NOBELEX N.L.

ANNUAL EXPLORATION REPORT.

EXPLORATION LICENCE 97 - GOSSE RIVER.

TENNANT CREEK, NORTHERN TERRITORY.

for the year ending

29th May, 1974.

CONTENTS.

Prepared for NOBELEX N.L.
By AUSTRALIAN DEVELOPMENT LIMITED
Managing Agents for NOBELEX N.L.

SECTION 1. ANNUAL EXPLORATION REPORT.

1. INTRODUCTION.

Exploration Licence 97 covers an area of 886 square kilometres and is located east of the Gosse River, 54.7 kilometres east-southeast of Tennant Creek (see Fig. 1). This report should be read in conjunction with the Annual Exploration Report for the year ended 29th May, 1973.

Exploration work during the period consisted of:-

1) shallow drilling at magnetic anomaly GR 109, and
2) surveying, gridding and hammer drilling over a large area around magnetic anomaly GR 405.

The onset of the extended, record 1973-74 wet season caused flooding of Gosse River and the area was inaccessible for most of the November-May period.

2. EXPLORATION.

2.1 General.

No new prospects were worked on during the period.

2.2 Magnetic Anomaly GR 109. (See previous report).

Shallow Drilling.

The programme of shallow drilling in progress at the end of last period was completed. The programme comprised 20 holes for a total of 552m. The holes were drilled along profile line 1650X between 1050Y and 1550Y (see Drawing No. 865). The samples obtained were logged and assayed. A report and drill logs were compiled.

Further Work.

No further work is planned at this stage.

2.3 Magnetic Anomaly GR 405. (See previous report).

Surveying.

Surveying in progress at the end of last period was completed. This work consisted of:-

1) the establishment of two permanent trig points in the licence area; Gosse River Central and Gosse River South, and

2) the establishment of a grid with a 90° True baseline and crosslines pegged at 100m intervals. Star droppers were placed at 500m intervals along all lines.

A report on the above surveying was submitted by the contractors - Gutteridge, Haskins & Davey Pty. Ltd.

Drilling.

Following assessment of the data from SHDH 92 and DDH 404 it was concluded that low grade gold and/or copper mineralization related to acid intrusives may exist over a large area in the GR 405 area.

A programme of hammer drilling to test this possibility was undertaken on completion of the abovementioned surveyed grid which provided control.

The programme comprised 72 vertical hammer drill holes to bedrock at 500m intervals along selected lines. The holes were sampled at 2m intervals and where possible, a small cored section of bedrock was obtained by dry diamond drilling. All samples were logged and assayed. A report and drill logs compiling all data from the above drilling was prepared. An interpretation of the geochemical results is included in the above report.

Detailed logging of the drill samples indicated that the area is underlain by a complex of granitic rocks, granitised sediments and low grade schists.

The programme failed to reveal any significant mineralization.

Further Work.

No further work is planned at this stage.

3. SUMMARY AND EXPENDITURE.

A summary of exploration work on EL 97 - Gosse River; during the period is given below.

Gridding:	415 stations established.
Assays:	690
Precision surveying:	10 crew days.
Shallow drilling:	201.16m
Hammer drilling:	1350.44m

The total expenditure on EL 97 for the second year of tenure was $30,279.

The total expenditure on EL 97 to date is $63,147.

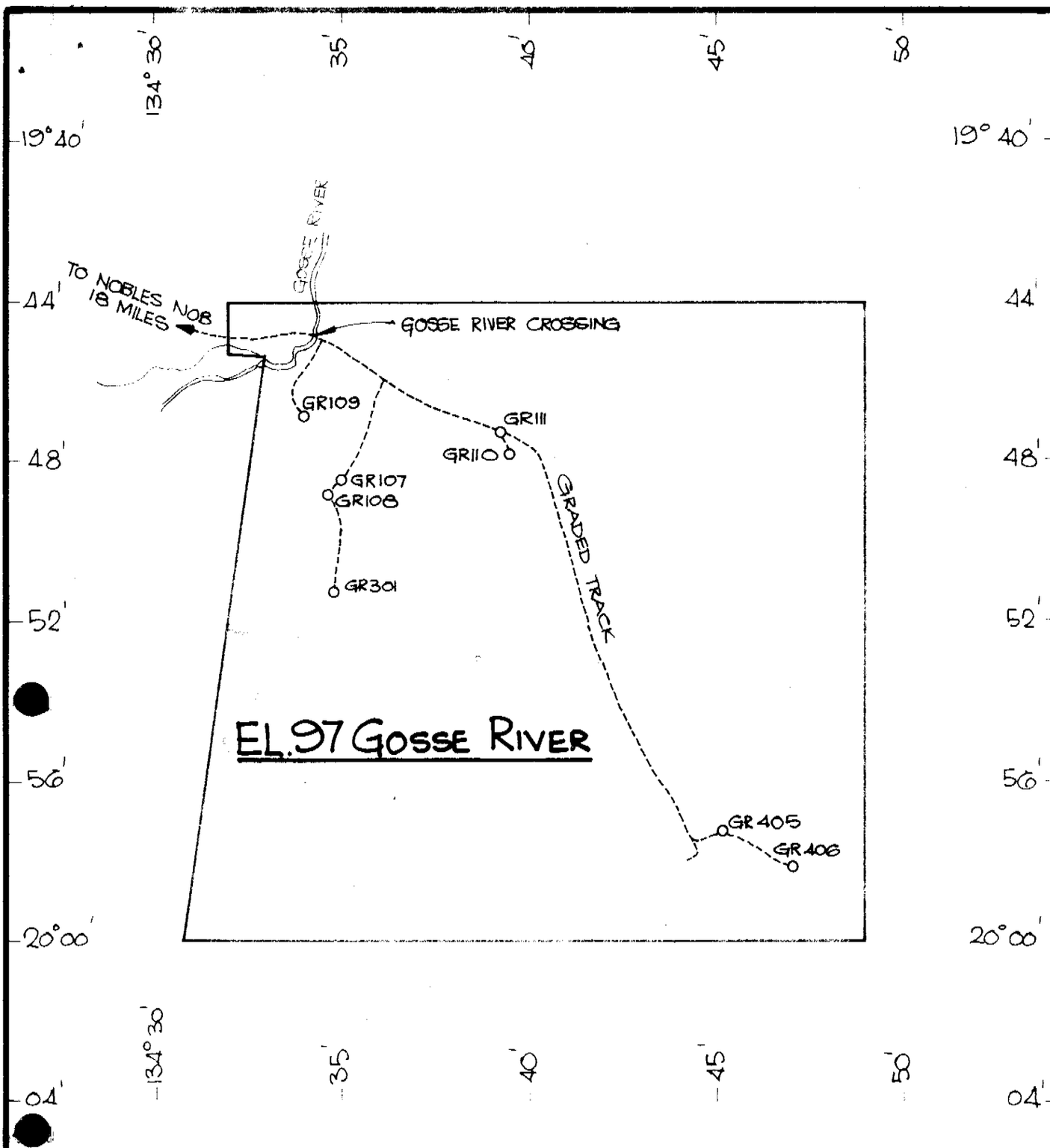


FIG. 1. LOCALITY MAP: EL.97 GOSSE RIVER

PREPARED FOR NOBELEX N.L.
BY AUSTRALIAN DEVELOPMENT LTD.
MANAGING AGENTS FOR NOBELEX N.L.

SCALE 1:250,000

DRAWN: R.G.T.
CHECKED: P.R.

SECTION 2. TECHNICAL DATA.

1. Magnetic Anomaly GR 109 (See attached).

1.1 Report - Jacro 200 Profile Geochemical Drilling Programme - GR 109, EL 97.

1.2 Drill Logs and Assays.

JDH's 59 - 78.

2. Magnetic Anomaly GR 405 (See attached).

2.1 Report - Extract from report by Gutteridge, Haskins & Davey Pty. Ltd. - 5.6.73.

2.0 Trig Point Surveys.

3.0 Gosse River South Grid Survey.

2.2 Report - Progress Report on Gosse River 405 Prospect - 22.2.74 (with attached Appendices).

Prepared for NOBELEX N.L.
By AUSTRALIAN DEVELOPMENT LIMITED
Managing Agents for NOBELEX N.L.

AUSTRALIAN DEVELOPMENT LIMITED.

MEMO TO: Senior Geologist.

MANAGING AGENTS FOR NORDLEX N.L.

FROM: G. Granger.

SUBJECT: JACRO 200 PROFILE GEOCHEMICAL DRILLING PROGRAMME - GR109, E.L. 97.

DATE: 3rd [illegible], 1973.

INTRODUCTION.

A total of 20 Jacro drill holes were [illegible] on the GR109 prospect during May and June, 1973.

The holes were drilled along [illegible] lines [illegible] 1050Y and 1350Y. The drilling programme, [illegible] 1973, called for 20 drill holes, but the programme [illegible] [illegible] due to non-availability of a driller [illegible].

The aim of the drilling programme [illegible] [illegible] geochemistry of bedrock in the area of the [illegible] [illegible], and possibly indicate a source for the anomaly.

All samples were logged and analysed for [illegible], [illegible] and [illegible].

RESULTS.

Of the 20 holes drilled, none reached bedrock. [illegible] holes were generally 30.5m in depth.

All the holes finished in quartz sand [illegible] varied proportions of sediment, gravel [illegible] biotite schist [illegible]. [illegible] magnetite euhedra were common throughout the holes.

Geochemical results were insufficiently variable to give a meaningful result.

Because the Jacro drill rig failed to reach bedrock in this area, the geological and geochemical results are of little practical value.

RECOMMENDATIONS FOR FURTHER WORK.

Due to the fact that the depth of bedrock has consistently been shown to be beyond the capability of the Jacro rig, it is recommended that no further Jacro drilling be completed over the area.

The only means of further testing this anomaly [illegible] hammer drilling or diamond drilling. A diamond drill [illegible] has been proposed for this prospect (see Proposal, [illegible] March 1973).

