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A GEOPHYSICAL REPORT ON A
GROUND MAGNETOMETER, GROUND VLF-EM
AND TIME DOMAIN INDUCED POLARIZATION SURVEY

FOR
SKYLARK RESOURCES LIMITED
VANCOUVER, BRITISH COLUMBIA

BY
LLOYD GEOPHYSICS LIMITED
VANCOUVER, BRITISH COLUMBIA

APRIL, 1983
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

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LLOYD GEOPHYSICS LIMITED
CONSULTING AND CONTRACTING SERVICES
IN MINING AND ENGINEERING GEOPHYSICS

A Geophysical Report on a Ground Magnetometer, Ground VLF-EM
and Time Domain Induced Polarization Survey on the SKYLARK-OB
Property, Greenwood Mining Division, British Columbia.

by

John Lloyd M.Sc., P. Eng.

SUMMARY

During the period March 8 to April 12, 1983, Lloyd Geophysics Limited carried out ground magnetometer, ground VLF-EM and time domain Induced Polarization surveys on the SKYLARK-OB property near Greenwood, British Columbia for Skylark Resources Limited of Vancouver, British Columbia.

The surveys located a number of anomalies that are worthy of further investigation either by trenching or by drilling. The soil geochemistry surveys, recently completed by Skylark Resources personnel, should be integrated with the geophysical surveys in order to establish a system whereby the more attractive targets are explored first.

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1. INTRODUCTION

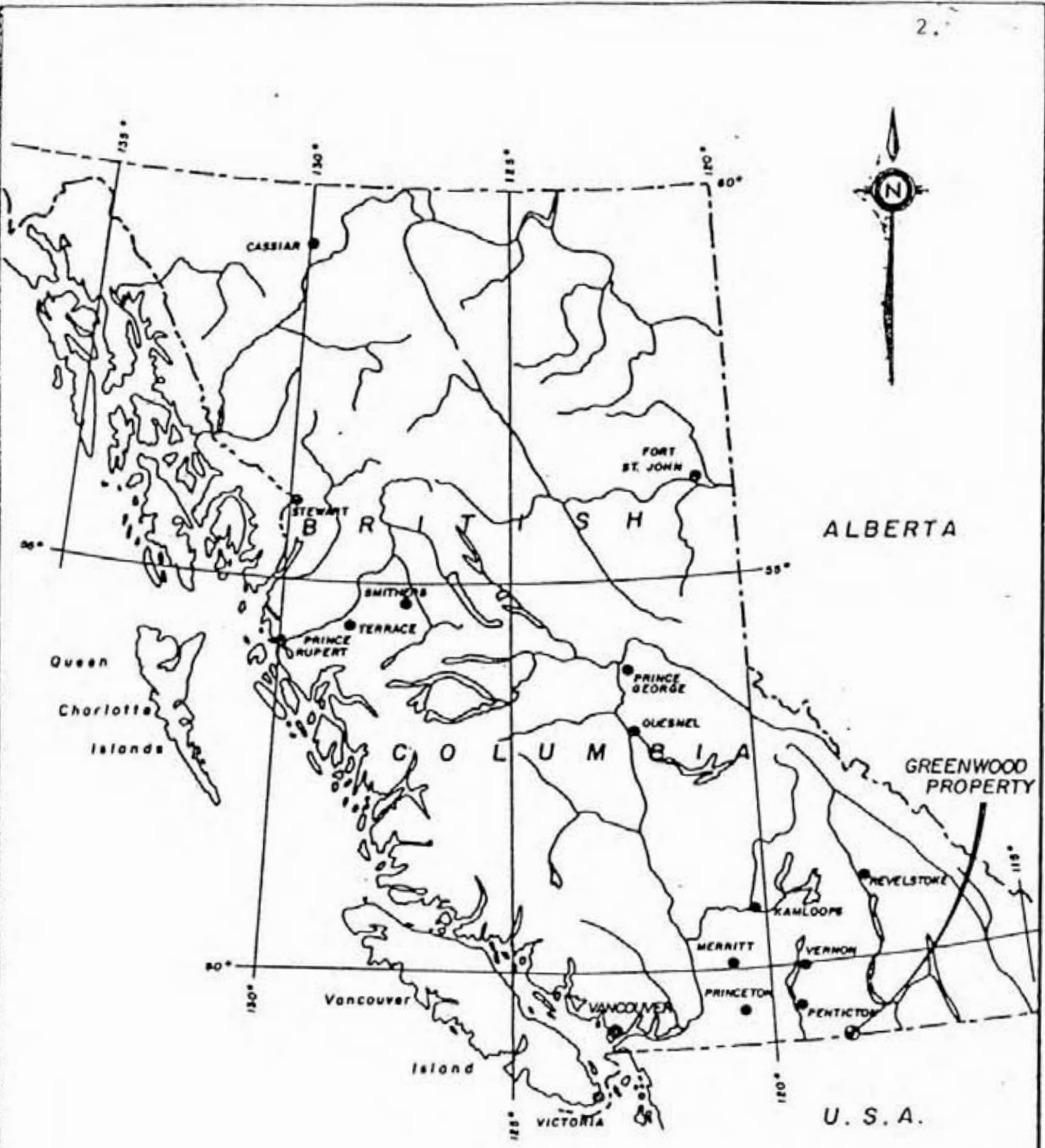
During the period March 8 to April 12, 1983, Lloyd Geophysics Limited carried out ground magnetometer, ground VLF-EM and time domain Induced Polarization surveys on the SKYLARK-OB property, near Greenwood, British Columbia, for Skylark Resources Limited of Vancouver, British Columbia.

The property is located in southeastern British Columbia about 3 km east of the town of Greenwood and about 10 km north of the international boundary, as shown on the location map (Dwg. No. 287-1) on page 2 of this report. The approximate geographic centre of the property is at 49° 05' north latitude and 118° 38' west longitude.

Access to the property is by 4 km of paved road travelling eastwards from Greenwood. A number of gravel roads provide easy access to the various areas of the claim block.

The property consists of 1 located mineral claim (15 units); 14 reverted crown granted claims (14 units); 4 located mineral claims (7 units); 4 located fractional mineral claims (4 units) and 2 located mineral claims (2 units). The claim names, record number, lot numbers, number of units and expiry dates prior to carrying out this work were as follows:

<u>Claim Name</u>	<u>Record No.</u>	<u>Lot No.</u>	<u>Units</u>	<u>Expiry Date</u>
OB	696	-	15	March 11, 1984
SKYLARK	1786	763	1	September 26, 1984
ARCADIA	1787	3135	1	September 26, 1983
IRON CAP	1788	1574	1	September 26, 1983
TRIMVIRATE FR.	1788	1777	1	September 26, 1983
SILVER KING	1789	1097	1	September 26, 1983
HOPE NO. 2	1790	1849	1	September 26, 1983
MEADOWLARK	1791	1712	1	September 26, 1984
DENVER	1792	764	1	September 26, 1984



SKYLARK RESOURCES LTD.	
LOCATION MAP	
GREENWOOD PROPERTY	
GREENWOOD MINING DIVISION, B.C.	
Technical Work by: Kerr, Dawson & Assoc. Ltd.	Date: Jan., 1983
Scale: 1cm. = 87km.	Dwg No. 287-1

<u>Claim Name</u>	<u>Record No.</u>	<u>Lot No.</u>	<u>Units</u>	<u>Expiry Date</u>
SMILAX FR.	1793	1064	1	September 26, 1983
SILVER CLOUD	1794	1218	1	September 26, 1983
SILVER CLOUD FR.	1794	4545	1	September 26, 1983
BILLY FR.	1795	999	1	September 26, 1983
ASTORIA	1796	3134	1	September 26, 1983
LAST CHANCE	1797	753	1	September 26, 1983
LARK NO. 1	2142	-	3	April 28, 1985
LARK NO. 2	2143	-	1	April 28, 1985
LARK NO. 3 FR.	2144	-	1	April 28, 1985
LARK NO. 4 FR.	2145	-	1	April 28, 1985
LARK NO. 5 FR.	2243	-	1	April 28, 1985
LARK NO. 6	3057	-	2	April 22, 1983
LARK NO. 7	3058	-	1	April 22, 1983
LARK NO. 8 FR.	3059	-	1	April 22, 1983
GRANITE	3238		1	
SURPRISE NO. 3	3385	1776	1	December 15, 1983

With the exception of the OB claim the registered owner of these claims is Skylark Resources Limited. The OB claim is registered in the name of Viscount Resources Limited, and Skylark Resources Limited has an option to earn a 50% interest in this claim.

The location and disposition of these claims is shown on the claim location map (Fig. No. 287-2) on page 4 of this report.

The purpose of the magnetometer survey was to assist with the geological mapping of the property since extensive areas of the property are overburden covered.

To Grand Forks



SKYLARK - OB
PROPERTY

KETTLE RIVER
PROPERTY

GREENWOOD

PHOENIX

OPEN PIT
MINE



SKYLARK RESOURCES LTD.	
CLAIM MAP	
GREENWOOD AREA PROPERTY	
GREENWOOD MINING DIVISION, B.C.	
Tech. Work By Kerr, Dawson & Assoc.	Scale: 1:50,000
Drawn By: W. G.	Date: Jan, 1983.
Approved By: J.M.D.	Fig. No. 287-2

To accompany a report by J.M. Dawson, P.Eng.

The purpose of the VLF-EM survey was to search for and outline veins and/or vein systems similar to the arsenopyrite-rich, lead-zinc skylark vein which carried good gold and high silver values.

The purpose of the Induced Polarization (IP) survey was to search for and outline stratiform, volcanogenic, gold bearing zones similar in "style" to the recent discovery by Kettle River Resources on their property about 2 km northeast of the SKYLARK-OB property.

2. GEOLOGY, MINERAL DISTRIBUTION AND MINING ACTIVITY

The district is underlain by an assemblage of Paleozoic basement rocks and Triassic sediments and minor volcanics intruded by a variety of mafic to alkaline igneous bodies. Minor Tertiary sediments overlie the older rocks locally.

The basement rocks, known as the Knob Hill Group, consist of amphibolite, chert, quartzite, argillite and minor limestone.

Unconformably overlying the Knob Hill Group is the Triassic Brooklyn Formation consisting of:

1. Clastic units of shale, graywacke and/or conglomerate. The clasts in the conglomerates are either chert pebbles (sharpstone), volcanic rocks or limestone (puddingstone).
2. Carbonate units, grading from pure limestone to limy shale. Iron and copper mineralization occurs in impure limestone and limy shales.
3. Tuffaceous units which resemble graywacke.

On the SKYLARK-OB property the geology is not well known because of extensive areas of overburden cover. However, grossly the geology consists of a sequence of north to northwesterly-trending sedimentary and tuffaceous volcanic rocks of the Brooklyn Formation, intruded by the Greenwood granodiorite stock along the western margin of the claim block.

An old G.S.C. map by McNaughton (1945) shows several northwesterly-trending belts of argillite, andesite, latite and diorite. The argillite strikes northwesterly and dips 35° to the northeast. A sequence of andesite and latite of variable thickness overlies the argillite to the east and is overlain in turn by bedded chert.

The map of McNaughton (1945) shows several outcrops of "jasperoid" trending northwesterly from the SKYLARK showing to the HOPE NO. 2 claim. According to Daughtry (1981) this rock may be a hydrothermally altered and silicified zone within the volcanic - sedimentary succession or it may be a siliceous pyroclastic or volcanic flow unit. The presence of this rock type is highly significant since recently the origin of many of the mineral deposits of the Greenwood Camp have been re-interpreted in terms of a syngenetic, volcanogenic model.

The SKYLARK vein strikes north-northeasterly, dips moderately to the east and has been traced for over 600 feet by surface and underground workings. The maximum reported width of this vein is about 2½ feet. This vein is a zone of intense silicification and carbonatization carrying varying amounts of galena, sphalerite, tetrahedrite, arsenopyrite, stibnite, pyrargyrite and pyrite. Wall rock consists of grayish, massive, fine-grained pyritic rock composed predominantly of silica and carbonate. A sample of this vein taken at the surface extension of its faulted southern end by Mr. H.H. Shear, P. Eng. assayed 0.24 oz. Au and 19.8 oz. Ag per ton.

Recent trenching on the MEADOWLARK claim has exposed intensely shattered cherty argillites hosting numerous, narrow oxidized zones and fracture coatings of limonite and jarosite. Several narrow northeasterly trending veins and veinlets of mineralization similar to that occurring on the SKYLARK claim have also been exposed.

On the SILVERCLOUD and SILVER KING claims, a quartz vein has been traced for about 800 feet on surface. It strikes northerly, dips about 60° east and varies from 1 in. to 6 in. in width. Specimens of this vein material have assayed as high as 0.07 oz. Au and 20.7 oz. Ag per ton.

Workings on the LAST CHANCE claim are reported on a northerly-

striking vein. There is no information on metal values in this vein. Brief mention has been made of a silver-bearing vein on the DENVER claim. However, no further information is available.

Recently, there has been a re-interpretation of a number of mineral deposits in the Greenwood or Boundary Camp in terms of a syngenetic or volcanogenic model. A number of showings and old producers are now believed to have been originally formed by exhalative processes related to distal volcanic activity and to have been originally massive to disseminated tabular lenses conformable to the original bedding. Later thermal, tectonic, and metamorphic events have remobilized and displaced some of these deposits so that their original character is obscure.

In 1982, Kettle River Resources (see Fig. No. 287-2) discovered at least two stratiform, bands of massive to submassive, gold-bearing sulphide in rocks which are part of the same succession as is found on the SKYLARK-OB property. In addition, low grade, disseminated, gold mineralization was found in rocks occurring stratigraphically between these two sulphide horizons. This discovery has proved the viability of this model and now a number of other deposits currently being explored in the Greenwood Camp are considered to be of this type.

3. INSTRUMENT SPECIFICATIONS

3.1 The Magnetometer Survey

The instrument used to carry out this survey was an MF1 vertical field fluxgate magnetometer manufactured by Scintrex Limited of Toronto, Ontario. This instrument, when properly adjusted for latitude to the most sensitive scale, will allow measurements to be made with repeatability of approximately ± 10 gammas.

