AIRBORNE ELECTROMAGNETIC SURVEY

NORANDA EXPLORATION CO. LIMITED (NPL) owner/operator

MOUNT EVANS AREA, BRITISH COLUMBIA

07/86

FILE NO: 24H36C JANUARY, 1983

Fort Steele M.D.

82F/8E,W; 9E,W

49°33' 116°12'

FILMED

GEOLOGICAL BRANCH
ASSESSMENT REPORT

14,533

Questor Surveys Limited, 6380 Viscount Road, Mississauga, Ontario L4V 1H3

C O N T E N T S

INTRODUCTION

This report contains our interpretation of the results of a helicopter-borne electromagnetic (INPUT) survey conducted for Noranda Exploration Company Limited in the Mount Evans area of Southeastern British Columbia. The survey was flown from September 17 to 30, 1982, by QUESTOR SURVEYS LIMITED utilizing a Bell 205 A-1 Turbine Helicopter (C-GLMC) equipped with the latest BARRINGER/QUESTOR MARK VI INPUT System and Sonotek P.M. 5010 Proton Magnetometer.

Cranbrook was used as the operating base for the survey, as well as for the location of the ground magnetic base station.

The survey consists of three survey blocks; Blocks C1, C2 and C3, which are situated approximately 30 kilometres northwest of Cranbrook. A topographical location map of the survey sites is provided within this report.

The total survey line kilometres flown for the survey areas has been measured to be 500 line kilometres. This measurement only takes into account the distance flown within survey boundaries, as defined on the interpretational maps.

SURVEY PROCEDURES

During the survey, the helicopter maintained a terrain clearance as close to 122 metres, above the ground surface, as possible. In areas of substantial topographic relief, the helicopter height may exceed 122 metres for safety reasons. At an altitude of 122 metres and at normal survey air speeds, the receiver sensor or 'bird' is situated approximately 50 metres above the ground surface.

The airborne survey equipment is properly calibrated, before each survey flight. The following procedure is used:

1) "Zero: the E.M. levels at a 600 metre terrain clearance
2) Calibrate full scale INPUT receiver gain
3) Altimeter calibration
4) E.M. Compensation
5) Magnetometer calibration
6) Record the background E.M. levels.

The background levels (6) are used at a later date to correct for drift that may have occurred in the E.M. levels during the progression of the survey flight. Compensation (4) is a technique by which the effects of the spurious secondary field, created in the metal frame of the helicopter due to coupling differences induced by the "bird" motion relative to the helicopter, are eliminated. This spurious secondary field is a chief source of noise which must be removed before every survey flight is initiated.

The flight path for Blocks C1, C2 and C3 were flown in alternate directions in order to facilitate the interpretation of dipping conductors. Flight directions were N 40° W and S 220° E for C1, N 90° E and S 270° W for C2 and N 35° W and S 270° W for C3. A line spacing of 400 metres was used for all blocks.

A ground magnetic base station was monitored daily for severe diurnal variations (magnetic storm). A variation greater than 20 gammas over a 5 minute period is considered to be a magnetic storm. The survey would have been discontinued or postponed during such an event. The base station consisted of a Geometric's 826 Proton Magnetometer with a ± 1 gamma accuracy. Output from the monitor was recorded in a continuous graph form at a chart speed of 15 cm. per hour.

Appropriate details of each flight are logged on the flight logs by the equipment technician. The logs include the survey times, line numbers and fiducial intervals as well as a record of equipment irregularities and atmospheric conditions. One can refer to these logs in order to relate the flight path film to the geophysical data.

The flight path recovery is accomplished by the comparison of the 35 mm. film (exposed during flight) with the photo base mosaics. This film is graduated into fiducials which are used in annotating points of similar topographic features along the flight path. A picked fiducial point is designated by means of a dot on the recovery. A list of the picked fiducial points are also given at the end of this report.

MAP COMPILATION

In preparation for the survey, all necessary photos were secured from N.A.P.L. and prepared for navigational and flight path recovery purposes. The photo base mosaics, used for these purposes were produced at QUESTOR SURVEYS LIMITED from uncontrolled photo mosaics which were constructed from 1972, 1:80,000 photos for Block C1 and 1980, 1:40,000 photos for Blocks C2 and C3. They were reproduced onto stable Cronoflex bases at an approximate scale of 1:25,000, whereupon the electromagnetic results, isomagnetic contours, flight path and interpretation are plotted. Due to the parallex problem of using uncorrected photographs in rough terrain, an exact scale across the map areas is unachievable. Therefore, one should keep in mind that the scale of 25,000 is only a close approximation. This problem has also a great effect on the spatial positioning of the flight path relative to the topography which is evident on those flight lines duplicated between adjoining photo mosaics in Blocks C2 and C3.

The following map presentations have been produced for the survey:

BLOCK C1

1 mylar photo base blank

1 mylar INPUT map with flight path, interpretation and photo base

1 mylar isomagnetic contour map (overlay)

1 white composite print of the INPUT and magnetic maps (provided in the map pockets of this report)

BLOCK C2

1 mylar photo base blank

1 mylar INPUT map with flight path, interpretation and photo base

1 mylar isomagnetic contour map (overlay)

1 white composite print of the INPUT And magnetic maps (provided in the map pockets of this report)

BLOCK C3

2 mylar photo base blanks

2 mylar INPUT maps with flight path, interpretation and photo base

2 mylar isomagnetic contour maps (overlay)

2 white composite prints of the INPUT and magnetic maps (provided in the map pockets of this report)

GENERAL GEOLOGY

The survey areas are characterized by the Purcell anticlinorium, a broad, gently north-plunging structure in Proterozoic rocks that are cut by steep longitudinal and transverse faults, like the Alki, Bootley and St. Mary Faults. The Proterozoic rocks are predominantly composed of argillites, mudstones, intercalated sandstones and dolomites of the Purcell Supergroup. A succession of Paleozoic argillites, quartzose, carbonates and fine-grained clastic rocks overlies the Proterozoic rocks.

The Purcell Supergroup strata forms an apparently conformable sequence with similar rocks recurring in various parts of the sequence. A twofold division of the group is made on the basis that the lower part, comprising of the Aldridge and Creston formations is characterized by quartzites, accompanied by siltstones and argillites, whereas in the upper part, comprising of the Kitchener-Siyeh and Dutch Creek formation, quartzites are subordinate, argillites are dominant and distinctive dolomites occur.

In addition to these formational sequences is the dioritic Moyie intrusions which occur strictly in the Aldridge formation. They are generally sill-like but locally they transect bedding and in a few instances, the bodies lose their sill form and become relatively narrow dykes.

A large E-W trending zone of Quaternary, Pleistocene and recent sediments has been mapped between survey Blocks C1 and C2 corresponding to a valley in which the St. Mary River flows.

The survey areas are within an important lead-zinc metallogenic region that extends from Northern Idaho and and Montana through Southeastern British Columbia to north of Revelstoke in the Northern Selkirk Mountains. Included in this region are replacement deposits in sedimentary rocks (such as Sullivan deposit) within the Purcell Supergroup (Aldridge Formation), vein and replacement deposits localized along fractures associated with Moyie intrusions. Deposits of the latter occur characteristically in the upper parts of the intrusion in quartz-calcite veins and as lenses in diorite. The survey site contains the chief group of workings on this type of deposit.

The general geology description in tbis section has been summarized from the descriptive notes given on G.S.C. map sheet

15-1957, St. Mary Lake, Kootenay District, British Columbia.

INTERPRETATION

A brief description of the interpretational approach used in our INPUT surveys is given in the Appendix, at the end of this report. Some of that information is repeated in the following paragraphs in order to emphasize those points that are more relevant to this survey.

A listing of the geophysical parametres associated with each selected INPUT anomalies in the survey areas is given within this report. These anomalies are due to natural conductors, either bedrock or overburden in origin. The listing includes the following specifications about each anomaly: anomaly name, fiducial location of anomaly, left and right fiducial positioning of the half width, amplitude classification of the second channel amplitude of the anomaly, conductivity-thickness product in siemens, associated magnetic anomaly location in fiducials and the intensity of the magnetic anomaly in gammas.

The survey, consisting of Blocks C1, C2 and C3 has intersected numerous conductors which are briefly described and prioritized in the following summary. The conductors are appropriately referenced on the interpretation maps and these should be used in conjunction with their corresponding summary. Many show a precedence for further follow-up work, while for others, caution is advised because some of the conductors selected may originate from overburden sources.

Randomly situated intercepts, with no conductor axis drawn next to them are considered to be insignificant and probably of an overburden origin.

SUMMARY

BLOCK C-1

ZONE C1-1

INTERCEPTS: 10150A, 10160A, 10160B

Zone C1-1 is located outside the survey boundary and was coincidently intersected at the beginning of flight lines 30150S and 30160S. The most striking feature of the zone is intercept 30150A due to its abrupt increase in conductivity and sharp response characteristics, evidently the product of a bedrock conductor. The main conductor has a conductivity-thickness value of about 8 to 12 siemens and is shallow dipping to the southeast, suggested by the skew on intercept 39150A. From depth nomograms, the conductor is estimated to be not more than 90 metres below the surface.

A high priority ground check is warranted over the zone to further detail the conductor outlined by intercepts 10160B and 10150A.

BLOCK C2

ZONE C_2-1

INTERCEPT 30370A

The analog records illustrate an intercepts that is considered to be relatively poor in response characteristics, particularly its asymmetric shape. Its origin is influenced by a local source of weak conductivity, somewhat better than the surrounding background but nevertheless, weak in terms of what one would otherwise anticipate for a bedrock intercept. Contrary to this belief, subordinate bedrock conductors have been known to produce similar intercepts, quite often taken for granted as being caused by overburden. Therefore, a medium priority ground investigation is recommended for this intercept.

BLOCK C2

ZONE C_2-2

INTERCEPT: 30350A

This intercept has a similar response expression to that of 30370A in Zone C2-1. It differs slightly, by being slender in shape and of a lower amplitude which could be explained by a bedrock conductor having a smaller width and conductivity than in Zone C2-1. A narrow response shape is also a good indication of a near-surface origin.

The intercept flanks a magnetic high of approximately 16 gammas which may or may not be of significance. Overall, the zone is ranked as a low to medium priority follow-up target because of the uncertainty as to its bedrock origin.