Geological logs and assay data for the Jacro drilling are available in the Jacro Drill Hole Master File.

G. GRANGER,
Geologist.

GG:JES
7.8.73

AUSTRALIAN DEVELOPMENT LIMITED

JACRO DRILL LOGS.

Hole No:	Depth:	Date	Location:	Purpose:	Sample:	Description:	Sample No. / Assay (ppm)
59	21.3m	16.5.73	GR109 1320Y 1650X	Profile geochem.	Dust 65'-70'	Not bedrock - quartz and silicified sediment gravel sand.	No. 17659. Bi 13; Pb [illegible] Mo <1.
60	6.4m	17.5.73	GR109 1550Y 1650X	Profile geochem.	Dust & core. 20'-21'	Not bedrock - quartz and sediment gravel with silcrete.	No. 17660. Bi 13; Pb [illegible] Mo <1.
61	33.5m	17.5.73 to 18.5.73	GR109 1050Y 1650X	Profile geochem.	Dust 105'-110'	Not bedrock, quartz & sediment gravel & sand.	No. 17661 Bi 17; Pb [illegible] Mo 2.
62	15.2m	21.5.73	GR109 -	Profile geochem.	No sample	No sample - hole drilled in incorrect position.	-
63	30.5m	22.5.73	GR109 1100Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - sand and gravel - quartz with biotite schist.	No. 17662. Bi 20; Pb 5 Mo <1.
64	30.5m	22.5.73	GR109 1150Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - quartz sand with biotite schist-abundant.fine magnetite.	No. 17663. Bi 25; Pb 4 Mo <1.
65	21.3m	23.5.73	GR109 1170Y 1650X	Profile geochem.	No sample	-	-
66.	30.5m	28.5.73	GR109 1190Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - quartz and biotite schist sand - common fine magnetite.	No. 17664. Bi 13; Pb 20 Mo <1.

JACRO DRILL LOGS.

Hole No.	Depth:	Date	Location	Purpose	Sample	Description	Sample No. and assay (ppm)
67	30.5m	28.5.73	GR109 1210Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - quartz and biotite schist sand - common fine magnetite.	No. 17665. Cu 25; Bi 20; Pb 45; Zn 20; Mo <1.
68	24.4m	29.5.73	GR109 1230Y 1650X	Profile geochem.	Dust 75'-80'	Not bedrock - quartz and biotite schist sand - abundant fine Magnetite.	No. 17666. Cu 50; Bi 20; Pb 40; Zn 25; Mo <1.
69	30.5m	29.5.73	GR109 1220Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - quartz and biotite schist gravel sand - some minor fine magnetite.	No. 17667. Cu 40; Bi 17: Pb 40; Zn 25; Mo <1.
70	30.5m	30.5.73	GR109 1240Y 1650X	Profile geochem.	Dust 95'-100'	As above with abundant fine magnetite.	No. 17668. Cu 45; Bi 13: Pb 55; Zn 25; Mo <1.
71	30.5m	30.5.73	GR109 1250Y 1650X	Profile geochem.	Dust 95'-100'	As above.	No. 17669. Cu 20; Bi 13; Pb 30; Zn 18; Mo <1.
72	30.5m	31.5.73	GR109 1260Y 1650X	Profile geochem.	Dust 95'-100'	As above.	No. 17670. Cu 30; Bi 13: Pb 45; Zn 20; Mo <1.
73	30.5m	31.5.73	GR109 1270Y 1650X	Profile geochem.	Dust 95'-100'	As above.	No. 17671. Cu 35; Bi 20; Pb 50; Zn 25; Mo <1.
74	30.5m	1.6.73	GR109 1280Y 1650X	Profile geochem.	Dust 95'-100'	As above.	No. 17672. Cu 40; Bi 17: Pb 40; Zn 25 Mo <1.

JACRO DRILL LOGS

Hole NO.	Depth:	Date:	Location:	Purpose:	Sample:	Description:	Sample No. and Assay (ppm).
75	30.5m	4.6.73 ~~GR109 1290Y~~	GR109 1290Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - predominantly fine grains of biotite schist - very little magnetite.	No. 17673. Cu 30; Bi 13; Pb 40; Zn 20; Mo 1.
76	30.5m	5.6.73	GR109 1310Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - mainly grains of fine biotite schist with abundant fine magnetite.	No. 17674. Cu 45; Bi 17; Pb 40; Zn 35; Mo <1.
77	30.5m	5.6.73	GR109 1340Y 1650X	Profile geochem.	Dust 95'-100'	Not bedrock - quartz and clay (felspar). Some grains of biotite schist.	No. 17675 Cu 20; Bi 13; Pb 35; Zn 12; Mo <1.
78	18.3m	6.6.73	GR109 1360Y 1650X	Profile geochem.	Dust 55'-60'	Not bedrock - sand-quartz and biotite schist - minor fine magnetite.	No. 17676. Cu 30; Bi 20; Pb 40; Zn 17; Mo <1.

REPORT
TO
AUSTRALIAN DEVELOPMENT LIMITED
ON SURVEYS CARRIED OUT NEAR NOBLE'S NOB MINE
TENNANT CREEK N.T. 5760
MAY 1973
OUR FILE No. C.S. 1716 - CAIRNS

2.0 TRIG. POINT SURVEYS

2.1 Two trig. stations were set up by Australian Development prior to survey, these being called Gosse River Central and Gosse River South. Distance and angular measurements were taker from existing National Trig. stations Rocky Range and Mt. Rugged to these new stations.

2.2 Gosse River Central

Latitude 19° 49' 39.2382" South
Longitude 134° 40' 06.7643" East

Australian Map Grid Co-ordinates are

7 807 558.412 metres North

465 290.268 metres East in Zone 53 (Central meridian 135° East)

Convergence 0° 06' 44.738"

Approximate height of top plate of trig. station above Mean Sea Level is

= 299 metres

2.3 Gosse River South

Latitude 19° 58' 28.1180 " South

Longitude 134° 44' 32.5273" East

Australian Map Grid Co-ordinates are

7 791 314.711 metres North

473 045.910 metres East in Zone 53 (Central Meridian 135° East)

Convergence 0° 05' 16.8280"

Approximate height of top plate of station above Mean Sea Level is

= 311 metres.

2.4 A.M.G. co-ordinates are on the new 1967 metric system. Additional information that may be useful is shown below.

Distance Gosse River Central to Gosse River South = 18007.207 metres (Great circle distance on the spheroid).

The direct sight distance between these stations is 18008.07 metres.

Bearing Gosse River Central to Gosse River South = 154° 35' 25.46" True

Reverse Bearing = 334° 33' 54.997" True

Distance Rocky Range Trig to Gosse River Central = 24518.946 metres

(Great circle distance on the spheroid).

The direct sight distance between the stations is 24520.46 metres.

Bearing Rocky Range to Gosse River Central = 122° 40' 56.71" True

Reverse Bearing = 302° 36' 56.862" True

2.5 A return traverse was run from Gosse River south to Rocky Range as a check on the work. This information may be supplied if desired.

3.0 GOSSE RIVER SOUTH GRID SURVEY

3.1 The Gosse River south trig. was used as the starting point of the grid survey. The adopted co-ordinates of the point for the grid is 10,000 metres North and 10,000 metres East. A base line was run 90° 0' East (True) from the trig. point for 8,500 metres and 270° 0' West for 6,000 metres. A sun observation was made on this base line to check the 90° 0' true bearing at the trig station.

Various north-south lines were run from the base line. These lines were run in accordance with the official memo as supplied to us by Mr. G. Reveleigh on 9 May 1973.

3.2 Steel angle iron stakes with co-ordinate tags were placed every 500 metres on all lines and white topped w ooden stakes with perma-tags were placed at every other 100 metre mark. The steel stakes are to an accuracy of 1 : 10,000 and the wooden stakes are to 1 : 2,000.

3.3 During the course of this survey, three (3) existing smaller grids were tied into the main system. Existing star pickets at the ends of each base line of each grid were located and radiated to. The three grids in question are G.R. 404, G.R. 405 and G.R. 406.

3.4 G.R. 404

Star Picket 3000 X) New co-ordinates
4600 Y)

are 8012.84 N
9620.59 E

Picket 3000 X) New co-ordinates
1400 Y)

are 8536.80 N
8798.42 E

The results were considered sufficiently encouraging to warrant further testing of a large area around the anomalous Au and Cu mineralization at GR 405. This further testing would be for a large scale, low grade, near surface type of deposit.

Due to the extensive sand cover over the area, exploration costs are of necessity very high, and it was felt that testing for small scale deposits would be completely uneconomic.

A programme of percussion drilling was therefore designed to cover a large area to a relatively shallow depth. If the type of mineralization sought was present, this type of percussion drilling programme would delineate it from the background country.

3. ESTABLISHMENT OF METRIC GRID

As a means of maintaining close control over the percussion drilling programme in the area of GR405, a large metric grid was established.

Surveying contractors, G.H. & D., established a true north-south grid on an east west baseline of 14,500 metres. Four north-south grid lines were run off the baseline. These north-south lines totalled 27,000 line metres.

The baseline was started from the Gosse River South trig., which was given the grid co-ordinates of 10,000m east, 10,000m north.

The grid was pegged with steel pickets at every 500 metres and co-ordinated with metal tags.

4. PERCUSSION DRILLING PROGRAMME

In order to obtain bedrock lithology and geochemical data over a wide area, a total of seventy two hammer drill holes (SHDH 97 to SHDH 168) were completed over the metric grid at 500m hole spacings (see Fig. 1). This drilling had the purpose of locating the extent and type of Au and Cu mineralization indicated by DDH 404.

(a) Sampling.

Each hammer drill hole was completed to bedrock, which varied in depth across the area from 1m to greater than 18m. (See Fig. 3).

A sample of core was attempted from the bottom of each hole, but was not always successful.

Dust samples were taken over every 2m interval down the holes.

The dust samples were all analysed for Cu, Bi, Pb, Zn and Mo. The results are tabulated in Appendix II.

All dust and core samples were geologically logged in detail.

