

LOG NO: 0728	RD.
ACTION:	
FILE NO:	

GEOPHYSICAL REPORT ON THE
GOLD QUAD PROPERTY
ZEBALLOS AREA, BRITISH COLUMBIA
Alberni Mining Division
NTS: 92L/2W

Latitude: 50° 02' N
 Longitude: 126° 45' W

SUB-RECORDER
 RECEIVED
 JUL 21 1989
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 VANCOUVER, B.C.

For
 GOLDEN QUADRANT RESOURCES LTD.
 11971 Flamingo Ct.
 Vancouver, B.C.
 V7E 3S7

By
 J. Campbell Graham, M.Eng., P.Eng.
 Graham Grond Geoconsultants Ltd.
 2729 Yale Street
 Vancouver, B.C.
 V5K 1C4

July 14, 1989

GOLDEN QUADRANT RESOURCES LTD.

18,928

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1.0 SUMMARY

In August 1984, a field crew employed by Golden Quadrant Resources Ltd. collected VLF-EM and magnetometer data over several traverses across the subject property. Mr. R.J. Southam, president of Golden Quadrant Resources Ltd., requested the author to interpret the data and write a report to be applied for assessment purposes.

The property is located in the historic Zeballos mining camp on Vancouver Island, and is immediately adjacent to actively explored properties with significant proven reserves. The New Privateer property, about 2 km west of the subject property, hosts the area's largest former producer (154,000 ounces of gold) and additional smaller deposits.

Mines in the area have been developed on gold-quartz veins spatially related to the Zeballos Stock, a quartz diorite intrusion which regional mapping indicates underlies at least part of the subject property.

Results of the limited amount of work done to date are inconclusive. The VLF-EM data reveals a number of moderate conductors, some of which may be due to mineralized shear zones. Magnetic field strength

variations observed could be due to variations in magnetite concentration and of no economic interest, or they could indicate the presence of pyrrhotite, a magnetic sulfide mineral common in the mineralized veins of the area. Additional work is necessary to further assess the significance of the results.

Given the location of the property and the similarities in geology to nearby properties with significant deposits, further exploration of the subject property is warranted. A two phase program is recommended, to consist of geological mapping, and soil geochemical and induced polarization surveys in Phase I, followed up in Phase II with trenching and drilling of selected targets. The cost of Phase I is estimated at \$80,000, and Phase II at \$150,000.

2.0 INTRODUCTION

This report is prepared at the request of Mr. R.J. Southam, president of Golden Quadrant Resources Ltd. It presents an interpretation of geophysical data collected on the Gold Quad Group of mineral claims during August, 1984, by a field crew employed by Golden Quadrant Resources.

This report is based on the data provided by Mr. Southam and a review of available literature and news releases pertaining to the area.

2.1 Location and Access

The Gold Quad property is located 7 km northeast of Zeballos, a small community about two-thirds of the way up the west coast of Vancouver Island (Fig. 1). The claims are centered at north latitude $50^{\circ} 02'$ and west longitude $126^{\circ} 45'$, and are covered by NTS mapsheet 92L/2W.

The property is accessed from Hwy. 19 by taking the Zeballos cut-off (a good gravel road branching off Hwy. 19 about 160 km north of Campbell River) south for 43 km, where the Nomash Main (a logging road) branches

off. The Nomash Main crosses the Zeballos River and crosses the central portion of the Nomash Silver claim, which is part of the subject property.

2.2 Property and Ownership

The property consists of three contiguous mineral claims comprising 28 units, located in the Alberni Mining Division (Fig. 2). The claims are grouped as the Gold Quad Group. The nominal area of the property is 7 km², but the effective area is reduced to about 5 km² since the claims overlie existing mineral claims.

The claims are owned by Golden Quadrant Resources Ltd.

<u>Claim Name</u>	<u>Record No.</u>	<u>Units</u>	<u>Expiry Date*</u>
Nomash Silver	1257	15	June 4, 1989
Gold Quad #10	2203	12	"
Gold Quad #11	2204	1	"

* This report will be applied as assessment credit to extend the expiry date by one year.

2.3 History and Previous Work

The property is located in the historic Zeballos mining camp, and is immediately adjacent to properties belonging to CanAlaska Resources (with proven and

possible reserves of 75,000 tons at 0.35 oz gold/ton) and McAdam Resources (proven, probable, and possible reserves totalling 243,000 tons at 0.31 oz gold/ton). The New Privateer property, about 2 km west of the subject property, hosts the area's largest former producer and additional smaller deposits (proven reserves 135,000 tons at 0.27 oz gold/ton, probable 358,000 tons at 0.44 oz gold/ton). The Privateer mine produced 154,000 ounces of gold before shutting down in 1948.

This summer, McAdam Resources plans a program of bulk sampling and test milling on their Spud Valley property, immediately adjacent to the west of the subject property, and has constructed a 200 ton/day modular mill on site.

The subject property includes ground previously covered by Crown Grants, and has had some linecutting and rock sampling work done, as well as the geophysical surveys which are the subject of this report. Mr. Southam reports that abundant sulfide mineralization has been observed in places on the subject property. Mr. N. Ewin, a prospector who conducted the magnetometer survey, reports that in his opinion high grade veins from neighbouring properties appear to trend onto the subject property, appearing as mineralized shears with

low grade but elevated gold values coincident with VLF-EM conductors.

3.0 GEOLOGY

Mines in the area have been developed on gold-quartz veins spatially related to the Zeballos Stock, a quartz diorite intrusion which regional mapping indicates underlies at least part of the subject property. As well, skarn type mineralization containing iron, copper, lead, zinc, and gold is found in the area. Mr. Southam reports the existence of skarn mineralization on the subject property.

Regional geological mapping by Gunning (1931, 1932) divided the rock types in the area into three groups: the Quatsino Limestone, the Karmutsen Volcanics, and the Bonanza Formation (consisting of volcanics and minor sediments).

Veins are sulfide mineralized and contain significant values in gold and silver.

4.0 GEOPHYSICAL SURVEYS

4.1 Description of Surveys

The traverses surveyed are shown in Fig. 3. The western part of the property was surveyed with both VLF-EM and magnetometer (totalling 5.875 km, not all on the subject property), and the eastern part (the Nomash Silver claim) was surveyed with just magnetometer (totalling 6.88 km, all on the subject property).

The VLF-EM survey is best suited for detection of steeply dipping conductors (such as mineralized veins or faults) but also responds to ground water concentrations and ridges. The survey was conducted using a Sabre Model 27 instrument. The Fraser filtered dip angle profiles are shown in Fig. 4, and the posted raw and Fraser filtered dip angle values are shown on Figs. A103 and A104. Positive Fraser filter values indicate conductors.

The magnetometer survey was conducted using a Scintrex MP-2 magnetometer. Diurnal corrections were not possible since no loops or base station readings were made. Profiled results are shown in Fig. 5 and 6a, and the posted values are shown in Figs. 6b and A103 and A104.