BLOCK C2

ZONES C_2-3a, C_2-3b. C_2-3c

INTERCEPTS: C_2-3a: 30300A, 30310B, 30320A, 30320B, 30330B

C_2-3b: 30270D, 30281A

C_2-3c: 30260B, 30270D

These zones form a northerly trending formational-type conductor which is presently believed to originate from a bedrock source. The variance of the topographic relief along the conductor's axis supports the belief that the source is not due to conductive overburden which is normally deposited along river valleys.

Generally, the intercepts along the conductive trend exhibit relatively weak responses, characterized by low channel amplitudes and poor channel ratios. However, intercepts 30270D, 30300A and 30310A dominate and should have the emphasis placed on them during the ground check.

A medium priority ground check is warranted for this conductor.

BLOCK C3

ZONE C_3-1

INTERCEPTS: 30532A, 30535A, 30543A

The origin of this conductor is somewhat uncertain, due to the fact that intercept 30543A is thought to represent a bedrock-type response while the other intercepts on either end of the conductor axis are more like what one would expect for overburden. Although doubt persists as to the conductor's origin, the attractiveness of intercept 30543A in an area which is generally quite resistive, suggests a low-medium priority ground target.

BLOCK C3

ZONE C_3-2

INTERCEPT: 30480A

The potential of this anomaly as a bedrock conductor is believed to be excellent, therefore, it ranks as a high priority ground follow-up target. The conductor is of an apparent conductivity-thickness value of 6 siemens and of a near-surface origin, due to its slender response shape.

The anomaly is coincidently positioned on the side of a topographic high, as well as a small magnetic high of 6 gammas which are favourable indications of a bedrock conductor.

BLOCK C3

ZONE C_3-3

INTERCEPTS: 30402E, 30410A

Intercepts 30402E and 30410A appear to be inconsequential as an isolated bedrock conductor until they are examined in conjunction with the magnetic data. The former intercept is complemented by a magnetic high of 44 gammas. The associative susceptibility may have a similar source as that of the conductivity in which case, iron sulphides are suspect.

Zone C_3-3 is considered to be a follow-up target of medium priority.

BLOCK C3

ZONE C_3-4

INTERCEPTS: 30420A, 30434F

As a bedrock conductor, these intercepts are somewhat broader than would be desired but the late channel detection and moderate conductivity-thickness value of five siemens are indications of a bedrock origin. The width of the response may partially be the result of a slower than normal air speed by the helicopter over the conductor due to steep topography.

Intercept 30420A was fitted to a Palacky-type conductivity-thickness/depth nomogram. It was found that the intercept has a compound decay transient from fast decaying overburden transients, as well as a slower transient or channels 3, 4 and 5, from a deeper bedrock transient of 30 siemens.

BLOCK C3

ZONES: C_3-5a to C_3-5e

INTERCEPTS: C_3-5a: 30402B, C, D, 30410B, 30420C, Dx, D, 30434D, 30440B, C, D, 30451G, H, 30460B, C, 30470F, G

C_3-5b: 30481B, C, D, 30492A, B, 30502A

C_3-5c: 30380C, D, 30390A, B

C_3-5d: 30434B, C, 30440B, C, 30451A, B, 30460H, 30471A, 30482C

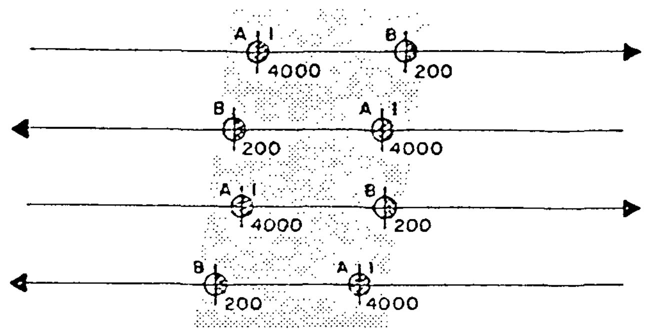
C_3-5e: 30434A, B, C, 30440A, 30451E, F, 30460D, E, 30471D, E

These zones have been summarized together because of their similarities in response expression and response spatial patterns on the interpretation map.

The model that best fits the zones is a horizontal sheet-like conductor with moderate to high conductivity. The source may be either conductive overburden or a flat-lying bedrock conductor, possibly a graphitic metasediment.

The responses are believed to be derived from edge effects created by improved coupling along the outer edges of the conductor. They often occur at either edge of the conductor as illustrated in the following diagram, however, this is not always the case.

ANOMALY MAP PRESENTATION



In the latter situation, the half peak widths may prove to be more representative of the conductor's edges.

A medium priority ground investigation is recommended for these zones, primarily to explain their source.

BLOCK C3

ZONE C_3-6

INTERCEPTS: 30390C, 30402A, 30411A, 30420B, 30434A

A definite bedrock conductor whose origin is a northerly dipping formational-type conductor of moderate conductivity. The conductor's lateral extent is somewhat obscured at either end by zones C_3-5c and C_2-5e. Graphites are suspect, nevertheless, a medium priority ground check is recommended at this time.

BLOCK C3

ZONE C_3-7

INTERCEPTS: 30434D, 30451D, 30460F, 30471C

The zone is indicated on the interpretational maps to be a single conductive trend, similar in nature as that of Zone C_3-6. However, there is a good probability that the conductor could be a product of edge effects, as in the neighbouring Zone C_3-5e.

A medium-low priority ground check is recommended for this zone with emphasis placed on intercepts 30460F and 30471C.

BLOCK C3

ZONES: C_3-8, C_3-9, C_3-10

INTERCEPTS: C_3-8: 30451C

C_3-9: 30451A, 30451B

C_3-10: 30434C

These zones are considered to be modest prospects due to their isolated nature. However, their intercepts resemble those that occur in Zones C_3-5a to C_3-5e. Their origin may conceivably be of a bedrock nature or an appreciable thickening of the overburden. The principle means of identifying the former is by a high apparent conductivity-tyickness product, response shape and isolated nature.

The deposition of overburden is often encouraged locally by the topography and on occasion has also restricted the lateral extent of its deposition in at least one direction. This gives rise to a particularly deceptive INPUT response owing to the geometry of the deposit being similar to a tabular model.

Isolated enhancements in conductivity such as Zones C_3-8, C_3-9, C_3-10 are worthwhile investigating as medium priority targets on the prospect that they are due to a change in composition in favour of an economic mineral assemblage and not related to a variation in overburden thickness.

BLOCK C3

ZONE C_3-11

INTERCEPT: 30380A

The potential of this isolated anomaly as a bedrock conductor is believed to be encouraging. Therefore, it is rated as a **high priority** ground follow-up target.

The conductor has an apparent conductivity-thickness product of 20 siemens. Depth estimates, particularly from the 60° dipping nomogram, suggest an approximate depth of 50 metres below the surface.

RECOMMENDATIONS

There are numerous encounters of isolated conductors with or without direct magnetic correlation throughout the survey area which are considered to be bedrock targets. These and other targets are summarized in the report with recommendations for further investigation. The project geophysicist may wish to select supplementary targets, especially within the conductive zones of C_3-5a to C_3-5e, on the basis of geological and geophysical information not presently available to the writer.

Respectfully submitted,

QUESTOR SURVEYS LIMITED,

D. Martyn,
Geophysicist.

APPENDIX

EQUIPMENT

The helicopter is equipped with a Mark VI INPUT (R) E.M. system and Sonotek P.M.H. 5010 Proton Magnetometer. Radar altimeters are used for vertical control. The outputs of these instruments together with fiducial timing marks are recorded by means of galvanometer type recorders using light sensitive paper. Thirty-five millimeter half-frame cameras are used to record the actual flight path.

BARRINGER/QUESTOR MARK VI INPUT (R) SYSTEM

The Induced Pulse Transient (INPUT) system is particularly well suited to the problems of overburden penetration. Currents are induced into the ground by means of a pulsed primary electromagnetic field which is generated in a transmitting loop around the helicopter. By using half-sine wave current pulses and a loop of large turns-area, the high output power needed for deep penetration is achieved.

The induced current in a conductor produces a secondary electromagnetic field which is detected and measured after the termination of each primary pulse. Detection is accomplished by means of a receiving coil towed behind the helicopter on two hundred and fifty feet of cable, and the received signal is processed and recorded by equipment in the helicopter. Since the measurements are in the time domain rather than the frequency domain common to continuous wave systems, interference effects of the primary transmitted field are eliminated. The secondary field is in the form of a decaying voltage transient originating in time at the termination of the transmitted pulse. The amplitude of the transient is, of course, proportional to the amount of current induced into the conductor and, in turn, this current is proportional to the dimensions, the conductivity and the depth beneath the helicopter.

The rate of decay of the transient is inversely proportional to conductivity. By sampling the decay curve at six different time intervals, and recording the amplitude of each sample, an estimate of the relative conductivity can be obtained. By this means, it is possible to discriminate between the effects due to conductive near-surface materials such as swamps and lake bottom silts, and those due to genuine bedrock sources. The transients due to strong conductors such as sulphides exhibit long decay curves and are therefore commonly recorded on all six channels. Sheet-like surface materials, on the other hand, have short decay curves and will normally only show a response in the first two or three channels.

The samples or gates are positioned at 340, 540, 840, 1240, 1740 and 2340 micro-seconds after the cessation of the pulse. The widths of the gates are 200, 200, 400, 400, 600 and 600 micro-seconds respectively.

For homogeneous conductions, the transient decay will be exponential and the time constant of decay is equal to the time difference at two successive sampling points divided by the log ratio of the amplitudes at these points.

SONOTEK P.M.H. 5010 PROTON MAGNETOMETER

The magnetometer which measures the total magnetic field has a sensitivity of 1 gamma and a range from 20,000 gammas to 100,000 gammas.

Because of the high intensity field produced by the INPUT transmitter, the magnetometer results are recorded on a time-sharing basis. The magnetometer head is energized while the transmitter is on, but the read-out is obtained during the short period when the transmitter is off. The precession frequency is being recorded and converted to gammas during the 0.2 second interval when there is no power in the transmitter loop.

The magnetometer has two scales, a coarse and a fine scale. The fine scale indicates a 10 gamma change for a 1 cm. change in amplitude. The coarse scale moves 2 mm. (or 1 division) for a 100 gamma change with gamma range with 1 gamma sensitivity.