The SHDH logs are listed in Appendix I.

(b) Geochemical Results.

It readily became apparent from study of the geochemical results in each hole that secondary elemental zoning was a major influence on the copper and zinc values.

In many of the holes, and in particular, the deeper holes,

definite depletion, supergene and primary zones could be differentiated.

It was therefore necessary to reduce all the results into their likely geochemical zones, before any serious attempt could be made to define anomalous areas.

Only Cu and Zn values proved to be variable enough to enable interpretation. As many of the holes were very shallow, often the supergene and particularly the primary zones were not sampled. It therefore became a case of necessity to apply interpretation principally to depletion zone values only.

An attempt was made to interpret the supergene zone results, but they proved to be too few in number to be of use.

The values for Cu and Zn in the various zones are tabulated in Appendix III.

A scatter diagram was plotted for Cu against Zn in the depletion zone (see Appendix IV).

This scatter diagram showed only a broad basic population with a few random outside values.

The depletion zone values for Cu and Zn and the supergene zone values for Cu and Zn are plotted in plan in Appendix IV, but anomalous values show no grouping or correlation.

(c) Geology

Detailed logging of the drill samples showed a complex geological terrain of granitic rocks, granitised sediments and low grade schists and hornfelses.

Although the rocks varied widely in detailed mineralogy, they were divided into three basic groupings for the purposes of producing an interpretation (see Fig. 2).

The first group was a series of granitic rocks which varied widely in composition. Represented in this group were muscovite, K felspar granite with varying degrees of chloritisation, biotite granite, pink syenite, and a pink microgranite.

The second group of rocks was the severely metamorphosed, high grade gneissic rocks which are thought to be granitised sediments. These rocks vary from quartz, K felspar, biotite, chlorite gneisses to augen gneiss.

By far the largest group of rocks intersected consisted of schists and hornfels. They varied from quartz, chlorite, muscovite schists, through biotite schists and chlorite schists, to banded quartzites and hornfelses.

These rocks form a complex intrusive? metamorphic terrain which is thought to underlie a great area in the vicinity. These rocks appear to be related to the Cabbage Gum group of intrusives? and metamorphics.

Although the granitic rocks may have an anatectic origin, it is thought more likely at this stage that the rocks represent a large scale granite intrusion and subsequent metamorphism of Warramunga Group sediments.

5. CONCLUSIONS AND RECOMMENDATIONS

The programme of geochemical testing of the GR405 prospect failed to delineate any large areas of anomalous mineralization.

All values were reasonably within an expected background fluctuation limit, with the usual few random spot high values.

The geological results of the programme outlined a broad intrusive and metamorphic terrain, which although holding prospect of small contact metasomatic and vein type deposits, did not indicate the large scale type of mineralization sought. The area did not warrant the high cost of further exploration for the smaller type of deposits.

It is therefore recommended that the GR405 prospect be greatly lowered in priority at this stage. No further work should be done on the prospect until the many higher priority and more prospective areas are explored.

6. APPENDICES

Appendix I - SHDH logs for SHDH 97 to 168 (incl.)

Appendix II - Assay Data - SHDH 97 to 168 - GR405.

Appendix III - Geochemical zone - GR405.

Appendix IV - Geochemical Contour Plans and Scatter Diagram

Fig. 1. - Hole locations - SHDH programme GR405

Fig. 2. - Geological Interpretation Plan GR405

Fig. 3 - Bedrock contours - GR405.

G. GRANGER,
Geologist.

GG:JBS

Fig 1. SHDH programme GR 405.

hole locations.

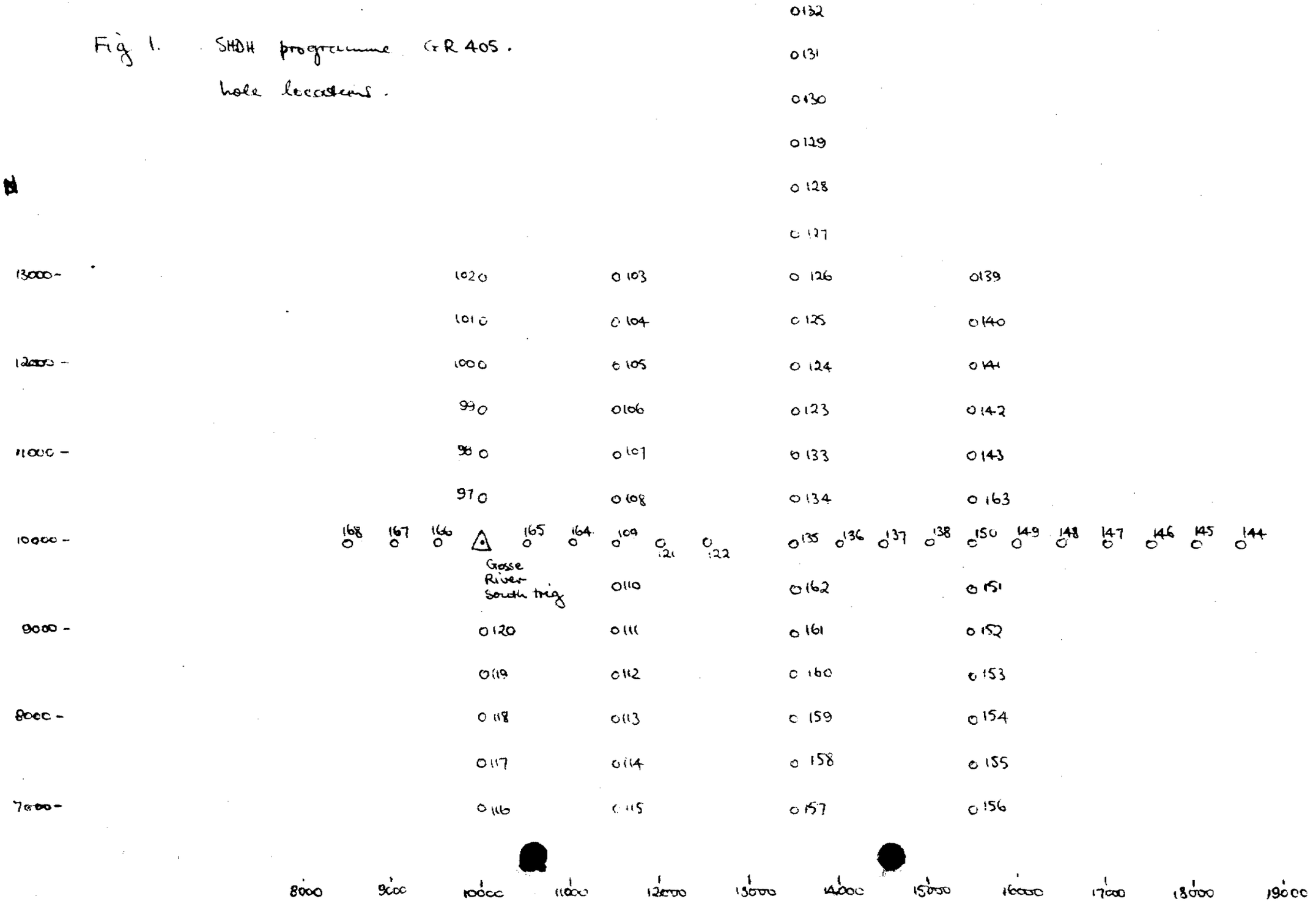
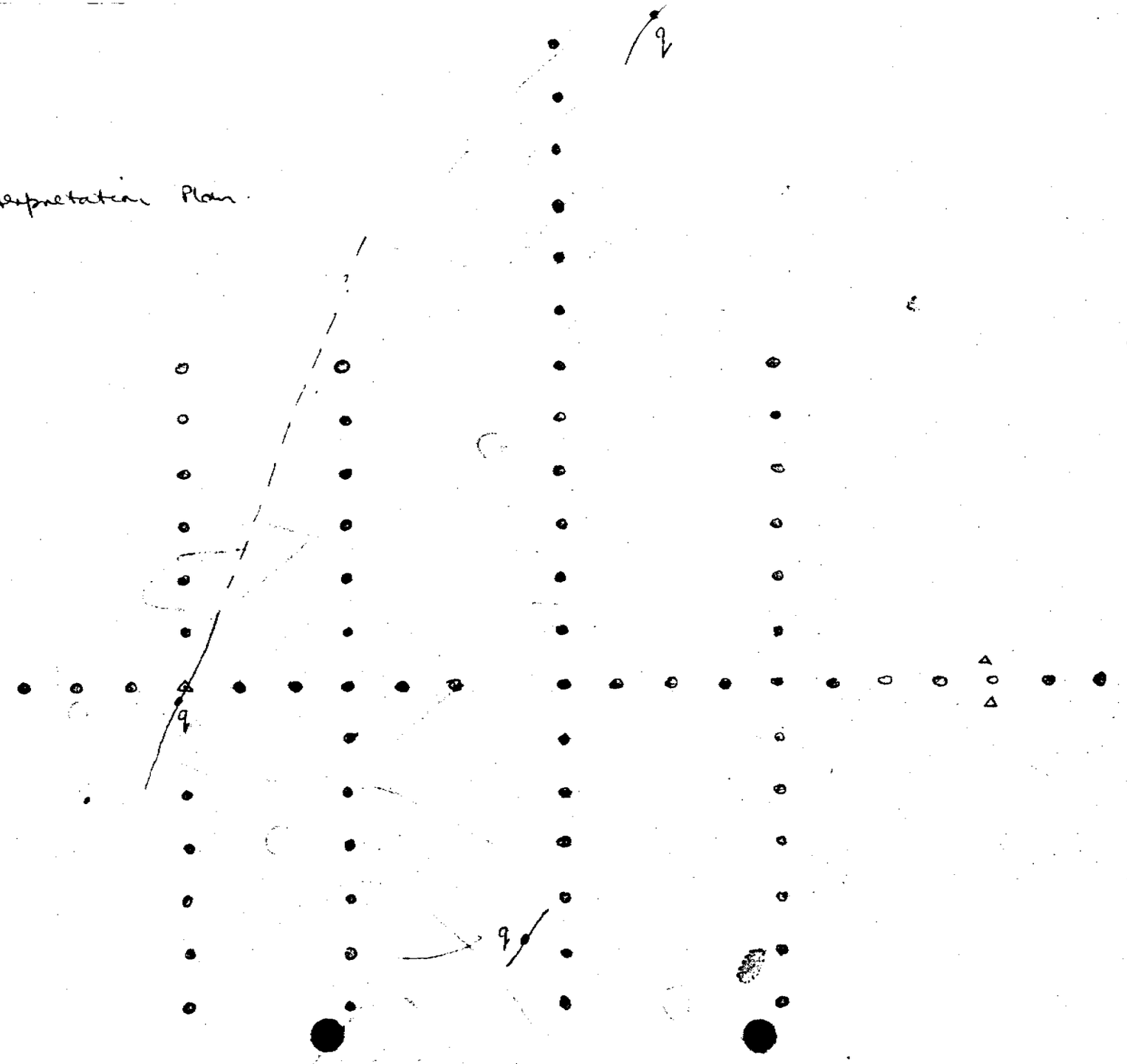


Fig. 2.

