

ARIS SUMMARY SHEET

District Geologist, Kamloops

Off Confidential: 90.01.20

ASSESSMENT REPORT 18435

MINING DIVISION: Lillooet

PROPERTY: Congress Ext.
LOCATION: LAT 50 56 00 LONG 122 35 00
UTM 10 5642275 529280
NTS 092J15E

CAMP: 034 Bridge River Camp

CLAIM(S): Congress Ext.
OPERATOR(S): Coral Energy
AUTHOR(S): Brewer, L.C.
REPORT YEAR: 1988, 23 Pages
COMMODITIES
SEARCHED FOR: Gold, Silver, Antimony
KEYWORDS: Triassic, Bridge River Group, Chert, Argillite, Limestone, Basalt
Cretaceous, Kingsvale Group, Andesite, Conglomerate, Greywacke
Argillite, Triassic, President Intrusion, Ultramafic

WORK
DONE: Geophysical
EMAB 79.9 km; VLF
Map(s) - 1; Scale(s) - 1:10 000
MAGA 79.9 km
Map(s) - 1; Scale(s) - 1:10 000

RELATED
REPORTS: 15386
MINFILE: 092JNE039

18435

GEOPHYSICAL REPORT
ON
AIRBORNE MAGNETIC AND VLF-EM SURVEYS
OVER THE
CONGRESS EXT
MINERAL CLAIMS
LILLOOET MINING DIVISION
BRITISH COLUMBIA

LOG NO: 0224	RD.
ACTION:	
FILE NO:	

FILMED

PROPERTY : 18 km from Gold Bridge on
the north half of Marshall
Lake on Marshall Ridge.

WRITTEN FOR : CORAL GOLD RESOURCES LTD.
#100-455 Granville Street
Vancouver, B.C. V6C 1T1

SURVEYED BY : COLUMBIA AIRBORNE GEOPHYSICAL
SERVICES (1984) LTD.
#611-470 Granville Street
Vancouver, B.C. V6C 1V5

WRITTEN BY : LLOYD C. BREWER
COLUMBIA AIRBORNE GEOPHYSICAL
SERVICES (1984) LTD.

DATED : SEPTEMBER 21, 1988

18,435

GEOLOGICAL BRANCH
ASSESSMENT REPORT

SUMMARY

Airborne magnetic and VLF-EM surveys were carried out over the property owned by Coral Gold Resources Ltd. of Vancouver, B.C. in the months of December 1987 and January 1988. The claims are located to the north of Marshall Lake. Access is easily gained by a two-wheel drive vehicle. The terrain consists of moderate to dense coniferous trees. The purpose of the surveys was to aid in the mapping of geology as part of the exploration program in locating probable areas of gold mineralization.

The Congress Ext claims are located on the upper reaches of Marshall Creek on the north side of Carpenter Lake, which has a history of placer gold production. There are several small gold showings reported in the immediate area. These are generally located with sediments and volcanics of the Kingsvale Group and Cadwallar Groups near contacts with ultra-basics and ultra-mafics.

The Congress Ext property is underlain by the Upper Cretaceous Kingsvale Formation, consisting of shales, conglomerates, andesitic flows and pyroclastics. These units strike north by north west. They are in contact to the north and south by undivided sediments and volcanics of the Triassic and older Bridge River Group. Underlying the northeasterly corner of the property are units of Gabbro.

The airborne surveys were flown at about a 50 meter terrain clearance of contour lines with a separation varying from 100-200 meters. The instruments used were a Sabre Electronics VLF-EM proton precession magnetometer and a Sabre Electronics VLF-EM receiver. The magnetic data were picked from the strip charts and hand contoured. The contours were drawn on a survey plan on which the VLF-EM anomalies were plotted as well.

CONCLUSIONS

1. The airborne magnetic survey has successfully mapped all of the bodies of Kingsvale volcanics, Bridge River Group sediments and volcanics as well as gabbro units.
2. The survey also has mapped previously unmapped ultramafics or gabbro units which are covered by overburden.
3. Both the VLF-EM and magnetic surveys revealed lineations within the survey area that are likely caused by fault, shear and/or contact zones. These can be important indicators of sulphide and native gold mineralization especially where the lineations cross.

