COGEMA CANADA LIMITED
BURNTBUSH RIVER PROJECT
FINAL REPORT OF ACTIVITIES 1986

Volume 1 of 2
PART III: RESULTS OF AN AIRBORNE GEOPHYSICAL SURVEY (Dighem Surveys and Processing, Inc.)

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January, 1987

Ref. No. 87-CND-47-02
(Document #0059U)

Note: This report constitutes Part III of the 1986 exploration program. Part I gave results of the summer program of geological traversing, while Part II describes the outcrop stripping program.

Report #263(ON)

DIGHEM^{III} SURVEY

FOR

COGEMA CANADA LIMITED

BURNTBUSH RIVER PROJECT

ONTARIO

BY

DIGHEM SURVEYS & PROCESSING INC.

MISSISSAUGA, ONTARIO
January 26, 1987

D.C. FRASER
President

BB-DCF-924

SUMMARY

A total of 1,148 km of survey was flown with the DIGHEM^{III} system from December 2 to 11, 1986. The survey was flown over a single block in the Burntbush River area, Ontario, for Cogema Canada Limited.

The survey outlined many bedrock conductors with conductances varying from weak to very strong. Many of these show direct or flanking correlation with moderate to strong magnetic anomalies. There was very little ambiguity between bedrock and overburden EM responses in this survey area. Most of the bedrock conductors are thin and dip to the north. A few thick conductive sections exist.

Resistivity maps at 900 and 7200 Hz were prepared, and aided considerably in the interpretation of the conductive responses. These maps, along with magnetics, their derivatives, and VLF, contribute to the determination of the geology and structure of the Burntbush River survey area.

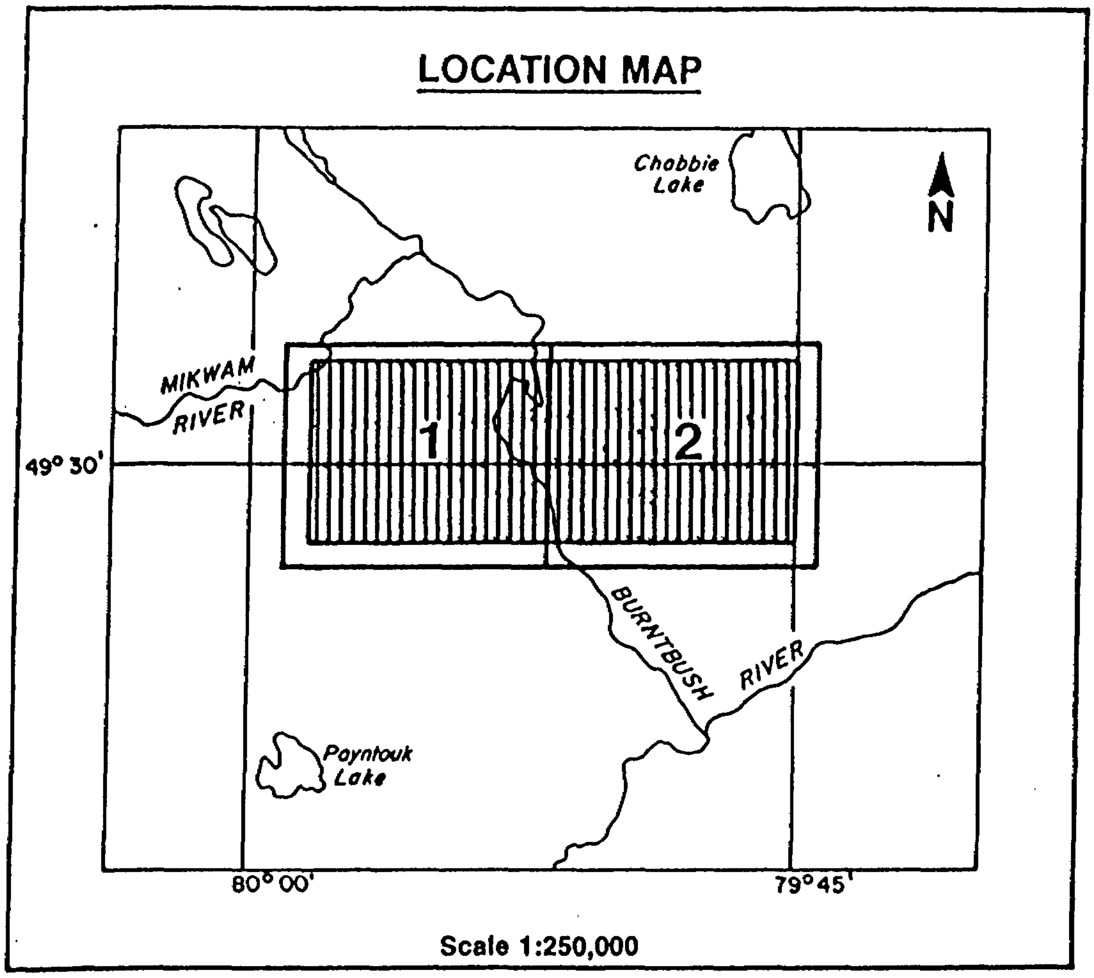

FIGURE 1

THE SURVEY AREA

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LIST OF MAPS

Note: All maps are presented in two parts, an east sheet and a west sheet; all maps are at 1:10 000 scale.

LIST OF APPENDICES

INTRODUCTION

A DIGHEM^{III} electromagnetic/resistivity/magnetic/VLF survey totalling 1,148 line-km was flown with a 100 m line-spacing for Cogema Canada Limited, from December 2 to 11, 1986.

An Aerospatiale AS350B "Squirrel" turbine helicopter (Registraction C-GFHS) was provided by Frontier Helicopters Limited. The helicopter flew at an average airspeed of 110 km/h with an EM bird height of approximately 30 m. Ancillary equipment consisted of a Sonotek PHM 5010 magnetometer with its bird at an average height of 45 m, a Totem 2A VLF receiver with its bird at an average height of 52 m, a Sperry radio altimeter, a Geocam sequence camera, an RMS GR33 digital graphics recorder, a Sonotek SDS 1200 digital data acquisition system, and a DigiData 1130 9-track 800-bpi magnetic tape recorder. The analog equipment recorded four channels of EM data at approximately 900 Hz, two channels of EM data at approximately 7200 Hz, two ambient EM noise channels for the coaxial and coplanar receivers, two channels of magnetics (coarse and fine count), a channel of radio altitude, and four VLF channels representing total field and vertical quadrature components for Cutler and Annapolis. The digital equipment recorded the EM data with a sensitivity of 0.20 ppm at 900 Hz and 0.40 ppm at 7200 Hz, the magnetic field to one nT (i.e., one gamma), and the VLF data to 0.1%.

In addition to the above equipment, a Del Norte 542 navigation system was employed to track the aircraft's progress across the ground. This information was recorded in a range-range mode to an accuracy of 5 metres with a once-per-second update.

Excellent resolution and discrimination of conductors was made possible by using the relatively fast sampling rate of 0.1 sec and by employing a common frequency (900 Hz) on two orthogonal coil-pairs (coaxial and coplanar). The resulting "difference channel" parameters permit differentiation of bedrock and surficial conductors, even though they may exhibit extremely weak conductances.

Appendix A provides details on the data channels, their respective sensitivities, and the navigation/flight path recovery procedure. Noise levels of less than 2 ppm are generally maintained for wind speeds up to 35 km/h.

SECTION I: SURVEY RESULTS

The survey covered a single grid with 1,148 km of flying, the results of which are shown on two separate map sheets for each parameter. Table I-1 summarizes the EM responses with respect to conductance grade and source characteristics.

The electromagnetic anomaly map shows the anomaly locations with the interpreted conductor type, dip, conductance and depth being indicated by symbols. Direct magnetic correlation is also shown if it exists. The strike direction and length of the conductors are indicated when anomalies can be correlated from line to line. When studying the map sheets for follow-up planning, consult the anomaly listings appended to this report to ensure that none of the conductors are overlooked.

The EM anomalies shown on the maps were analysed using the vertical half plane model. This model best reflects "discrete" bedrock conductors. Wide bedrock conductors or flat-lying conductive units, whether from surficial or bedrock sources, may give rise to very broad anomalous

TABLE I-1

EM ANOMALY STATISTICS OF THE BURNTBUSH RIVER AREA

CONDUCTOR GRADE	CONDUCTANCE RANGE	NUMBER OF RESPONSES
6	> 99 MHOS	4
5	50-99 MHOS	12
4	20-49 MHOS	58
3	10-19 MHOS	90
2	5- 9 MHOS	70
1	< 5 MHOS	613
X	INDETERMINATE	237
TOTAL		1084

CONDUCTOR MODEL	MOST LIKELY SOURCE	NUMBER OF RESPONSES
D	DISCRETE BEDROCK CONDUCTOR	242
B	DISCRETE BEDROCK CONDUCTOR	147
S	CONDUCTIVE COVER	672
(BLANK)		23
TOTAL		1084

(SEE EM MAP LEGEND FOR EXPLANATIONS)

responses on the EM profiles. These may not appear on the electromagnetic anomaly maps if they have a regional character rather than a locally anomalous character. These broad conductors, which more closely approximate a half space model, will be maximum coupled to the horizontal (coplanar) coil-pair and are clearly evident on the resistivity map. Resistivity maps, therefore, may be more valuable than the electromagnetic anomaly maps, in areas where broad or flat-lying conductors are considered to be of importance.

Resistivity maps show the conductive properties of the survey area. Some of the resistivity lows (i.e., conductive areas) coincide with discrete bedrock conductors while others indicate conductive overburden or broad conductive rock units. The resistivity patterns may aid geologic mapping and in extending the length of known zones.

Resistivity maps were prepared from both the 900 and 7200 Hz frequencies to aid in the interpretation. Resistivities varied from 2 ohm-m to in excess of 8,000 ohm-m. The 7200 Hz frequency allows weakly conductive bedrock features to be portrayed, which is commonly of interest in gold exploration programs. However, both weakly and moderately conductive bedrock zones tend to be masked in areas of conductive overburden. The 900 Hz resistivity shows the moderately conductive features reasonably well, even in the presence of conductive cover. The 900 Hz resistivity map appears to be the more useful of the two for defining the electrical properties of the Burntbush River survey area, since moderately strong bedrock conductors tend to dominate the area.

Both first and second vertical magnetic derivative maps were produced. These mathematical operators are designed to extract and display weak magnetic signatures which are not readily apparent on the total field magnetic map. For interpretation purposes, the first derivative maps proved to be superior, in part because the frequency content of the mathematical operator was altered somewhat to match the magnetic power spectra of the geologic bodies common to the survey area. The resulting magnetic operator has a superior signal/noise ratio for weak magnetic signatures.

The VLF data were presented as contour maps and profiles. Several anomalous zones are indicated by this data. The VLF maps might prove useful in the exploration program.

Enhanced shadow monochromatic magnetic maps would be useful for the identification of geologic structure. This technique will be evaluated by Cogema personnel using the Dighem graphics workstation.

CONDUCTORS IN THE SURVEY AREA

The detailed analysis of all anomalies led to the identification of a number of both obvious and questionable bedrock responses. The questionable bedrock responses were flagged by the interpretive symbol "B?". A number of similar conductors have the interpretive symbol "S?" which identifies questionable surface responses. Thus, there is a gradation from "B" to "B?" to "S?" to "S", as might be expected. The decision to flag an anomaly with a "B?" vs a "S?" interpretive symbol was based on anomaly shape, correlation from line to line with other EM anomalies, association with magnetics, and other geometric considerations. Generally, there was little ambiguity in the choice of "B?" or "S?" for the Burntbush River area.

Maps of "Probable Bedrock Conductors", with conductor axes, was prepared. They display all anomalies which are interpreted as having bedrock sources. The associated maps of "Electromagnetic Anomalies" display all EM responses. As the exploration followup progresses, it may become apparent that conductors flagged with "S?" belong on the bedrock map, and some with "B?" belong in the surficial category. Maps may be regenerated later with revised interpretive symbols if desired by Cogema.

The following provides a description of the probable bedrock conductors. Reference to magnetic correlation is primarily for purposes of indicating that a parallelism occurs between a conductor and a magnetic trend. This might indicate a bedrock source.

Anomaly 20050E-20090xB, 20070G-20110xB, 20110C-20160xB, 20270xA-20400xB, 20330D-20370xA, 20430xA-20440xB, 20480A-20570A, 20610xB-20700xB (Sheet 1)

The conductors of this grouping dip northward, and follow a weak to moderate magnetic high which is fairly well defined on the first derivative map. Some breaks occur in the magnetic trend, and a strong fold exists at EM anomaly 20540D. The conductances typically are of grades 1 and 2, with grades 3 and 4 occurring in the vicinity of the fold. The conductors generally appear to be thin, i.e., less than 3 m wide. The resistivity map illustrates that a number of strong resistivity lows are caused by the conductors, with the strongest occurring in the vicinity of the fold. Direct magnetic correlation is present with some of the conductors, being strongest in the vicinity of the fold.

Anomaly 20360xA-20420D, 20520C-20530A (Sheet 1)

Two conductors occur 300 m south of the conductive zone described immediately above. 20360xA-20420D comprises a north-dipping thin conductor. It's center portion correlates directly with a magnetic high. This high is clearly defined by the first derivative map but not by the total field map. A strong resistivity low corresponds with the magnetic anomaly. 20520C-20530A occurs on strike, 1 km to the east. It is questionable, non-magnetic, and there is no resistivity association.

Anomaly 20440A-20460A (Sheet 1)

This weak, questionable conductor is without magnetic or resistivity correlation.

Anomaly 20500C-20540E (Sheet 1)

A thin, north-dipping conductor flanks a magnetic high. It has no associated resistivity low.

Anomaly 20550xC-20721xB, 20640D-20721D (Sheet 1)

The conductive zone comprises two distinct thin conductors which have yielded a strong resistivity low. There is partial magnetic correlation as can best be seen on the first derivative map. While the magnetic patterns cast doubt on the line-to-line EM correlation, the resistivity map leaves no doubt as to its correctness.

Anomaly 20670xA-20750B (Sheet 1)

The north-dipping conductor is thin and coincides closely with a magnetic high. It has generated a strong resistivity low over part of its strike length.

Anomaly 20780xA-20820xA, 20850xB-20950xC, 20930xB-20950xB, 21010D, 21050E-21240E, 21120xB-21130xC, 21250D-21420E, 21250xB-21590D, 21470G, 21510D-21550F (Sheet 1,2)

A long conductive zone runs across sheet 2. It terminates to the east against a dike, as suggested by the vertical magnetic derivative map, and to the west on sheet 1 against another dike. The zone is magnetic; note that the magnetic high terminates at its west end against the dike. The conductive zone yields strong resistivity lows in its central and eastern parts, and two isolated lows (at 20900D and 20940B) to the west. The conductors primarily are thin (i.e., less than 3 m thick), but thick conductive sections occur at 21450D-21460D and 21500E.

Anomaly 20900A-20930A, 20910A-20920A, 20950xA-21030xB, 20970B-21050xA, 21060E-21150F, 21100C-21110E, 21130xB-21140xA, 21150xA-21170F (Sheet 2)

A number of both short and moderately long, thin conductors correlate with magnetic highs as can best be seen on the first vertical derivative map. The EM and magnetic patterns are less uniform than is common in the survey area. The resistivity map is instructive. It suggests that these conductors, and those described in the following two groupings, may be related to a geologic complex. Note also the resistivity low just to the north of 20910xA. This may be caused by a short bedrock conductor striking parallel to the flight line. Such a conductor may not generate an EM anomaly.

Anomaly 20970A-21000A, 21040B-29030I, 21060B-21200xA, 21070A-21090B, 21090A-21180B, 21100B-21160B, 21170A-21180A, 21210A-21240xA, 21280A-21290A, 21350A-21360A (Sheet 2)

The majority of the conductors in this grouping have yielded strong resistivity lows which appear to be part of the complex described immediately above. Some exceedingly large conductances occur, e.g., the grade 6 EM anomaly 21140C. Most are thin, but a thick conductive section occurs at 21090A. The conductors in the west and center of the grouping are related to magnetic rocks, but direct magnetic correlation is usually lacking.

Anomaly 21060D-21080C, 21070xA, 21070xB, 21110xA-21240A, 21120D, 21120E-21150E, 21170E, 21180E-21200xC, 21210C-21470A, 21330C-21350C, 21430xA-21450A, 21530B-21600xA, 21550B-21610B

A long conductive zone runs westward into the above described resistivity complex. It comprises conductors which commonly are thin, but two thick conductive sections occur at 21180D-21190B and 21270A-21310A. Conductance grades are commonly 3 and over, with a grade 6 conductance occurring at 21080C. Some of the conductors are associated with magnetic rocks, and direct magnetic correlations are not uncommon. North dips prevail, as is normal for this survey area.

Anomaly 21460xB-21470xB

A very weak EM response correlates directly with a small magnetic anomaly. Although weak, the EM response definitely indicates a bedrock conductor. Questionable EM anomalies (interpreted as "S?") occur to the west at 21420C-21440A. This would be an intriguing target for base metal exploration, although the conductor is thin.

SECTION II: BACKGROUND INFORMATION

Section II provides background information on products which are available from your survey data. Those products not obtained as part of the survey contract may be generated later from raw data which is available on your archive digital tape.

ELECTROMAGNETICS

DIGHEM electromagnetic responses fall into two general classes, discrete and broad. The discrete class consists of sharp, well-defined anomalies from discrete conductors such as sulfide lenses and steeply dipping sheets of graphite and sulfides. The broad class consists of wide anomalies from conductors having a large horizontal surface such as flatly dipping graphite or sulfide sheets, saline water-saturated sedimentary formations, conductive overburden and rock, and geothermal zones. A vertical conductive slab with a width of 200 m would straddle these two classes.

The vertical sheet (half plane) is the most common model used for the analysis of discrete conductors. All anomalies plotted on the electromagnetic map are analyzed according to this model. The following section entitled Discrete Conductor Analysis describes this model in detail, including the effect of using it on anomalies caused by broad conductors such as conductive overburden.

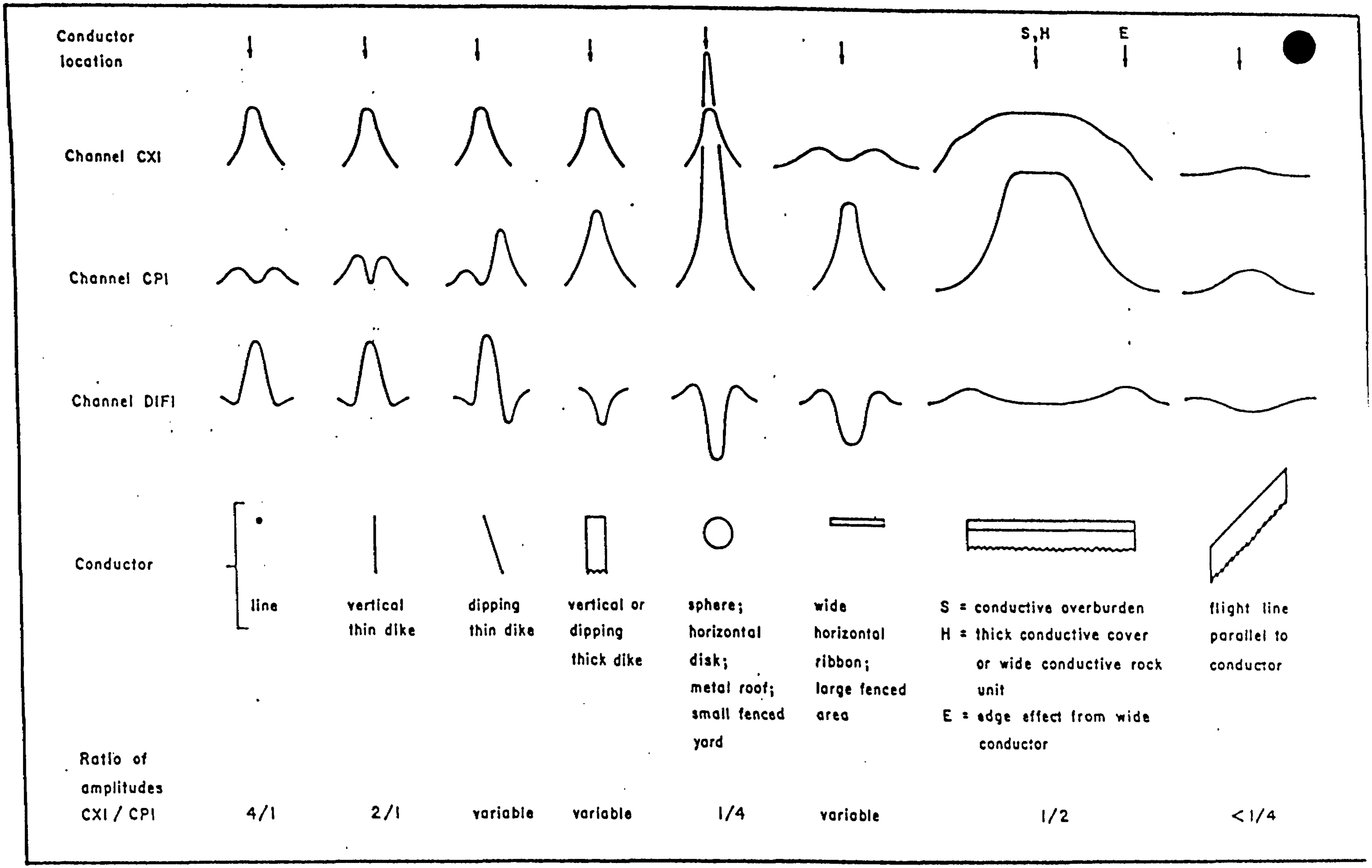
The conductive earth (half space) model is suitable for broad conductors. Resistivity contour maps result from the use of this model. A later section entitled Resistivity Mapping describes the method further, including the effect of using it on anomalies caused by discrete conductors such as sulfide bodies.

Geometric interpretation

The geophysical interpreter attempts to determine the geometric shape and dip of the conductor. Figure II-1 shows typical DIGHEM anomaly shapes which are used to guide the geometric interpretation.

Discrete conductor analysis

The EM anomalies appearing on the electromagnetic map are analyzed by computer to give the conductance (i.e., conductivity-thickness product) in mhos of a vertical sheet model. This is done regardless of the interpreted geometric shape of the conductor. This is not an unreasonable procedure, because the computed conductance increases as the



Typical DIGHEM anomaly shape

electrical quality of the conductor increases, regardless of its true shape. DIGHEM anomalies are divided into six grades of conductance, as shown in Table II-1. The conductance in mhos is the reciprocal of resistance in ohms.

Table II-1. EM Anomaly Grades

Anomaly Grade	Mho Range
6	> 99
5	50 - 99
4	20 - 49
3	10 - 19
2	5 - 9
1	< 5

The conductance value is a geological parameter because it is a characteristic of the conductor alone. It generally is independent of frequency, flying height or depth of burial, apart from the averaging over a greater portion of the conductor as height increases.[1] Small anomalies from deeply buried strong conductors are not confused with small anomalies from shallow weak conductors because the former will have larger conductance values.

Conductive overburden generally produces broad EM responses which may not be shown as anomalies on the EM maps. However, patchy conductive overburden in otherwise

[1] This statement is an approximation. DIGHEM, with its short coil separation, tends to yield larger and more accurate conductance values than airborne systems having a larger coil separation.

resistive areas can yield discrete anomalies with a conductance grade (cf. Table II-1) of 1, or even of 2 for conducting clays which have resistivities as low as 50 ohm-m. In areas where ground resistivities can be below 10 ohm-m, anomalies caused by weathering variations and similar causes can have any conductance grade. The anomaly shapes from the multiple coils often allow such conductors to be recognized, and these are indicated by the letters S, H, G and sometimes E on the map (see EM legend).

For bedrock conductors, the higher anomaly grades indicate increasingly higher conductances. Examples: DIGHEM's New Insco copper discovery (Noranda, Canada) yielded a grade 4 anomaly, as did the neighbouring copper-zinc Magusi River ore body; Mattabi (copper-zinc, Sturgeon Lake, Canada) and Whistle (nickel, Sudbury, Canada) gave grade 5; and DIGHEM's Montcalm nickel-copper discovery (Timmins, Canada) yielded a grade 6 anomaly. Graphite and sulfides can span all grades but, in any particular survey area, field work may show that the different grades indicate different types of conductors.

Strong conductors (i.e., grades 5 and 6) are characteristic of massive sulfides or graphite. Moderate conductors (grades 3 and 4) typically reflect graphite or sulfides of a less massive character, while weak bedrock conductors (grades 1 and 2) can signify poorly connected graphite or heavily disseminated sulfides. Grade 1 conductors may not respond to ground EM equipment using frequencies less than 2000 Hz.

The presence of sphalerite or gangue can result in ore deposits having weak to moderate conductances. As an example, the three million ton lead-zinc deposit of Restigouche Mining Corporation near Bathurst, Canada, yielded a well defined grade 1 conductor. The 10 percent by volume of sphalerite occurs as a coating around the fine grained massive pyrite, thereby inhibiting electrical conduction.

Faults, fractures and shear zones may produce anomalies which typically have low conductances (e.g., grades 1 and 2). Conductive rock formations can yield anomalies of any conductance grade. The conductive materials in such rock formations can be salt water, weathered products such as clays, original depositional clays, and carbonaceous material.

On the electromagnetic map, a letter identifier and an interpretive symbol are plotted beside the EM grade symbol. The horizontal rows of dots, under the interpretive symbol, indicate the anomaly amplitude on the flight record. The vertical column of dots, under the anomaly letter, gives the estimated depth. In areas where anomalies are crowded, the letter identifiers, interpretive symbols and dots may be obliterated. The EM grade symbols, however, will always be discernible, and the obliterated information can be obtained from the anomaly listing appended to this report.

The purpose of indicating the anomaly amplitude by dots is to provide an estimate of the reliability of the conductance calculation. Thus, a conductance value obtained from a large ppm anomaly (3 or 4 dots) will tend to be accurate whereas one obtained from a small ppm anomaly (no dots) could be quite inaccurate. The absence of amplitude dots indicates that the anomaly from the coaxial coil-pair is 5 ppm or less on both the inphase and quadrature channels. Such small anomalies could reflect a weak conductor at the surface or a stronger conductor at depth. The conductance grade and depth estimate illustrates which of these possibilities fits the recorded data best.

Flight line deviations occasionally yield cases where two anomalies, having similar conductance values but dramatically different depth estimates, occur close together on the same conductor. Such examples illustrate the reliability of the conductance measurement while showing that the depth estimate can be unreliable. There are a number of factors which can produce an error in the depth estimate, including the averaging of topographic variations by the altimeter, overlying conductive overburden, and the location and attitude of the conductor relative to the flight line. Conductor location and attitude can provide an erroneous depth estimate because the stronger part of the conductor may be deeper or to one side of the flight line, or because it has a shallow dip. A heavy tree cover can also produce errors in depth estimates. This is because the depth estimate is computed as the distance of bird from conductor, minus the altimeter reading. The altimeter can lock onto the top of a dense forest canopy. This situation yields an erroneously large depth estimate but does not affect the conductance estimate.

Dip symbols are used to indicate the direction of dip of conductors. These symbols are used only when the anomaly shapes are unambiguous, which usually requires a fairly resistive environment.

A further interpretation is presented on the EM map by means of the line-to-line correlation of anomalies, which is based on a comparison of anomaly shapes on adjacent lines. This provides conductor axes which may define the geological structure over portions of the survey area. The absence of conductor axes in an area implies that anomalies could not be correlated from line to line with reasonable confidence.

DIGHEM electromagnetic maps are designed to provide a correct impression of conductor quality by means of the conductance grade symbols. The symbols can stand alone with geology when planning a follow-up program. The actual conductance values are printed in the attached anomaly list for those who wish quantitative data. The anomaly ppm and depth are indicated by inconspicuous dots which should not distract from the conductor patterns, while being helpful to those who wish this information. The map provides an interpretation of conductors in terms of length, strike and dip, geometric shape, conductance, depth, and thickness (see below). The accuracy is comparable to an interpretation from a high quality ground EM survey having the same line spacing.

The attached EM anomaly list provides a tabulation of anomalies in ppm, conductance, and depth for the vertical sheet model. The EM anomaly list also shows the conductance and depth for a thin horizontal sheet (whole plane) model, but only the vertical sheet parameters appear on the EM map. The horizontal sheet model is suitable for a flatly dipping thin bedrock conductor such as a sulfide sheet having a thickness less than 10 m. The list also shows the resistivity and depth for a conductive earth (half space) model, which is suitable for thicker slabs such as thick conductive overburden. In the EM anomaly list, a depth value of zero for the conductive earth model, in an area of thick cover, warns that the anomaly may be caused by conductive overburden.

Since discrete bodies normally are the targets of EM surveys, local base (or zero) levels are used to compute local anomaly amplitudes. This contrasts with the use of true zero levels which are used to compute true EM amplitudes. Local anomaly amplitudes are shown in the EM anomaly list and these are used to compute the vertical sheet parameters of conductance and depth. Not shown in the EM anomaly list are the true amplitudes which are used to compute the horizontal sheet and conductive earth parameters.

X-type electromagnetic responses

DIGHEM maps contain x-type EM responses in addition to EM anomalies. An x-type response is below the noise threshold of 3 ppm, and reflects one of the following: a weak conductor near the surface, a strong conductor at depth (e.g., 100 to 120 m below surface) or to one side of the flight line, or aerodynamic noise. Those responses that have the appearance of valid bedrock anomalies on the flight profiles are indicated by appropriate interpretive symbols (see EM map legend). The others probably do not warrant further investigation unless their locations are of considerable geological interest.

The thickness parameter

DIGHEM can provide an indication of the thickness of a steeply dipping conductor. The amplitude of the coplanar anomaly (e.g., CPI channel on the digital profile) increases relative to the coaxial anomaly (e.g., CXI) as the apparent thickness increases, i.e., the thickness in the horizontal plane. (The thickness is equal to the conductor width if the conductor dips at 90 degrees and strikes at right angles to the flight line.) This report refers to a conductor as thin when the thickness is likely to be less than 3 m, and thick when in excess of 10 m. Thick conductors are indicated on the EM map by crescents. For base metal exploration in steeply dipping geology, thick conductors can be high priority targets because many massive sulfide ore bodies are thick, whereas non-economic bedrock conductors are often thin. The system cannot sense the thickness when the strike of the conductor is subparallel to the flight line, when the conductor has a shallow dip, when the anomaly amplitudes are small, or when the resistivity of the environment is below 100 ohm-m.

Resistivity mapping

Areas of widespread conductivity are commonly encountered during surveys. In such areas, anomalies can be generated by decreases of only 5 m in survey altitude as well as by increases in conductivity. The typical flight record in conductive areas is characterized by inphase and quadrature channels which are continuously active. Local EM peaks reflect either increases in conductivity of the earth or decreases in survey altitude. For such conductive areas, apparent resistivity profiles and contour maps are necessary for the correct interpretation of the airborne data. The advantage of the resistivity parameter is that anomalies caused by altitude changes are virtually eliminated, so the resistivity data reflect only those anomalies caused by conductivity changes. The resistivity analysis also helps the interpreter to differentiate between conductive trends in the bedrock and those patterns typical of conductive overburden. For example, discrete conductors will generally appear as narrow lows on the contour map and broad conductors (e.g., overburden) will appear as wide lows.

The resistivity profile (see table in Appendix A) and the resistivity contour map present the apparent resistivity using the so-called pseudo-layer (or buried) half space model defined by Fraser (1978)[2]. This model consists of a resistive layer overlying a conductive half space. The depth channel (see Appendix A) gives the apparent depth below surface of the conductive material. The apparent depth is simply the apparent thickness of the overlying resistive layer. The apparent depth (or thickness) parameter will be positive when the upper layer is more resistive than the underlying material, in which case the apparent depth may be quite close to the true depth.

The apparent depth will be negative when the upper layer is more conductive than the underlying material, and will be zero when a homogeneous half space exists. The apparent depth parameter must be interpreted cautiously because it will contain any errors which may exist in the measured altitude of the EM bird (e.g., as caused by a dense tree cover). The inputs to the resistivity algorithm are the inphase and quadrature components of the coplanar coil-pair. The outputs are the apparent resistivity of the

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2 Resistivity mapping with an airborne multicoil electromagnetic system: Geophysics, v. 43, p. 144-172.

conductive half space (the source) and the sensor-source distance. The flying height is not an input variable, and the output resistivity and sensor-source distance are independent of the flying height. The apparent depth, discussed above, is simply the sensor-source distance minus the measured altitude or flying height. Consequently, errors in the measured altitude will affect the apparent depth parameter but not the apparent resistivity parameter.

The apparent depth parameter is a useful indicator of simple layering in areas lacking a heavy tree cover. The DIGHEM system has been flown for purposes of permafrost mapping, where positive apparent depths were used as a measure of permafrost thickness. However, little quantitative use has been made of negative apparent depths because the absolute value of the negative depth is not a measure of the thickness of the conductive upper layer and, therefore, is not meaningful physically. Qualitatively, a negative apparent depth estimate usually shows that the EM anomaly is caused by conductive overburden. Consequently, the apparent depth channel can be of significant help in distinguishing between overburden and bedrock conductors.

The resistivity map often yields more useful information on conductivity distributions than the EM map. In comparing the EM and resistivity maps, keep in mind the following:

(a) The resistivity map portrays the absolute value of the earth's resistivity. (Resistivity = 1/conductivity.)

(b) The EM map portrays anomalies in the earth's resistivity. An anomaly by definition is a change from the norm and so the EM map displays anomalies, (i) over narrow, conductive bodies and (ii) over the boundary zone between two wide formations of differing conductivity.

The resistivity map might be likened to a total field map and the EM map to a horizontal gradient in the direction of flight[3]. Because gradient maps are usually more sensitive than total field maps, the EM map therefore is to be preferred in resistive areas. However, in conductive areas, the absolute character of the resistivity map usually causes it to be more useful than the EM map.

