ARIS SUMMARY SHEET

istrict Geologist, Smithers   Off Confidential: 92.08.20

ASSESSMENT REPORT 21757   MINING DIVISION: Atlin

PROPERTY: Metla
LOCATION: LAT   58 23 00   LONG   132 36 00
                UTM   08 6473682   640329
                NTS   104K07E
CLAIM(S):   Prior 1-18,Trap,Metla
OPERATOR(S):   Galico Res. Adrian Res.
UTHOR(S):   Dvorak, Z.
EPORT YEAR: 1991, ~~20~~ Pages 21
KEYWORDS: Triassic,Stuhini Group,Andesites,Greywackes,Cherts,Basalts
ORK
ONE: Geophysical
            EMAB   320.0 km
                Map(s) - 6; Scale(s) - 1:10 000
            MAGA   320.0 km
                Map(s) - 6; Scale(s) - 1:10 000

REPORT ON A COMBINED HELICOPTER-BORNE MAGNETIC, ELECTROMAGNETIC AND VLF SURVEY METLA AREA, BRITISH COLUMBIA

FOR

GALICO RESOURCES INC.
AND
ADRIAN RESOURCES LTD.

BY

AERODAT LIMITED
3883 NASHUA DRIVE
MISSISSAUGA, ONTARIO
L4V 1R3
PHONE: 416 - 671-2446

August 9, 1991

J9134

Zbynek Dvorak
Consulting Geophysicist

21757

Province of British Columbia

Ministry of Energy, Mines and Petroleum Resources

ASSESSMENT REPORT TITLE PAGE AND SUMMARY

TYPE OF REPORT/SURVEY(S)	TOTAL COST
AIRBORNE GEOPHYSICAL SURVEY	$ ~~120,000~~

AUTHOR(S) ZBYNEK DVORAK SIGNATURE(S) Z. Dvorak

DATE STATEMENT OF EXPLORATION AND DEVELOPMENT FILED AUGUST 20, 1991 YEAR OF WORK 1991

PROPERTY NAME(S) METLA (METLATULIN, TRAPPER LAKE)

COMMODITIES PRESENT AU

B.C. MINERAL INVENTORY NUMBER(S), IF KNOWN

MINING DIVISION ATLIN NTS 104K/07E

LATITUDE 58 23'N LONGITUDE 132 36'W

NAMES and NUMBERS of all mineral tenures in good standing (when work was done) that form the property [Examples: TAX 1-4, FIRE 2 (12 units); PHOENIX (Lot 1706); Mineral Lease M 123; Mining or Certified Mining Lease ML 12 (claims involved)]:

METLA (202631) PRIOR 1-18 (203565-203582) TRAP (302147)

OWNER(S)

(1) GALICO RESOURCES INC
ADRIAN RESOURCES LTD

(2) COMINCO LTD

MAILING ADDRESS

BOX 10, 808 WEST HASTINGS STREET
VANCOUVER, BC V6C 2X4

700-409 GRANVILLE STREET
VANCOUVER, BC V6C 1T2

OPERATOR(S) (that is, Company paying for the work)

(1) GALICO RESOURCES INC.
ADRIAN RESOURCES LTD

(2)

MAILING ADDRESS

as above

SUMMARY GEOLOGY (lithology, age, structure, alteration, mineralization, size, and attitude):
Area is underlain by Upper Triassic Stuhini Group volcanics and sediments. Wacke, mudstone, chert and tuffaceous grit underlie the volcanics which consist of andesite to basalt flows, flow & pyroclastic breccia and tuffs. Diorite and gabbro stocks, sills or dykes have been mapped. Massive to disseminated base metal sulphides with AU and AG occur principally in cross cutting hydrothermal breccia.

REFERENCES TO PREVIOUS WORK MAR 1991: Qualifying Report on the Metla Property for Galico Res.Inc. by J.D.Blackwell
MAY 1991: Report on Trapper Lake Project for Adrian Res.Ltd. by G.Cavey&B.Dewonck

19226

(over)

TABLE OF CONTENTS

LIST OF MAPS

Maps are labelled according to scale, map type and sheet number. Survey results are presented in one sheet at 1:10,000.

BLACK LINE MAPS: (Scale 1:10,000)

Map Type	**Description**
1.	**BASE MAP;** screened topographic base map plus survey area boundary.
2.	**FLIGHT PATH MAP;** photocombination of the base map with flight lines, fiducials and EM anomaly symbols.
3.	**INTERPRETATION MAP;** flight path map with interpretation.
4.	**TOTAL FIELD MAGNETIC CONTOURS;** with flight lines.
5.	**VERTICAL MAGNETIC GRADIENT CONTOURS;** with flight lines.
6.	**APPARENT RESISTIVITY CONTOURS;** apparent resistivity calculated for each of the 4175 Hz coplanar data with flight lines.
7.	**VLF-EM TOTAL FIELD CONTOURS;** with flight lines.

COLOUR MAPS: (Scale (1:10,000)

1. **TOTAL FIELD MAGNETICS;** with superimposed contours, flight lines and EM anomaly symbols.
2. **VERTICAL GRADIENT MAGNETICS;** with superimposed contours, flight lines and EM anomaly symbols.
3. **APPARENT RESISTIVITY;** calculated for each of the 4175 Hz coplanar data with superimposed contours, flight lines and EM anomaly symbols.
4. **VLF-EM TOTAL FIELD;** with superimposed contours, flight lines and EM anomaly symbols.
5. **HEM PROFILES;** 935 and 4600 Hz coaxial and 4175 and 32000 Hz coplanar data with flight lines and EM anomaly symbols.

REPORT ON A
COMBINED HELICOPTER-BORNE
MAGNETIC, ELECTROMAGNETIC AND VLF SURVEY
METLA PROPERTY, BRITISH COLUMBIA

1. INTRODUCTION

This report describes an airborne geophysical survey carried out on behalf of Galico Resources Inc. by Aerodat Limited. Equipment operated during the survey included a four frequency electromagnetic system, a high sensitivity cesium vapour magnetometer, a two frequency VLF-EM system, a video tracking camera, a radar altimeter, and Global Positioning and electronic navigation systems. Electromagnetic, magnetic, and altimeter data were recorded both in digital and analog forms. Positioning data was stored in digital form, encoded on VHS format video tape and recorded at regular intervals in UTM coordinates, as well as being marked on the flight path mosaic by the operator while in flight.

The survey area, comprising a single survey block in the northwestern British Columbia, approximately 100 kilometres northwest of Telegraph Creek, immediately south of Trapper Lake. The area was flown during the period of May 30 to June 4, 1991. Data from nine flights were used to compile the survey results. The flight line orientation was N70°E, and the nominal flight line spacing was 100 metres. Coverage and data quality were considered to be well within the specifications described in the service contract.

The purpose of the survey was to record airborne geophysical data over and around ground that is of interest to Galico Resources Inc.

A total of 370 line kilometres of the recorded data were compiled in map form. The maps are presented as part of this report according to specifications laid out by Galico Resources Inc.

2. SURVEY AREA

The Metla Property is depicted on the index map shown below. It is centred at approximate geographic latitude 58° 23' north, longitude 132° 36' west, approximately 110 kilometres northwest of the town of Stewart, British Columbia (NTS Reference Map No. 104 K/7).