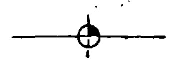
DATA SYMBOLOGY

The symbols used to designate the anomalies are shown in the legend on each map sheet and the anomalies on each line are lettered in alphabetical order in the direction of flight. Their locations are plotted with reference to the fiducial numbers on the analog record.

A sample record is included to indicate the method used for correcting the position of the E.M. Bird and to identify the parameters that are recorded.

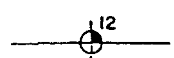
All the anomaly locations, magnetic correlations, conductivity-thickness values and the amplitudes of channel number 2 are listed on the data sheets accompanying the final maps.

POSITIVE ANOMALY SYMBOL



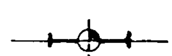
A symbol ascribed to spatially represent the position of peak response amplitude from a conventional secondary field direction. The convention is based on the response type most frequently detected with the geometrical configuration of the system.

CONDUCTIVITY THICKNESS



A numerical value based on a ratio between early and late channel amplitudes. It normalizes the DECAY INTERVAL CLASSIFICATION against the AMPLITUDE CLASSIFICATION to derive a value based on the temporal rate of decay of the secondary field.

SELECTED CHANNEL HALF WIDTH LIMIT



A planimetric representation of the profile-derived half-width of a positive response. It may also be used to indicate the group half-width of multiple responses.

ASSOCIATED MAGNETIC PEAK ⌐ 22

A symbol ascribed to spatially represent the position and magnitude of a magnetic susceptibility anomaly proximate to a recognized conductivity anomaly. For purposes of plotting simplifications, only positive monopoles and the positive component of dipolar responses are mapped in this manner.

GENERAL INTERPRETATION

The INPUT system will respond to conductive overburden and near-surface horizontal conducting layers in addition to bedrock conductors. Differentiation is based on the rate of transient decay, magnetic correlation and the anomaly shape together with the conductor pattern and topography.

Power lines sometimes produce spurious anomalies but these can be identified by reference to the monitor channel.

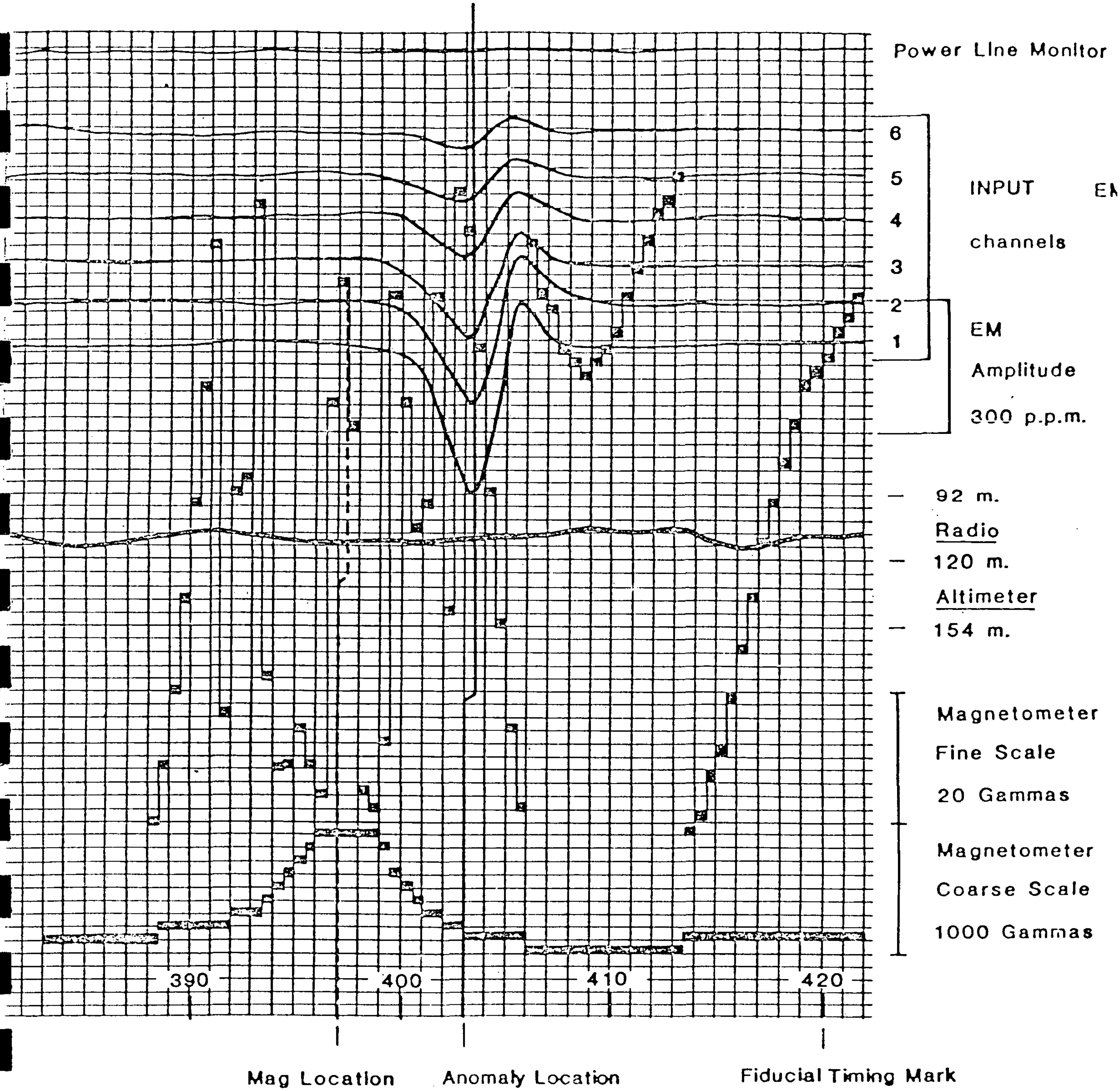
Railroad and pipeline responses are recognized by studying the film strips.

Graphite or carbonaceous material exhibits a wide range of conductivity. When long conductors without magnetic correlation are located on or parallel to known faults or photographic linears, graphite is most likely the cause.

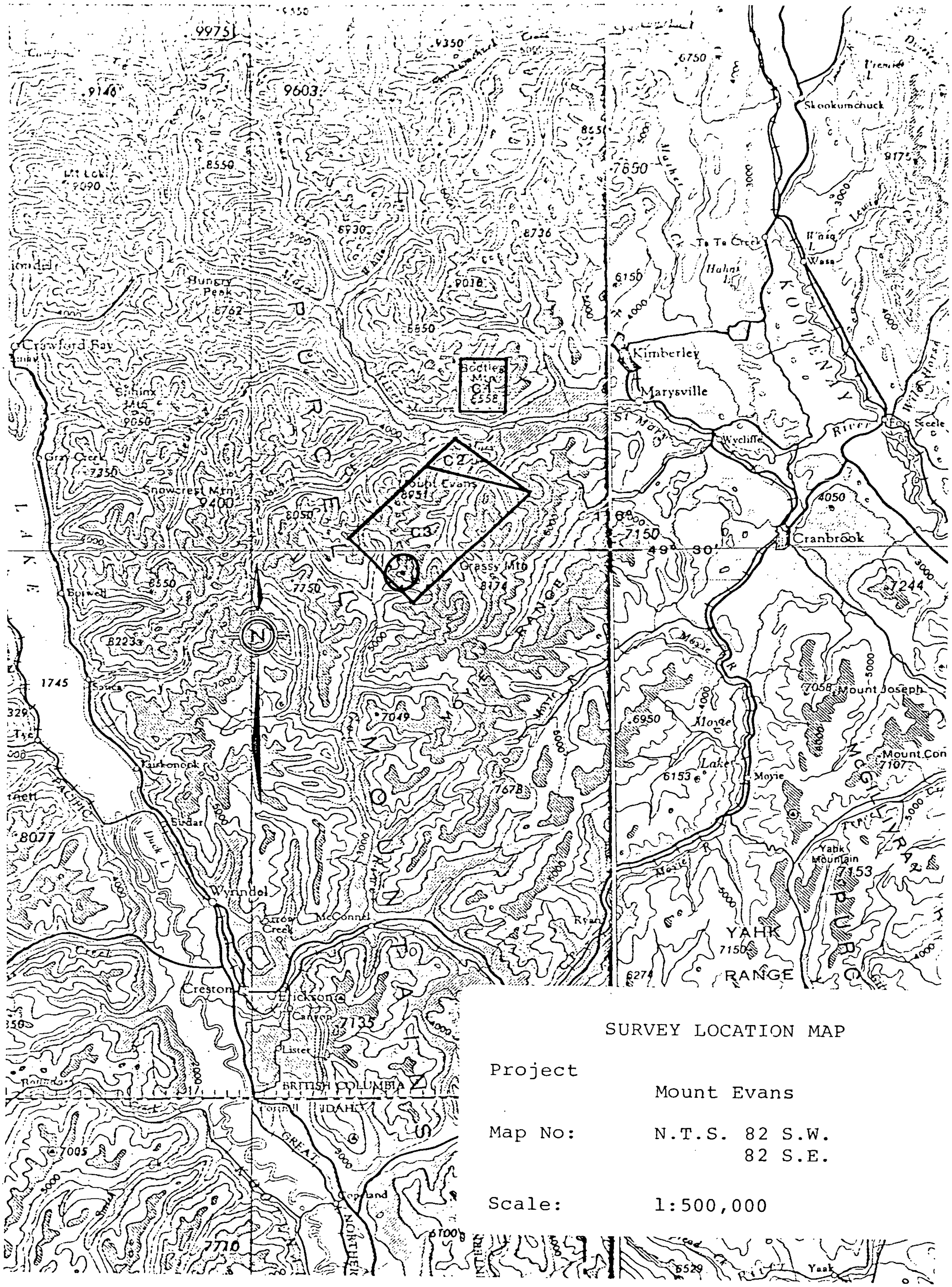
Contact zones can often be predicted when anomaly trends coincide with the lines of maximum gradient along a flanking magnetic anomaly. It is unfortunate that graphite can also occur as relatively short conductors and produce attractive looking anomalies. With no other information than the airborne results, these must be examined on the ground.

