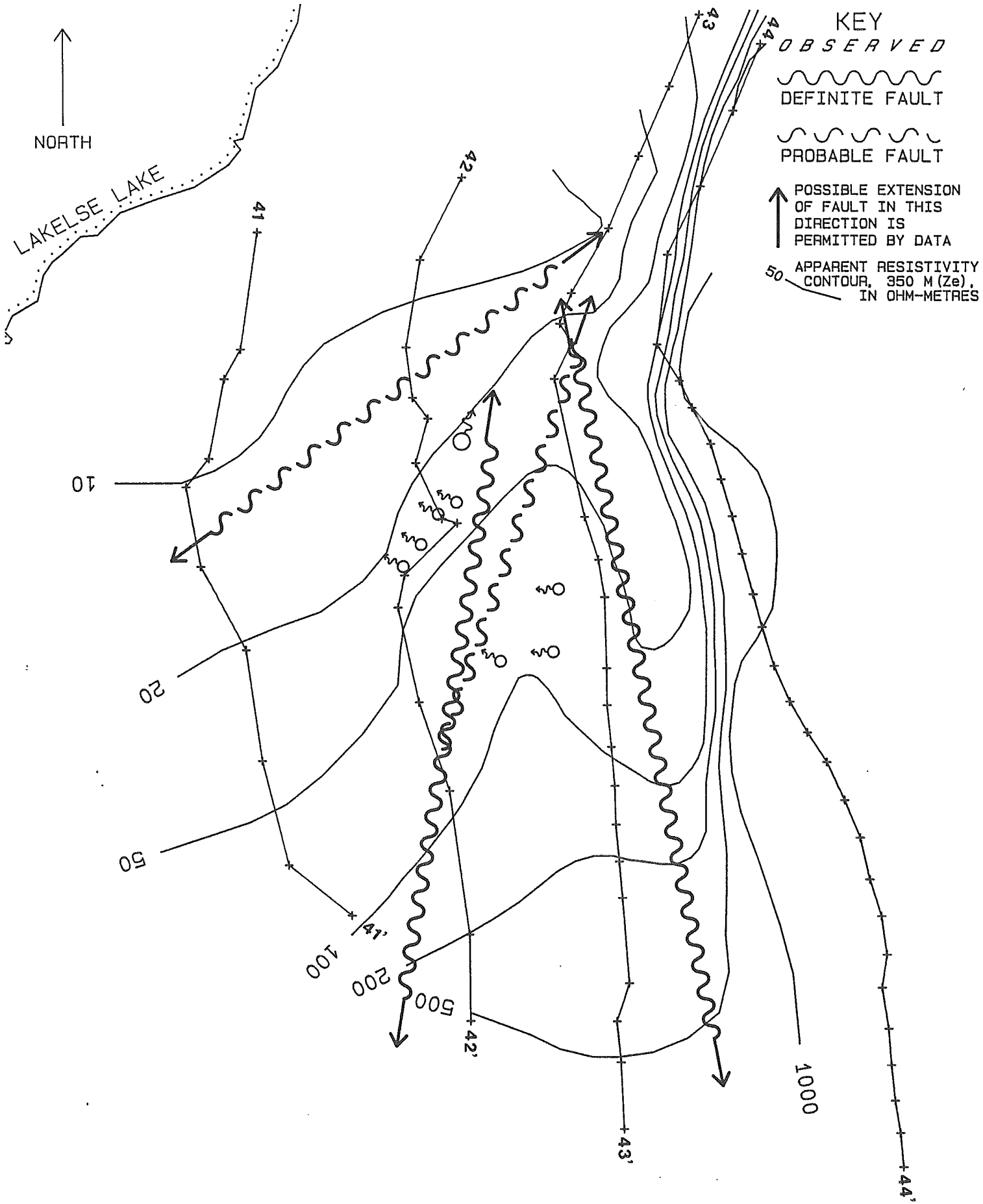
PREMIER GEOPHYSICS INC.

PLOT SHOWING LOCATIONS OF CONSTRUCTED RSEUDOSECTIONS. VIEWER FACES NORTHEAST. RESISTIVITY CONTOURS AND FAULTS ARE SHOWN FOR COMPARISON OF ORIENTATIONS.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

FIGURE # 12



GEOLOGICAL SURVEY OF CANADA

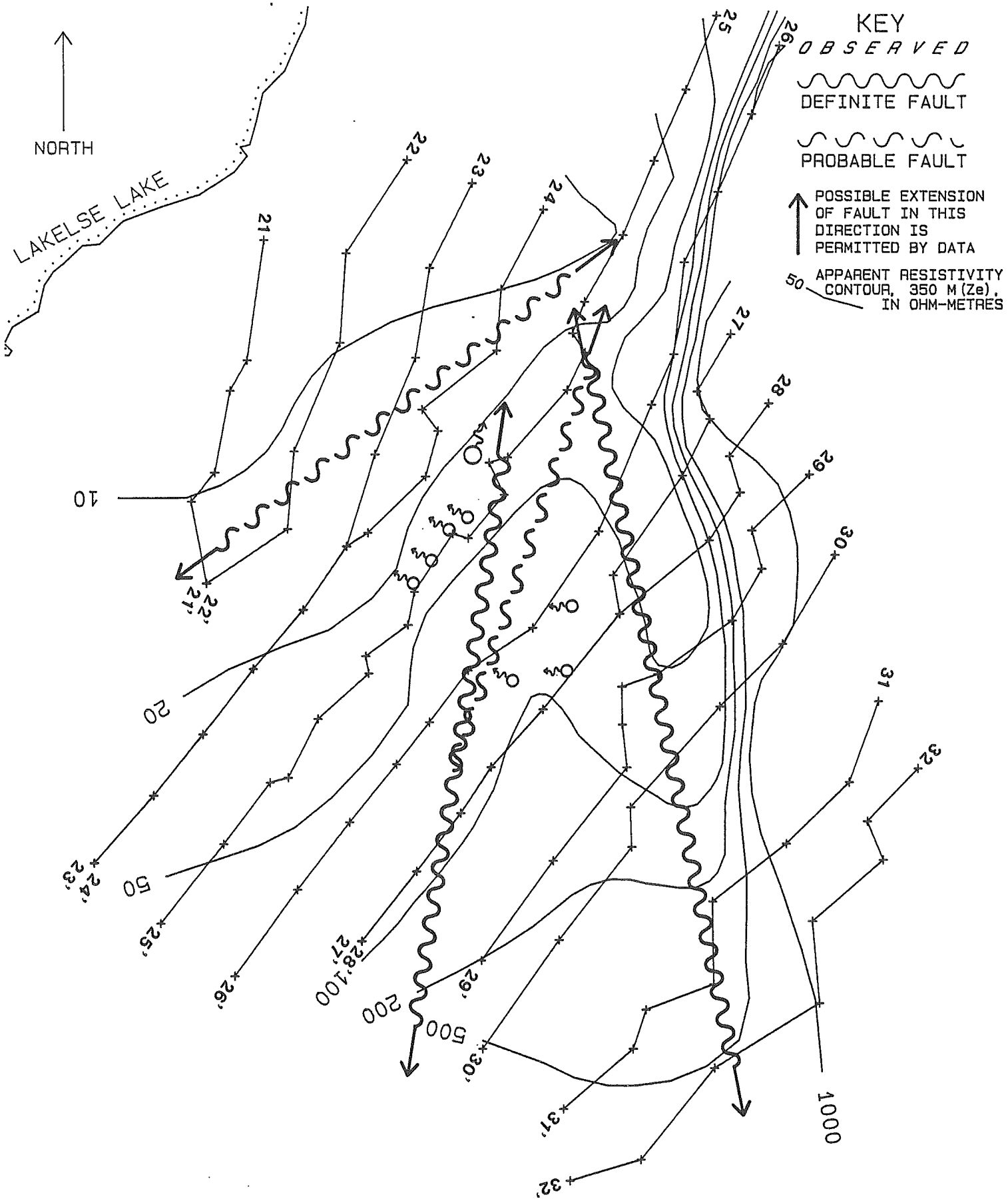
E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

PREMIER GEOPHYSICS INC.

PLOT SHOWING LOCATIONS OF CONSTRUCTED PSEUDOSECTIONS. VIEWER FACES EAST. RESISTIVITY CONTOURS AND FAULTS ARE SHOWN FOR COMPARISON OF ORIENTATIONS.

OCTOBER, 1983

FIGURE # 13



GEOLOGICAL SURVEY OF CANADA

E-SCAN RESISTIVITY SURVEY
LAKELSE HOT SPRINGS
LAKELSE, BRITISH COLUMBIA

PREMIER GEOPHYSICS INC.

PLOT SHOWING LOCATIONS OF CONSTRUCTED PSEUDOSECTIONS. VIEWER FACES SOUTHEAST. RESISTIVITY CONTOURS AND FAULTS ARE SHOWN FOR COMPARISON OF ORIENTATIONS.

SCALE, METRES
0 100 200 300 400 500

OCTOBER, 1983

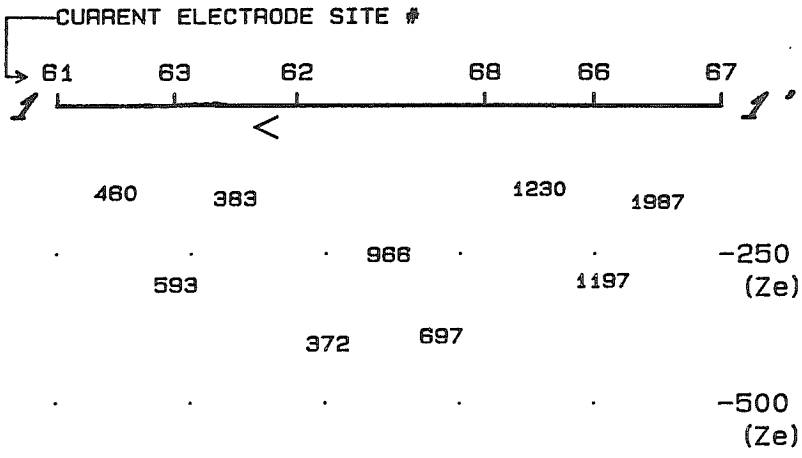
FIGURE # 14

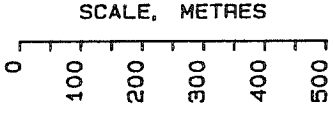
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 1 FACING NORTH # OF DATA: 9

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214130927 MOD: 840214130935 PLOT: 840224221544

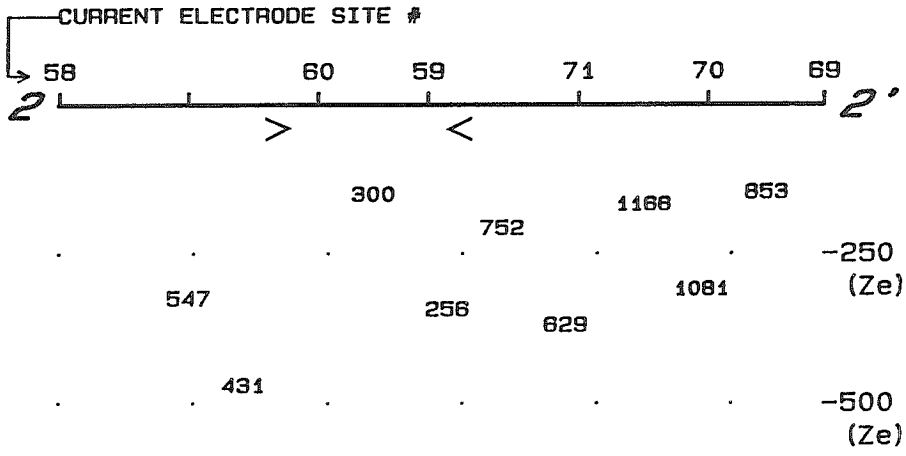
1

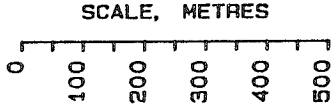
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 2 FACING NORTH # OF DATA: 9