Geological Interpretation Plan.

GR 405.



= Granitic rocks

(appear to be intrusive)

= Granitised or

severely metamorphosed

sediments - gneissic etc.

● schistose rocks

and hornfels

GR 405

APPENDIX I

Drill Logs SHDH 97 to SHDH 168

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (Pm)
SHDH 97	54m	4·6·73 to 6·6·73	GR 405 10500N 10000E	54m – 54·3m core	Granitised (clayey) sediments - strongly banded. Quartz / K felspar bands (discontinuous) in matrix of quartz - chlorite - biotite grains. pyrite associated with mafic bands, ± pale green alteration veins.	for assay data see appendix.
SHDH 98	48m	[redacted] 7·6·73	GR 405 11000N 10000E	2m down hole - dust	Granitised sediments 50% quartz / K felspar muscovite "granite" 50% biotite - albite? schist.	
SHDH 99	42m	7·6·73	GR 405 11500N 10000E	2m dust	Granite? - minor quartz, K felspar, biotite, minor chlorite. Occasional large (5mm) books of muscovite.	
SHDH 100	34m	8·6·73	GR 405 12000N 10000E	core 34 – 34·3m dust 2m	Granitised sediment, - strongly banded, quartz / K felspar bands in matrix of quartz chlorite - biotite grains - few ± veins of K felspar - biotite alteration.	
SHDH 101	32m	8 6 73	GR 405 12 500N 10 000E	dust 2m	probable granitised sediments - Quartz, K felspar > plagioclase chlorite replacing biotite. Qtz vein 16–18m.	

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (F.T.)
SHDH 102	12m	9-6-73	GR 405 1300N 10000E	2m dust down hole core 12 - 12·3m	Chloritised sediments, - banded & quartz / K felspar - with chlorite and muscovite. Equigranular felspar - bedding in part.	
SHDH 103	20m	11-6-73 to 12-6-73	GR 405 1300N 1150E	core 2cm - 20·3m	Granite - pink - equigranular Quartz and K felspar.	
SHDH 104	20m	11-6-73 to 12-6-73	GR 405 1250N 1150E	core 2cm - 20·3m	Granite - grey. Quartz, white felspar and 2% biotite & ferromagnesian	
SHDH 105	14m	12-6-73	GR 405 1200N 1150E	core 14m - 14·3m	chloritised K felspar rock 60% very fine grained chlorite with phenocrysts of K felspar.	
SHDH 106	18m	12-6-73	GR 405 1150N 1150E	dust every 2m	weathered granite, Quartz, K felspar with plagioclase - discrete biotite books.	
SHDH 107	10m	13-6-73	GR 405 1100N 1150E	core 10m - 10·3m	Quartz chlorite muscovite schist	
SHDH 108	22m	13-6-73	GR 405 1050N 1150E.	dust every 2m	Sheared mica schist with abundant quartz veining.	

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No.
SHDH 109	38m	13-6-73	GR 405 10000N 11500E	core 38m - 38·3m	- chlorite, muscovite, K felspar schist. schistosity 70° to core axis	
SHDH 110	12m	25-6-73	GR 405 9500N 11500E	core 12 - 12·3m	oxidised quartz chlorite muscovite schist.	
SHDH 111	44m	25-6-73 to 27-6-73	GR 405 9000N 11500E	dust every 2m	K felspar, biotite "granite".	
SHDH 112	30m	2-7-73	GR 405 8500N 11500E	core 30 - 30·3m	pink granite, - equigranular quartz / K felspar biotite and muscovite -	
SHDH 113	30m	2-7-73	GR 405 8000N 11500E	core 30 - 30·3m	Granitised sediment - banded K felspar + plagioclase ± muscovite with bands of biotite rich fine grained leucosed felspar. MnO_2 rich.	
SHDH 114	30m	2-7-73	GR 405 7500N 11500E	dust every 2m	Biotite rich granitic rock with quartz and K felspar. - possible foliated granitised sediment.	

Sample No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (ppm)
SHDH 115	30m	2·7·73	GR 405 7000N 11500E	dust every 2m	Grey hornfels – with very small biotite flakes	
SHDH 116	28 m	3·7·73	GR 405 7000N 10000E	dust every 2m	[illegible] Quartz, K felspar + plagioclase, biotite [illegible] biotite [illegible]	
SHDH 117	20m	3·7·73	GR 405 7500N 10000E	dust every 2m	Quartz, K felspar, plagioclase biotite, granite – slightly chloritic.	
SHDH 118	26m	3·7·73	GR 405 8000N 10000E	dust every 2m	Quartz, K felspar > plagioclase, biotite and chlorite granite K felspar phenocrysts large	
SHDH 119	18m	3·7·73	GR 405 8500N 10000E	dust every 2m	Quartz, K felspar > plagioclase, biotite, muscovite, and chlorite – granite.	

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (ppm)
SHDH 120	26m	3·7·73	GR 405 10000N 11000E	dust every 2m	Quartz, K felspar > plagioclase, biotite and chlorite, -granite.	
SHDH 121	32m	4·7·73	GR 405 10000N 12000E	dust every 2m	Quartz, muscovite schist Some K felspar.	
SHDH 122	24m	4·7·73	GR 405 10000N 12500E	dust every 2m	oxidised muscovite > biotite schist some K felspar.	
SHDH 123.	8m	5·7·73	GR 405 11500N 13500E	dust every 2m	Granite - equigranular Q, K felspar > plagioclase, biotite + chlorite 10%	
SHDH 124	12m	5·7·73	GR 405 12000N 13500E	dust every 2m	Granite - equigranular Quartz, K felspar > plagioclase, < biotite and chlorite.	
SHDH 125	4m	5·7·73	GR 405 12500N 13500E	Core 4-4.5m	Granite equigranular Quartz 25%, K felspar 40% x plagioclase 20%, with biotite and chlorite forming 15%.	

3.5 G.R. 405

Star Picket 3000 X) New co-ordinates
4600 Y)

are 12061.98 N
11810.39 E

Star Picket 3000 X) New co-ordinates
1400 Y)

are 11354.48 N
11139.58 E

3.6 G.R. 406

Star Picket 3000 X) New co-ordinates
4600 Y)

are 9849.21 N
15680.16 E

Star Picket 3000 X) New co-ordinates
1400 Y)

are 10611.30 N
15072.02 E

3.7 Bearing and distance of base line

G.R. 404 =	302°	30' 32"	974.93 metres
G.R. 405 =	223°	28' 30"	974.96 metres
G.R. 406 =	321°	24' 40"	975.00 metres

3.8 All distances in this section are in metres.

AUSTRALIAN DEVELOPMENT LIMITED

MEMO TO: Senior Geologist

FROM: G. Granger

SUBJECT: PROGRESS REPORT ON GOSSE RIVER 405 PROSPECT

DATE: 22.2.74

CONTENTS

1. INTRODUCTION

GR 405 prospect is located 43 miles southeast of Tennant Creek township in the southeast corner of E.L. 97 - Gosse River.

Access is made via the Gosse River road from Nobles Nob to the Gosse River crossing, then 19.8 miles by graded track southeast to the Gosse River South trig, which is on the GR 405 metric grid baseline.

Topography in the area is generally flat to very gently undulating with several large prominent northeast trending quartz ridges cutting the western edge of the gridded area.

Vegetation consists of scattered low eucalypt scrub. The area has a cover of granitic type quartz sand.

The only known outcropping rocks other than the quartz ridges are a low granite outcrop to the southeast of the area, and a series of low outcrops of granitised sediments in the western and southwestern extremities of the area.

Detailed geology cannot be ascertained from surface expression.

2. PREVIOUS WORK

As a first step in exploration of this area, a low level aeromagnetic survey was carried out by G.R.D. during 1970. The survey was flown at a height of 300 M.T.C. with a flight mean line spacing of 1,000 feet. The flight lines were flown north-south.

Magnetic anomaly GR 405 was selected for follow-up ground examination after qualitative interpretation of data from the aeromagnetic survey.

The anomaly was located, gridded and run with vertical force ground magnetometry by McPhar Geophysics Pty. Ltd. during June and July, 1971.

The ground magnetometry defined several strong elongated anomalies superimposed on a broad weaker anomaly.

An auger programme was conducted along profile lines 405/1 and 405/2 to test bedrock lithology and geochemistry. This auger drilling defined the rock type as granite with a definite Cu, Bi, Pb, and Zn geochemical anomaly coinciding with the magnetic anomaly along line 405/1.

All the prospect data was then sent to S. Webster of McPhar Geophysics Pty. Ltd. for computer interpretation.

Webster computed a complex model of three thin shallow pipe-like magnetic bodies underlain by a deep magnetic body.

A programme of one percussion drill hole and one diamond drill hole was designed to test the shallow body computed by Webster on line 405/1.