Serpentinized peridotites often produce anomalies with a character that is fairly easy to recognize. The conductivity which is probably caused in part by magnetite, is fairly low so that the anomalies often have fairly large response on channel # 1, they decay rapidly and they have strong magnetic correlation. INPUT E.M. anomalies over massive magnetites show a relationship to the total Fe content. Below 25-30%, very little or no response at all is obtained but as the percentage increases the anomalies become quite strong with a characteristic rate of decay which is usually greater than that produced by massive sulphides.

Commercial sulphide ore bodies are rare and those that respond to helicopter survey methods usually have medium to high conductivity. Limited lateral dimensions are to be expected and many have magnetic correlation caused by magnetite or pyrrhotite. Provided that the ore bodies do not occur within formational conductive zones as mentioned above, the anomalies caused by them will usually be recognized on an E.M. map as priority targets.



Representative INPUT Magnetometer and Altimeter Recording



SURVEY LOCATION MAP

Project

Mount Evans

Map No: N.T.S. 82 S.W.
82 S.E.

Scale: 1:500,000

24H36 BLOCK C FINAL LISTING

ANOMALY	FID	CHS	HALF WIDTH LEFT	HALF WIDTH RIGHT	AMPLITUDE CLASS	SIG-T	ASSOC MAG POSITION	MAGNETIC VALUE
30010A	12.08	6	12.03	12.55	5	10	-	-
30021A	27.70	3	27.35	27.95	1	13	-	-
30071A	57.62	4	57.45	57.82	1	3	-	-
30071B	58.16	4	57.96	58.43	1	3	-	-
30072A	66.20	3	66.14	66.35	1	5	-	-
30120A	121.16	2	120.90	121.41	1	-	-	-
30150A	43.00	5	42.95	43.10	3	12	-	-
30160A	51.42	3	51.37	51.55	1	8	-	-
30160B	51.94	4	51.80	52.10	2	8	-	-
30250A	44.84	3	44.67	44.95	1	17	-	-
30260A	19.75	2	19.66	20.57	1	-	-	-
30260B	20.12	3	-	-	1	9	-	-
30260C	20.82	3	20.57	21.05	1	8	-	-
30270A	153.21	3	153.06	153.32	1	6	-	-
30270B	154.88	3	154.67	154.28	1	6	-	-
30270C	155.66	4	155.45	155.88	2	10	-	-
30270D	157.62	4	157.39	157.95	2	8	-	-
30270E	158.36	3	158.28	158.45	1	6	-	-
30281A	133.45	3	133.44	133.72	1	7	-	-
30290A	104.61	2	104.48	105.05	1	-	-	-
30300A	92.34	4	92.28	92.46	1	11	-	-
30300B	95.14	2	94.95	95.35	1	-	-	-
30300C	95.90	3	95.37	96.05	1	6	-	-
30310A	77.10	3	76.71	77.39	2	7	-	-
30310B	77.62	4	77.39	77.92	3	8	-	-
30220AX	64.37	4	64.15	64.48	2	8	64.40	7
30320A	64.96	5	64.48	64.50	4	9	65.28	17
30320B	65.37	4	-	-	3	8	-	-
30320C	66.00	3	65.95	66.10	1	8	-	-
30330A	49.46	2	49.39	50.55	1	-	-	-
30330B	50.06	3	-	-	1	1	49.72	4
30330C	50.24	3	-	-	1	1	-	-
30351A	28.71	3	28.63	28.87	1	2	-	-
30370A	10.54	3	10.32	10.82	1	5	-	-
30380A	118.20	6	117.90	118.41	2	20	-	-
30380B	126.64	3	126.25	126.85	2	8	-	-
30380C	128.58	6	127.92	130.35	4	15	-	-
30380D	129.67	6	-	-	4	15	-	-

24H36 BLOCK C FINAL LISTING

ANOMALY	FID	CHS	HALF WIDTH LEFT	HALF WIDTH RIGHT	AMPLITUDE CLASS	SIG-T	ASSOC MAG POSITION	MAGNETIC VALUE
30390A	84.87	6	82.05	86.45	5	4	–	–
30390B	85.84	6	–	–	5	13	–	–
30390C	87.28	3	87.18	87.75	2	9	–	–
30390D	87.54	3	–	–	2	9	–	–
30390E	88.07	3	87.99	88.45	1	11	–	–
30390F	88.35	3	–	–	1	11	–	–
30390G	96.94	3	96.75	97.65	1	8	–	–
30402A	61.25	6	61.04	61.62	5	14	–	–
30402B	63.60	6	63.35	65.08	4	25	–	–
30402C	64.19	6	–	–	4	22	–	–
30402D	64.57	6	–	–	5	14	–	–
30402E	71.30	4	71.09	71.61	3	5		
30410A	10.39	3	10.15	10.71	1	5	–	–
30410B	17.34	6	16.88	18.05	5	18	–	–
30411A	22.64	6	22.33	22.82	5	15	–	–
30411B	23.70	3	23.65	23.73	2	13	–	–
30420A	8.85	4	8.58	9.11	2	22	–	–
30420B	13.95	3	13.70	14.6	1	14	–	–
30420C	17.05	6	16.65	18.75	5	32	–	–
30420D	18.55	6	–	–	4	20	–	–
30420DX	17.86	6	–	–	5	25	–	–
30421A	21.57	4	21.55	21.95	4	9	–	–
30420B	23.86	6	23.47	24.22	4	13	–	–
30433A	55.24	3	54.95	60.65	2	3	–	–
30433B	57.20	6	–	–	5	24	–	–
30433C	57.82	6	–	–	5	17	–	–
30433D	59.06	6	–	–	5	29	–	–
30433E	59.97	6	–	–	5	19	–	–
30434A	60.90	6	60.65	61.61	5	21	–	–
30434B	61.34	6	–	–	4	28	–	–
30434C	62.22	4	62.15	62.53	2	26	–	–
30434D	65.33	6	63.79	65.95	5	13	–	–
30434E	69.36	2	69.18	69.93	1	–	–	–
30434F	72.86	4	72.60	74.00	2	17	–	–
30440A	79.74	3	79.41	79.97	1	5	–	–
30440B	82.58	6	82.33	84.55	5	11	–	–
30440C	82.88	6	–	–	5	15	–	–
30440D	84.19	6	–	–	3	24	–	–
30441A	88.14	6	87.57	91.61	5	27	88.22	52
30441B	90.42	6	–	–	5	21	–	–
30441C	91.20	6	–	–	5	13	–	–
30450A	121.78	6	121.05	122.75	4	11	–	–
30450B	122.57	6	–	–	5	8	–	–

24H36 BLOCK C FINAL LISTING

ANOMALY	FID	CHS	HALF WIDTH LEFT	HALF WIDTH RIGHT	AMPLITUDE CLASS	SIG-T	ASSOC MAG POSITION	MAGNETIC VALUE
30451A	124.21	6	123.86	124.65	5	18	–	–
30451B	124.56	6	–	–	5	23	–	–
30451C	125.68	6	125.35	125.95	4	37	–	–
30451D	126.68	6	126.37	128.48	5	4	–	–
30451E	127.43	6	–	–	5	31	–	–
30451F	128.17	6	–	–	4	20	–	–
30451G	130.94	6	130.95	131.91	3	21	–	–
30451H	131.40	6	–	–	4	12	–	–
30451J	138.46	3	138.35	139.25	1	13	–	–
30451K	138.93	3	–	–	1	8	–	–
30460A	18.69	2	18.55	19.06	1	–	–	–
30460B	24.95	2	24.82	25.82	3	20	–	–
30460C	25.53	6	–	–	3	24	–	–
30460D	26.91	6	26.75	27.95	4	14	–	–
30460E	27.49	6	–	–	5	18	–	–
30460F	28.27	5	28.25	28.48	4	10	–	–
30460G	28.97	4	28.90	29.25	3	10	–	–
30460H	30.68	4	30.60	31.05	2	9	–	–
30470A	49.91	2	49.80	50.65	1	–	–	–
30471A	52.11	3	51.83	53.75	2	7	–	–
30471B	53.37	4	–	–	3	11	–	–
30471C	54.42	5	54.21	54.65	3	11	–	–
30471D	55.08	6	54.89	56.00	4	12	–	–
30471E	55.48	6	–	–	4	18	–	–
30471F	57.08	6	56.85	57.32	4	19	–	–
30471G	57.83	6	57.32	58.60	5	36	–	–
30471H	58.45	6	–	–	4	22	–	–
30472A	59.25	3	59.15	59.50	2	15		
30473A	63.58	3	64.45	63.80	1	6	–	–
30481A	76.56	4	76.41	76.74	1	8	–	–
30481B	80.49	6	80.25	81.48	5	8	–	–
30481C	80.96	5	–	–	5	8	–	–
30481D	81.29	6	–	–	5	8	–	–
30482A	84.33	2	84.18	85.06	2	–	–	–
30482B	84.76	3	–	–	2	4	–	–
30482C	86.14	2	86.00	86.55	1	–	–	–
30492A	110.91	3	110.25	112.95	4	5	–	–
30492B	111.75	3	–	–	3	5	–	–
30492C	113.55	3	112.95	113.75	1	3	–	–
30493A	114.66	2	114.56	114.85	1	–	–	–
30502A	45.31	2	44.95	45.51	1	–	–	–
30504A	53.85	3	53.80	54.08	1	1	–	–
30510A	72.95	3	72.72	73.70	1	8	–	–

24H36 BLOCK C FINAL LISTING

ANOMALY	FID	CHS	HALF WIDTH LEFT	HALF WIDTH RIGHT	AMPLITUDE CLASS	SIG-T	ASSOC MAG POSITION	MAGNETIC VALUE
30520A	64.75	3	64.40	65.37	1	8	–	–
30535A	47.55	4	47.45	47.81	2	7	–	–
30543A	114.48	3	114.29	114.64	1	6	–	–
30552A	78.17	3	78.15	78.75	1	6	–	–
30552B	78.57	3	–	–	1	5	–	–
39010A	15.50	3	15.22	15.81	1	6	–	–
39041A	50.48	2	50.21	51.59	1	–	–	–
39041B	50.66	2	–	–	1	–	–	–
39041C	53.35	3	53.25	54.56	2	10	–	–
39041D	53.80	3	–	–	2	7	–	–
39041E	54.46	2	–	–	1	–	–	–
39050A	81.82	3	81.75	81.95	1	10	–	–
39050B	83.41	3	83.34	83.75	1	4	–	–
39081A	17.10	3	17.01	17.26	1	8	–	–