The terrain in the area is moderately rugged with elevation varying from approximately 235 m a.s.l. to in excess of 680 m a.s.l.

3. SURVEY PROCEDURES

The survey was flown in the period May 30 to June 4, 1991. Principal personnel are listed in Appendix IV. Nine (9) survey flights were required to complete the project.

The aircraft ground speed was maintained at approximately 60 knots (30 metres per second). The nominal EM sensor height was 30 metres, consistent with the safety of the aircraft and crew.

A GPS (Global Positioning System) satellite based navigation system was used to guide the pilot over the survey grid and to generate a digital record of position. This is an autonomous system which does not require the installation of ground stations.

The UTM coordinates of survey area corners were taken from maps provided by Biralger. These coordinates are used to program the navigation system. A test flight was used to confirm that area coverage would be as required.

Thereafter the traverse lines are flown under the guidance of the navigation system. The navigator/operator marked manual fiducials over prominent topographic features. These were entered on the navigator's map - a 1:20,000 scale topographic map (a 2.5 times photographic enlargement of local 1:50,000 scale NTS maps). Survey lines which showed excessive deviation were re-flown.

The magnetic tie lines were flown using visual navigation in areas of low topographic and magnetic relief. Aircraft position was taken from the navigation system.

Calibration lines are flown at the start, middle (if required) and end of every survey flight. These lines are flown outside of ground effects to record electromagnetic zero levels.

4. DELIVERABLES

The results of the survey are presented in a report plus maps. The report is presented in four copies. White print copies of all black line maps are folded and bound with the report.

The colour maps are delivered in four copies. The colour and shadow maps are rolled and delivered in map tube(s).

A full list of all map types is given at the beginning of this report. A summary is given here.

MAP TYPE	DESCRIPTION
1	Base Map (Black line)
2	Flight Path Map (Black line)
3	Interpretation Map (Black line)
4	Total Magnetic Field Contours (Black line)
5	Vertical Magnetic Gradient Contours (Black line)
6	Apparent Resistivity - 4175 Hz (Black Line)
7	VLF-EM Total Field Contours (Black line)

1	Total Magnetic Field Contours (Colour)
2	Vertical Magnetic Gradient Contours (Colour
3	Apparent Resistivity Contours - 4175 Hz - (Colour)
4	VLF-EM Total Field Contours (Colour)
5	HEM Profiles - All Frequencies (Colour)

The processed digital data is organized on 9 track archive tape. Both the profile and the gridded data are saved on tape. A full description of the archive tape(s) is delivered with the tape(s).

All gridded data are also provided on diskettes suitable for displaying on IBM compatible 286 or 386 microcomputers using the Aerodat RTI software package.

The Aerodat RTI (Real Time Imaging) program for displaying the gridded data sets from the survey is included in the package of deliverable products.

All analog records, base station magnetometer records, flight path video tape and original map cronaflexes are delivered with the final presentation.

5. AIRCRAFT AND EQUIPMENT

5.1 Aircraft

A SA315B Aerospeciale (Lama) helicopter owned and operated by Peace Helicopter, was used for the survey. Installation of the geophysical and ancillary equipment was carried out by Aerodat. The survey aircraft was flown at a mean terrain clearance of 60 metres.

5.2 Electromagnetic System

The electromagnetic system was an Aerodat 4-frequency system. Two vertical coaxial coil pairs were operated at 935 Hz and 4,600 Hz and two horizontal coplanar coil pairs at 4,175 and 32,000 Hz. The transmitter-receiver separation was 7 metres. Inphase and quadrature signals were measured simultaneously for the 4 frequencies with a time constant of 0.1 seconds. The HEM bird was towed 30 metres below the helicopter.

5.3 VLF-EM System

The VLF-EM System was a Herz Totem 2A. This instrument measures the total field and vertical quadrature components of two selected frequencies. The sensor was towed in a bird 10 metres below the helicopter.

VLF transmitters are designated "Line" and "Ortho". The line station is that which is in a direction from the survey area which is ideally normal to the flight line direction. This is the VLF station most often used because of optimal coupling with near vertical conductors running perpendicular to the flight line direction. The ortho station is ideally 90 degrees in azimuth away from the line station.

The transmitter NLK, Seattle, Washington broadcasting at 24.8 kHz and NAA, Cutler, Maine broadcasting at 24.0 kHz were used for the Line Station. The transmitter NPM, Lualualei, Hawaii broadcasting at 23.4 kHz was used exclusively for the Ortho Station.

5.4 Magnetometer

The magnetometer employed was a Scintrex H8 cesium, optically pumped magnetometer sensor. The sensitivity of this instrument is 0.001 nanoTeslas at a 0.2 second sampling rate. The sensor was towed in a bird 15 metres below the helicopter.

5.5 Ancillary Systems

Base Station Magnetometer

A Scintrex proton procession base station magnetometer system was operated at the base of operations to record diurnal variations of the earth's magnetic field. The clock of the base station was synchronized with that of the airborne system to facilitate later correlation. Recording resolution was 0.1 nT. The update rate was 2 seconds.

Radar Altimeter

A King KRA-10 radar altimeter was used to record terrain clearance. The output from the instrument is a linear function of altitude.

Tracking Camera

A Panasonic colour video camera was used to record flight path on VHS video tape. The camera was operated in continuous mode. The flight number, 24 hour clock time (to .01 second), and manual fiducial number are encoded on the video tape.

GPS Navigation System

A Trimble TANS GPS positioning system was used to guide the pilot over a programmed grid. The UTM coordinates were digitally recorded. The output sampling rate is 1 second. Positional coordinates are recorded with a resolution of 0.1 m.

Analog Recorder

A RMS dot matrix recorder was used to display the data during the survey. Record contents are as follows:

Label	Contents	Scale
GEOPHYSICAL SENSOR DATA		
MAGF	Total Field Magnetics, Fine	2.5 nT/mm
MAGC	Total Field Magnetics, Course	25 nT/mm
VLT	VLF-EM, Total Field, Line Station	2.5 %/mm
VLQ	VLF-EM, Vertical Quadrature, Line Station	2.5 %/mm
VOT	VLF-EM, Total Field, Ortho Station	2.5 %/mm
VOQ	VLF-EM, Vertical Quadrature, Ortho Station	2.5 %/mm
CXI1	935 Hz, Coaxial, Inphase	2.5 ppm/mm
CXQ1	935 Hz, Coaxial, Quadrature	2.5 ppm/mm
CXI2	4600 Hz, Coaxial, Inphase	2.5 ppm/mm
CXQ2	4600 Hz, Coaxial, Quadrature	2.5 ppm/mm
CPI1	4175 Hz, Coplanar, Inphase	10 ppm/mm
CPQ1	4175 Hz, Coplanar, Quadrature	10 ppm/mm
CPI2	32000 Hz, Coplanar, Inphase	20 ppm/mm
CPQ2	32000 Hz, Coplanar, Quadrature	20 ppm/mm
ANCILLARY DATA		
RALT	Radar Altimeter	10ft/mm
PWRL	60 Hz Power Line Monitor	-

Chart speed is 2 mm/second. The 24 hour clock time is printed every 20 seconds. The total magnetic field value is printed every 30 seconds. The ranges from the radar navigation system are printed every minute.