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3 The gradient analogy is only valid with regard to the identification of anomalous locations.

Interpretation in conductive environments

Environments having background resistivities below 30 ohm-m cause all airborne EM systems to yield very large responses from the conductive ground. This usually prohibits the recognition of discrete bedrock conductors. The processing of DIGHEM data, however, produces six channels which contribute significantly to the recognition of bedrock conductors. These are the inphase and quadrature difference channels (DIFI and DIFQ), and the resistivity and depth channels (RES and DP) for each coplanar frequency; see table in Appendix A.

The EM difference channels (DIFI and DIFQ) eliminate up to 99% of the response of conductive ground, leaving responses from bedrock conductors, cultural features (e.g., telephone lines, fences, etc.) and edge effects. An edge effect arises when the conductivity of the ground suddenly changes, and this is a source of geologic noise. While edge effects yield anomalies on the EM difference channels, they do not produce resistivity anomalies. Consequently, the resistivity channel aids in eliminating anomalies due to edge effects. On the other hand, resistivity anomalies will coincide with the most highly conductive sections of conductive ground, and this is another source of geologic noise. The recognition of a bedrock conductor in a conductive environment therefore is based on the anomalous responses of the two difference channels (DIFI and DIFQ) and the two resistivity channels (RES). The most favourable situation is where anomalies coincide on all four channels.

The DP channels, which give the apparent depth to the conductive material, also help to determine whether a conductive response arises from surficial material or from a conductive zone in the bedrock. When these channels ride above the zero level on the digital profiles (i.e., depth is negative), it implies that the EM and resistivity profiles are responding primarily to a conductive upper layer, i.e., conductive overburden. If both DP channels are below the zero level, it indicates that a resistive upper layer exists, and this usually implies the existence of a bedrock conductor. If the low frequency DP channel is below the zero level and the high frequency DP is above, this suggests that a bedrock conductor occurs beneath conductive cover.

The conductance channel CDT identifies discrete conductors which have been selected by computer for appraisal by the geophysicist. Some of these automatically selected anomalies on channel CDT are discarded by the geophysicist. The automatic selection algorithm is intentionally oversensitive to assure that no meaningful responses are missed. The interpreter then classifies the anomalies according to their source and eliminates those that are not substantiated by the data, such as those arising from geologic or aerodynamic noise.

Reduction of geologic noise

Geologic noise refers to unwanted geophysical responses. For purposes of airborne EM surveying, geologic noise refers to EM responses caused by conductive overburden and magnetic permeability. It was mentioned above that the EM difference channels (i.e., channel DIFI for inphase and DIFQ for quadrature) tend to eliminate the response of conductive overburden. This marked a unique development in airborne EM technology, as DIGHEM is the only EM system which yields channels having an exceptionally high degree of immunity to conductive overburden.

Magnetite produces a form of geological noise on the inphase channels of all EM systems. Rocks containing less than 1% magnetite can yield negative inphase anomalies caused by magnetic permeability. When magnetite is widely distributed throughout a survey area, the inphase EM channels may continuously rise and fall reflecting variations in the magnetite percentage, flying height, and overburden thickness. This can lead to difficulties in recognizing deeply buried bedrock conductors, particularly if conductive overburden also exists. However, the response of broadly distributed magnetite generally vanishes on the inphase difference channel DIFI. This feature can be a significant aid in the recognition of conductors which occur in rocks containing accessory magnetite.

EM magnetite mapping

The information content of DIGHEM data consists of a combination of conductive eddy current response and magnetic permeability response. The secondary field resulting from conductive eddy current flow is frequency-dependent and consists of both inphase and quadrature components, which are positive in sign. On the other hand, the secondary field resulting from magnetic permeability is independent of frequency and consists of only an inphase component which is negative in sign. When magnetic permeability manifests itself by decreasing the measured amount of positive inphase, its presence may be difficult to recognize. However, when it manifests itself by yielding a negative inphase anomaly (e.g., in the absence of eddy current flow), its presence is assured. In this latter case, the negative component can be used to estimate the percent magnetite content.

A magnetite mapping technique was developed for the coplanar coil-pair of DIGHEM. The technique yields channel FEO (see Appendix A) which displays apparent weight percent magnetite according to a homogeneous half space model.[4] The method can be complementary to magnetometer mapping in certain cases. Compared to magnetometry, it is far less sensitive but is more able to resolve closely spaced magnetite zones, as well as providing an estimate of the amount of magnetite in the rock. The method is sensitive to 1/4% magnetite by weight when the EM sensor is at a height of 30 m above a magnetitic half space. It can individually resolve steeply dipping narrow magnetite-rich bands which are separated by 60 m. Unlike magnetometry, the EM magnetite method is unaffected by remanent magnetism or magnetic latitude.

The EM magnetite mapping technique provides estimates of magnetite content which are usually correct within a

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4 Refer to Fraser, 1981, Magnetite mapping with a multi-coil airborne electromagnetic system: Geophysics, v. 46, p. 1579-1594.

factor of 2 when the magnetite is fairly uniformly distributed. EM magnetite maps can be generated when magnetic permeability is evident as indicated by anomalies in the magnetite channel FEO.

Like magnetometry, the EM magnetite method maps only bedrock features, provided that the overburden is characterized by a general lack of magnetite. This contrasts with resistivity mapping which portrays the combined effect of bedrock and overburden.

Recognition of culture

Cultural responses include all EM anomalies caused by man-made metallic objects. Such anomalies may be caused by inductive coupling or current gathering. The concern of the interpreter is to recognize when an EM response is due to culture. Points of consideration used by the interpreter, when coaxial and coplanar coil-pairs are operated at a common frequency, are as follows:

1. Channels CXS and CPS (see Appendix A) measure 50 and 60 Hz radiation. An anomaly on these channels shows that the conductor is radiating cultural power. Such an indication is normally a guarantee that the conduc-

tor is cultural. However, care must be taken to ensure that the conductor is not a geologic body which strikes across a power line, carrying leakage currents.

2. A flight which crosses a "line" (e.g., fence, telephone line, etc.) yields a center-peaked coaxial anomaly and an m-shaped coplanar anomaly.[5] When the flight crosses the cultural line at a high angle of intersection, the amplitude ratio of coaxial/coplanar (e.g., CXI/CPI) is 4. Such an EM anomaly can only be caused by a line. The geologic body which yields anomalies most closely resembling a line is the vertically dipping thin dike. Such a body, however, yields an amplitude ratio of 2 rather than 4. Consequently, an m-shaped coplanar anomaly with a CXI/CPI amplitude ratio of 4 is virtually a guarantee that the source is a cultural line.

3. A flight which crosses a sphere or horizontal disk yields center-peaked coaxial and coplanar anomalies with a CXI/CPI amplitude ratio (i.e., coaxial/coplanar) of 1/4. In the absence of geologic bodies of this geometry, the most likely conductor is a metal roof or

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5 See Figure II-1 presented earlier.

small fenced yard.[6] Anomalies of this type are virtually certain to be cultural if they occur in an area of culture.

4. A flight which crosses a horizontal rectangular body or wide ribbon yields an m-shaped coaxial anomaly and a center-peaked coplanar anomaly. In the absence of geologic bodies of this geometry, the most likely conductor is a large fenced area.[6] Anomalies of this type are virtually certain to be cultural if they occur in an area of culture.

5. EM anomalies which coincide with culture, as seen on the camera film, are usually caused by culture. However, care is taken with such coincidences because a geologic conductor could occur beneath a fence, for example. In this example, the fence would be expected to yield an m-shaped coplanar anomaly as in case #2 above. If, instead, a center-peaked coplanar anomaly occurred, there would be concern that a thick geologic conductor coincided with the cultural line.

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[6] It is a characteristic of EM that geometrically identical anomalies are obtained from: (1) a planar conductor, and (2) a wire which forms a loop having dimensions identical to the perimeter of the equivalent planar conductor.

6. The above description of anomaly shapes is valid when the culture is not conductively coupled to the environment. In this case, the anomalies arise from inductive coupling to the EM transmitter. However, when the environment is quite conductive (e.g., less than 100 ohm-m at 900 Hz), the cultural conductor may be conductively coupled to the environment. In this latter case, the anomaly shapes tend to be governed by current gathering. Current gathering can completely distort the anomaly shapes, thereby complicating the identification of cultural anomalies. In such circumstances, the interpreter can only rely on the radiation channels CXS and CPS, and on the camera film.

TOTAL FIELD MAGNETICS

The existence of a magnetic correlation with an EM anomaly is indicated directly on the EM map. An EM anomaly with magnetic correlation has a greater likelihood of being produced by sulfides than one that is non-magnetic. However, sulfide ore bodies may be non-magnetic (e.g., the Kidd Creek deposit near Timmins, Canada) as well as magnetic (e.g., the Mattabi deposit near Sturgeon Lake, Canada).

The magnetometer data are digitally recorded in the aircraft to an accuracy of one nT (i.e., one gamma). The digital tape is processed by computer to yield a total field magnetic contour map. When warranted, the magnetic data also may be treated mathematically to enhance the magnetic response of the near-surface geology, and an enhanced magnetic contour map is then produced. The response of the enhancement operator in the frequency domain is illustrated in Figure II-2. This figure shows that the passband components of the airborne data are amplified 20 times by the enhancement operator. This means, for example, that a 100 nT anomaly on the enhanced map reflects a 5 nT anomaly for the passband components of the airborne data.

The enhanced map, which bears a resemblance to a downward continuation map, is produced by the digital bandpass filtering of the total field data. The enhancement is equivalent to continuing the field downward to a level (above the source) which is 1/20th of the actual sensor-source distance.

Because the enhanced magnetic map bears a resemblance to a ground magnetic map, it simplifies the recognition of trends in the rock strata and the interpretation of

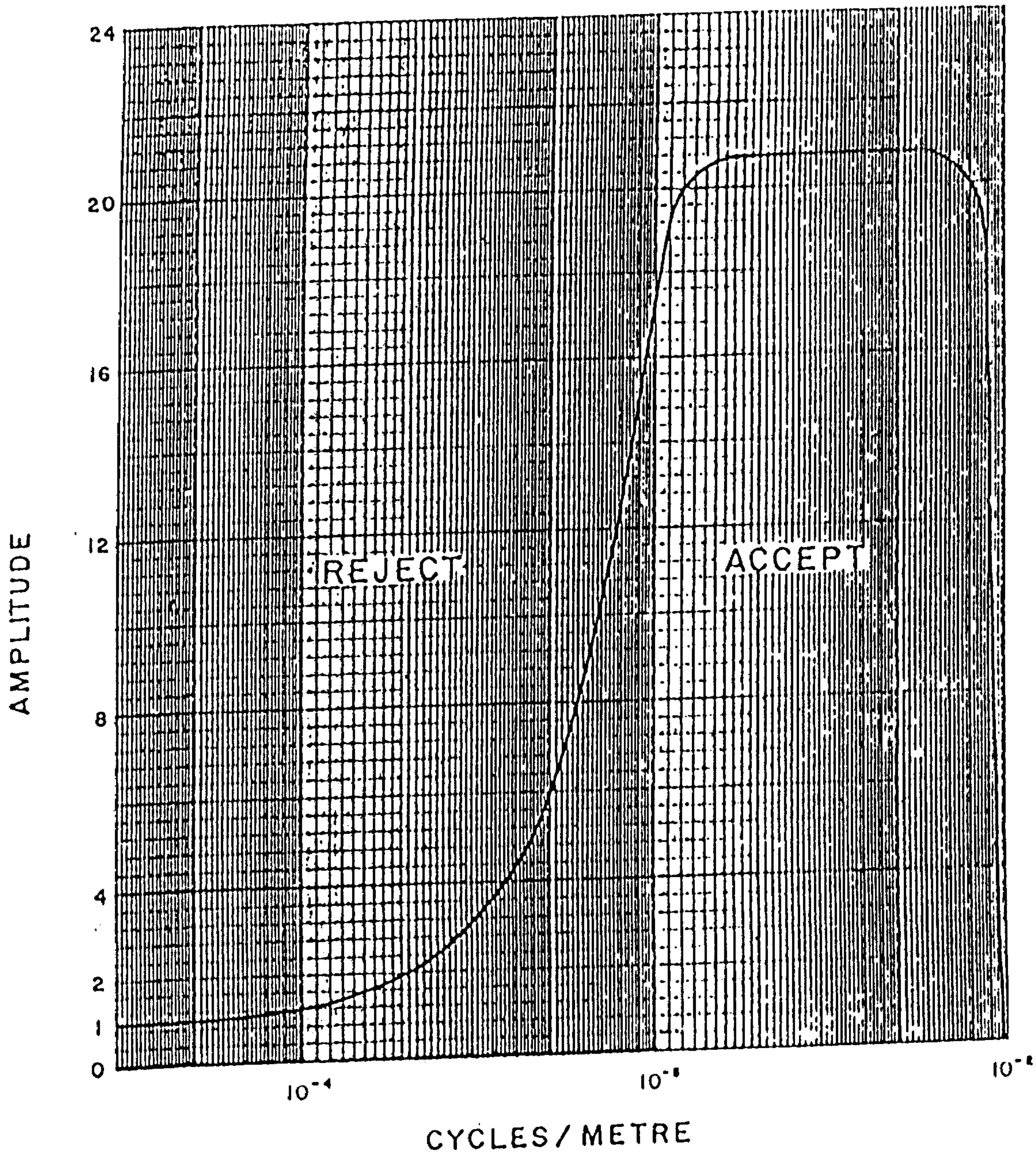

Figure 2 Frequency response of magnetic operator.

geological structure. It defines the near-surface local geology while de-emphasizing deep-seated regional features. It primarily has application when the magnetic rock units are steeply dipping and the earth's field dips in excess of 60 degrees.

VLF-EM

VLF-EM anomalies are not EM anomalies in the conventional sense. EM anomalies primarily reflect eddy currents flowing in conductors which have been energized inductively by the primary field. In contrast, VLF-EM anomalies primarily reflect current gathering, which is a non-inductive phenomenon. The primary field sets up currents which flow weakly in rock and overburden, and these tend to collect in low resistivity zones. Such zones may be due to massive sulfides, shears, river valleys and even unconformities.

The Herz Industries Ltd Totem VLF-electromagnetometer measures the total field and vertical quadrature components. Both these components are digitally recorded in the aircraft with a sensitivity of 0.1 percent. The total field yields peaks over VLF-EM current concentrations

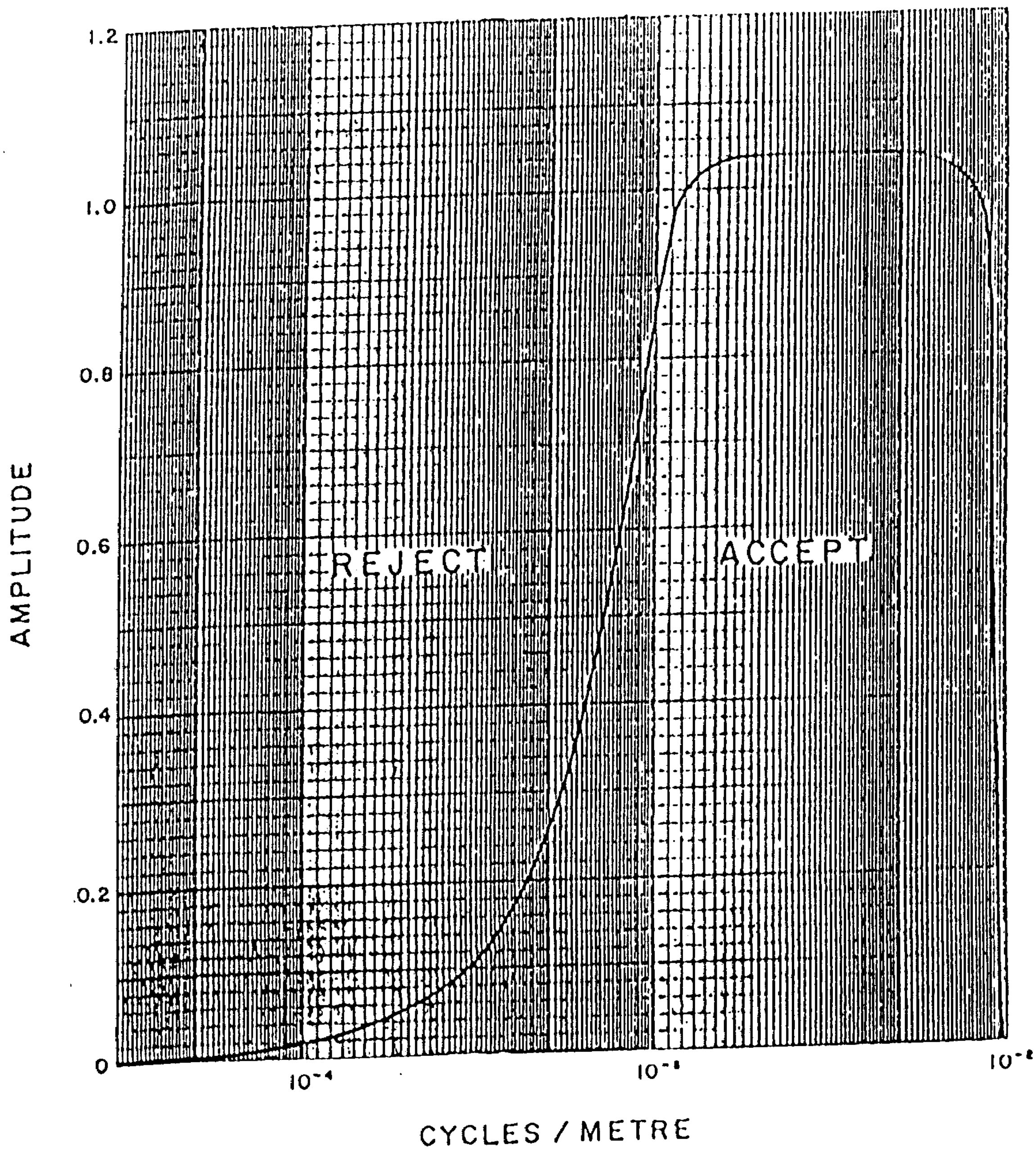

Figure 3 Frequency response of VLF-EM operator.

whereas the quadrature component tends to yield crossovers. Both appear as traces on the profile records. The total field data also are filtered digitally and displayed on a contour map, to facilitate the recognition of trends in the rock strata and the interpretation of geologic structure.

The response of the VLF-EM total field filter operator in the frequency domain (Figure II-3) is basically similar to that used to produce the enhanced magnetic map (Figure II-2). The two filters are identical along the abscissa but different along the ordinant. The VLF-EM filter removes long wavelengths such as those which reflect regional and wave transmission variations. The filter sharpens short wavelength responses such as those which reflect local geological variations. The filtered total field VLF-EM contour map is produced with a contour interval of one percent.

APPENDIX A

THE FLIGHT RECORDS

Both analog and digital flight records were produced. The analog profiles were recorded on chart paper in the aircraft during the survey. The digital profiles were generated later by computer and plotted on electrostatic chart paper at a scale of 1:10,000. The analog and digital profiles are listed in Tables A-1 and A-2 respectively.

In Table A-2, the log resistivity scale of 0.06 decade/mm means that the resistivity changes by an order of magnitude in 16.5 mm. The resistivities at 0, 33 and 67 mm up from the bottom of the digital flight record are respectively 1, 100 and 10,000 ohm-m.

FLIGHT PATH RECOVERY

Aircraft positioning and post survey recovery of aircraft position was accomplished through the use of a Del Norte Flying Flagman positioning system. This electronic navigation system operates in the 8 gHz band and is therefore range limited by hills and by the curvature of the earth.

Table A-1. The Analog Profiles

Channel Number	Parameter	Sensitivity per mm	Designation on digital profile
01	coaxial inphase (900 Hz)	5,0 ppm	CXI (900 Hz)
02	coaxial quad (900 Hz)	5.0 ppm	CXQ (900 Hz)
03	coplanar inphase (900 Hz)	2.5 ppm	CPI (900 Hz)
04	coplanar quad (900 Hz)	2.5 ppm	CPQ (900 Hz)
05	coplanar inphase (7200 Hz)	5.0 ppm	CPI (7200 Hz)
06	coplanar quad (7200 Hz)	5.0 ppm	CPQ (7200 Hz)
09	altimeter	3 m	ALT
00,10	magnetics, coarse	10 nT	MAG
11	magnetics, fine	2 nT	

Table A-2. The Digital Profiles

Channel Name (Freq)	Observed parameters	Scale units/mm
MAG	magnetics	10 nT
ALT	bird height	6 m
CXI (900 Hz)	vertical coaxial coil-pair inphase	2 ppm
CXQ (900 Hz)	vertical coaxial coil-pair quadrature	2 ppm
CXS (900 Hz)	ambient noise monitor (coaxial receiver)	2 ppm
CPI (900 Hz)	horizontal coplanar coil-pair inphase	2 ppm
CPQ (900 Hz)	horizontal coplanar coil-pair quadrature	2 ppm
CPI (7200 Hz)	horizontal coplanar coil-pair inphase	2 ppm
CPQ (7200 Hz)	horizontal coplanar coil-pair quadrature	2 ppm
	Computed Parameters	
DIFI (900 Hz)	difference function inphase from CXI and CPI	2 ppm
DIFQ (900 Hz)	difference function quadrature from CXQ and CPQ	2 ppm
SIGT	conductance	1 grade
RES (900 Hz)	log resistivity	.06 decade
RES (7200 Hz)	log resistivity	.06 decade
DP (900 Hz)	apparent depth	6 m
DP (7200 Hz)	apparent depth	6 m

The flying Flagman uses two ground bases transponder stations which transmit distance information back to the helicopter. The onboard Central Processing Unit then takes the two distances and determines the helicopter position relative to the two ground stations. This is accomplished once every second. The ground stations are set up well away from the survey area and are positioned such that the signals cross the survey blocks at an angle between 30° and 150°. After site selection, a baseline is flown at right angles to a line drawn through the transmitter sites to establish an arbitrary coordinate system for the survey area. The distance from each ground transmitter site (range-range) is continuously recorded digitally.

The range-range data is transposed during data processing into an arbitrary x-y coordinate system based on the location of the two transmitter sites. They x-y grid is transferred to the base map by correlating a number of prominent topographical features to the navigational data points. The use of numerous visual tie-in points serves two purposes: the correct for distortions in the photomosaic (if any) and to accurately relate the navigation data to the map sheet.

APPENDIX B

STATEMENT OF QUALIFICATIONS

I, Douglas C. Fraser, of the City of Mississauga, Ontario, Canada do hereby certify that:

1. I am a geophysicist residing at 3191 Cedartree Cres., Mississauga, Ontario.

2. I am a graduate of the University of New Brunswick with a B.A. Sc. degree (1957) and a M.A. Sc degree (1960) in Geology, and of the University of California with a Ph.D. degree (1966) in Geophysics.

3. I have been practising my profession since January 1966.

4. I am a Professional Engineer of the Province of Ontario.

D.C. Fraser

BB-DCF-916

APPENDIX C

LIST OF PERSONNEL

The following personnel were involved in the acquisition, processing, interpretation and presentation of data, relating to a DIGHEM^{III} airborne geophysical survey carried out for Cogema Canada Ltee./Ltd., over a property in the Burntbush area, Ontario.

Bill Blight	Survey Operations Supervisor
Mike Sandwell	Senior Geophysical Operator
Mark Barry	Second Operator
Tosh Serafini	Pilot (Frontiel Helicopters Ltd.)
John Parsonage	Computer Processor
Doug Fraser	President
Jane Crawford	Word Processing Operator

The survey consisted of 1,148 km of coverage, flown between December 2 to 11, 1986. Geophysical data were compiled utilizing a VAX 11-780 computer.

All personnel are employees of Dighem Surveys & Processing Inc., except for the pilot who is an employee of Frontier Helicopters Ltd.

Ref: Report #263(ON)

BB-DCF-916

APPENDIX D

EM ANOMALY LIST

	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20010	(FLIGHT 49)											
A 831 S	0	3	-1	3	9	19	1	0	1	28	489	0
B 842 S	0	4	-1	6	17	33	1	0	1	69	917	0
C 861 S	0	2	0	5	3	19	1	0	1	97	1035	0
LINE 20020	(FLIGHT 49)											
A 740 S	-2	3	-3	5	15	17	1	0	1	45	785	0
B 722 S?	-2	3	-1	3	6	14	1	0	1	32	304	7
C 709 S	-1	4	-1	6	15	35	1	0	1	63	850	0
D 702 S	-1	4	-1	8	21	43	2	6	1	45	783	0
E 700 S	-1	5	-2	9	26	45	1	0	1	46	777	0
LINE 20030	(FLIGHT 49)											
A 541 S?	-1	3	-2	4	12	23	1	0	1	38	458	10
B 551 S	-2	2	-1	4	12	19	1	0	1	30	405	3
C 561 S	-1	4	-2	5	16	30	1	0	1	60	882	0
D 574 S?	0	5	0	7	13	34	1	0	1	38	771	0
E 585 S	-2	3	-1	6	18	34	1	0	1	57	846	0
LINE 20040	(FLIGHT 49)											
A 517 S?	-3	3	-4	8	12	22	1	0	1	54	814	0
B 504 S	-1	4	-1	1	6	10	1	0	1	23	286	0
C 492 S	0	6	-1	9	30	48	1	0	1	38	751	0
D 482 S?	-1	3	-2	6	21	27	1	0	1	34	742	0
E 473 S?	0	7	0	13	21	50	1	0	1	20	622	0
F 459 S	0	7	-1	12	38	66	1	0	1	28	707	0
G 432 S	-1	4	-3	6	14	11	1	0	1	76	949	0
LINE 20050	(FLIGHT 49)											
A 331 S?	1	2	-3	5	13	22	1	4	1	37	773	0
B 342 S	0	5	-2	3	29	17	1	0	1	24	296	1
C 351 S	0	3	-2	7	26	31	1	0	1	49	837	0
D 358 S?	-1	6	-3	5	29	29	1	0	1	25	145	6
E 364 B	3	11	2	15	49	21	1	0	1	19	649	0
F 375 S	0	4	-1	7	22	39	1	0	1	53	825	0
G 396 S	-5	2	-6	5	4	24	1	0	1	10	2982	0
LINE 20060	(FLIGHT 49)											
A 310 S	1	3	-2	4	13	19	1	0	1	26	241	4
B 300 S?	0	6	-3	5	24	48	1	0	1	47	771	0
C 291 S	0	4	-3	8	25	39	1	0	1	51	822	0
D 283 S?	0	10	-2	8	52	62	1	0	1	7	488	0

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20060 (FLIGHT 49)												
E 275 D	20	18	35	41	65	64	13	6	1	33	106	3
LINE 20070 (FLIGHT 49)												
A 126 S	3	5	-1	10	18	20	1	0	1	33	746	0
B 131 S?.	2	3	-1	3	14	14	1	0	1	25	277	1
C 144 S?	1	4	-2	5	18	31	1	0	1	60	860	0
D 159 S?	0	11	-1	28	98	112	1	0	1	1	422	0
E 163 S	1	5	0	10	36	75	1	0	1	13	556	0
F 165 D	7	1	7	10	36	74	14	29	1	26	655	0
G 169 B?	3	10	1	15	44	35	1	0	1	24	581	0
H 176 S	2	2	-2	5	12	29	1	0	1	27	611	0
LINE 20080 (FLIGHT 48)												
A 2020 S	0	5	0	8	29	44	1	0	1	48	825	0
B 2014 S?	-1	6	0	8	39	53	1	0	1	31	728	0
C 1984 S?	-1	14	0	23	84	30	1	0	1	7	480	0
D 1977 D	3	4	5	9	30	77	4	20	1	43	374	0
E 1973 B?	0	9	6	15	44	67	1	0	1	34	328	0
F 1965 S	-1	4	0	5	12	28	1	0	1	36	414	9
G 1925 S	-1	4	0	5	16	14	1	0	1	60	863	0
LINE 20090 (FLIGHT 48)												
A 1834 S?	-4	5	-1	8	23	37	1	0	1	46	811	0
B 1859 S?	-4	9	0	16	58	56	1	0	1	14	622	0
C 1866 B?	-1	5	2	8	28	38	1	0	1	41	530	0
LINE 20100 (FLIGHT 48)												
A 1806 S?	-4	3	-1	4	13	18	1	0	1	47	293	21
B 1774 S?	-4	9	0	18	63	46	1	0	1	12	595	0
C 1765 B?	-4	5	0	6	22	27	1	0	1	64	837	0
D 1756 S?	-4	3	-1	6	13	27	1	7	1	86	979	0
LINE 20110 (FLIGHT 48)												
A 1623 S?	-6	2	-2	3	12	15	1	0	1	35	295	8
B 1650 S?	-6	6	0	12	44	45	1	0	1	26	736	0
C 1654 D	-2	6	3	5	12	3	3	10	1	55	812	0
D 1664 S?	-4	3	-1	4	13	23	1	0	1	34	469	5
LINE 20120 (FLIGHT 48)												
A 1597 S?	-7	4	-3	8	19	25	1	0	1	52	806	0
B 1563 S?	-6	7	-2	13	43	55	1	0	1	27	710	0

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20120	(FLIGHT 48)											
C 1558 D	11	17	16	17	38	21	7	0	1	37	334	0
LINE 20130	(FLIGHT 48)											
A 1428 S	-8	3	-4	4	12	24	1	0	1	32	388	5
B 1446 S?	-8	3	-2	4	16	13	1	0	1	45	184	20
C 1450 D	3	7	13	8	19	16	9	8	1	48	475	0
LINE 20140	(FLIGHT 48)											
A 1382 S	-9	3	-5	4	12	12	1	0	1	30	357	5
B 1359 S?	-7	4	-2	5	15	15	1	0	1	41	225	17
C 1352 D	0	5	5	6	17	31	6	23	1	63	863	0
LINE 20150	(FLIGHT 48)											
A 1212 S	-8	3	-3	6	19	26	1	0	1	79	943	0
B 1230 S?	-7	4	-3	5	11	15	1	0	1	32	203	10
C 1235 D	-3	4	3	3	8	19	6	29	1	74	927	0
D 1250 S?	-7	5	-3	8	21	46	1	0	1	68	878	0
E 1274 S	-6	3	-2	5	17	29	1	11	1	117	1035	0
LINE 20160	(FLIGHT 48)											
A 1170 S	-8	3	-3	6	15	32	1	0	1	66	867	0
B 1146 S?	-7	7	-2	8	39	13	1	0	1	22	666	0
C 1122 S?	-8	4	-2	7	22	44	1	0	1	66	867	0
D 1094 S	-6	4	-1	5	5	29	1	0	1	98	1035	0
LINE 20170	(FLIGHT 48)											
A 1017 S?	-8	2	-2	4	11	20	1	0	1	40	718	6
B 1025 S?	-6	13	-1	13	59	45	1	0	1	12	563	0
C 1045 S?	-8	3	-2	7	11	40	1	0	1	78	922	0
D 1053 S?	-7	3	-2	5	13	28	1	0	1	35	536	6
LINE 20180	(FLIGHT 48)											
A 964 S	-5	2	-1	4	14	22	1	0	1	33	612	2
B 940 S?	-4	10	0	20	75	10	1	0	1	11	492	0
C 915 S?	-4	3	-1	5	14	28	1	0	1	82	938	0
LINE 20190	(FLIGHT 48)											
A 746 S?	-2	10	0	17	47	30	1	0	1	18	683	0
B 753 S	-2	3	0	4	13	15	1	0	1	31	278	6
C 775 S?	-3	7	-1	12	32	69	1	0	1	45	773	0
LINE 20200	(FLIGHT 48)											
A 668 S?	-5	3	-2	4	8	23	1	0	1	39	1109	4

* ESTIMATED DEPTH MAY BE UNRELIABLE BECAUSE THE STRONGER PART OF THE CONDUCTOR MAY BE DEEPER OR TO ONE SIDE OF THE FLIGHT LINE, OR BECAUSE OF A SHALLOW DIP OR OVERBURDEN EFFECTS.