24H36 C1 PICKED FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL						
30010N	12.9	15.9					
30011N	16.0	16.5	19.4	20.3			
30021S	22.8	25.3	26.0	28.1			
30030N	28.2	31.4	34.5				
30031N	35.5	36.3	41.0	42.6			
30040S	44.5	50.0					
30041S	50.7	52.2	56.5	57.8			
30054N	13.8	18.2					
30055N	20.1	21.2	23.7	25.9	26.4	26.9	
30056N	27.0	27.6	29.3	30.7	33.1		
30060S	33.4	36.0	37.4				
30061S	37.5	38.0	40.3				
30062S	40.8	42.4	43.4				
30063S	43.5	46.2	48.7				
30070N	48.4	50.7	53.5				
30071N	54.6	55.7	59.1				
30072N	59.5	61.2	62.6	63.9	65.4	67.7	
30080S	67.8	68.2	69.9				
30081S	71.1	72.7					
30082S	72.8	74.1	75.1	75.8			
30083S	75.9	77.0	78.1				
30084S	78.6	79.9					
30085S	80.8	82.7	86.1				
30090N	86.7	88.8	89.8	90.7			
30091N	90.8	91.8	92.4	93.2	93.6		
30092N	93.7	95.5	97.3	97.9			
30100S	98.0	99.0	100.5				
30101S	100.6	101.4	102.8	103.7	104.6	106.4	110.6
30110N	111.6	113.2	114.8	116.3	117.5	118.6	120.1
30120S	120.8	121.8	123.6	124.4	126.2		
30121S	126.3	128.0	130.0				
30135N	13.0	13.6	15.2	16.2			

24H36 C1 PICKED FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL					
30136S	27.7	28.6				
30137S	30.0	31.9	33.5			
30140N	33.8	34.9				
30141N	36.1	39.6	40.5	41.1	42.1	
30150S	43.7	44.4	46.9			
30151S	47.2	49.2				
30152S	60.5	61.0	63.3			
30160S	51.3	52.3	54.3			
30161S	55.8	56.7				
30162S	58.0	58.6	60.3			
39010E	9.1	10.0	14.1	15.3		
39011E	16.7	18.4	23.0	24.2	25.7	
39020W	63.8	64.6	65.8	67.3	68.8	72.3	77.9

24H36 C2 PICKED FIDUCIAL LISTING

LINE NUMBER	PICKED FIDUCIALS
30170W	143.2, 145.4, 147.8, 148.3
30180E	131.0, 134.8, 141.1, 143.1
30190W	126.1, 129.4
30191E	68.2, 64.5, 70.3, 72.0
30200E	115.9, 117.8, 121.3, 123.4, 124.7, 125.4
30210W	103.9, 112.0, 113.3, 115.6
30220E	98.7, 99.7, 100.7, 103.1
30230W	73.1, 78.6, 81.0, 87.3
30240E	54.5, 56.1, 57.8, 63.7, 64.7, 68.1, 69.8, 72.1, 72.9
30250W	35.1, 36.3, 39.9, 41.0, 44.4, 45.6, 46.1 49.0, 49.7, 53.9
30260E	11.1, 13.3, 16.2, 17.7, 19.0, 20.9, 22.4 25.1
30261E	26.0, 29.0, 30.3, 33.2, 34.7
30270W	145.1, 154.1, 156.6, 157.5, 160.8, 163.9, 168.2 170.0
30280E	122.0, 123.5
30281E	124.4, 125.6, 127.4, 130.1, 132.6, 134.0, 136.2
30290W	99.7, 102.3, 104.5, 107.3, 110.0, 114.3, 117.9 120.2, 121.5
30300G	85.9, 87.2, 89.3, 94.7, 95.8, 97.0, 99.6
30310W	69.9, 72.3, 73.5, 74.5, 77.4, 81.8
30311W	82.5, 84.2, 85.7
30320E	58.8, 59.8, 61.8, 63.2, 64.4, 67.2, 68.7 69.5
30330W	41.8 45.8, 49.9, 51.9, 54.0, 56.2, 58.7
30341E	36.5, 37.2, 41.2, 42.0, 43.8
30350W	22.2, 25.0
30351W	25.2, 26.3, 28.1, 29.2, 30.3
30360E	15.9, 17.2, 20.2, 21.0
30370W	9.5, 12.2, 13.9, 15.3
39030S	58.5, 60.2, 61.9, 63.2, 65.0, 67.2
39040S	44.7, 47.4, 50.3, 51.4, 53.1, 53.1, 54.4 57.1
39050N	78.2, 79.5, 80.3, 82.8, 84.2, 86.5, 89.1

24H36 C3 MAP 1 FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL
30380N	137.5, 140.8, 143.4
30390S	73.7, 75.1, 77.6, 80.7, 83.2
30402N	61.8, 64.6, 67.1, 70.5, 72.6
30410S	8.8, 11.3, 14.2, 16.6, 21.0
30420S	8.0, 10.1, 13.7, 16.8, 18.8, 21.5
30421S	21.7, 24.4
30434N	61.0, 62.6, 64.0, 65.8, 67.4, 69.5, 72.2 74.2
30440S	74.8, 78.0, 80.0, 82.5, 83.6, 84.9
30441S	85.9, 86.8, 89.3
30451N	125.6, 128.8, 131.1, 136.5, 138.9, 140.0, 141.7
30460S	15.3, 16.4, 18.5, 21.7, 24.9, 26.5, 27.9 29.6
30471N	53.0, 55.1, 56.3, 58.1
30472N	59.2, 60.7
30473N	61.5, 62.8, 65.2, 68.1, 69.1
30480S	69.5, 71.0, 72.3
30481S	73.7, 75.3, 76.8, 77.5, 79.6, 83.1
30492S	108.1, 112.8
30493N	114.4, 116.9
30494N	117.0, 119.1
30496N	26.8, 29.1, 30.2, 31.3, 32.5
30502N	42.1, 45.2, 47.2
30503N	47.3, 49.8, 51.5
30504N	52.6, 53.2, 57.2, 58.3
30510S	60.1, 62.9, 64.7, 65.7, 67.4, 68.5, 70.3 73.5, 77.7
30520S	52.8, 53.8, 55.6, 56.5, 58.0, 59.8, 61.6 63.2, 65.4, 66.6, 67.4
30532N	26.8, 27.8, 31.7, 35.4, 37.9, 38.8
30533N	42.1, 43.4, 45.6
30534N	45.7, 46.9
30535N	47.4, 48.4, 49.2, 50.6
30542S	111.4, 112.6

24H36 C3 MAP 1 FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL
30543S	112.8, 114.7, 115.6, 117.5, 119.1, 125.7, 127.1 129.1
30551N	52.8, 54.1, 62.1, 63.9, 65.5, 70.6, 72.9 77.1
30552N	77.6, 79.0, 83.8, 85.1
30560S	11.5, 13.2, 16.1, 17.2, 18.1, 22.0
30561S	23.1, 25.7, 26.6, 30.2, 32.1
30570N	144.9, 148.9, 151.6, 155.6, 159.4, 163.0, 166.0, 170.
30580S	110.4, 112.1, 115.2, 123.7, 125.6, 130.0, 131.4
30590N	88.1, 91.4, 93.5, 94.7, 97.5, 106.0, 107.3, 108.
30600S	56.6, 58.6, 61.9, 63.2, 66.3, 69.2, 72.4, 76.3
30610N	34.2, 36.0, 37.1, 38.5, 40.5, 43.4, 46.1 47.0
30611N	48.0, 48.6, 51.2, 56.0
30620S	9.6, 11.4, 12.7, 14.1, 15.1, 16.9, 20.3, 21.6
30621S	22.0, 24.5, 27.7, 28.8, 30.0
30630N	140.9, 142.9, 144.9, 148.8, 149.4, 152.5, 154.9 157.1, 158.7, 161.6, 164.4, 166.4
30641N	90.1, 91.5, 94.2, 96.2, 100.7, 101.5, 103.8 106.8, 108.8, 110.6
30652S	70.2, 71.7, 75.5, 81.1, 83.0
30653S	83.3, 84.9, 86.1, 89.5
30660S	78.3, 79.7, 83.1, 85.6, 87.8, 88.8, 90.9 92.2
30673N	54.1, 55.8, 58.1, 60.5, 64.1, 67.9, 68.9
30681S	39.8, 40.3, 42.5, 45.1, 48.0
30682S	50.1, 51.6, 53.0
30692N	25.7, 27.3
30693N	28.1, 29.7, 33.1, 34.1, 35.5, 36.9, 39.6
30700S	25.7, 26.8, 28.5, 32.0, 35.0, 36.8
30711S	16.3, 17.8, 22.2, 23.3, 24.0
30722N	7.1, 8.4, 11.9, 13.3, 15.3
30730N	17.1, 18.0, 19.1, 20.6, 21.5
30740S	13.6, 14.2, 15.4, 16.5
30750N	8.7, 9.8, 11.7, 12.3

24H36 C3 MAP 1 FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL
39070W	21.7, 22.9, 25.3
39071W	11.2, 12.1, 17.9, 19.1, 21.3
39080W	8.6, 9.7, 13.4, 15.0, 16.1
39081W	16.8, 18.5
39082W	19.6, 20.4, 21.3
39083W	21.4, 24.7

24C36 C3 MAP 2 FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL					
30380N	112.2,	113.5,	115.9,	116,8,	119.2,	115.9,
	116.8,	119.2,	124.5,	127.0,	129.0,	129.6,
	137.5,	140.8.				
30390S	75.1,	77.6,	80.7,	83.2,	89.7,	91.3,
	93.6,	97.4,	97.4,	110.0,	110.9,	111.8.
30400N	40.4,	42.6,	42.6,	44.1.		
30401N	44.5,	45.8,	48.8,	54.3.		
30402N	54.5,	56.3,	58.4,	60.0,	61.8,	64.6,
	67.1,	70.5.				
30410S	11.3,	14.2,	16.6,	21.0.		
30411S	21.2,	22.9,	24.8.			
30412S	25.9,	27.7,	29.3,	30.9,	32.3,	33.9,
	35.3,	36.4.				
30413S	36.5,	38.1,	36.5,	38.1,	39.8:	
30420S	13.7,	16.8,	18.8,	21.5.		
30421S	21.7,	24.4,	29.2.			
30422S	29.3,	32.3,	34.3,	36.0,	37.2,	39.4.
30423S	39.5,	40.7,	39.5,	40.7.		
30430N	40.8,	42.9,	44.3,	45.9.		
30431N	48.0,	49.8.				
30432N	50.0,	50.6,	52.7,	53.5.		
30433N	54.4,	56.5,	57.5,	60.1.		
30434N	61.0,	62.6,	64.0,	65.8,	67.4,	69.5.
30440S	80.0,	82.5,	83.6,	84.9.		
30441S	85.9,	86.8,	89.3,	91.3,	93.0,	94.3,
	95.7,	97.0,	99.5.			
30442S	99.8,	102.2,	103.7,	106.1,	107.8.	
30450N	108.1,	108.8,	111.1,	112.6,	114.2,	116.8,
	119.2,	120.8,	123.2.			
30451N	123.7,	124.0,	125.6,	128.8,	131.1,	136.5.
30460S	21.7,	24.9,	26.5,	27.9	29.6,	33.5,
	35.5,	37.0.				
30461S	37.6,	39.7,	41.6.			
30470N	41.8,	43.4,	46.8,	50.5.		
30471N	50.8,	53.0,	55.1,	56.3,	58.1.	