3.2 The VLF-EM Survey

The instrument used to carry out this survey was an EM-16 VLF receiver manufactured by Geonics Limited of Toronto, Ontario.

The EM-16 is simply a very sensitive receiver covering the frequency band of the VLF transmitting stations established for communication with submarines. It consists of a signal coil and a reference coil which are mutually perpendicular and tuned to a particular transmitter's frequency by a plug-in crystal. Two crystals can be accommodated in the instrument with selection by external switch. For this survey the receiver was tuned to the transmitter at Lualualei, Hawaii transmitting at 23.4 kHz.

The signal coil is incorporated into the handle of the instrument and the reference coil is a smaller cross piece at the end of the handle. The transmitter azimuth is determined by orienting the signal coil axis horizontal and the reference coil vertical and rotating the coils about a vertical axis to obtain minimum signal. The horizontal primary magnetic field of the transmitter is perpendicular to this direction. Optimum survey direction and orientation of the coils for making measurements are perpendicular to the transmitter azimuth.

Measurements are made by rotating the coils about an axis parallel to the transmitter azimuth to obtain minimum or null signal in the signal coil. The signal is further minimized by adjusting the reference coil control knob on the control panel. The signal coil inputs directly to the signal amplifier while the reference signal is phase shifted 90° and adjusted, then inputted to the signal amplifier. Nulling is by audio tone. External or earphone speakers are provided via earphone plug on the control panel.

An inclinometer dial viewed through an optical lens gives the tangent to the inclination of the polarization ellipse expressed in per cent to $\pm 150\%$. The reference coil control knob is calibrated to $\pm 40\%$ to measure the ellipticity of the polarization ellipse. These values closely approximate the inphase and out of phase components respectively, of the vertical secondary field.

A second scale on the inclinometer dial next to the inphase scale, gives the secant to the angle of inclination expressed in percent. This can be used to correct station separation in sloping terrain.

Power is supplied by 6 disposable "AA" cells.

3.3 The Induced Polarization Survey

The IP equipment used to carry out this work was a time domain measuring system developed and manufactured by Hunttec Limited of Toronto, Ontario. The system consists of a transmitter, a motor generator and two Mark III receiver units incorporating digital display read-outs for chargeability measurements.

The transmitter, which provides a maximum of 10 kw D.C. to the ground, obtains its power from a 10 kw, 400 cycle, 3 phase Bendix alternator driven by a 25 H.P. Onan gasoline engine. The total cycle time for the transmitter was 8 seconds and the duty ratio (R) was 1 to 1. This means the cycling rate of the transmitter was 2 seconds current "ON" and 2 seconds current "OFF" with the pulses reversing continuously in polarity.

The Mark III receiver presents digitally four individual (M) values of the decay curve at each station. The (M) value reading is the ratio of the secondary decay voltage (V_s) divided by the primary voltage (V_p) expressed as a percentage. The quantity (V_p) is displayed separately.

The parameters measured by this unit are shown in Figure 1. The delay time (t_d) and the integration interval (t_p) of the receiver define completely the measurements (M_1), (M_2), (M_3) and (M_4).

The delay time (t_d) may be set to 15, 30, 60, 120 or 240 milliseconds: similarly the integration interval (t_p) may be set to 20, 30, 40, 50 or 60 milliseconds. This provides twenty-five different sets of values for each of the four sample points (t_1), (t_2), (t_3) and (t_4) of Figure 1. These quantities have been calculated and are shown in Table 1, together with the limits of integration corresponding to each of the intervals (M_1), (M_2), (M_3) and (M_4).

For this survey the delay time (t_d) was fixed at 120 milliseconds and the integrating interval (t_p) at 60 milliseconds; this gives a total integrating time (T_p) of 900 milliseconds. See Table 1.

The apparent chargeability (M_a) in milliseconds is obtained by

$$M_1 = \frac{e(t_1)}{V_p} = \sum_1 \int_{(t_d)}^{(t_d+t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_2 = \frac{e(t_2)}{V_p} = \frac{1}{2} \sum_1^n \int_{(t_d+t_p)}^{(t_d+3t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_3 = \frac{e(t_3)}{V_p} = \frac{1}{4} \sum_1^n \int_{(t_d+3t_p)}^{(t_d+7t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_4 = \frac{e(t_4)}{V_p} = \frac{1}{8} \sum_1^n \int_{(t_d+7t_p)}^{(t_d+15t_p)} V_s \cdot dt / V_p \cdot t_p$$

$$M_0 = t_p \times 10^{-2} \sum (M_1 + 2M_2 + 4M_3 + 8M_4) \quad (\text{Milliseconds})$$

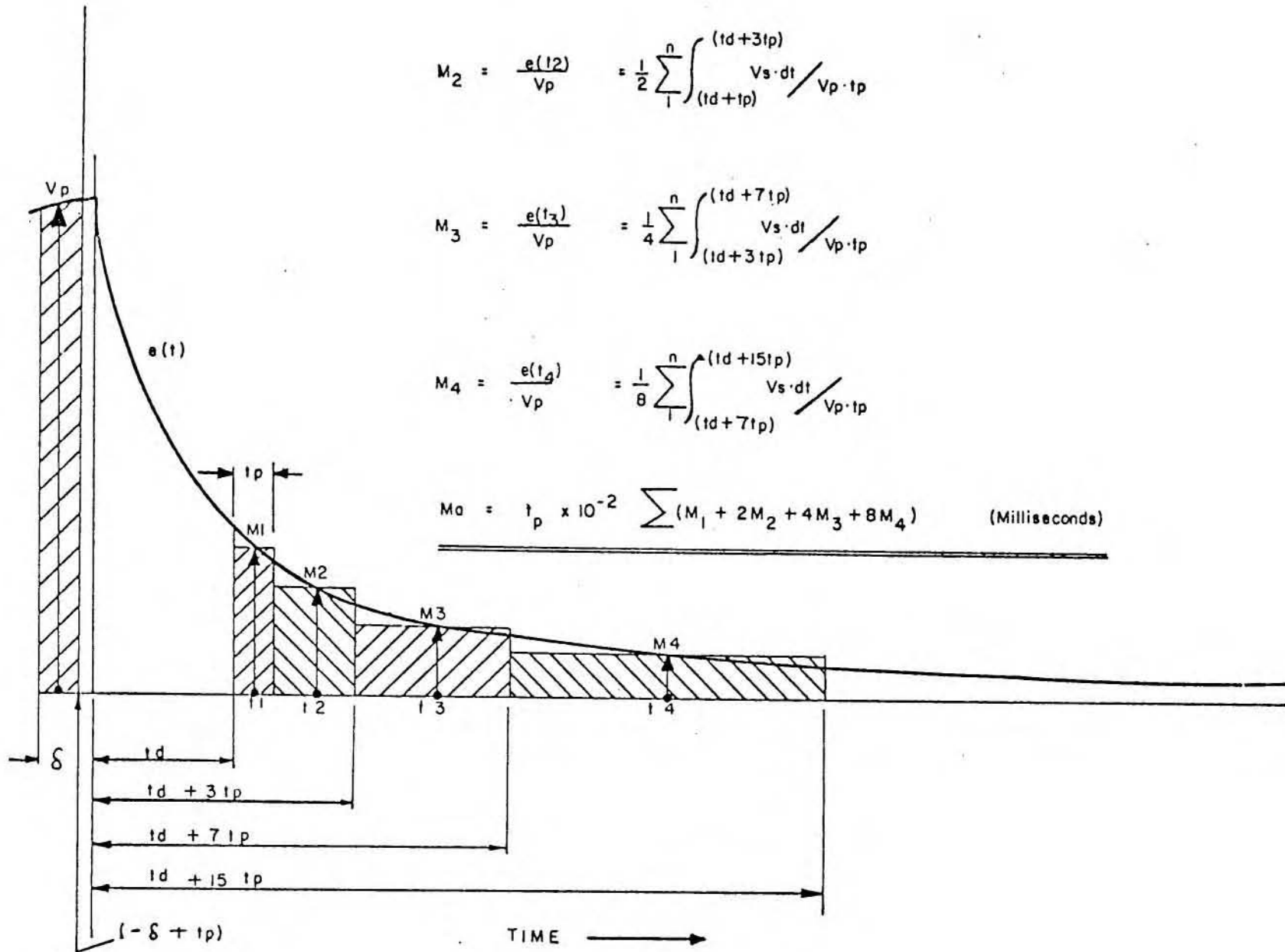


FIGURE 1

		DELAY TIME t_d IN MILLISECONDS															
		15			30			60			120			240			
		S	M	E	S	M	E	S	M	E	S	M	E	S	M	E	
PERIOD t_p IN MILLISECONDS	20	15	25	35	30	40	50	60	70	80	120	130	140	240	250	260	M ₁
		35	55	75	50	70	90	80	100	120	140	160	180	260	280	300	M ₂
		75	115	155	90	130	170	120	160	200	180	220	260	300	340	380	M ₃
		155	235	315	170	250	330	200	280	360	260	340	420	380	460	540	M ₄
	30	15	30	45	30	45	60	60	75	90	120	135	150	240	255	270	M ₁
		45	75	105	60	90	120	90	120	150	150	180	210	270	300	330	M ₂
		105	165	225	120	180	240	150	210	270	210	270	330	330	390	450	M ₃
		225	345	465	240	360	480	270	390	510	330	450	570	450	570	690	M ₄
	40	15	35	75	30	50	70	60	80	100	120	140	160	240	260	280	M ₁
		75	95	135	70	110	150	100	140	180	160	200	240	280	320	360	M ₂
		135	215	295	150	230	310	180	260	340	240	320	400	360	440	520	M ₃
		295	455	615	310	470	630	340	500	660	400	560	720	520	680	840	M ₄
	50	15	40	65	30	55	80	60	85	110	120	145	170	240	265	290	M ₁
		65	115	165	80	130	180	110	160	210	170	220	270	290	340	390	M ₂
		165	265	365	180	280	380	210	310	410	270	370	470	390	490	590	M ₃
		365	565	765	380	580	780	410	610	810	470	670	870	590	790	990	M ₄
	60	15	45	75	30	60	90	60	90	120	120	150	180	240	270	300	M ₁
		75	135	195	90	150	210	120	180	240	180	240	300	300	360	420	M ₂
		195	315	435	210	330	450	240	360	480	300	420	540	420	540	660	M ₃
		435	675	915	450	690	930	480	720	960	540	780	1020	660	900	1140	M ₄

Table 1

S - time in milliseconds from turn off at which integration commences.

E - time in milliseconds from turn off at which integration ceases.

M - the mid point between S and E.

☐ - Instrument Parameters selected for this survey.

summing the (M) factors, weighted for their individual integrating times as follows:

$$M_a = t_p \times 10^{-2} \sum (M_1 + 2M_2 + 4M_3 + 8M_4) \text{ milliseconds -- (1)}$$

The apparent resistivity (ρ_a) in ohm-metres is obtained by dividing (V_p) by the measured current (I_g) and multiplying by a factor (K) which is dependent on the geometry of the array used. The absolute value of (V_p) is obtained by multiplying the digital voltmeter reading by the scale factor of the input attenuator.

The chargeabilities and resistivities obtained are called apparent as they are values which that portion of the earth sampled would have if it were homogeneous. As the earth sampled is usually inhomogeneous, the calculated apparent chargeabilities and resistivities are functions of the actual chargeabilities and resistivities of the rocks.

The majority of geophysicists, using time domain equipment, quote the apparent chargeability measurements in units of milliseconds. This is an unfortunate choice of units since these units are really millivolt seconds per volt. Therefore data obtained by different transmitters and receivers using different timing and sampling sequences will yield different "millisecond" values over the same orebody or mineralized zone. The interpreter must therefore pay special attention to the transmitter cycling time, the receiver delay time, and the receiver integrating interval and total integrating time before making comparisons between data obtained with different systems.

4. SURVEY SPECIFICATIONS

4.1 The Magnetometer Survey

Magnetometer readings were taken at 50 foot station intervals on lines 400 feet apart. Where strong fluctuations in the magnetic measurements were obtained, intermediate lines were added, so that the overall coverage in these areas was on lines 200 feet apart.

Magnetometer measurements were carried out by the method of "looping". Each loop was tied into one or more previously established base stations. Each individual station in any particular loop was tied into a base station within 1 hour from the time which it was read. When the diurnal drift for any particular loop did not exceed 50 gammas, a linear drift correction was applied to the measurements within that particular loop. When the diurnal drift exceeded 50 gammas, the loop was re-read.

4.2 The VLF-EM Survey

VLF-EM readings were taken at 50 foot station intervals on lines 400 feet apart. Where significant conductors were detected (other than those caused by cultural effects), intermediate lines were added, so that the overall coverage in these areas was on lines 200 feet apart.

4.3 The Induced Polarization Survey

The pole-dipole array was used for this survey. With this array the one current electrode C_1 and the two potential electrodes P_1 and P_2 are moved in unison along the survey lines. The second current electrode C_2 is grounded on "infinite" distance array,

which is at least 10 times the distance between C_1 and P_1 for the largest electrode separation.

The dipole length (x) is the distance between P_1 and P_2 and the electrode separation (nx) is the distance between C_1 and P_1 and is equal to or some multiple of the distance between P_1 and P_2 .

For a sulphide body of some particular size, shape, depth and true chargeability, the dipole length (x) determines mainly the sensitivity of the array, whereas the electrode separation (nx) determines mainly the depth of penetration of the array.

Induced Polarization readings were taken at 200 foot station intervals on lines 400 feet apart. The dipole length (x) for making these measurements was 200 feet and chargeability and resistivity measurements were made for four electrode separations, that is for $n = 1, 2, 3$ and 4 .

All lines were surveyed with the current electrode C_1 to the west of the measuring dipole P_1P_2 .

5. PRESENTATION OF DATA

The data obtained from the surveys described in this report are presented as follows:

5.1 The Magnetometer Survey

SKYLARK Group Sheet 83235-19
Magnetic data contour map (1" = 200 ft.)

OB Claim Sheet 83235-20
Magnetic data contour map (1" = 200 ft.)