Figures A100-A104 are computer drafted maps provided by CanPac Management, and are included since their cost is to be applied for assessment credit. They are produced using the InterGraph Design System, a mainframe-based "computer assisted drafting" (CAD) system. Topographic and Crown Grant claim boundary information, the location of the geophysical traverses, and the Fraser filtered dip angle readings were entered using keyboard and digitizing table. The database is stored on 16 track tape, and may be converted to standard ".dxf" file format, allowing it to be imported to any of a number of CAD systems.

4.2 Discussion of Results

VLF-EM Survey

The VLF-EM survey defines a number of conductors, which are likely due to water-saturated fractures, faults or possibly mineralized veins. The strongest conductors observed are about 20 dip angle units, indicating moderate conductivity.

If, as Mr. Ewin reports, some of the VLF-EM conductors are due to low grade mineralized shears which are high

grade on neighbouring properties, then these would represent excellent targets for additional work.

Magnetometer Survey

Increases in magnetic field strength are most commonly caused by increases in magnetite concentrations in the underlying rock types. Magnetite is a widely distributed accessory mineral and occurs in rocks of all kinds. The next most common cause of increases in magnetic field strength is the presence of pyrrhotite, a common magnetic sulfide mineral. Pyrrhotite is noted in mineralized veins in the Zeballos area.

Magnetic field strength values observed on the subject property average about 56,300 gammas and exhibit small scale variations (± 100 -200 gammas) which are common in intrusive rock types due to variations in magnetite concentration. There are no direct correlations between the VLF-EM conductors and any distinct magnetic anomaly, which would be the case if any of the VLF-EM conductors were due to a mineralized vein with a significant concentration of pyrrhotite near surface. Sulfides near surface are commonly oxidized, however, and this does not rule out the possibility that one or more of the VLF-EM conductors may indicate mineralized veins.

On the Nomash Silver claim, the magnetic field strength gradually decreases to the south on the two eastern lines, indicating a gradually increasing thickness of near-surface rock overlying a more magnetic unit at depth (a wedge of Quatsino Limestone overlying Karmutsen Volcanics to the north?).

5.0 CONCLUSIONS AND RECOMMENDATIONS

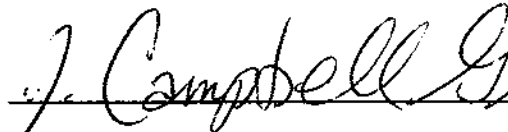
The property is located in the historic Zeballos mining camp on Vancouver Island, and is immediately adjacent to actively explored properties with significant proven reserves.

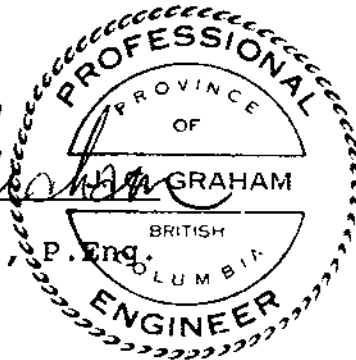
Results of the limited amount of work done to date are inconclusive. The VLF-EM data reveals a number of moderate conductors, some of which may indicate mineralized shear zones. Magnetic field strength variations observed could be due to variations in magnetite concentration and of no economic interest, or they could indicate the presence of pyrrhotite, a magnetic sulfide mineral common in the mineralized veins of the area. Additional work is necessary to further assess the significance of the results.

Due to the promising location of the property, further exploration work is warranted. A two phase exploration program is recommended.

Phase I should consist of geological mapping and a soil geochemical survey. Promising areas should be surveyed with the induced polarization (IP) method to define the extent of any sulfide mineralization. Phase II should consist of trenching and drilling targets defined in Phase I. An estimated cost breakdown for Phase I, totalling \$80,000, is given as Appendix I. The cost of Phase II is impossible to accurately estimate at this time since it depends on the number of targets defined in Phase I, but a reasonable amount would be \$150,000.

Signed at Vancouver, B.C.,


J. Campbell Graham, M.Eng., P.Eng.
Geophysical Engineer



5.0 REFERENCES

- CanAlaska Resources Ltd., various news releases from October 1988 to April 1989.
- Gunning, 1932. Summary Report of the Geological Survey, Canada, Part A, vol. II, pp 39-42.
- Hoadley, J.W., 1953. Geology and Mineral Deposits of the Zeballos-Nimpkish Area, GSC Mem. 272.
- McAdam, John, personal comm., July 12, 1989.
- McAdam Resources Inc., Feb. 22, 1989 news release.
- New Privateer Mines Ltd., 1987 Annual Report.
- Southam, R.J., 1985. Assessment Report, Physical Work, GQR Core Properties.
- Southam, R.J., 1989. Assessment Report, Geochemical Work, GQR Core Properties.
- Stevenson, J.S., 1950. Geology and Mineral Deposits of the Zeballos Mining Camp, BCMD Bull. 27.

APPENDIX I

ESTIMATED COST OF PROPOSED PROGRAM

APPENDIX I

ESTIMATED COST OF PROPOSED PROGRAM

Phase I

Project Preparation	\$1,500
Permitting	300
Mob/Demob	
Geologist	2,000
IP crew/soil samplers	3,800
Grid establishment (flagged), say 30 km @ \$300/km	9,000
Soil geochemical survey, say 1200 samples @ \$20/sample (including collection and analysis)	24,000
Linecutting	
say 7 km crosslines @ \$750/km	5,250
say 1.4 km base and tielines @ \$750/km	1,050
IP Survey, -say 7 days @ \$1500/day	10,500
Geological support, 6 days @ \$350/day	2,100
Vehicle rental (2)	1,300
Domicile, 30 mandays @ \$80/manday	2,400
Accounting, communication, freight	1,000
Engineering, report	7,000
Contingencies, approx. 10%	<u>8,800</u>
	\$80,000
	=====

APPENDIX II
STATEMENT OF COSTS

APPENDIX II

STATEMENT OF COSTS

The cost of this report was \$3,000. Mr. Southam, president of Golden Quadrant Resources Ltd., reports that the cost of the computer drafting was \$2,600, for a total amount to be applied as assessment credit of \$5,600.