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131028 MOD: 840214131037 PLOT: 840224223717

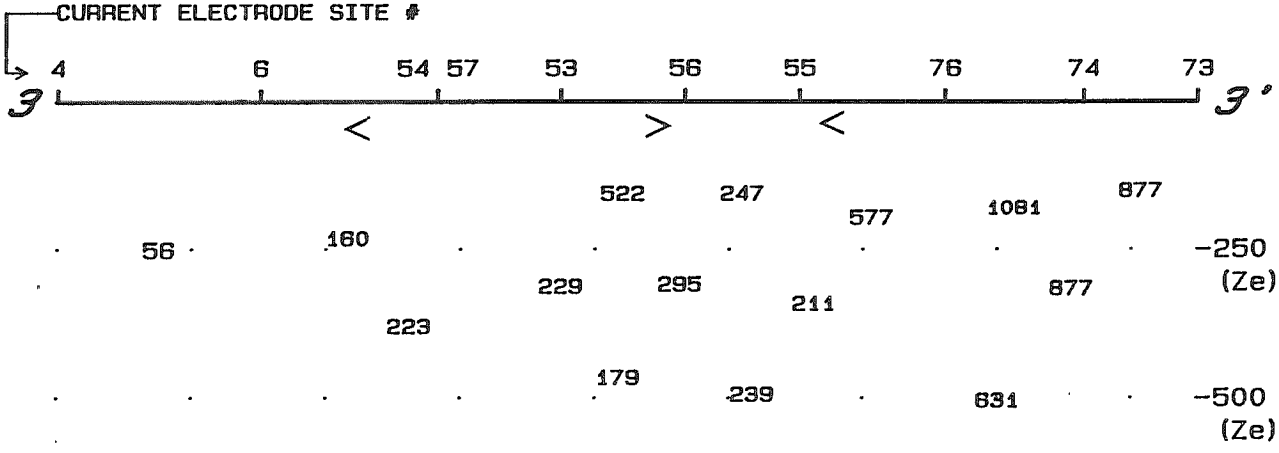
2

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

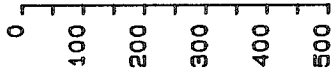
E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 3 FACING NORTH # OF DATA: 15

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES



NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131108 MOD: 840214131125 PLOT: 840224224350

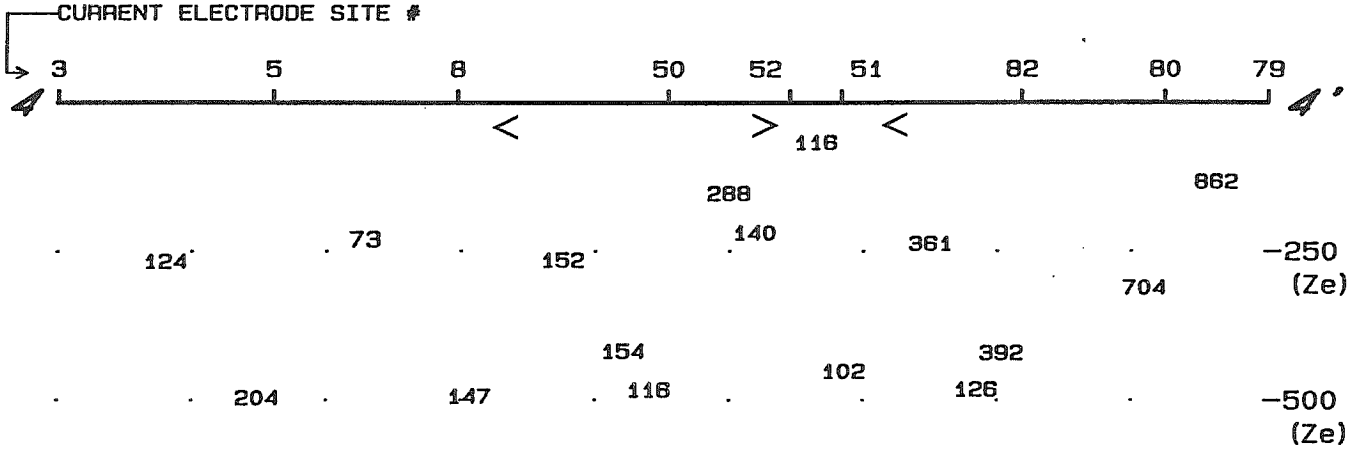
3

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

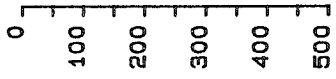
E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 4 FACING NORTH # OF DATA: 16

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES



NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131141 MOD: 840214131157 PLOT: 840224225021

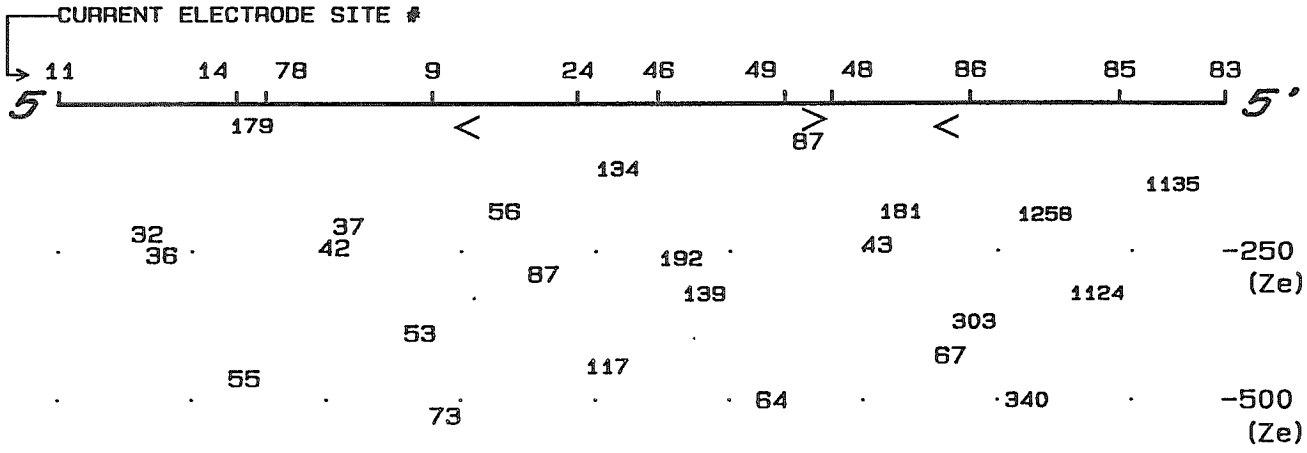
4

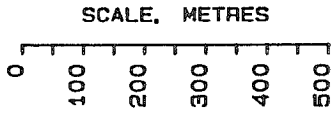
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 5 FACING NORTH # OF DATA: 24

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214151238 MOD: 840214151259 PLOT: 840224225712

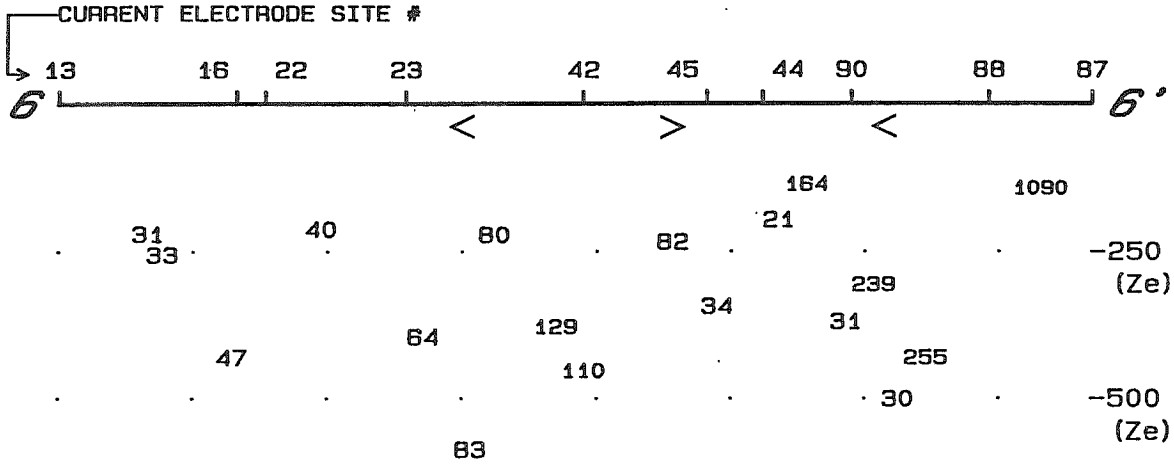
5

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 6 FACING NORTH # OF DATA: 18

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131222 MOD: 840214131239 PLOT: 840224230349

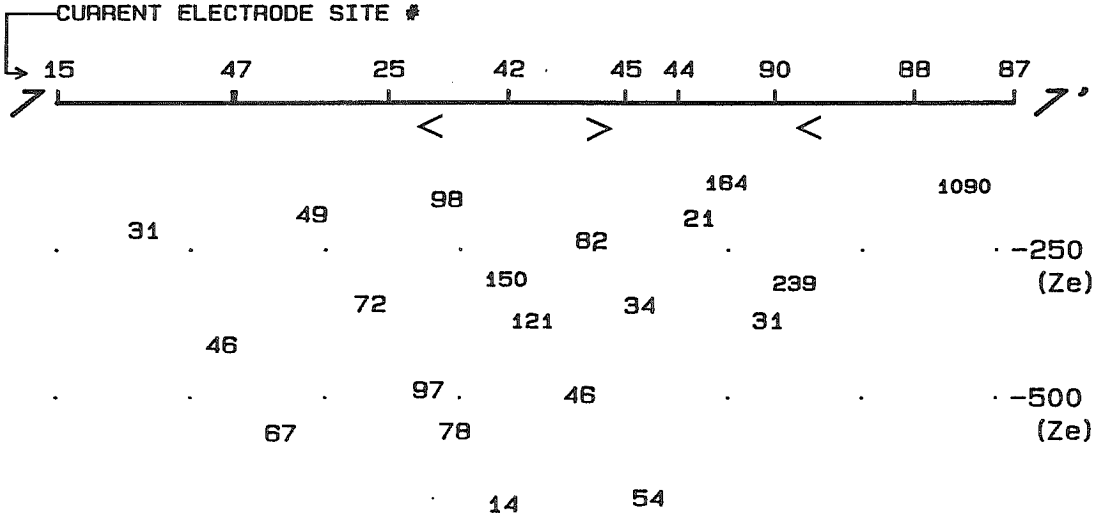
6

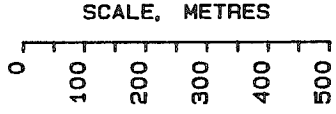
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 7 FACING NORTH # OF DATA: 20

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

7

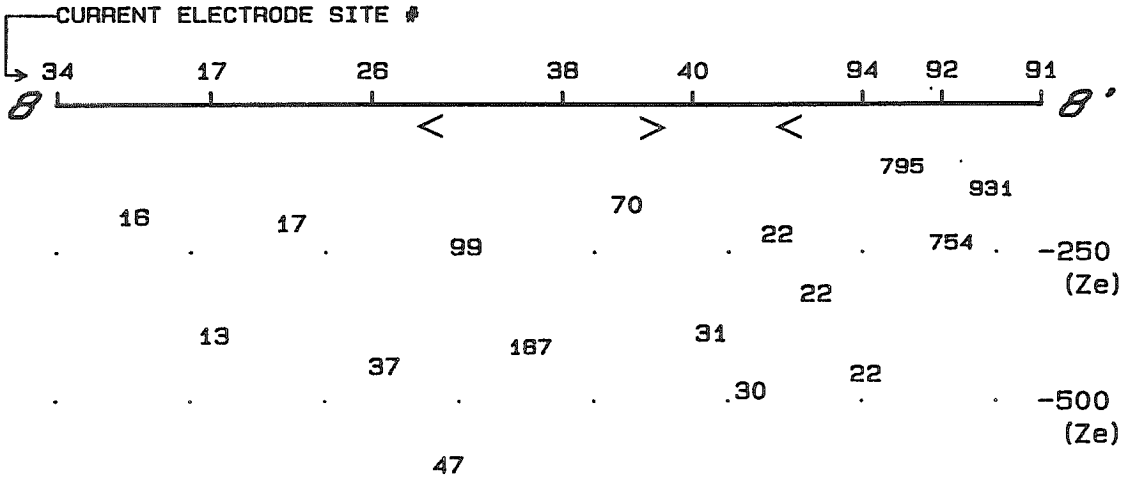
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131251 MOD: 840214131306 PLOT: 840224231020