	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20200 (FLIGHT 48)												
B 626 S?	-4	2	-1	4	11	18	1	0	1	27	397	1
C 616 S?	-5	5	-2	8	13	7	1	0	1	68	882	0
LINE 20210 (FLIGHT 48)												
A 516 S?	-7	3	-2	4	9	23	1	0	1	138	1035	0
B 526 S?	-6	6	-1	11	43	39	1	0	1	27	708	0
C 548 S?	-5	7	-1	12	37	59	1	0	1	31	730	0
D 579 S	-4	3	-1	5	12	16	1	0	1	61	972	0
LINE 20220 (FLIGHT 48)												
A 408 S?	-7	6	0	9	27	44	1	0	1	38	749	0
B 399 S?	-6	2	-1	4	10	22	1	0	1	34	424	7
LINE 20230 (FLIGHT 48)												
A 321 S	-7	5	1	8	28	34	1	0	1	17	582	0
B 333 S?	-7	5	0	7	22	38	1	0	1	49	819	0
C 348 S	-7	5	0	9	22	52	1	0	1	38	756	0
LINE 20240 (FLIGHT 48)												
A 171 S	-2	6	0	5	38	52	1	0	1	17	632	0
LINE 20250 (FLIGHT 47)												
A 2507 S	0	3	-1	5	17	25	1	0	1	82	954	0
B 2492 S	1	6	1	9	33	38	1	0	1	12	565	0
C 2488 S	2	7	2	12	44	46	1	0	1	9	412	0
D 2470 S	1	5	1	10	42	23	1	0	1	11	572	0
E 2458 S	1	3	1	14	53	38	1	0	1	19	633	0
F 2454 S	2	6	1	11	35	48	1	0	1	22	610	0
LINE 20260 (FLIGHT 47)												
A 2375 S	0	4	0	5	6	15	1	0	1	64	878	0
B 2402 S	1	1	1	3	69	10	1	0	1	26	100	9
C 2406 S	2	4	1	8	32	35	1	8	1	12	524	0
D 2412 S	2	9	2	9	38	30	1	0	1	8	488	0
E 2429 S	1	2	1	11	37	27	1	5	1	15	557	0
LINE 20270 (FLIGHT 47)												
A 2324 S?	0	5	-2	9	22	53	1	0	1	50	775	0
B 2287 S	1	7	0	11	36	58	1	0	1	27	680	0
C 2281 S	1	6	1	13	48	55	1	0	1	10	526	0
LINE 20280 (FLIGHT 47)												
A 2166 S?	0	5	-1	6	36	29	1	10	1	28	685	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20280 (FLIGHT 47)												
B 2197 D	7	10	9	15	27	23	5	7	1	19	382	0
C 2212 S	2	4	0	7	17	36	1	2	1	36	751	0
LINE 20290 (FLIGHT 47)												
A 1995 S	0	5	0	12	38	57	1	0	1	24	661	0
B 1962 D	4	11	3	3	14	17	3	11	1	13	516	0
C 1932 S	0	2	0	5	14	22	1	5	1	34	771	0
LINE 20300 (FLIGHT 47)												
A 1849 S	0	10	1	21	81	56	1	0	1	2	444	0
B 1864 S	0	6	1	9	38	46	1	0	1	21	566	0
C 1896 S	0	2	0	3	10	12	1	0	1	33	157	11
D 1908 S	1	8	2	13	66	70	1	0	1	5	506	0
LINE 20310 (FLIGHT 47)												
A 1796 S	-1	6	0	4	50	19	1	0	1	23	88	7
B 1766 D	6	11	6	13	34	27	4	2	1	26	388	0
LINE 20320 (FLIGHT 47)												
A 1625 S	-1	2	-2	5	14	20	1	0	1	33	240	8
B 1634 S	-2	7	-2	10	36	52	1	0	1	29	723	0
C 1654 S	-2	3	-1	7	24	14	1	0	1	37	777	0
D 1665 D	5	12	7	16	43	48	3	0	1	17	503	0
E 1683 S	-2	7	0	12	39	65	1	0	1	37	752	0
LINE 20330 (FLIGHT 47)												
A 1607 S	-2	5	-2	7	14	35	1	0	1	48	811	0
B 1600 S	-2	3	-2	4	9	11	1	0	1	30	312	5
C 1574 S	-2	2	-1	4	12	20	1	0	1	36	291	10
D 1564 B?	-2	5	1	10	27	45	1	0	1	36	623	0
E 1551 S	-2	4	-1	5	23	28	1	0	1	29	296	5
LINE 20340 (FLIGHT 47)												
A 1432 S	-1	2	-1	4	10	20	1	0	1	37	367	9
B 1458 S	-2	5	0	8	22	41	1	0	1	41	769	0
C 1465 B?	1	8	1	9	34	36	1	0	1	25	577	0
D 1482 S	-2	3	-1	6	13	23	1	0	1	72	882	0
E 1511 S	-1	8	1	10	44	60	1	0	1	7	500	0
LINE 20350 (FLIGHT 47)												
A 1383 S	0	4	0	7	25	36	1	0	1	38	761	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20350	(FLIGHT	47)										
B 1377 D	7	9	11	11	25	13	7	8	1	47	312	1
C 1343 S?	-1	5	0	8	14	38	1	0	1	31	749	0
LINE 20360	(FLIGHT	47)										
A 1266 S?	-1	5	-1	9	24	39	1	0	1	38	749	0
B 1272 S	0	6	0	4	18	28	1	0	1	37	208	14
C 1279 D	4	7	6	10	24	18	4	9	1	40	401	0
D 1315 S?	-1	3	0	5	15	10	1	6	1	35	752	0
LINE 20370	(FLIGHT	47)										
A 1192 S?	0	3	0	5	16	22	1	0	1	28	231	5
B 1186 D	3	6	5	7	20	17	3	8	1	44	388	0
C 1181 D	4	6	4	6	17	18	5	8	1	39	286	0
D 1153 S	0	2	0	3	9	11	1	0	1	39	238	13
E 1136 S	0	3	1	6	24	22	1	0	1	43	668	0
LINE 20380	(FLIGHT	47)										
A 1012 S	-2	7	-2	14	40	72	1	0	1	37	725	0
B 1025 D	9	10	15	15	36	17	9	8	1	56	138	16
C 1030 D	2	10	3	11	34	63	2	0	1	22	502	0
D 1034 S	-1	9	0	14	40	74	1	0	1	32	701	0
E 1078 S	0	5	0	7	25	40	1	0	1	55	860	0
LINE 20390	(FLIGHT	47)										
A 958 S	-2	8	-1	16	56	72	1	0	1	19	628	0
B 954 S	-1	10	-1	20	64	83	1	0	1	13	526	0
C 944 D	9	6	15	10	25	12	15	11	1	53	277	6
D 917 S	-2	3	-2	4	13	3	1	0	1	42	348	14
LINE 20400	(FLIGHT	47)										
A 803 S	-4	3	-2	7	43	20	1	8	1	15	560	0
B 807 S	-3	12	-3	20	72	97	1	0	1	15	520	0
C 817 D	2	7	5	8	20	10	2	4	1	43	785	0
D 832 S	-3	4	-3	7	20	43	1	0	1	60	840	0
E 842 S	-3	4	-3	8	21	44	1	3	1	66	853	0
F 846 S	-3	4	-3	7	17	37	1	1	1	67	882	0
LINE 20410	(FLIGHT	47)										
A 768 S?	-3	6	-4	10	11	52	1	0	1	56	853	0
B 758 S?	-5	4	-6	5	14	26	1	0	1	27	206	5
C 753 S?	-4	9	-4	13	45	57	1	0	1	19	628	0

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20410	(FLIGHT 47)											
D 732 B?	0	8	0	13	41	40	1	0	1	12	588	0
E 718 S	-3	2	-4	4	13	13	1	0	1	30	322	5
F 710 S	-3	3	-4	3	11	17	1	0	1	49	346	20
LINE 20420	(FLIGHT 47)											
A 588 S?	-7	3	-7	4	12	23	1	0	1	29	264	6
B 594 S?	-6	11	-6	5	33	27	1	0	1	22	103	6
C 608 S?	-6	5	-6	6	26	31	1	0	1	23	652	0
D 614 B?	-2	5	-3	6	31	23	1	3	1	15	593	0
E 637 S	-4	3	-5	6	16	17	1	0	1	82	966	0
LINE 20430	(FLIGHT 47)											
A 552 S	-4	3	-5	3	8	16	1	0	1	34	250	9
B 541 S?	-4	9	-6	4	61	68	1	0	1	26	107	8
C 537 S	-5	3	-4	19	44	58	1	0	1	7	443	0
D 528 S?	-5	6	-7	8	32	42	1	0	1	21	649	0
E 503 S	-4	4	-5	8	23	43	1	0	1	63	878	0
LINE 20440	(FLIGHT 47)											
A 376 B?	-4	5	-5	6	18	25	1	0	1	67	890	0
B 383 S	-5	11	-7	22	90	120	1	0	1	18	589	0
C 388 S	-3	15	-4	9	61	32	1	0	1	3	382	0
D 399 S?	-3	7	-6	10	36	51	1	0	1	23	702	0
E 425 S	-3	5	-4	4	31	54	1	0	1	28	218	5
F 458 S	-5	4	-5	4	2	22	1	0	1	31	347	4
LINE 20450	(FLIGHT 47)											
A 346 B?	-2	5	-5	4	17	20	1	0	1	43	330	17
B 332 S	-1	8	-2	12	55	51	1	0	1	4	423	0
C 323 S?	-3	10	-4	18	62	76	1	0	1	12	536	0
D 299 S	-2	7	-3	11	17	59	1	0	1	34	735	0
LINE 20460	(FLIGHT 47)											
A 164 B?	1	2	-1	3	7	14	1	0	1	40	370	13
B 211 S	0	4	-1	8	26	19	1	0	1	36	758	0
C 218 S	0	7	-1	8	33	56	1	0	1	27	698	0
LINE 20470	(FLIGHT 46)											
A 2809 S	0	4	1	4	13	22	1	0	1	30	251	6
B 2803 S	0	4	1	6	16	25	1	0	1	44	795	0
LINE 20480	(FLIGHT 46)											
A 2715 B	3	9	2	5	32	14	2	5	1	25	597	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20480	(FLIGHT 46)											
B 2724 S	0	6	1	7	20	39	1	0	1	32	710	0
C 2731 S	1	3	0	6	16	29	1	8	1	37	749	0
LINE 20490	(FLIGHT 46)											
A 2663 S	0	4	0	7	28	13	1	0	1	25	763	0
B 2622 D	7	13	7	18	51	41	4	0	1	13	398	0
C 2616 S	1	6	0	8	25	47	1	0	1	43	794	0
D 2610 S	0	3	0	3	11	22	1	0	1	37	322	10
LINE 20500	(FLIGHT 46)											
A 2494 S	0	2	0	3	34	15	1	0	1	26	90	10
B 2518 D	14	20	15	24	68	17	7	4	1	28	211	0
C 2531 B?	1	5	0	5	15	34	1	0	1	34	339	8
D 2567 S	1	4	0	8	8	10	1	0	1	60	871	0
LINE 20510	(FLIGHT 46)											
A 2424 D	14	7	16	8	15	1	25	8	1	55	93	18
B 2399 S	1	2	0	4	11	1	1	0	1	32	353	5
C 2381 S	1	3	0	5	3	25	1	0	1	32	359	5
LINE 20520	(FLIGHT 46)											
A 2266 S	1	4	0	6	23	20	1	0	1	42	811	0
B 2292 S	0	7	0	14	31	30	1	0	1	14	532	0
C 2311 B?	2	9	1	8	22	15	1	0	1	23	598	0
D 2317 D	23	22	30	28	80	52	14	2	2	47	48	19
E 2329 B?	1	5	1	6	13	30	1	1	1	65	834	0
F 2343 S	0	6	0	10	14	55	1	0	1	37	732	0
G 2362 S	2	5	-1	6	1	26	1	4	1	58	831	0
LINE 20530	(FLIGHT 46)											
A 2036 B?	1	3	2	6	11	14	2	3	1	43	455	0
B 2032 D	7	7	12	12	35	16	10	7	1	39	204	0
C 2021 D	4	4	4	4	10	8	8	31	1	106	705	10
D 2008 S	2	5	0	6	16	27	2	1	1	96	1035	0
LINE 20540	(FLIGHT 46)											
A 1868 S	-2	3	0	4	13	20	1	0	1	31	277	7
B 1877 S	-2	3	-1	5	19	20	1	0	1	30	234	8
C 1906 S?	2	7	3	10	30	49	2	0	1	33	327	0
D 1911 D	8	7	12	14	41	59	9	5	1	82	124	38
E 1917 D	3	5	7	6	11	11	5	19	1	120	181	65

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20540	(FLIGHT	46)										
F 1923 S?	0	3	2	7	15	26	1	3	1	66	323	15
G 1932 S	-2	6	1	9	28	51	1	0	1	39	725	0
LINE 20550	(FLIGHT	46)										
A 1846 S	-3	4	1	6	19	33	1	0	1	68	903	0
B 1815 S	-1	6	1	5	17	9	1	0	1	30	201	7
C 1809 D	11	8	10	8	16	13	13	7	1	100	74	59
D 1791 S	0	4	0	6	17	29	1	0	1	76	779	0
LINE 20560	(FLIGHT	46)										
A 1665 S	-3	3	-2	4	15	18	1	0	1	49	459	19
B 1701 D	15	12	21	15	33	16	15	0	2	80	35	49
C 1712 S?	1	4	5	9	14	22	2	8	1	81	104	39
D 1721 S	-2	4	1	6	15	32	1	0	1	71	833	0
E 1741 S	-1	3	0	6	8	30	1	6	1	62	781	0
LINE 20570	(FLIGHT	46)										
A 1595 D	3	5	5	5	10	3	5	2	1	100	233	42
B 1587 D	4	4	1	5	12	9	5	12	1	87	288	29
LINE 20580	(FLIGHT	46)										
A 1464 S	-3	3	-2	3	11	17	1	0	1	53	551	21
B 1472 S	-2	5	-2	7	18	41	1	0	1	74	899	0
C 1486 S	-1	7	1	12	27	43	1	0	1	20	659	0
D 1494 S	0	4	1	8	24	36	1	0	1	44	578	0
E 1506 D	3	6	7	11	25	18	4	3	1	60	204	14
F 1519 S	-1	3	0	3	8	18	1	0	1	39	332	11
LINE 20590	(FLIGHT	46)										
A 1428 S	-2	3	0	3	13	18	1	0	1	38	443	7
B 1403 S	-1	4	1	7	22	33	1	0	1	49	634	0
C 1392 D	4	7	5	8	21	14	4	0	1	64	285	11
LINE 20600	(FLIGHT	46)										
A 1217 S	-3	3	-1	6	20	9	1	5	1	70	917	0
B 1239 S	-2	7	1	4	40	18	1	0	1	28	102	10
C 1256 D	4	8	7	12	28	24	4	0	1	40	530	0
LINE 20610	(FLIGHT	46)										
A 1151 S	-1	8	1	12	53	38	1	0	1	20	642	0
B 1135 D	6	10	6	11	23	27	5	0	1	39	358	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20610	(FLIGHT 46)											
C 1123 S	-1	7	2	11	42	4	1	0	1	27	674	0
LINE 20620	(FLIGHT 46)											
A 994 S	-2	2	-1	4	15	20	1	0	1	35	366	7
B 1028 S	-2	9	0	17	61	23	1	0	1	16	589	0
C 1038 B?	1	4	3	5	15	12	1	0	1	53	113	32
D 1044 D	7	12	9	13	22	24	6	10	1	62	189	19
LINE 20630	(FLIGHT 46)											
A 974 S	-1	4	-1	7	20	18	1	0	1	72	922	0
B 943 S	-2	3	-1	6	17	28	1	0	1	63	903	0
C 934 D	5	4	9	5	11	9	13	15	1	73	128	29
D 928 D	6	10	7	10	25	17	5	0	1	49	299	0
E 896 S	0	2	-1	5	14	21	1	0	1	30	215	6
LINE 20640	(FLIGHT 46)											
A 780 S	-3	4	-2	7	19	6	1	0	1	84	927	0
B 824 D	5	4	8	6	18	9	10	27	1	65	174	21
C 830 D	7	9	8	11	26	20	6	10	1	50	312	4
D 831 D	7	9	8	11	26	20	6	13	1	83	71	46
E 843 S	-1	7	1	14	50	45	1	0	1	24	644	0
LINE 20650	(FLIGHT 46)											
A 693 B?	3	6	6	9	22	14	4	12	1	62	140	20
B 687 D	8	9	10	10	25	13	8	5	1	68	107	28
C 675 S	0	6	0	10	36	10	1	0	1	25	758	0
D 658 S	-1	3	-1	6	19	12	1	0	1	39	814	0
LINE 20660	(FLIGHT 46)											
A 586 B?	1	5	7	6	24	19	3	7	1	31	422	0
B 592 D	6	9	8	12	31	14	5	3	1	37	306	0
C 594 D	6	9	8	8	31	14	6	7	1	78	67	41
D 605 S	-2	6	0	13	26	31	1	0	1	21	691	0
E 630 S	0	4	-2	9	6	15	1	0	1	52	809	0
LINE 20670	(FLIGHT 46)											
A 505 B?	3	7	2	9	23	14	2	1	1	60	863	0
B 497 D	9	10	9	9	24	14	8	4	1	36	337	0
C 497 D	9	10	9	12	23	14	7	1	2	72	60	37
D 487 S	-1	5	-1	9	34	38	1	0	1	47	797	0
LINE 20680	(FLIGHT 46)											
A 361 S	-2	2	-3	4	9	19	1	0	1	29	460	2

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20680	(FLIGHT	46)										
B 377 D	2	14	1	16	43	34	2	0	1	28	732	0
C 397 D	6	9	12	14	26	19	6	2	1	52	227	7
D 405 D	12	12	14	15	29	13	10	3	1	43	139	5
E 407 D	12	12	14	16	29	15	10	1	2	67	39	36
LINE 20690	(FLIGHT	46)										
A 297 D	9	17	14	24	54	24	5	4	1	30	545	0
B 281 D	2	3	4	3	9	2	6	11	1	127	1035	0
C 274 D	12	10	13	13	37	21	11	0	1	49	136	8
D 273 B	12	10	13	13	37	21	11	0	2	72	33	42
E 245 S	0	3	0	2	7	1	1	0	1	37	171	14
LINE 20700	(FLIGHT	45)										
A 3342 S	0	3	0	5	18	27	1	0	1	120	1035	0
B 3356 D	5	9	9	13	33	15	5	0	1	49	607	0
C 3377 D	11	6	15	8	22	8	21	9	1	82	96	40
D 3378 B	11	6	15	8	22	7	21	11	3	89	16	63
E 3414 S?	-1	4	0	5	17	26	1	0	1	100	1035	0
LINE 20711	(FLIGHT	45)										
A 3296 S	0	3	0	5	18	25	1	0	1	35	467	6
B 3294 S	0	4	0	6	3	31	1	0	1	93	1006	0
C 3280 D	4	13	7	17	38	32	3	0	1	35	682	0
D 3260 D	11	5	13	8	22	11	21	19	1	92	87	51
E 3259 B	11	5	13	8	22	11	22	19	3	98	17	71
F 3234 S	0	4	1	7	20	1	1	0	1	36	482	0
G 3219 S?	0	4	0	6	19	33	1	0	1	89	974	0
LINE 20721	(FLIGHT	45)										
A 2517 S	1	3	0	4	15	23	1	0	1	29	423	2
B 2509 S	1	3	0	5	18	27	1	0	1	46	804	0
C 2491 D	4	5	3	4	10	4	5	17	1	82	979	0
D 2467 B	6	2	6	3	5	23	26	43	1	88	72	50
E 2422 S?	1	4	1	6	24	30	1	0	1	29	692	0
LINE 20730	(FLIGHT	45)										
A 2198 S	-1	5	-1	8	26	2	1	0	1	58	874	0
B 2193 S	-2	2	-1	5	15	24	1	0	1	34	752	0
C 2145 S	0	3	1	6	22	17	1	0	1	15	530	0
D 2117 S?	0	5	0	8	26	5	1	0	1	34	787	0
E 2113 S	0	3	1	7	23	26	1	0	1	35	736	0

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20740	(FLIGHT	45)										
A 2012 S	-3	4	-1	8	14	35	1	0	1	35	783	0
B 2063 S	0	4	1	6	22	25	1	0	1	17	658	0
LINE 20750	(FLIGHT	45)										
A 1979 S	-4	7	-2	13	44	57	1	0	1	11	584	0
B 1956 B?	-1	4	-1	4	8	18	1	0	1	52	267	25
C 1947 S	-1	3	0	5	15	18	1	0	1	32	164	9
D 1927 S	0	6	1	4	28	29	1	0	1	16	657	0
E 1903 S	0	4	0	5	21	23	1	0	1	32	781	0
LINE 20760	(FLIGHT	45)										
A 1788 S	-1	3	-1	6	22	26	1	0	1	55	922	0
B 1791 S	-1	3	-1	5	12	20	1	0	1	43	874	0
C 1842 S	-2	6	0	10	33	36	1	0	1	17	723	0
LINE 20771	(FLIGHT	45)										
A 1761 S	-1	6	-1	9	30	43	1	0	1	36	797	0
B 1759 S	-2	5	-2	11	37	44	1	0	1	19	712	0
C 1752 S?	-1	3	-2	4	11	19	1	0	1	33	375	5
D 1704 S	0	4	1	9	34	14	1	0	1	8	596	0
E 1689 S	-1	3	0	4	16	19	1	0	1	25	167	4
LINE 20780	(FLIGHT	45)										
A 1472 S	1	11	0	20	69	93	1	0	1	8	550	0
B 1463 S?	-1	4	-1	5	16	27	1	0	1	69	890	0
C 1415 S	0	9	2	16	59	67	1	0	1	3	503	0
LINE 20790	(FLIGHT	45)										
A 1196 S	-1	5	-2	3	44	43	1	0	1	20	110	2
B 1198 S	-1	4	-1	5	23	7	1	0	1	13	663	0
C 1209 S?	-2	3	-3	5	18	26	1	0	1	58	878	0
D 1252 S	-1	8	0	14	44	51	1	0	1	7	615	0
E 1259 B	1	14	1	11	36	43	1	0	1	24	709	0
LINE 20800	(FLIGHT	45)										
A 1178 S	-2	8	-2	13	40	61	1	0	1	8	586	0
B 1165 S?	-3	4	-4	9	28	29	1	0	1	22	694	0
C 1120 S	-1	8	-3	1	46	3	1	0	1	20	131	2
D 1112 D	4	14	1	14	27	25	2	0	1	37	758	0
E 1086 S	-1	4	-5	8	21	45	1	0	1	51	834	0
LINE 20810	(FLIGHT	45)										
A 1042 D	4	7	2	7	13	5	5	9	1	94	1029	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20810	(FLIGHT	45)										
B 1055 S	-1	4	-5	6	20	21	1	0	1	63	903	0
LINE 20830	(FLIGHT	45)										
A 757 S	-3	4	-5	7	27	1	1	0	1	14	706	0
B 824 S	-1	4	-5	7	21	33	1	0	1	26	765	0
LINE 20840	(FLIGHT	44)										
A 2981 S?	1	4	0	6	5	26	1	0	1	72	966	0
B 2992 S	1	4	1	8	15	27	1	0	1	43	645	0
C 3013 S	1	6	0	10	35	51	1	0	1	41	738	0
D 3029 S	0	6	1	11	42	45	1	0	1	28	580	0
LINE 20850	(FLIGHT	44)										
A 2947 S	-1	3	-2	6	9	37	1	2	1	104	1035	0
B 2929 S?	1	6	1	11	13	15	1	0	1	41	739	0
C 2905 S	1	4	1	8	28	9	1	1	1	33	631	0
D 2901 S	1	3	1	3	17	13	1	0	1	27	176	6
E 2897 S	0	5	1	9	27	48	1	0	1	55	724	0
F 2881 S	2	10	2	19	74	72	1	0	1	12	449	0
G 2865 S	0	6	0	10	31	59	1	0	1	48	787	0
LINE 20860	(FLIGHT	44)										
A 2789 S?	1	5	0	9	11	39	1	0	1	57	856	0
B 2796 S	1	3	1	4	17	20	1	0	1	39	202	16
C 2811 S	0	4	1	7	20	31	1	0	1	45	642	0
D 2837 S	2	7	2	11	60	46	1	0	1	27	531	0
E 2849 S?	0	5	0	9	28	48	1	0	1	50	837	0
LINE 20870	(FLIGHT	44)										
A 2748 S?	1	3	-1	5	8	31	1	6	1	124	1035	0
B 2734 S	2	5	1	8	27	32	1	0	1	61	871	0
C 2713 S	2	3	0	5	20	17	2	17	1	38	742	0
D 2693 S	1	4	0	6	10	33	1	0	1	57	843	0
E 2690 D	4	3	0	3	22	24	4	42	1	98	979	1
F 2686 S	2	11	3	16	80	72	1	0	1	11	395	0
G 2671 S	1	3	-1	5	22	27	1	0	1	26	320	1
LINE 20880	(FLIGHT	44)										
A 2594 S?	1	4	0	6	20	26	1	0	1	81	972	0
B 2614 S	1	2	0	3	14	13	1	0	1	32	267	8
C 2632 S	1	4	0	7	25	43	1	0	1	50	817	0

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20880	(FLIGHT	44)										
D 2642 S	3	2	2	20	83	10	2	0	1	3	489	0
E 2651 S	1	3	0	7	19	31	1	0	1	52	828	0
LINE 20890	(FLIGHT	44)										
A 2537 S?	2	3	3	4	17	18	1	0	1	52	347	23
B 2521 S	2	3	1	5	14	26	1	0	1	28	302	2
C 2497 S	1	6	1	10	30	16	1	0	1	52	727	0
D 2486 S	2	15	3	25	99	107	1	0	1	14	395	0
LINE 20900	(FLIGHT	44)										
A 2392 D	3	3	5	7	14	7	5	18	1	190	1035	0
B 2408 S	1	2	1	3	12	21	1	0	1	36	281	10
C 2430 S	1	3	0	5	16	33	1	0	1	95	1014	0
D 2436 D	6	6	7	5	15	8	10	23	1	172	978	26
E 2443 S	2	8	2	5	55	60	1	0	1	29	411	0
LINE 20910	(FLIGHT	44)										
A 2343 D	5	6	9	14	34	9	6	12	1	150	101	101
B 2342 D	11	9	21	11	21	9	17	17	1	93	64	56
C 2324 S	1	3	1	3	12	14	1	0	1	36	305	10
D 2294 D	2	6	2	4	12	14	2	12	1	142	1035	0
E 2286 S	1	7	2	12	47	49	1	0	1	27	433	0
LINE 20920	(FLIGHT	44)										
A 1971 D	4	3	13	7	20	5	13	13	1	136	81	89
B 1972 B	4	3	13	7	20	7	14	24	4	108	13	83
C 1993 S	-1	4	1	6	22	32	1	0	1	35	531	0
D 2006 S	-1	3	1	4	11	22	1	0	1	34	330	8
E 2015 B	0	5	2	5	17	27	1	0	1	63	529	0
F 2022 S	0	5	1	8	34	27	1	0	1	28	390	0
LINE 20930	(FLIGHT	44)										
A 1926 B	1	2	8	4	14	7	9	40	3	141	17	111
B 1902 S	-1	2	1	11	40	71	1	4	1	14	514	0
C 1870 S	-1	5	2	9	37	31	1	0	1	22	424	0
LINE 20940	(FLIGHT	44)										
A 1796 S	-2	0	2	23	76	36	1	0	1	16	379	0
B 1814 D	5	7	10	7	16	22	8	16	1	83	192	34
C 1818 D	-1	6	3	6	16	17	2	9	1	70	890	0
D 1822 S	-2	4	0	7	21	35	1	0	1	34	548	0

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 20940	(FLIGHT 44)											
E 1827 S	-2	5	1	9	33	35	1	0	1	21	418	0
F 1841 S	-2	3	1	3	15	24	1	0	1	27	308	2
LINE 20950	(FLIGHT 44)											
A 1709 S	-2	7	2	13	51	16	1	0	1	21	366	0
B 1698 S	-2	5	1	8	29	38	1	0	1	36	567	0
C 1681 S	-3	4	1	7	24	33	1	0	1	28	559	0
D 1677 S	-3	6	1	11	37	48	1	0	1	20	529	0
LINE 20960	(FLIGHT 44)											
A 1584 D	4	5	12	9	23	3	9	22	1	95	156	47
B 1602 S	-3	8	2	12	60	72	1	0	1	8	463	0
C 1614 S	-3	5	1	11	43	39	1	0	1	17	576	0
D 1646 S	-3	2	0	4	15	23	1	0	1	28	248	4
LINE 20970	(FLIGHT 44)											
A 1541 B?	-2	3	1	4	11	5	1	0	1	60	248	32
B 1530 D	11	7	31	15	39	10	25	18	2	107	31	76
C 1529 B	11	7	31	15	39	10	25	21	5	84	7	66
D 1497 S	-3	6	0	10	42	35	1	0	1	18	661	0
E 1480 S	-3	4	0	7	26	32	1	0	1	24	699	0
F 1462 S	-2	4	-1	5	14	27	1	0	1	56	837	0
LINE 20980	(FLIGHT 44)											
A 1371 B?	-2	3	2	4	10	16	1	0	1	52	257	26
B 1381 D	25	6	44	9	24	13	96	10	4	94	13	70
C 1397 S	-2	9	2	15	56	59	1	0	1	10	488	0
D 1400 S	-2	7	1	10	33	39	1	0	1	14	541	0
E 1411 S	-3	5	0	8	47	35	1	0	1	17	640	0
F 1423 S?	-3	4	-1	8	26	24	1	0	1	34	733	0
G 1426 S	-2	3	0	6	24	21	1	0	1	23	708	0
H 1442 S	-2	7	-1	12	37	67	1	0	1	30	712	0
LINE 20990	(FLIGHT 44)											
A 1343 B?	0	4	5	7	20	11	2	6	1	67	159	23
B 1335 D	6	8	13	11	33	6	9	18	1	72	198	26
C 1333 D	16	6	21	3	7	8	58	21	1	81	71	44
D 1315 S	-1	15	2	26	91	118	1	0	1	9	374	0
E 1312 S	-2	10	2	18	62	18	1	0	1	10	383	0
F 1300 S	-2	6	1	3	45	7	1	0	1	27	120	8
G 1287 S	-2	8	1	14	55	58	1	0	1	15	564	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 20990 (FLIGHT 44)												
H 1274 S	-2	3	0	4	12	25	1	0	1	26	258	4
I 1268 S	-2	5	0	10	33	53	1	0	1	32	733	0
LINE 21000 (FLIGHT 44)												
A 1178 B?.	-1	2	4	4	12	7	1	0	1	54	221	29
B 1186 D	8	7	13	10	18	16	11	16	1	82	182	34
C 1188 D	8	6	13	9	6	9	14	20	1	62	169	20
D 1204 S	-1	9	2	16	62	20	1	0	1	17	317	0
E 1230 S	-1	4	2	17	71	64	1	0	1	14	517	0
F 1238 S?	-1	4	0	6	14	32	1	5	1	58	831	0
G 1245 S	-3	8	1	14	49	69	1	0	1	23	572	0
LINE 21010 (FLIGHT 44)												
A 1097 D	6	5	8	5	14	3	11	29	1	92	321	35
B 1095 D	5	5	8	5	14	6	11	30	1	59	822	0
C 1066 S	-1	6	1	11	38	47	1	0	1	16	444	0
D 1053 D	0	8	1	11	48	74	2	11	1	81	890	0
E 1050 S	1	7	4	5	66	78	1	0	1	27	62	12
F 1034 S	-1	7	1	12	42	51	1	0	1	28	577	0
LINE 21020 (FLIGHT 44)												
A 929 S?	0	4	4	5	13	14	1	5	1	75	179	28
B 984 S	0	7	4	25	101	86	1	0	1	19	295	0
C 994 S?	-1	3	1	3	10	23	1	0	1	32	357	7
D 998 S	-1	4	1	8	22	44	1	0	1	45	647	0
LINE 21030 (FLIGHT 44)												
A 905 S	-2	3	2	7	19	26	1	0	1	49	365	0
B 891 B?	3	4	3	6	17	14	3	20	1	70	229	22
C 874 S	-1	5	1	5	25	8	1	0	1	29	87	12
D 868 S	-1	5	1	9	32	25	1	0	1	22	289	0
E 863 S	-1	7	2	13	46	49	1	0	1	17	330	0
F 845 S	0	16	4	28	106	99	1	0	1	18	270	0
G 835 S?	-2	3	1	5	16	29	1	0	1	48	599	0
LINE 21040 (FLIGHT 44)												
A 723 S	-1	3	2	5	14	32	1	0	1	39	256	14
B 729 B	2	3	6	5	14	3	5	22	1	93	65	54
C 738 B?	1	4	1	4	8	12	1	0	1	79	96	57
D 758 S	-2	7	2	11	44	36	1	0	1	22	282	0
E 764 S	-2	6	1	2	31	21	1	0	1	27	104	10