5.2 The VLF-EM Survey

SKYLARK Group Sheet 83235-21
Inphase VLF-EM Data Contour Map, After Application of A
Filter Operator (*Fraser, 1969) (1" = 200 ft.)

OB Claim Sheet 83235-22
Inphase VLF-EM Data Contour Map, After Application of A
Filter Operator (*Fraser, 1969) (1" = 200 ft.)

5.3 The Induced Polarization Survey

SKYLARK Group Sheet 83235-23
Chargeability Contour Map, First Separation,
x = 200 ft. (1" = 200 ft.)

OB Claim Sheet 83235-24
Chargeability Contour Map, First Separation,
x = 200 ft. (1" = 200 ft.)

SKYLARK Claim Sheet 83235-25
Resistivity Contour Map, First Separation,
x = 200 ft. (1" = 200 ft.)

* Geophysics, Vol. 34, No. 6
December 1969, P. 958-967

OB Claim

Sheet 83235-26

Resistivity Contour Map, First Separation,
 $x = 200 \text{ ft. (1" = 200 ft.)}$

The IP data is also shown on pseudo-sections as follows:

<u>Line No.</u>	<u>Dwg. No.</u>
16+00N	83235-1
12+00N	83235-2
8+00N	83235-3
4+00N	83235-4
0+00	83235-5
8+00S	83235-6
12+00S	83235-7
16+00S	83235-8
20+00S	83235-9
24+00S	83235-10
28+00S	83235-11
32+00S	83235-12
36+00S	83235-13
40+00S	83235-14
44+00S	83235-15
48+00S	83235+16
52+00S	83235-17
56+00S	83235-18

The scale of these pseudo-sections is 1 inch equals 1 dipole length, that is $1" = 200 \text{ ft.}$

6. DISCUSSION OF RESULTS

5.1 The Magnetometer Survey

The magnetometer survey failed to locate any steep gradients of wide areal extent which could be used to outline geological contacts with any certainty. However, the survey did locate some shallow magnetic sources in the northwest corner of the SKYLARK claim group, which are approximately coincident with a number of VLF-EM conductors.

The strong magnetic response which occurs between stations 6+50W and 10+50W on L16+00S is coincident with a good VLF-EM conductor.

5.2 The VLF-EM Survey

The VLF-EM response depends mainly on the following factors:

1. The electrical interconnection of subsurface conductive materials.
2. The depth and conductivity contrast of overburden and bedrock.
3. The size and shape of conductive bodies and their orientation relative to survey lines and the primary magnetic field.

An electromagnetic response consists of two components; a real component (inphase) and a complex (out of phase) component. At a given transmitter frequency, the response varies with conductivity and inductance. However, the primary magnetic field suffers both attenuation and phase shift while penetrating overburden to a conductor (and similarly for the secondary field penetrating back to the surface) thus greatly affecting the final measured

response. The shape and orientation of a conducting body largely determines the shape and to some extent the magnitude of the response profile.

The VLF-EM survey located a number of conductors in the north-west corner of the SKYLARK claim group, which are approximately coincident with some shallow source magnetic anomalies.

A strong VLF-EM conductor at 9+50W on L16+00S is coincident with a strong magnetic response and lies on the edge of a zone of increased chargeability as determined by the IP survey.

5.3 The Induced Polarization Survey

An IP response depends largely on the following factors:

1. The number of pore paths that are blocked by sulphide grains.
2. The number of sulphide faces that are available for polarization.
3. 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.
4. The volume content of sulphide minerals.
5. The electrode array employed.
6. The width, depth, thickness and strike length of the mineralized body and its location relative to the array.
7. The resistivity contrast between the mineralized body and the unmineralized host rock.

The sulphide content of the underlying rocks or, since rocks containing magnetite, graphite or clay minerals, frequently give rise to any IP response, an equivalent sulphide content is one of the critical factors that we would like to determine from field measurements. However, experience has shown that this is both difficult and unreliable, mainly because of the large number of factors, described above, which contribute to an IP response. These factors vary considerably from one geological environment to another. Despite this, some interpreters have developed empirical rules for making rough estimates of the percent sulphides by volume contained within rocks giving anomalous IP responses.

Interpretation procedures have been most completely developed in situations of mineralized horizontal layering, where the electrode separations used are often small compared with the lateral extent of the mineralized bodies. Geologically, the porphyry coppers of large lateral extent are practical examples where such interpretation procedures can be used to best advantage.

In this area, where the electrode separations used are often large compared with the lateral extent of the bodies themselves, the complex problem of resolving the combined effects of depth, width, thickness and true chargeability of such bodies, together with the physical characteristic of the overburden and country rocks have only recently been studied in detail. The interpreter must therefore use empirical solutions, type curves obtained from theoretical investigations, plus experience gained from surveys over known orebodies and the results of both computer and tank model studies.

The data obtained from the survey described in this report are presented on both contour maps and pseudo-sections. Care should be taken in selecting drill hole locations from either the contour maps or the pseudo-sections. On the contour maps, chargeability

highs tend to be on the flanks of the target, if the target is shallow with respect to the electrode separation employed. Furthermore pseudo-sections are not sections of the electrical properties of the sub-surface strata and cannot be treated as such when determining the depth, width and thickness of a zone which produces an anomalous contour pattern.

A detailed study has been made of the contoured pseudo-sections which accompany this report. The anomalies selected are shown on the individual pseudo-sections and are classified into three groups. These are definite, probable and possible anomalies.

This classification is based largely on the relative amplitudes of the chargeability and to a lesser degree on the resistivity response. Of equal importance in this classification is the overall anomaly pattern and the degree to which this pattern may be correlated from line to line which in turn may coincide with known structural features and/or rock types of possible economic importance.

The anomalies shown on the individual pseudo-sections have been used to outline a number of anomalous zones which are shown on sheets 83235-23 and 83235-24.

Two of the zones are worthy of further discussion.

The most westerly zone extends from about 10W on L16+00N to about 8W on L20+00S. At its northern end it is approximately coincident with both shallow magnetic sources and VLF-EM conductors. At its southern end it encompasses a good VLF-EM conductor which extends from 9+25W on L14+00S to 9+75W on L18+00S.

The centrally located zone extends south from 17E on L8+00S to about 22E on L28+00S. It then splits into two separate, less well defined zones. The more westerly "leg" terminates at about

22E on L48+00S and the more easterly "leg" terminates at about 45E on L48+00S.

Since these two zones are very extensive they are most probably caused by pyrite within a particular geological formation. They should be investigated either by trenching or by drilling where they coincide with strong geochemical responses.

The smaller isolated zones should not be ignored and should be further explored if geochemical responses are encouraging.

Based on the resistivity data (see Sheet 83235-25) some geological contacts have been interpreted. These interpreted contacts appear to bear little relationship to the magnetic data. Furthermore, they are generally cross-cut by the zones of increased chargeability and to a lesser extent by the VLF-EM conductors.

7. CONCLUSIONS AND RECOMMENDATIONS

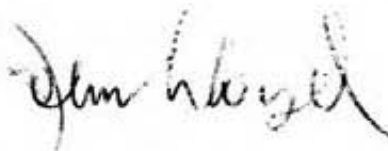
From a study of the geophysical data obtained from the various surveys described in this report it has been concluded that:

1. The surveys located a number of anomalies that are worthy of further investigation either by trenching or by drilling.

From this study it is recommended that:

- A. The order in which the follow-up exploration of these targets is carried out should be determined by a study of the soil geochemical survey carried out by Skylark Resources Limited personnel.

Respectfully submitted,
LLOYD GEOPHYSICS LIMITED



John Lloyd, P. Eng.
Geophysicist

Vancouver, B.C.
April, 1983

7. CONCLUSIONS AND RECOMMENDATIONS

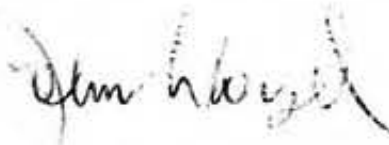
From a study of the geophysical data obtained from the various surveys described in this report it has been concluded that:

1. The surveys located a number of anomalies that are worthy of further investigation either by trenching or by drilling.

From this study it is recommended that:

- A. The order in which the follow-up exploration of these targets is carried out should be determined by a study of the soil geochemical survey carried out by Skylark Resources Limited personnel.

Respectfully submitted,
LLOYD GEOPHYSICS LIMITED



John Lloyd, P. Eng.
Geophysicist

Vancouver, B.C.
April, 1983

8. STATE OF COSTS

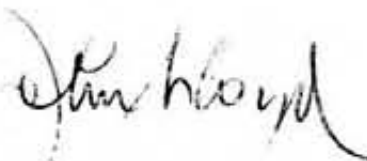
1. <u>VLF-EM and Magnetometer Survey</u>		
22.37 miles of VLF-EM and		
25.31 miles of magnetometer survey	\$	6,436.80
2. <u>Living Expenses (Mr. J. Ashenhurst)</u>		
Meals and motel		660.92
3. <u>Provision of 4 x 4 Crewcab (Mr. J. Ashenhurst)</u>		
March 8 to 18, 22 and April 7 to 12		1,287.00
4. <u>Induced Polarization Survey</u>		
6 man, 2 receiver crew		
March 22 to April 7		23,895.00
5. <u>Living Expenses (IP Crew)</u>		
Meals and motel		3,591.39
6. <u>Provision of 4 x 4 Crewcab (IP Crew)</u>		
March 22 to April 7		1,081.80
		<hr/>
Total	\$	36,952.91 *
		<hr/> <hr/>

* This cost does not include some additional VLF-EM and magnetometer surveying and drafting costs and report writing. The additional cost of this work is estimated at about \$5,000.00

9. CERTIFICATION

I, John Lloyd, of 960-625 Howe 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. I have been practising my profession for the last twenty-one years.
5. I have no, direct or indirect, interest in the property discussed in this report or in the securities of either Skylark Resources Limited or Viscount Resources Limited, nor do I expect to receive any.



John Lloyd, P. Eng.

Vancouver, B.C.
April, 1983

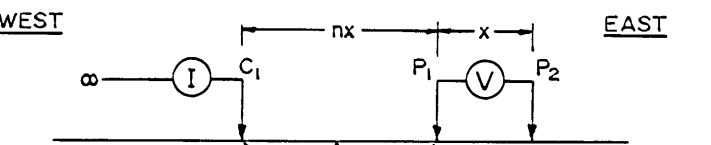
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 16+00N

POLE-DIPOLE ARRAY



PLOTTING POINT x = 200 feet
n = 1, 2, 3, 4

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

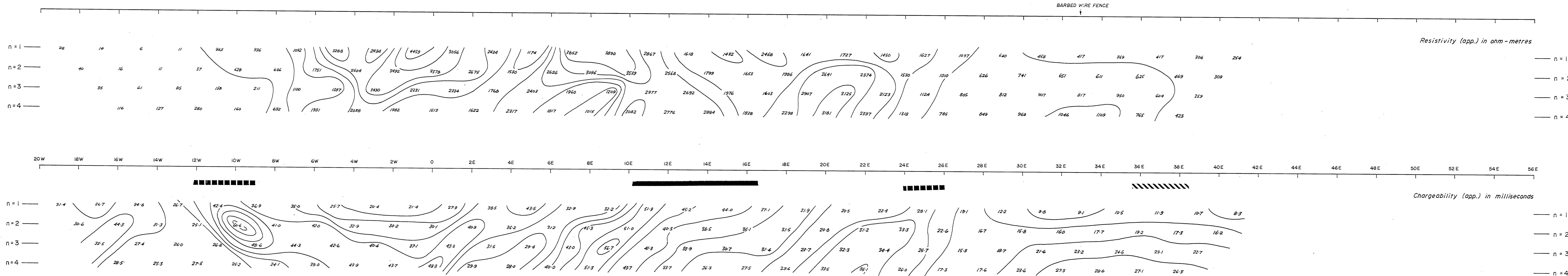
CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1,P2

To accompany report, dated April 1983, by J.Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-1



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,757

LINE No. : 16+00N

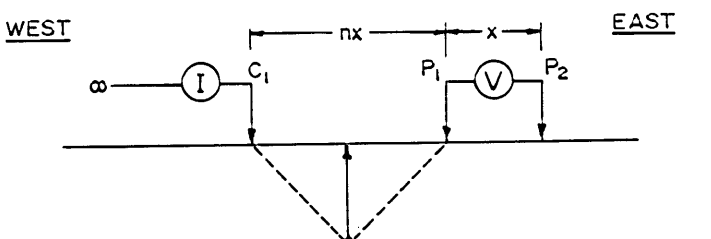
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 12+00N

POLE - DIPOLE ARRAY



PLOTTING POINT x = 200 feet
n = 1, 2, 3, 4

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

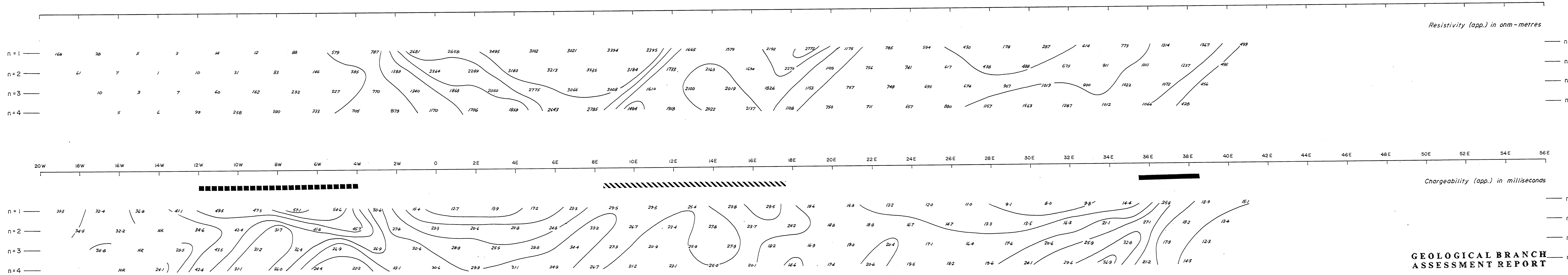
CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1P2