RECOMMENDATIONS

These are as follows:

1. Thorough prospecting and/or geological mapping in addition to what so far has been carried out. This will also greatly aid in the interpretation of any geophysics and geochemistry that have been or may be carried out, especially the airborne magnetic survey.
2. Soil geochemistry sampling. The total sample picked up should be pulverized and not screened in order to preclude the screening out of coarser gold.
3. Ground VLF-EM and magnetic surveys as well as possibly low frequency EM in selected areas (such as MaxMin II EM system). The VLF-EM method has proven to be very useful in this area for discovering gold mineralization, especially together with soil sampling. An induced polarization-resistivity survey should be considered since it may well prove to be one of the best tools available for this area.
4. Trenching and diamond drilling of promising targets resulting from the above work.

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At back of report

Property Location Map	1:8,600.000	Map 1
Claim Map	1:50,000	Map 2

In back pocket

Airborne Magnetic & VLF-EM	1:10,000	Map 3
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GEOPHYSICAL REPORT

ON

AIRBORNE MAGNETIC AND VLF-EM SURVEYS

OVER THE

CONGRESS EXT. CLAIMS

MARSHALL LAKE AREA

LILLOOET MINING DIVISION

BRITISH COLUMBIA

INTRODUCTION AND GENERAL REMARKS

This report discusses the survey procedure, compilation of data and the interpretation of low-level airborne magnetic and VLF-EM surveys carried out over the CONGRESS EXT. claims on Marshall Lake in December, 1987.

The surveys were carried out by Lloyd C. Brewer, instrument operator and project manager, and John Kime, navigator, both of whom are of Columbia Airborne Geophysical Services (1984) Ltd. A total of 79.9 line km of airborne surveys were done over the property and surrounding area.

The object of the two surveys was to aid in the geological mapping of lithology and structure for the purpose of exploration of the type of gold mineralization as is found in the Gold Bridge and Bralorne area. Magnetic surveys have especially been proven to be a good geological mapping tool.

PROPERTY AND OWNERSHIP

The property consists of two contiguous claims totalling 40 units as shown on Map 2 and as described below.

<u>NAME</u>	<u># UNITS</u>	<u>RECORD #</u>	<u>EXPIRY DATE</u>
CONGRESS EXT	20	3094	January 14, 1993
CONGRESS EXT #2	20	3416	March 17, 1994

The expiry dates shown do not take into account the surveys under discussion as being accepted for assessment credits.

The two claims are owned by Coral Gold Resources Ltd. of Vancouver, British Columbia.

LOCATION AND ACCESS

The property is located on the northern portion of Marshall Lake, some $3\frac{1}{2}$ km from the confluence of Carpenter Lake and Tyaughton Creek.

The geographical coodinates are $50^{\circ}56'$ N latitude and $122^{\circ}35'$ W longitude.

Acess can be gained by a series of 4-wheel drive roads branching off the Lillooet/Gold Bridge road which runs along the north edge of Carpenter Lake. The distance from Gold Bridge to the property is about 18 kilometers.

PHYSIOGRAPHY

The property lies at the northeastern part of the Marshall Ridge which is a physiographic division of the Coast Mountains. The terrain is, in general, steep and mountainous.

Elevations vary from 1,200 meters a.s.l. at the north west corner of the claims and near 2,400 meters a.s.l. on the northeast portion of the property. The main water source would be Marshall Lake in the south eastern tip of the Congress Ext #2 claim and Liza Creek in the north west corner of the Congress Ext claim.

The forest cover consists primarily of spruce and fir, moderate in density with an undergrowth light to moderate.

HISTORY OF PREVIOUS WORK

In the 1930's, two parallel quartz veins were explored via two adits and several trenches. These are located north east of Marshall Lake. In 1985, the ground was staked and sold to Coral Energy Corp. During October and November of 1986, Coral Energy undertook the first stage of an exploration program. This program included geological mapping, geochemical sampling and geophysical surveying in the search for hydrothermal gold prospects.

GEOLOGY AND MINERALIZATION

The Congress Extension property is underlain by chert, argillite, limestone and basalt of the Triassic Bridge River Group and with Cretaceous andesite, conglomerate, greywacke and argillite of the Kingsvale Group. Both groups strike northwest and dip westerly. Also included in this package of rocks are ultramafic rocks, dipping east. They belong to the Triassic President Intrusion and are located in the northeast portions of the property.

INSTRUMENTATION AND THEORY

a) Magnetic Survey

The magnetic data are detected using a nuclear free precession proton magnetometer, manufactured by Sabre Electronic Instruments Ltd. of Burnaby, B.C. The magnetometer measures the total count of the earth's magnetic field intensity with a sensitivity of one gamma. The data are recorded on magnetic tape and 12 cm analog strip charts.