24C36 C3 MAP 2 FIDUCIAL LISTING

LINE NO.	PICKED FIDUCIAL					
30481S	79.6,	83.1.				
30482S	83.7,	85.3,	87.0,	89.6,	92.2,	94.2,
	95.8.					
30491N	98.0,	100.6,	104.0,	106.0.		
30492N	106.2,	107.4,	108.1,	112.8.		
30501N	28.0,	28.5,	30.2,	30.8,	35.7	36.5,
	37.4,	39.0,	41.9.			
30502N	42.1,	45.2,	47.2.			
30510S	73.5,	77.7,	79.2,	82.5,	84.7,	86.6,
	88.0,	89.0,	93.6,	94.8.		
30520S	65.4,	66.6,	69.4,	77.3.		
30521S	78.1,	80.9,	82.8,	87.0.		
30532N	19.8,	22.0,	24.0,	26.8,	27.8,	31.7.
30543S	125.7,	127.1,	129.1.			
30544S	12.5,	13.3,	14.6,	15.8,	17.2,	18.4,
	19.7.					
30550N	41.8,	43.4,	45.3.			
30551N	47.3,	50.2,	51.6,	52.8,	54.1,	62.1.
30561S	26.6,	29.1,	30.2,	32.1,	34.6,	36.9,
	39.5,	40.9,	41.5.			
30570N	137.8,	138.6,	141.6,	144.9,	148.9,	151.6.
30580S	123.7,	125.6,	130.0,	131.4,	133.5,	134.6,
	136.8,	137.7.				
30590N	81.8,	82.6,	83.8,	86.4,	88.1,	91.4,
	93.5.					
30600S	69.2,	72.4,	76.3,	77.6.		
30601S	78.0,	78.9,	81.0.			
30610N	30.2,	31.1,	32.1,	34.2,	36.0,	37.1,
	38.5,	40.5.				
30621S	24.5,	26.9,	28.8,	30.0.		
39060E	95.9,	97.6,	98.4,	99.4,	101.3,	102.8,
	105.3,	108.2,	108.9,	114.5.	116.8.	

NORANDA EXPLORATION COMPANY, LIMITED

STATEMENT OF COST

DATE JULY 1985

PROJECT - MT EVANS
TYPE OF REPORT Airborne Geophysics

a) **Wages:**

No. of Days -
Rate per Day -
Dates From -
Total Wages

b) **Food and Accommodation:**

No. of Days -
Rate per Day -
Dates From -
Total Cost -

c) **Transportation:**

No. of Days -
Rate per Day -
Dates From -
Total cost

d) **Analysis**

e) **Cost of Preparation of Report**

Author
Drafting
Typing

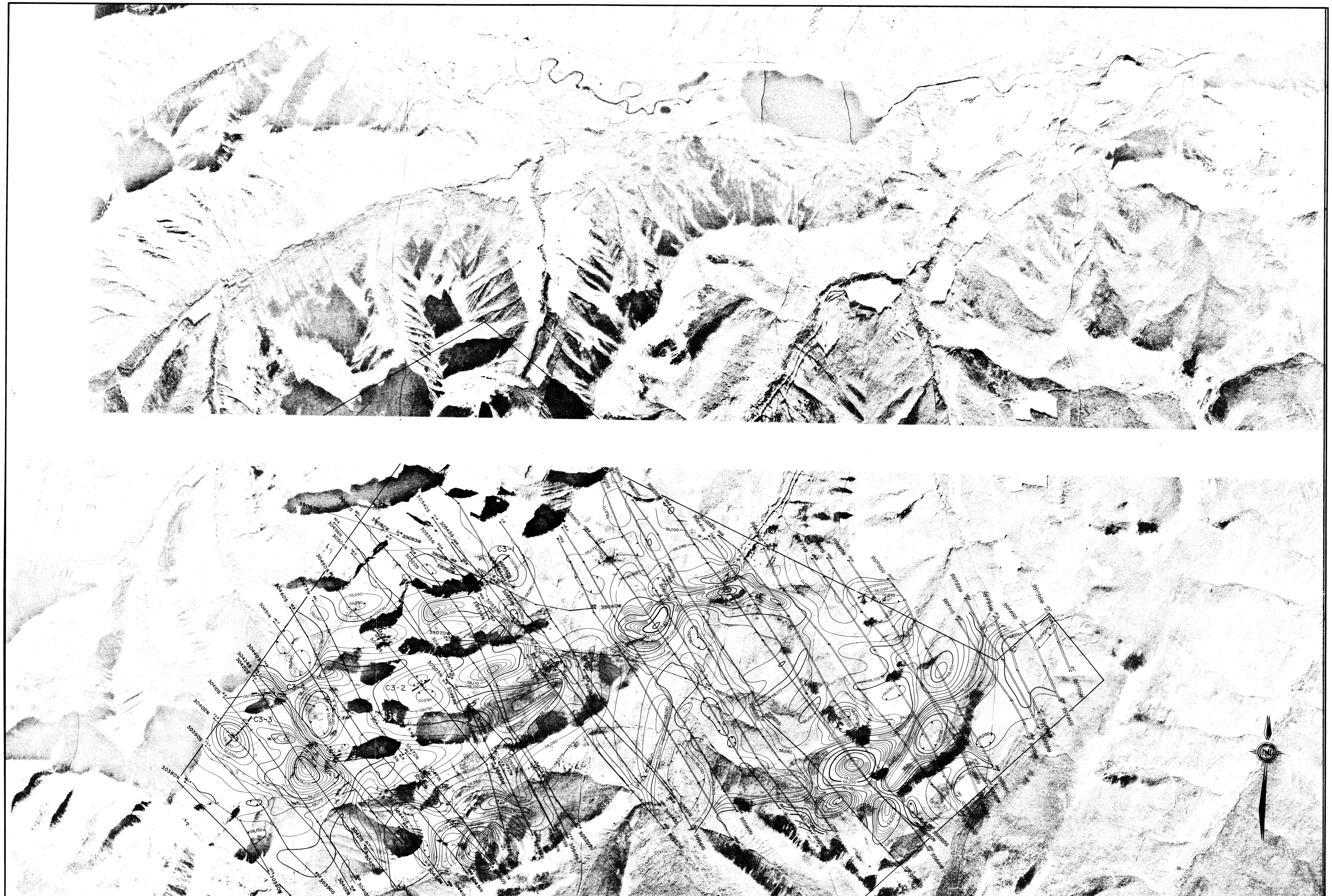
f) Other:
Contractor - August 1982 $52,587.60

Total Cost $52,587.60

UNIT COSTS

Unit Costs for Airborne Geophysics

No. of Days -
No. of Units - 520 L Km
Unit Costs - 101.13 / L Km
Total Cost - 520 X 101.13 $52,587.60



INPUT

DECAY INTERVAL CLASSIFICATION

- 1 Channel (340 microseconds)
- 2 Channel (540 microseconds)
- 3 Channel (840 microseconds)
- 4 Channel (1240 microseconds)
- 5 Channel (1740 microseconds)
- 6 Channel (2340 microseconds)

Selected Channel Half-width Limit — Conductivity Thickness — Decay Interval Classification — Amplitude Classification — Associated Magnetic Peak — POSITIVE RESPONSE

AMPLITUDE CLASSIFICATION OF CHANNEL 2 (UNCORRECTED FOR ALTITUDE)

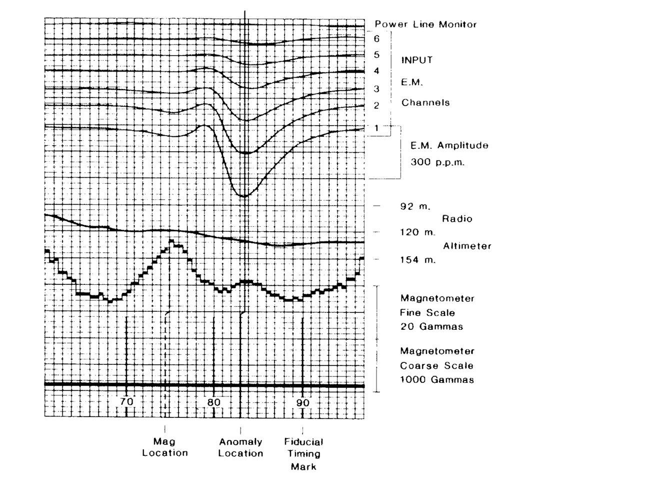
Class 1 (<100 ppm)
Class 2 (100 - 199 ppm)
Class 3 (200 - 399 ppm)
Class 4 (400 - 1000 ppm)
Class 5 (>1000 ppm)

MAGNETIC CONTOURS

10 Gamma Contour Line
50 Gamma Contour Line
250 Gamma Contour Line

Magnetic Depression

1 Gamma = 1 Nanotesla in SI Units



Representative INPUT Magnetometer and Altimeter Recording

DESCRIPTIVE NOTES

The aircraft is equipped with the Barringer/Questor Mark VI INPUT* airborne E.M. System and the Sonotek PMH 5010 Proton Precession Magnetometer and Sonotek SDS-1200 Series Data Acquisition System. The INPUT* system will respond to conductive overburden and near-surface horizontal conducting layers in addition to bedrock conductors. Discrimination of conductors is based on the rate of transient decay, magnetic correlation and the anomaly shape, together with the conductor pattern and topography.