Both drill holes (SHDH 92 and DDH 404) intersected an altered syenitic rock for the full length of the hole. The syenitic rock displayed several differing zones of chloritic alteration and magnetite content.

Encouraging copper and gold values were recorded in the diamond drill hole, which showed a small percentage of disseminated chalcopyrite.

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Local
SHDH 126	8m	5·7·73	GR 405 13000N 13500E	core 8m – 8·5m	Pink syenite – 70% K felspar, 30% biotite altered mafics. c̄ chlorite. -% pale yellow-green mineral – unknown.	
SHDH 127	5m	5·7·73	GR 405 13500 N 13500E	core 5 – 5·5m	Pink, fine grained K felspar microgranite	
SHDH 128	10m	5·7·73	GR 405 14000N 13500E	core 10 – 10·3m	foliated quartz, felspar, muscovite biotite schist. Pale green 2% mineral on joints.	
SHDH 129	24m	6·7·73	GR 405 14500N 13500E	dust every 2m	Quartz, K felspar, muscovite, biotite schist c̄ augen of K felspar.	
SHDH 130	22m	6·7·73	GR 405 15000 N 13500E	core 22-22·3m	Quartz muscovite schist	
SHDH 131	8m	6·7·73	GR 405 15500 N 13500E	core 8 – 8·3m	Quartz muscovite schist hosting augen of Quartz + K felspar.	

Hole No.	Depth	Date	Location	Sample interval	Description	Sample No. and Assay (p.p.m.)
SHDH 132	6m.	6.7.73	GR 405 16000N 13500E	Core 6. - 6.5m	Quartz muscovite schist.	
SHDH 133.	8m	6.7.73	GR 405 11000N 13500E	Core 8. - 8.5m	Granite - equigranular quartz, K felspar, muscovite - sm acc biotite - grams	
SHDH 134.	5m	6.7.73	GR 405 10500N 13500E	Core 5. - 5.3m	Muscovite, chlorite, felspar, schist.	
SHDH 135.	18m	6.7.73	GR 405 10000N 13500E	dust every 2m	Muscovite schist.	
SHDH 136.	5m.	7.7.73	GR 405 10000N 14000E	dust every 2m	Kaolin - probably not bedrock.	
SHDH 137.	50m	7.7.73	GR 405 10000N 14500E.	dust every 2m	Muscovite - biotite schist	
SHDH 138.	30m.	7.7.73	GR 405 10000N 15000E	dust every 2m	Muscovite - biotite schist bands in Quartz/K felspar rock.	

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (ppm)
SHDH 13	4m	9.7.73	GR 405 12000N 15500E	core 4 - 4.3m	Brecciated quartzite, schistose quartzite, and quartz K feldspar rock	
SHDH 140	4m	9.7.73	GR 405 12000N 15500E	core 4 - 4.3m	Quartz / K feldspar muscovite schist	
SHDH 141	25m	9.7.73	GR 405 12000N 15500E	core 25 - 25.3m	Interbedded Quartz K feldspar and Qtz K feldspar biotite rocks - metamorphosed seds	
SHDH 142	30m	9.7.73	GR 405 11500N 15500E	core 30 - 30.3m	Quartz K feldspar > plagioclase biotite granite or pegmatite biotite 50% between 28 - 30m	
SHDH 143	38m	9.7.73	GR 405 11000N 15500E	chip every 2m	Biotite granite - Quartz 10% K feldspar 40%, plagioclase 10% - Biotite to chlorite - 40%	
SHDH 144	4m	10.7.73	GR 405 10000N 18500E	core 4 - 4.3m	muscovite/chlorite, K feldspar, quartz metamorphic	
SHDH 145	5m	10.7.73	GR 405 10000N 18000E	core 5 - 5.3m	muscovite/chlorite, K feldspar quartz metamorphic	

Hole No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (ppm)
SHDH 146	7m	10.7.73	GR 405 17500E 10000N	core 7 - 7.3m	Quartzitic breccia - & are fragments of quartz, K felspar, ~~and granite~~, in a quartzitic matrix. - (granite is a biotite granite)	
SHDH 147	10m	10.7.73	GR 405 10000N 17000E	core 10 - 10.3m	Quartz K felspar - muscovite, biotite, chlorite, gneiss. Augen of K felspar up to 2 cm.	
SHDH 148	10m	10.7.73	GR 405 10000N 16500E	core 10-10.3m	lateritic cap - not bedrock	
SHDH 149	10m	10.7.73	GR 405 10000N 16000E	core 10-10.3m	Fine grained, banded quartz muscovite, biotite schist	
SHDH 150	30m	10.7.73	GR 405 10000N 15500E	dust every 2m	High grade banded biotite, chlorite, muscovite schist with K felspar	
SHDH 151	7m	11.7.73	GR 405 9500N 15500E	core 7 - 7.3m	Muscovite schist with MnO_2.	

Hole No.	Depth	Date	Location	Sample interval	Description	Sample No. and Assay (p.p.m)
SHDH 152	8m	11·7·73	GR 405 9000N 15500E	core 8 - 8·3m	Coarse grained quartz K felspar, muscovite, biotite, chlorite schist	
SHDH 153	20m	11·7·73	GR 405 8500N 15500E	core 20 - 20·3m	Coarse grained quartz K felspar, muscovite, biotite, chlorite schist.	
SHDH 154	3m	11·7·73	GR 405 8000N 15500E	core 3 - 3·3m	coarse grained muscovite, quartz, K felspar schist.	
SHDH 155	6m	11·7·73	GR405 7500N 15500E	core [redacted] 6 - 6·3m	coarse grained muscovite, quartz, K felspar schist.	
SHDH 156	11m	11·7·73	GR 405 7000N 15500E	core 11 - 11·3m	medium grained quartz, K felspar, muscovite, biotite, chlorite schist with some bands of pegmatitic Q, K felspar, plagioclase & muscovite	
SHDH 157	4m	12·7·73	GR 405 7000N 13500 E	core 4 - 4·3m	medium-grained muscovite biotite adamellite.	

... No.	Depth	Date	Location	Sample Interval	Description	Sample No. and Assay (ppm)
SHDH 158	7m	12.7.73	GR 405 7500N 13500E	Core 7-7.3m	Altered syenite - quartz, K felspar, chlorite [illegible] euhedral black mineral	
SHDH 159	4m	12.7.73	GR 405 8000N 13500E	core 4-4.3m	Altered granite - 25% pale green unidentified silicate mineral.	
SHDH 160	5m	12.7.73	GR 405 8500N 13500E	core 5-5.3m	Quartz K felspar mica schist with bands of quartz and felspar and MnO_2	
SHDH 161	12m	12.7.73	GR 405 9000N 13500E	Core 12-12.3m	Quartz, K felspar, biotite, muscovite schist - coarse grained	
SHDH 162	42m	12.7.73	GR 405 9500N 13500E	Core 42-42.3m	Quartz felspar, biotite, muscovite, schist	
SHDH 163	10m	12.7.73	GR 405 10500N 15500E	core 10-10.3m	coarse grained muscovite, quartz, K felspar, schist	
SHDH 164	8m	13.7.73	GR 405 10000N 11000E	8-8.3m core	fine grained muscovite, chlorite, biotite, quartz, K felspar schist	

Hole No.	Depth	Date	Location	Sample interval	Description	Sample No. & Assay (ppm)
SHDH 165	40m	13·7·73	GR 405 10000N 10500E	core 40–40·3m	medium grained muscovite, chlorite, biotite, quartz, K feldspar schist	
SHDH 166	10m	13·7·73	GR 405 10000N 9500E	core 10–10·3m	coarse grained quartz, K feldspar, biotite, gneiss.	
SHDH 167	10m	13·7·73	GR 405 10000N 9000E	core 10–10·3m	coarse grained quartz, biotite, K feldspar > plagioclase, adamellite	
SHDH 168	14m	13·7·73	GR405 10000N 8500E	core 14–14·3m	Quartz, K feldspar > plagioclase, muscovite, biotite gneiss.	