The magnetic patterns obtained from a regional airborne survey are directly related to the distribution of magnetite in the survey area. However, the geology cannot be deduced from isomagnetic maps by simply assuming that all magnetic highs are underlain by gabbro or ultramafic rocks, and that all magnetic lows are caused by limestone or chert. The problem with such a simplistic approach is that magnetite is not uniformly distributed in any type of rock. Other problems arise from the fact that most geologic terrains have rocks of high susceptibility superimposed on less 'magnetic' rocks, and vice versa. Cultural features such as powerlines, pipelines and railways also complicate matters. So many variables can be involved that it may be impossible to make a strictly accurate analysis of the geology of an area from magnetic data alone. It is preferable to use other information such as geological, photogeological and electromagnetic in combination with magnetic data to obtain a more accurate geological analysis.

b) VLF-EM Survey

A two-frequency omni-directional receiver unit, manufactured by Sabre Electronics Ltd., of Burnaby, B.C., was used for the VLF-EM survey. The transmitters used are NLK Arlington (Seattle), Washington, operating on

24.8 KHz, and Annapolis, Maryland, transmitting at 21.4 KHz. These signals are used due to their ideal orientation with respect to northwest and eastwest geological structures, and their good signal strengths. The measurement taken during the survey is the variation in the horizontal component of the signal strength.

The VLF (Very Low Frequency) method uses powerful radio transmitters set up in various parts of the world for military communications. These powerful transmitters can induce electric currents in conductive bodies thousands of kilometers away from the radio source. The induced currents set up secondary magnetic fields which can be detected at surface through deviations in the normal VLF field. The VLF method is inexpensive and can be a useful initial tool for mapping structure and prospecting. Successful use of the VLF requires that the strike of the conductor be in the direction of the transmitting station so that the lines of magnetic field from the transmitter cut the conductor. Thus, conductors with northeast to southeast strikes will respond to Annapolis transmissions, while conductors striking north to west will respond to the Seattle transmissions. Conductors striking east to northeast may respond to both stations, giving coincident field strength peaks.

The theory of VLF-EM interpretation is quite simple. Conductors are located at field strength maxima. In the Gold Bridge area, one may assume that a Seattle field strength peak represents a conductor with a generally north trend, and a Annapolis peak will be a conductor with an east/west trend. This, of course, only applies to conductors with clearly linear trends and cannot be assumed for single line anomalies.

It is impossible to determine the quality of conductors with any reliability, using field strength data alone. The question of linearity is in doubt if the conductor does not appear to cross the adjacent flight lines. The

relatively high frequency results in a multitude of anomalies from unwanted sources such as swamps, creeks and cultural debris. However, the same characteristic also results in the detection of poor conductors such as faults, shear zones and rock contacts, making the VLF-EM a powerful mapping tool.

The interpretive technique requires information from magnetic surveys, air photo analysis, and ground traverses to aid in the discrimination between important and unwanted anomalies. Even armed with this information the interpreter can be easily misled.

SURVEY PROCEDURES

A two meter bird was fitted with a magnetometer coil and 2 omni-directional EM receivers and towed beneath the helicopter on a 10 meter cable. The terrain clearance for the bird was 50 meters.

The surveys were contour flown at a line spacing varying from 100 to 200 meters. Navigation was visual, using 1:50,000 scale maps blown up to 1:10,000.

The aircraft used to conduct this survey was a Bell 206 Jet Ranger, owned and operated by Bob Holt. Airspeed was a constant 60 kph so that the creek valleys and canyons were penetrated thoroughly. The slow airspeed provided safely, detailed coverage of boxed in areas, and consistency of data retrieval, which is critical in rugged terrain.

The number of line kilometers flown covering the area as shown on Map 3 is 79.9.

I have over seven years of experience in conducting aerial magnetic and electromagnetic surveys from fixed and rotary wing aircraft, under all types of terrain conditions.

DATA REDUCTION AND COMPILATION

The observant magnetic total field was recorded on analogue strip charts. These were played back together with audio recordings containing fiducial markers, and the fiducial markers were transferred to the strip charts. The fiducial markers were identified with topographic features along the flight lines.

The magnetic data were taken from the strip charts and plotted. It was then countoured at a 100 gamma interval onto Map 3 at a scale of 1:10,000 (1 cm = 100 meter).