APPENDIX III

STATEMENT OF QUALIFICATIONS

STATEMENT OF QUALIFICATIONS

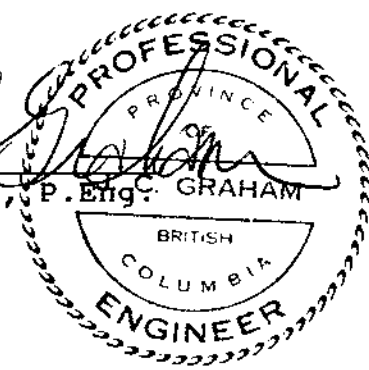
I, James Campbell Graham of the city of Vancouver, in the province of British Columbia, hereby certify:

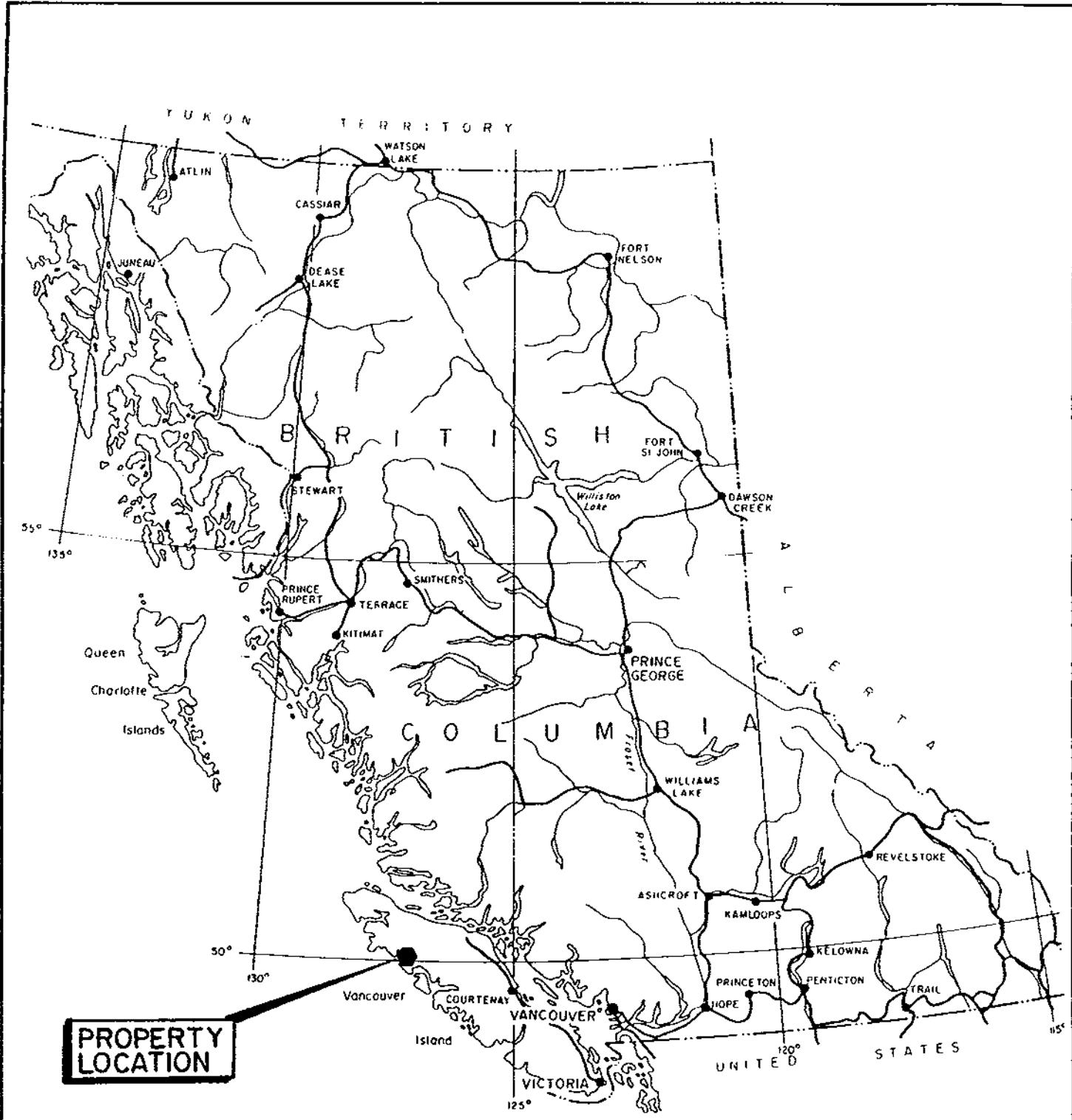
1. I am a Geophysical Engineer residing at 2729 Yale Street, Vancouver, BC, V5K 1C4.
2. I am a registered Professional Engineer in good standing in the Province of British Columbia.
3. I graduated in 1982 with a B.Sc. degree and in 1985 with an M.Eng. degree, both in Geophysical Engineering from the Colorado School of Mines in Golden, Colorado.
4. I have been involved in numerous mineral exploration programs since 1975.
5. This report is based upon field work carried out by a field crew employed by Golden Quadrant Resources Ltd. and a review of published and private data pertaining to the claim area.
6. I hold no direct or indirect interest in the property described herein (the Gold Quad Property), or in any securities of Golden Quadrant Resources Ltd. or in any associated companies, nor do I expect to receive any.
7. This report may be utilized by Golden Quadrant Resources Ltd. for inclusion in a Prospectus or Statement of Material Facts.

Signed in Vancouver, BC,


J. Campbell Graham, M.Eng., P.Eng. GRAHAM

July 13, 1989



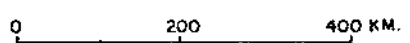


**PROPERTY
LOCATION**



**GOLDEN QUADRANT RESOURCES LTD.
GOLD QUAD GROUP**

LOCATION MAP



GRAHAM GROND GEOCONSULTANTS LTD.	Scale As shown N.T.S. 92L/2W	Figure 1 Date: MAY 1989
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126°45'

50°02'

NOMASH SILVER
1257 (6)

Nomash
River

GOLD QUAD #10
2203 (6)

GOLD QUAD
#11
2204 (6)

Gold Valley Cr.