APPENDIX II

Assay Data - GR 405

Hole No:	Sample No:	Depth (M):	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Mo ppm:
97	16932	0m - 2m	30	40	65	50	<1
	33	2 - 4	20	10	30	45	<1
	34	4 - 6	20	20	30	45	<1
	35	6 - 8	20	<10	30	90	<1
	36	8 - 10	25	20	25	85	<1
	37	10 - 12	18	10	25	75	<1
	38	12 - 14	25	20	20	80	<1
	39	14 - 16	35	10	20	90	<1
	40	16 - 18	30	20	17	90	<1
	41	18 - 20	20	10	18	95	<1
	42	20 - 22	40	20	20	75	<1
	43	22 - 24	75	10	30	60	1
	44	24 - 26	25	10	20	65	1
	45	26 - 28	105	10	25	60	3
	46	28 - 30	115	<10	25	65	1
	47	30 - 32	40	10	25	65	<1
	48	32 - 34	105	10	25	65	<1
	49	34 - 36	115	10	30	65	1
	50	36 - 38	55	20	25	70	<1
	51	38 - 40	45	20	25	65	<1
	52	40 - 42	20	20	25	55	<1
	53	42 - 44	60	<10	25	65	<1
	54	44 - 46	55	10	20	70	<1
	55	46 - 48	25	10	25	70	<1
	56	48 - 50	75	20	25	50	<1
	57	50 - 52	100	10	20	60	<1
	58	52 - 54	115	20	25	70	<1
98	16967	0 - 2	35	10	25	65	<1
	68	2 - 4	50	20	15	90	<1
	69	4 - 6	55	10	20	125	<1
	70	6 - 8	40	<10	35	105	<1
	71	8 -10	40	<10	35	105	<1
	72	10 - 12	35	<10	19	85	<1
	73	12 - 14	25	10	19	110	<1
	74	14 - 16	19	10	17	100	<1
	75	16 - 18	13	10	20	115	<1
	76	18 - 20	14	20	25	115	<1
	77	20 - 22	25	20	30	110	<1
	78	22 - 24	55	10	35	105	1
	79	24 - 26	65	20	35	110	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
98	16980	26m- 28m		40	<10	25	90		<1
	81	28 - 30		35	10	16	90		<1
	82	30 - 32		40	10	20	95		<1
	83	32 - 34		25	10	19	100		<1
	84	34 - 36		60	20	25	100		<1
	85	36 - 38		40	10	25	100		1
	86	38 - 40		85	20	30	95		1
	87	40 - 42	T	20	30	50	50	0	1
	88	42 - 44	T	19	10	30	50	0	2
	89	44 - 46	1.9	16	30	45	55	0	<1
	90	46 - 48	T	17	20	25	45	0	2
99	91	0 - 2		14	10	25	45		1
	92	2 - 4		19	20	20	55		1
	93	4 - 6		13	10	20	65		<1
	94	6 - 8		14	30	20	70		<1
	95	8 - 10		16	20	17	55		<1
	96	10 - 12		15	10	25	80		<1
	97	12 - 14		12	10	16	65		<1
	98	14 - 16		10	10	20	55		<1
	99	16 - 18		20	10	20	55		<1
	17000	18 - 20		12	10	19	85		<1
	01	20 - 22		7	<10	14	105		<1
	02	22 - 24		8	20	14	100		<1
	03	24 - 26		9	20	19	80		<1
	04	26 - 28		10	20	25	75		<1
	05	28 - 30		6	30	19	100		<1
	06	30 - 32		25	20	20	100		1
	07	32 - 34		40	10	25	60		1
	08	34 - 36	0.3	45	20	50	45	0	1
	09	36 - 38	T	45	10	30	50	0	1
	10	38 - 40	T	45	30	30	50	0	1
	11	40 - 42	T	25	20	50	45	0	1
100	12	0 - 2		17	<10	25	40		<1
	13	2 - 4		17	20	40	115		<1
	14	4 - 6		13	<10	25	45		<1
	15	6 - 8		13	20	30	35		<1
	16	8 - 10		13	20	35	65		<1
	17	10 - 12		11	20	17	95		<1
	18	12 - 14		12	10	20	100		<1
	19	14 - 16		20	10	25	125		1
	20	16 - 18		25	<10	30	140		<1
	21	18 - 20		30	<10	35	75		<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth (M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
100	17020	16 - 18m		25	<10	30	140		<1
	21	18 - 20		30	<10	35	75		<1
	22	20 - 22		35	10	20	65		<1
	23	22 - 24		14	20	19	95		<1
	24	24 - 26		16	20	20	65		<1
	25	26 - 28	T	20	20	35	55	0	<1
	26	28 - 30	0.5	25	20	45	130	0	1
	27	30 - 32	0.7	35	30	40	55	0	<1
	28	32 - 34	T	30	30	60	65	0	<1
101	17457	0 - 2		16	5	19	1[illegible]		1
	58	- 4		20	20	30	15		1
	59	- 6		20	20	25	20		1
	60	- 8		20	20	30	25		2
	61	- 10		16	15	19	25		3
	62	- 12		16	10	20	30		<1
	63	- 14		20	5	25	30		<1
	64	- 16		20	10	20	60		<1
	65	- 18		15	15	25	85		1
	66	- 20		17	10	25	65		1
	67	- 22		13	25	25	45		1
	68	- 24		11	10	20	35		<1
	69	- 26		16	20	30	40	1	<1
	70	- 28	T	14	20	35	55	10	<1
	71	- 30	T	11	10	25	50	1	<1
	17272	- 32	T	12	10	40	35	0	<1
102	17472	0 - 2		19	25	45	14		<1
	73	- 4		18	<5	40	11		<1
	74	- 6		18	10	40	11		1
	75	- 8	T	12	<5	50	10	0	<1
	76	- 10	T	20	5	40	30	0	<1
	77	- 12	T	19	15	30	30	0	<1
103	17478	0 - 2		14	15	25	14		<1
	79	- 4		18	10	25	19		<1
	80	- 6		18	15	20	20		<1
	81	- 8		13	5	16	25		<1
	82	- 10		13	10	19	35		<1
	83	- 12		11	5	19	35		<1
	84	- 14	T	14	10	30	40	0	<1
	85	- 16	0.2	20	5	30	50	0	<1
	86	- 18	T	25	10	25	45	0	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth (M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
103	17478	0m - 2m	±4	14	15	25	14		<1
	79	- 4		18	10	25	19		<1
	80	- 6		18	15	20	20		<1
	81	- 8		13	5	16	25		<1
	82	- 10		13	10	19	35		<1
	83	- 12		11	5	19	35		<1
	84	- 14	T	14	10	30	40	0	<1
	85	- 16	0.2	20	5	30	50	0	<1
	86	- 18	T	25	10	25	45	0	<1
	17574	- 20		25	40	30	40		<1
104	17487	0m - 2m		12	5	20	15		<1
	88	- 4		11	5	25	19		<1
	89	- 6		13	10	30	35		<1
	90	- 8		11	5	30	40		<1
	91	- 10		14	10	25	40		<1
	92	- 12		18	15	30	40		<1
	93	- 14		14	15	40	25		<1
	94	- 16	T	15	15	25	50	0	<1
	95	- 18	T	14	10	40	45	0	<1
	96	- 20	T	20	10	35	35	0	1
105	17497	0m - 2m		14	10	18	12		<1
	98	- 4		13	20	35	15		<1
	99	- 6		10	35	30	25		<1
	17500	- 8		9	25	30	17		<1
	01	- 10	0.2	9	30	45	14	0	<1
	02	- 12	T	10	20	40	20	1	<1
	03	- 14	T	10	20	25	20	1	<1
106	17504	0m - 2m		16	15	20	17		<1
	05	- 4		40	20	30	60		<1
	06	- 6		35	25	35	80		<1
	07	- 8		25	15	30	85		<1
	08	- 10		25	25	25	80		<1
	09	- 12		18	20	20	65		<1
	10	- 14	T	20	15	40	65	0	<1
	11	- 16	T	25	10	25	70	0	<1
	12	- 18	T	20	15	30	40	3	<1
107	17513	0m - 2m		12	15	18	18		<1
	14	- 4		17	10	30	11		2
	15	- 6	T	15	20	40	16	0	1
	16	- 8	T	8	5	35	11	1	2
	17	- 10	T	9	5	35	19	2	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu Ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
108	17518	0m - 2m		12	15	25	13		<1
	19	- 4		18	10	30	20		<1
	20	- 6		16	20	25	30		<1
	21	- 8		14	15	25	75		<1
	22	- 10		15	15	20	85		<1
	23	- 12		70	20	30	80		<1
	24	- 14		70	15	26	70		<1
	25	- 16		140	15	25	70		<1
	26	- 18	T	125	20	35	65	1	<1
	27	- 20	T	25	15	30	40	0	<1
	28	- 22	T	20	15	30	25	1	<1
109	17248	0 - 2		20	10	20	10		<1
	49	- 4		20	10	20	10		<1
	50	- 6		25	20	30	16		<1
	51	- 8		25	10	25	18		<1
	52	- 10		25	10	25	25		<1
	53	- 12		30	10	30	40		<1
	54	- 14		50	20	30	75		<1
	55	- 16		55	10	30	75		<1
	56	- 18		55	20	30	75		<1
	57	- 20		70	20	40	85		<1
	58	- 22		60	10	35	[illegible]		<1
	59	- 24		30	10	30	75		<1
	60	- 26		100	<10	25	80		<1
	61	- 28		40	20	30	85		<1
	62	- 30		25	20	25	75		<1
	63	- 32		55	10	25	70		<1
	64	- 34	T	65	30	35	60	0	<1
	65	- 36	T	40	20	30	55	0	<1
	66	- 38	T	40	20	30	50	0	<1
110	17267	2m - 4m		25	40	25	13		<1
	68	- 6		25	20	35	19		<1
	69	- 8		18	<10	20	18		<1
	70	- 10	T	19	10	20	18	0	<1
	71	- 12	0.3	20	10	25	14	0	<1
111	17273	0m - 2m		20	10	30	18		<1
	74	- 4		25	10	30	12		<1
	75	- 6		25	20	35	15		<1
	76	- 8		25	10	25	35		<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
111 (cont)	17277	8m - 10m		18	<10	25	35		<1
	78	- 12		25	20	30	65		1
	79	- 14		19	20	25	50		<1
	80	- 16		20	10	30	60		<1
	81	- 18		20	20	30	65		<1
	82	- 20		25	20	25	95		<1
	83	- 22		45	20	35	45		<1
	84	- 24		45	20	30	55		<1
	85	- 26		25	20	30	60		<1
	86	- 28		16	20	25	55		<1
	87	- 30		20	20	25	60		<1
	88	- 32		16	20	25	65		<1
	89	- 34		20	20	20	50		<1
	90	- 36		25	20	13	40		<1
	91	- 38		25	30	20	45		1
	92	- 40	0.2	20	20	30	50	1	<1
	93	- 42	0.5	35	30	45	60	1	<1
	94	- 44	0.3	35	20	30	70	1	<1
112	17295	0m - 2m		25	20	30	17		<1
	96	- 4		20	20	30	25		<1
	97	- 6		25	30	80	70		<1
	98	- 8		25	30	30	80		1
	99	- 10		25	20	30	75		1
	17300	- 12		25	30	30	65		<1
	01	- 14		25	20	40	55		1
	02	- 16		40	20	65	40		<1
	03	- 18		50	20	65	60		<1
	04	- 20		25	20	25	50		1
	05	- 22		20	20	35	55		<1
	06	- 24		16	10	75	35		<1
	07	- 26	T	20	20	60	30	0	<1
	08	- 28	T	35	20	50	30	0	<1
	09	- 30	T	25	20	40	35	0	<1
113	17310	0m - 2m		16	<10	20	17		1
	11	- 4		18	20	25	17		<1
	12	- 6		30	30	25	20		<1
	13	- 8		19	20	30	25		<1
	14	- 10		20	30	30	25		<1
	15	- 12		14	20	20	25		1
	16	- 14		12	20	20	25		<1
	17	- 16		12	10	19	25		<1

Assay Data - GR405 (cont.)