The VLF-EM anomalies were taken from the strip charts and plotted on Map 3 with the magnetic contours. For each anomaly, a heavy line along the flight line was drawn showing its half-width. An 'S' or an 'A' designated the anomaly as being from the Seattle transmitter or the Annapolis transmitter.

A question mark on the anomaly indicates that it could be caused by terrain. The survey area was somewhat rugged causing numerous VLF-EM anomalous responses, most of which was easily sorted out as being caused by terrain. However, some were difficult to sort out and they were therefore plotted with a question mark.

Strong anomalies were plotted with exclamation marks, and anomalies without any marks indicated average responses. Other symbols are explained on the sheets.

DISCUSSION OF RESULTS

a) Magnetics

The magnetic field over the entire survey is quite variable. The field ranges from a low of 500 gammas on the east central edge of the claim group to over 4800 gammas at the southeast corner of the Congress Ext #2 claim. the magnetic background for this survey appears to be 2300 to 2400 gammas.

The magnetic anomalies of greater than 3000 gammas occur within the areas mapped as underlain by Shulaps ultramafics, serpentine and perioditite. This phenomenon is occurring mainly within the eastern and northeastern portions of the survey.

Occuring in the center of the survey on the common boundary of the Congress Ext #1 and #2, there is a magnetic high of slightly less amplitude. This is most likely caused by units of ultramafics, possibly of different composition or possibly ultramafics underlying sediments and/or volcanics of the Bridge River Group or sediments of the Kingsvale Group.

The rest of the survey is relatively quiet with magnetics varying from 2,000 to 2,500 gammas. This is reflecting the underlying rock units of the undivided sediments and volcanics of the Bridge River Group and younger sediments fo the Kingsvale Group.

There is, however, more magnetic variances than directly correlates with mapped geology in the area. Therefore, it is reasonable to assume that the Hurley Formation sediments are in part underlain by eirther Pioneer Formation or Bridge River Group units.

Magnetic lows often occur along creek valleys and/or areas of low topography. The reason for this is as follows:

1. Valleys almost always contain deeper overburden which means the detecting element is further from the bedrock causing the magnetic field.
2. If the survey is flown across the valley or gully, then the detecting element is also further from the bedrock.
3. Gulleys and valleys are often caused by faults and shear zones which are often reflected by magnetic lows.

b) VLF-EM

The major cause of VLF-EM anomalies, as a rule, are geologic structure such as fault, shear and breccia zones. It is therefore logical to interpret VLF-EM anomalies to likely be caused by these structural zones. Of course, sulphides may also be a causative source. But, in the writer's experience, when VLF-EM anomalies correlate with sulphide mineralization, the anomalies are usually reflecting the structure associated with the mineralization rather than the mineralization itself.

There is some variation in intensity from one VLF-EM anomaly to the next. This is not only due to the conductivity of a causative source, but also the direction it strikes relative to the direction of the transmitter. In other words, those conductors lying too close to the same direction as the direction of the transmitter can be picked up easier than those that are lying at a greater angle. Depending upon its conductivity, a conductor may not be picked up at all if it is at too great an angle.

A number of VLF-EM conductors (or anomalies) occur throughout the survey area. These have been labeled. There are a total of 10 main conductive zones with numerous single line anomalies. The zones are labeled on Figure 3 using lower case letters 'a' to 'j' respectively.

As mentioned above, any VLF-EM conductor is indicative of geological structure. However, the longer conductors are much more indicative. These include

conductors 'a' and 'j' where lengths vary from 900 meters to over 1,600 meters. As previously mentioned, any parts of these anomalies could be reflecting mineralization that is associated with geological structure.

Conductor 'a' is the longest VLF conductor within the survey. It has a north/south strike with an axis length of 1,600 meters. It is located on the western edge of the survey and occurs on top of a creek valley, flowing the same direction. It's causative source is most likely a fault or shear related to the creek valley.

Conductor 'b' has a north/south strike length of over 360 meters. It occurs between two east/west running creeks. It's causative source is unknown.

Conductor 'c' is a medium strength anomaly with an east/west strike. It's axis is over 550 meters in length. It occurs in the northwestern corner of the survey area in an area of moderate magnetic change.

Conductor 'd' is a very strong anomaly occurring at the apex of the strongest magnetic high within the survey area. It has a north/south strike length of 200 meters.

Conductor 'e' is a moderate strength anomaly with dimensions of 950 meters in length with a maximum width of 350 meters forming a kidney shape. The conductor occurs on a topographical break as well as correlating with a zone of magnetic variance. It's direct causative source, however, is unknown.