Curly
Creek



GOLDEN QUADRANT RESOURCES LTD.
GOLD QUAD GROUP

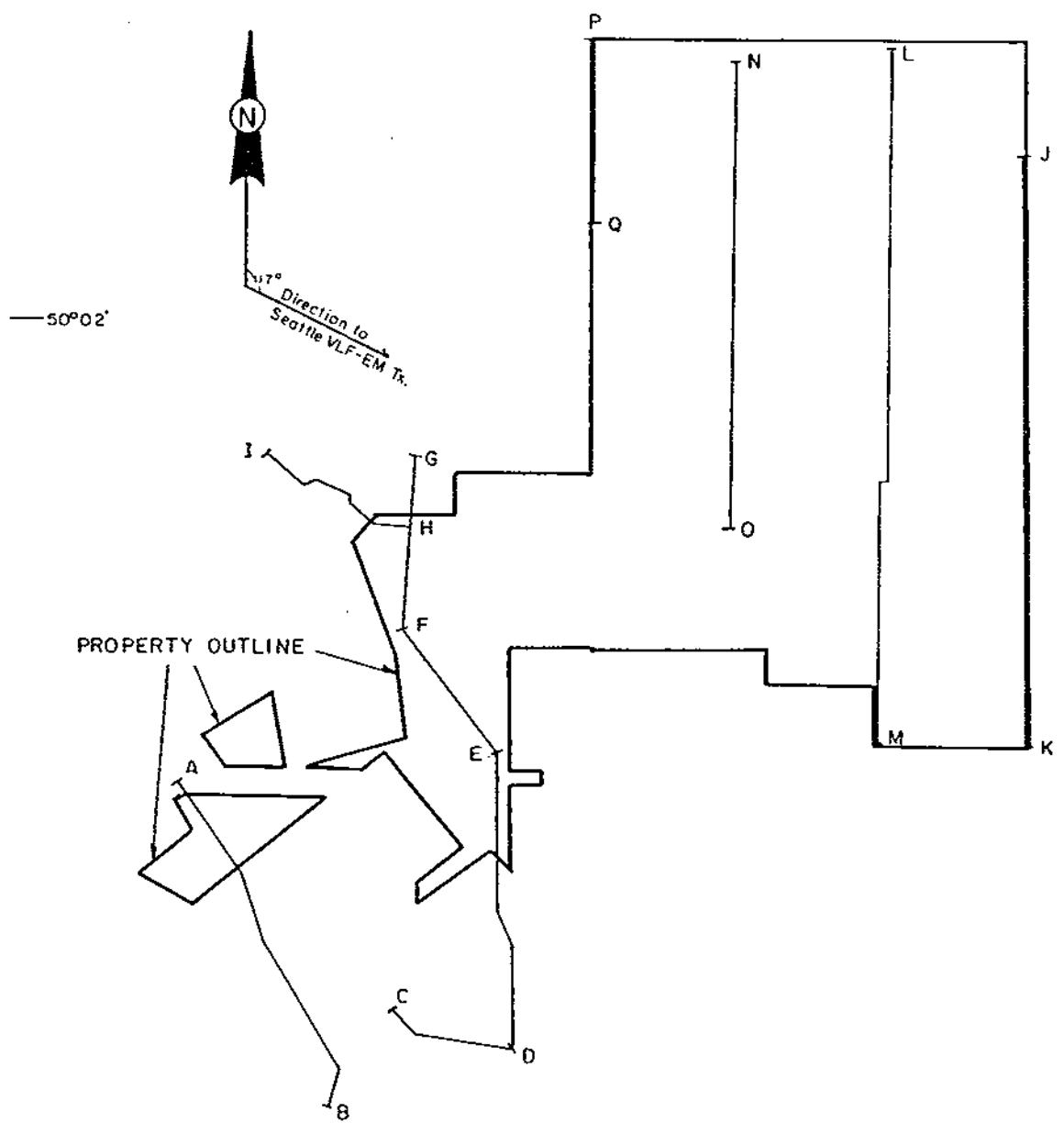
CLAIM MAP

0 1 KM.

(trace from enlarged gov't. claim map)

GRAHAM GROND GEOCONSULTANTS LTD.	Scale 1:25,000 N.T.S. 92L/2W	Figure 2 Date: MAY 1989
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126°45'



PROPERTY OUTLINE

LEGEND

A → B Traverses A to I indicated were surveyed by VLF-EM & Magnetic methods; and J to Q only magnetic survey.

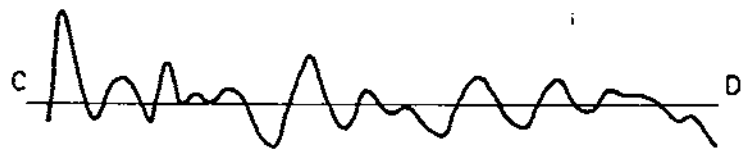
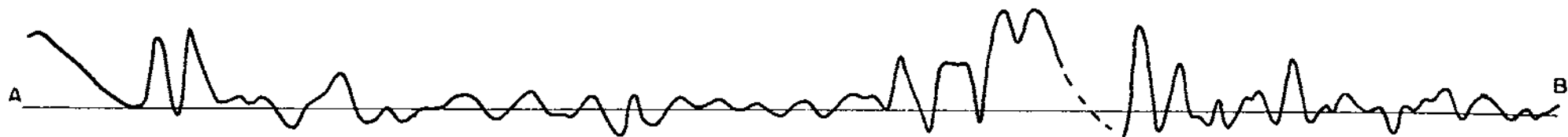
GOLDEN QUADRANT RESOURCES LTD.
GOLD QUAD GROUP

KEY MAP

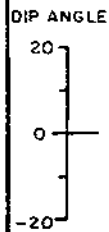
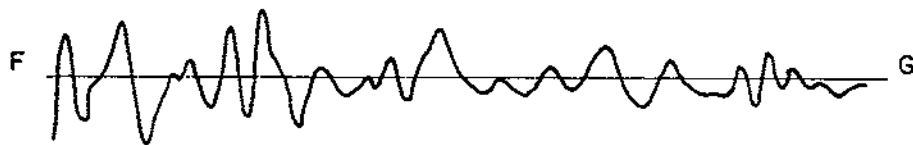
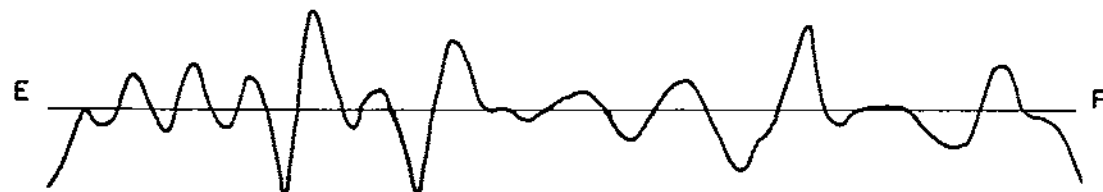
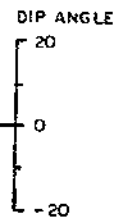
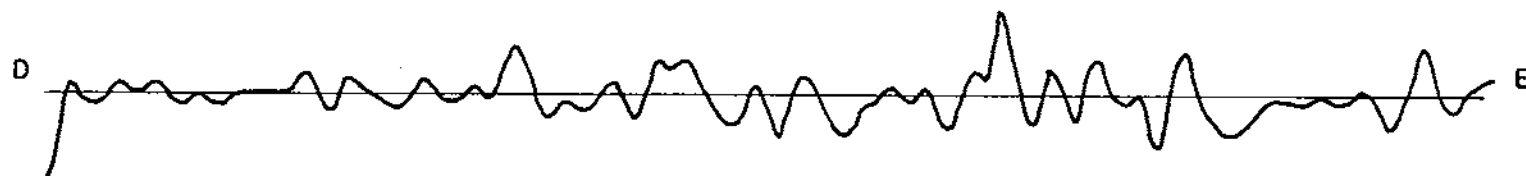


GRAHAM GROND GEOCONSULTANTS LTD.	Scale 1:25,000 N.T.S. 92L/2W	Figure 3 Date: MAY 1989
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CHONS