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 21040	(FLIGHT 44)											
F 780 S?	0	13	3	18	70	72	1	0	1	21	341	0
G 791 S?	-2	5	1	8	27	33	1	0	1	42	664	0
LINE 21050	(FLIGHT 44)											
A 703 S	-1	5	2	8	14	28	1	0	1	40	509	0
B 696 B	5	4	9	8	17	4	9	24	2	89	36	57
C 662 S	-1	5	1	8	32	30	1	0	1	17	362	0
D 653 S	-1	5	1	2	47	35	1	0	1	26	119	9
E 639 D	17	19	19	26	9	70	9	6	1	38	113	5
F 629 S?	-2	4	1	7	21	36	1	2	1	53	734	0
LINE 21060	(FLIGHT 44)											
A 510 S	-2	2	-2	2	13	15	1	0	1	36	303	10
B 519 B	7	4	14	9	22	8	16	20	2	77	38	46
C 520 B	7	3	14	9	6	8	19	25	3	93	17	67
D 527 B	4	3	17	7	15	10	20	27	3	80	18	55
E 534 D	5	2	7	4	6	3	20	42	1	94	86	54
F 542 S	-2	3	1	6	25	18	1	9	1	32	582	0
G 551 S	-1	4	1	6	27	13	1	1	1	18	492	0
H 561 S	-2	5	1	8	34	13	1	0	1	13	497	0
I 574 D	15	11	15	18	18	36	12	6	1	48	93	13
J 584 S?	-2	5	1	8	23	26	1	0	1	49	781	0
LINE 21070	(FLIGHT 44)											
A 488 D	11	6	24	11	39	6	27	18	2	67	44	36
B 487 D	10	6	24	11	39	6	25	17	3	66	20	42
C 479 B	6	4	28	9	24	15	31	25	6	83	5	66
D 472 D	7	2	6	2	10	2	36	32	1	83	108	40
E 467 S	0	5	1	8	33	50	1	0	1	17	491	0
F 464 S	-1	5	1	9	32	10	1	0	1	24	604	0
G 442 S	-1	9	2	16	60	70	1	0	1	8	414	0
H 430 D	11	17	8	18	48	11	5	4	1	58	145	18
I 421 S?	-2	7	1	13	34	53	1	0	1	39	682	0
LINE 21080	(FLIGHT 44)											
A 307 D	16	5	25	12	26	52	38	15	2	61	44	31
B 308 D	16	5	25	12	27	36	38	19	3	71	16	48
C 316 B	7	1	19	3	12	15	127	28	7	87	4	71
D 324 D	7	3	7	4	24	24	21	38	1	85	120	42
E 366 D	7	12	5	2	30	24	5	20	1	45	432	1
F 375 S?	-1	5	0	8	16	27	1	0	1	44	773	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 21080	(FLIGHT 44)											
G 385 S	-2	3	0	5	13	26	1	0	1	64	837	0
LINE 21090	(FLIGHT 44)											
A 283 B	36	17	52	43	89	10	27	10	3	46	15	27
B 281 D	17	1	52	43	89	30	29	9	2	61	39	32
C 280 D	17	8	21	16	13	4	21	16	3	70	21	45
D 265 D	8	6	9	10	44	13	11	19	1	57	140	17
E 231 S	0	4	1	12	40	21	1	0	1	19	593	0
F 220 D	5	8	3	6	21	17	4	19	1	38	660	0
G 211 S?	-1	4	0	7	12	29	1	0	1	50	783	0
LINE 21100	(FLIGHT 43)											
A 356 D	29	8	57	19	48	36	67	0	5	51	8	33
B 357 B	29	8	57	19	48	35	68	0	6	46	4	31
C 369 B	4	2	5	6	13	12	12	41	3	85	20	59
D 374 D	9	1	9	3	2	7	66	22	1	60	129	18
E 415 D	7	7	4	7	12	16	6	14	1	39	310	0
F 423 S?	1	2	1	4	17	12	1	0	1	34	215	10
G 433 S	0	3	1	6	3	31	1	0	1	65	809	0
LINE 21110	(FLIGHT 43)											
A 340 S	-2	4	-2	9	25	48	1	0	1	14	612	0
B 334 D	32	9	83	16	52	76	108	1	10	47	2	36
C 334 D	19	9	83	16	52	19	75	2	7	52	4	37
D 331 D	16	3	22	8	11	19	64	17	3	67	13	45
E 320 B	5	4	8	9	22	21	9	35	2	67	41	38
F 315 D	13	4	11	3	6	10	44	23	1	49	152	10
G 265 B	16	12	8	14	39	23	11	9	1	37	137	3
H 241 S	0	4	0	8	25	27	1	0	1	17	628	0
LINE 21120	(FLIGHT 43)											
A 137 D	28	8	40	8	27	22	82	6	3	51	19	28
B 140 D	16	3	19	5	13	10	91	22	2	61	25	35
C 144 D	5	6	10	11	12	22	7	17	1	39	120	5
D 146 D	9	6	16	16	19	4	12	15	1	43	94	10
E 148 D	7	8	16	16	40	11	8	10	1	40	72	9
F 156 D	17	6	16	7	17	5	39	18	1	57	85	22
G 201 D	24	14	18	16	39	4	20	8	1	52	61	21
H 219 S	1	7	0	15	42	72	1	0	1	14	589	0
LINE 21130	(FLIGHT 42)											
A 3241 D	20	10	24	1	5	19	48	11	2	69	54	36

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 21130	(FLIGHT 42)											
B 3238 D	14	1	2	5	14	28	56	31	2	60	37	32
C 3234 D	7	6	6	3	14	19	12	25	1	33	206	0
D 3230 D	9	7	8	13	27	19	9	14	1	41	79	9
E 3223 D	12	4	14	9	19	18	28	12	3	69	18	44
F 3173 D	17	11	9	11	30	14	15	14	1	55	120	18
G 3154 S	0	4	-1	7	14	18	1	0	1	37	765	0
LINE 21140	(FLIGHT 42)											
A 3055 D	20	7	16	4	54	7	50	15	2	84	58	48
B 3056 D	20	3	16	4	54	7	1	0	1	38	44	22
C 3058 D	12	2	12	3	6	16	123	32	2	64	42	35
D 3061 D	10	9	6	8	18	16	9	15	1	38	139	2
E 3065 D	11	6	13	14	35	18	15	18	1	37	68	8
F 3069 D	14	6	27	7	2	64	46	11	3	50	15	29
G 3110 B	23	13	15	11	26	5	22	5	1	52	61	20
H 3123 S	0	7	0	11	37	60	1	0	1	26	712	0
LINE 21150	(FLIGHT 42)											
A 3035 D	3	8	17	17	2	7	6	8	2	68	49	36
B 3034 B	12	7	17	17	4	13	15	14	2	71	30	44
C 3031 D	12	2	7	6	9	11	39	25	1	50	63	18
D 3027 D	15	6	11	9	16	8	24	18	1	43	106	9
E 3023 D	10	5	11	1	10	35	37	32	1	38	74	9
F 3017 B	10	7	29	15	17	7	20	18	3	54	16	33
G 3013 S	4	2	16	3	48	11	1	0	1	23	69	8
H 2986 S	0	4	1	7	21	27	1	0	1	26	708	0
I 2964 D	23	10	12	9	20	5	29	14	1	63	63	30
J 2952 S	0	3	1	5	18	19	1	0	1	23	155	3
LINE 21160	(FLIGHT 42)											
A 2851 D	9	6	15	11	34	4	15	15	1	86	68	49
B 2852 B	9	5	15	11	34	7	17	13	3	77	25	49
C 2857 D	23	10	19	12	24	31	28	10	1	48	59	18
D 2863 D	9	8	17	17	45	36	11	13	1	36	66	7
E 2905 D	13	4	7	4	13	15	39	19	1	72	140	28
F 2914 S	-1	3	1	4	16	13	1	0	1	25	182	4
LINE 21170	(FLIGHT 42)											
A 2781 D	9	6	9	1	17	9	1	0	1	40	122	20
B 2780 D	9	6	9	1	8	9	23	25	1	78	82	40
C 2776 D	7	3	8	2	4	6	32	32	1	66	122	25

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 21170	(FLIGHT	42)										
D 2773 D	18	11	23	17	41	5	19	3	2	65	39	35
E 2771 D	18	11	23	17	41	21	19	0	3	47	16	25
F 2763 B	8	1	9	6	12	14	37	32	1	45	74	13
G 2734 S	1	3	1	1	17	18	1	0	1	29	145	8
H 2710 D	17	7	11	10	24	12	23	17	1	71	102	32
LINE 21180	(FLIGHT	42)										
A 2588 D	6	5	7	7	10	18	10	4	1	41	353	0
B 2589 D	6	3	7	7	10	18	13	20	1	75	81	36
C 2593 D	6	4	6	7	10	8	11	27	1	69	204	22
D 2597 B	21	10	27	20	46	5	24	1	4	63	11	41
E 2600 D	7	5	18	9	36	62	18	18	1	64	63	30
F 2646 D	11	5	6	6	16	0	17	7	1	57	209	9
G 2655 S	1	4	0	6	20	28	1	5	1	47	777	0
H 2662 S	2	2	0	5	10	12	2	11	1	48	825	0
LINE 21190	(FLIGHT	42)										
A 2569 D	8	4	3	7	15	11	12	26	1	46	354	0
B 2564 B	22	8	14	11	9	8	32	13	3	76	24	49
C 2560 D	9	10	7	12	40	65	7	13	1	53	107	17
D 2557 S	2	5	3	2	42	40	1	0	1	23	90	6
E 2521 S	3	10	0	14	49	83	1	0	1	18	595	0
F 2504 D	11	5	4	4	7	1	19	21	1	47	530	0
G 2491 S	3	3	-1	4	15	19	1	0	1	41	269	17
H 2483 S	2	3	-1	5	16	3	1	0	1	27	259	3
LINE 21200	(FLIGHT	42)										
A 2427 S	2	5	-1	8	25	47	1	0	1	34	746	0
B 2437 D	8	7	4	8	22	20	8	24	1	59	626	0
C 2442 S	3	3	-1	4	14	27	1	0	1	35	277	10
D 2452 S	2	4	-1	5	19	26	1	0	1	44	799	0
LINE 21210	(FLIGHT	42)										
A 2364 B	7	4	17	3	24	8	32	28	2	79	26	51
B 2354 D	7	5	1	5	17	8	7	32	1	45	398	1
C 2353 D	7	5	2	5	17	8	7	31	1	53	302	9
D 2331 S	1	4	-1	4	21	19	1	0	1	31	174	10
E 2292 D	7	6	2	6	18	16	6	25	1	50	785	0
LINE 21220	(FLIGHT	42)										
A 2173 D	6	4	8	6	4	16	14	20	1	78	67	41

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	COAXIAL 900 HZ		COPLANAR 900 HZ		COPLANAR 7200 HZ		VERTICAL DIKE		HORIZONTAL SHEET		CONDUCTIVE EARTH	
ANOMALY/ FID/INTERP	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	REAL PPM	QUAD PPM	COND MHOS	DEPTH* M	COND MHOS	DEPTH M	RESIS OHM-M	DEPTH M
LINE 21220 (FLIGHT 42)												
B 2179 D	10	5	11	9	18	25	18	19	1	68	97	29
C 2180 D	10	5	11	9	18	21	18	15	2	63	53	31
D 2229 D	7	8	4	4	25	20	7	15	1	29	680	0
E 2248 S	3	7	-1	13	41	58	1	0	1	8	546	0
LINE 21230 (FLIGHT 42)												
A 1998 D	5	7	5	8	11	12	5	10	1	57	226	10
B 1988 D	13	4	15	8	18	29	35	25	2	75	54	42
C 1988 D	13	5	15	8	18	22	31	21	2	72	33	43
D 1977 S	0	4	1	7	25	27	1	0	1	14	625	0
E 1925 D	8	6	6	7	6	10	10	16	1	52	208	8
LINE 21240 (FLIGHT 42)												
A 1813 B	9	5	12	10	16	26	15	16	1	70	82	32
B 1814 B	8	5	12	10	16	20	15	12	2	57	49	26
C 1818 S	2	7	4	11	42	56	2	0	1	11	395	0
D 1832 S	2	5	0	8	29	33	1	0	1	25	722	0
E 1858 D	10	7	10	10	24	11	12	13	1	62	152	20
F 1876 S	1	9	0	15	51	69	1	0	1	17	618	0
LINE 21250 (FLIGHT 42)												
A 1773 B	17	12	31	24	47	37	18	9	3	58	16	36
B 1768 S	1	7	3	8	50	45	1	0	1	17	325	0
C 1749 S	0	3	0	5	19	23	1	0	1	33	170	12
D 1718 D	6	8	12	12	10	10	7	7	2	61	57	28
LINE 21260 (FLIGHT 42)												
A 1604 B	18	7	26	16	39	11	29	3	3	56	17	33
B 1624 S	0	3	0	5	11	17	1	0	1	29	176	6
C 1646 D	8	7	9	10	13	17	10	5	1	50	86	14
D 1647 D	8	7	9	10	13	17	10	5	1	51	107	13
E 1668 S	0	7	0	5	46	58	1	0	1	21	144	3
LINE 21270 (FLIGHT 42)												
A 1569 B	21	10	28	16	42	14	28	14	3	62	19	39
B 1516 B	11	7	10	10	20	18	13	12	1	54	68	21
C 1516 B	11	7	11	9	20	17	13	12	1	55	65	22
D 1489 S	0	6	1	6	36	7	1	0	1	18	578	0
LINE 21280 (FLIGHT 42)												
A 1397 B?	1	4	2	5	18	16	1	0	1	38	211	13

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	QUAD PPM	COPLANAR 900 HZ REAL PPM	QUAD PPM	COPLANAR 7200 HZ REAL PPM	QUAD PPM	VERTICAL DIKE COND MHOS	DEPTH* M	HORIZONTAL SHEET COND MHOS	DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	DEPTH M
LINE 21280	(FLIGHT 42)											
B 1406 B	16	10	20	15	13	22	18	6	3	61	24	36
C 1447 B	15	7	17	12	25	9	23	10	2	54	38	26
D 1448 D	15	7	17	12	25	1	23	9	2	50	54	19
E 1466 S	-1	7	1	10	32	41	1	0	1	18	488	0
LINE 21290	(FLIGHT 42)											
A 1379 D	4	9	3	9	11	28	3	0	1	51	771	0
B 1367 B	22	8	27	4	6	38	64	6	4	48	13	28
C 1324 S	0	5	1	10	33	42	1	0	1	10	512	0
D 1313 D	10	6	21	13	26	25	17	14	1	53	68	21
E 1312 B	20	7	21	13	26	21	31	9	2	50	31	24
F 1300 S	0	7	1	2	28	40	1	0	1	24	148	5
LINE 21300	(FLIGHT 42)											
A 1134 B	7	7	22	15	39	14	12	2	3	54	20	30
B 1175 D	8	6	15	11	27	17	14	13	1	51	68	18
C 1176 D	13	7	15	11	27	17	20	10	2	53	49	22
D 1184 S	-2	4	1	7	28	27	1	0	1	32	566	0
LINE 21310	(FLIGHT 42)											
A 1091 B	6	3	19	17	48	14	15	18	2	48	36	22
B 1085 S	-3	6	1	9	32	31	1	0	1	21	555	0
C 1051 S	-4	2	1	7	96	17	1	0	1	5	414	0
D 1038 S	-4	9	2	16	51	74	1	0	1	6	444	0
E 1034 D	18	9	24	16	41	4	24	14	1	46	70	15
F 1033 D	12	10	24	16	41	21	15	14	2	46	52	18
G 1023 S	-4	4	0	6	25	23	2	11	1	26	700	0
H 1014 S	-5	5	0	4	34	29	1	0	1	23	143	5
LINE 21320	(FLIGHT 42)											
A 925 D	5	9	16	16	39	22	7	9	1	45	72	13
B 950 S	-7	8	1	4	55	7	1	0	1	26	67	11
C 952 S	-7	8	1	4	64	1	1	0	1	26	76	10
D 968 D	16	11	28	20	45	10	18	4	1	42	64	11
E 968 D	16	11	28	20	45	10	18	5	2	47	24	23
F 982 S	-6	6	0	10	29	54	1	0	1	14	574	0
LINE 21330	(FLIGHT 42)											
A 882 S	-5	4	1	8	27	35	1	0	1	19	543	0
B 877 D	13	16	21	12	19	76	12	11	1	33	83	4
C 875 D	2	6	21	12	19	3	9	23	1	34	116	3

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 21330 (FLIGHT 42)												
D 821 D	15	14	22	25	62	41	11	6	1	32	83	3
E 821 D	15	14	22	25	62	41	11	8	2	38	46	12
LINE 21340 (FLIGHT 42)												
A 695 S	-8	6	1	10	25	33	1	0	1	18	687	0
B 700 S	-8	4	1	7	21	24	1	0	1	32	675	0
C 706 B	-1	7	9	13	40	27	2	0	1	32	148	0
D 706 B	-1	7	9	13	40	27	2	0	1	45	91	10
E 729 S	-9	3	0	6	17	27	2	8	1	36	754	0
F 749 D	0	4	7	4	11	5	7	26	1	21	317	0
G 750 B	0	4	7	4	11	5	4	25	1	45	133	7
LINE 21350 (FLIGHT 42)												
A 674 D	1	13	7	24	85	101	3	0	1	24	285	0
B 659 D	0	5	5	10	37	2	3	13	1	21	210	0
C 657 B	0	4	8	12	6	2	2	13	1	32	126	0
D 605 D	1	5	6	7	18	5	4	19	1	14	582	0
E 603 B	1	5	6	7	3	5	3	15	1	40	166	3
F 593 S	-9	5	-1	9	31	40	1	0	1	10	505	0
G 571 S	-7	7	-1	15	44	13	1	0	1	3	458	0
LINE 21360 (FLIGHT 42)												
A 476 B?	-4	6	0	9	34	36	1	0	1	28	761	0
B 512 S	-9	2	-3	5	10	32	1	0	1	23	267	0
C 530 D	3	7	10	12	31	9	6	12	1	31	282	0
D 531 B	3	7	10	12	31	6	5	10	1	60	75	25
E 547 S	-9	5	-2	8	28	34	1	0	1	21	673	0
LINE 21370 (FLIGHT 42)												
A 439 D	1	8	7	19	36	31	2	0	1	5	513	0
B 410 S	-7	3	-2	5	15	25	2	13	1	46	792	0
C 383 D	15	10	23	18	38	6	16	13	2	57	42	29
D 383 B	15	10	23	18	38	0	16	11	2	59	29	33
E 377 S	-6	4	-2	6	19	13	1	0	1	37	739	0
F 353 S	-5	7	-2	10	42	49	1	0	1	13	576	0
LINE 21380 (FLIGHT 42)												
A 267 D	4	14	11	24	59	75	3	0	1	11	344	0
B 283 S	-3	4	-2	7	17	38	1	0	1	42	781	0
C 308 D	15	14	30	28	68	31	12	5	1	56	57	25
D 310 D	17	17	30	28	68	5	13	3	2	57	36	29

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 21380	(FLIGHT	42)										
E 329 S	-4	7	-1	12	37	18	1	0	1	17	634	0
LINE 21390	(FLIGHT	42)										
A 152 D	16	16	24	32	69	50	10	5	1	28	189	0
B 150 D	20	16	24	32	69	50	12	4	2	53	43	25
LINE 21400	(FLIGHT	41)										
A 1372 D	8	5	8	11	15	13	9	13	1	35	178	0
B 1387 S	1	3	0	4	17	14	1	0	1	28	263	2
C 1417 D	19	7	24	12	37	31	35	7	1	53	84	18
D 1418 D	19	7	24	12	37	25	35	8	3	63	17	39
LINE 21410	(FLIGHT	41)										
A 1341 S	0	3	1	5	20	25	1	0	1	32	738	0
B 1318 D	11	5	10	11	5	6	14	13	1	35	165	0
C 1271 S	-2	8	1	2	50	68	1	0	1	21	123	3
D 1264 D	15	9	11	14	10	10	14	14	1	46	107	11
E 1263 B	15	9	11	14	37	10	14	14	1	51	58	20
LINE 21420	(FLIGHT	41)										
A 1130 S	-1	2	1	3	7	16	1	0	1	28	156	6
B 1150 D	9	7	11	13	14	5	10	9	1	40	113	5
C 1184 S?	0	7	2	12	43	59	1	0	1	21	451	0
D 1197 D	15	13	17	19	48	9	11	4	1	37	121	2
E 1198 B	15	13	17	19	48	14	11	8	2	54	42	26
F 1208 S	0	6	1	10	39	48	1	0	1	11	479	0
G 1223 S	0	8	2	16	60	65	1	0	1	9	456	0
LINE 21430	(FLIGHT	41)										
A 1064 D	8	8	6	1	20	40	12	21	1	38	121	3
B 1025 S	-1	1	2	15	54	6	1	0	1	18	478	0
C 1011 D	27	14	26	17	38	16	26	4	2	57	48	27
LINE 21440	(FLIGHT	41)										
A 932 S?	0	4	0	6	23	28	1	0	1	71	938	0
B 945 D	48	17	49	27	56	13	47	0	3	56	17	33
C 950 S	1	4	1	5	21	30	1	4	1	30	622	0
D 956 S	1	5	1	6	23	31	1	0	1	29	674	0
E 969 S	1	4	1	11	40	48	1	0	1	10	578	0
LINE 21450	(FLIGHT	41)										
A 849 D	7	15	7	28	78	53	3	0	1	20	177	0

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ANOMALY/ FID/INTERP	COAXIAL 900 HZ REAL PPM	COAXIAL 900 HZ QUAD PPM	COPLANAR 900 HZ REAL PPM	COPLANAR 900 HZ QUAD PPM	COPLANAR 7200 HZ REAL PPM	COPLANAR 7200 HZ QUAD PPM	VERTICAL DIKE COND MHOS	VERTICAL DIKE DEPTH* M	HORIZONTAL SHEET COND MHOS	HORIZONTAL SHEET DEPTH M	CONDUCTIVE EARTH RESIS OHM-M	CONDUCTIVE EARTH DEPTH M
LINE 21450	(FLIGHT 41)											
B 845 D	6	6	7	13	10	12	6	19	1	30	119	0
C 832 S	-3	6	0	6	34	45	1	0	1	18	643	0
D 792 B	90	22	129	44	156	54	102	0	10	43	2	32
E 775 S	-1	6	1	8	33	36	1	0	1	23	571	0
F 763 S	0	4	1	6	27	6	1	0	1	21	546	0
LINE 21460	(FLIGHT 41)											
A 685 S	1	12	7	4	79	61	1	0	1	24	79	8
B 692 S	-2	5	0	7	26	33	1	0	1	30	736	0
C 706 S	-1	3	0	4	10	23	1	0	1	23	507	0
D 726 B	63	25	93	47	129	35	49	0	7	36	4	23
E 740 S	0	6	1	9	39	33	1	0	1	18	503	0
F 749 S	0	4	1	7	25	34	1	0	1	30	642	0
LINE 21470	(FLIGHT 41)											
A 626 B	5	14	9	12	98	17	4	12	1	26	108	0
B 623 S	1	12	12	40	131	73	2	0	1	24	193	0
C 615 S	-4	7	1	12	43	60	1	0	1	17	589	0
D 607 S?	-6	5	1	8	30	35	1	0	1	28	707	0
E 598 S	-5	8	1	14	48	72	1	0	1	21	517	0
F 574 D	22	18	13	28	72	20	10	4	2	58	26	33
G 573 D	18	16	13	28	72	20	9	4	2	48	35	22
H 546 S	-4	5	1	7	24	27	1	0	1	18	541	0
LINE 21480	(FLIGHT 41)											
A 467 S	1	2	8	30	62	27	2	0	1	24	137	0
B 469 S?	2	3	7	23	64	66	2	6	1	28	135	0
C 478 S?	-4	5	1	6	24	32	1	0	1	31	749	0
D 491 S	-4	5	1	9	34	13	1	0	1	16	599	0
E 512 D	11	11	14	15	50	8	10	11	1	39	120	5
F 526 S	-3	6	1	14	42	41	1	0	1	9	480	0
G 533 S	-4	5	1	6	24	34	1	0	1	33	626	0
LINE 21490	(FLIGHT 41)											
A 415 S	-2	5	6	38	113	53	1	0	1	20	168	0
B 406 S?	-6	4	1	7	28	19	1	0	1	19	640	0
C 397 S?	-6	7	1	1	44	20	1	0	1	21	104	4
D 373 S	-6	4	1	6	26	31	1	0	1	23	557	0
E 365 D	10	11	12	16	36	4	8	7	1	40	114	6
F 347 S	-5	8	1	16	54	59	1	0	1	4	457	0
LINE 21500	(FLIGHT 41)											
A 259 S	-1	11	5	16	63	60	1	0	1	16	194	0

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LINE 21500	(FLIGHT	41)										
B 268 S?	-4	6	0	10	36	39	1	0	1	13	634	0
C 283 S	-6	8	1	15	55	68	1	0	1	11	529	0
D 297 S	-6	4	1	8	23	6	1	0	1	29	708	0
E 304 B	36	23	98	51	139	35	33	0	6	40	5	26
F 318 S	-3	10	2	18	66	70	1	0	1	7	473	0
LINE 21510	(FLIGHT	49)										
A 2097 S?	-1	4	2	4	17	33	1	0	1	15	529	0
B 2100 S	-1	6	1	6	32	24	1	0	1	13	576	0
C 2115 S	0	6	2	10	21	45	1	0	1	22	572	0
D 2121 D	12	11	12	11	33	8	11	9	1	66	60	33
LINE 21520	(FLIGHT	49)										
A 2234 S	-1	4	0	4	18	47	1	0	1	21	145	1
B 2216 S	3	14	5	26	50	14	2	0	1	14	238	0
C 2177 S	1	8	1	14	47	63	1	0	1	14	540	0
D 2170 D	20	8	21	11	32	20	31	11	1	66	60	33
E 2169 D	9	9	21	11	32	5	14	8	1	84	63	47
LINE 21530	(FLIGHT	49)										
A 2244 S	1	5	0	9	33	27	1	0	1	17	680	0
B 2256 D	4	6	3	7	11	22	4	16	1	66	831	0
C 2259 S?	1	6	3	13	43	23	1	0	1	27	346	0
D 2270 S	1	13	2	5	90	65	1	0	1	1	462	0
E 2290 S	0	6	0	8	28	35	1	0	1	28	733	0
F 2297 D	11	6	12	7	20	5	21	15	1	80	66	43
G 2298 D	9	8	12	7	20	3	14	20	1	93	76	54
H 2308 S	0	5	0	8	33	23	1	0	1	24	733	0
LINE 21540	(FLIGHT	49)										
A 2406 S	0	4	0	6	14	30	1	2	1	47	801	0
B 2401 D	10	8	6	8	23	16	9	14	1	63	641	0
C 2397 S?	3	6	2	13	41	14	2	4	1	28	318	0
D 2383 S	-1	3	1	20	70	67	1	0	1	8	525	0
E 2360 S	0	3	0	5	20	23	1	0	1	40	781	0
F 2338 S	1	9	1	14	54	31	1	0	1	14	570	0
LINE 21550	(FLIGHT	49)										
A 2442 D	4	5	1	4	13	8	4	18	1	83	966	0
B 2446 D	7	7	4	10	16	13	5	10	1	21	485	0
C 2456 S	0	7	0	12	23	23	1	0	1	18	695	0

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LINE 21550 (FLIGHT 49)												
D 2476 S	0	3	-1	5	12	1	1	0	1	28	297	4
E 2483 B	3	4	1	4	10	4	1	0	1	53	233	26
F 2484 D	3	4	1	4	10	4	3	20	1	82	966	0
G 2492 S	0	5	1	10	31	41	1	0	1	23	719	0
LINE 21560 (FLIGHT 49)												
A 2583 D	7	7	5	7	18	13	7	19	1	35	320	0
B 2535 D	5	10	4	8	13	23	4	9	1	40	759	0
C 2526 S	0	2	1	4	33	10	1	0	1	22	101	6
LINE 21570 (FLIGHT 49)												
A 2615 S	2	4	0	8	24	27	1	0	1	22	728	0
B 2638 D	8	12	6	17	60	42	4	0	1	21	255	0
C 2661 S	0	2	0	4	14	21	1	0	1	28	389	0
D 2677 D	4	10	4	7	20	10	3	2	1	21	531	0
E 2684 S	0	5	1	8	31	32	1	0	1	12	602	0
F 2692 S	-2	5	0	9	27	5	1	0	1	34	763	0
LINE 21580 (FLIGHT 49)												
A 2776 D	11	11	8	25	91	20	6	5	1	18	254	0
B 2751 S	0	5	0	9	18	41	1	0	1	28	721	0
C 2728 D	9	17	10	23	59	32	4	2	1	12	272	0
D 2716 S	-1	9	1	15	54	71	1	0	1	10	509	0
LINE 21590 (FLIGHT 49)												
A 2811 S	0	2	0	3	10	14	1	0	1	28	243	4
B 2827 D	15	15	14	32	94	6	7	0	1	28	124	0
C 2846 S	-1	6	0	10	42	44	1	0	1	27	736	0
D 2865 D	3	12	4	3	77	21	3	10	1	8	325	0
LINE 21600 (FLIGHT 49)												
A 2978 D	24	16	18	31	28	18	13	5	1	26	104	0
B 2962 S	-1	5	-1	8	23	38	1	0	1	28	715	0
C 2938 S	0	1	1	8	40	32	1	0	1	15	567	0
D 2921 S	-1	7	1	6	58	64	1	0	1	14	552	0
E 2915 S	-2	5	0	8	20	44	1	0	1	34	721	0
LINE 21610 (FLIGHT 49)												
A 3020 S	0	5	0	7	26	37	1	0	1	44	785	0
B 3033 D	21	17	22	16	89	31	16	0	1	33	63	4
C 3043 S	-2	5	1	5	24	26	1	0	1	30	731	0

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LINE 21610 (FLIGHT 49)												
D 3050 S	-1	6	2	9	34	30	1	0	1	22	561	0
E 3070 S	0	5	3	9	36	28	1	0	1	10	506	0
F 3075 S	-1	7	2	13	51	16	1	0	1	17	542	0
LINE 29010 (FLIGHT 49)												
A 978 S	-4	3	0	5	9	31	1	0	1	18	1141	0
B 982 S	-2	2	1	3	0	34	2	37	1	195	1035	0
C 1004 S	-1	5	2	4	24	35	1	0	1	25	161	5
D 1018 S?	-1	5	1	4	14	36	1	0	1	30	196	8
E 1033 S	-2	3	1	4	13	22	1	0	1	28	647	0
F 1063 S	-1	4	1	6	17	21	1	0	1	70	261	20
G 1073 S	0	3	1	2	13	13	1	0	1	35	279	8
H 1080 S	-2	3	1	4	14	23	1	0	1	35	367	8
I 1091 S	-1	6	3	11	37	10	1	0	1	19	348	0
J 1102 S	-2	5	1	5	15	30	1	0	1	24	279	1
K 1107 S	-2	5	1	9	14	47	1	0	1	52	555	0
L 1123 S	-3	6	1	10	31	38	1	0	1	19	462	0
M 1137 S	-2	7	1	13	43	51	1	0	1	22	471	0
N 1146 S	-2	7	1	13	46	48	1	0	1	25	377	0
O 1184 S	-2	8	1	5	31	58	1	0	1	24	144	5
LINE 29020 (FLIGHT 49)												
A 1430 S	-3	3	1	6	19	28	1	0	1	75	816	0
B 1424 S	-3	4	2	8	19	35	1	0	1	48	383	2
C 1386 S?	-2	4	1	9	24	23	1	0	1	44	268	1
D 1385 S?	-2	5	1	9	22	23	1	0	1	46	265	2
E 1362 S	-2	3	0	5	11	22	1	0	1	78	674	0
F 1354 B	0	2	4	6	12	2	2	16	1	94	91	52
G 1328 S	-3	6	1	8	35	37	1	0	1	32	551	0
H 1319 S	-2	11	2	21	39	59	1	0	1	11	497	0
I 1310 S	-2	5	1	9	35	32	1	0	1	25	370	0
J 1294 S	-2	4	1	8	29	29	1	0	1	44	551	0
K 1276 S	-1	11	3	5	82	57	1	0	1	26	51	12
L 1255 S	-1	1	3	3	69	63	1	0	1	24	82	8
M 1239 S	-2	4	1	7	30	23	1	0	1	33	508	0
LINE 29030 (FLIGHT 49)												
A 1493 S	-2	4	0	5	21	24	1	0	1	94	1035	0
B 1540 S?	-3	6	-1	9	31	45	1	0	1	58	871	0
C 1556 S	-4	3	-1	5	7	32	1	0	1	104	1035	0
D 1585 S	-4	5	-2	7	24	3	1	0	1	54	837	0

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LINE 29030	(FLIGHT	49)										
E 1595 S	-2	4	0	5	23	19	1	0	1	99	1035	0
F 1618 B	1	8	3	10	21	10	1	0	1	90	211	39
G 1619 B	1	8	8	15	20	13	2	0	1	68	94	29
H 1629 B	6	3	9	5	24	27	16	16	4	90	14	65
I 1630 B	6	3	6	5	24	27	12	17	3	88	17	61
J 1637 S	1	5	4	11	55	16	2	0	1	56	101	18
K 1643 B	13	10	32	24	54	43	16	0	3	51	14	30

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42H12SE0077 2.10544 HOBLITZELL

900

Mining Lands Section
159 Cedar Street, 44th Floor
Sudbury, Ontario
P3E 6A5

Telephone: (705) 670-7264
Fax: (705) 670-7262

File: 2.14439

Mr. Bob Owen
Ontario Geological Survey
77 Grenville Street
Room 812
Toronto, Ontario
M7A 1W4

Dear Sir:

Re: Work submitted on mining claims L 789211 et al. in the Township/Area of Hoblitzell and Noseworthy

---

As per your request, we are highlighting this file as the work falls under the category of ~~Assays, Rehabilitation~~, Other (Specify). Ammend with file 2.10544

For further information, please contact Ted Anderson at (705) 670-7264. 7254

yours sincerely,

Ted Anderson

For Ron C. Gashinski
Provincial Manager, Mining Lands
Mines & Minerals Division

/jl

Action Memo Ontario

Time

Date 92 | 02 | 05

To Assessment Files Office

From (Name and City) Mining Lands Branch

I.C.N. No.	Area Code	Telephone No.	Ext.	Message Taken By

☐ Phoned ☐ On Hold ☐ Please Call ☐ Returned Your Call ☐ Will Call Back ☐ Wishes Appointment ☐ Waiting in Person ☐ Was Here ☐ Will Return

☐ File	☐ Draft Reply For My Signature	☐ Provide More Details	☑ For Your Information
☐ Type Draft	☐ For Your Approval and Signature	☐ Keep Me Informed	☐ Per Discussion
☐ Type Final	☐ Circulate, Initial and Return	☐ Take Appropriate Action	☐ Per Your Request
☐ Make Copies	☐ Return With Comments	☐ Note and See Me	☐ Returned With Thanks
☐ Please Answer	☐ Investigate and Report	☐ Note and Return	☐

Comments:

Please add to file # 2.10544.

Thank you.

7540-1452

☐ Over

du Nord

Mining Lands Branch
Geoscience Approvals Section
159 Cedar Street, 4th Floor
Sudbury, Ontario
P3E 6A5

Toll Free: 1-800-465-3880
Telephone: (705) 670-7262
Fax: (705) 670-7262

Our File: 2.14439
Your File: W.9180.05094

:

T WORK SUBMITTED ON MINING CLAIMS
LITZELL AND NOSEWORTHY TOWNSHIPS.

: the Geophysical survey, under section
ıs, submitted on the above work report
ıry 4, 1992.

on your records.

Yours sincerely,

Ron C. Gashinski
Senior Manager, Mining Lands Branch
Mines and Minerals Division

TAA/jl
Enclosures:

cc: Assessment Files Office
Toronto, Ontario

Resident Geologist
Kirkland Lake, Ontario

Ministry of Northern Development and Mines
Ontario

M.L.

Report of Work Conducted After Recording Claim

Mining Act

Transaction Number
DOCUMENT No. W9180 • 05094

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used for correspondence. Questions about this collection should be directed to the Provincial Manager, Mining Lands, Ministry of Northern Development and Mines, Fourth Floor, 159 Cedar Street, Sudbury, Ontario, P3E 6A5, telephone (705) 670-7264.