Pole No.	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
113 cont.	17318	16 - 18m		14	20	20	17		<1
	19	- 20		15	20	20	45		1
	20	- 22		25	20	25	70		1
	21	- 24		35	20	25	80		1
	22	- 26	0.2	25	20	30	30	0	<1
	23	- 28	T	15	20	40	90	0	<1
	24	- 30	T	17	20	45	65	0	2
114	17325	0 - 2m		15	10	20	13		<1
	26	- 4		16	20	20	14		1
	27	- 6		20	20	30	21		1
	28	- 8		20	30	35	30		<1
	29	- 10		19	20	30	25		<1
	30	- 12		25	30	35	25		1
	31	- 14		30	30	30	30		1
	32	- 16		25	20	19	30		5
	33	- 18		25	20	20	30		<1
	34	- 20		25	20	20	45		<1
	35	- 22		45	20	25	31		<1
	36	- 24		30	20	30	45		<1
	37	- 26	T	40	20	25	50	0	<1
	38	- 28	0.2	30	20	25	45	0	<1
	39	- 30	T	20	20	20	70	0	<1
115	17340	0 - 2m		14	20	25	25		<1
	41	- 4		11	12	35	25		<1
	42	- 6		25	20	45	25		<1
	43	- 8		20	15	35	19		<1
	44	- 10		25	12	30	25		<1
	45	- 12		90	30	40	27		<1
	46	- 14		80	20	30	33		<1
	47	- 16		75	20	45	45		1
	48	- 18		70	12	110	55		1
	49	- 20		85	17	30	50		<1
	50	- 22		65	15	25	75		<1
	51	- 24		65	15	30	50		<1
	52	- 26	T	85	20	45	55	0	<1
	53	- 28	T	156	20	35	55	0	1
	54	- 30	T	105	15	30	45	0	1
116	17355	0m - 2m		20	17	60	45		<1
	56	- 4		25	30	45	45		<1
	57	- 6		20	20	40	40		<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
116 cont.	17358	6 - 8m		25	20	25	55		<1
	59	- 10		13	17	30	70		<1
	60	- 12		13	12	25	65		<1
	61	- 14		13	15	35	75		<1
	62	- 16		15	20	35	85		<1
	63	- 18		20	20	70	65		<1
	64	- 20		19	17	45	60		<1
	65	- 22	T	20	20	80	45	0	1
	66	- 24	T	16	20	45	55	0	<1
	67	- 26	T	25	40	30	75	0	1
117	17368	Om - 2m		40	20	60	30		<1
	69	- 4		75	20	40	40		<1
	70	- 6		65	20	20	35		<1
	71	- 8		80	17	35	80		<1
	72	- 10		90	25	55	75		<1
	73	- 12		65	25	85	40		<1
	74	- 14		40	25	65	55		<1
	75	- 16	T	30	17	45	50	0	<1
	76	- 18	T	45	15	50	19	0	<1
	77	- 20	T	35	15	50	50	0	<1
118	17378	Om - 2m		20	17	30	19		<1
	79	- 4		25	17	40	30		<1
	80	- 6		25	17	35	40		<1
	81	- 8		25	20	30	55		<1
	82	- 10		25	17	30	30		<1
	83	- 12		30	25	45	50		<1
	84	- 14		55	30	45	40		<1
	85	- 16		130	25	35	60		<1
	86	- 18		30	17	30	55		<1
	87	- 20		35	15	25	45		<1
	88	- 22	T	25	20	35	30	0	<1
	89	- 24	T	19	25	40	30	0	<1
	90	- 26	T	13	20	40	35	0	<1
119	17391	Om - 2m		25	25	50	15		<1
	92	- 4		20	10	25	30		<1
	93	- 6		17	25	35	40		<1
	94	- 8		25	30	40	45		<1
	95	- 10		25	20	30	35		<1
	96	- 12		18	17	30	30		<1
	97	- 14	T	20	17	40	40	0	<1
	98	- 16	T	15	20	40	45	0	<1
	99	- 18	T	50	20	50	60	0	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
120	17400	Om- 2m		11	10	20	9		<1
	01	- 4		25	10	30	11		<1
	02	- 6		25	15	35	20		1
	03	- 8		25	10	25	60		<1
	04	- 10		35	45	30	50		<1
	05	- 12		20	15	30	45		<1
	06	- 14		30	15	30	50		<1
	07	- 16		30	15	25	45		<1
	08	- 18		20	15	25	40		<1
	09	- 20		20	15	25	45		<1
	10	- 22	T	20	20	40	50	0	<1
	11	- 24	T	20	20	35	40	0	<1
	12	- 26	T	18	25	30	45	0	<1
121	17413	Om - 2m		19	25	30	15		<1
	14	- 4		20	20	35	14		<1
	15	- 6		20	20	30	19		<1
	16	- 8		20	30	30	20		<1
	17	- 10		19	25	25	20		<1
	18	- 12		19	30	25	15		<1
	19	- 14		25	30	20	20		<1
	20	- 16		55	20	25	35		<1
	21	- 18		85	20	30	25		<1
	22	- 20		75	20	20	35		<1
	23	- 22		40	15	20	20		<1
	24	- 24		45	25	20	30		1
	25	- 26		40	15	20	20		2
	26	- 28	T	40	20	30	25	0	<1
	27	- 30	T	45	30	40	35	1	2
	28	- 32	T	45	15	30	40	0	2
122	29	Om - 2m		13	10	20	12		1
	30	- 4		20	15	35	13		1
	31	- 6		20	30	35	20		<1
	32	- 8		25	25	30	30		<1
	33	- 10		25	30	35	20		<1
	34	- 12		35	15	20	50		3
	35	- 14		13	15	30	35		2
	36	- 16		13	15	20	25		<1
	37	- 18		13	10	25	20		<1
	38	- 20	T	17	15	40	35	0	3
	39	- 22	T	13	15	75	55	1	1
	40	- 24	T	16	25	60	55	1	1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
123	17441	Om- 2m		30	40	30	11		1
	42	- 4	T	50	30	40	18	0	2
	43	- 6	0.2	30	40	25	16	0	1
	44	- 8	T	18	20	20	10	0	<1
124	45	Om - 2m		30	30	30	12		<1
	46	- 4		30	10	25	16		<1
	47	- 6		13	<10	17	14		<1
	48	- 8	0.2	13	<10	16	13	0	<1
	49	- 10	T	15	10	20	16	0	<1
	50	- 12	0.2	18	10	19	17	1	<1
125	51	Om - 2m	0.4	30	<10	20	20	1	1
	52	- 4	0.2	35	10	20	30	0	1
126	53	Om - 2m		25	20	30	12		<1
	54	- 4	0.3	25	10	150	12	1	<1
	55	- 6	T	45	<10	30	30	1	<1
	56	- 8	T	45	10	25	17	0	<1
127	17529	Om - 2m	T	14	20	30	8	1	<1
	30	- 4	T	12	<10	25	8	1	<1
	31	- 5	0.3	16	30	30	13	0	<1
128	32	Om - 2m		17	20	30	30		<1
	33	- 4		14	20	30	30		<1
	34	- 6	T	16	30	60	40	1	1
	35	- 8	T	14	30	30	40	0	<1
	36	- 10	T	16	10	35	55	0	<1
129	37	Om - 2m		30	30	25	18		<1
	38	- 4		185	70	40	35		<1
	39	- 6		100	60	25	35		<1
	40	- 8		85	60	30	60		1
	41	- 10		40	50	25	35		1
	42	- 12		20	<10	<30	25		<1
	43	- 14		35	<10	35	50		<1
	44	- 16		25	20	30	25		<1
	45	- 18		35	20	25	36		<1
	46	- 20	T	25	40	40	45	1	<1
	47	- 22	T	19	10	35	19	0	<1
	48	- 24	T	25	30	40	25	1	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
130	17549	0m - 2m		35	10	25	30		<1
	50	- 4		20	20	25	19		<1
	51	- 6		25	30	25	20		<1
	52	- 8		20	40	25	25		<1
	53	- 10		18	<10	20	16		<1
	54	- 12		18	10	25	17		<1
	55	- 14		15	40	25	20		<1
	56	- 16		15	50	20	30		<1
	57	- 18	T	25	40	30	19	0	2
	58	- 20	T	19	50	30	25	0	1
	59	- 22	T	30	30	35	25	0	<1
131	17560	0m - 2m	T	30	20	40	35	2	<1
	61	- 4	T	35	40	70	14	0	1
	62	- 6	T	45	50	35	14	0	<1
		-							
132	17563	0m - 2m		14	30	20	8		<1
	64	- 4	T	30	40	50	10	0	<1
	65	- 6	T	20	40	35	9	0	1
	66	- 8	T	35	30	35	13	1	1
133	17567	0m - 2m		13	20	25	9		<1
	68	- 4	T	17	20	30	10	0	<1
	69	- 6	T	20	30	35	13	1	<1
	70	- 8	T	19	20	40	20	1	<1
134	17571	0m - 2m	T	15	10	50	13	2	<1
	72	- 4	T	20	30	60	15	0	<1
	73	- 5	0.5	19	40	70	15	1	<1
135	17575	0m - 2m		13	40	25	10		<1
	76	- 4		15	50	25	13		<1
	77	- 6		25	60	50	17		<1
	78	- 8		20	50	35	20		<1
	79	- 10		19	30	25	20		<1
	80	- 12		25	10	35	25		<1
	81	- 14	0.2	20	20	35	20	1	<1
	82	- 16	0.2	20	10	55	17	1	2
	83	- 18	T	20	30	45	20	2	1
136	17584	0m - 2m	T	14	30	60	16	0	<1
	85	- 4	T	20	40	40	13	2	<1
	86	- 5	T	25	20	55	10	1	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
137	17587	0m - 2m		14	7	25	17		<1