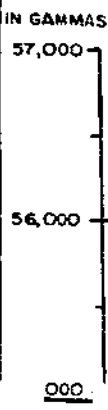
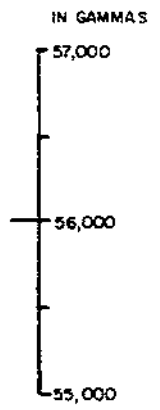
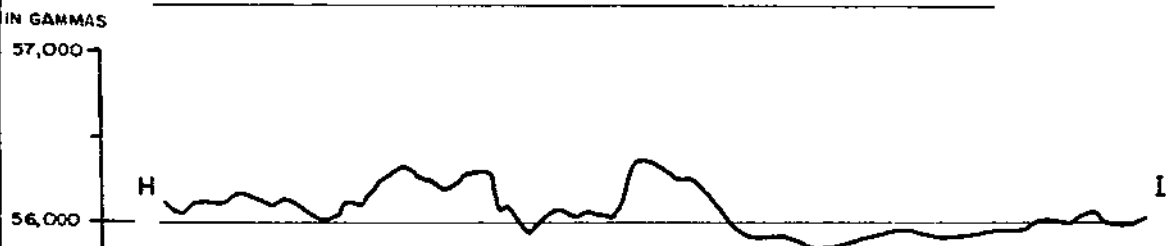
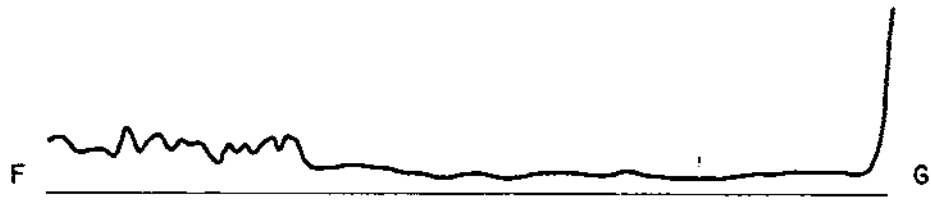
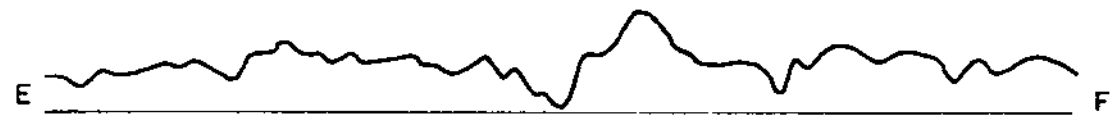
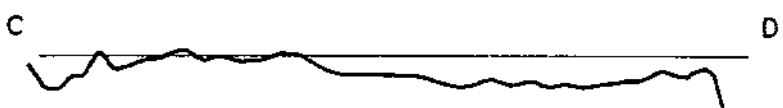


Fraser filtered

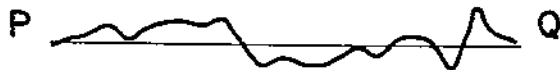
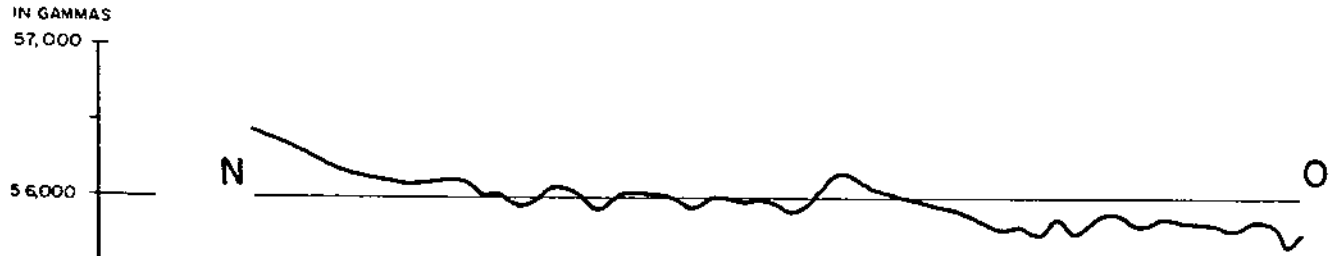
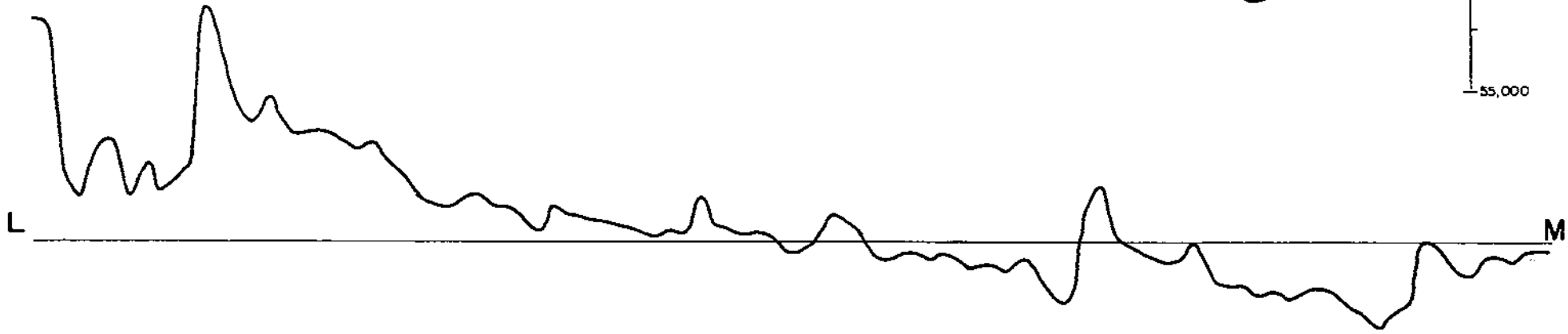
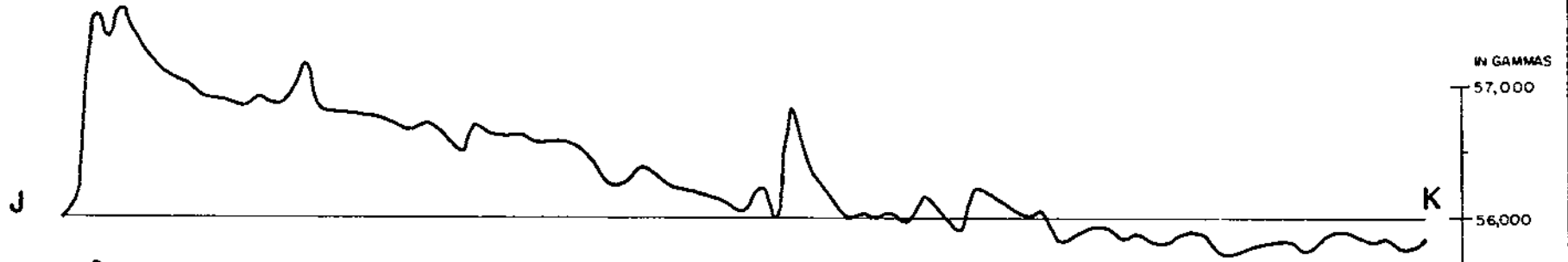


GOLDEN QUADRANT RESOURCES LTD.		
GOLD QUAD GROUP		
VLF-EM PROFILES		
GRAHAM GROND GEOCONSULTANTS LTD.	Scale HOR. 1:5000 N.T.S. 92L/2W	Figure 4 Date: MAY 1989