Vertical lines crossing the record are operator activated manual fiducial markers. The start of any survey line is identified by two closely spaced manual fiducials. The end of any survey line is identified by three closely spaced manual fiducials. Manual fiducials are numbered in order. Every tenth manual fiducial is indicated by its number, printed at the bottom of the record.

Calibration sequences are located at the start and end of each flight and at intermediate times where needed.

Digital Recorder

A DGR-33 data system recorded the digital survey data on magnetic media. Contents and update rates were as follows:

DATA TYPE	RECORDING INTERVAL	RECORDING RESOLUTION
Magnetometer	0.2 s	0.001 nT
VLF-EM (4 Channels)	0.2 s	0.03%
HEM (8 Channels)	0.1 s	0.03 ppm (coaxial), 0.06 ppm (coplanar - 4175 Hz) 0.125 ppm (coplanar - 32 kHz)
Position (2 Channels)	0.2 s	0.1 m
Altimeter	0.2 s	0.05 m
Power Line Monitor	0.2 s	-
Manual Fiducial		
Clock Time		

6. DATA PROCESSING AND PRESENTATION

6.1 Base Map

The base map is taken from a 5 times photographic enlargement of the 1:50,000 scale NTS topographic maps. A UTM reference grid (grid lines every 1 km) and the survey area boundary were added to maps which were not photocombined with the base.

6.2 Flight Path Map

The flight path is drawn using linear interpolation between x,y positions from the navigation system. These positions are updated every second (or about 3 mm at a scale of 1:10,000). These positions are expressed as UTM eastings (x) and UTM northings (y).

Occasional dropouts occur when ranges to the ground transponders are lost. Interpolation is used to cover short gaps in the flight path. The navigator's flight path and/or the flight path recovered from the video tape may be stitched in to cover larger gaps. Such gaps may often be recognized by the distinctive straight line character of the flight path.

The manual fiducials are shown as a small circle and labelled by fiducial number. The 24 hour clock time is shown as a small square, plotted every 30 seconds. Small tick marks are plotted every 2 seconds. Larger tick marks are plotted every 10 seconds. The line and flight numbers are given at the start and end of each survey line.

The flight line and flight numbers are shown at both ends of each survey line. 104803 indicates for example, survey line 48 of survey flight number 3.

The flight path map is merged with the base map by matching UTM coordinates from the base maps and the flight path record. The match is confirmed by checking the position of prominent topographic features as recorded by manual fiducial marks or as seen on the flight path video record.

6.3 Electromagnetic Survey Data

The electromagnetic data were recorded digitally at a sample rate of 10 per second with a time constant of 0.1 seconds. A two stage digital filtering process was carried out to reject major sferic events and the reduce system noise.

Local sferic activity can produce sharp, large amplitude events that cannot be removed by conventional filtering procedures. Smoothing or stacking will reduce their amplitude but leave a broader residual response that can be confused with geological phenomena. To avoid this possibility, a computer algorithm searches out and rejects the major sferic events.

The signal to noise ratio was further enhanced by the application of a low pass digital filter. This filter has zero phase shift which prevents any lag or peak displacement from occurring, and it suppresses only variations with a wavelength less than about 0.25 seconds. This low effective time constant gives minimal profile distortion. The data quality on this survey was sufficiently high that no such filter was required.

Preceding the filtering process, a base level correction was made using EM zero levels determined during high altitude calibration sequences. The correction applied is a linear function of time that ensures the corrected amplitude of the various inphase and quadrature components is zero when no conductive or permeable source is present. The filtered and levelled data were used in the determination of apparent resistivity (see below).

6.4 Total Field Magnetics

The aeromagnetic data were corrected for diurnal variations by adjustment with the recorded base station magnetic values. Where needed, the magnetic tie line results were used to further level the magnetic data. No corrections for regional variations were applied. The corrected profile data were interpolated on to a regular grid using an Akima spline technique. The grid provided the basis for threading the presented contours. The minimum contour interval is 2 nT. A grid cell size of 25 m was used.

6.5 Vertical Magnetic Gradient

The vertical magnetic gradient was calculated from the gridded total field magnetic data. The calculation is based on a 17 x 17 point convolution in the space domain. The results are contoured using a minimum contour interval of 0.5 nT/m. Grid cell sizes are the same as those used in processing the total field data.

6.6 Apparent Resistivity

The apparent resistivity is calculated by assuming a 200 metre thick conductive layer over resistive bedrock. The computer determines the resistivity that would be consistent with the sensor elevation and recorded inphase and quadrature response amplitudes at the selected frequency. The apparent resistivity profile data were interpolated onto a regular grid at a 25 metres true scale interval using an Akima spline technique and contoured using logarithmically arranged contour intervals. The minimum contour interval is 0.1 log(ohm.m).

The highest measurable resistivity is approximately equal to the transmitter frequency.

6.7 VLF-EM

The VLF Total Field data from the Line Station is levelled such that a response of 0% is seen in non-anomalous regions. The corrected profile data are interpolated onto a regular grid using an Akima spline technique. The grid provided the basis for threading the presented contours. The minimum contour interval is 1%. Grid cell size is 25 m.

7. INTERPRETATION

7.1 Area Geology

The following paragraph is based on a geology map provided by Galico Resources Inc. and a 1990 geological report by Cominco Ltd. The Metla Property is located in the Intermontane Belt of rugged Coast Mountains, in northwestern British Columbia. The northern half of the area is underlain by northwesterly striking, easterly dipping massive andesite and agglomerate with interbedded fine ash tuff of Stuhini Group. The south part is underline by Triassic diorite and, in a wedge shaped unit in the central-east part of the Property, by Mississippian-Permian sediments. The sedimentary rocks are intruded by small plutons, sills and dykes ranging in composition from gabbro to diorite to dacite, porphyritic dacite and pyroxenite hornblende. All the rocks are intruded or cut by extensive area of hydrothermal matrix supported breccias consisting of pyritic carbonate and rock flour matrix supporting hertorolitic clasts ranging from sand size to blocks several metres in size. Several gold occurrences were reported in the southern diorite unit. The gold bearing sulphide mineralization consists of blocks of float and in-place sulphides located within the complex of intrusives and sediments. Several copper occurrence were also reported in the northern volcanic unit.

7.2 Magnetics

The magnetic data from the high sensitivity cesium magnetometer provided virtually continuous magnetic reading when recording at two-tenth second intervals. The system is also noise free for all practical purposes. The sensitivity of 0.1 nT allows for the mapping of very small inflections in the magnetic field, resulting in a contour map that is comparable in quality to ground data.

The total magnetic field in the survey area varies over a relatively broad range of values, from less than 56,900 nT to in excess of 59,850 nT. High magnetic values occur in the east-central part of the area, west of Metlatulin Mountain, in an oval shaped zone, and in several other narrower and winding zones. The latter zones are usually flanked by prominent narrow lows. The best example is found in the northwest portion of the area where a broadly semi-circular high occurs, running along the axis of Trapper Lake. South of the lake, the anomaly swings to the southwest and west. Similar narrow and winding magnetic anomalies occur in the south third of the area where they form an S-shaped pattern, extending from the west-central part of the area (just south from where the Trapper Lake anomaly leaves the area) in an easterly direction swinging to the southeast and eventually to the east. These anomalies indicate boundaries of regions with specific preferred anomaly orientations. It is proposed that these narrow and well defined anomalies occur along contacts of individual units.