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-2



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

LINE No. : 12+00N

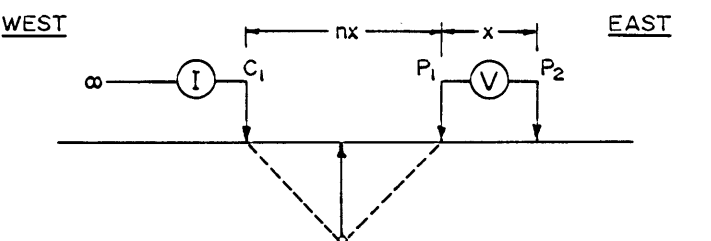
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No.: 8+00N

POLE-DIPOLE ARRAY



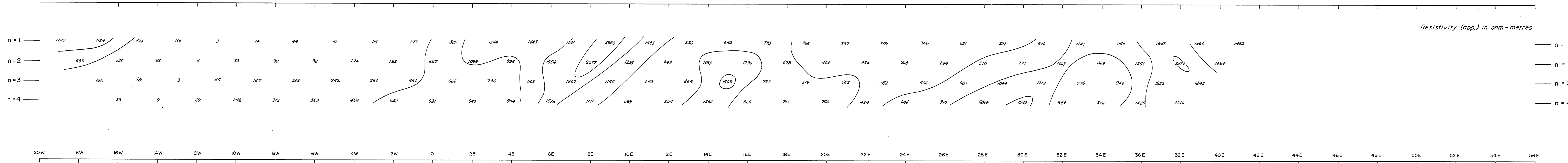
PLOTTING POINT x = 200 feet
n = 1, 2, 3, 4

SURFACE PROJECTION OF ANOMALOUS ZONES

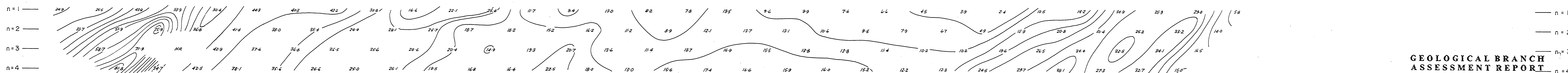
DEFINITE
PROBABLE
POSSIBLE

CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1P2

Resistivity (app.) in ohm-metres



Chargeability (app.) in milliseconds



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,757

To accompany report, dated April 1983, by J.Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-3

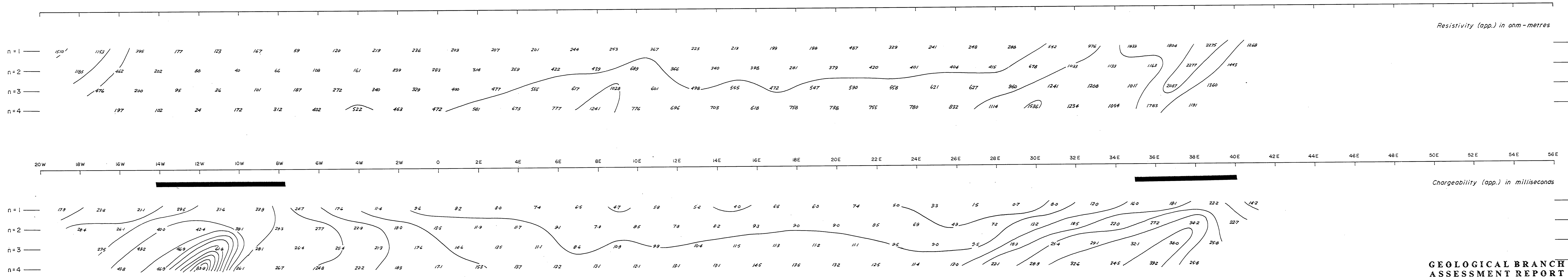
LINE No.: 8+00N

SKYLARK RESOURCES LTD.

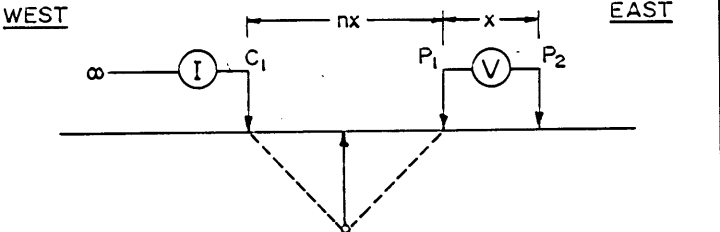
SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 4+00N



POLE-DIPOLE ARRAY



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
 SURFACE PROJECTION OF ANOMALOUS ZONES

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-4

LINE No. : 4+00N

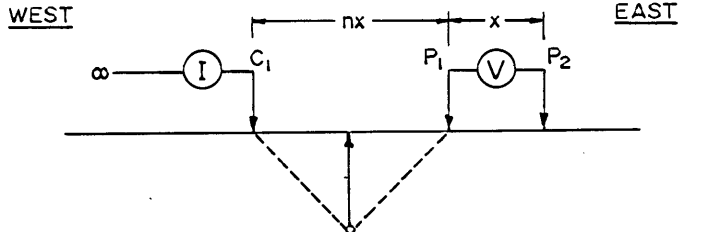
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 0+00S

POLE-DIPOLE ARRAY

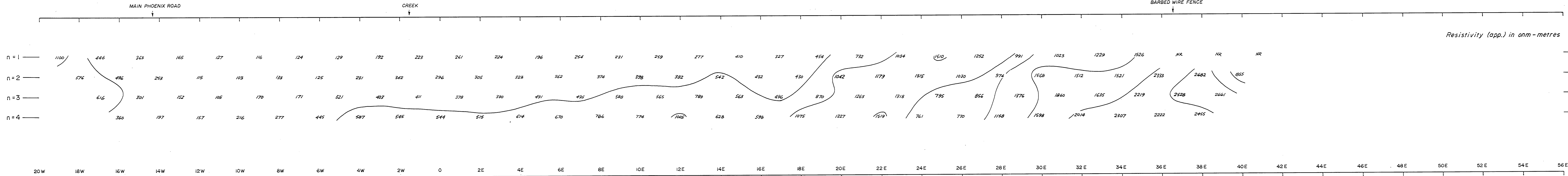


PLOTTING POINT
x = 200 feet
n = 1, 2, 3, 4
SURFACE PROJECTION
OF ANOMALOUS ZONES

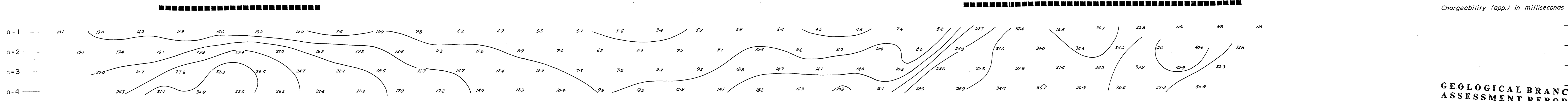
DEFINITE
PROBABLE
POSSIBLE

CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1,P2

Resistivity (app.) in ohm-metres



Chargeability (app.) in milliseconds



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-5

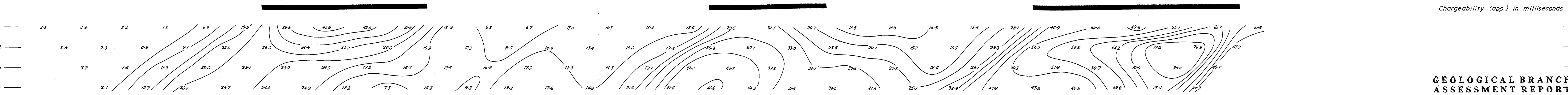
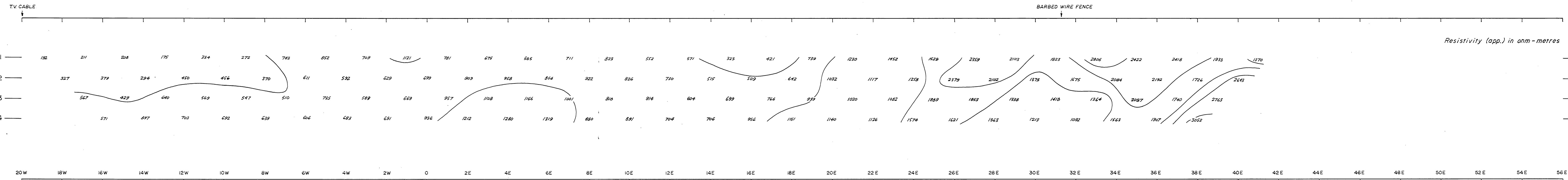
LINE No. : 0+00S

SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

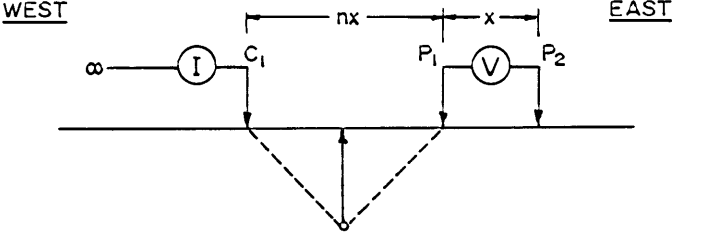
LINE No. : 8+00S



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

POLE-DIPOLE ARRAY



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
PROBABLE
POSSIBLE

CURRENT ELECTRODE C_1 WEST
OF POTENTIAL DIPOLE $P_1 P_2$

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-6

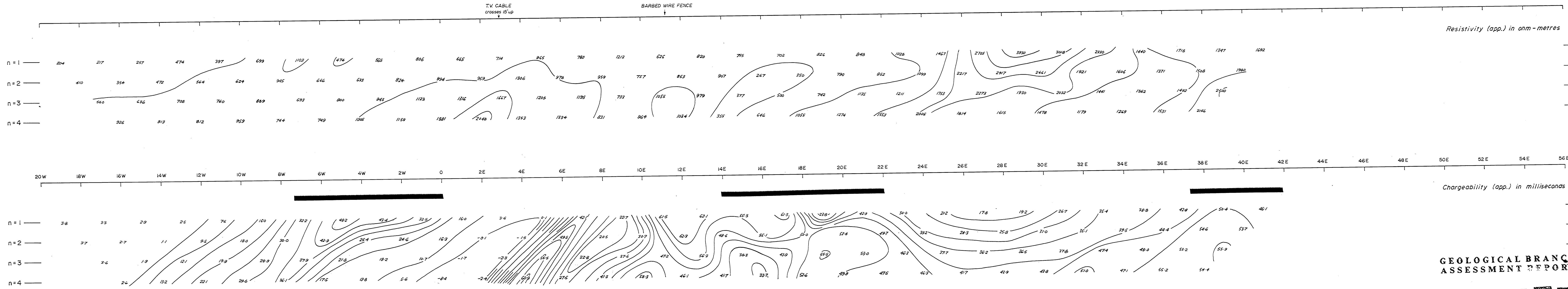
LINE No. : 8+00S

SKYLARK RESOURCES LTD.

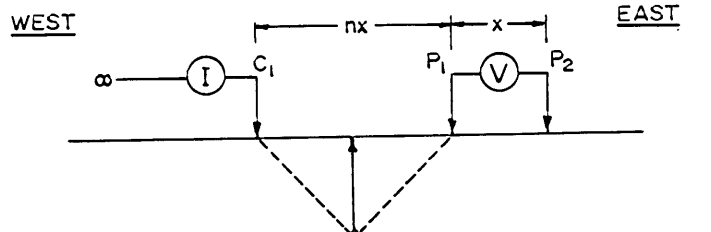
SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 12+00S



POLE-DIPOLE ARRAY



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
 SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

CURRENT ELECTRODE C_1 WEST
 OF POTENTIAL DIPOLE P_1P_2

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P. Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-7

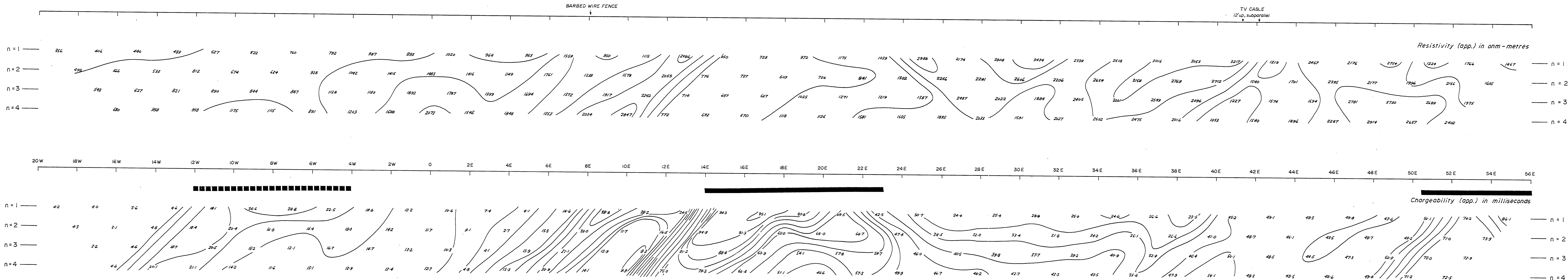
LINE No. : 12+00S

SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 20+00S



GEOLOGICAL BRANCH
ASSESSMENT REPORT

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-9

LINE No. : 20+00S

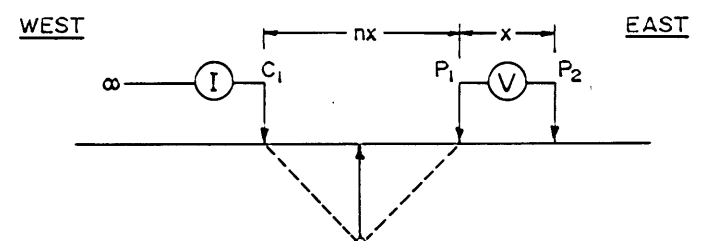
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.




LINE No. : 16+00 S

POLE-DIPOLE ARRAY



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE 
PROBABLE 
POSSIBLE 

CURRENT ELECTRODE C_1 WEST
OF POTENTIAL DIPOLE $P_1 P_2$

To accompany report, dated April 1983, by J. Lloyd M.Sc., P. Eng.