Conductor 'f', as with previous conductors, is a moderate strength VLF anomaly occurring within a zone of magnetic variance on a topographic high. It's causative source, is again, unknown.

Conductor 'g' has a north/south strike length being over 900 meters. It is open to the south. This is a moderate strength conductor that crosses an east/west trending creek valley. It's causative source is most likely a fault/shear zone related to the before mentioned creek valley.

Conductor 'h' is a low strength anomaly occurring on the northern end of Marshall Lake. It has a north south axis of 300 meters.

Conductor 'i' has a north east strike length of 450 meters. It is a moderate strength conductor which is most likely reflecting a fault/shear zone associated with the creek drainage which it strikes into.

Conductor 'j' has a northerly strike open to the south of over 350 meters. It's causative source is unknown.

There are some single line anomalies within the property, any of which could easily be reflecting bedrock conductors associated with mineralization. For each anomaly, the strike of the causative source is unknown.

LINEATIONS

Lineal trends considered to be indicative of geological structure have been drawn on Map 3 taking into account:

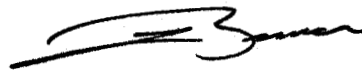
- i) Magnetic lows which are often caused by the magnetite within the rocks being altered by geological structure processes.
- ii) VLF-EM anomalies which more often than not are reflecting structure.
- iii) Topographic depressions such as creek valleys which are usually caused by structure.

Several lineations that are indicative of faults and contacts have been mapped across the property striking in different directions. Some or parts

of the lineations correlated directly with known lithologic contacts and/or faults.

The lineations cross each other on the property in different areas. Structure is often important for the emplacement of mineralizing fluid especially where lineations cross each other or intersect. Thus these areas may have greater exploration interest.

Respectfully submitted,



LLOYD C. BREWER

COLUMBIA AIRBORNE GEOPHYSICAL
SERVICES (1984) LTD.

September 21, 1988

BIBLIOGRAPHY

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British Columbia, 1922; memoir 130, Geological Survey of
Canada.

CERTIFICATION

I, Lloyd C. Brewer, of the city of Vancouver, in the Province of British Columbia, Canada, do hereby certify:

That I am owner and president of Columbia Airborne Geophysical Services (1984) Ltd., with offices located at #611-470 Granville Street, Vancouver, B.C.

I further certify:

1. I am president of Columbia Airborne Geophysical Services (1984) Ltd., and have been employed full time in the mineral exploration industry for the past 7 years, both in Canada, U.S.A. and Mexico.
2. I was project manager and instrument operator for the Levon Group property aerial survey program, which covered over 1800 line kilometers.
3. This report was compiled from data obtained from the airborne survey carried out by Columbia Airborne Geophysical Services (1984) Ltd., under my direct supervision, during December 1987 and January 1988.