* Registered Trade Mark of Barringer Research Limited

INTERPRETATION REFERENCES

Becker, A., Gauvreau, C., and Collett, L.S.
1972 Scale Model Study of Time Domain Electromagnetic Response of Tabular Conductors; Canadian Mining and Metallurgical Bulletin, Volume 65, No. 725, p. 90-96.

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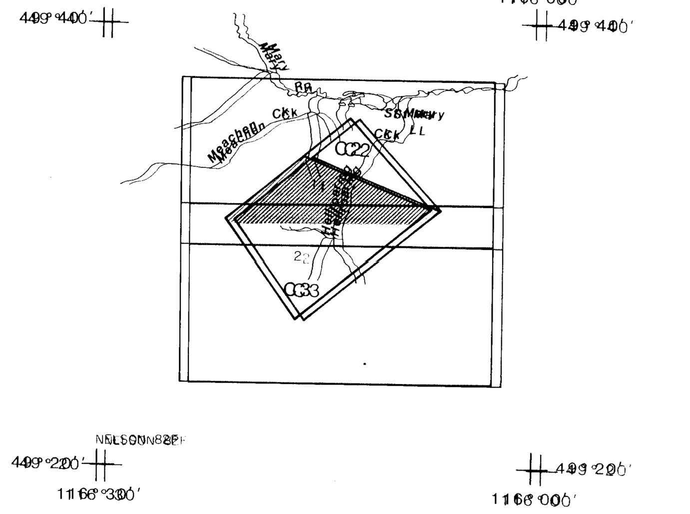

SCALE APPROXIMATELY 1:25000

HELICOPTER MK VI INPUT® SURVEY
(Vertical Coil)
TOTAL MAGNETIC INTENSITY SURVEY

NORANDA EXPLORATION COMPANY LIMITED
(NO PERSONAL LIABILITY)

MOUNT EVANS

Province of BRITISH COLUMBIA

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24136	C3 1 of 2	Sept., 1982	C.J.K.E.

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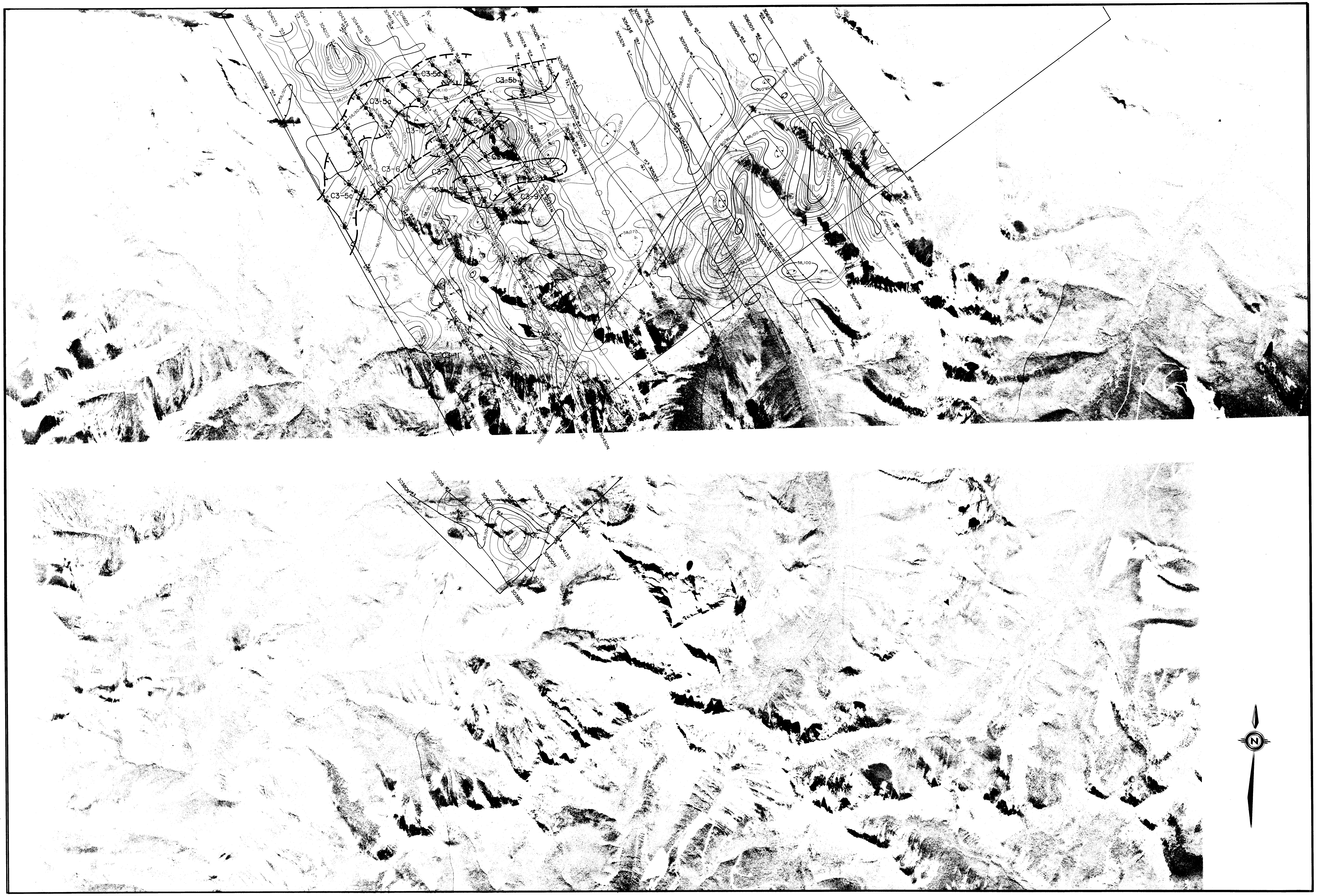
Mississauga, Ontario, Canada



INPUT

DECAY INTERVAL CLASSIFICATION

- 1 Channel (340 microseconds)
- 2 Channel (540 microseconds)
- 3 Channel (840 microseconds)
- 4 Channel (1240 microseconds)
- 5 Channel (1740 microseconds)
- 6 Channel (2340 microseconds)

POSITIVE RESPONSE

AMPLITUDE CLASSIFICATION
(UNCORRECTED FOR ALTITUDE)

Class 1	(< 100 ppm)
Class 2	(100-199 ppm)
Class 3	(200-399 ppm)
Class 4	(400-1000 ppm)
Class 5	(>1000 ppm)

MAGNETIC CONTOURS

- 10 Gamma Contour Line
- 50 Gamma Contour Line
- 250 Gamma Contour Line

Magnetic Depression

1 Gamma = 1 Nanotesla in SI Units

DESCRIPTIVE NOTES

The aircraft is equipped with the Barringer/Questor Mark VI INPUT* airborne E.M. System and the Sonotek PMH 5010 Proton Precession Magnetometer and Sonotek SDS-1200 Series Data Acquisition System. The INPUT* system will respond to conductive overburden and near-surface horizontal conducting layers in addition to bedrock conductors. Discrimination of conductors is based on the rate of transient decay, magnetic correlation and the anomaly shape, together with the conductor pattern and topography.

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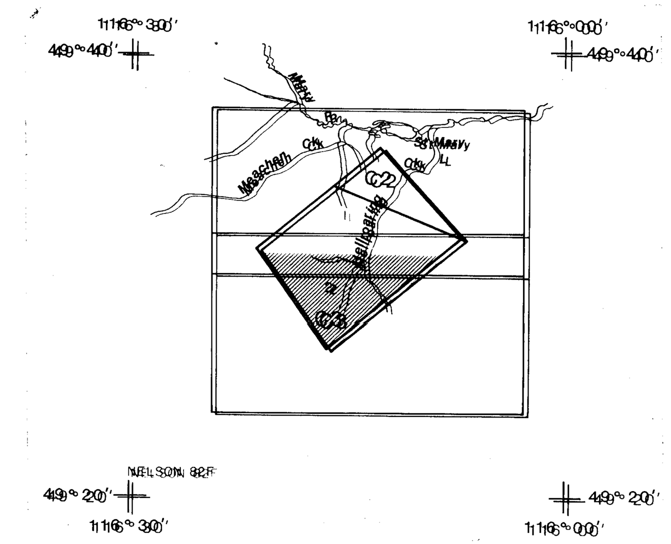

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TOTAL MAGNETIC INTENSITY SURVEY