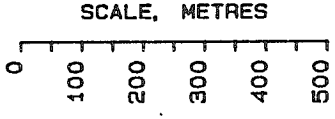
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 8 FACING NORTH # OF DATA: 16

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131318 MOD: 840214131331 PLOT: 840224231645

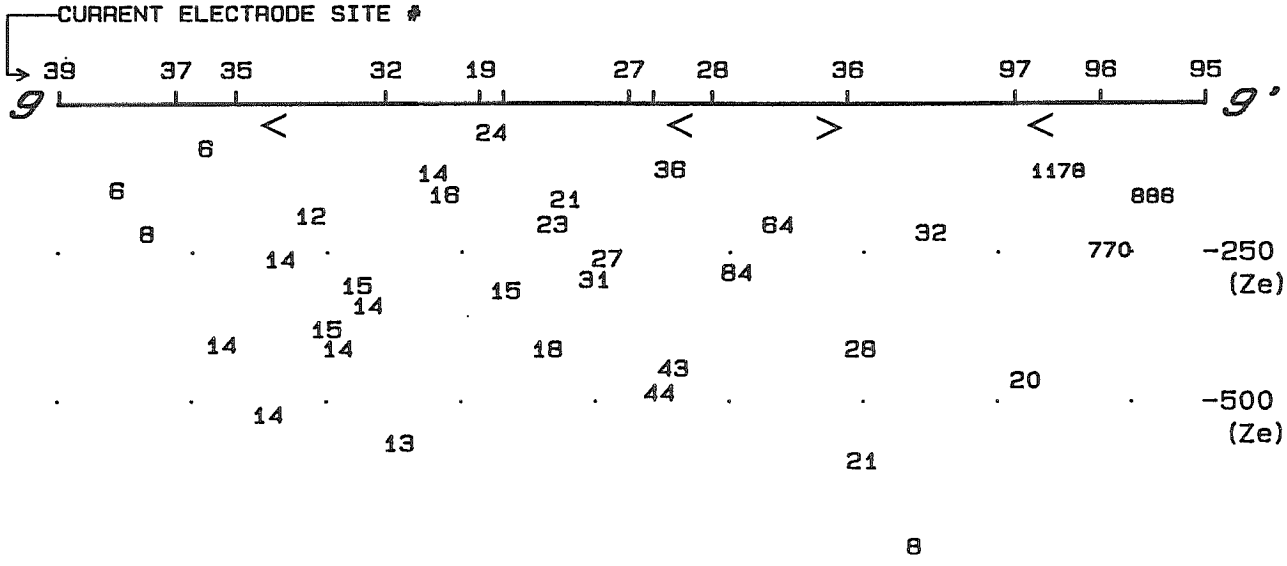
8

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 9 FACING NORTH # OF DATA: 34

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131344 MOD: 840214131414 PLOT: 840224232348

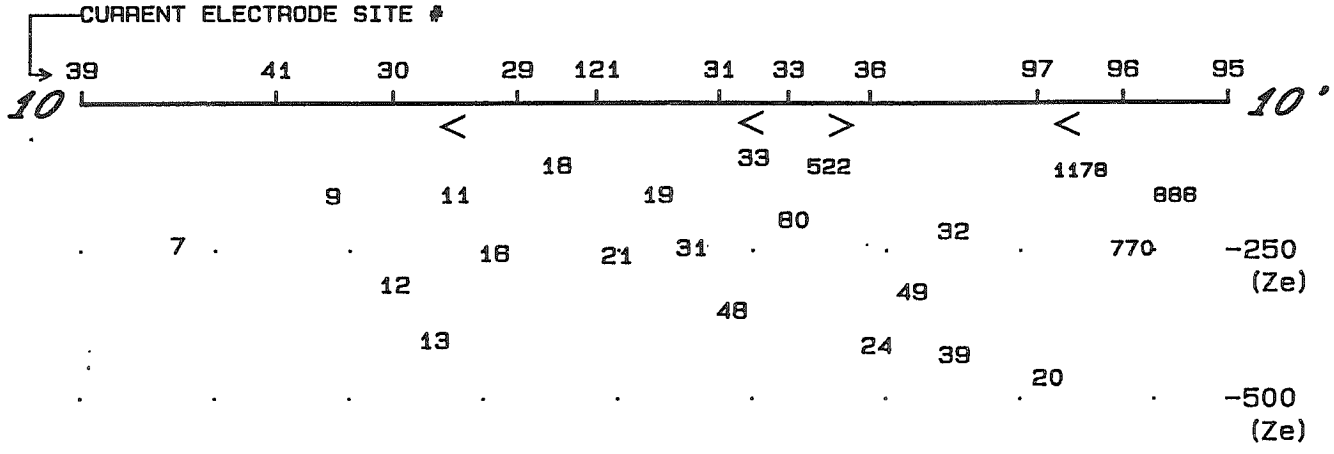
9

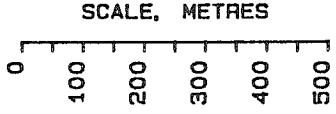
PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 10 FACING NORTH # OF DATA: 22

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < . WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131428 MOD: 840214131450 PLOT: 840224233036

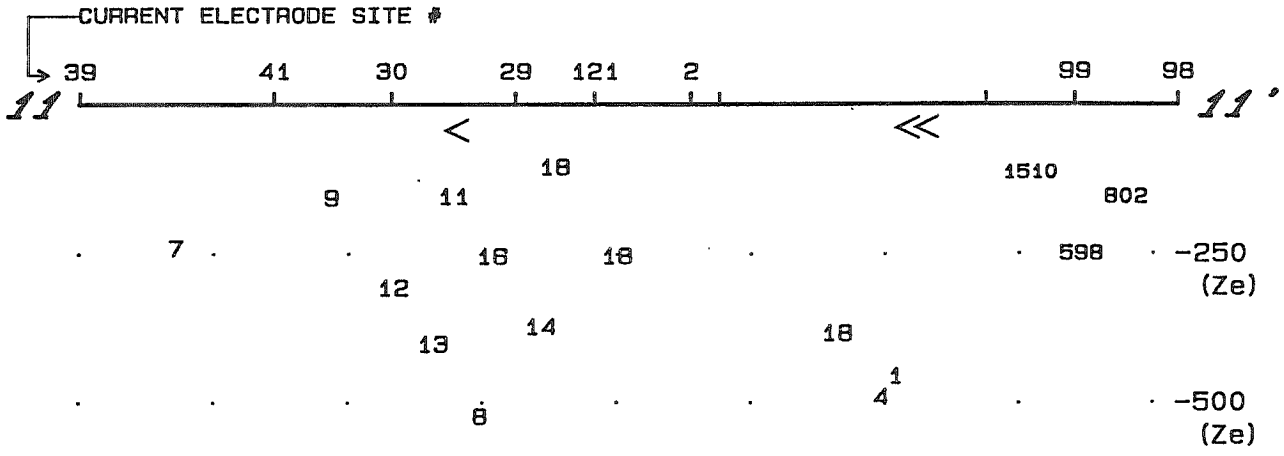
10

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 11 FACING NORTH # OF DATA: 16

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: . DATA: 840214131511 MOD: 840214131527 PLOT: 840224233702

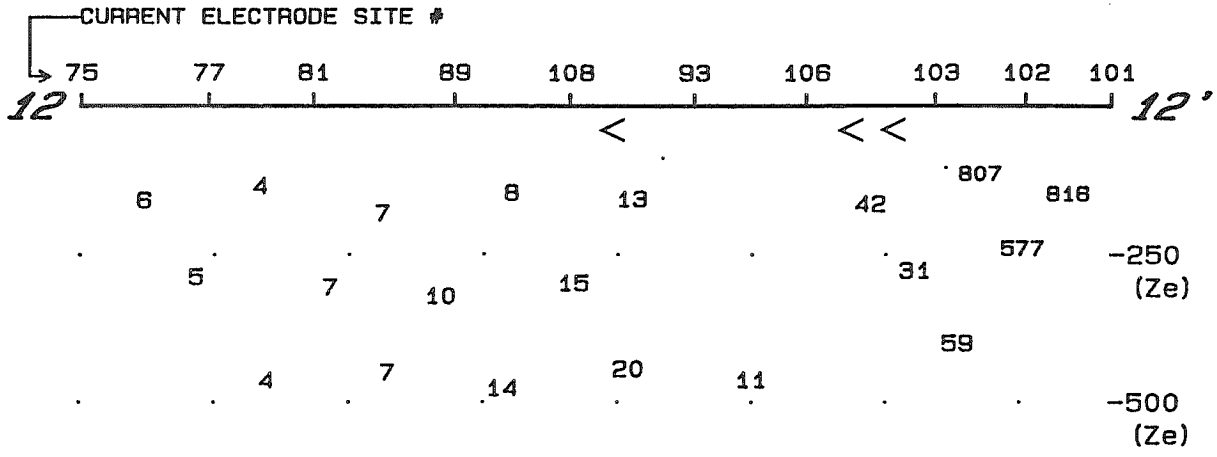
11

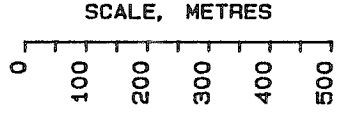
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 12 FACING NORTH # OF DATA: 20

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131539 MOD: 840214131559 PLOT: 840224234338

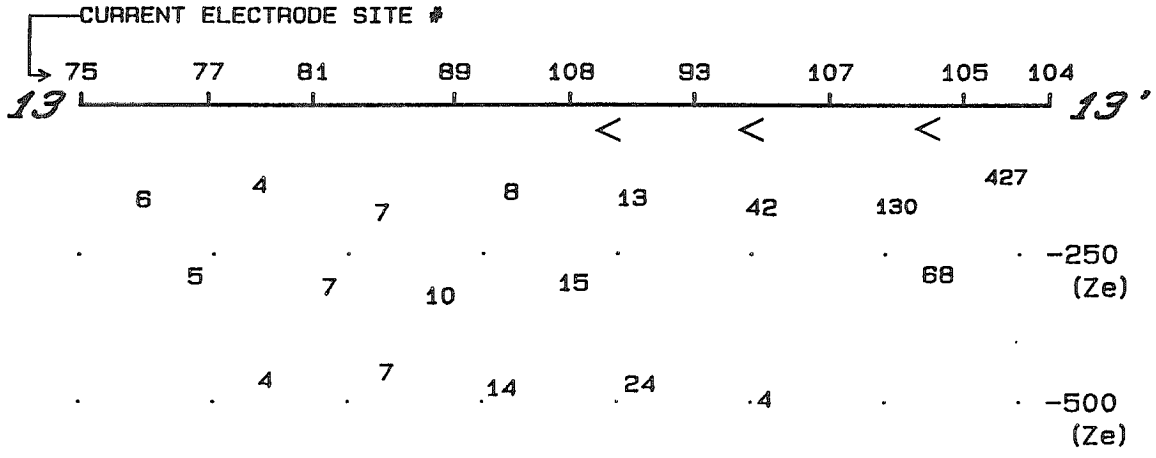
12

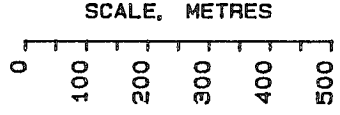
PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 13 FACING NORTH # OF DATA: 18