The magnetic and calculated magnetic vertical gradient anomalies and patterns are aligned in directions parallel to, or reminiscent of, these major anomalous features. The northwest portion of the area contains anomalies gently curved parallel to the Trapper Lake anomaly. The Trapper Lake anomaly forms the eastern contact of this moderately magnetic unit. In comparison, the eastern unit (east of Trapper Lake) contains stronger anomalies with their principal orientation varying from roughly north-south in the north, to northeast-southwesterly further south. The unit is intersected by several regional faults of ESE-WNW orientation and a secondary set with a northwesterly orientation. The south boundary of the unit is marked by a series of WNW-ESE oriented anomalies which are believed to occur along a contact with magnetically less active unit further south (sediments?). The central (sedimentary?) unit is confined to a wedge like area of a general east-west orientation. The west extent of the unit cannot be defined from the magnetic data. The gradient data suggests that the unit may be sub-divided into two, roughly east-west oriented sub-units. The southern one correlates with the Metla claim deposit area. It contains a suite of moderately strong anomalies of small lateral extent. The northern sub-unit has a similar core of moderately strong anomalies though of larger lateral extent. Near north-south orientation of possible faults is indicated within both sub-units.

From the geologic mapping in the area of Metla deposit (southern sub-unit) it is evident that the individual gradient anomalies indicate the extent of geologic units, and define faults. Faults are frequent and of highly variable orientations. Folding is possibly implied toward the west part of the southern sub-unit. In the area of Metla claims, the individual gradient anomalies are due to Triassic Stuhini Group and intrusive rocks with the hydrothermal breccias confined to the flanks of anomalies but still within the zero gradient contour line (which usually define the boundaries of causative bodies). It is recommended to generate a second vertical derivative map and compare the results with surface mapping with the aim of devising means of better mapping the breccias and the faults.

Geologic unit occupying the south quarter of the survey area (diorite) contains high amplitude anomalies of variable orientation. A preliminary structural interpretation based on the recognition of breaks, terminations, and offsets of magnetic and gradient patterns suggests that the unit is heavily faulted along principally northwest-southeast, WNW-ESE, and northeast-southwest directions. Folding may have occurred at several places.

Magnetic and calculated vertical magnetic gradient data show that structurally, the Metla area is very complex. "Static" data presentations, such as hard copy paper plots of the total field of vertical gradient, are insufficient for structural interpretation purposes. It is recommended to further process the data and to enhance the anomalous responses by means of second vertical derivative, apparent susceptibility mapping, and shadow mapping using an RTI system (Real Time Imaging). Improved structural knowledge may help to define new exploration targets, particularly those which are structurally controlled.

7.3 Total Field VLF-EM

The NLK, Jim Creek, Washington, transmitter which operates at a frequency of 24.8 kHz, and occurs at an azimuth of approximately 144°, was monitored during the survey. Most of the anomalies are directed toward the VLF transmitter. This is to be expected due to the directional bias inherent to the VLF-EM surveying. Conductive features oriented within approximately +/- 30° of the transmitter azimuth are well portrayed whereas conductive features with other orientations are recognized only as breaks or terminations of the contour patterns.

Most of the VLF-EM anomalies have moderate amplitudes. Several anomalies with strong amplitudes are confined to the central part of the survey block. They occur in a broad zone of northwesterly orientation, which also includes the Metla claim deposit area. At places, the VLF-EM anomalies and trends follow the topographic contours. It is proposed that in these cases a part of the VLF response is due to current gathering and part due to geology. It is, however, difficult if not impossible to separate the two causes. While the majority of the VLF-EM responses are straight, linear anomalies, several curved trends are present. While they appear to occur along or in the vicinity of the proposed contacts, current gathering due to topography is strongly suspect.

Numerous offsets, breaks, and terminations of the VLF-EM patterns suggest the presence of structural features. The main difficulty is their poor correlation with similar distortions observed for the magnetic data. By assuming that the magnetic responses relate to the deeper parts of the geologic column whereas the VLF-EM responses describe only the near surface properties, one could possibly resolve this discrepancy.

The Metla claim deposit area contains one of a few strong VLF-EM anomalies intersected during the survey flying. It is a composite anomalous feature apparently broken at two places by approximately 50 to 80 metre wide zones of ENE-WSW orientation. VLF-EM anomalies of similar strength also occur within the northern sub-unit of the central sedimentary(?) unit. Although they do not have exactly the same character, e.g., they are of larger lateral extent and of greater length, they should be investigated on the ground.

7.4 Apparent Resistivity

The apparent resistivity values were calculated from the 4,175 Hz coplanar electromagnetic data. The values range from approximately 7 ohm-m to more than 25,000 ohm-m. The data indicates that the geologic environment in the survey area is highly resistive which constitutes ideal conditions for the detection of even weak bedrock conductors.

Three major, laterally extensive zones of low resistivity were detected. Two of them correlate with lakes (Trapper Lake in the north and an unnamed lake near the south survey boundary). They are interpreted to reflect conductive lake bottom sediments and associated structural features. South of Trapper Lake low resistivities extend in a southwesterly direction along the flat ground with a creek feeding the Lake. The south part of the southern lake is more interesting. Here, a preliminary structural interpretation based on magnetics resulted in the delineation of at least four intersecting features. The low resistivity zone associated with the lake shows prominent extensions along two of the structures. This is interpreted as being due to water seepage into the fault(?) and subsequent lowering of the resistivity values.

The most significant of the three low resistivity zones is the central zone. It is associated with the bedrock conductors of the Metla claim deposit. The northwest portion of the zone consists of four smaller sub-zones with resistivity of approximately 20 to 30 ohm-m. The individual sub-zones are separated by northeast-southwest oriented breaks which correlate exactly with similar disruptions on the magnetic gradient and VLF-EM patterns. The southeastern portion of the zone contains a large, east-west elongated zone of approximately 50 to 80 ohm-m resistivity. It is not associated with any significant VLF-EM anomaly though it occurs on an extension of a magnetic gradient anomaly extending into the area of the deposit. Some 400 metres to the east is a small semi-circular low resistivity zone. Apparent resistivity values lower than 700 ohm-m were calculated for the zone. Although not apparent from the resistivity data, the electromagnetic data indicates that this small zone is an extension of the main conductive zone. Because of the similarity of the resistivity and magnetic patterns between the northwest and southeast parts of the zone, and because past ground surveys never covered the area of the southeastern conductive zone, it is recommended to investigate this zone on the ground.

The lack of resistivity patterns over most of the area and the apparent distortions of the resistivity values due to near surface conductive features in two of the three conductive zones prevent the use of resistivity for structural interpretation. Except for the southern unnamed lake, there is little correlation of the resistivity patterns with the inferred structures.

7.5 Electromagnetics

The electromagnetic data was checked by a line-to-line examination of the records. Record quality was good with only minor noise due to the spheric activity. This was readily removed by digital filtering without any loss of EM sensitivity. The electromagnetic anomalies were selected from the profiles according to the "vertical thin sheet" model. Other EM anomalies which do not conform to this model (e.g., wide conductive units which are best portrayed by the resistivity map) were not included in the selection. The anomaly axes were assigned wherever possible, based on the similarity of the EM response on adjacent lines and taking into account the general magnetic trends. The individual anomalies were grouped according to their apparent, or possible, association with inferred structural units.