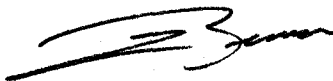
LLOYD C. BREWER
PRESIDENT

September 21, 1988

AFFADAVIT OF COSTS

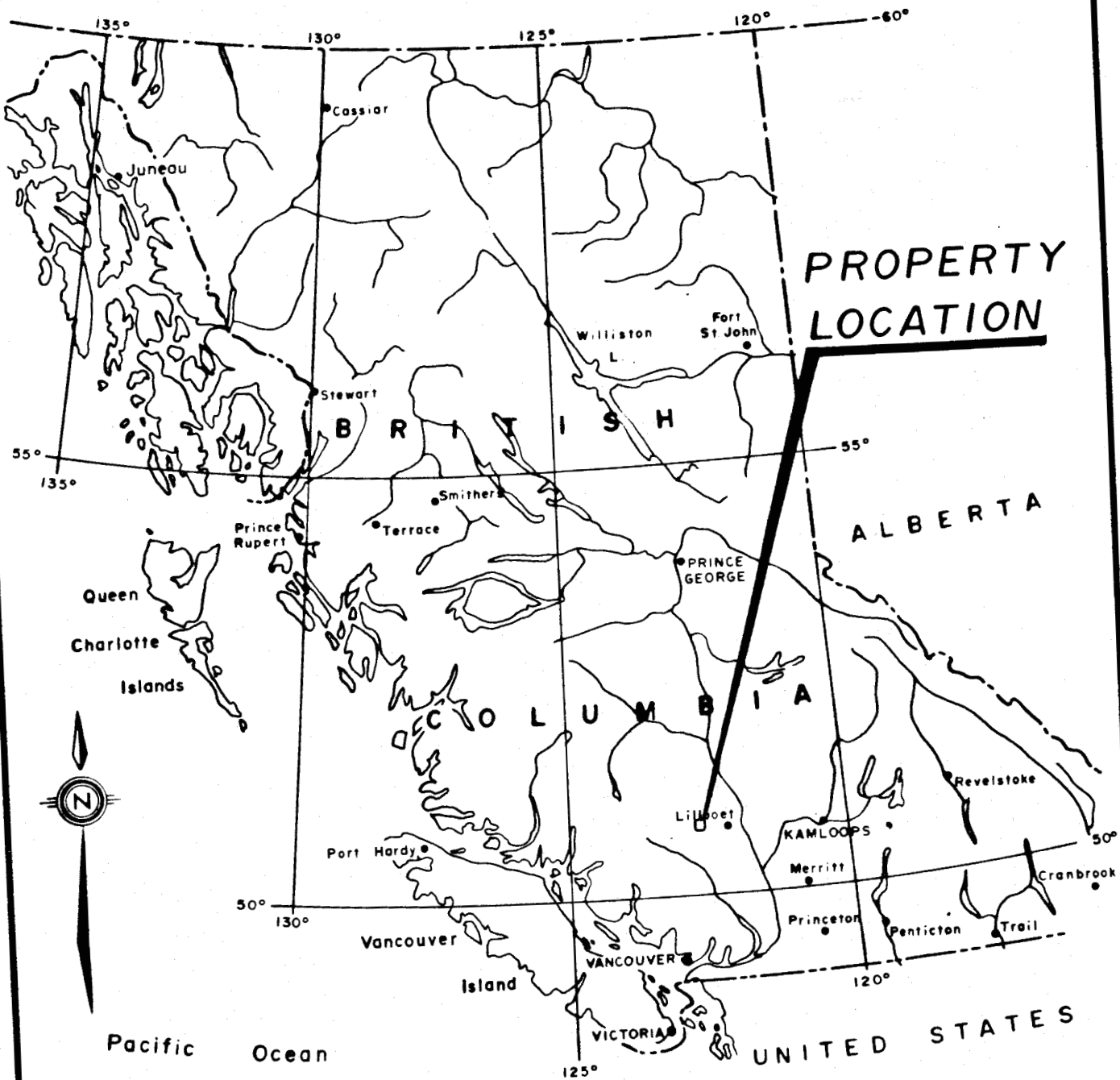
I, Lloyd C. Brewer, President of Columbia Airborne Geophysical Services (1984) Ltd., certify that the airborne magnetic and VLF-EM surveys were flown in December 1987, and that they were flown at a cost of \$100.00 /km, the total number of km being 79.9 to give a total cost of \$7,990.00.