CHONG



GOLDEN QUADRANT RESOURCES LTD.		
GOLD QUAD GROUP		
MAGNETOMETER PROFILES		
GRAHAM GROND GEOCONSULTANTS LTD.	Scale HOR. 1:5000 NTS 02L/2W	Figure 5 Date: MAY 1989

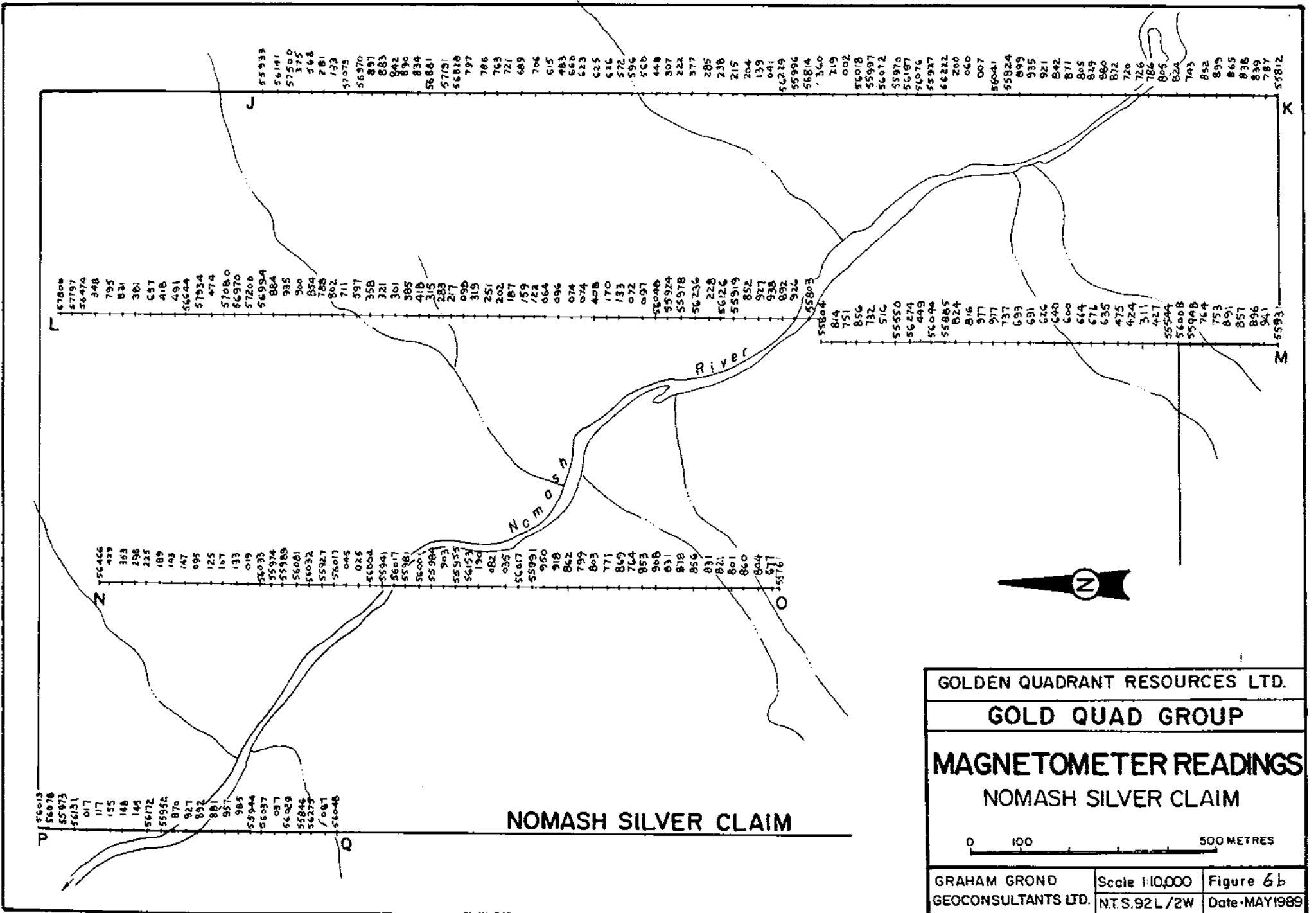


GOLDEN QUADRANT RESOURCES LTD.
GOLD QUAD GROUP

MAGNETOMETER PROFILES
NOMASH SILVER CLAIM

0 100 500 METRES

GRAHAM GROND GEOCONSULTANTS LTD.	Scale ^{HOR.} 1:10,000 N.T.C. 02L/2	Figure 6a Date: MAY 1989
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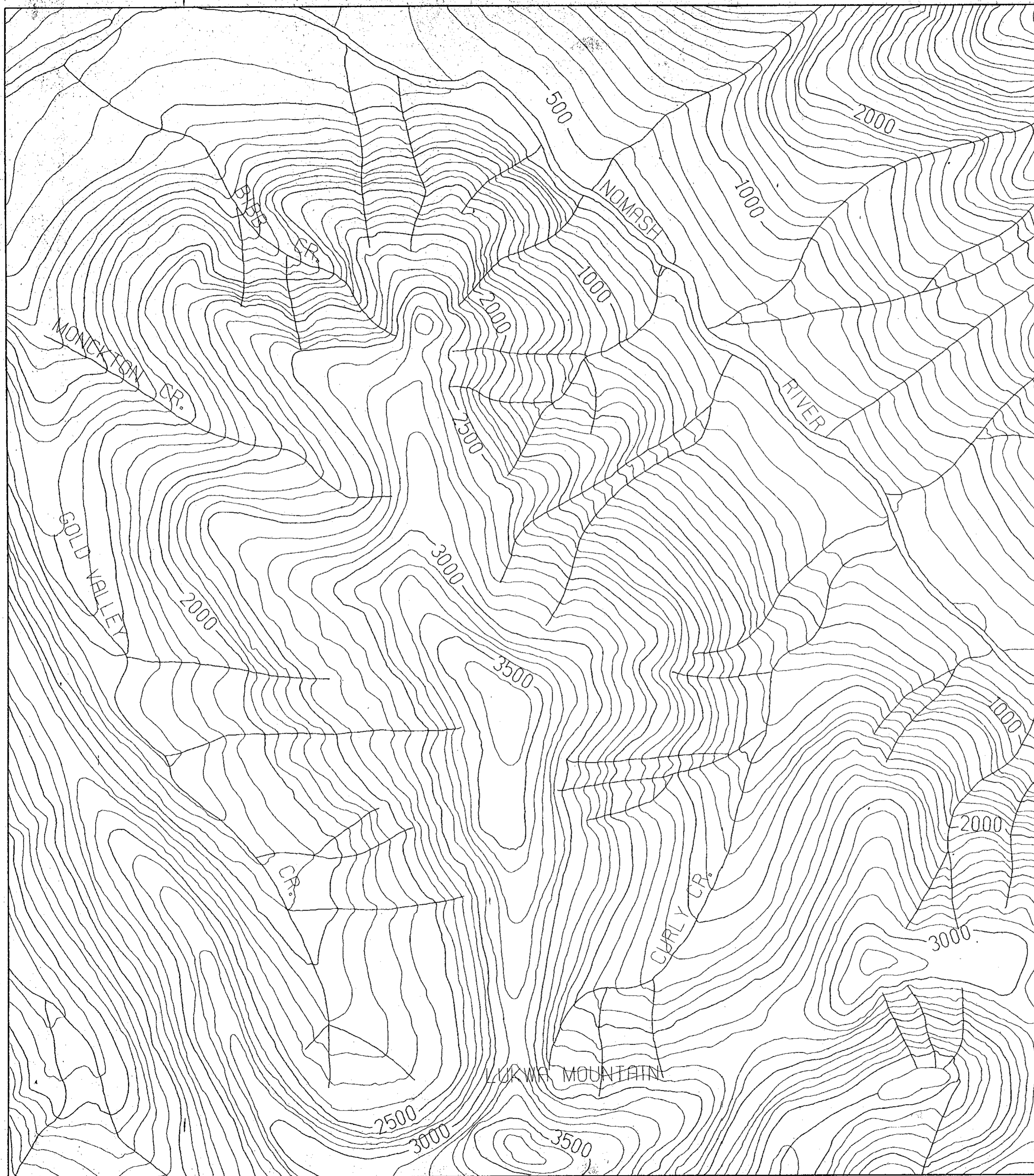