Those conductors which occur at the margins of wide conductive zones are usually due to "edge effects". They may reflect abrupt resistivity change at the edges (contacts) of zones of different conductivity. However, they cannot be discarded because the contact zone may be mineralized. Consequently, these anomalies should be regarded as potential targets.

Group I. - Conductors of this grouping are associated with a northwest oriented fault striking through the southern unnamed lake. The conductors, which are situated on the flank of a magnetic anomaly, have contributed to the low resistivity and VLF-EM anomalies. Their ground follow-up is not recommended at this time but may be considered at later stages of the exploration program.

Anomalies 20200A to 20200C. - These EM anomalies occur within an elongated low resistivity zone striking at a shallow angle to the flight line. They are associated with the sedimentary/diorite contact and occur on the south flank of a similarly oriented magnetic anomaly. Their ground follow-up should be considered because they may constitute an extension of group II conductors.

Group II. - The EM anomalies and conductors constitute the most attractive conductor targets of the entire survey. They are associated with the best low resistivity zone, with an attractive VLF-EM anomaly, and a suite of interesting magnetic gradient anomalies. The line to line correlation of the individual EM anomalies is not reliable. For example, the north-south oriented fault inferred from magnetics extends across the conductor axes. Similarly, the northeast-southwest oriented breaks of the magnetic, VLF-EM, and resistivity patterns, which are interpreted to indicate faults, cannot be readily accommodated by the electromagnetics. Major part of the group has been investigated on the ground in the past. Future follow-up work should concentrate on the southeastern extension of the conductive horizon. The EM data suggests that the small conductive zone at the east end of the group reflects the same rock unit as the main zone.

Group III. - Poorly defined, low quality anomalies of this grouping reflect non-magnetic conductors of possible bedrock origin. They have produced zone of lower resistivity and a well defined VLF-EM anomaly. Their location within the northern sedimentary sub-unit makes them relatively attractive. Ground follow-up is recommended.

Group IV. - Well defined anomalies reflecting bedrock conductors confined to an attractive VLF-EM anomaly. All conductors of this grouping occur off the peak of magnetic anomaly, being confined to its flanks. There is a possibility that anomaly 20670B reflects the same conductive horizon. Easterly dips are evident. Ground follow-up is recommended.

Group V. - Bedrock conductors of this grouping are separated into a north and south sub-groups by an ENE-WSW oriented dyke. Line to line correlation of the individual anomalies is unclear. The magnetic and VLF-EM trends suggest northeasterly trend in the southern sub-group, and northwesterly trend in the northerly sub-group. Ground follow-up work should be considered.

Group VI. - These EM anomalies and conductors occur in Trapper Lake. They are confined to the flanks of a prominent magnetic anomaly. In the south part of the group, the conductors have clear character of edge anomalies. Further north their character changes to a "vertical thin sheet" type anomaly with a pronounced dip to the west. This must be carefully evaluated against their association with the lake and the implied possibility of them reflecting conductive lake bottom sediments.

Anomaly 21080A-21090B. - This is a very weak conductor of possible bedrock origin which is confined to the flank of magnetic anomaly. It is not a priority target and its ground follow-up is not recommended at this time.

7.6 Conclusions And Recommendations

Results of the present airborne survey indicate that the area is underlain by at least four distinct units. The northwest portion of the property, west of Trapper Lake, contains a moderately magnetic unit of high ground resistivity. Only at the west end of lines 21140 to 21200 the resistivity falls to less than 3,000 ohm-m in a semi-circular zone that does not relate readily to other geophysical parameters or to topography. The northeast portion of the property contains a strongly magnetic unit. Its stronger magnetic field can be due to a thicker volcanic cover. Regional faults of ESE-WNW orientation and secondary faults of northwesterly orientation exist. The central (sedimentary?) unit is confined to a wedge like area of a general east-west orientation. It may be sub-divided into a southern unit which contains the Metla claim deposit area. The northern sub-unit has a somewhat similar character, though the magnetic anomalies have larger lateral extent. The diorite unit occupying the south quarter of the survey area contains high amplitude anomalies of variable orientation. A preliminary structural interpretation suggests that the unit is heavily faulted along principally northwest-southeast, WNW-ESE, and northeast-southwest directions. Folding may have occurred at several places.

The VLF-EM surveying resulted in the detection of numerous anomalies with moderate amplitudes. Several strong amplitude anomalies occur in the central part of the survey block in a broad zone which also includes the Metla claim deposit area. Most of the VLF-EM anomalies follow topography the effect of which cannot be separated from the geologic response. One of the most attractive VLF-EM anomalies occurs in the Metla claim deposit area. It is a composite feature broken at two places by approximately 50 to 80 metre wide zones of ENE-WSW orientation. VLF-EM anomalies of similar strength occur within the northern sub-unit of the central sedimentary(?) unit. They are of larger lateral extent and greater length.

The geologic environment in the survey area is highly resistive. Two of three major conductive zones correlate with lakes (Trapper Lake in the north and an unnamed lake near the south survey boundary). They are interpreted to reflect conductive lake bottom sediments and associated structural features. At least four structural features intersect in the south part of the southern lake causing the resistivity patterns to extend along two of the structures. The most significant of the three conductive zones is associated with the bedrock conductors of the Metla claim deposit. The zone consists of four smaller sub-zones which approximately 20 to 30 ohm-m. The individual sub-zones are separated by northeast-southwest oriented breaks which correlate well with similar disruptions on the magnetic and VLF-EM patterns. The zone extends to the southeast into a previously unexplored part of the property.

At least eight conductors and conductor groups were detected in the Metla area. Those associated with the lakes are not recommended for immediate follow-up work. Further work is recommended for conductors in the Metla claim deposit area and at several other places. The survey results should be compiled on a common base containing all types of other information, including geology, geochemistry, and other geophysics. Target areas should be selected based on the mutual correlation of all the data and evaluation of the entire body of information, and correlation of the present results with a workable geologic model.

Respectfully submitted

Zbynek Dvorak
Consulting Geophysicist
for
J9134 AERODAT LIMITED

APPENDIX I

PERSONNEL

FIELD

Flown	May 30 to June 4, 1991
Pilots	E. Yong
Operators	S. Arstad

OFFICE

Processing	M.B. Marshall G. McDonald
Report	Zbynek Dvorak

APPENDIX II

Claim Name	Record Number	Number of Units	Expiry Date
PRIOR 10	203574	20	03/11/95
PRIOR 11	203575	20	03/11/95
PRIOR 12	203576	20	03/11/95
PRIOR 13	203577	20	03/11/95
PRIOR 14	203578	20	03/11/95
PRIOR 15	203579	20	03/11/95
PRIOR 16	203580	20	03/11/95
PRIOR 17	203581	20	03/11/95
PRIOR 18	203582	20	03/11/95
TRAP	302147	9	07/15/92
METLA	202631	20	08/25/01
PRIOR 1	203565	20	03/09/94
PRIOR 2	203566	20	03/09/94
PRIOR 3	203567	20	03/09/94
PRIOR 4	203568	20	03/09/94
PRIOR 5	203569	20	03/09/94
PRIOR 6	203570	20	03/09/94
PRIOR 7	203571	20	03/09/94
PRIOR 8	203572	20	03/09/94
PRIOR 9	203573	20	03/08/94

APPENDIX III

CERTIFICATE OF QUALIFICATIONS

1. I hold a PhD in Geophysics from Charles University, Czechoslovakia having graduated in 1967.

2. I reside at 146 Three Valleys Drive, in the town of Don Mills, Ontario.

3. I have been continuously engaged in both professional and managerial roles in the minerals industry in Canada and abroad for the past 19 years.