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131617 MOD: 840214131633 PLOT: 840224235008

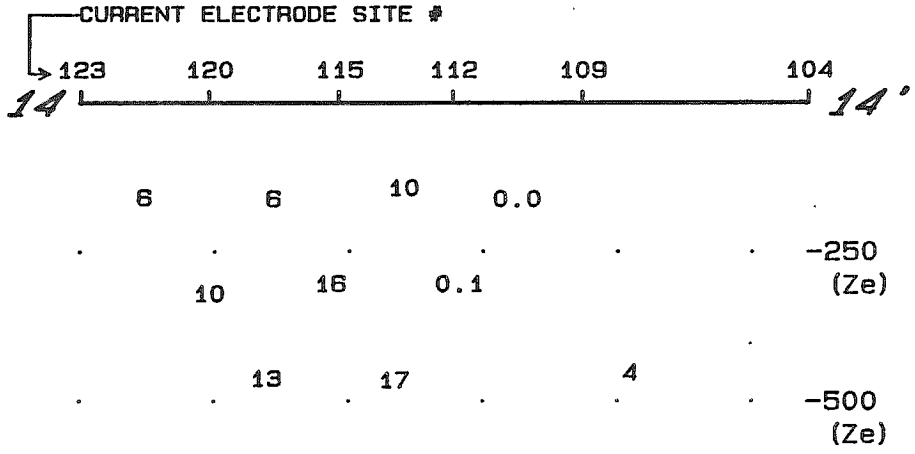
13

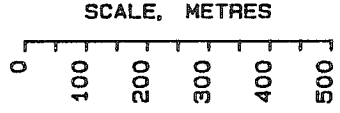
PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 14 FACING NORTH # OF DATA: 10

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214131647 MOD: 840214131656 PLOT: 840224235613

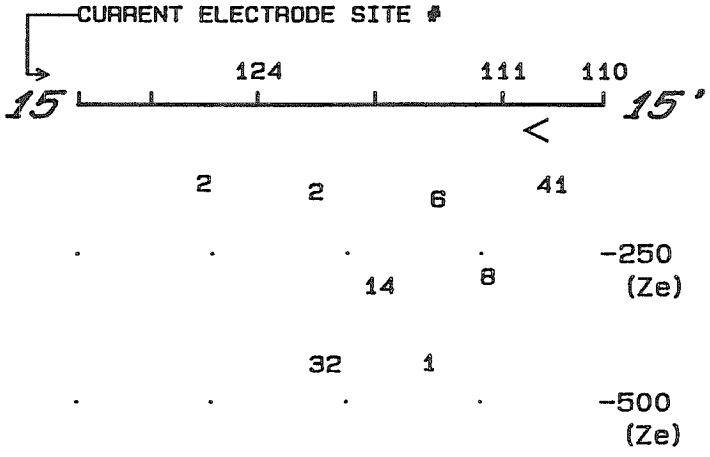
14

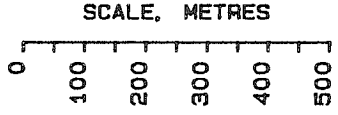
PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 15 FACING NORTH # OF DATA: 8

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTH

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214132516 MOD: 840214132522 PLOT: 840225000207

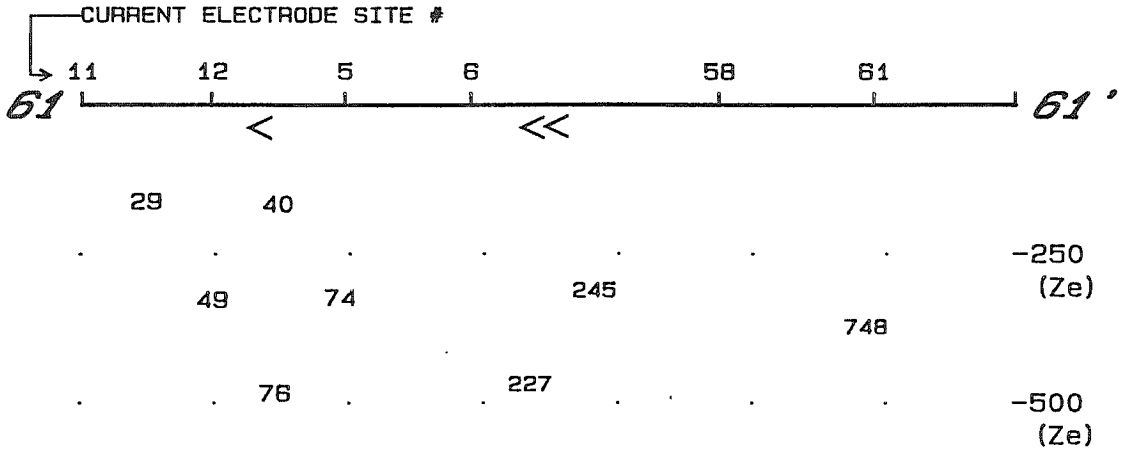
15

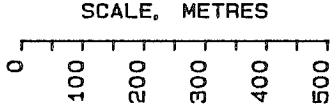
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 61 FACING NORTHEAST # OF DATA: 8

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTHEAST

61

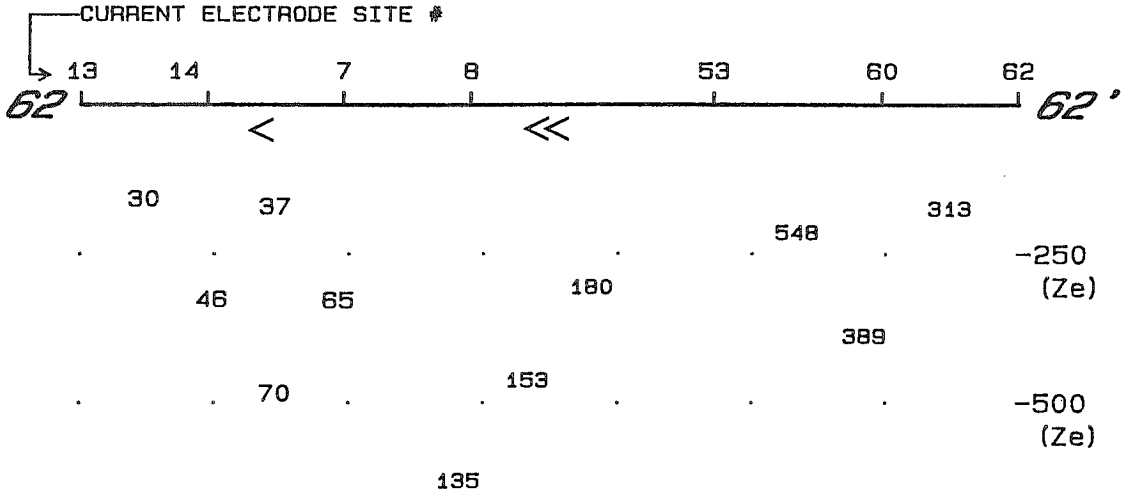
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143558 MOD: 840214143607 PLOT: 840225110824

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 62 FACING NORTHEAST # OF DATA: 11

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTHEAST

62

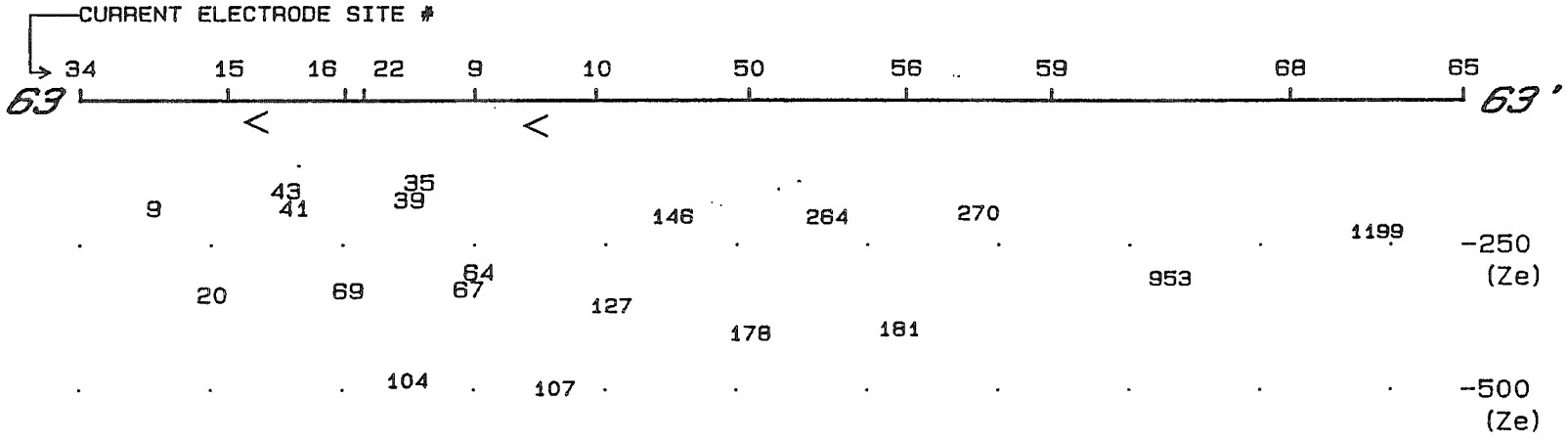
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143616 MOD: 840214143626 PLOT: 840225111449

PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 63 FACING NORTHEAST # OF DATA: 19

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTHEAST

63

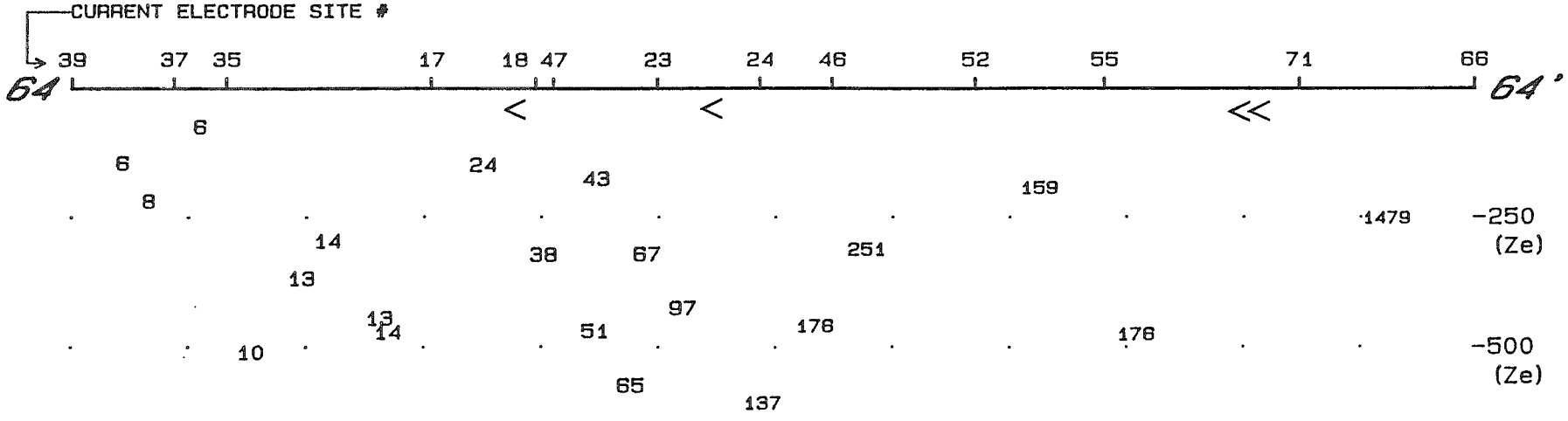
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143647 MOD: 840214143707 PLOT: 840225112141

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 64 FACING NORTHEAST # OF DATA: 21