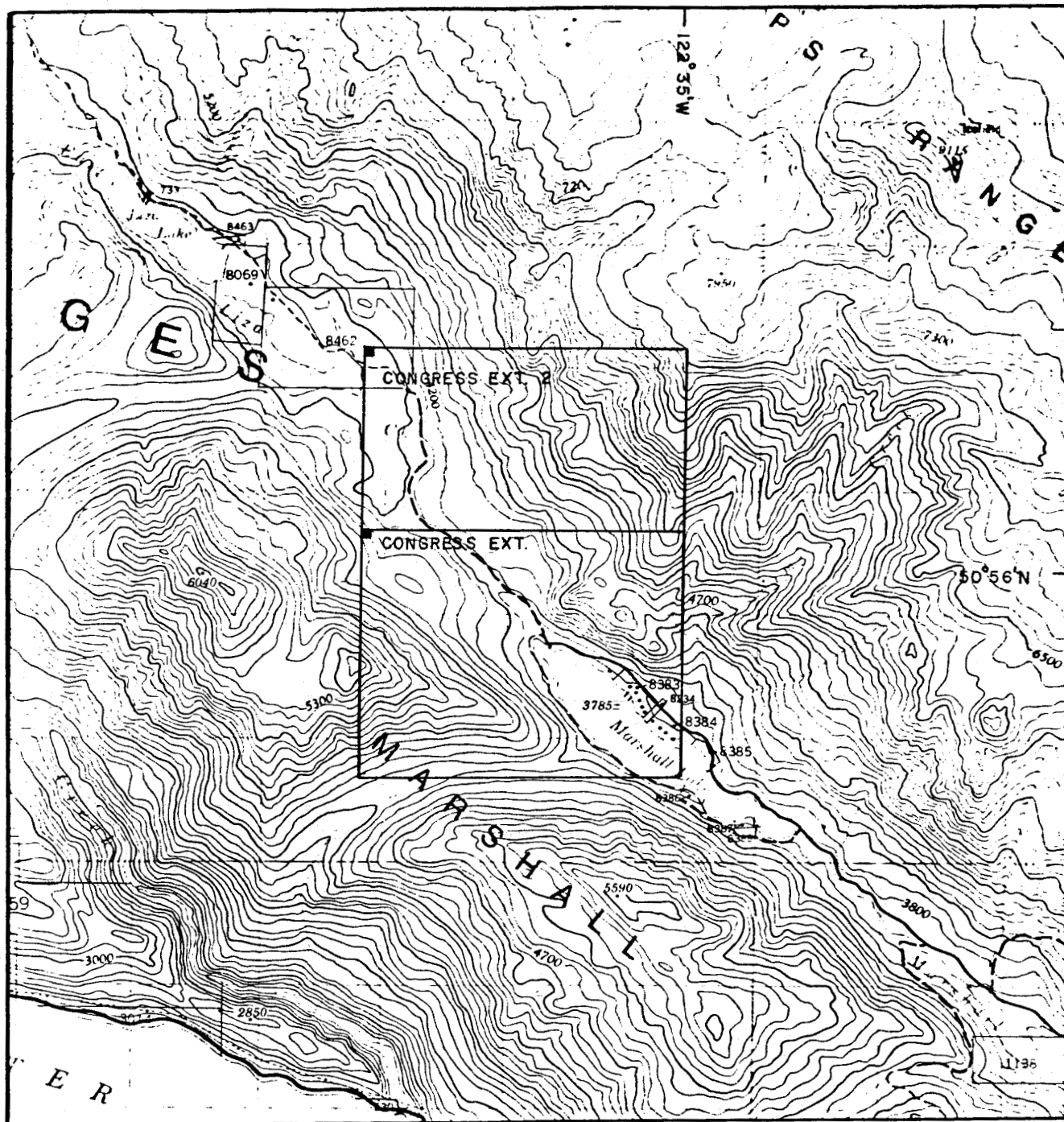
Respectfully submitted,



LLOYD C. BREWER
PRESIDENT

September 21, 1988





KILOMETRES

CORAL GOLD RESOURCES LTD.