NOMASH SILVER CLAIM

GOLDEN QUADRANT RESOURCES LTD.
GOLD QUAD GROUP
MAGNETOMETER READINGS
NOMASH SILVER CLAIM

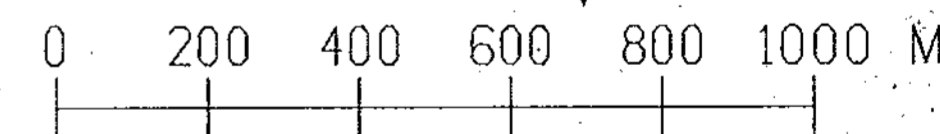


GRAHAM GROND GEOCONSULTANTS LTD.	Scale 1:10,000 N.T.S. 92 L/2W	Figure 6b Date MAY 1989
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GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,928



CANPAC MANAGEMENT		
GOLDEN QUADRANT RESOURCES LTD.		
CONTOURS - NOMASH RIVER TO GOLD VALLEY CREEK		
SCALE 1 : 10,000	MARCH 13, 1989	APPROVED:
DRAWN BY: N. D. ANDERSEN		DRAWING NO. A100

PLOT DATE JUN 21 1989

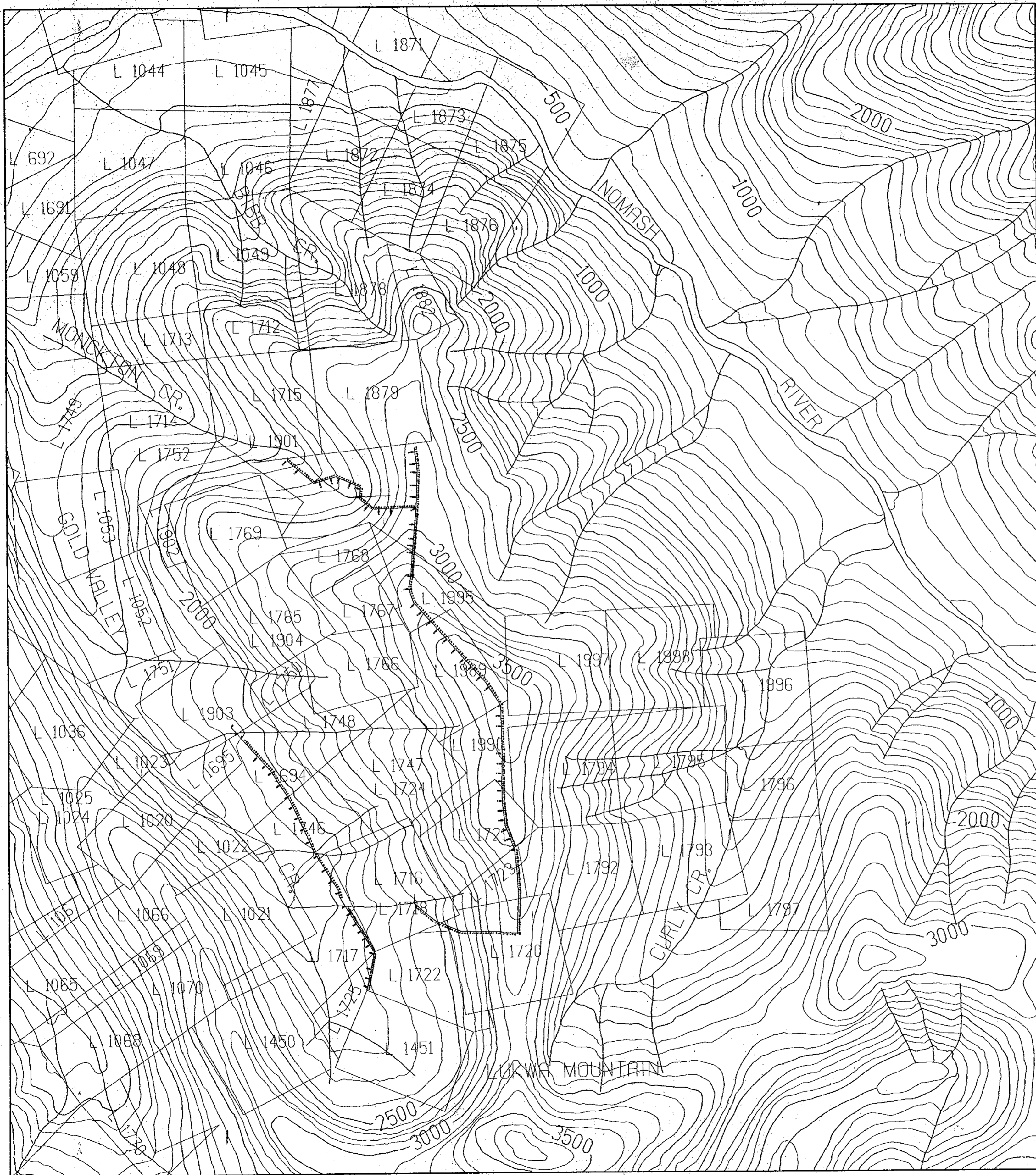


GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,928

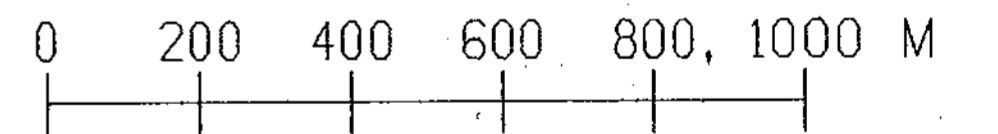


CANPAC MANAGEMENT		
GOLDEN QUADRANT RESOURCES LTD.		
PROPERTY BOUNDARIES NOMASH RIVER TO GOLD VALLEY CREEK		
SCALE 1 : 10,000	MARCH 13, 1989	APPROVED:
DRAWN BY: N. D. ANDERSEN		DRAWING NO. A101