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTHEAST

64

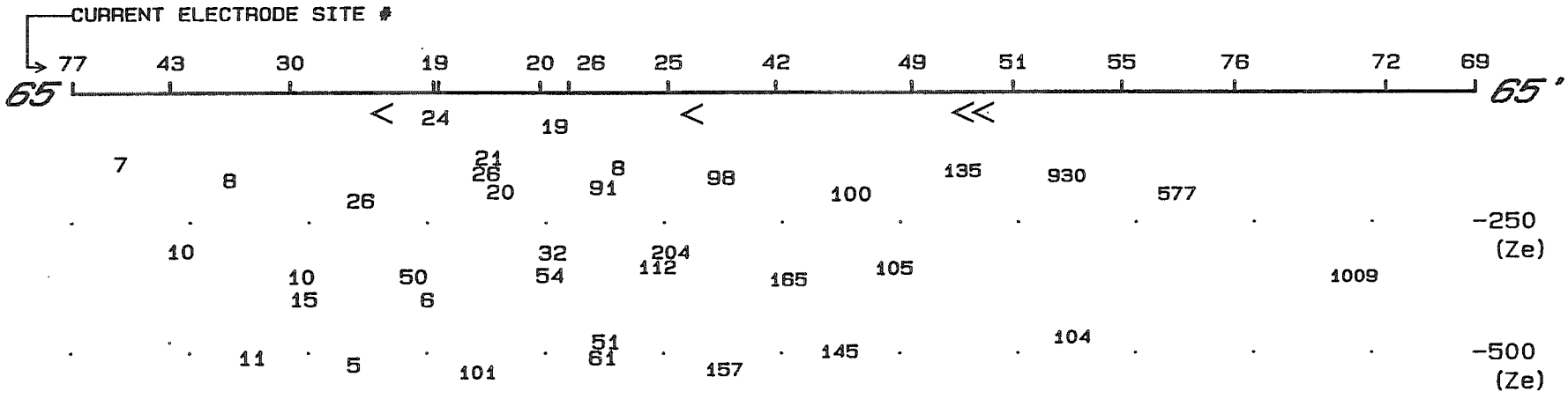
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143721 MOD: 840214143749 PLOT: 840225112837

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

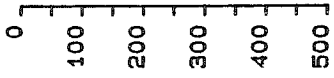
E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 65 FACING NORTHEAST # OF DATA: 35

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES



NORTHEAST

65

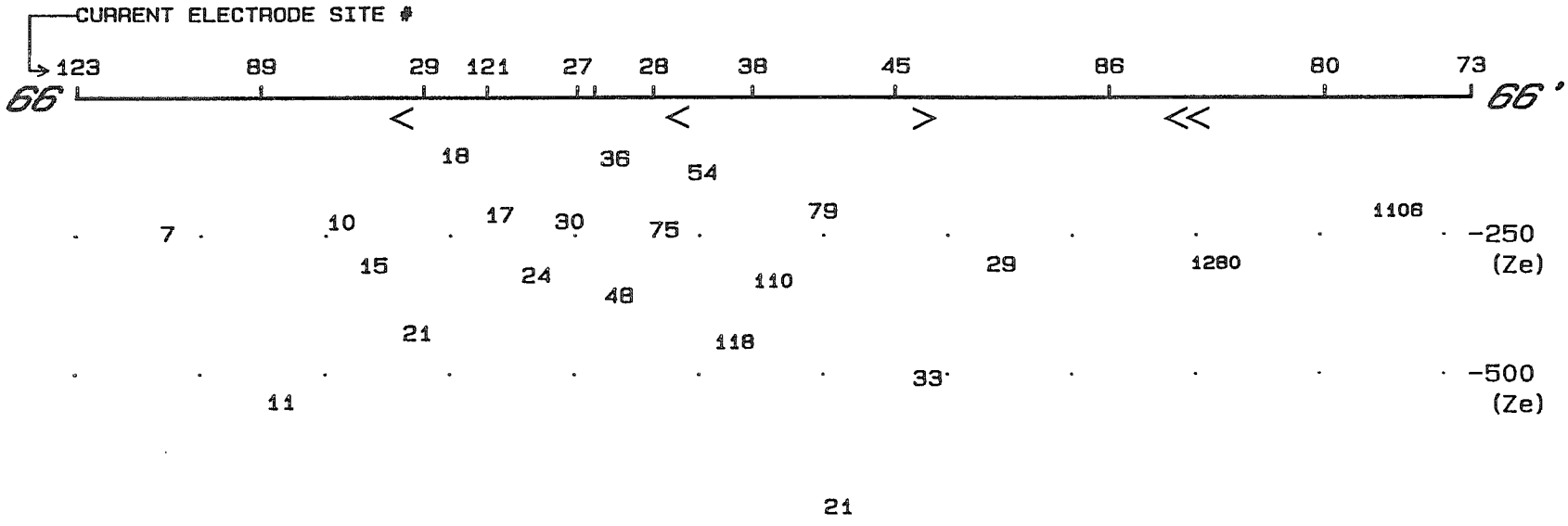
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143802 MOD: 840225114503 PLOT: 840225115302

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 66 FACING NORTHEAST # OF DATA: 21

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143853 MOD: 840214143920 PLOT: 840225120004

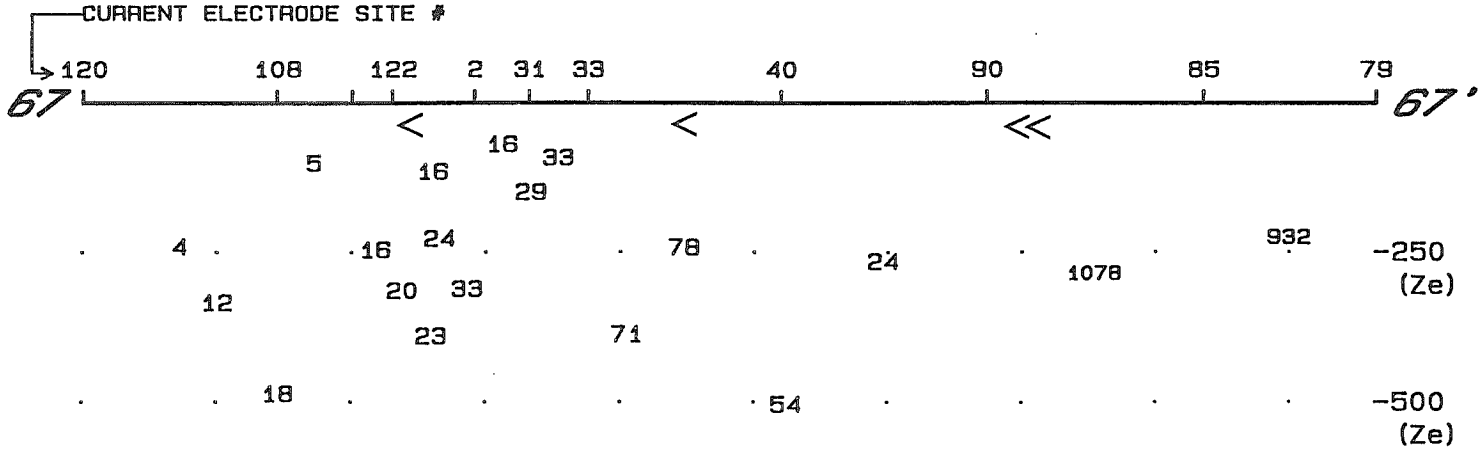
66

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 67 FACING NORTHEAST # OF DATA: 19

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

NORTHEAST

67

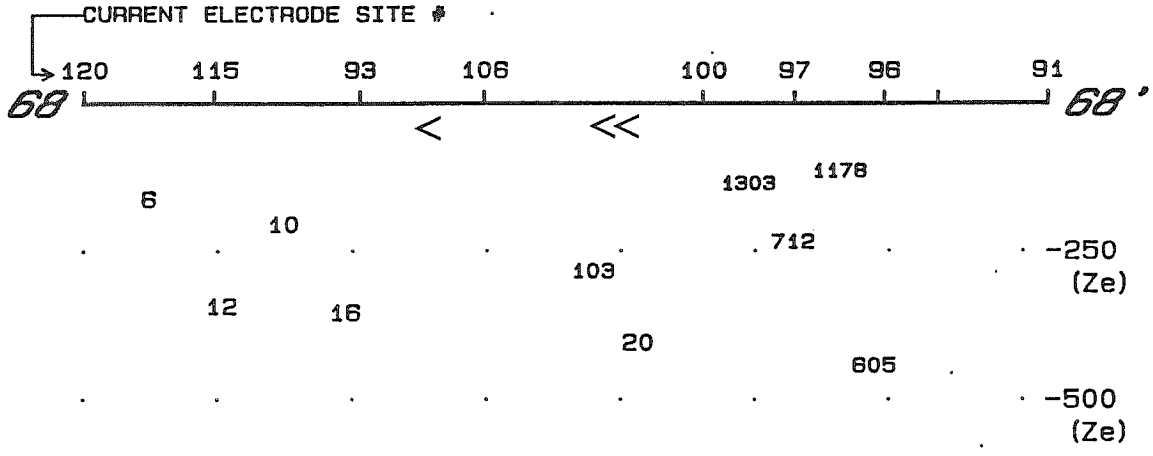
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143943 MOD: 840214144003 PLOT: 840225120651

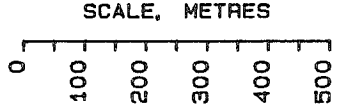
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 68 FACING NORTHEAST # OF DATA: 12

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214151800 MOD: 840214151815 PLOT: 840225121326

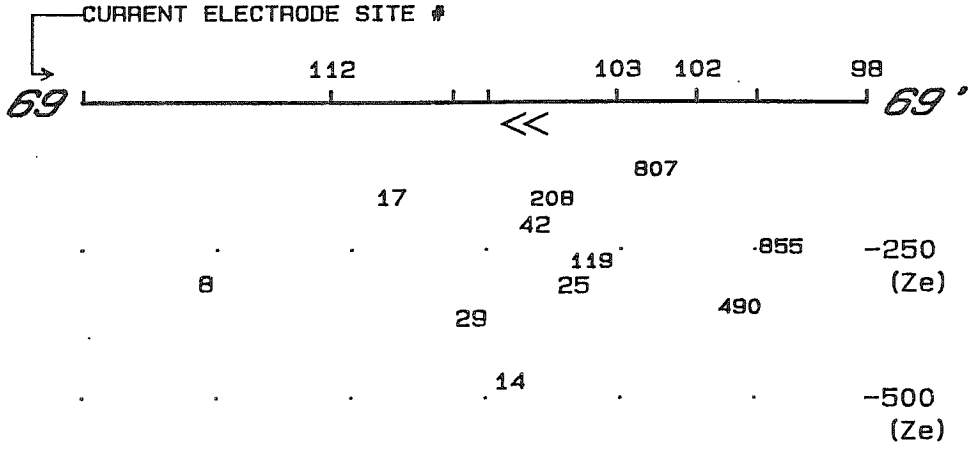
68

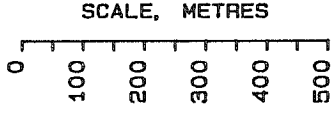
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 69 FACING NORTHEAST # OF DATA: 11

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTHEAST

69

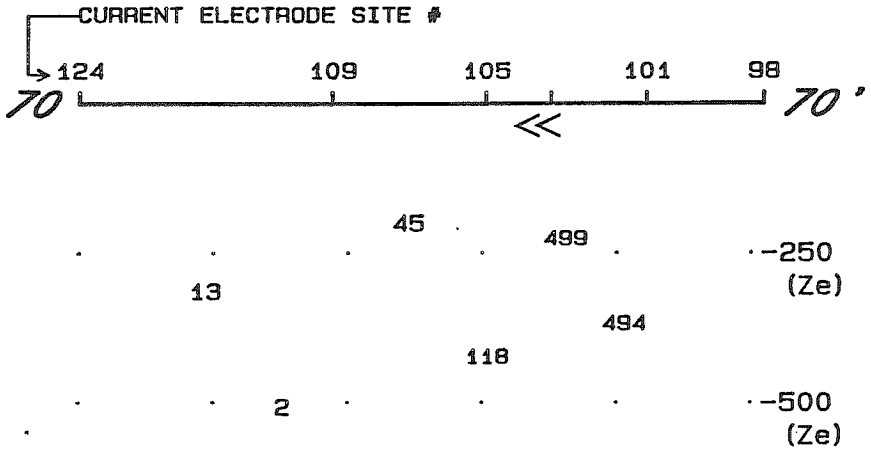
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214151644 MOD: 840214151653 PLOT: 840225121945