LLOYD GEOPHYSICS LIMITED

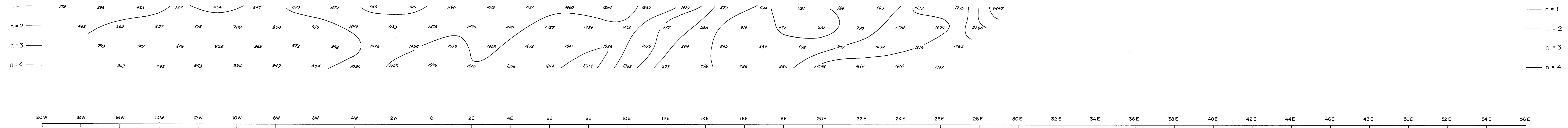
INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-8

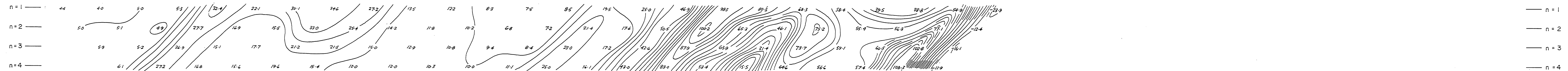
BARBED WIRE FENCE

GROUNDING CABLE CROSSES

Resistivity (app.) in ohm-metres



Chargeability (app.) in milliseconds



GEOLOGICAL BRANCH
ASSESSMENT REPORT

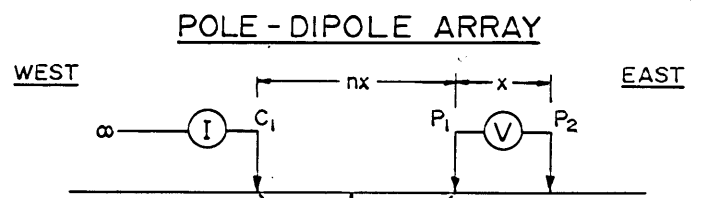
11,757

SKYLARK RESOURCES LTD.




SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 24+00S



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE 
PROBABLE 
POSSIBLE 

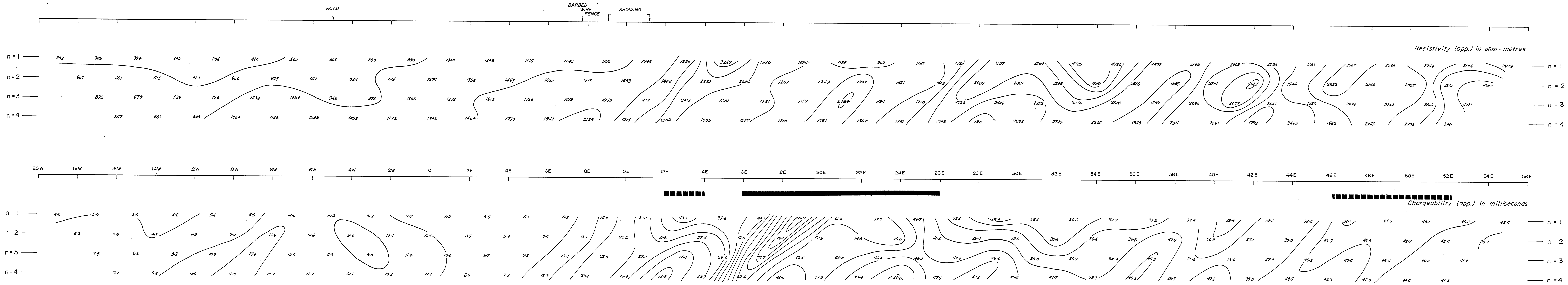
CURRENT ELECTRODE C_1 WEST
OF POTENTIAL DIPOLE P_1P_2

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-10



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

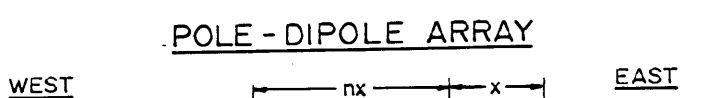
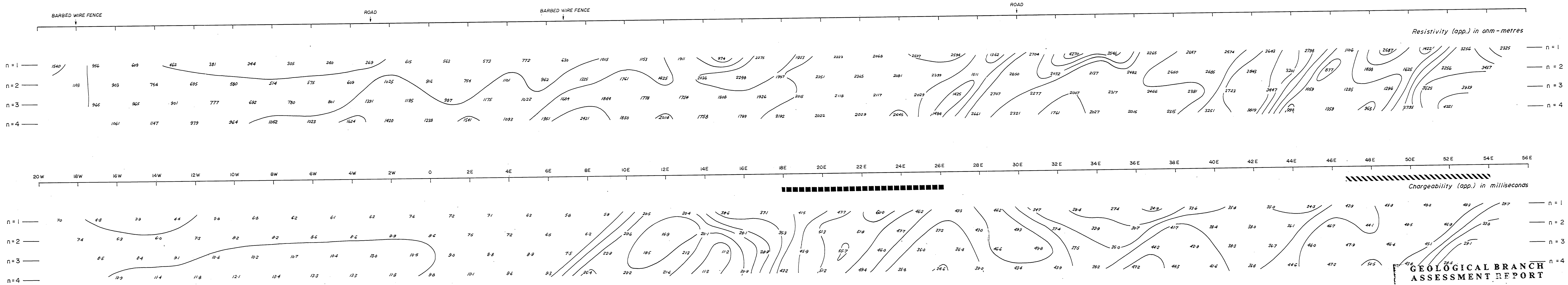
LINE No. : 24+00S

SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 28+00S



WEST ——— EAST

POLE-DIPOLE ARRAY

Plotting $x = 200$ feet
POINT $n = 1, 2, 3, 4$
SURFACE PROJECTION OF ANOMALOUS ZONES

Chargeability (app.) in milliseconds

DEFINITE [Solid black bar]

PROBABLE [Dotted black bar]

POSSIBLE [Hatched black bar]

CURRENT ELECTRODE C_1 WEST OF POTENTIAL DIPOLE $P_1 P_2$

GEOLOGICAL BRANCH ASSESSMENT REPORT

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-11

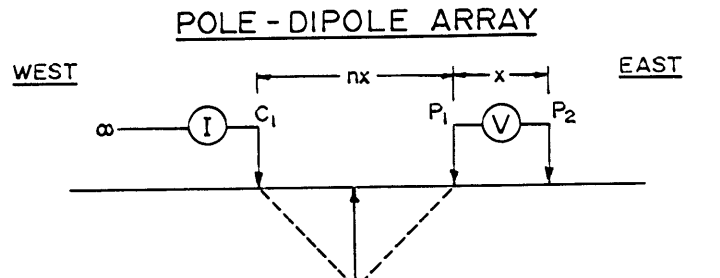
LINE No. : 28+00S

SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 32+00S



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

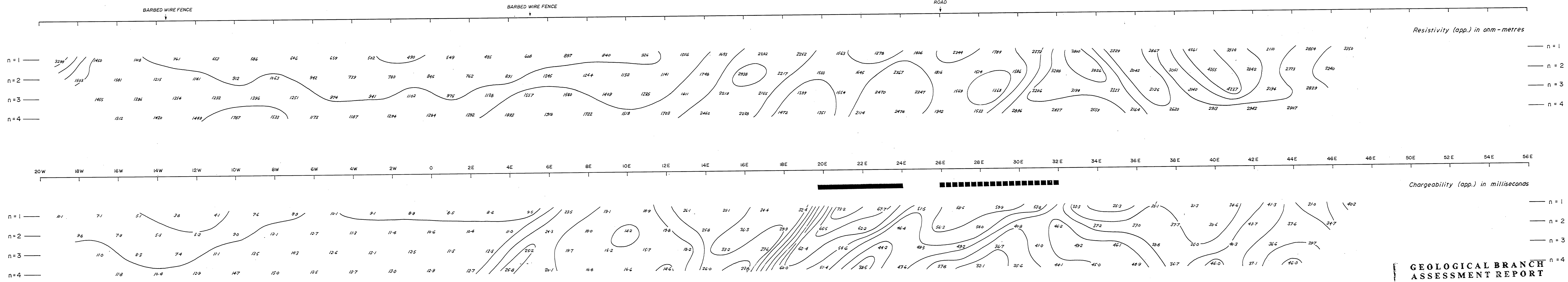
CURRENT ELECTRODE C_1 WEST
OF POTENTIAL DIPOLE $P_1 P_2$

To accompany report, dated April 1983, by J. Lloyd M.Sc., P. Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 83235-12



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

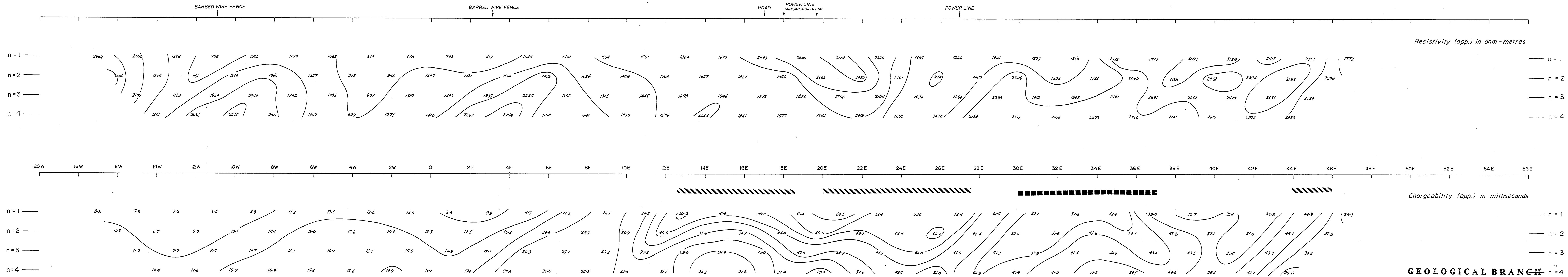
LINE No. : 32+00S

SKYLARK RESOURCES LTD.

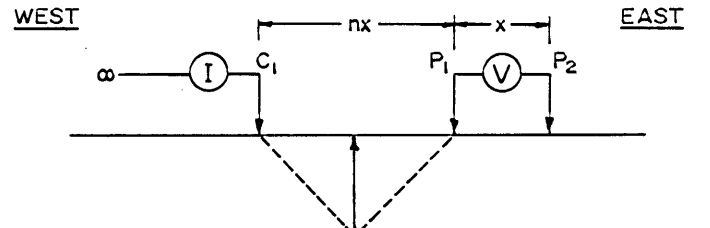
SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 36+00 S



POLE - DIPOLE ARRAY



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$

SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE

PROBABLE

POSSIBLE

CURRENT ELECTRODE C_1 WEST
OF POTENTIAL DIPOLE P_1, P_2

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-13

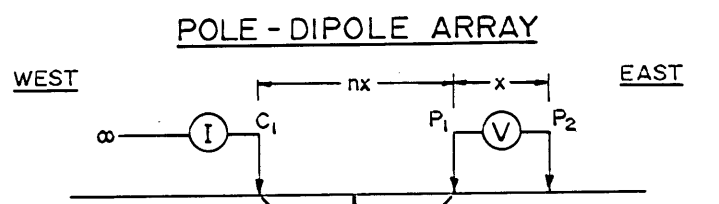
LINE No. : 36+00 S

SKYLARK RESOURCES LTD.

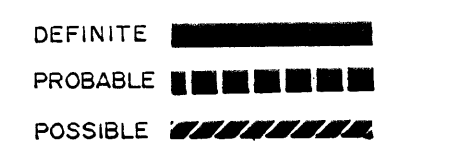
SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 40+00S



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
SURFACE PROJECTION OF ANOMALOUS ZONES



CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1P2

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

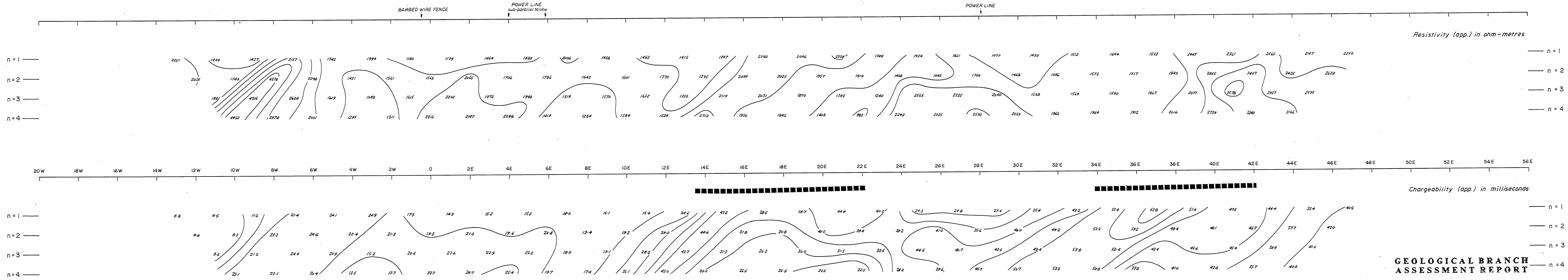
11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P. Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER : 83235-14



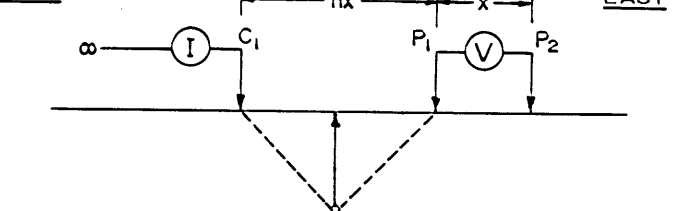
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 44+00S

POLE-DIPOLE ARRAY



WEST EAST
x = 200 feet
n = 1, 2, 3, 4
SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE [Solid black bar]
PROBABLE [Dashed black bar]
POSSIBLE [Hatched black bar]

CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1P2

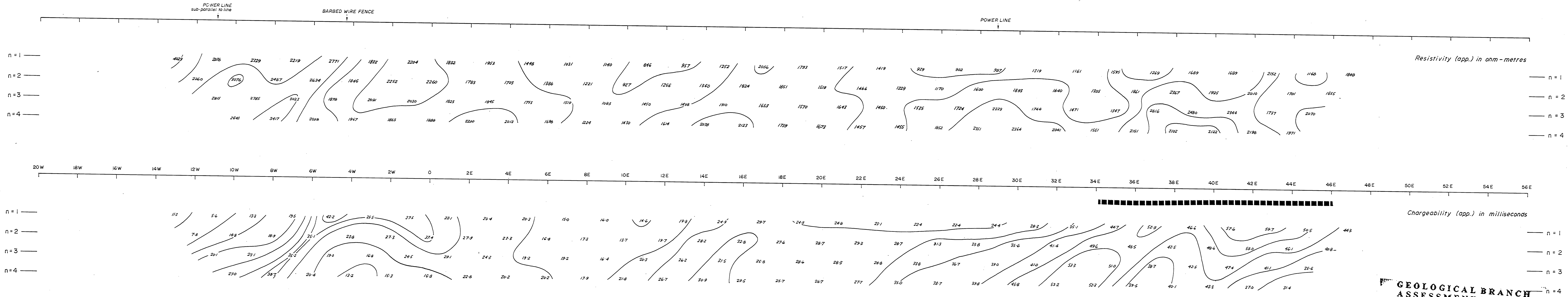
To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-15

LINE No. : 44+00S



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

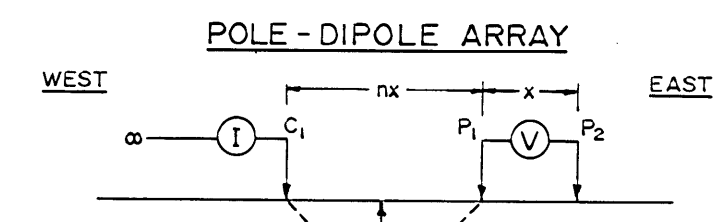
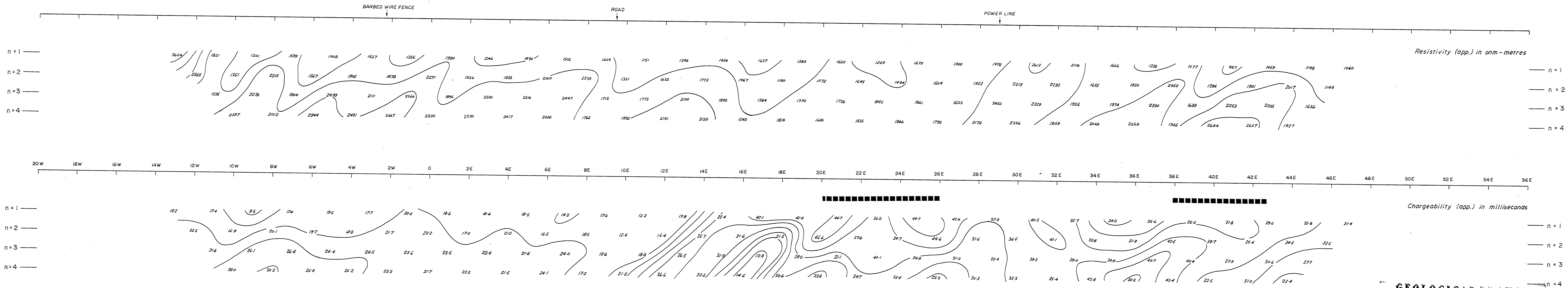
11,757

SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 48+00S



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
 SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE
 PROBABLE
 POSSIBLE

CURRENT ELECTRODE C_1 WEST
 OF POTENTIAL DIPOLE P_1, P_2

**GEOLOGICAL BRANCH
 ASSESSMENT REPORT**

11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-16

LINE No. : 48+00S

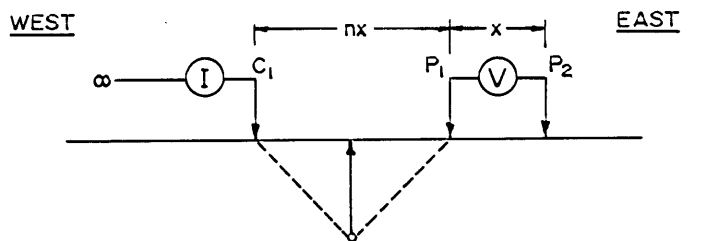
SKYLARK RESOURCES LTD.

SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.




LINE No. : 52+00S

POLE - DIPOLE ARRAY



PLOTTING POINT
x = 200 feet
n = 1, 2, 3, 4

SURFACE PROJECTION
OF ANOMALOUS ZONES

DEFINITE 
PROBABLE 
POSSIBLE 

CURRENT ELECTRODE C1 WEST
OF POTENTIAL DIPOLE P1P2

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

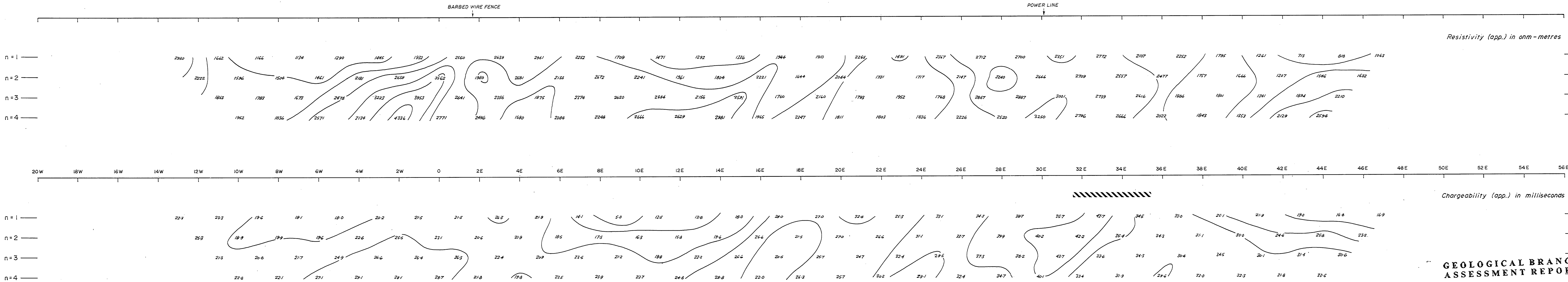
11,757

To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

DRAWING NUMBER: 83235-17

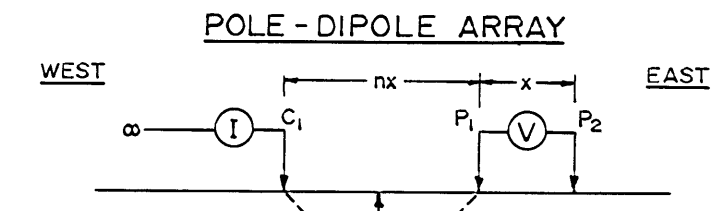
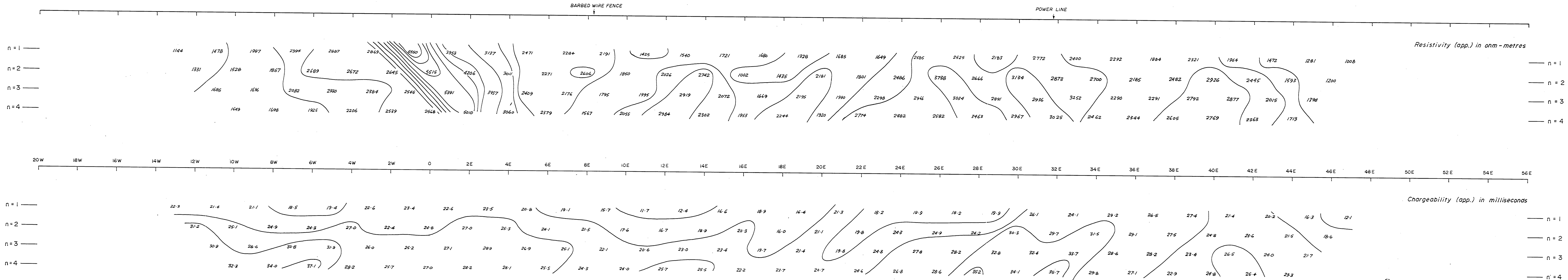


SKYLARK RESOURCES LTD.




SKYLARK AND OB CLAIM GROUPS

GREENWOOD MINING DIVISION, B.C.

LINE No. : 56+00S



PLOTTING POINT $x = 200$ feet
 $n = 1, 2, 3, 4$
SURFACE PROJECTION OF ANOMALOUS ZONES

DEFINITE 
PROBABLE 
POSSIBLE 

CURRENT ELECTRODE C_1 WEST
OF POTENTIAL DIPOLE P_1, P_2

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

11,757

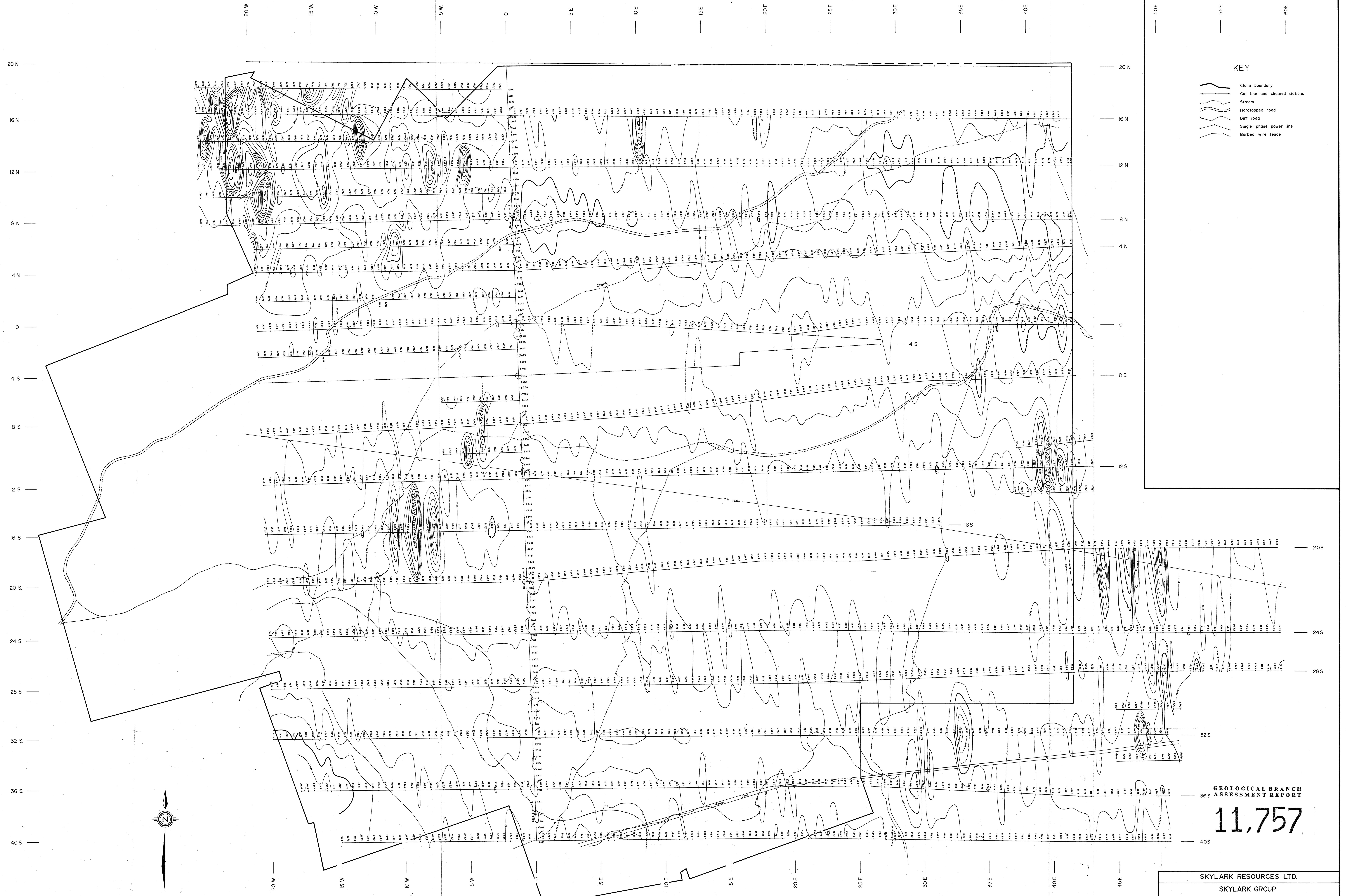
To accompany report, dated April 1983, by J. Lloyd M.Sc., P.Eng.