4. I have been an active member of the Society of Exploration Geophysicists since 1978 and a member of KEGS since 1978.

5. The accompanying report was prepared from information published by government agencies, materials supplied by Galico Resources Inc. and from a review of the proprietary airborne geophysical survey flown by Aerodat Limited for Galico Resources Inc. I have not personally visited the property.

6. I have no interest, direct or indirect, in the property described nor do I hold securities in Galico Resources Inc.

Signed

Zbynek Dvorak
Consulting Geophysicist

August 9, 1991

GALICO RESOURCES INC.

TOTAL FIELD MAGNETIC CONTOURS

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

AERODAT LIMITED	DATE:	MAY & JUNE 1991
	NTS NO:	104K/7
	MAP NO:	1 J9134 - 1

N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

Vertical Gradient

Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below
.2 nT
1.00 nT
5.00 nT
10.00 nT
50.00 nT

EM Anomalies

GALICO RESOURCES INC.

CALCULATED VERTICAL MAGNETIC GRADIENT

METLA PROJECT

BRITISH COLUMBIA

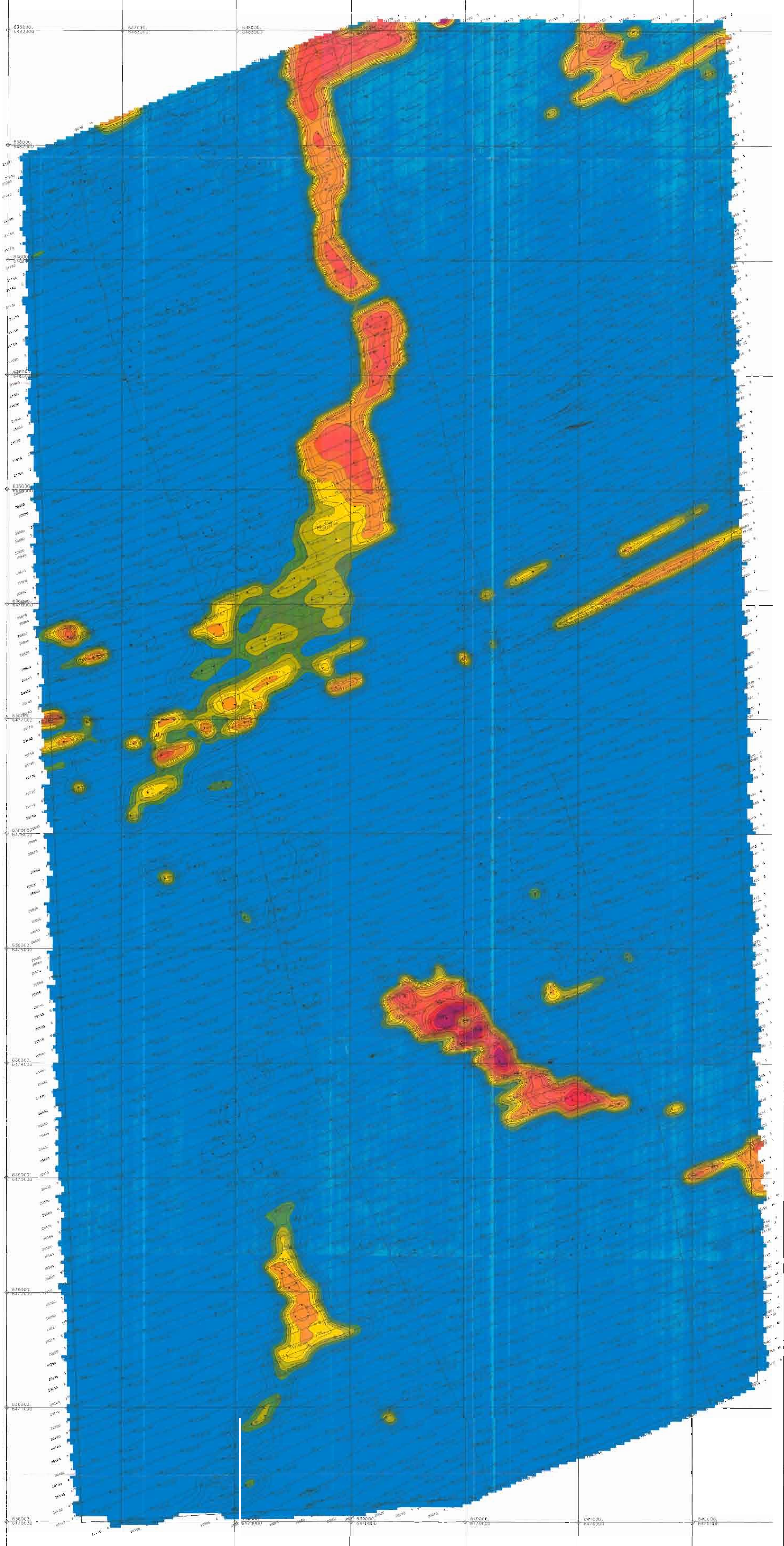
SCALE 1:10,000

AERODAT LIMITED

DATE: MAY & JUNE 1991
NTS No: 104K/7
MAP No: 2 J9134 - 1

GEOLOGICAL BRANCH
ASSESSMENT REPORT

21,757



N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

Apparent Resistivity

Calculated from 4175 Hz coplanar EM response assuming a 200 m conductive layer.

Contouring in ohm-m at logarithmic intervals.

Sensor elevation 30m

Map contours are multiples of those listed below

0.1 log(ohm-m)
0.5 log(ohm-m)
1.0 log(ohm-m)
5.00 log(ohm-m)

EM Anomalies

Conductivity Thickness (mhos)

GALICO RESOURCES INC.

APPARENT RESISTIVITY CONTOURS (4175 Hz)

METLA PROJECT

BRITISH COLUMBIA

SCALE 1:10,000

0 | 1000 Metres

AERODAT LIMITED

DATE: MAY & JUNE 1991

MAP No: 3

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

VLF-EM

VLF-EM Total Field Intensity, in percent.

Station: NLK
Jim Creek, Washington
24.8 kHz

Sensor elevation 45m

Map contours are multiples of those listed below

1 %
5 %
25 %
100 %

EM Anomalies

GALICO RESOURCES INC.

VLF-EM TOTAL FIELD CONTOURS (LINE CHANNEL)

METLA PROJECT

BRITISH COLUMBIA

SCALE 1:10,000

AERODAT LIMITED

DATE: MAY & JUNE 1991
NTS NO: 104K/7
MAP NO: 4 J9134 - 1

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

EM Profiles

935 Hz Coaxial	2 ppm/mm
	inphase component
	quadrature component
4600 Hz Coaxial	2 ppm/mm
	inphase component
	quadrature component
4175 Hz Coplanar	4 ppm/mm
	inphase component
	quadrature component
32000 Hz Coplanar	32 ppm/mm
	inphase component
	quadrature component

Sensor Elevation 30m

Coil Separation 8m

EM Anomalies

Conductivity thickness (mhos)

10 - 20
> 20

EM Anomaly: 4600 Hz inphase amplitude > 2 ppm; conductivity thickness (2 mhos (see code))

GALICO RESOURCES INC.