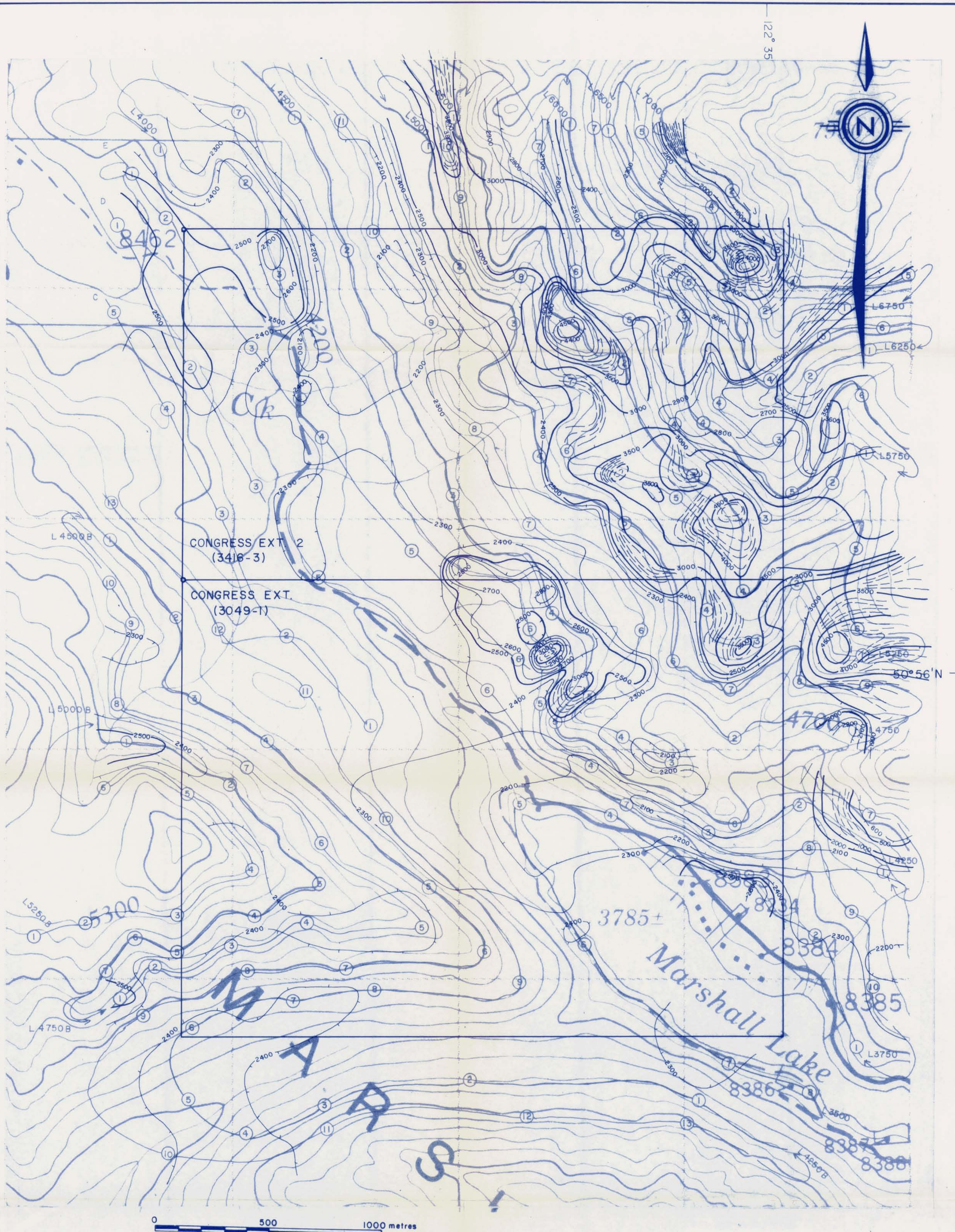
CONGRESS EXT. CLAIMS

MARSHALL LAKE AREA

LILLOOET MD. B.C.

CLAIM MAP

N.T.S. 92J/15E 1:50 000 MARCH/88 BY KC



SURVEY CARRIED OUT BY: COLUMBIA AIRBORNE GEOPHYSICAL SERVICES (1984) LTD.

LEGEND

- PROPERTY BOUNDARY
- LEGAL CORNER POST
- FLIGHT LINES-WITH FIDUCIAL MARKERS

- 100 gamma CONTOURS
- 500 gamma CONTOURS
- MAGNETIC DEPRESSION

NOTE: MAGNETIC BASE = 54,600 gammas

**GEOLOGICAL BRANCH
ASSESSMENT REPORT**

18,435

CORAL GOLD RESOURCES LTD.

CONGRESSEXT.CLAIMS

MARSHALL LAKE AREA

LILLOOET M.D.B.C.

AIRBORNE SURVEY

MAGNETOMETER CONTOURS

SCALE 1:100,000 NTS 92J/15E DATE: DEC./88

FIG.3

K.C.



SURVEY CARRIED OUT BY: COLUMBIA AIRBORNE GEOPHYSICAL SERVICES (1984) LTD.

LEGEND

- PROPERTY BOUNDARY
- LEGAL CORNER POST
- FLIGHT LINES-WITH FIDUCIAL MARKERS
- VLF-EM SINGLE LINE CONDUCTOR
- MAGNETIC ANOMALY (reference to text)
- VLF CONDUCTOR (reference to text)
- GEOLOGICAL BOUNDARIES AS DEFINED BY AEROMAGNETICS
- LINEATION PRODUCED FROM MAGNETIC VLF-EM RESULTS. (suggesting geological structure)
- VLF-EM CONDUCTIVE ZONE

- 100 gamma CONTOURS
- 500 gamma CONTOURS
- MAGNETIC DEPRESSION

NOTE: MAGNETIC BASE = 54,600 gammas

VLF-EM TRANSMITTER DIRECTION

- Annapolis Transmitter 21.4 KHz
- Seattle Transmitter 24.8 KHz

18,435
GEOLOGICAL BRANCH
ASSESSMENT REPORT

FIG. 4

CORAL GOLD RESOURCES LTD.

CONGRESS EXT. CLAIMS

MARSHALL LAKE AREA

LILLOOET M.D.B.C.

AIRBORNE SURVEY

VLF-EM ANOMALIES

SCALE: 1:10 000 N.T.S. 92J/15E DATE: DEC. /88 K.C.