LLOYD GEOPHYSICS LIMITED

INDUCED POLARIZATION SURVEY

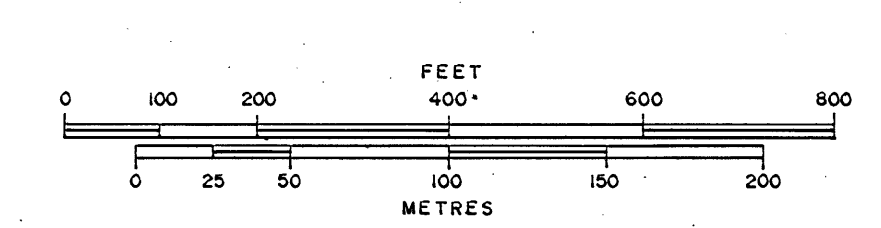
DRAWING NUMBER: 83235-18

LINE No. : 56+00S



- KEY**
- Claim boundary
 - Cut line and chained stations
 - Stream
 - Hardtopped road
 - Dirt road
 - Single-phase power line
 - Barbed wire fence

Instrument: Sharpe model MF-1, Serial No. 707296
 Corrected by: Loop method
 Contour Interval: 200'



GEOLOGICAL BRANCH
 ASSESSMENT REPORT

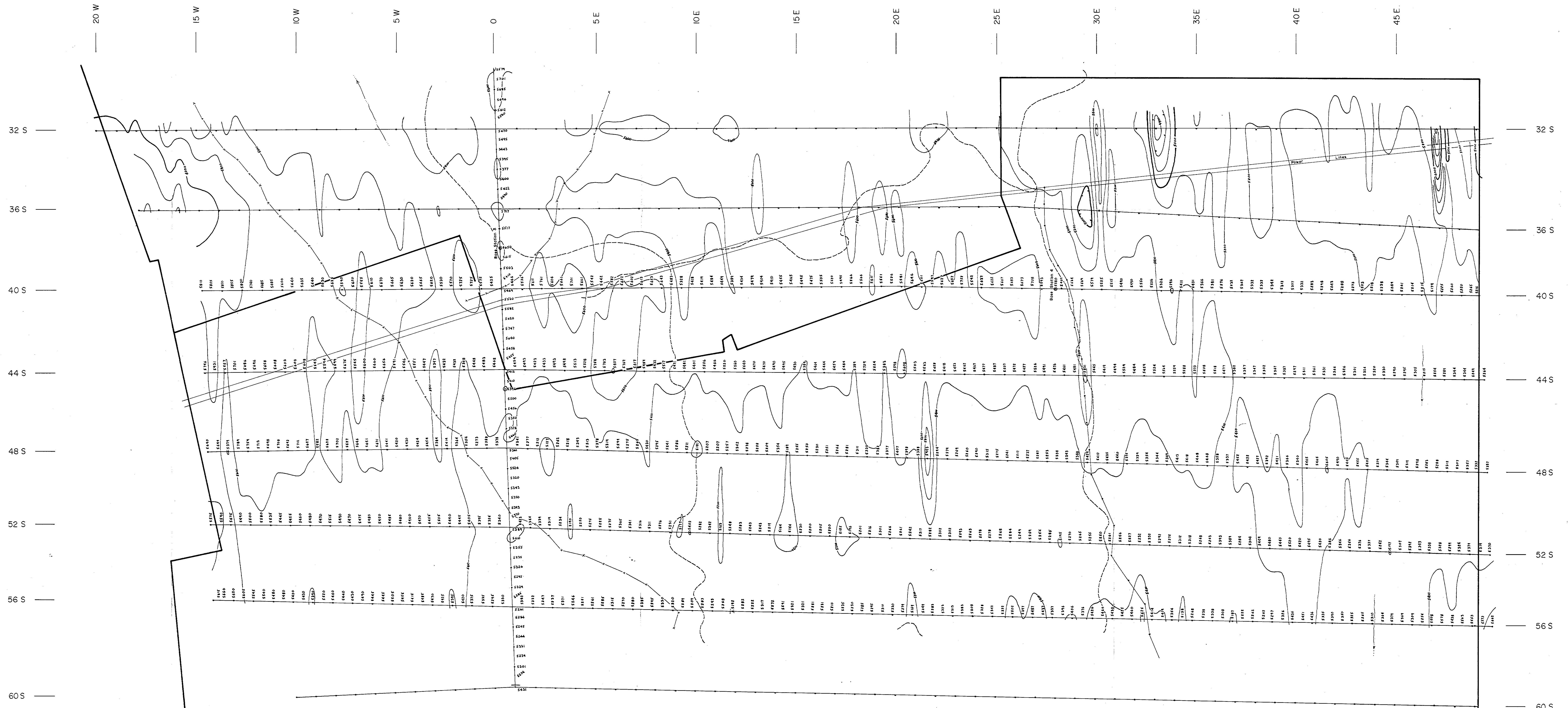
11,757

SKYLARK RESOURCES LTD.
 SKYLARK GROUP
 GREENWOOD MINING DIVISION, B.C.

**FLUXGATE
 MAGNETOMETER
 SURVEY**

SCALE: 1" = 200' or 1:2400 DATE: APRIL, 1983
 SURVEY BY: J.R.A. DRAWN BY: J.R.A.

LLOYD GEOPHYSICS LIMITED

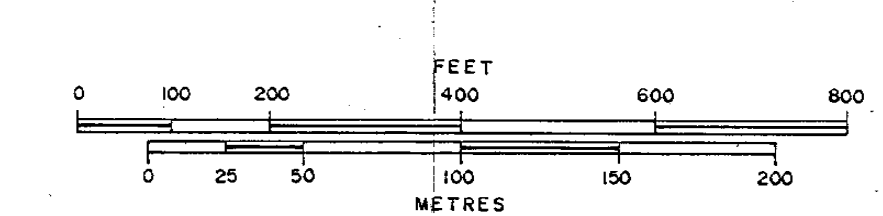


GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,757

KEY

- Claim boundary
- Cur line and chained station
- Stream
- Hardtopped road
- Dirt road
- Single-phase power line
- Barbed wire fence

Instrument: Sharpe model MF-1, Serial No. 707296
Corrected by: Loop method
Contour Interval: 200'



SKYLARK RESOURCES LTD.	
OB CLAIM GREENWOOD MINING DIVISION, B.C.	
FLUXGATE MAGNETOMETER SURVEY	
SCALE: 1" = 200' or 1:2400	DATE: APRIL, 1983
SURVEY BY: J.R.A.	DRAWN BY: J.R.A.
LLOYD GEOPHYSICS LIMITED	



KEY

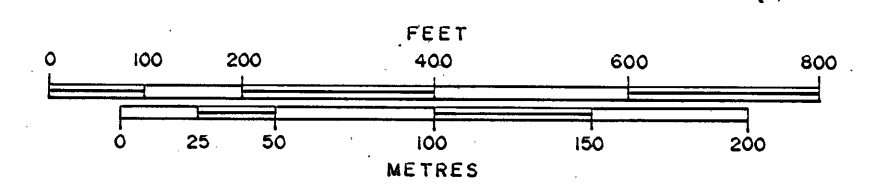
- Claim boundary
- Cut line and chained stations
- Stream
- Hardtopped road
- Dirt road
- Single-phase power line
- Barbed wire fence

E.M. Conductors

- Good
- Fair
- Poor

GEOLOGICAL BRANCH
ASSESSMENT REPORT
11,757

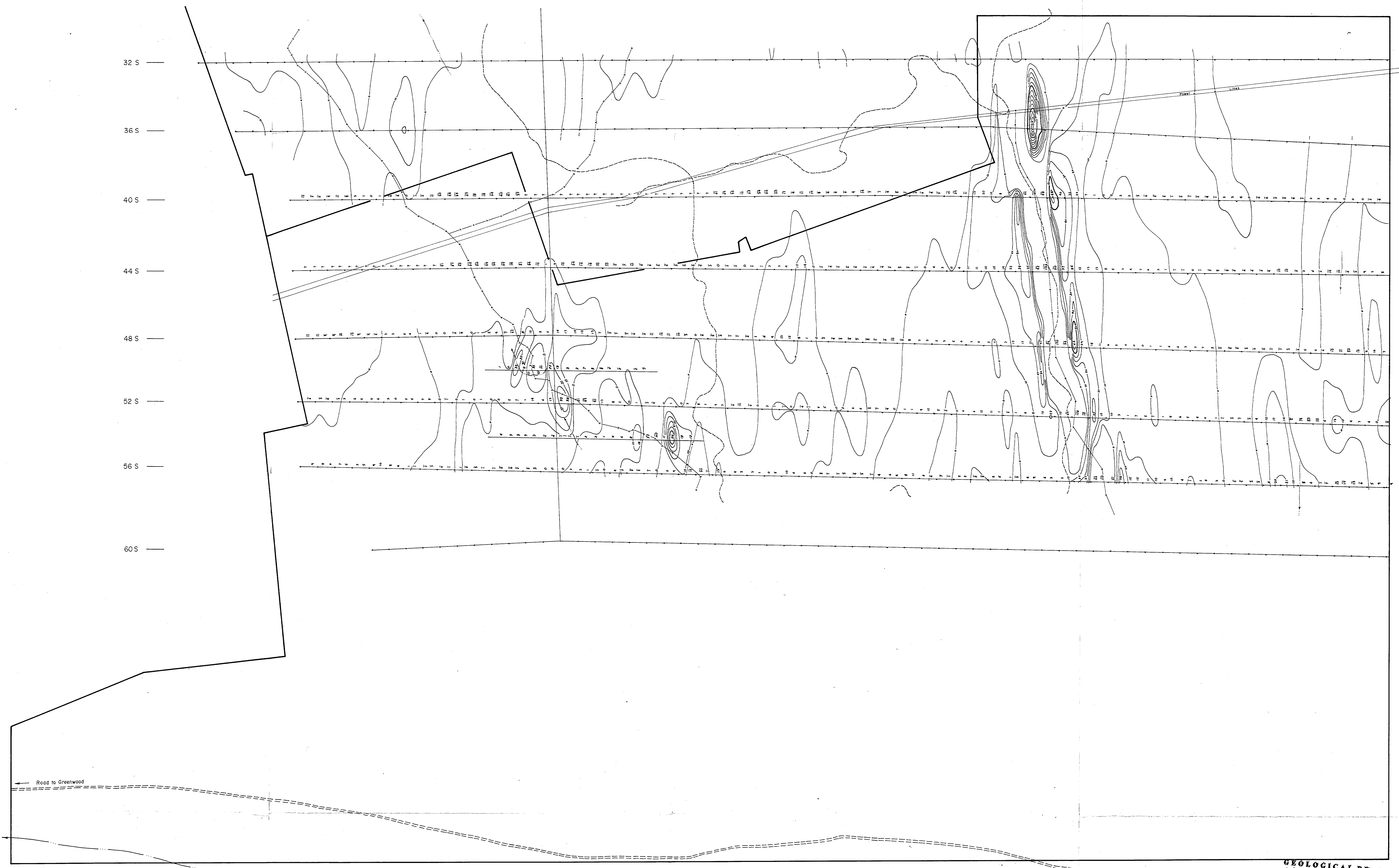
Transmitter: NPM 23.4 kHz Howell, U.S.A.
Receiver: Geonics Ltd. EM-16, Serial No. 50
Contour Interval: 10% dip (filtered)



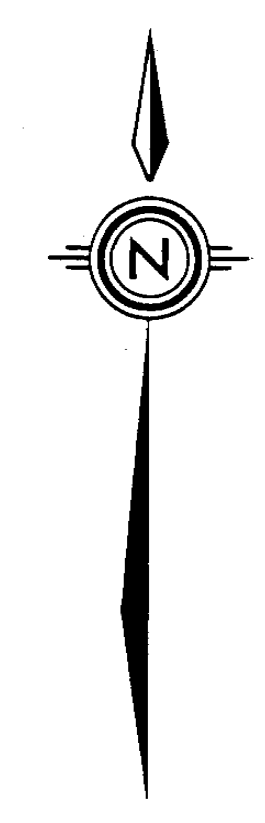
SKYLARK RESOURCES LTD.	
SKYLARK GROUP GREENWOOD MINING DIVISION, B.C.	
FRASER FILTERED VLF-EM SURVEY	
SCALE: 1" = 200' or 1:2400	DATE: APRIL, 1983
SURVEY BY: J.R.A.	DRAWN BY: J.R.A.
LLOYD GEOPHYSICS LIMITED	

20 W 15 W 10 W 5 W 0 5 E 10 E 15 E 20 E 25 E 30 E 35 E 40 E 45 E

32 S 36 S 40 S 44 S 48 S 52 S 56 S 60 S



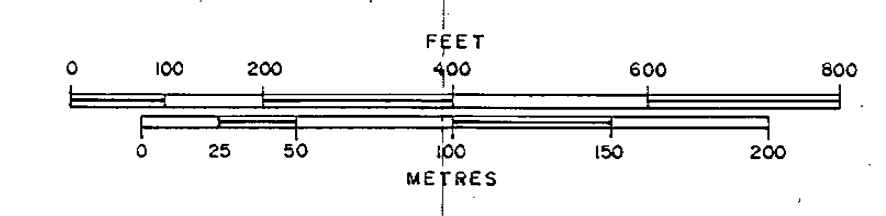
**GEOLOGICAL BRANCH
ASSESSMENT REPORT**
11,757



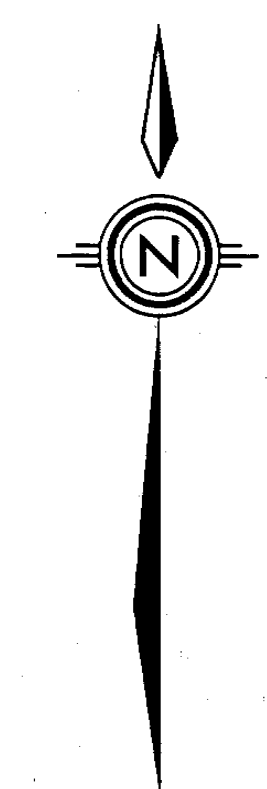
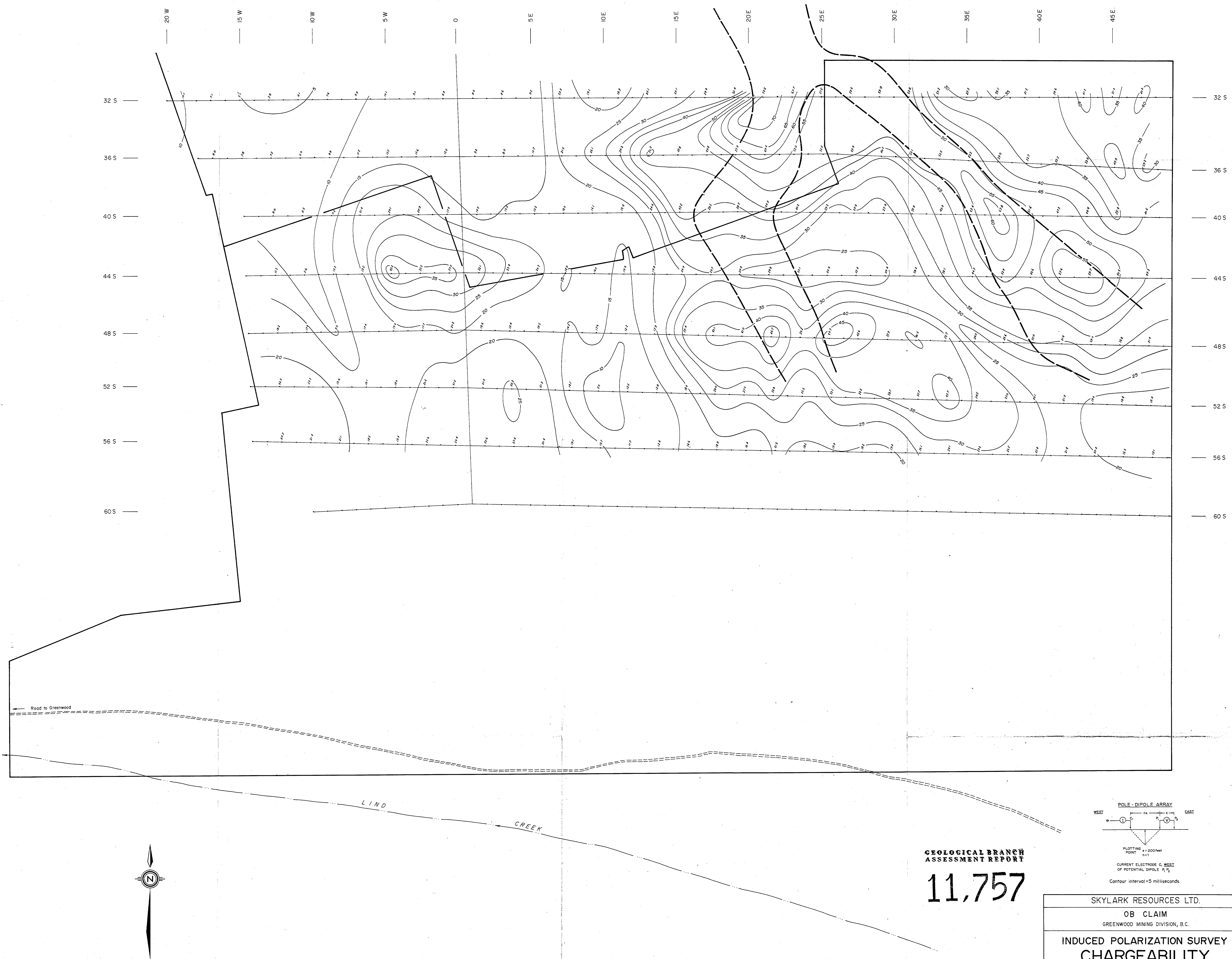
KEY