GEOLOGICAL BRANCH
ASSESSMENT REPORT

18,928



CANPAC MANAGEMENT		
GOLDEN QUADRANT RESOURCES LTD.		
ELECTROMAGNETIC SURVEYS GENERAL ARRANGEMENT		
SCALE 1 : 10,000	MARCH 13, 1989	APPROVED:
DRAWN BY: N. D. ANDERSEN		DRAWING NO. A102

1903

L 1748

L 1990

L 1747

L 1724

L 1746

L 1722

L 1022

L 1716

L 1718

L 1021

L 1717

18,928

L 1717

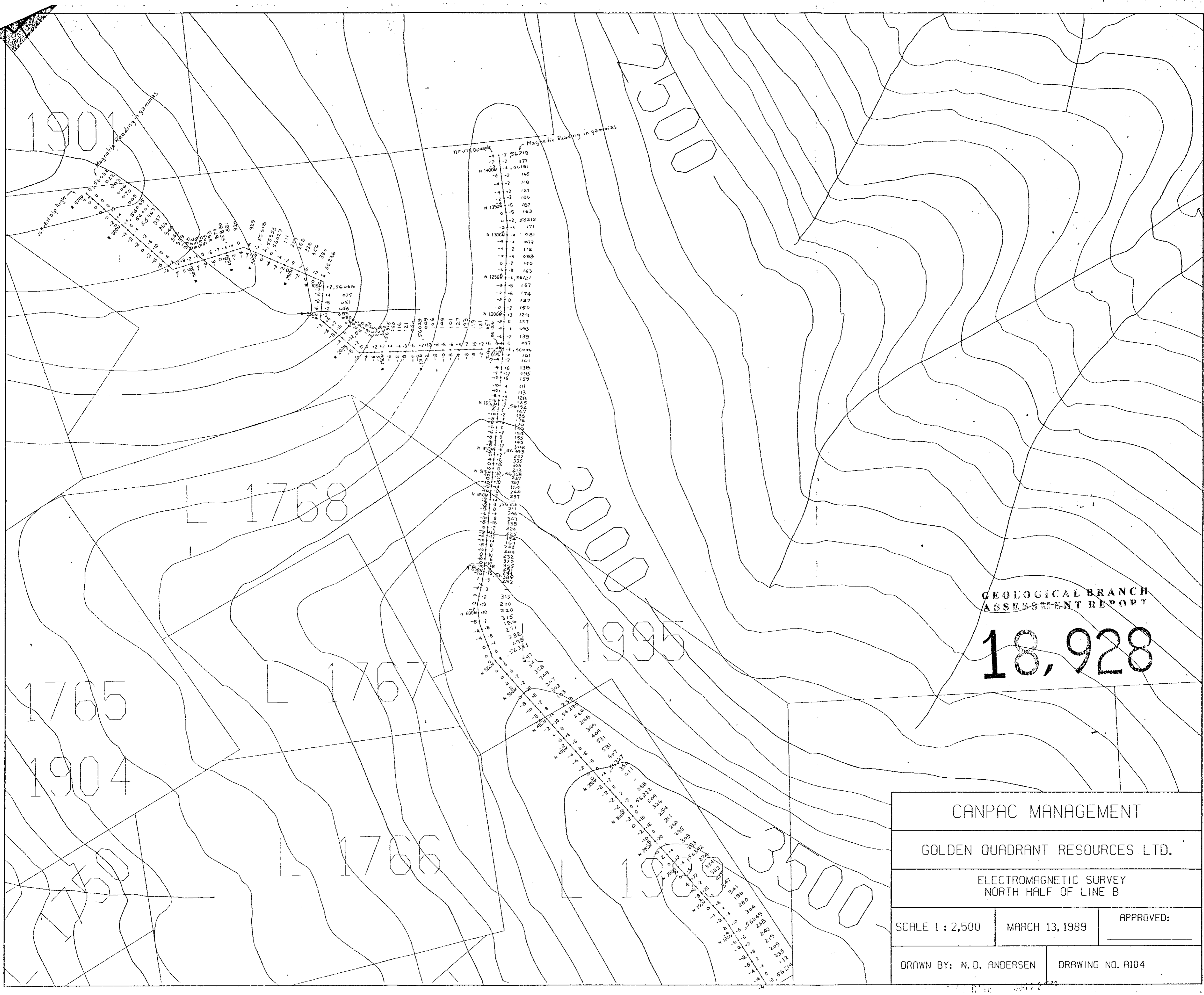
L 1722

10	56033
2	188
0	125
-4	150
-8	202
-12	159
-16	171
-20	226
-24	213
-28	192
-32	154
-36	152
-40	154
-44	120
-48	110
-52	172
-56	56174
-60	191
-64	121
-68	175
-72	228
-76	196
-80	246
-84	222
-88	237
-92	56177
-96	257
-100	190
-104	160
-108	163
-112	216
-116	213
-120	202
-124	56159
-128	211
-132	104
-136	181
-140	217
-144	249
-148	155
-152	142
-156	228
-160	283
-164	56273
-168	248
-172	246
-176	277
-180	251
-184	192
-188	151
-192	221
-196	155
-200	181
-204	56143
-208	193
-212	207
-216	228
-220	218
-224	178
-228	149
-232	107
-236	56081
-240	182
-244	133
-248	163
-252	179
-256	173
-260	211
-264	162
-268	186
-272	56156
-276	171
-280	444
-284	106
-288	136
-292	196
-296	182
-300	183
-304	143
-308	217
-312	56069
-316	035
-320	044
-324	100
-328	000
-332	000
-336	56012
-340	55992
-344	56022
-348	058
-352	101
-356	049
-360	022
-364	078
-368	56054
-372	070
-376	076
-380	56079
-384	006
-388	56022
-392	55989
-396	385
-400	971
-404	14
-408	969
-412	56955

GEOLOGICAL BRANCH
ASSESSMENT REPORT

CANPAC MANAGEMENT		
GOLDEN QUADRANT RESOURCES LTD.		
ELECTROMAGNETIC SURVEY LINE A AND SOUTH HALF OF LINE B		
SCALE 1 : 2,500	MARCH 13, 1989	APPROVED:
DRAWN BY: N. D. ANDERSEN		DRAWING NO. A103

JUN 2 1989



1907

L 1768

1995

1765

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1904

L 1766

L 1996

GEOLOGICAL BRANCH
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18,928

CANPAC MANAGEMENT		
GOLDEN QUADRANT RESOURCES LTD.		
ELECTROMAGNETIC SURVEY NORTH HALF OF LINE B		
SCALE 1 : 2,500	MARCH 13, 1989	APPROVED:
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