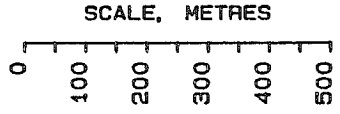
PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 70 FACING NORTHEAST # OF DATA: 6

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





NORTHEAST

70

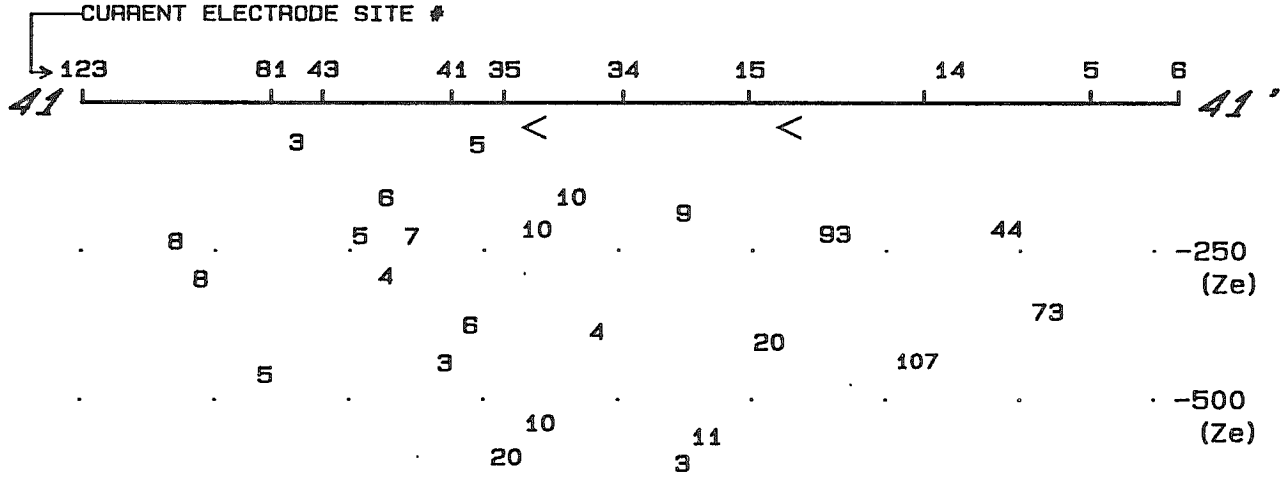
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214144040 MOD: 840214144047 PLOT: 840225122549

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

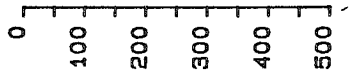
E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 41 FACING EAST # OF DATA: 24

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES



EAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143112 MOD: 840214143131 PLOT: 840225085951

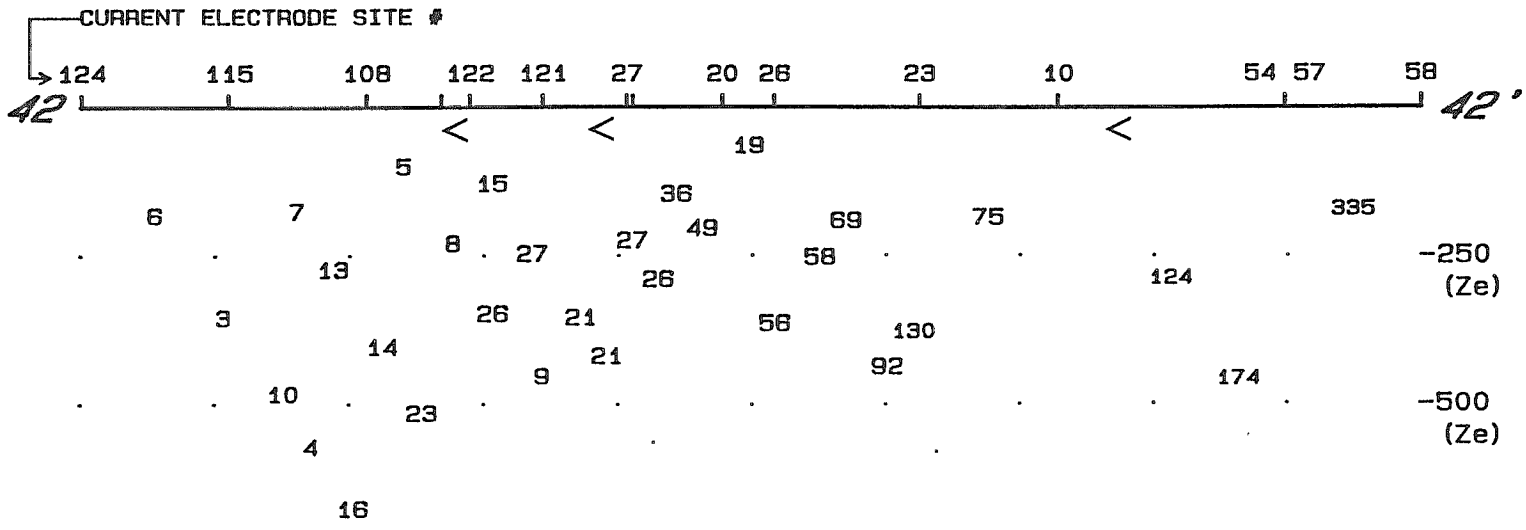
41

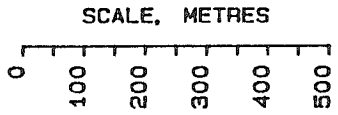
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 42 FACING EAST # OF DATA: 31

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





EAST

42

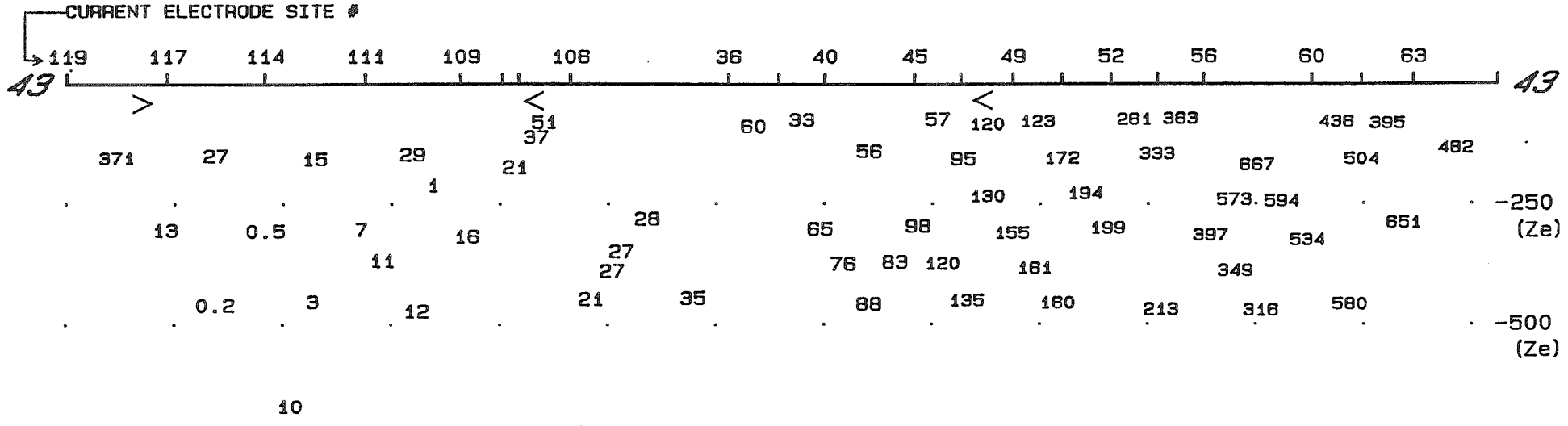
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143159 MOD: 840214143231 PLOT: 840225090657

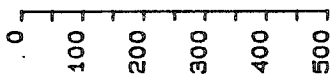
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 43 FACING EAST # OF DATA: 62

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





EAST

43

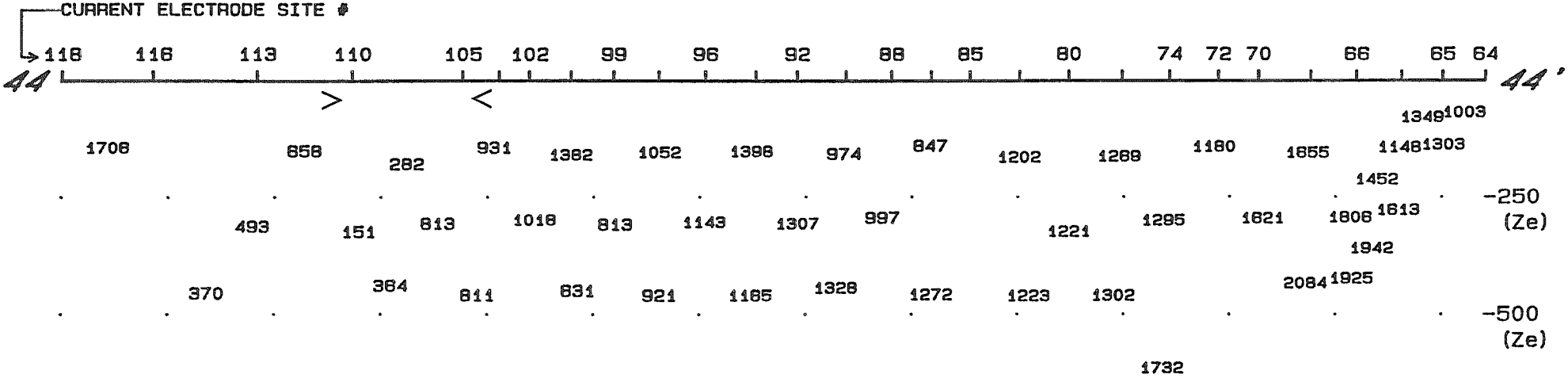
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143245 MOD: 840214143340 PLOT: 840225091525

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 44 FACING EAST # OF DATA: 45

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

EAST

44

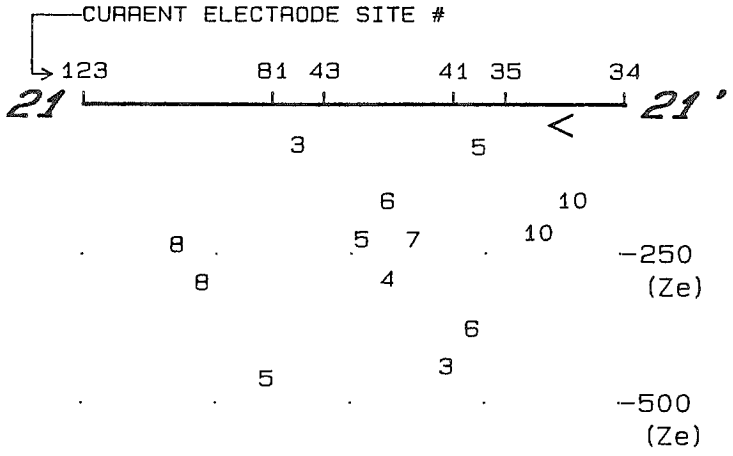
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214143408 MOD: 840214143527 PLOT: 840225092401

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 21 FACING SOUTHEAST # OF DATA: 13