- Claim boundary
- Cut line and chained station
- Stream
- Hardtopped road
- Dirt road
- Single-phase power line
- Barbed wire fence

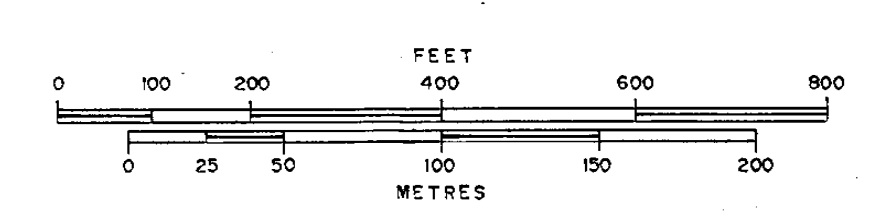
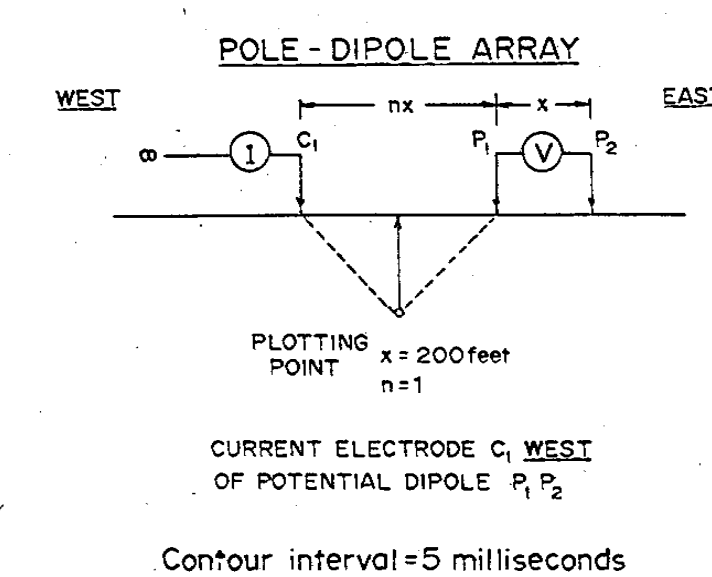
Transmitter: NPM 23.4 kHz Hawaii, U.S.A.
Receiver: Geonics Ltd. EM-16, Serial No. 50
Contour Interval: 10% dip (filtered)



SKYLARK RESOURCES LTD.	
OB CLAIM GREENWOOD MINING DIVISION, B.C.	
FRASER FILTERED VLF-EM SURVEY	
SCALE: 1" = 200' or 1:2400	DATE: APRIL, 1983
SURVEY BY: J.R.A.	DRAWN BY: J.R.A.
LLOYD GEOPHYSICS LIMITED	



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**
11,757



SKYLARK RESOURCES LTD.	
OB CLAIM GREENWOOD MINING DIVISION, B.C.	
INDUCED POLARIZATION SURVEY CHARGEABILITY	
FIRST SEPARATION x = 200 feet	
SCALE: 1" = 200' or 1:2400	DATE: MARCH, 1983
SURVEY BY: DCH	DRAWN BY: DLP
LLOYD GEOPHYSICS LIMITED	



KEY

- Claim boundary
- Cut line and chained stations
- Stream
- Hardtopped road
- Dirt road
- Single-phase power line
- Barbed wire fence
- Geological contact (interpreted)

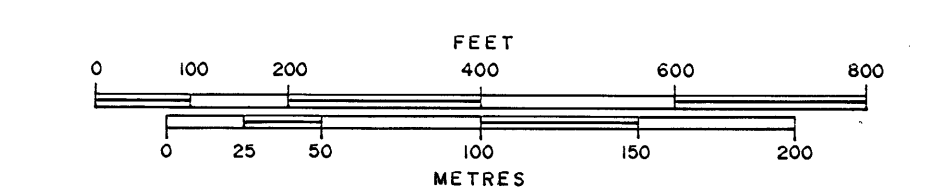
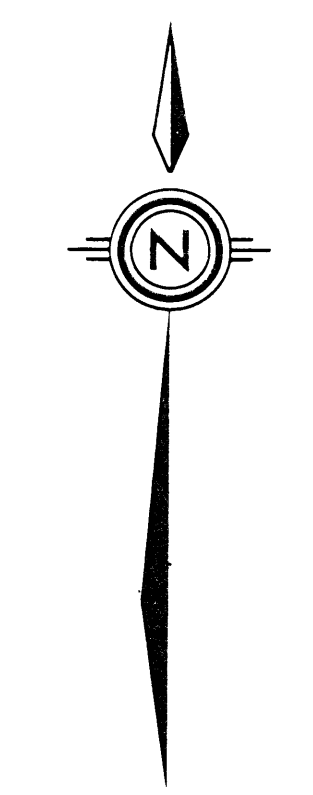
POLE-DIPOLE ARRAY

WEST ——— EAST

PLOTTING POINT $x = 200 \text{ feet}$
 $n = 1$

CURRENT ELECTRODE C_1 , WEST OF POTENTIAL DIPOLE $P_1 P_2$

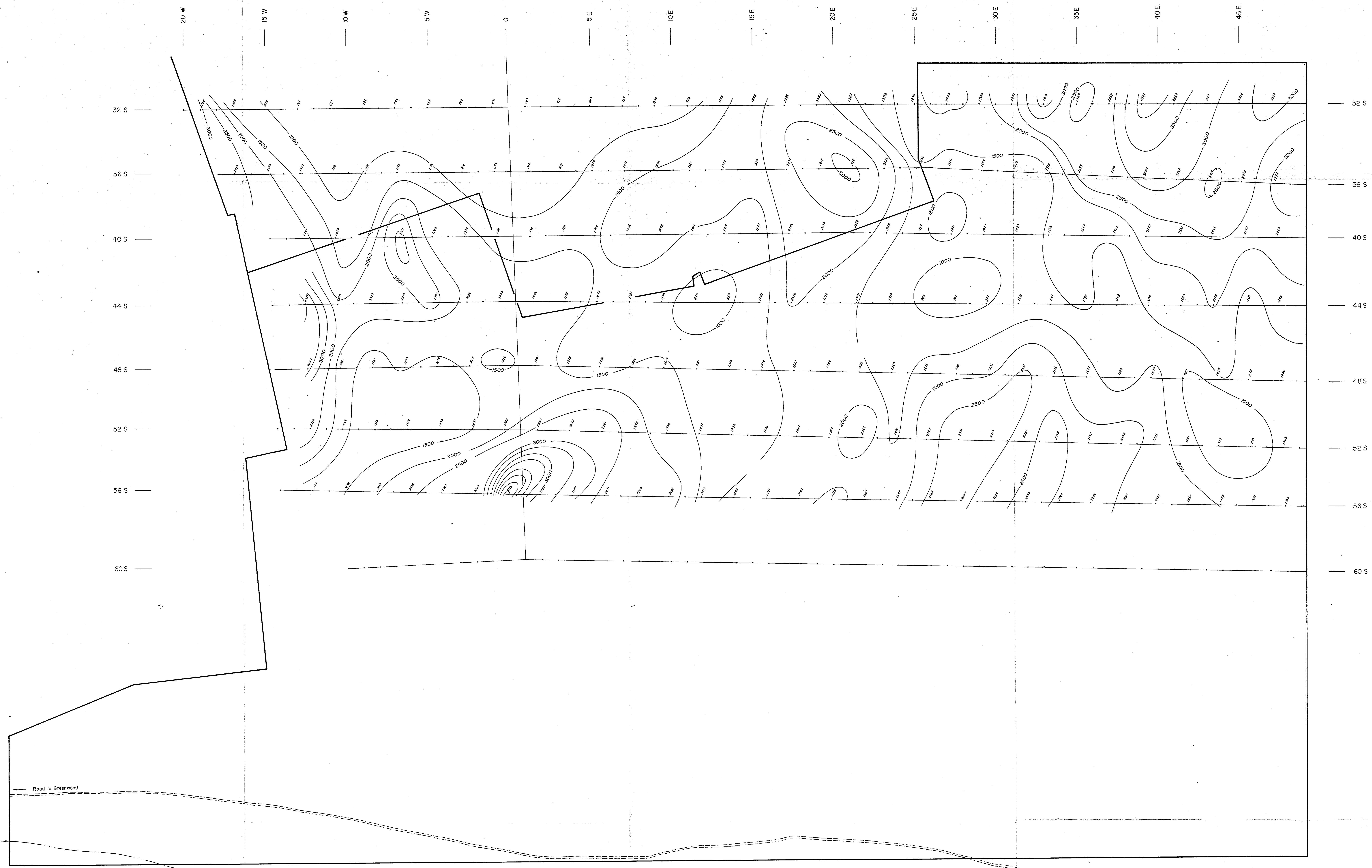
Contour interval = 500 ohm-metres



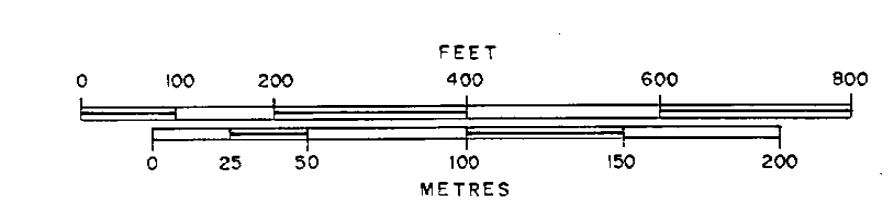
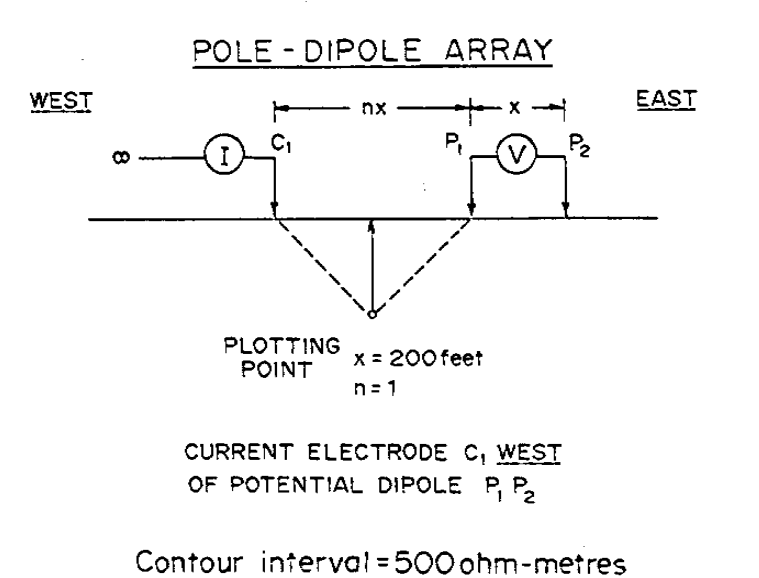
GEOLOGICAL BRANCH
ASSESSMENT REPORT

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SKYLARK RESOURCES LTD.	
SKYLARK GROUP	
GREENWOOD MINING DIVISION, B.C.	
INDUCED POLARIZATION SURVEY RESISTIVITY	
FIRST SEPARATION $x = 200 \text{ feet}$	
SCALE: 1" = 200' or 1:2400	DATE: APRIL, 1983
SURVEY BY: DCH	DRAWN BY: DLP
LLOYD GEOPHYSICS LIMITED	



**GEOLOGICAL BRANCH
ASSESSMENT REPORT**
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SKYLARK RESOURCES LTD.	
OB CLAIM GREENWOOD MINING DIVISION, B.C.	
INDUCED POLARIZATION SURVEY RESISTIVITY	
FIRST SEPARATION	x = 200 feet
SCALE: 1" = 200' or 1:2400	DATE: MARCH, 1983
SURVEY BY: DCH	DRAWN BY: DLP
LLOYD GEOPHYSICS LIMITED	