NORANDA EXPLORATION COMPANY LIMITED
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MOUNT EVANS

Province of BRITISH COLUMBIA

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ASSESSMENT REPORT

Questor Surveys Limited
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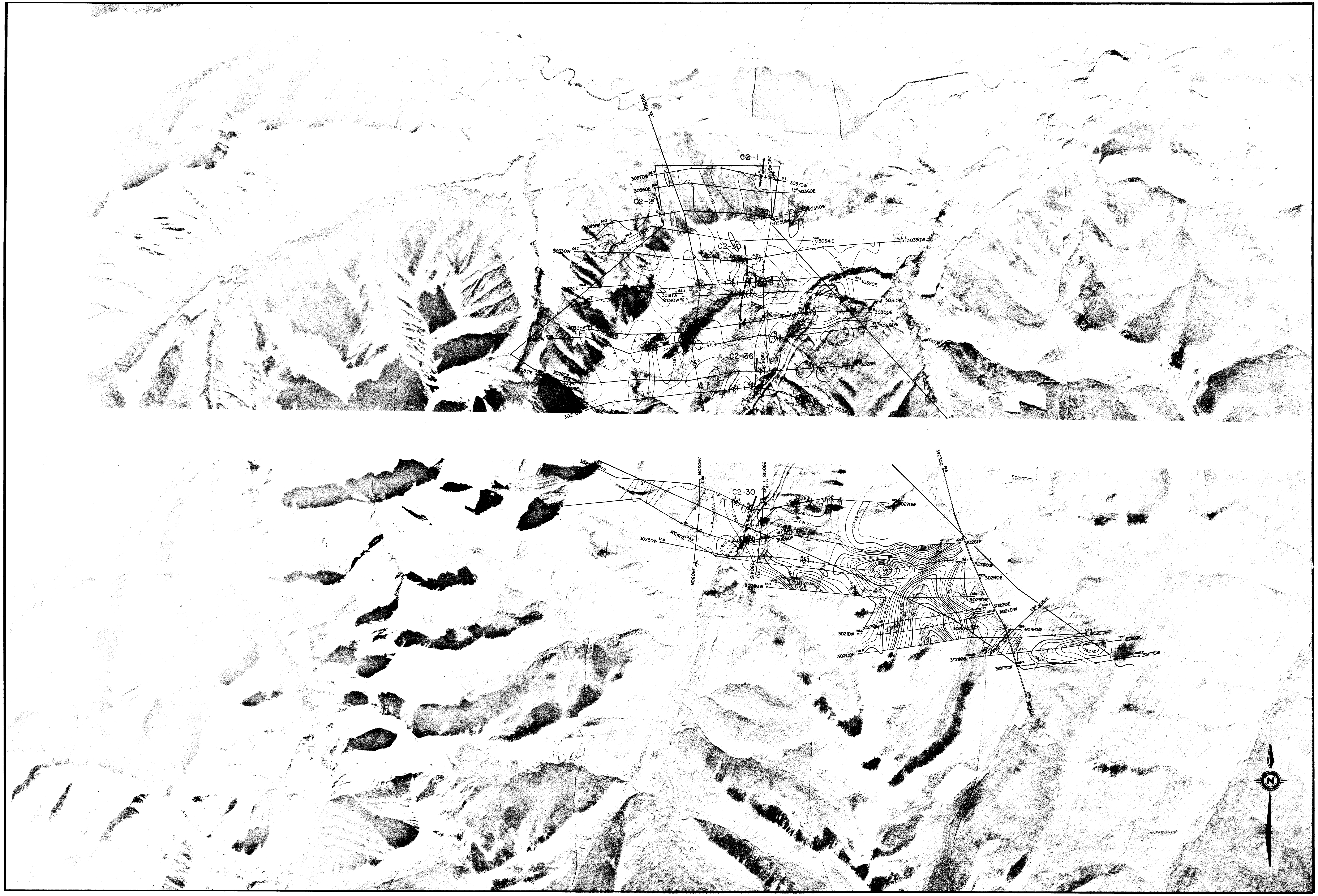


INPUT

DECAY INTERVAL CLASSIFICATION

- 1 Channel (340 microseconds)
- 2 Channel (540 microseconds)
- 3 Channel (840 microseconds)
- 4 Channel (1240 microseconds)
- 5 Channel (1740 microseconds)
- 6 Channel (2340 microseconds)

Selected Channel Half-width Limit
Conductivity Thickness
Decay Interval Classification
Amplitude Classification
POSITIVE RESPONSE
Associated Magnetic Peak

AMPLITUDE CLASSIFICATION
(UNCORRECTED FOR ALTITUDE)

Class 1 (- 100 ppm)
Class 2 (100-199 ppm)
Class 3 (200-399 ppm)
Class 4 (400-1000 ppm)
Class 5 (-1000 ppm)

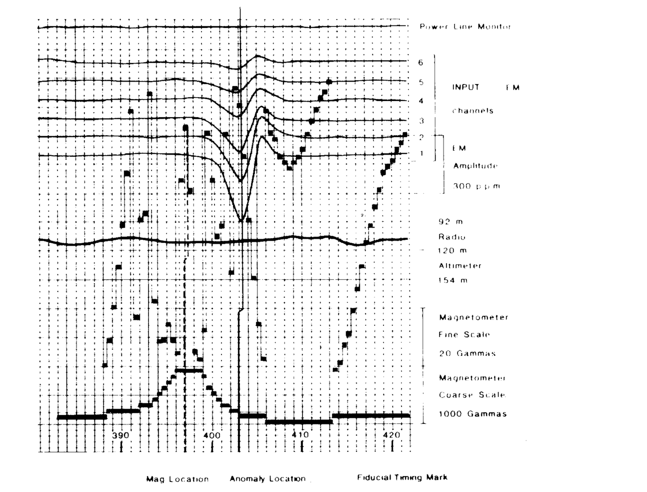
MAGNETIC CONTOURS

10 Gamma Contour Line

50 Gamma Contour Line
100 Gamma Contour Line

Magnetic Depression

1 Gamma = 1 Nanotesla in SI Units



Representative INPUT Magnetometer and Altimeter Recording

DESCRIPTIVE NOTES

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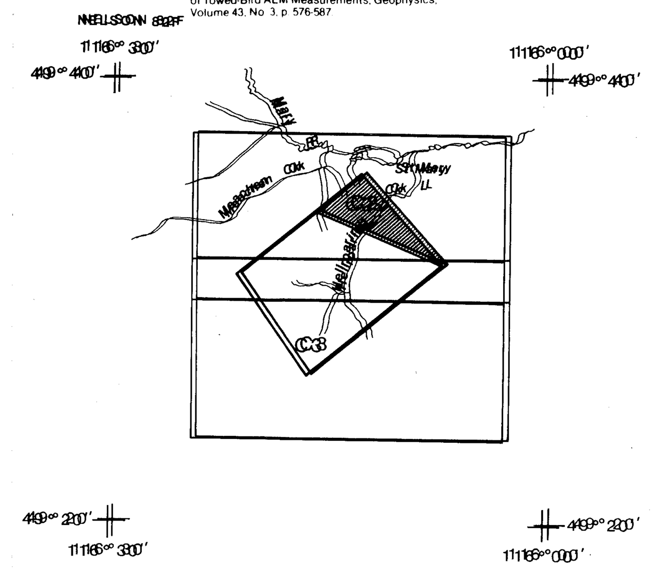

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GEOLOGICAL BRANCH
ASSESSMENT REPORT

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Mississauga Ontario Canada

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INPUT

DECAY INTERVAL CLASSIFICATION

- 1 Channel (340 microseconds)
- 2 Channel (540 microseconds)
- 3 Channel (840 microseconds)
- 4 Channel (1240 microseconds)
- 5 Channel (1740 microseconds)
- 6 Channel (2340 microseconds)

Selected Channel Half-width Limit — Conductivity Thickness — Associated Magnetic Peak — 12 — 15 — Decay Interval Classification — 3 — Amplitude Classification — POSITIVE RESPONSE

AMPLITUDE CLASSIFICATION
(UNCORRECTED FOR ALTITUDE)

Class 1 (< 100 ppm)
Class 2 (100-199 ppm)
Class 3 (200-399 ppm)
Class 4 (400-1000 ppm)
Class 5 (>1000 ppm)

MAGNETIC CONTOURS

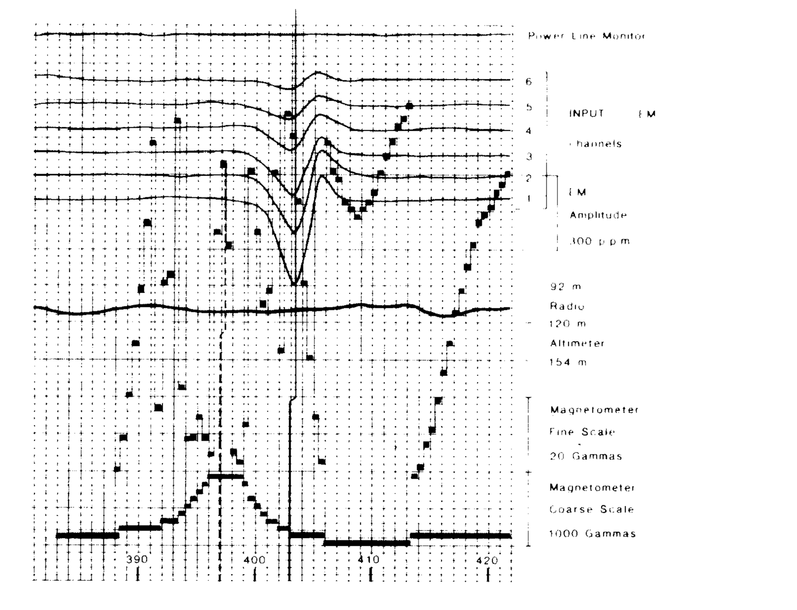
5 Gamma Contour Line

25 Gamma Contour Line

1 000 Gamma Contour Line

Magnetic Depression

1 Gamma = 1 Nanotesla in SI Units



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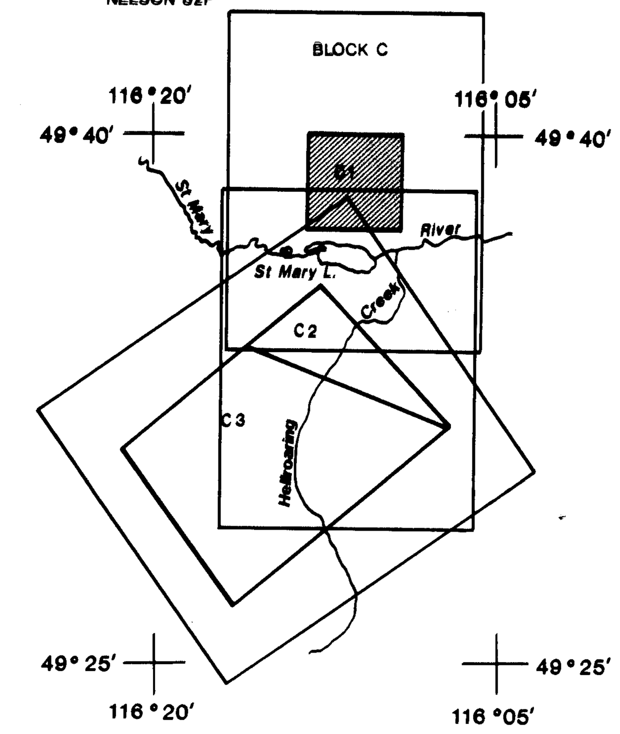

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