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

SOUTHEAST

21

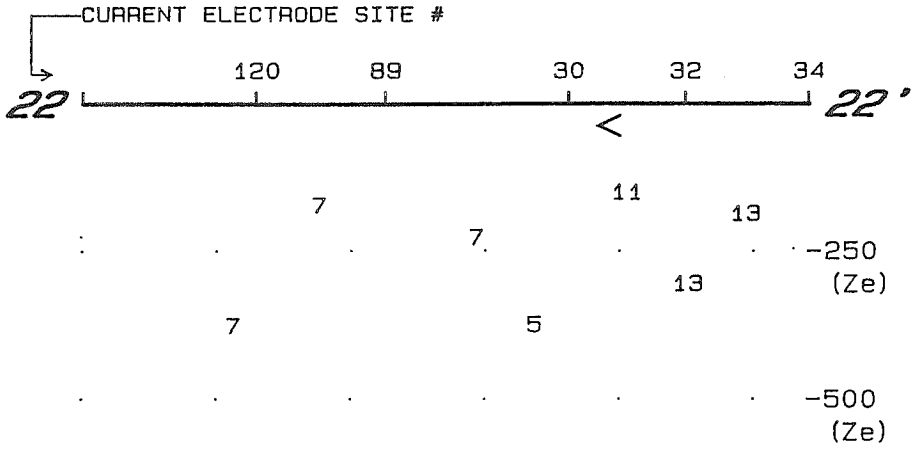
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142139 MOD: 840214142148 PLOT: 840225094400

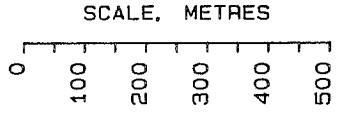
PREMIER GEOPHYSICS INC. OCTOBER, 1983

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 22 FACING SOUTHEAST # OF DATA: 7

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





SOUTHEAST

22

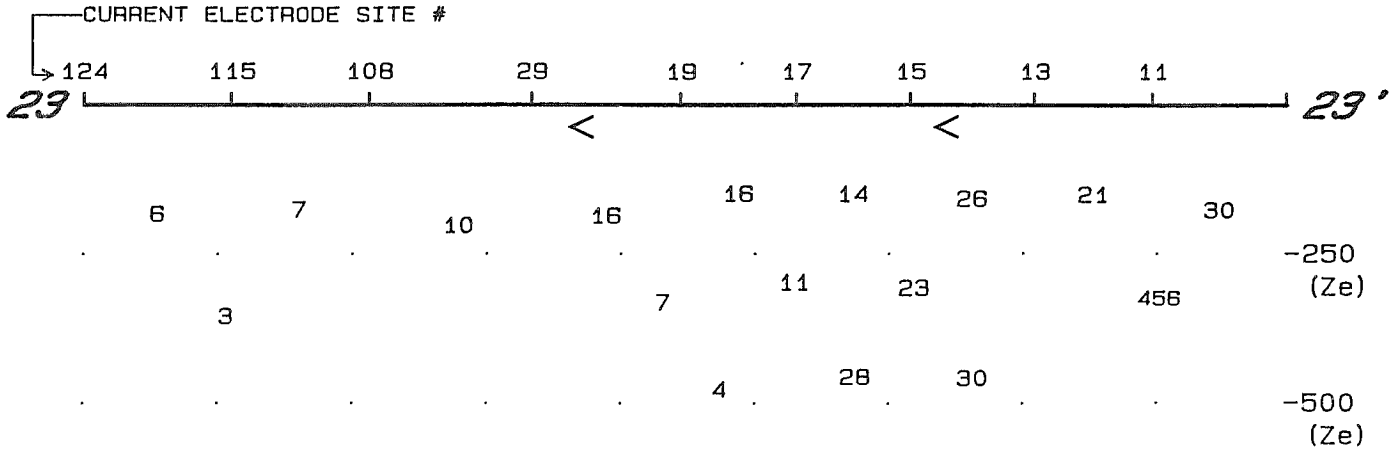
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142158 MOD: 840214142205 PLOT: 840225095004

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 23 FACING SOUTHEAST # OF DATA: 17

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

SOUTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142217 MOD: 840214142233 PLOT: 840225095641

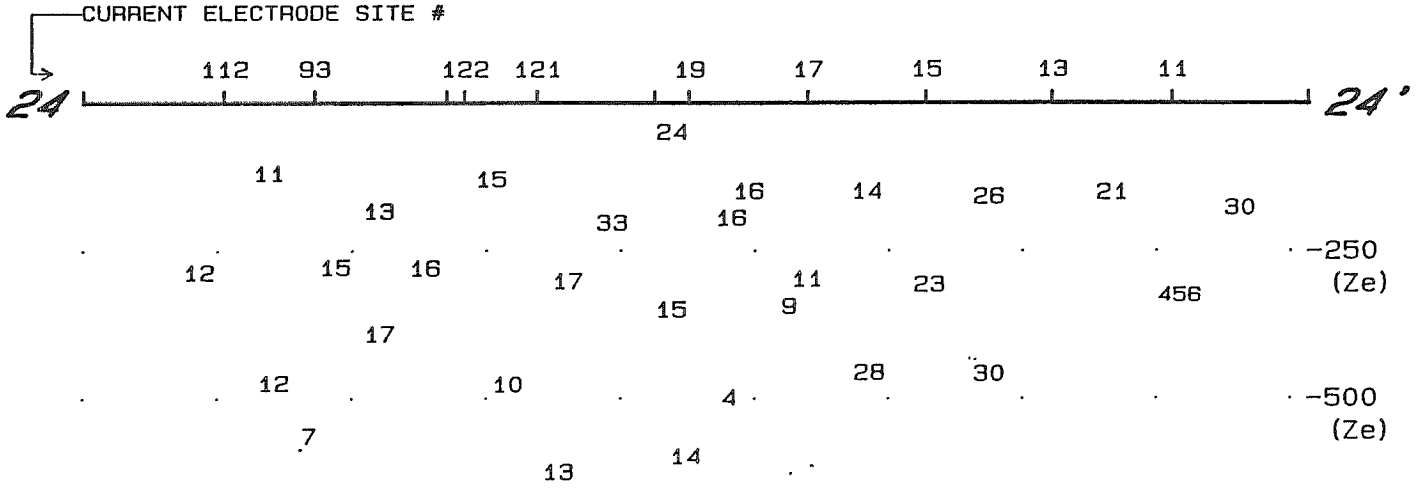
23

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 24 FACING SOUTHEAST # OF DATA: 31

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

SOUTHEAST

24

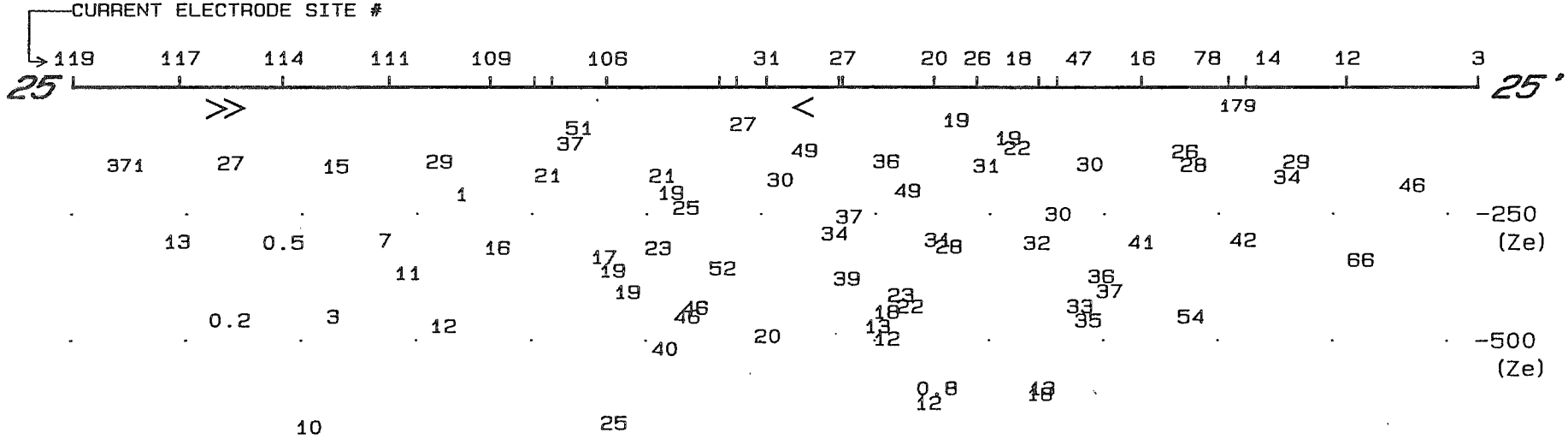
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142247 MOD: 840214142309 PLOT: 840225100339

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 25 FACING SOUTHEAST # OF DATA: 71

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



10

SCALE, METRES

0 100 200 300 400 500

SOUTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142327 MOD: 840214142430 PLOT: 840225101212

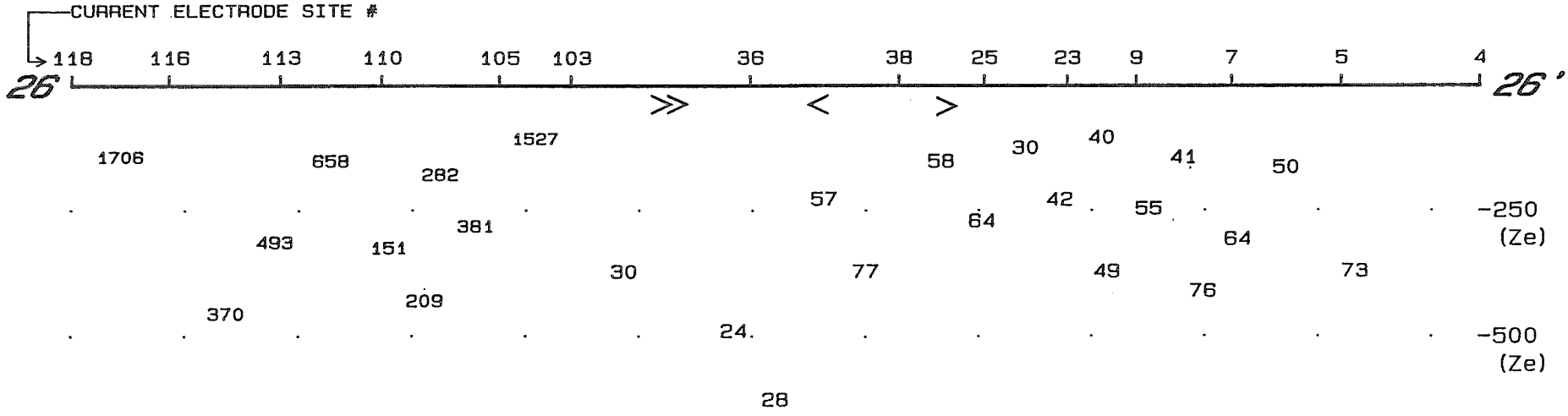
25

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 26 FACING SOUTHEAST # OF DATA: 26

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

SOUTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142448 MOD: 840214142523 PLOT: 840225101930