2.14439

Instructions:
- Please type or print and submit in duplicate.
- Refer to the Mining Act and Regulations for requirements of filing assessment work or consult the Mining Recorder.
- A separate copy of this form must be completed for each Work Group.
- Technical reports and maps must accompany this form in duplicate.
- A sketch, showing the claims the work is assigned to, must accompany this form.

Recorded Holder(s)		Client No.
COGEMA CANADA LIMITED		119438
Address		Telephone No.
817-825 45th St west, SASKATOON, SK S7K 3X5		(306) 244-2554
Mining Division	Township/Area	M or G Plan No.
LARDER LAKE	HOBLITZELL + NOSEWORTHY	G.3513/G.3549
Dates Work Performed From: DEC 2 1986	To: DEC 11 1986	

Work Performed (Check One Work Group Only)

Work Group	Type
Geotechnical Survey	airborne geophysical MAG, VLF, EM
Physical Work, Including Drilling	
Rehabilitation	RECEIVED
Other Authorized Work	JAN 27 1992
Assays	
Assignment from Reserve	MINING LANDS BRANCH

Total Assessment Work Claimed on the Attached Statement of Costs $ 25 192.30 25191.00 OK

Note: The Minister may reject for assessment work credit all or part of the assessment work submitted if the recorded holder cannot verify expenditures claimed in the statement of costs within 30 days of a request for verification.

Persons and Survey Company Who Performed the Work (Give Name and Address of Author of Report)

Name	Address
DIGHEM SURVEYS + PROCESSING INC	3193 Cedartree Cres. Mississauga, Ont
(D.C. FRASER)	

(attach a schedule if necessary)

Certification of Beneficial Interest * See Note No. 1 on reverse side

I certify that at the time the work was performed, the claims covered in this work report were recorded in the current holder's name or held under a beneficial interest by the current recorded holder.	Date	Recorded Holder or Agent (Signature)
	21/11/91	[signature]

Certification of Work Report

I certify that I have a personal knowledge of the facts set forth in this Work report, having performed the work or witnessed same during and/or after its completion and annexed report is true.		
Name and Address of Person Certifying		
JOHN LEARN 200-137 rue Perreault est, Rouyn-Noranda, Qc J9X 3C3		
Telepone No.	Date	Certified By (Signature)
(819) 797-0471	21/11/91	[signature]

For Office Use Only

Total Value Cr. Recorded	Date Recorded	Mining Recorder	Received Stamp
$25191.00 (banked)	NOVEMBER 21, 1991	[signature]	
	Deemed Approval Date	Date Approved	
	FEBRUARY 19, 1992		
	Date Notice for Amendments Sent		

0241 (03/91)

Work Report Number for Applying Reserve	Claim Number (see Note 2)	Number of Claim Units	Value of Assessment Work Done on this Claim	Value Applied to this Claim	Value Assigned from this Claim	Reserve: Work to be Claimed at a Future Date
	L789211	1	$ 83.97			$ 83.97
	L789212	1	$ 83.97			$ 83.97
	300		25 191.00			25 191.00
	Total Number of Claims		Total Value Work Done	Total Value Work Applied	Total Assigned From	Total Reserve

same instructions / IDEM for all 300 claims
see attached list

0241 (03/91)

Credits you are claiming in this report may be cut back. In order to minimize the adverse effects of such deletions, please indicate from which claims you wish to priorize the deletion of credits. Please mark (✓) one of the following:

1. ☐ Credits are to be cut back starting with the claim listed last, working backwards.
2. ☒ Credits are to be cut back equally over all claims contained in this report of work.
3. ☐ Credits are to be cut back as priorized on the attached appendix.

In the event that you have not specified your choice of priority, option one will be implemented.

Note 1: Examples of beneficial interest are unrecorded transfers, option agreements, memorandum of agreements, etc., with respect to the mining claims.

Note 2: If work has been performed on patented or leased land, please complete the following:

I certify that the recorded holder had a beneficial interest in the patented or leased land at the time the work was performed.	Signature	Date

Ontario

Ministry of Northern Development and Mines

Ministère du Développement du Nord et des mines

Statement of Costs for Assessment Credit

État des coûts aux fins du crédit d'évaluation

Mining Act/Loi sur les mines

Transaction No./N° de transaction

DOCUMENT No. W9180·00094

Personal information collected on this form is obtained under the authority of the Mining Act. This information will be used to maintain a record and ongoing status of the mining claim(s). Questions about this collection should be directed to the Provincial Manager, Minings Lands, Ministry of Northern Development and Mines, 4th Floor, 159 Cedar Street, Sudbury, Ontario P3E 6A5, telephone (705) 670-7264.

Les renseignements personnels contenus dans la présente formule sont recueillis en vertu de la Loi sur les mines et serviront à tenir à jour un registre des concessions minières. Adresser toute question sur la collece de ces renseignements au chef provincial des terrains miniers, ministère du Développement du Nord et des Mines, 159, rue Cedar, 4e étage, Sudbury (Ontario) P3E 6A5, téléphone (705) 670-7264.

1. Direct Costs/Coûts directs

Type	Description	Amount Montant	Totals Total global
Wages Salaires	Labour Main-d'oeuvre		
	Field Supervision Supervision sur le terrain		
Contractor's and Consultant's Fees Droits de l'entrepreneur et de l'expert-conseil	Type 1100 km @		
	$45.80/km		
		50 384.60	50 384.60
Supplies Used Fournitures utilisées	Type		
Equipment Rental Location de matériel	Type		
		Total Direct Costs Total des coûts directs	50 384.60

2. Indirect Costs/Coûts indirects

** Note: When claiming Rehabilitation work indirect costs are not allowable as assessment work.
Pour le remboursement des travaux de réhabilitation, les coûts indirects ne sont pas admissibles en tant que travaux d'évaluation.

Type	Description	Amount Montant	Totals Total global
Transportation Transport	Type		
Food and Lodging Nourriture et hébergement			
Mobilization and Demobilization Mobilisation et démobilisation			
		Sub Total of Indirect Costs Total partiel des coûts indirects	
		Amount Allowable (not greater than 20% of Direct Costs) Montant admissible (n'excédant pas 20 % des coûts directs)	
		Total Value of Assessment Credit (Total of Direct and Allowable indirect costs) Valeur totale du crédit d'évaluation (Total des coûts directs et indirects admissibles	

Note: The recorded holder will be required to verify expenditures claimed in this statement of costs within 30 days of a request for verification. If verification is not made, the Minister may reject for assessment work all or part of the assessment work submitted.

Note : Le titulaire enregistré sera tenu de vérifier les dépenses demandées dans le présent état des coûts dans les 30 jours suivant une demande à cet effet. Si la vérification n'est pas effectuée, le ministre peut rejeter tout ou une partie des travaux d'évaluation présentés.

Filing Discounts

1. Work filed within two years of completion is claimed at 100% of the above Total Value of Assessment Credit.
2. Work filed three, four or five years after completion is claimed at 50% of the above Total Value of Assessment Credit. See calculations below:

Total Value of Assessment Credit		Total Assessment Claimed
50 384.60	× 0.50 =	25 192.30

25 191.00 not OK

Remises pour dépôt

1. Les travaux déposés dans les deux ans suivant leur achèvement sont remboursés à 100 % de la valeur totale susmentionnée du crédit d'évaluation.
2. Les travaux déposés trois, quatre ou cinq ans après leur achèvement sont remboursés à 50 % de la valeur totale du crédit d'évaluation susmentionné. Voir les calculs ci-dessous.

Valeur totale du crédit d'évaluation		Évaluation totale demandée
	× 0,50 =	

Certification Verifying Statement of Costs

I hereby certify:
that the amounts shown are as accurate as possible and these costs were incurred while conducting assessment work on the lands shown on the accompanying Report of Work form.

that as ______ (Recorded Holder, Agent, Position in Company) I am authorized

to make this certification JOHN LEARN district geologist

Attestation de l'état des coûts

J'atteste par la présente :
que les montants indiqués sont le plus exact possible et que ces dépenses ont été engagées pour effectuer les travaux d'évaluation sur les terrains indiqués dans la formule de rapport de travail ci-joint.

Et qu'à titre de ______ (titulaire enregistré, représentant, poste occupé dans la compagnie) je suis autorisé

à faire cette attestation.

Signature	Date
	21/11/91

0212 (04/91)

Nota : Dans cette formule, lorsqu'il désigne des personnes, le masculin est utilisé au sens neutre.

2 . 14439

total 300 claims
all claims 1 claim unit
(16 ha)

MINING CLAIMS TRAVERSED

L789211	L789243	L789275	L789307	L789339	L789371	L789403	L789435	L789467	L789499
L789212	L789244	L789276	L789308	L789340	L789372	L789404	L789436	L789468	L789500
L789213	L789245	L789277	L789309	L789341	L789373	L789405	L789437	L789469	L789501
L789214	L789246	L789278	L789310	L789342	L789374	L789406	L789438	L789470	L789502
L789215	L789247	L789279	L789311	L789343	L789375	L789407	L789439	L789471	L789503
L789216	L789248	L789280	L789312	L789344	L789376	L789408	L789440	L789472	L789504
L789217	L789249	L789281	L789313	L789345	L789377	L789409	L789441	L789473	L789505
L789218	L789250	L789282	L789314	L789346	L789378	L789410	L789442	L789474	L789506
L789219	L789251	L789283	L789315	L789347	L789379	L789411	L789443	L789475	L789507
L789220	L789252	L789284	L789316	L789348	L789380	L789412	L789444	L789476	L789508
L789221	L789253	L789285	L789317	L789349	L789381	L789413	L789445	L789477	
L789222	L789254	L789286	L789318	L789350	L789382	L789414	L789446	L789478	L789561
L789223	L789255	L789287	L789319	L789351	L789383	L789415	L789447	L789479	L789562
L789224	L789256	L789288	L789320	L789352	L789384	L789416	L789448	L789480	
L789225	L789257	L789289	L789321	L789353	L789385	L789417	L789449	L789481	[illegible]
L789226	L789258	L789290	L789322	L789354	L789386	L789418	L789450	L789482	[illegible]
L789227	L789259	L789291	L789323	L789355	L789387	L789419	L789451	L789483	[illegible]
L789228	L789260	L789292	L789324	L789356	L789388	L789420	L789452	L789484	[illegible]
L789229	L789261	L789293	L789325	L789357	L789389	L789421	L789453	L789485	[illegible]
L789230	L789262	L789294	L789326	L789358	L789390	L789422	L789454	L789486	[illegible]
L789231	L789263	L789295	L789327	L789359	L789391	L789423	L789455	L789487	[illegible]
L789232	L789264	L789296	L789328	L789360	L789392	L789424	L789456	L789488	[illegible]
L789233	L789265	L789297	L789329	L789361	L789393	L789425	L789457	L789489	[illegible]
L789234	L789266	L789298	L789330	L789362	L789394	L789426	L789458	L789490	[illegible]
L789235	L789267	L789299	L789331	L789363	L789395	L789427	L789459	L789491	[illegible]
L789236	L789268	L789300	L789332	L789364	L789396	L789428	L789460	L789492	
L789237	L789269	L789301	L789333	L789365	L789397	L789429	L789461	L789493	
L789238	L789270	L789302	L789334	L789366	L789398	L789430	L789462	L789494	
L789239	L789271	L789303	L789335	L789367	L789399	L789431	L789463	L789495	
L789240	L789272	L789304	L789336	L789368	L789400	L789432	L789464	L789496	
L789241	L789273	L789305	L789337	L789369	L789401	L789433	L789465	L789497	
L789242	L789274	L789306	L789338	L789370	L789402	L789434	L789466	L789498	

(Doc. #00033U)

2.14499

Notes:

the technical report has already been seen and approved by Mining & Lands

Toronto file # 2.10544
Kirkland file # 462/87

the original cost of this airborne survey was 52 400$ but 80 man days were applied to 12 claims
L892946 → L892957

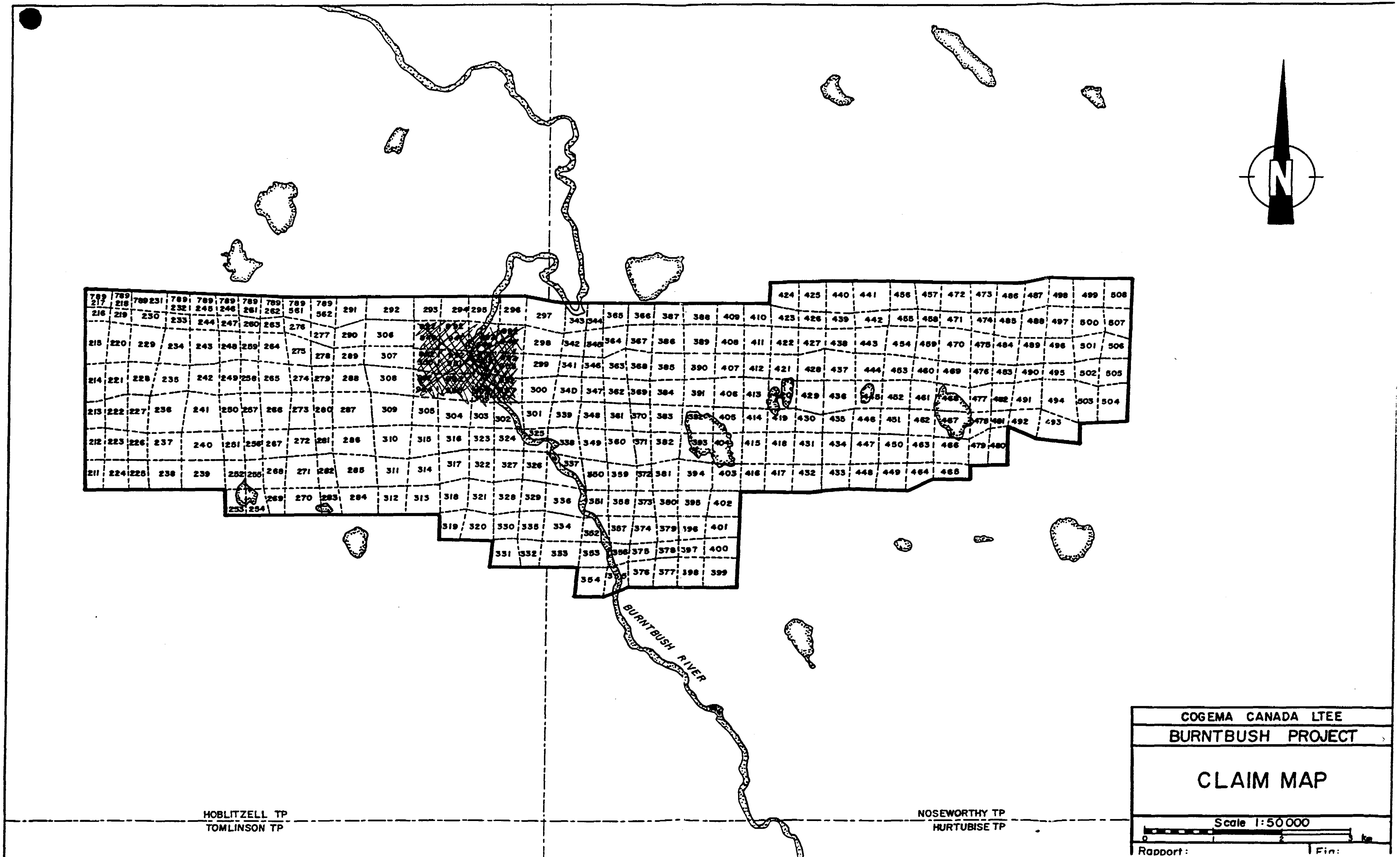
so I have reduced proportionately using the total number of claims the cost of the survey.

$52400 ÷ 312 → $167.94872 /claim

$167.94872 x 300 → $50 384.60

[signature] 21/11/91 [signature]

2.14439


BURNTBUSH RIVER
HOBLITZELL TP
TOMLINSON TP
NOSEWORTHY TP
HURTUBISE TP
N
COGEMA CANADA LTEE
BURNTBUSH PROJECT
CLAIM MAP
Scale 1:50 000
Rapport:
Fig:

Ontario Northern Development and Mines

Report of Work (Geophysical, Geological, Geochemical and Expenditures)

Mining Act

462/87

2.10544

Note: – If number of mining claims traversed exceeds space on this form, attach a list.
– Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE GEOPHYSICS

Township: HOBLITZELL and NOSEWORTHY

Claim Holder(s): COGEMA CANADA LIMITED

Prospector's Licence No.: T-4677

Address: 2000 Mansfield St., Suite 400, Montreal, Que. H3A 2Z1

Survey Company: DIGHEM SURVEYS AND PROCESSING INC.

Date of Survey (from & to): 02 12 86 | 11 12 86 (Day Mo. Yr.)

Total Miles of line Cut: X

Name and Address of Author (of Geo-Technical report): D.C. Fraser, 3193 Cedartree Cresc., Mississauga, Ontario

Credits Requested per Each Claim in Columns at right

Special Provisions		Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	Geophysical	
	· Electromagnetic	
	· Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	· Radiometric	
	· Other	
	Geological	
	Geochemical	

Man Days		Days per Claim
Complete reverse side and enter total(s) here	Geophysical	
	· Electromagnetic	
	· Magnetometer	
	· Radiometric	
	· Other	
	Geological	
	Geochemical	

NOV 25 1987
9.50am

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Radiometric	

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
L	892946	
	892947	
	892948	
	892949	
	892950	
	892951	
	892952	
	892953	
	892954	
	892955	
	892956	
	892957	

RECEIVED
1987
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 12

For Office Use Only		
Total Days Cr. Recorded	Date Recorded	Mining Recorder
960	Nov. 25/87	M. G. [signature]
	Date Approved as Recorded	Branch Director
	10 Dec 87	[signature]

Date: Nov. 13/87

Recorded Holder or Agent (Signature): [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: John Learn, 2350 Melrose Ave., N.D.G., Montreal, Que. H4A 2R8

Date Certified: Nov. 13/87

Certified by (Signature): [signature]

1362 (85/12)

Ministry of Northern Development and Mines
Ontario

Land Management 462/87

Report of Work

(Geophysical, Geological, Geochemical and Expenditures) 2.10544

Mining Act

Instructions: – Please type or print.
– If number of mining claims traversed exceeds space on this form, attach a list.

Note: – Only days credits calculated in the "Expenditures" section may be entered in the "Expend. Days Cr." columns.
– Do not use shaded areas below.

Type of Survey(s): AIRBORNE GEOPHYSICS	Township: HOBLITZELL and NOSEWORTHY
Claim Holder(s): COGEMA CANADA LIMITED	Prospector's Licence No.: T-4677
Address: 2000 Mansfield St., Suite 400, Montreal, Que. H3A 2Z1	
Survey Company: DIGHEM SURVEYS AND PROCESSING INC.	Date of Survey (from & to): 02 12 86 – 11 12 86 (Day Mo. Yr.); Total Miles of line Cut: X
Name and Address of Author (of Geo-Technical report): D.C. Fraser, 3193 Cedartree Cresc., Mississauga, Ontario	

Credits Requested per Each Claim in Columns at right

Special Provisions	Geophysical	Days per Claim
For first survey: Enter 40 days. (This includes line cutting)	- Electromagnetic	
	- Magnetometer	
For each additional survey: using the same grid: Enter 20 days (for each)	- Radiometric	
	- Other	
	Geological	
	Geochemical	

Man Days	Geophysical	Days per Claim
Complete reverse side and enter total(s) here	- Electromagnetic	
	- Magnetometer	
	- Radiometric	
	- Other	
	Geological	
	Geochemical	

NOV 25 1987
9.50am

Airborne Credits		Days per Claim
Note: Special provisions credits do not apply to Airborne Surveys.	Electromagnetic	40
	Magnetometer	40
	Radiometric	

Mining Claims Traversed (List in numerical sequence)

Prefix	Number	Expend. Days Cr.
L	892946	
	892947	
	892948	
	892949	
	892950	
	892951	
	892952	
	892953	
	892954	
	892955	
	892956	
	892957	

RECEIVED
DEC 1987
MINING LANDS SECTION

Total number of mining claims covered by this report of work: 12

Expenditures (excludes power stripping)

Type of Work Performed:

Performed on Claim(s):

Calculation of Expenditure Days Credits

Total Expenditures $ ÷ 15 = Total Days Credits

Instructions: Total Days Credits may be apportioned at the claim holder's choice. Enter number of days credits per claim selected in columns at right.

For Office Use Only		
Total Days Cr. Recorded: 960	Date Recorded: Nov. 25/87	Mining Recorder: M. A. Wayne
	Date Approved as Recorded: 10 DEC 87	Branch Director: [signature]

Date: Nov. 13/87 | Recorded Holder or Agent (Signature): [signature]

Certification Verifying Report of Work

I hereby certify that I have a personal and intimate knowledge of the facts set forth in the Report of Work annexed hereto, having performed the work or witnessed same during and/or after its completion and the annexed report is true.

Name and Postal Address of Person Certifying: John Learn, 2350 Melrose Ave., N.D.G., Montreal, Que. H4A 2R8

Date Certified: Nov. 13/87 | Certified by (Signature): John Learn

1362 (85/12)

Ministry of Northern Development and Mines

Ontario

Geophysical-Geological-Geochemical Technical Data Statement

File ______

TO BE ATTACHED AS AN APPENDIX TO TECHNICAL REPORT
FACTS SHOWN HERE NEED NOT BE REPEATED IN REPORT
TECHNICAL REPORT MUST CONTAIN INTERPRETATION, CONCLUSIONS ETC.

Type of Survey(s) AIRBORNE GEOPHYSICAL

Township ~~XXXXXX~~ HOBLITZELL and NOSEWORTHY

Claim Holder(s) COGEMA CANADA LTD

Survey Company DIGHEM SURVEYS AND PROCESSING INC.

Author of Report D.C. Fraser

Address of Author 3193 Cedartree Cres., Mississauga, Ont.

Covering Dates of Survey Dec. 2 - Dec. 11, 1986 (linecutting to office)

Total Miles of Line Cut X

SPECIAL PROVISIONS CREDITS REQUESTED

ENTER 40 days (includes line cutting) for first survey.

ENTER 20 days for each additional survey using same grid.

	DAYS per claim
Geophysical	
--Electromagnetic	
--Magnetometer	
--Radiometric	
--Other	
Geological	
Geochemical	

AIRBORNE CREDITS (Special provision credits do not apply to airborne surveys)

Magnetometer 40 Electromagnetic 40 Radiometric ______ (enter days per claim)

DATE: Nov. 13/87 SIGNATURE: Denis Lesage
Author of Report or Agent

MINING CLAIMS TRAVERSED
List numerically

(prefix)	(number)
L	892946
L	892947
L	892948
L	892949
L	892950
L	892951
L	892952
L	892953
L	892954
L	892955
L	892956
L	892957

If space insufficient, attach list

TOTAL CLAIMS 12

RECEIVED
NOV 18 1987
MINING LANDS SECTION

OFFICE USE ONLY

Res. Geol. ______ Qualifications 63.2278

Previous Surveys

File No.	Type	Date	Claim Holder

GEOPHYSICAL TECHNICAL DATA

GROUND SURVEYS – If more than one survey, specify data for each type of survey

Number of Stations ______ Number of Readings ______

Station interval ______ Line spacing ______

Profile scale ______

Contour interval ______

MAGNETIC

Instrument ______

Accuracy – Scale constant ______

Diurnal correction method ______

Base Station check-in interval (hours) ______

Base Station location and value ______

ELECTROMAGNETIC

Instrument ______

Coil configuration ______

Coil separation ______

Accuracy ______

Method: ☐ Fixed transmitter ☐ Shoot back ☐ In line ☐ Parallel line

Frequency ______ (specify V.L.F. station)

Parameters measured ______

GRAVITY

Instrument ______

Scale constant ______

Corrections made ______

Base station value and location ______

Elevation accuracy ______

INDUCED POLARIZATION
RESISTIVITY

Instrument ______

Method ☐ Time Domain ☐ Frequency Domain

Parameters – On time ______ Frequency ______

– Off time ______ Range ______

– Delay time ______

– Integration time ______

Power ______

Electrode array ______

Electrode spacing ______

Type of electrode ______

SELF POTENTIAL

Instrument ______ Range ______

Survey Method ______

______

Corrections made ______

______

RADIOMETRIC

Instrument ______

Values measured ______

Energy windows (levels) ______

Height of instrument ______ Background Count ______

Size of detector ______

Overburden ______

(type, depth – include outcrop map)

OTHERS (SEISMIC, DRILL WELL LOGGING ETC.)

Type of survey ______

Instrument ______

Accuracy ______

Parameters measured ______

______

Additional information (for understanding results) ______

______

______

AIRBORNE SURVEYS

Type of survey(s))

Instrument(s)) see attached sheet

(specify for each type of survey)

Accuracy)

(specify for each type of survey)

Aircraft used Aerospatiale AS350B "Squirrel" turbine helicopter

Sensor altitude Frequency EM at 30m, magnetics at 45m, VLF at 52m

Navigation and flight path recovery method Del Norte Flying Flagman radar system (airphoto backup for navigation)

Aircraft altitude 60m Line Spacing 100m

Miles flown over total area 717.5 Over claims only 12.0

GEOCHEMICAL SURVEY – PROCEDURE RECORD

Numbers of claims from which samples taken ______________________

____

____

Total Number of Samples ______________________

Type of Sample ______________________
(Nature of Material)

Average Sample Weight ______________________

Method of Collection ______________________

____

Soil Horizon Sampled ______________________

Horizon Development ______________________

Sample Depth ______________________

Terrain ______________________

____

Drainage Development ______________________

Estimated Range of Overburden Thickness ______________________

____

____

SAMPLE PREPARATION
(Includes drying, screening, crushing, ashing)

Mesh size of fraction used for analysis ______________________

____

____

____

General ______________________

____

____

____

____

____

____

____

____

____

ANALYTICAL METHODS

Values expressed in: per cent ☐ p. p. m. ☐ p. p. b. ☐

Cu, Pb, Zn, Ni, Co, Ag, Mo, As,-(circle)

Others ______________________

Field Analysis (______________________ tests)

Extraction Method ______________________

Analytical Method ______________________

Reagents Used ______________________

Field Laboratory Analysis

No. (______________________ tests)

Extraction Method ______________________

Analytical Method ______________________

Reagents Used ______________________

Commercial Laboratory (______________________ tests)

Name of Laboratory ______________________

Extraction Method ______________________

Analytical Method ______________________

Reagents Used ______________________

General ______________________

____

____

____

____

____

____

____

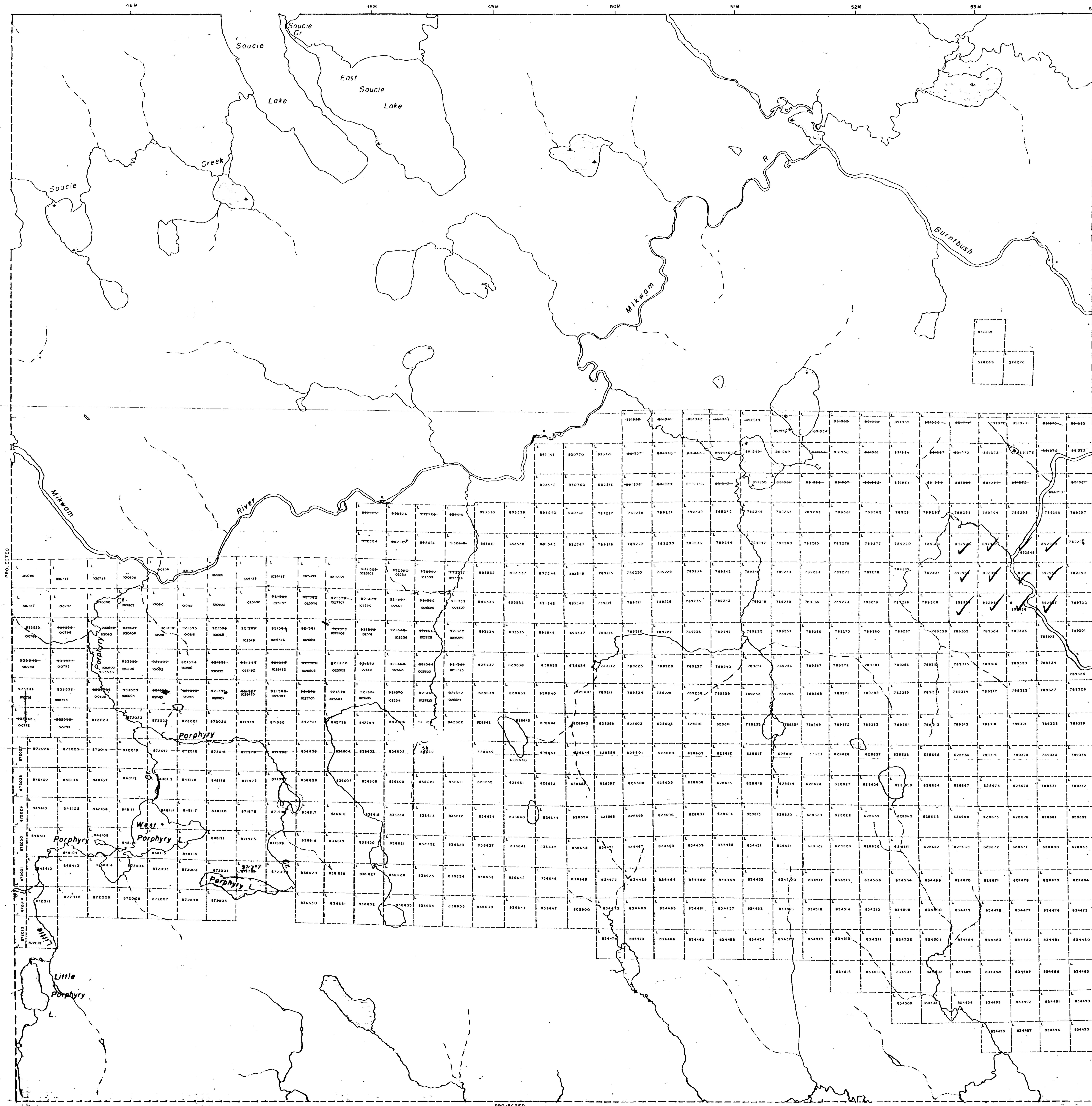
____

____

AIRBORNE SURVEYS

Type of surveys	1)	Frequency Domain EM
	2)	Magnetics
	3)	VLF-EM
Instruments	1)	Dighem III - 2 frequency EM - 2 coplanar pairs 1 coaxial pair
	2)	Sonotek 5010 proton precession magnetometer
	3)	HERZ TOTEM 2A VLF-EM unit
Accuracy	1)	Typically less than 2 ppm
	2)	1.0nT at 0.5 sec sample rate
	3)	N/A

(Doc. #0408x)



AREAS WITHDRAWN FROM DISPOSITION

M.R.O. – MINING RIGHTS ONLY
S.R.O. – SURFACE RIGHTS ONLY
M.+S. – MINING AND SURFACE RIGHTS

Description Order No. Date Disposition File

LEGEND

HIGHWAY AND ROUTE No.
OTHER ROADS
TRAILS
SURVEYED LINES:
TOWNSHIPS, BASE LINES, ETC.
LOTS, MINING CLAIMS, PARCELS, ETC.
UNSURVEYED LINES:
LOT LINES
PARCEL BOUNDARY
MINING CLAIMS ETC.
RAILWAY AND RIGHT OF WAY
UTILITY LINES
NON-PERENNIAL STREAM
FLOODING OR FLOODING RIGHTS
SUBDIVISION OR COMPOSITE PLAN
RESERVATIONS
ORIGINAL SHORELINE
MARSH OR MUSKEG
MINES
TRAVERSE MONUMENT

DISPOSITION OF CROWN LANDS

TYPE OF DOCUMENT	SYMBOL
PATENT, SURFACE & MINING RIGHTS	●
" , SURFACE RIGHTS ONLY	◐
" , MINING RIGHTS ONLY	○
LEASE, SURFACE & MINING RIGHTS	■
" , SURFACE RIGHTS ONLY	◧
" , MINING RIGHTS ONLY	□
LICENCE OF OCCUPATION	▼
ORDER-IN-COUNCIL	OC
RESERVATION	⊙
CANCELLED	⊗
SAND & GRAVEL	⊙

NOTE: MINING RIGHTS IN PARCELS PATENTED PRIOR TO MAY 6, 1913, VESTED IN ORIGINAL PATENTEE BY THE PUBLIC LANDS ACT, R.S.O. 1970, CHAP. 380, SEC. 63, SUBSEC. 1