ELECTROMAGNETIC PROFILES

METLA PROJECT

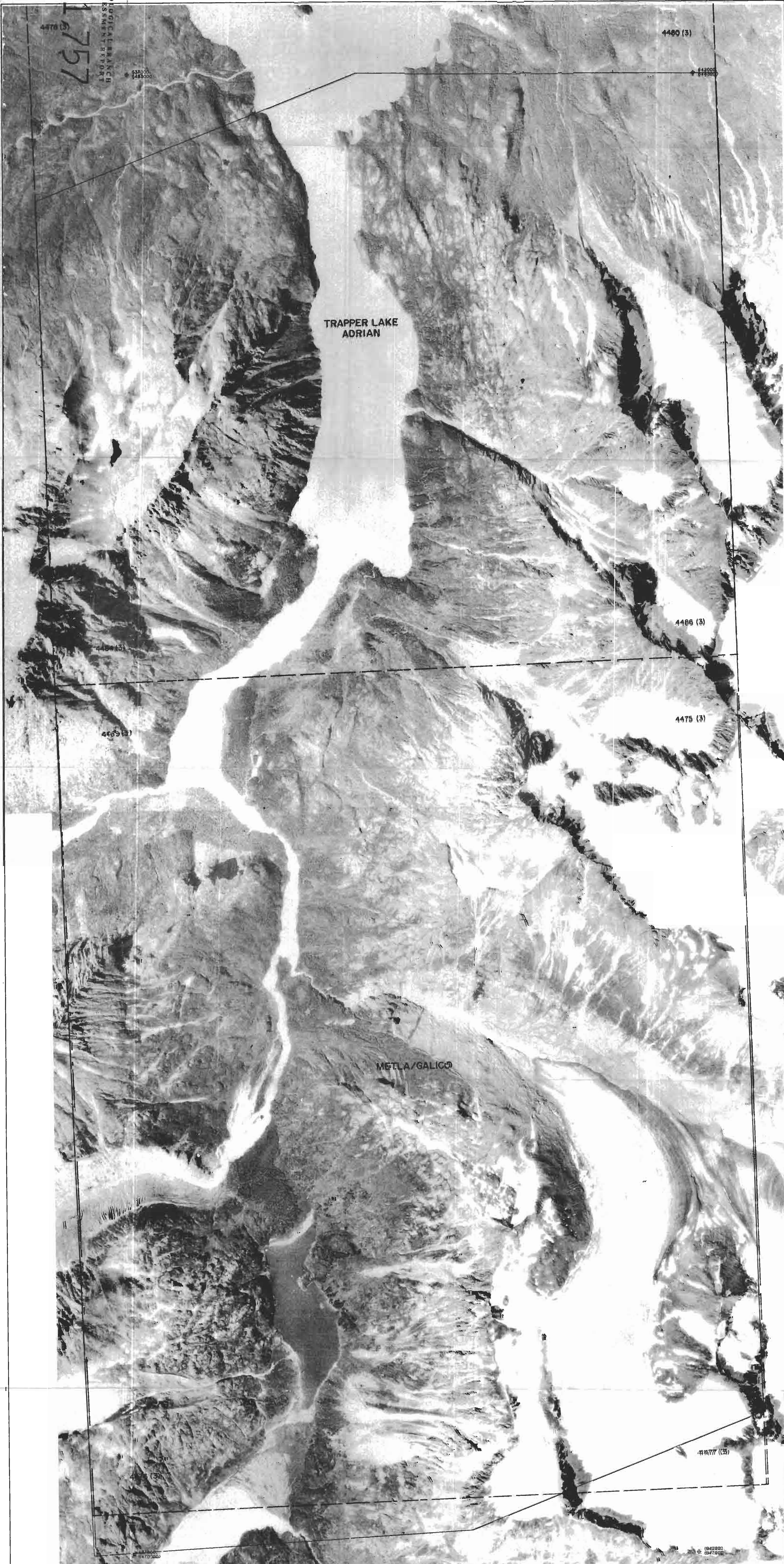
BRITISH COLUMBIA

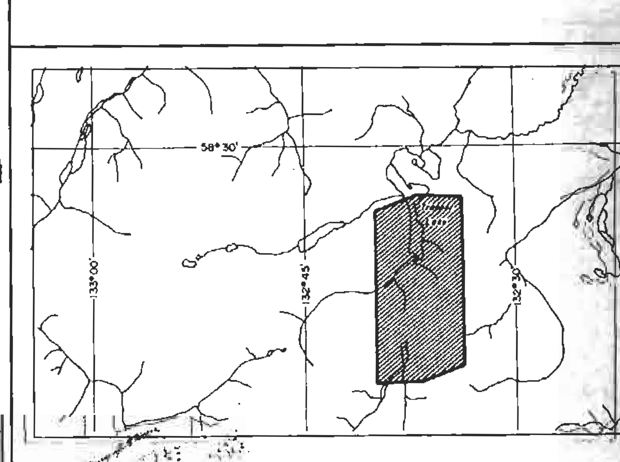
SCALE 1:10,000

1000 METRES

AERODAT LIMITED

DATE:	MAY & JUNE 1991
NTS NO:	104K 9/7
MAP NO:	5 · J9134 - 1





GALICO RESOURCES INC.

BASE MAP

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

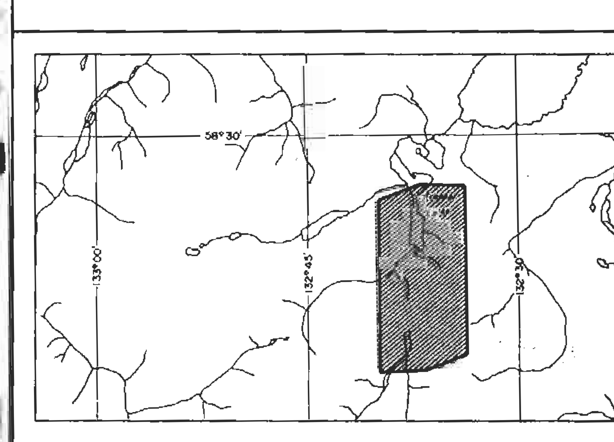
0 100 200 500 1000 Metres

AERODAT LIMITED	DATE: MAY & JUNE 1991
	NTS No: 104K/7
	MAP No: 1 J9134

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m



GALICO RESOURCES INC.