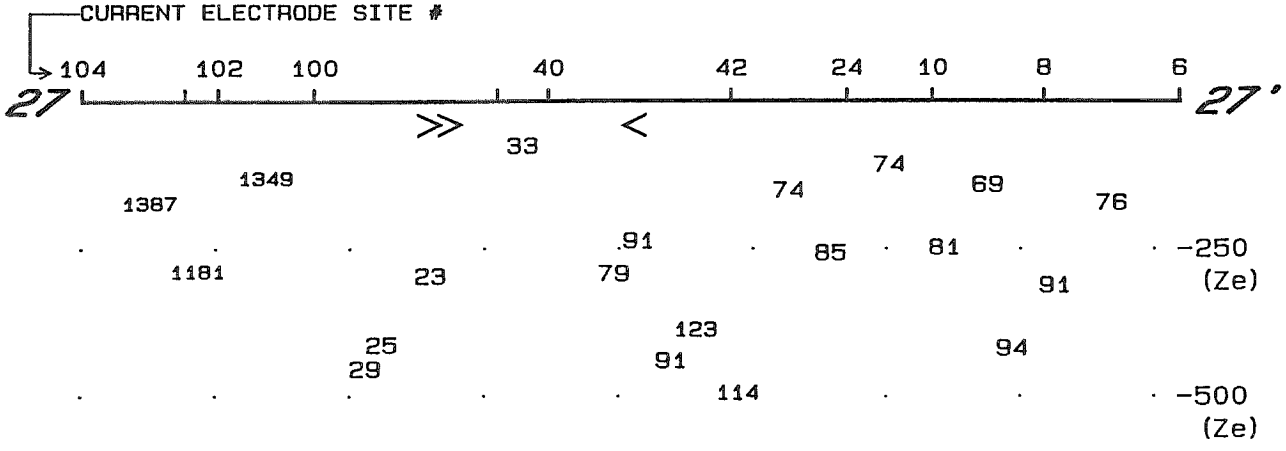
26

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

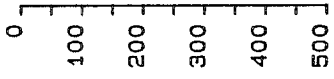
E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 27 FACING SOUTHEAST # OF DATA: 20

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES



SOUTHEAST

27

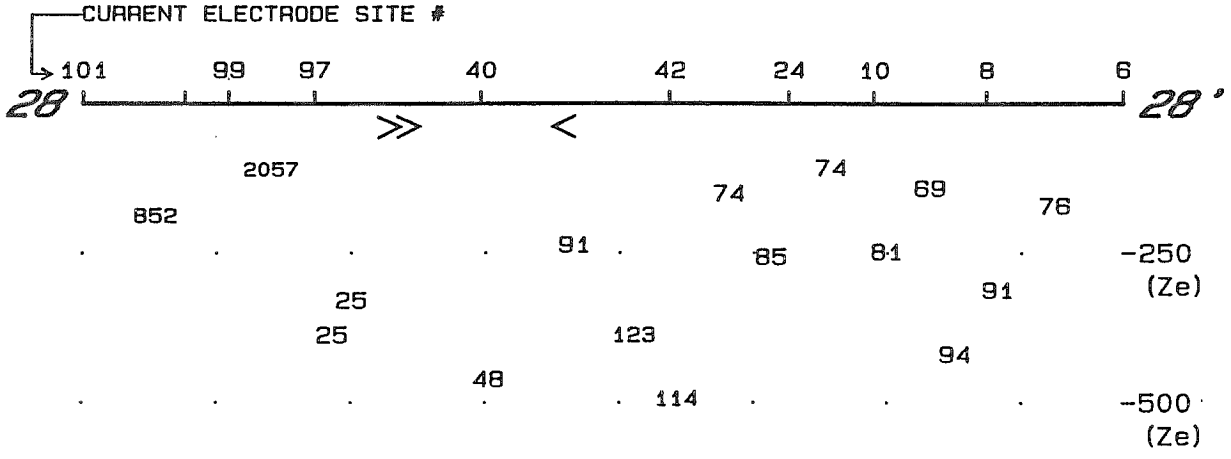
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142537 MOD: 840214142556 PLOT: 840225102615

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

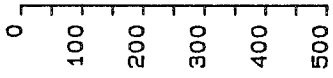
E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 28 FACING SOUTHEAST # OF DATA: 16

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES



SOUTHEAST

28

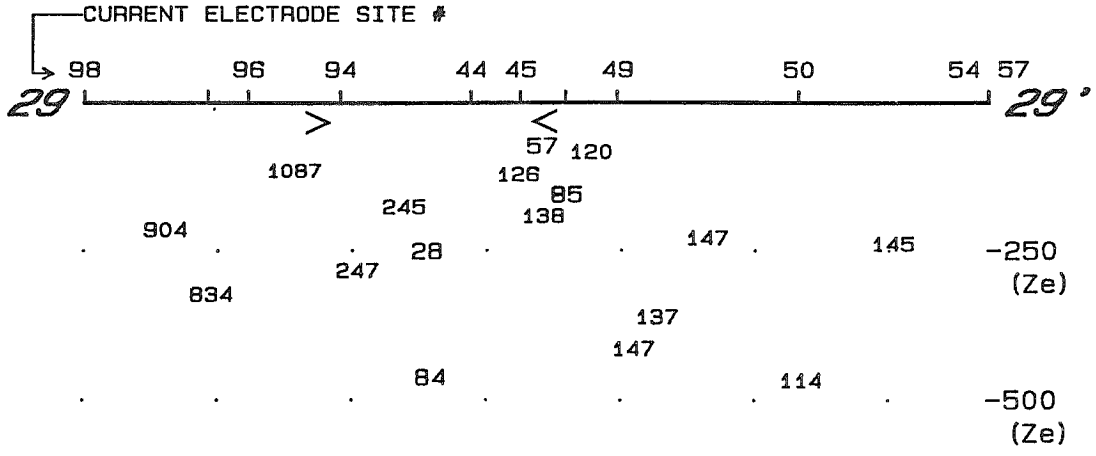
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142612 MOD: 840214142629 PLOT: 840225103251

PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 29 FACING SOUTHEAST # OF DATA: 18

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER



SCALE, METRES

0 100 200 300 400 500

SOUTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142647 MOD: 840214142705 PLOT: 840225103933

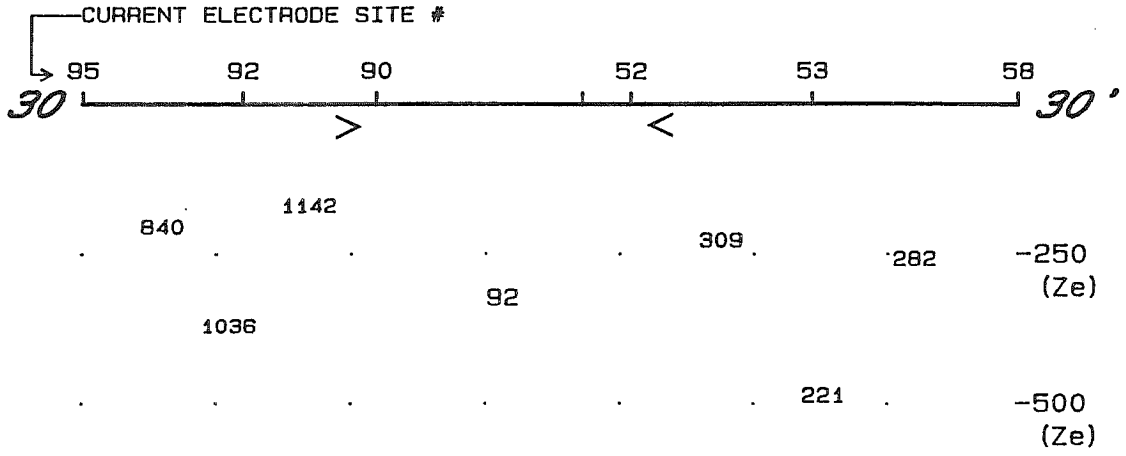
29

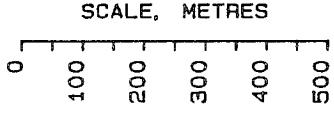
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 30 FACING SOUTHEAST # OF DATA: 7

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, ρ(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





SOUTHEAST

30

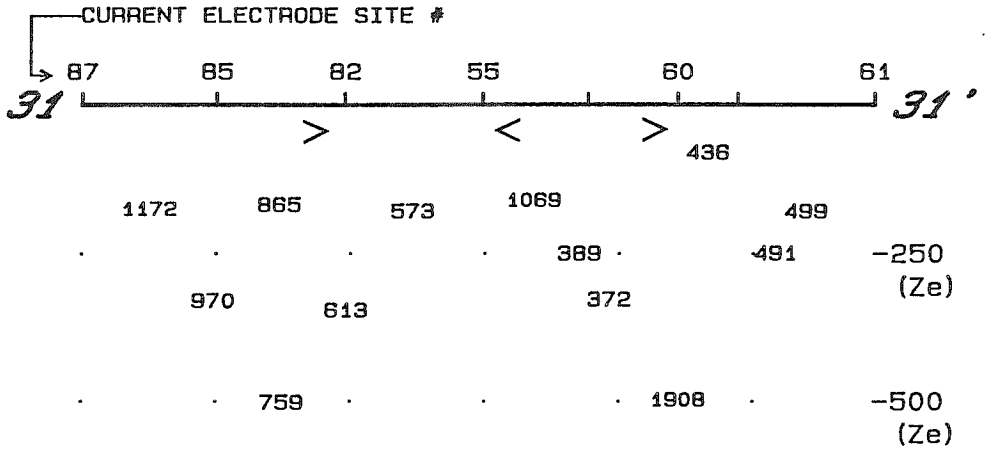
GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142732 MOD: 840214142741 PLOT: 840225104552

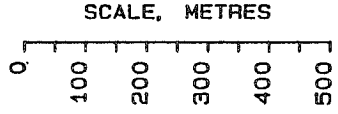
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 31 FACING SOUTHEAST # OF DATA: 13

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL). IN METRES.
PLOTTING APPARENT RESISTIVITY, *P*(a), IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





SOUTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142758 MOD: 840214142809 PLOT: 840225105223

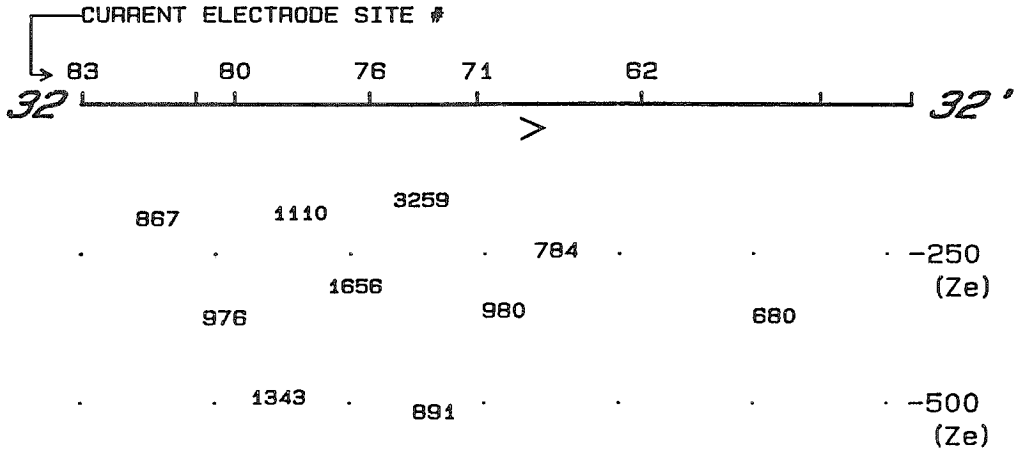
31

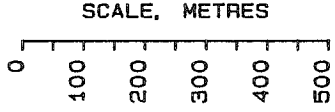
PREMIER GEOPHYSICS INC. *OCTOBER, 1983*

E-SCAN ELECTRICAL RESISTIVITY SURVEY, LAKELSE HOT SPRINGS, LAKELSE, B.C.

PSEUDOSECTION # 32 FACING SOUTHEAST # OF DATA: 10

POLE-POLE ARRAY. Y AXIS PLOT POINT IS DEPTH OF INVESTIGATION Ze (NOMINAL), IN METRES.
PLOTTING APPARENT RESISTIVITY, $P(a)$, IN OHM-METRES
INTERPRETED RESISTIVITY BOUNDARY OR STRUCTURAL INDICATION: < , WHERE RELATIVE RESISTIVITY IS: LOWER < HIGHER





SOUTHEAST

GEOLOGICAL SURVEY OF CANADA
CONTRACT # 04SB.23254-3-0240 PLOT CODES: DATA: 840214142828 MOD: 840214142837 PLOT: 840225105849

32