SCALE
Metres 500 0 1000 Metres

1:20 000

DATE OF ISSUE
SEP 11 1987
LARDER LAKE
MINING RECORDER'S OFFICE

Rec'd Nov 13, 1986

TOWNSHIP

HOBLITZELL

M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
LARDER LAKE
LAND TITLES / REGISTRY DIVISION
COCHRANE

Ministry of Natural Resources
Ontario

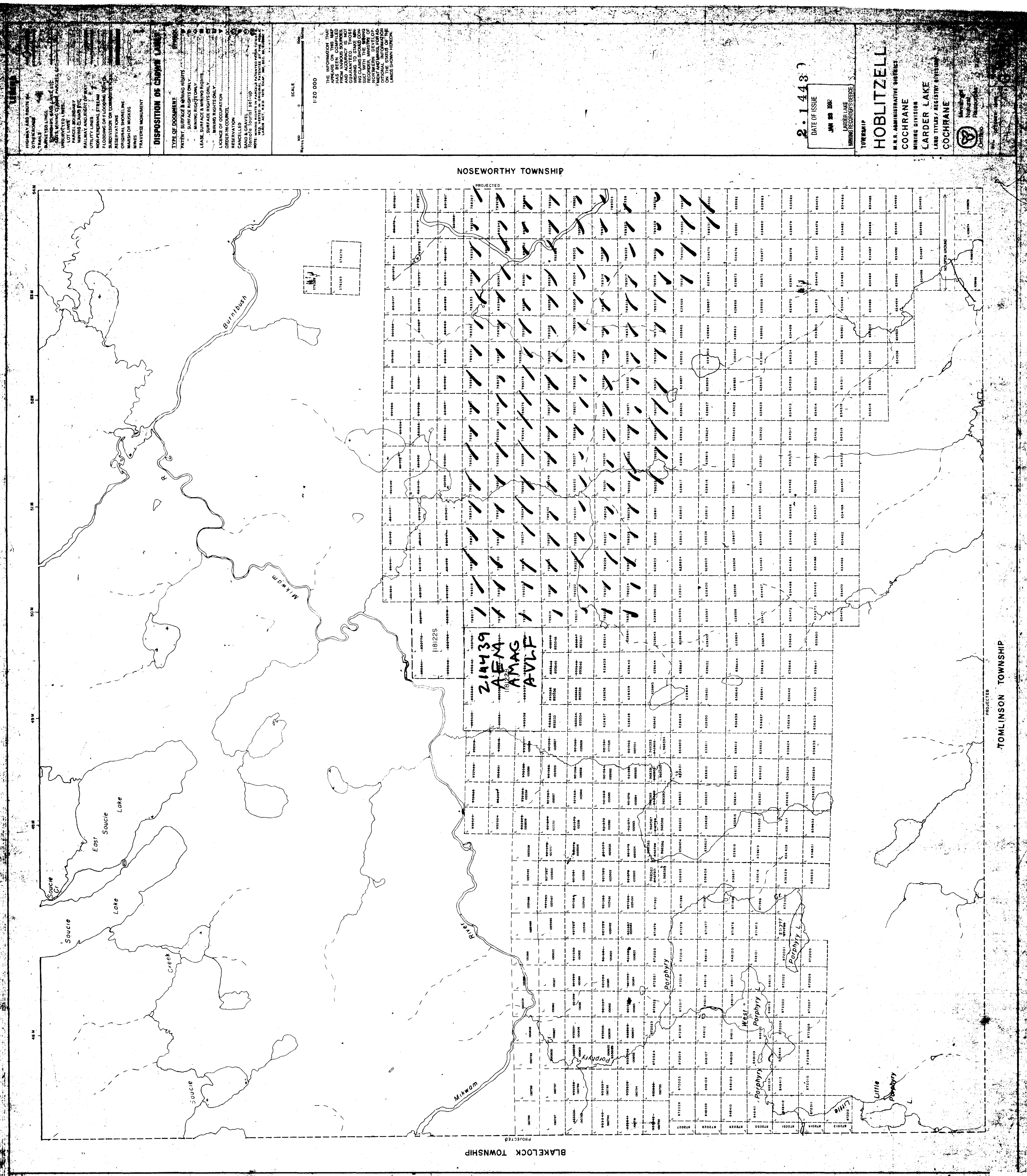
Date OCTOBER 1986

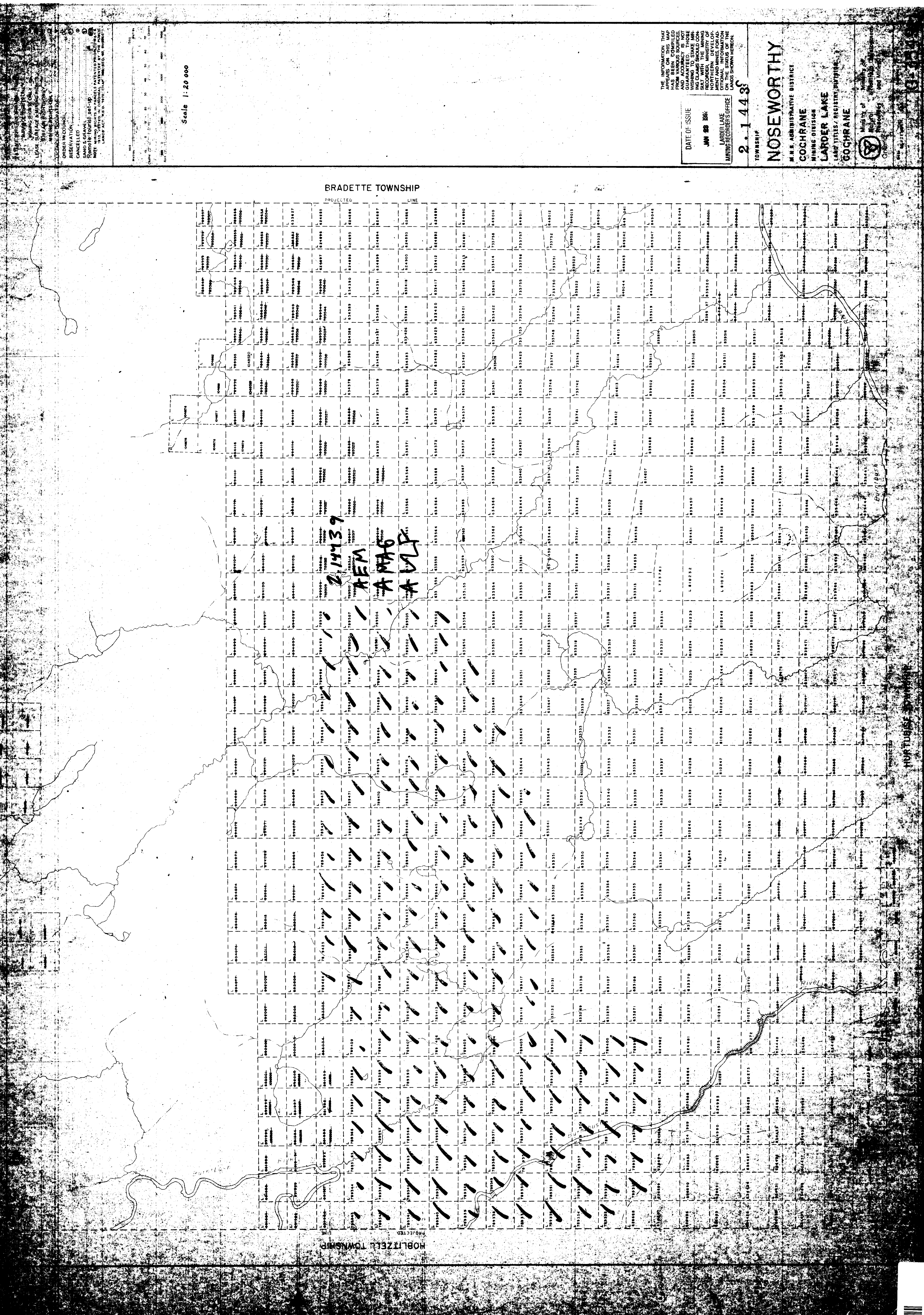
Number G-3515

HOBLITZELL

G-3215

200


NOSEWORTHY TOWNSHIP
BLAKELOCK TOWNSHIP
TOMLINSON TOWNSHIP
PROJECTED
Burntbush
Mikwam
River
East Soucie Lake
Soucie Lake
Soucie Cr.
Creek
Soucie
Porphyry
West Porphyry
Little Porphyry L.
2.14439
AEM
AMAG
AVLF
181225
HOBLITZELL
M.N.R. ADMINISTRATIVE DISTRICT
COCHRANE
MINING DIVISION
LARDER LAKE
LAND TITLES / REGISTRY DIVISION
COCHRANE
DATE OF ISSUE
LARDER LAKE MINING RECORDER'S OFFICE
2.14439
DISPOSITION OF CROWN LANDS
1:20 000
THE INFORMATION THAT APPEARS ON THIS MAP HAS BEEN COMPILED FROM VARIOUS SOURCES, AND ACCURACY IS NOT GUARANTEED. THOSE WISHING TO STAKE MINING CLAIMS SHOULD CONSULT WITH THE MINING RECORDER, MINISTRY OF NORTHERN DEVELOPMENT AND MINES, FOR ADDITIONAL INFORMATION ON THE STATUS OF THE LANDS SHOWN HEREON.
Ministry of Natural Resources
Ontario
210


BRADETTE TOWNSHIP
HOBLITZELL TOWNSHIP
Scale 1:20 000
NOSEWORTHY
COCHRANE
LARDER LAKE
DATE OF ISSUE
2.14439
AEM
AMAG
AVLP

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

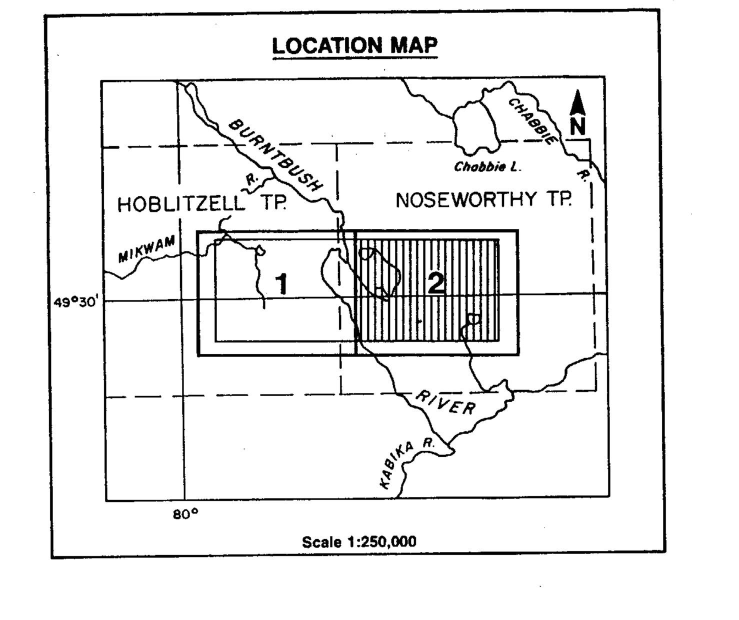
VLF PROFILES SEATTLE
BY DIGHEM SURVEYS & PROCESSING INC.

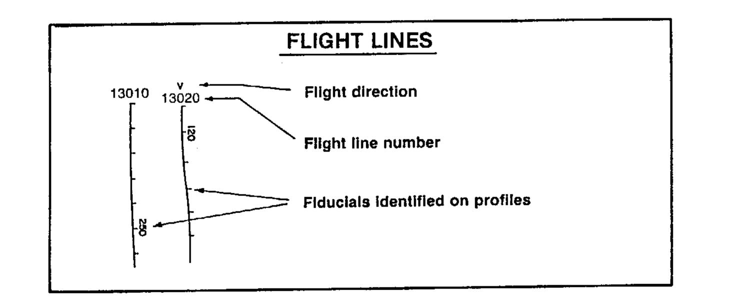
DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By: R.Z.
DATE: FEB. 87	JOB: 263	SHEET: 1

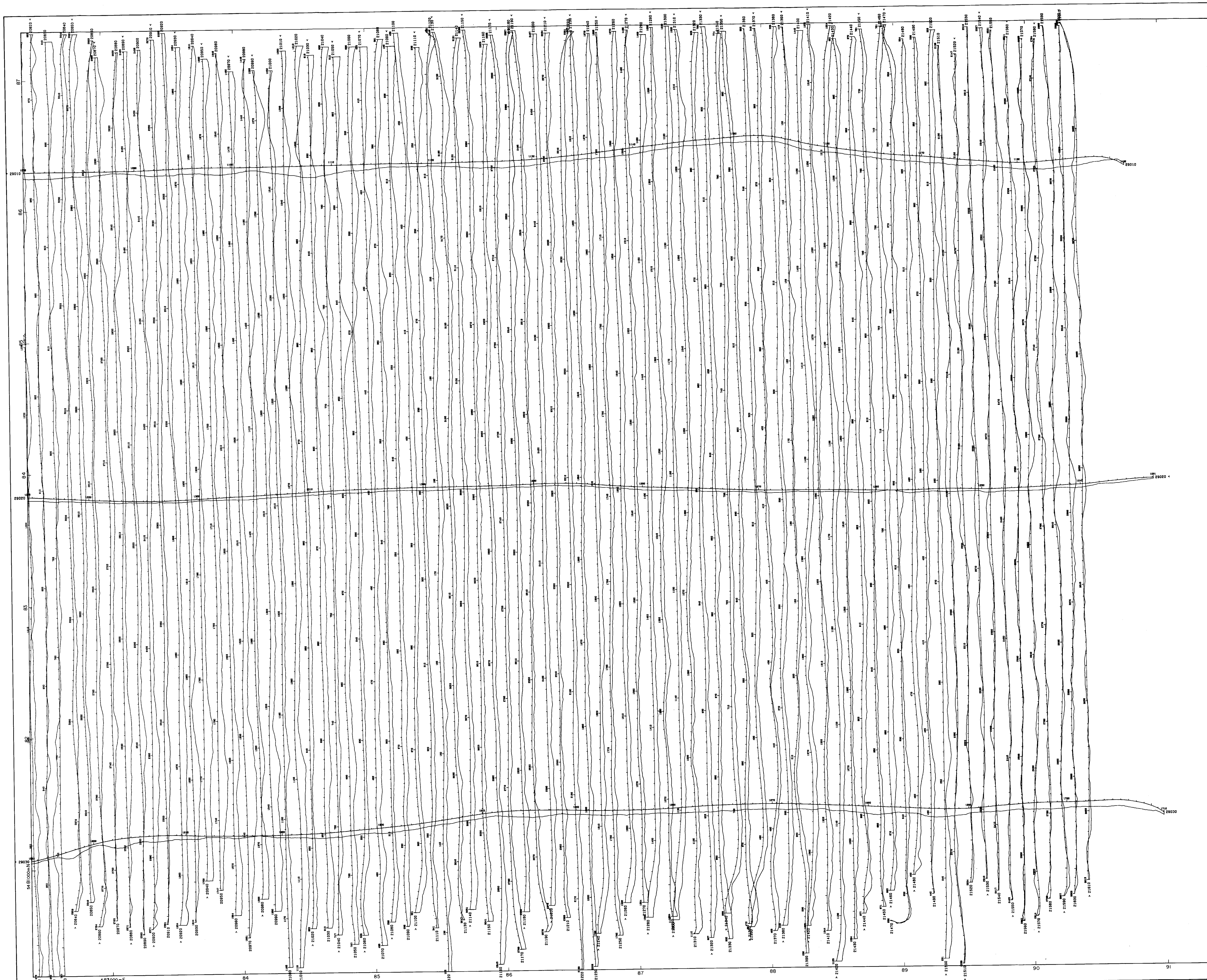
Scale 1:10,000

2.10544

230







LEGEND

Quadrature field 2% per mm

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

VLF PROFILES SEATTLE
BY DIGHEM SURVEYS & PROCESSING INC.

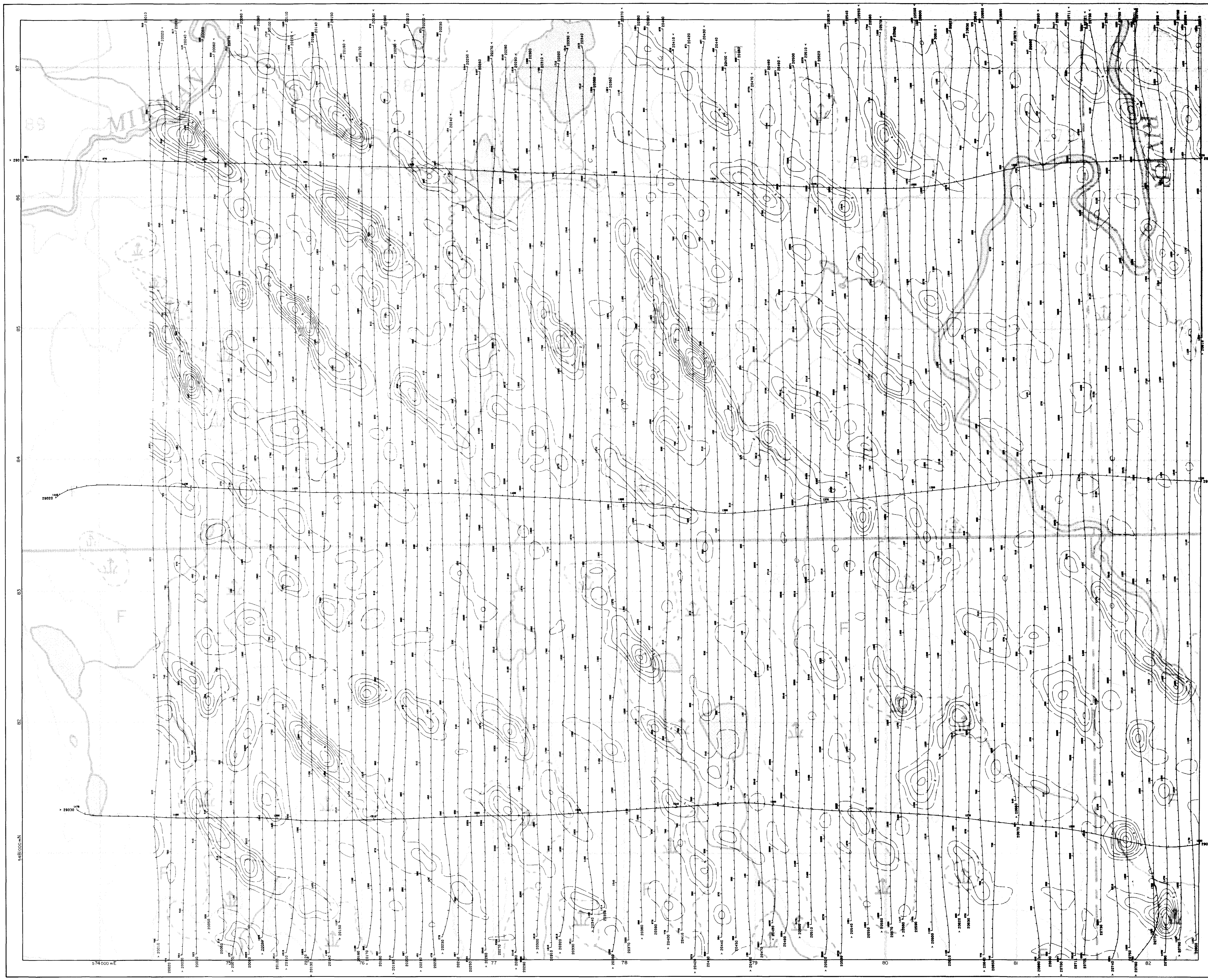
DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING BY:
DATE: FEB.87	JOB: 263	SHEET: 2

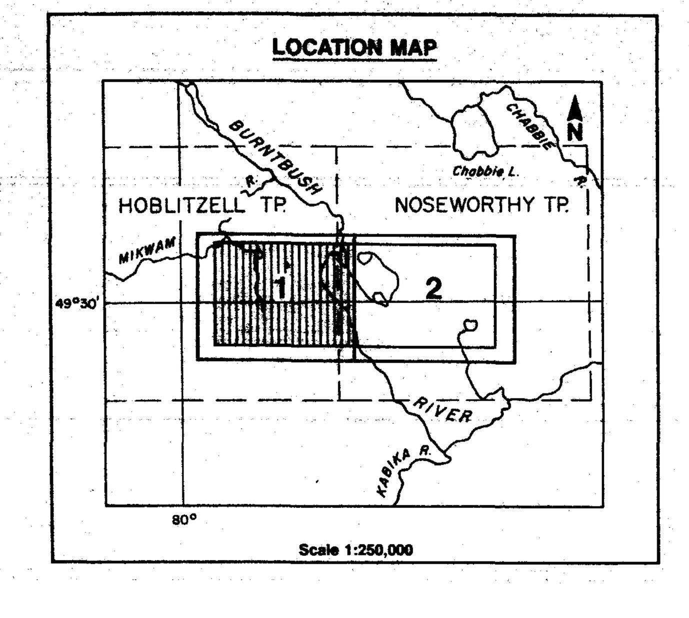
Scale 1:10,000

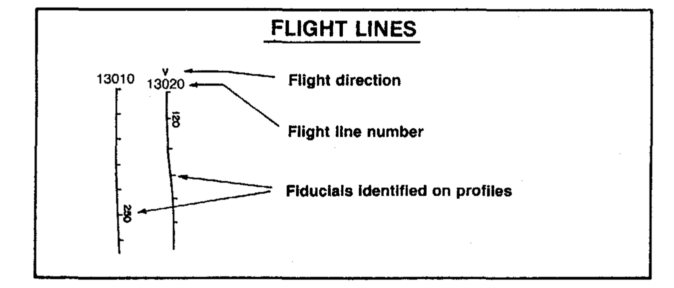
0 — 1 Km
0 — 0.5 Mi

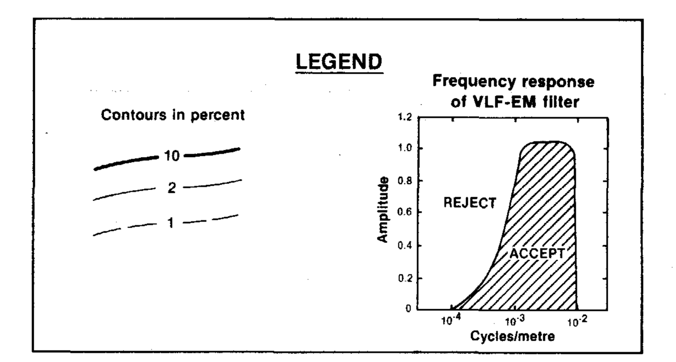
2.10544

240









COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

FILTERED VLF SEATTLE
BY DIGHEM SURVEYS & PROCESSING INC.

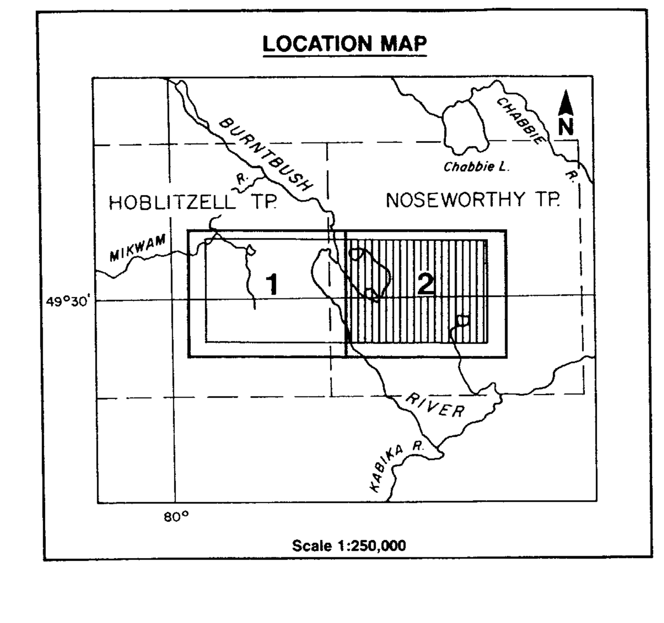
DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By: D.J.
DATE: FEB. 87	JOB: 263	SHEET: 1

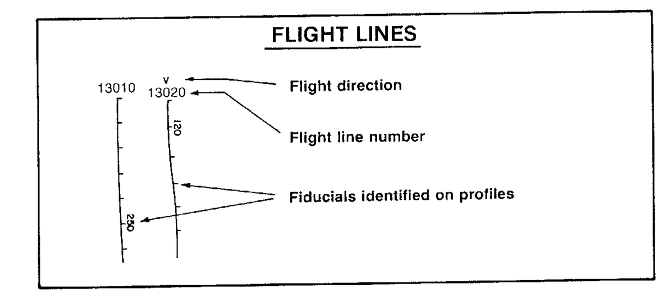
Scale 1:10,000

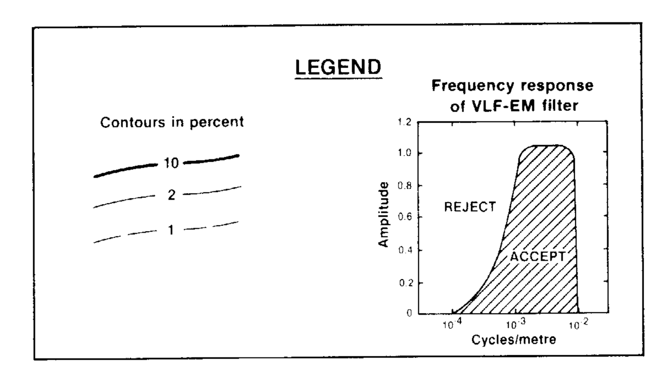
0 — 1 Km

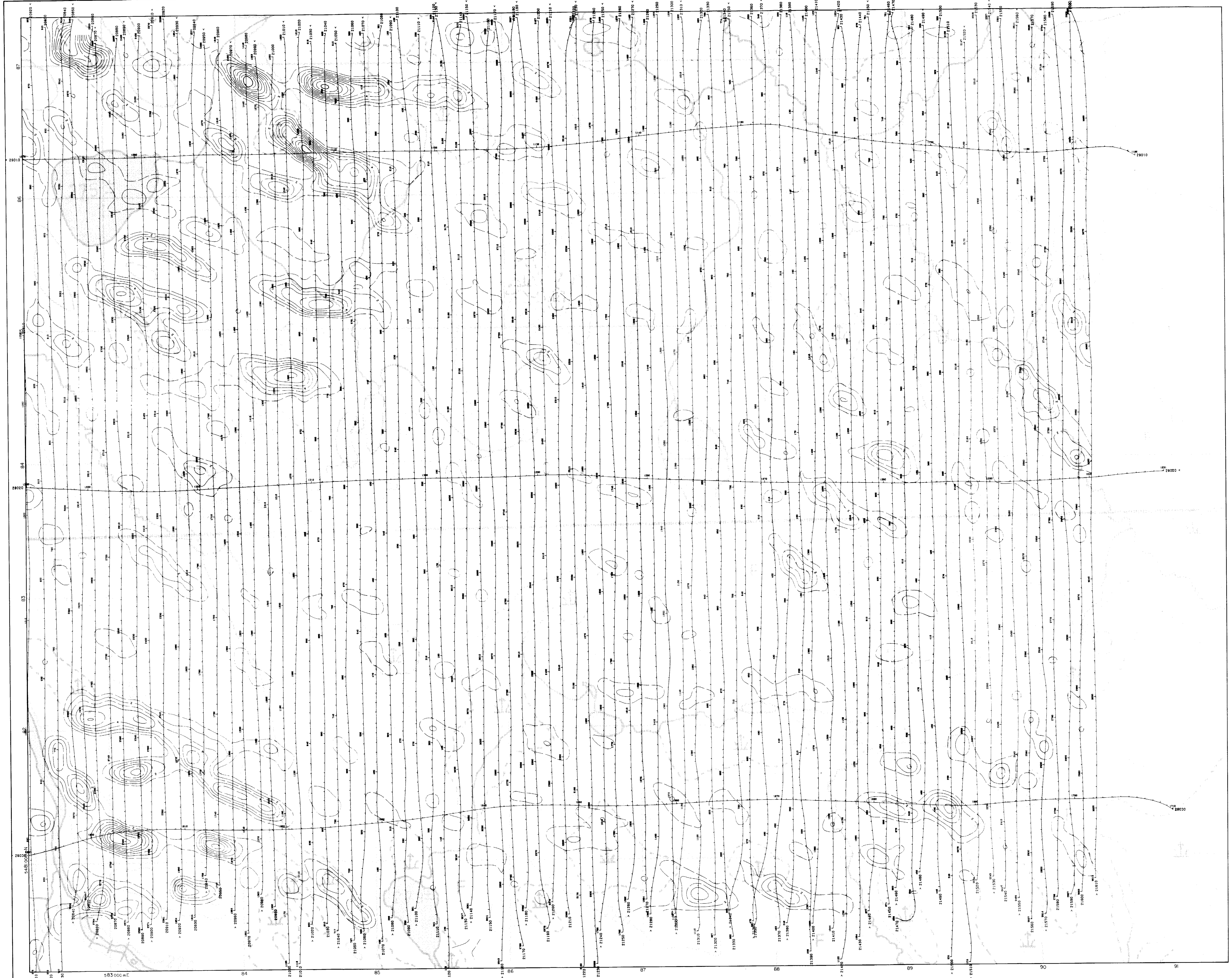
0 — 0.5 Mi

2.10544









COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

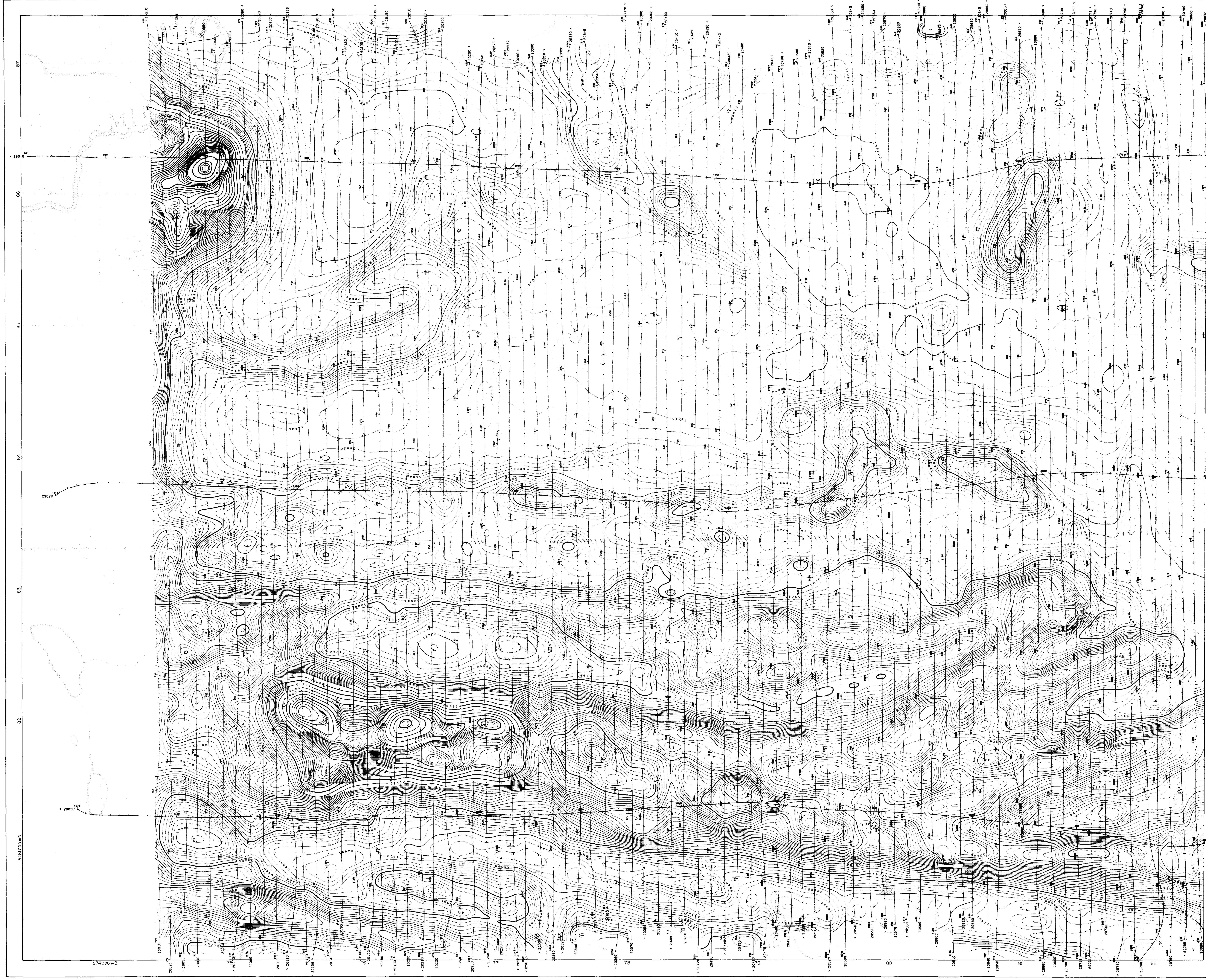
FILTERED VLF SEATTLE
BY DIGHEM SURVEYS & PROCESSING INC.

DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By:
DATE: FEB.87	JOB: 263	SHEET: 2

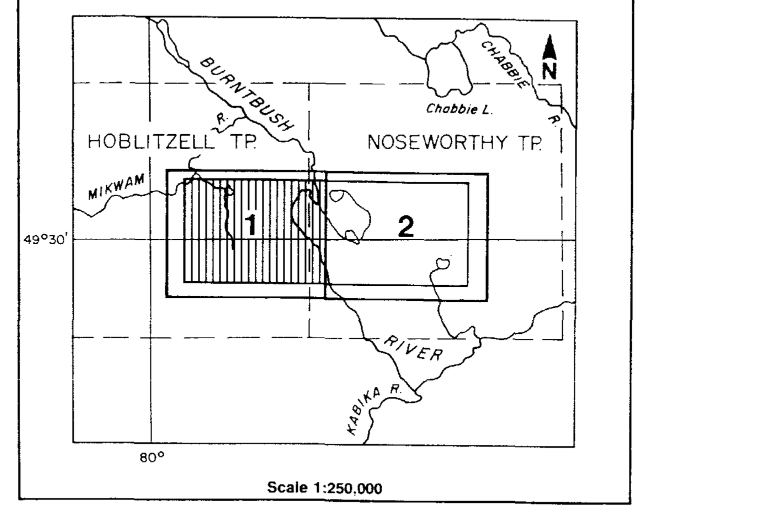
Scale 1:10,000

2.10544

260

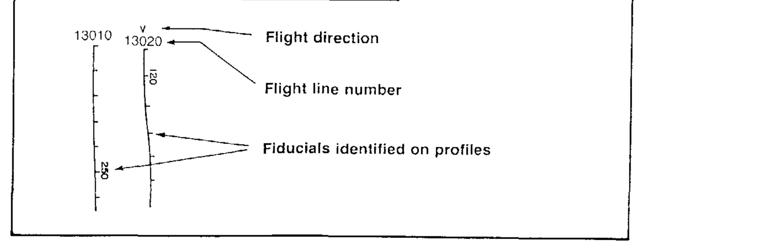


LOCATION MAP



Scale 1:250,000

FLIGHT LINES



LEGEND

Isomagnetic lines (total field)

500 .... 500nT
100 .... 100nT
20 .... 20nT
.... 10nT
.... magnetic depression

Magnetic inclination within the survey area: 76°

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

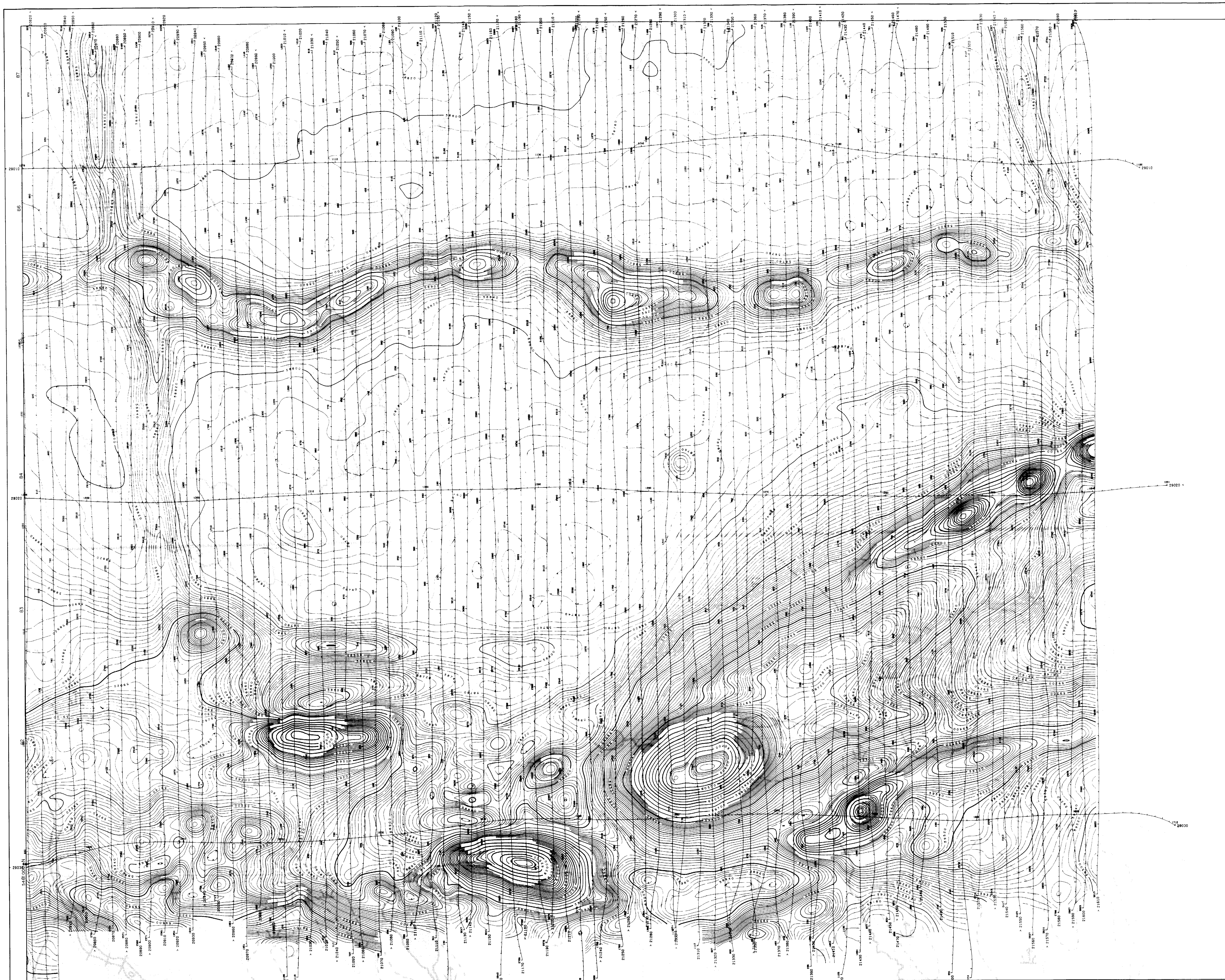
TOTAL FIELD MAGNETICS
BY DIGHEM SURVEYS & PROCESSING INC.

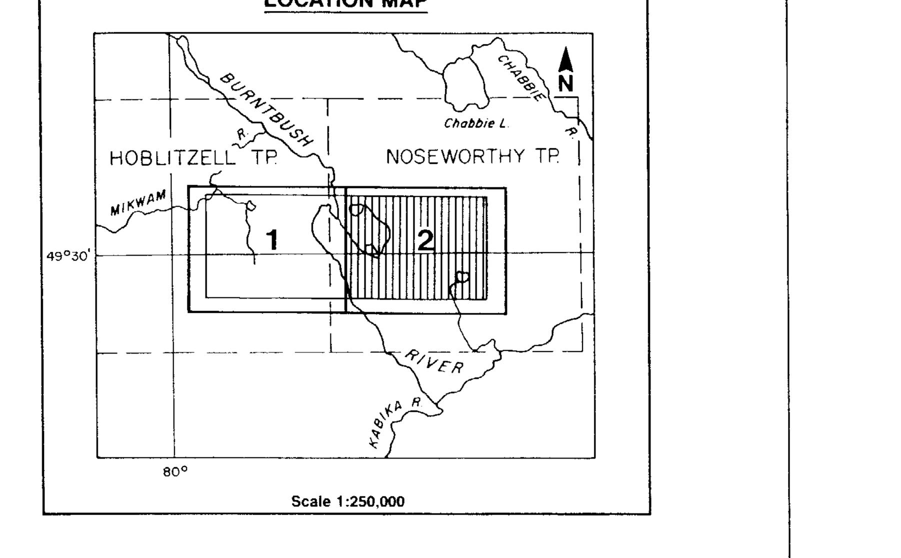
DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By:
DATE: FEB.87	JOB: 263	SHEET: 1

Scale 1:10,000

0 — 1 Km
0 — 0.5 Mi

270





FLIGHT LINES

13010 13020 — Flight direction
Flight line number
Fiducials identified on profiles

LEGEND

Isomagnetic lines (total field)

500	500nT
100	100nT
20	20nT
	10nT
	magnetic depression

Magnetic inclination within the survey area: 76°

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

TOTAL FIELD MAGNETICS
BY DIGHEM SURVEYS & PROCESSING INC.

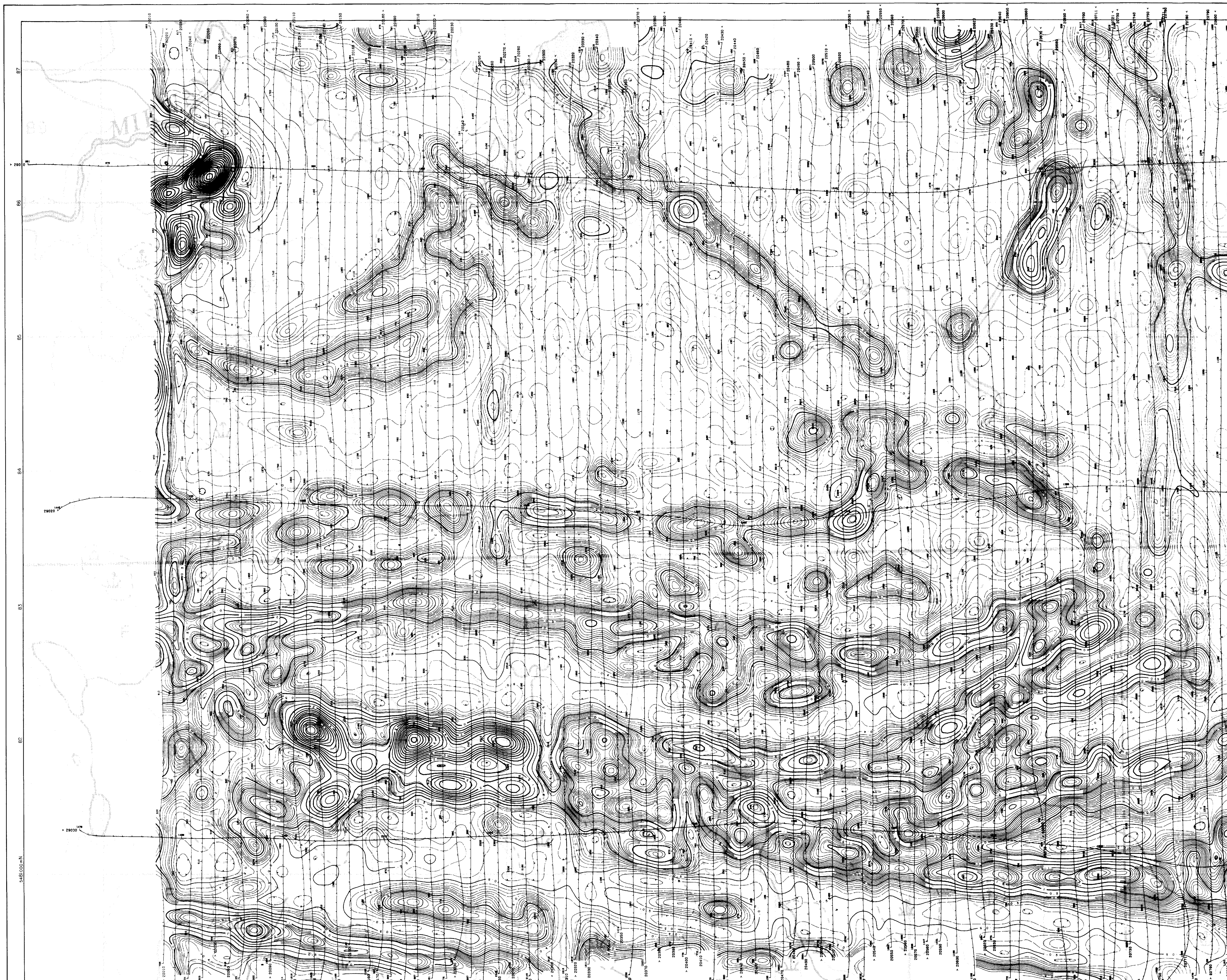
DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By: R.J.
DATE: FEB.87	JOB: 263	SHEET: 2

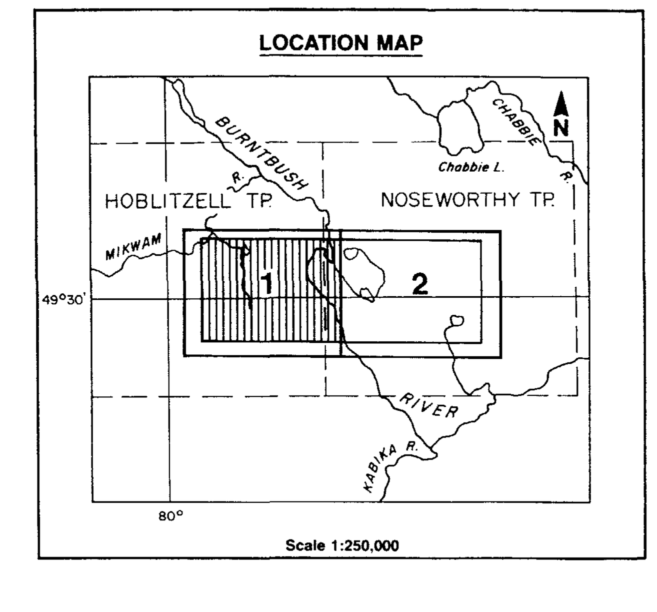
Scale 1:10,000

0 — 1 Km
0 — 0.5 Mi

2.10544

280





FLIGHT LINES

13010, 13020 — Flight direction
Flight line number
Fiducials identified on profiles

LEGEND

Isomagnetic lines (calculated first vertical derivative)

1	1 nT/Metre
0.5	0.5 nT/Metre
0.1	0.1 nT/Metre
	0.05 nT/Metre

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

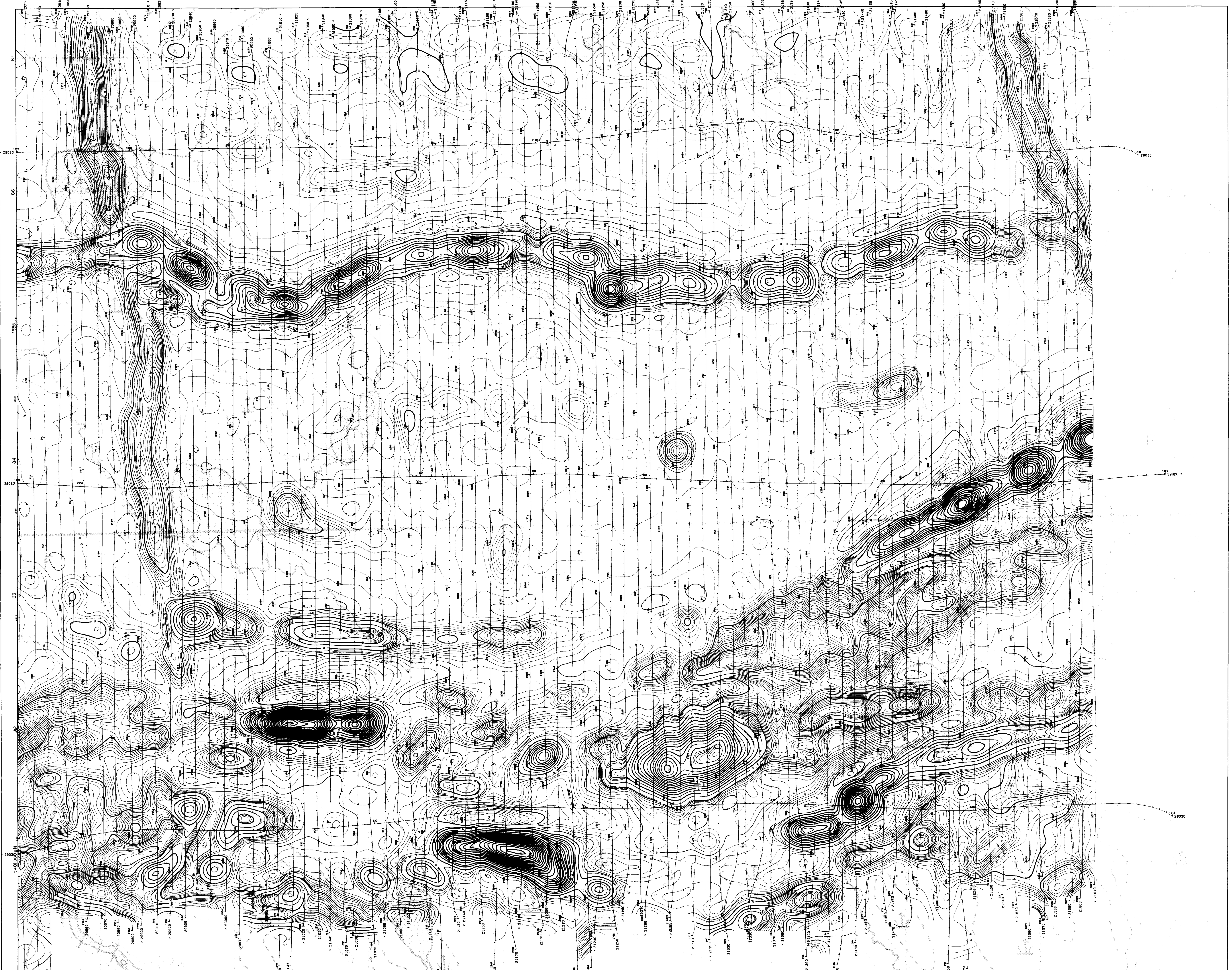
FIRST VERTICAL MAGNETIC DERIVATIVE
BY DIGHEM SURVEYS & PROCESSING INC.

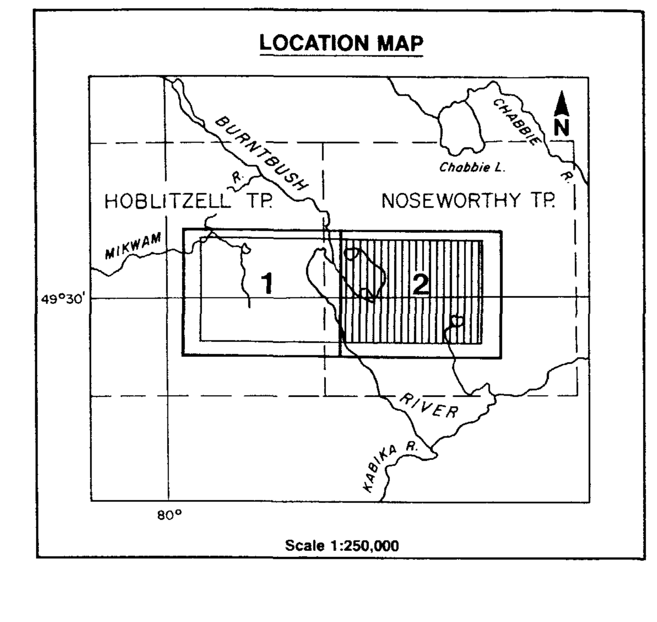
DIGHEM[III] SURVEY	GEOPHYSICIST: [signature]	DRAFTING By: R2
DATE: FEB.87	JOB: 263	SHEET: 1

Scale 1:10,000
0 — 1 Km
0 — 0.5 Mi

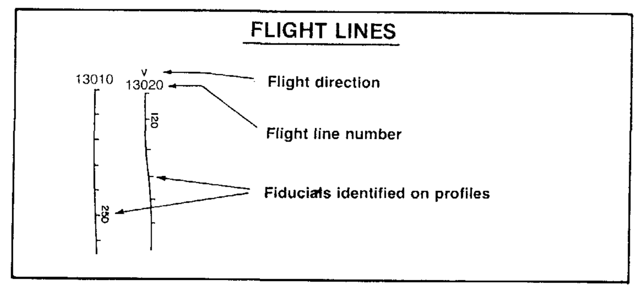
2.10564

290





FLIGHT LINES



LEGEND

Isomagnetic lines (calculated first vertical derivative)

1	1 nT/Metre
0.5	0.5 nT/Metre
0.1	0.1 nT/Metre
	0.05 nT/Metre

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

FIRST VERTICAL MAGNETIC DERIVATIVE
BY DIGHEM SURVEYS & PROCESSING INC.

DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By:
DATE: FEB. 87	JOB: 263	SHEET: 2

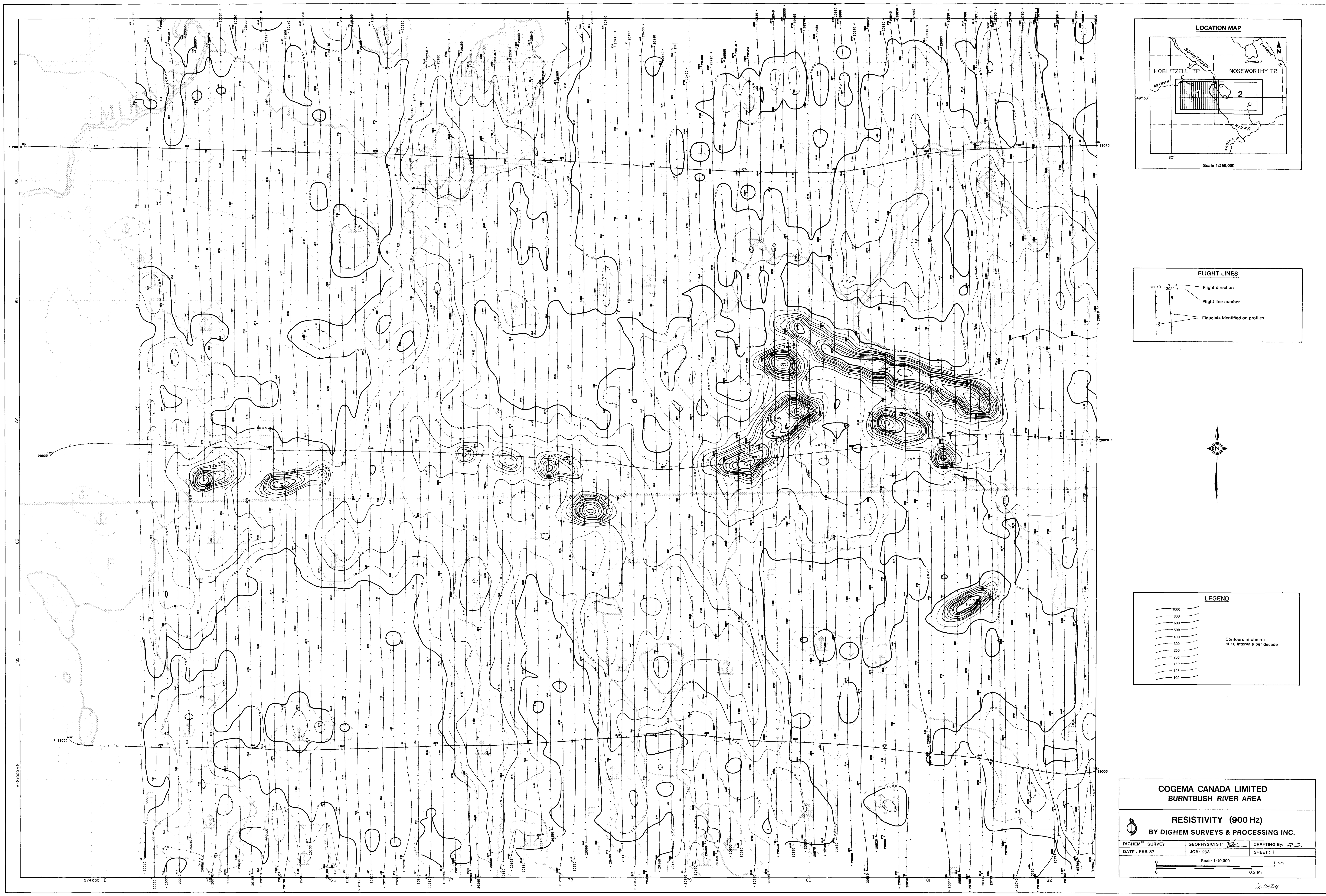
Scale 1:10,000

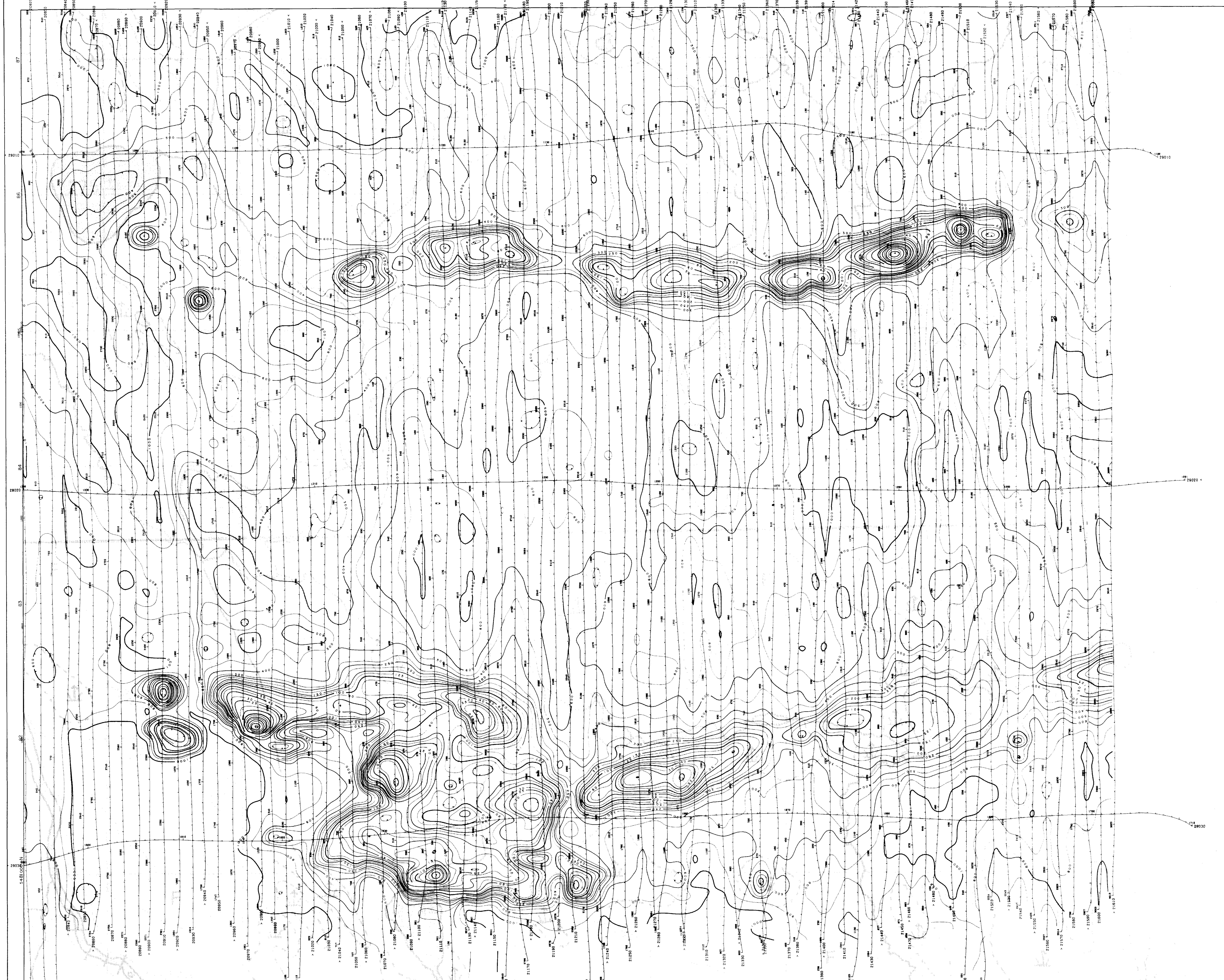
0 — 1 Km

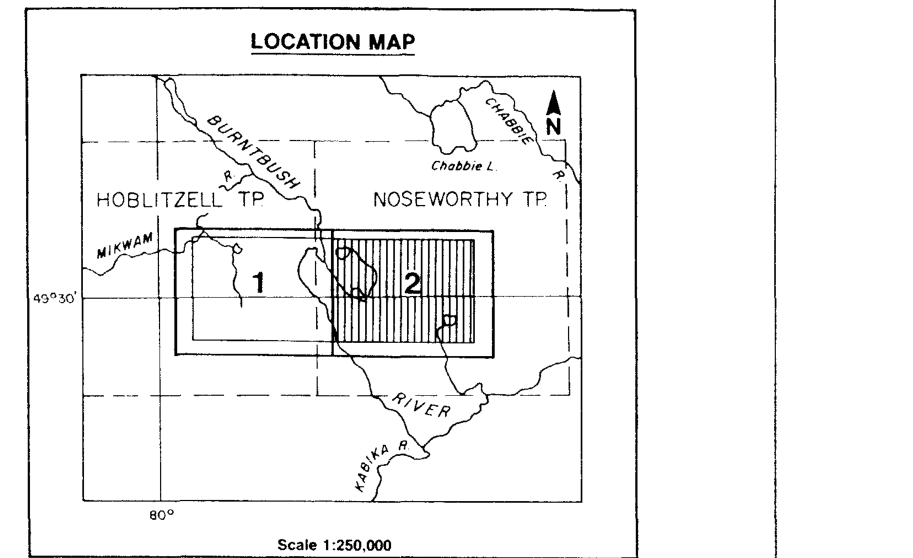
0 — 0.5 Mi

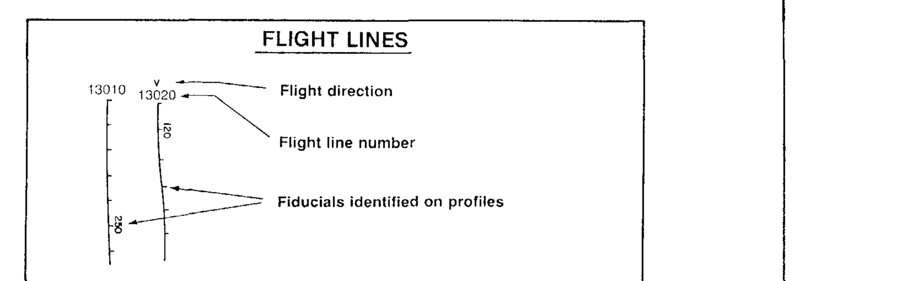
2.10544

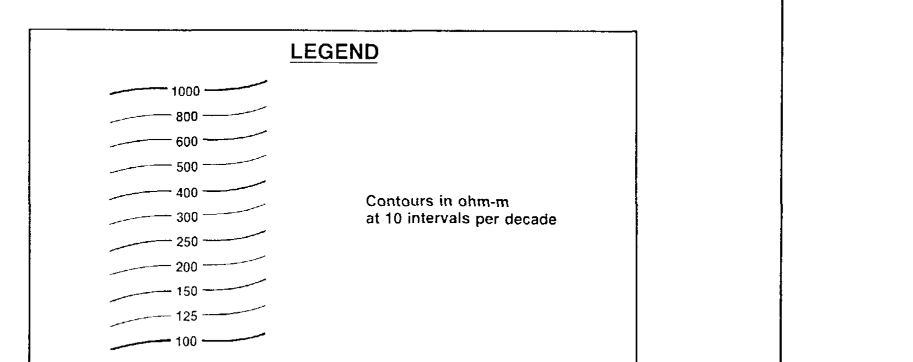
300


LOCATION MAP
BURNTBUSH
HOBLITZELL TP.
NOSEWORTHY TP.
MIKWAM
RIVER
49°30'
80°
1
2
Scale 1:250,000
FLIGHT LINES
Flight direction
Flight line number
Fiducials identified on profiles
LEGEND
1000
800
600
500
400
300
250
200
150
125
100
Contours in ohm-m
at 10 intervals per decade
COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA
RESISTIVITY (900 Hz)
BY DIGHEM SURVEYS & PROCESSING INC.
DIGHEM III SURVEY
GEOPHYSICIST:
DRAFTING By: R.Z.
DATE: FEB. 87
JOB: 263
SHEET: 1
Scale 1:10,000
0
1 Km
0
0.5 Mi
2.10544









COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

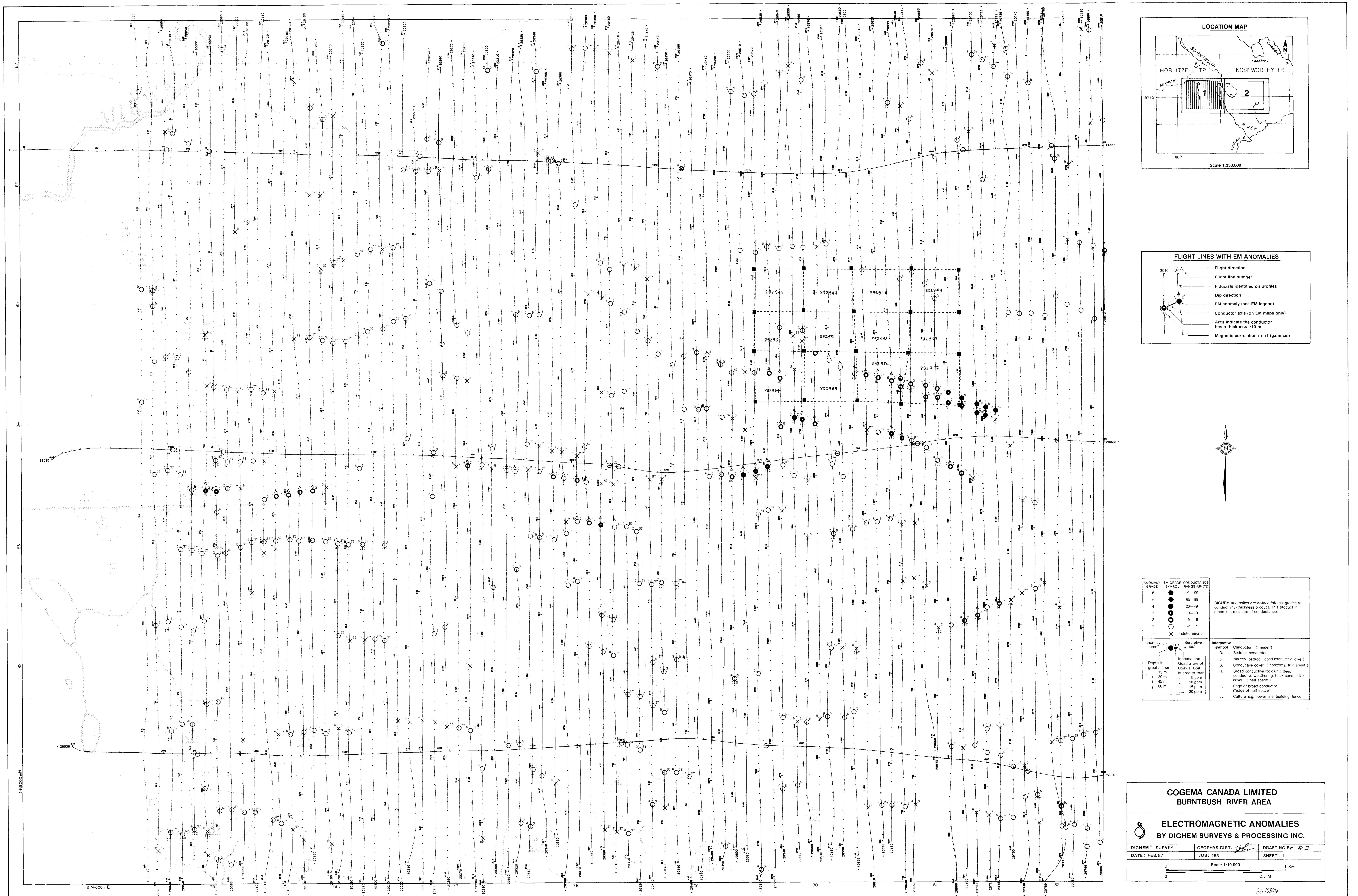
RESISTIVITY (900 Hz)
BY DIGHEM SURVEYS & PROCESSING INC.

DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By:
DATE: FEB.87	JOB: 263	SHEET: 2

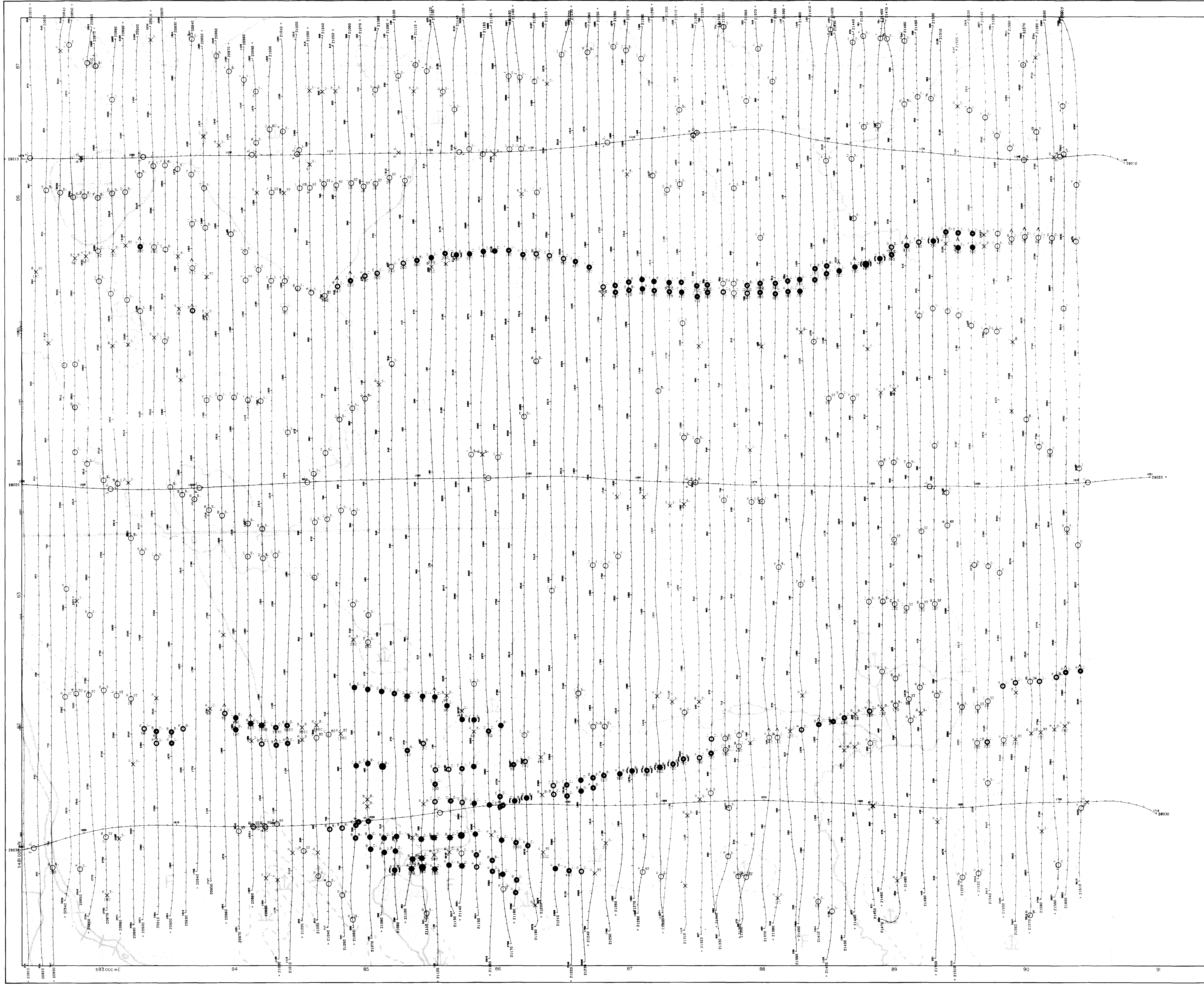
Scale 1:10,000

2.10544

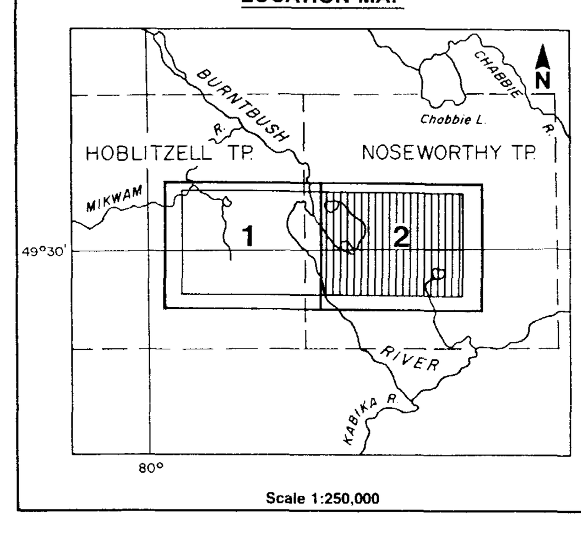
320


LOCATION MAP
BURNTBUSH
HOBLITZELL TP
NOSEWORTHY TP
RIVER
Chabbie L
49°30
80°
Scale 1:250,000
FLIGHT LINES WITH EM ANOMALIES
Flight direction
Flight line number
Fiducials identified on profiles
Dip direction
EM anomaly (see EM legend)
Conductor axis (on EM maps only)
Arcs indicate the conductor has a thickness >10 m
Magnetic correlation in nT (gammas)
ANOMALY GRADE
EM GRADE SYMBOL
CONDUCTANCE RANGE (MHOS)
6 > 99
5 50—99
4 20—49
3 10—19
2 5— 9
1 < 5
— Indeterminate
DIGHEM anomalies are divided into six grades of conductivity-thickness product. This product in mhos is a measure of conductance.
anomaly "name"
interpretive symbol
Depth is greater than
15 m
30 m
45 m
60 m
Inphase and Quadrature of Coaxial Coil is greater than
5 ppm
10 ppm
15 ppm
20 ppm
Interpretive symbol
Conductor ("model")
B. Bedrock conductor
D. Narrow bedrock conductor ("thin dike")
S. Conductive cover ("horizontal thin sheet")
H. Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E. Edge of broad conductor ("edge of half space")
L. Culture, e.g. power line, building, fence
COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA
ELECTROMAGNETIC ANOMALIES
BY DIGHEM SURVEYS & PROCESSING INC.
DIGHEM III SURVEY
GEOPHYSICIST:
DRAFTING By: R.Z.
DATE: FEB.87
JOB: 263
SHEET: 1
Scale 1:10,000
0 1 Km
0 0.5 Mi
2.10544
574000 mE
5481000 mN

330



LOCATION MAP



Scale 1:250,000

FLIGHT LINES WITH EM ANOMALIES

13010 13020

- Flight direction
- Flight line number
- Fiducials identified on profiles
- Dip direction
- EM anomaly (see EM legend)
- Conductor axis (on EM maps only)
- Arcs indicate the conductor has a thickness >10 m
- Magnetic correlation in nT (gammas)

ANOMALY GRADE	EM GRADE SYMBOL	CONDUCTANCE RANGE (MHOS)
6	●	> 99
5	●	50—99
4	●	20—49
3	●	10—19
2	○	5— 9
1	○	< 5
—	X	Indeterminate

DIGHEM anomalies are divided into six grades of conductivity-thickness product. This product in mhos is a measure of conductance.

anomaly "name" — Interpretive symbol

Depth is greater than	Inphase and Quadrature of Coaxial Coil is greater than
15 m	5 ppm
30 m	10 ppm
45 m	15 ppm
60 m	20 ppm

Interpretive symbol	Conductor ("model")
B,	Bedrock conductor
D,	Narrow bedrock conductor ("thin dike")
S,	Conductive cover ("horizontal thin sheet")
H,	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E,	Edge of broad conductor ("edge of half space")
L,	Culture, e.g. power line, building, fence

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

ELECTROMAGNETIC ANOMALIES
BY DIGHEM SURVEYS & PROCESSING INC.

DIGHEM[III] SURVEY	GEOPHYSICIST: [signature]	DRAFTING By: D.D.
DATE: FEB.87	JOB: 263	SHEET: 2

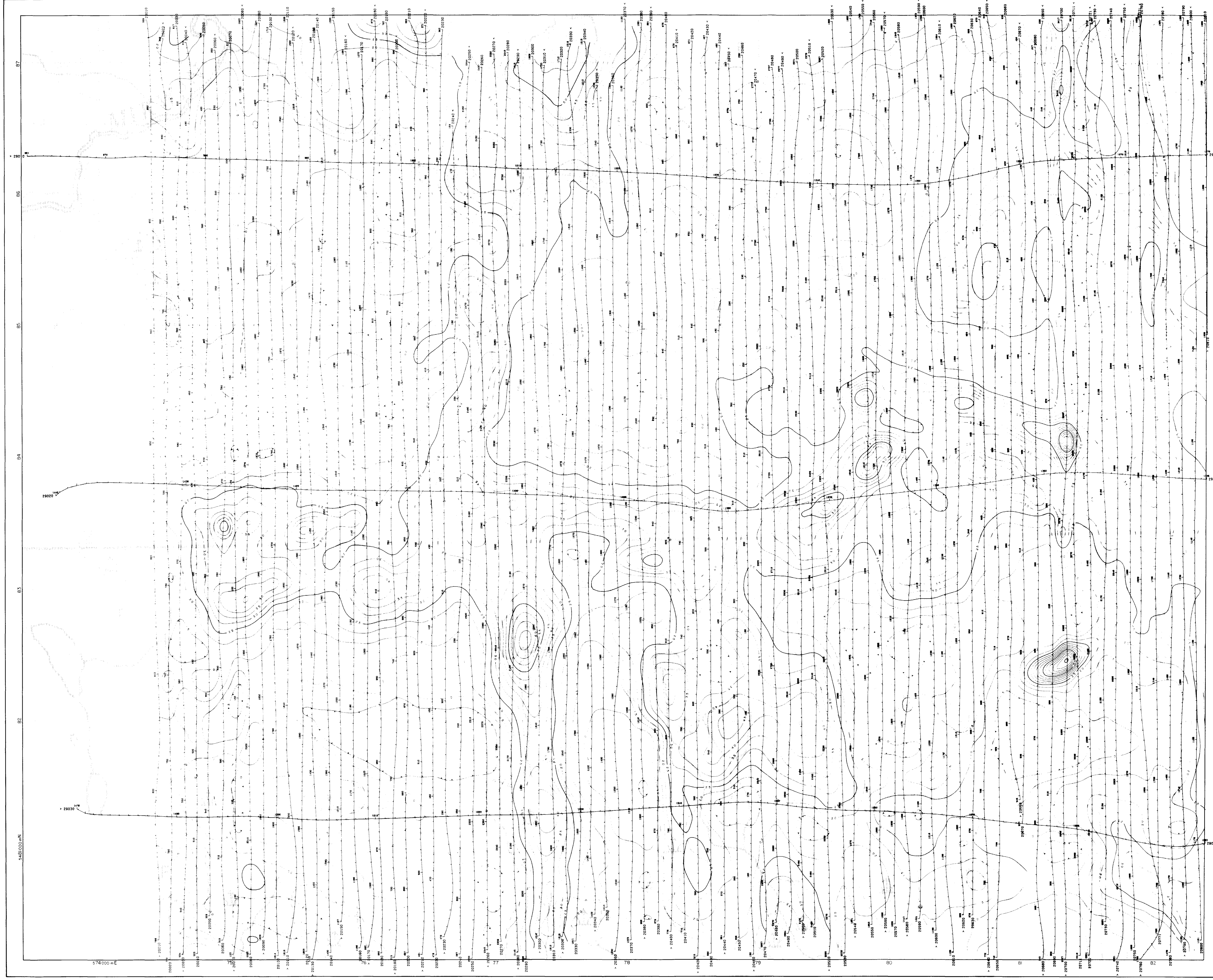
Scale 1:10,000

0 — 1 Km

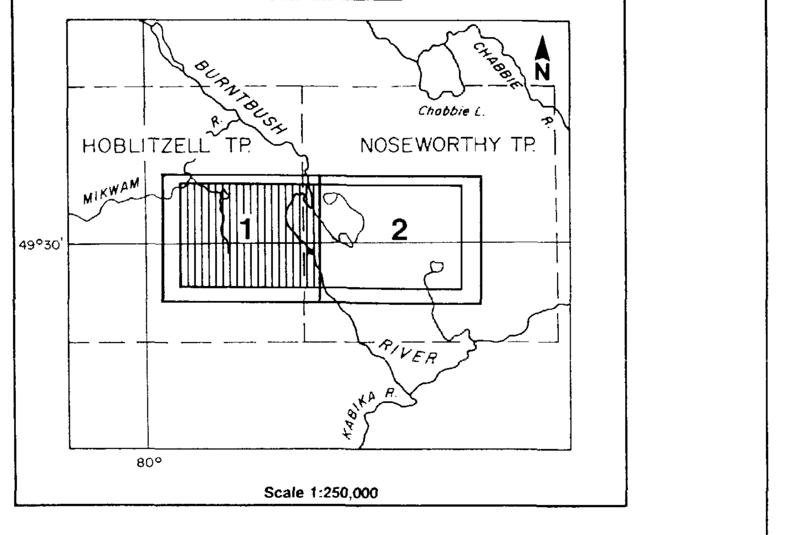
0 — 0.5 Mi

2.10544

340



LOCATION MAP



Scale 1:250,000

FLIGHT LINES

13010 — 13020 — Flight direction
Flight line number
Fiducials identified on profiles

LEGEND

100	100 Metre
25	25 Metre
5	5 Metre

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

APPARENT OVERBURDEN THICKNESS
BY DIGHEM SURVEYS & PROCESSING INC.

DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By:
DATE: FEB.87	JOB: 263	SHEET: 1

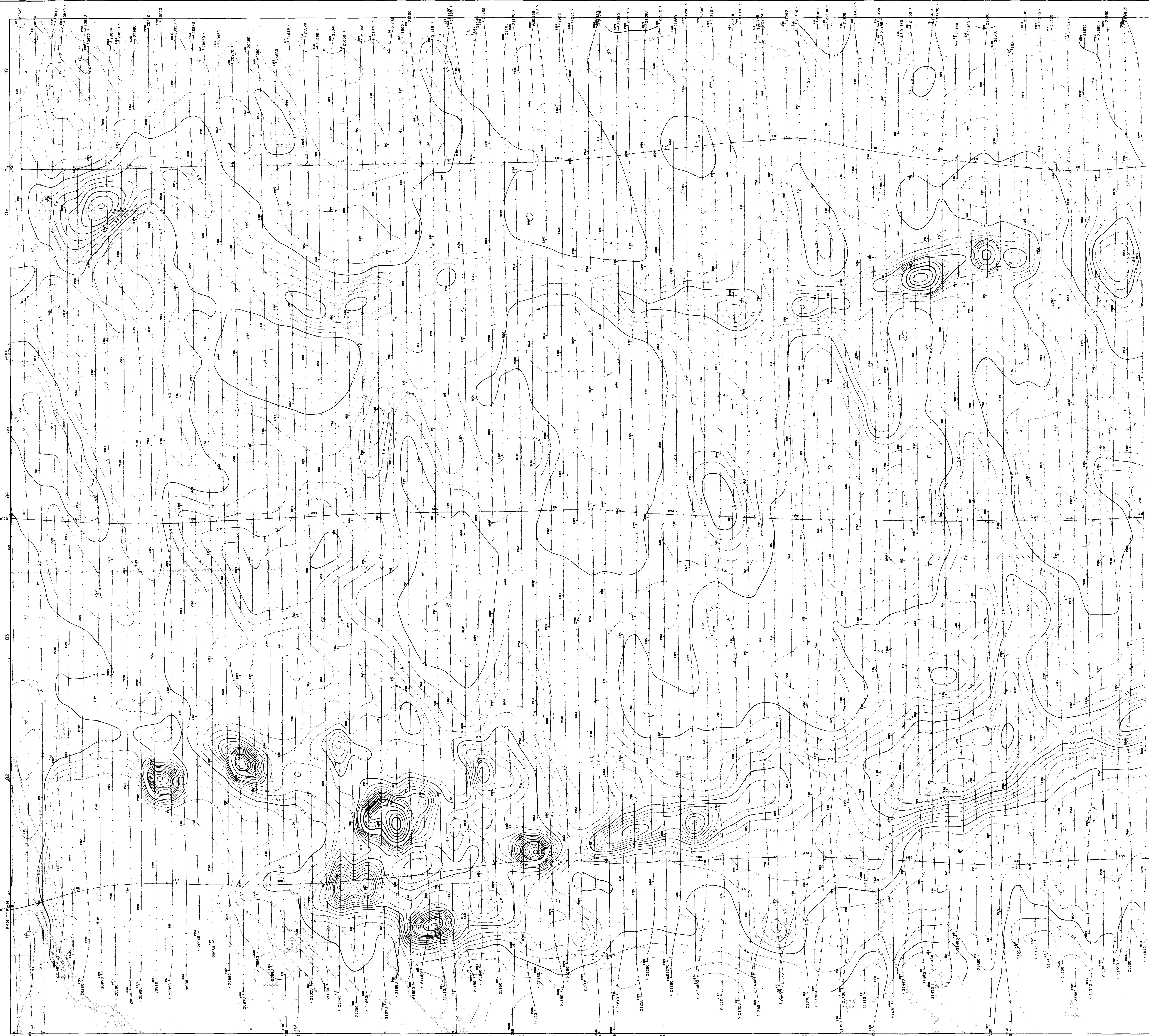
Scale 1:10,000

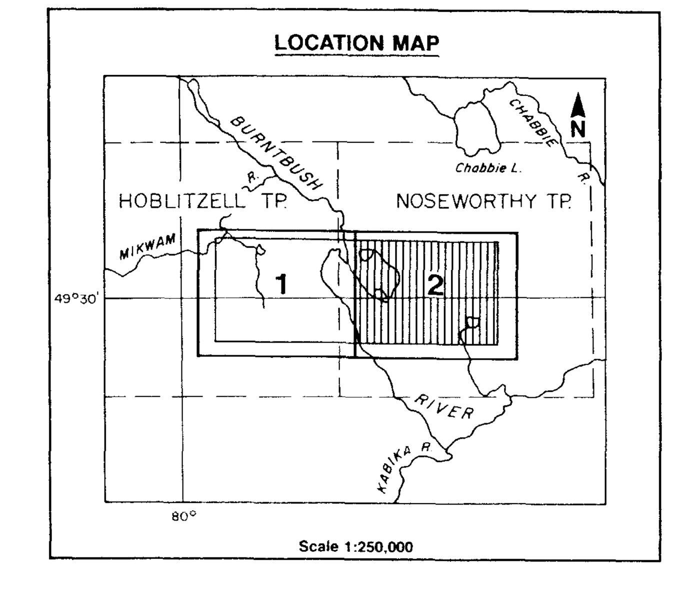
0 — 1 Km

0 — 0.5 Mi

21054

350





FLIGHT LINES

- Flight direction
- Flight line number
- Fiducials identified on profiles

LEGEND

- 100 — 100 Metre
- 25 — 25 Metre
- 5 — 5 Metre

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

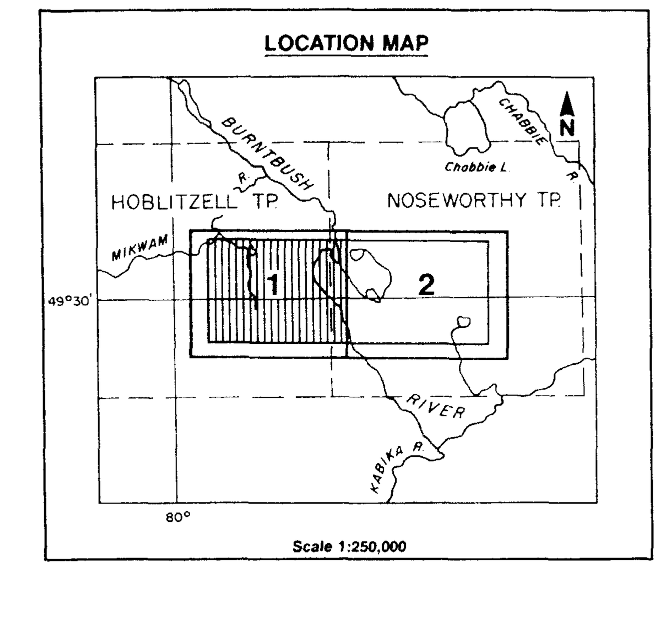
APPARENT OVERBURDEN THICKNESS
BY DIGHEM SURVEYS & PROCESSING INC.

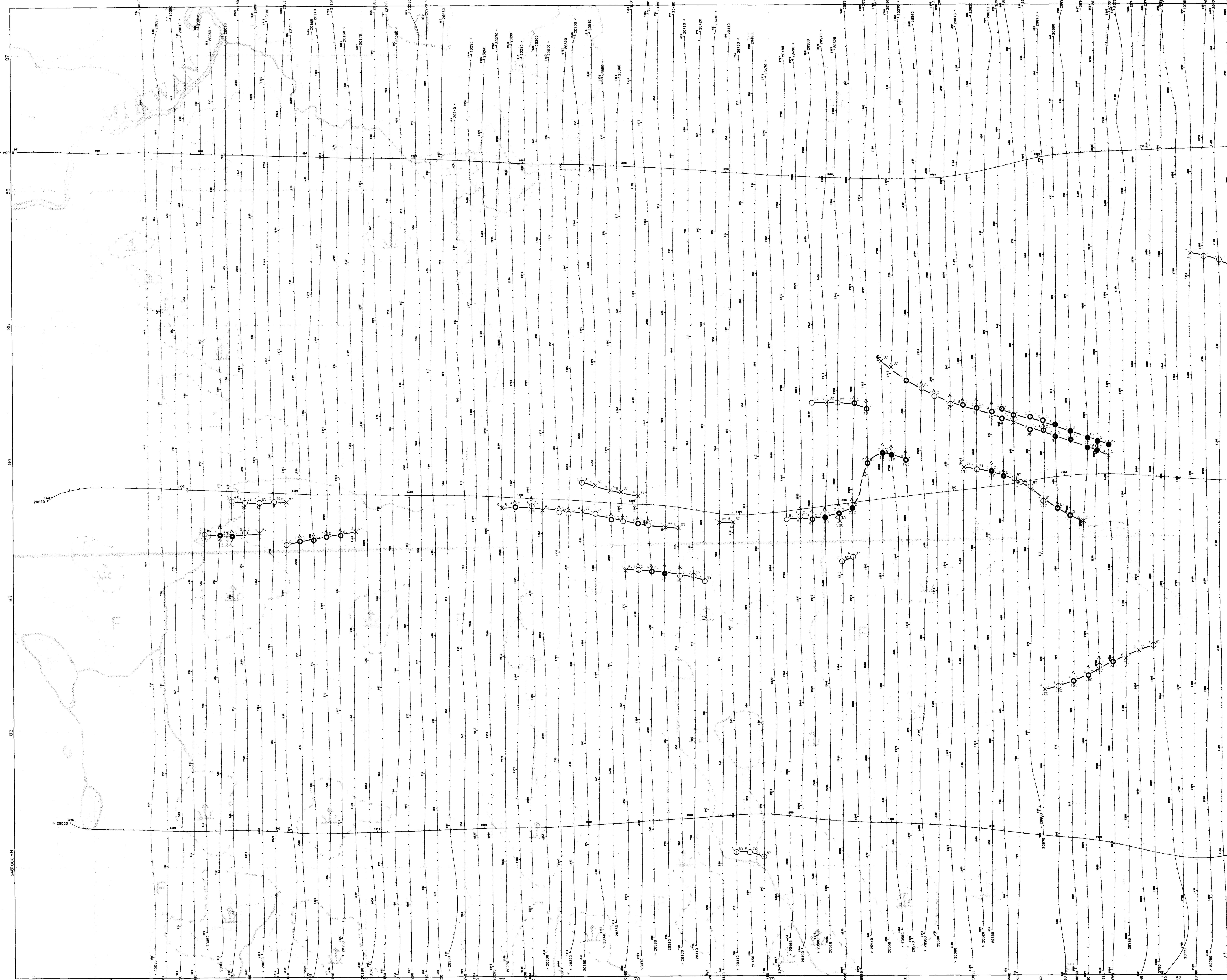
DIGHEM SURVEY	GEOPHYSICIST:	DRAFTING By:
DATE: FEB.87	JOB: 263	SHEET: 2

Scale 1:10,000

2.10544

360





FLIGHT LINES WITH EM ANOMALIES

- Flight direction
- Flight line number
- Fiducials identified on profiles
- Dip direction
- EM anomaly (see EM legend)
- Conductor axis (on EM maps only)
- Arcs indicate the conductor has a thickness >10 m
- Magnetic correlation in nT (gammas)

ANOMALY GRADE	EM GRADE SYMBOL	CONDUCTANCE RANGE (MHOS)
6	●	> 99
5	●	50–99
4	●	20–49
3	O	10–19
2	O	5–9
1	○	< 5
—	X	Indeterminate

DIGHEM anomalies are divided into six grades of conductivity-thickness product. This product in mhos is a measure of conductance.

anomaly "name" — interpretive symbol

Depth is greater than	Inphase and Quadrature of Coaxial Coil is greater than
15 m	5 ppm
30 m	10 ppm
45 m	15 ppm
60 m	20 ppm

Interpretive symbol	Conductor ("model")
B,	Bedrock conductor
D,	Narrow bedrock conductor ("thin dike")
S,	Conductive cover ("horizontal thin sheet")
H,	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E,	Edge of broad conductor ("edge of half space")
L,	Culture, e.g. power line, building, fence

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

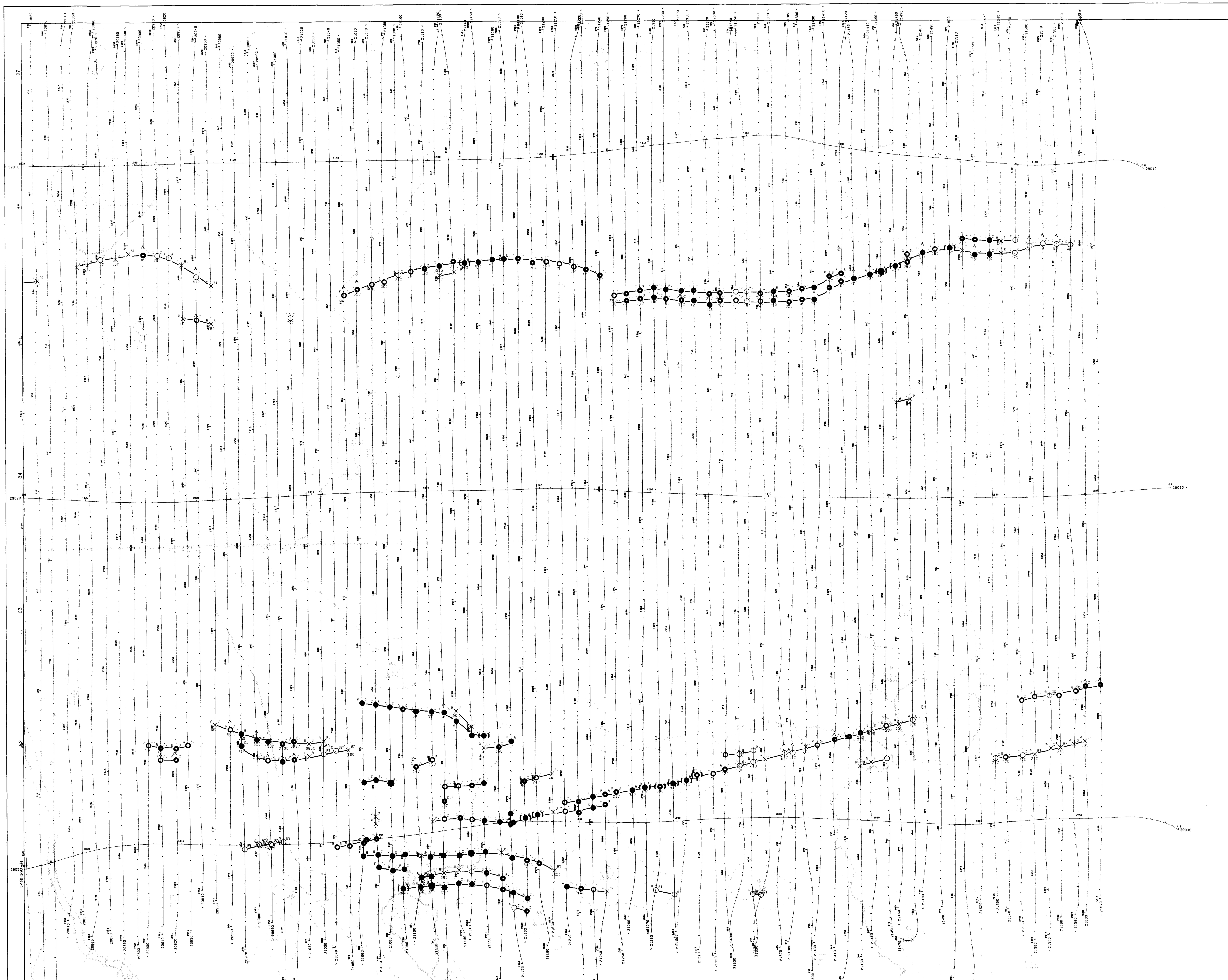
PROBABLE BEDROCK CONDUCTORS
BY DIGHEM SURVEYS & PROCESSING INC.

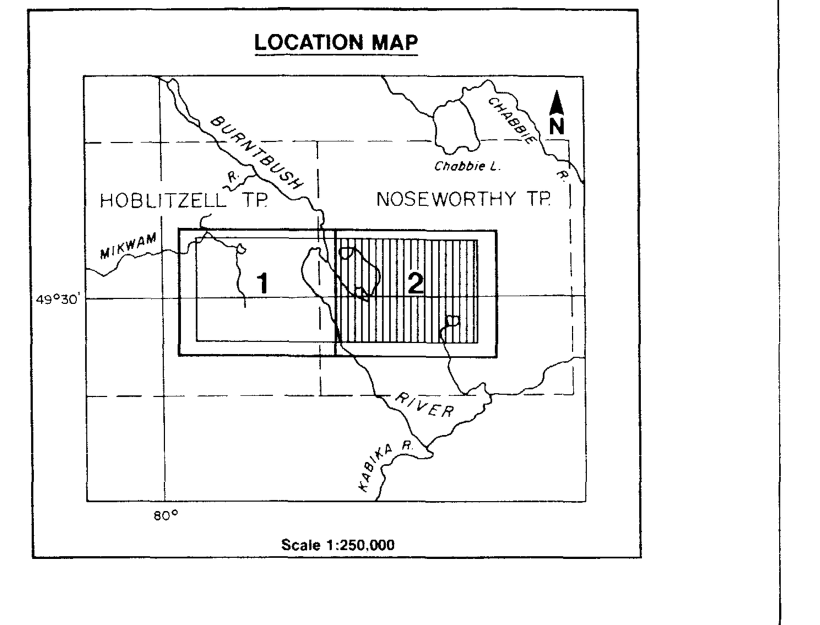
DIGHEM SURVEY	GEOPHYSICIST: [signature]	DRAFTING By: [initials]
DATE: FEB.87	JOB: 263	SHEET: I

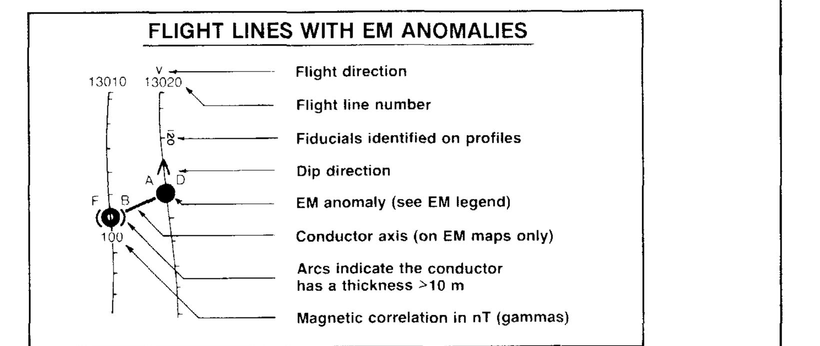
Scale 1:10,000
0 — 1 Km
0 — 0.5 Mi

2.10524

370







ANOMALY GRADE	EM GRADE SYMBOL	CONDUCTANCE RANGE (MHOS)
6	●	> 99
5	●	50—99
4	●	20—49
3	◉	10—19
2	O	5— 9
1	○	< 5
—	X	Indeterminate

DIGHEM anomalies are divided into six grades of conductivity-thickness product. This product in mhos is a measure of conductance.

anomaly "name" → C ● H ← interpretive symbol

Depth is greater than
· 15 m
: 30 m
⋮ 45 m
⋮ 60 m

Inphase and Quadrature of Coaxial Coil is greater than
. 5 ppm
.. 10 ppm
... 15 ppm
.... 20 ppm

Interpretive symbol	Conductor ("model")
B.	Bedrock conductor
D.	Narrow bedrock conductor ("thin dike")
S.	Conductive cover ("horizontal thin sheet")
H.	Broad conductive rock unit, deep conductive weathering, thick conductive cover ("half space")
E.	Edge of broad conductor ("edge of half space")
L.	Culture, e.g. power line, building, fence

COGEMA CANADA LIMITED
BURNTBUSH RIVER AREA

PROBABLE BEDROCK CONDUCTORS
BY DIGHEM SURVEYS & PROCESSING INC.

DIGHEM[III] SURVEY	GEOPHYSICIST:	DRAFTING By: R.Z.
DATE: FEB.87	JOB: 263	SHEET: 2

Scale 1:10,000
0 — 1 Km
0 — 0.5 Mi

2.10544