FLIGHT PATH

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE:	MAY & JUNE 1991
NTS No:	104K/7
MAP No: 2	J9134 - 1

N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

EM Anomalies

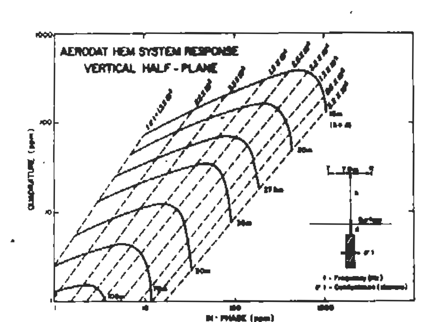
Conductivity Thickness (mhos)

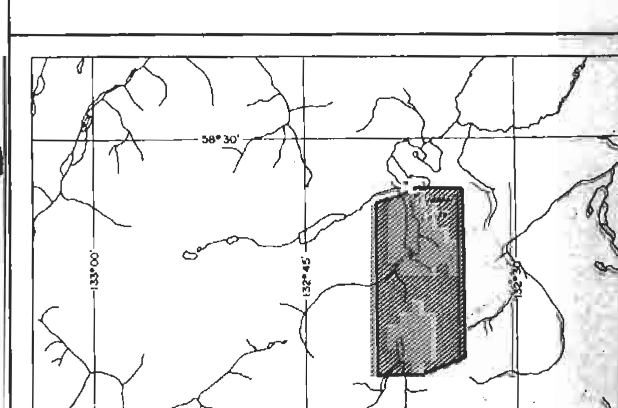
- 0 - 1
- 1 - 2
- 2 - 4
- 4 - 8
- 8 - 15
- 15 - 30
- > 30

EM Anomaly A, 4600 Hz inphase amplitude 7 ppm. Conductivity thickness 1-2 mhos (see code).

INTERPRETATION LEGEND

- Interpreted bedrock conductor axis
- Fault
- Dyke
- Magnetic Trend





GALICO RESOURCES INC.

INTERPRETATION

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE: MAY & JUNE 1991

NTS No: 104K/7

MAP No: 3 J9134 - 1

N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

Magnetics

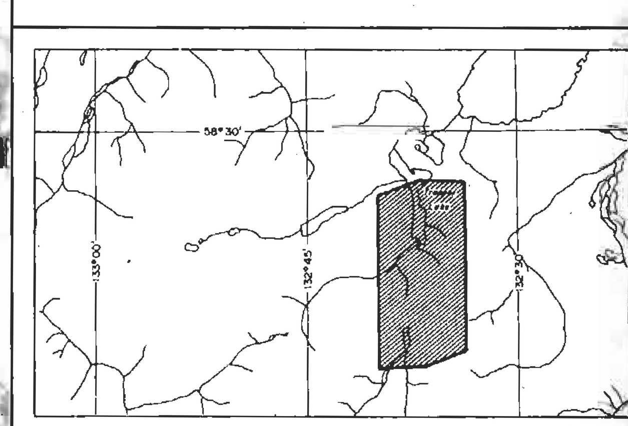
Total Field Magnetic Intensity Contours in nT.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

2 nT
10 nT
50 nT
250 nT
1000 nT



GALICO RESOURCES INC.

TOTAL FIELD MAGNETIC CONTOURS

METLA PROJECT

BRITISH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 1000 Metres

AERODAT LIMITED

DATE:	MAY & JUNE 1991
NTS No:	104K/7
MAP No:	4 J9134 -1

N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

Vertical Gradient

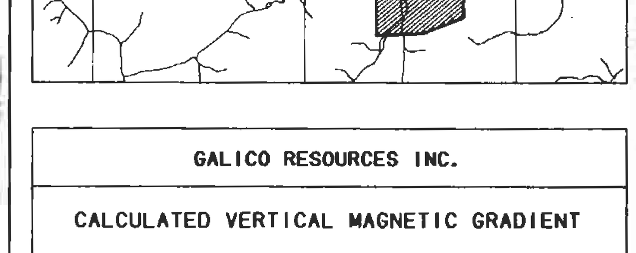
Vertical Magnetic Gradient calculated from the total field magnetic intensity in nT/m.

Cesium high sensitivity magnetometer.

Sensor elevation 45m

Map contours are multiples of those listed below

.2 nT
1.00 nT
5.00 nT
10.00 nT
50.00 nT



GALICO RESOURCES INC.

CALCULATED VERTICAL MAGNETIC GRADIENT

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED	DATE:	MAY & JUNE 1991
	NTS No:	104K/7
	MAP No:	5 J9134 - 1

N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

Apparent Resistivity

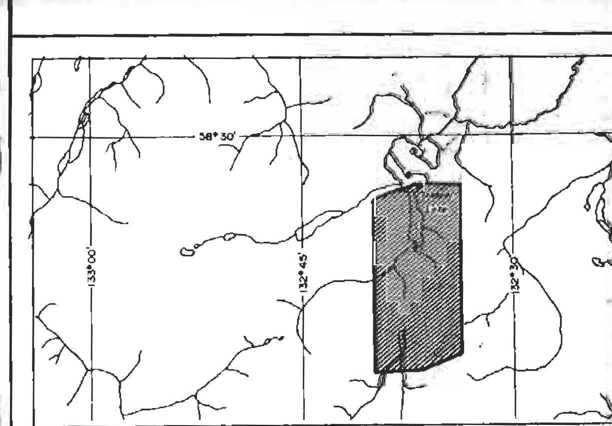
Calculated from 4175 Hz coplanar EM response assuming a 200 m conductive layer.

Contouring in ohm*m at logarithmic intervals.

Sensor elevation 30m

Map contours are multiples of those listed below

- 0.1 log(ohm*m)
- 0.5 log(ohm*m)
- 1.0 log(ohm*m)
- 5.00 log(ohm*m)



GALICO RESOURCES INC.

APPARENT RESISTIVITY CONTOURS (4175 Hz)

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED

DATE: MAY & JUNE 1991

NTS No: 104K/7

MAP No: 6 J9134 - 1

N

Flight Path

Navigation and recovery using a Global Positioning (GPS) navigation system.

Average terrain clearance 60m
Average line spacing 100m

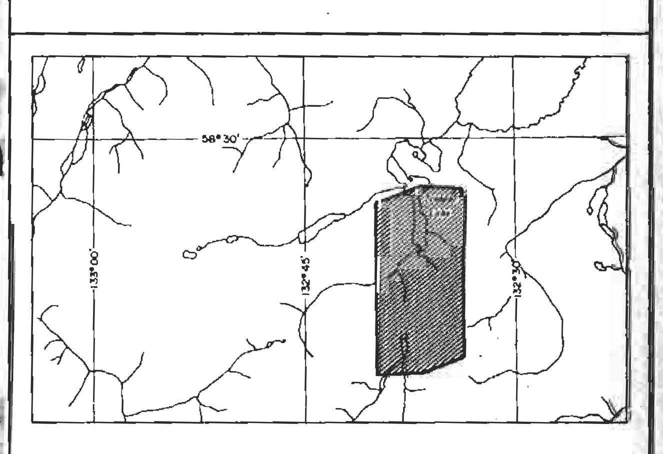
VLF-EM

VLF-EM Total Field Intensity in percent.

Station: NLK
Jim Creek, Washingtom
24.8 kHz

Sensor elevation 45m

Map contours are multiples of those listed below
1 %
5 %
25 %
100 %



GALICO RESOURCES INC.

VLF-EM TOTAL FIELD CONTOURS (LINE CHANNEL)

METLA PROJECT

BRITSH COLUMBIA

SCALE 1:10,000

0 330 660 1320 2640 Feet

0 100 200 500 1000 Metres

AERODAT LIMITED	DATE:	MAY & JUNE 1991
	NTS No:	104K/7
	MAP No: 7	J9134 - 1