	88	- 4		25	17	40	15		<1
	89	- 6		25	17	30	20		<1
	90	- 8		25	17	40	35		<1
	91	- 10		25	17	25	25		<1
	92	- 12		25	20	30	20		<1
	93	- 14		20	17	30	40		<1
	94	- 16		20	13	30	65		<1
	95	- 18		20	17	30	65		<1
	96	- 20		10	17	25	60		<1
	97	- 22		25	17	30	80		<1
	98	- 24		20	17	25	140		<1
	99	- 26		25	20	30	110		<1
	17600	- 28		20	20	25	110		<1
	01	- 30		20	25	30	100		<1
	02	- 32		20	17	35	95		<1
	03	- 34		18	13	20	65		<1
	04	- 36		16	17	25	60		<1
	05	- 38		17	25	25	90		<1
	06	- 40		17	13	20	55		<1
	07	- 42		19	15	25	85		<1
	08	- 44		50	20	25	95		<1
	09	- 46	T	19	25	40	80	0	<1
	10	- 48	T	25	25	40	75	1	<1
	11	- 50	T	25	25	45	75	1	<1
138	17612	0 - 2m		20	20	25	30		<1
	13	- 4		20	10	25	17		<1
	14	- 6		25	20	35	25		<1
	15	- 8		25	13	35	30		<1
	16	- 10		25	10	25	30		<1
	17	- 12		20	25	30	25		<1
	18	- 14		25	7	30	25		<1
	19	- 16		25	13	30	25		<1
	20	- 18		20	10	25	30		<1
	21	- 20		25	13	25	75		1
	22	Missing sample							
	23	22 - 24		18	13	25	65		1
	24	- 26	T	25	13	20	90	1	<1
	25	- 28	T	20	10	60	130	1	1
	26	- 30	T	30	<5	35	90	1	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
139	17627	Om - 2m	T	20	13	35	55	1	<1
	28	- 4	T	16	10	35	15	1	<1
140	17629	Om - 2m	T	25	20	40	30	1	<1
	30	- 4	T	17	7	35	15	1	<1
141	17631	Om - 2m		25	15	50	40		<1
	32	- 4		18	10	25	18		<1
	33	- 6		25	25	35	25		<1
	34	- 8		25	25	40	35		<1
	35	- 10		20	30	25	55		<1
	36	- 12		20	25	35	95		<1
	37	- 14		25	35	35	95		1
	38	- 16		35	20	30	75		<1
	39	- 18		85	25	35	135		2
	40	- 20		50	35	35	190		<1
	41	- 22	0.2	45	35	30	140	1	<1
	42	- 24	T	140	60	65	115	2	2
	43	- 25	T	35	75	35	70	1	1
142	17644	Om - 2m		30	25	55	70		<1
	45	- 4		20	20	25	25		<1
	46	- 6		25	35	45	25		<1
	47	- 8		25	25	40	30		<1
	48	- 10		25	17	30	45		1
	49	- 12		30	25	35	70		2
	50	- 14		25	25	40	85		1
	51	- 16		20	17	35	60		<1
	52	- 18		16	16	25	55		<1
	53	- 20		19	7	25	60		<1
	54	- 22		18	13	19	55		<1
	55	- 24		14	10	18	45		<1
	56	- 26	T	18	16	20	55	0	<1
	57	- 28	T	25	13	50	70	1	<1
	58	- 30	T	20	13	30	65	1	2
143	17682	Om - 2m		20	7	20	8		<1
	83	- 4		25	16	35	13		<1
	84	- 6		18	20	40	30		<1
	85	- 8		25	20	30	20		<1
	86	- 10		25	17	30	16		1
	87	- 12		25	20	30	19		1
	88	- 14		20	20	30	13		1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm	Mo ppm:
143	17689	14m-16m		25	17	25	17		1
	90	-18		18	16	20	13		<1
	91	-20		25	25	35	14		1
	92	-22		30	25	30	25		3
	93	-24		35	20	30	75		2
	94	-26		35	20	30	85		1
	95	-28		35	17	25	65		2
	96	-30		20	10	30	35		1
	97	-32		20	13	25	35		<1
	98	-34	T	25	20	50	45	1	<1
	99	-36	T	30	75	30	50	1	<1
	17700	-38	T	30	16	45	45	1	<1
144	17701	0m - 2m	T	30	40	80	14	0	<1
	02	- 4	T	25	35	50	14	0	<1
145	17703	0m - 2	T	14	10	45	13	0	<1
	04	- 4	T	20	20	40	15	0	<1
	05	- 5	T	20	20	60	17	0	<1
146	17706	0m - 2m		13	13	25	13		<1
	07	- 4	T	25	17	65	10	1	<1
	08	- 6	T	20	16	40	19	0	<1
	09	- 7	T	20	25	50	18	0	<1
147	17710	0m - 2m		15	12	25	7		<1
	11	- 4		25	20	35	13		<1
	12	- 6	T	20	<1	45	25	1	<1
	13	- 8	T	20	<1	60	25	1	<1
	14	-10	T	18	<1	50	25	1	<1
148	17715	0m - 2m		15	<1	35	20		<1
	16	- 4		25	3	35	25		<1
	17	- 6	T	20	1	30	40	2	<1
	18	- 8	T	25	<1	40	35	2	<1
	19	-10	T	20	<1	25	30	2	<1
149	17720	0m - 2m		12	3	35	17		<1
	21	- 4		19	1	30	40		<1
	22	- 6	T	35	<1	65	60	1	<1
	23	- 8	T	45	<1	65	65	1	<1
	24	-10	T	50	<1	35	60	1	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
150	17725	0m - 2m		12	<1	20	20		<1
	26	- 4		20	<1	45	19		<1
	27	- 6		18	<1	30	25		<1
	28	- 8		19	<1	25	30		<1
	29	- 10		17	3	40	35		<1
	30	- 12		16	<1	30	30		<1
	31	- 14		30	<1	40	75		<1
	32	- 16		18	5	50	70		<1
	33	- 18		35	3	50	90		<1
	34	- 20		45	3	45	110		<1
	35	- 22		25	<1	45	95		<1
	36	- 24		35	<1	55	85		<1
	37	- 26	T	40	<1	70	105	1	<1
	38	- 28	T	25	3	60	95	1	<1
	39	- 30	T	40	3	60	80	1	<1
151	17740	0m - 2m		15	1	25	18		<1
	41	- 4	T	15	<1	45	20	1	<1
	42	- 6	T	20	3	45	30	0	<1
	43	- 7.4	0.2	20	<1	55	35	2	<1
152	17744	0m - 2m		14	<1	30	25		<1
	45	- 4	0.2	20	<1	50	20	0	<1
	46	- 6	T	35	<1	55	35	0	<1
	47	- 8	T	20	<1	50	35	0	<1
153	17748	0 - 2m		20	<1	45	30		<1
	49	- 4		20	<1	40	25		<1
	50	- 6		15	<1	25	50		<1
	51	- 8		20	<1	35	55		<1
	52	- 10		15	<1	30	60		<1
	53	- 12		13	<1	40	75		<1
	54	- 14		17	<1	30	55		<1
	55	- 16	T	14	5	45	70	0	<1
	56	- 18	T	11	<1	45	75	0	<1
	57	- 20	T	12	<1	35	60	0	<1
154	17758	0 - 2m	T	16	<1	40	19	0	<1
	59	- 4	T	25	<1	50	40	0	<1
155	17760	- 2	T	12	1	40	17	0	<1
	61	- 4	T	18	1	45	20	0	<1
	62	- 6	T	14	<1	30	40	0	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pg ppm:	Zn ppm:	Ag ppm:	MO ppm:
156	17763	0m - 2m		13	3	30	25		<1
	64	- 4		20	<1	50	20		<1
	65	- 6	T	25	<1	50	45	1	<1
	66	- 8	T	20	<1	45	35	1	<1
	67	- 10	T	30	<1	40	45	0	<1
	68	- 11		25	7	60	35	1	<1
157	17769	0m - 2m		20	<5	45	17	1	<1
	70	- 4		25	<5	45	14	1	<1
158	17771	0m - 2m		30	<5	20	19		<1
	72	- 4		95	<5	35	25	1	<1
	73	- 6		90	<5	45	60	1	<1
	74	- 7		115	<5	50	75	1	<1
159	17775	0m - 2m		25	<5	40	18	1	<1
	76	- 4		30	<5	40	14	0	<1
160	17777	0m - 2m		18	<5	35	11	1	<1
	78	- 4		30	<5	50	18	1	<1
	79	- 5		25	7	30	35	1	<1
161	17780	0m - 2m		15	13	14	10		<1
161	17781	2m - 4		20	<5	45	15		<1
	82	- 6		25	<5	40	30		<1
	83	- 8		25	<5	30	30		<1
	84	- 10		25	<5	20	30		<1
	85	- 12	T	50	7	25	40	1	<1
162	17788	0m - 2m		25	7	20	15		<1
	89	- 4		25	<5	30	19		<1
	90	- 6		25	10	30	30		<1
	91	- 8		25	10	25	25		<1
	92	-10		25	<5	35	45		<1
	93	-12		30	<5	30	65		<1
	94	-14		35	<5	35	90		<1
	95	-16		25	<5	30	85		<1
	96	-18		25	<5	30	100		<1
	97	-20		25	<5	20	100		<1
	98	-22		20	<5	30	85		<1
	99	-24		40	<5	35	75		<1
	17800	-26		60	<5	40	85		<1
	01	-28		105	<5	30	100		<1
	02	-30		45	<5	35	80		<1
	03	-32		30	<5	30	60		<1
	04	-34		30	<5	20	75		<1
	05								

Hole No.	Sample No.	Depth(M)	[illegible]	[illegible]					
162	17805	34 -36m		20	<5	30	[illegible]	[illegible]	[illegible]
	06	- 38	T	30	<5	30	15	1	<1
	07	- 40	T	35	<5	20	60	0	<1
	08	- 42	T	25	<5	25	70	0	<1
163	17809	0m - 2m		25	35	50	25		<1
	10	- 4		30	16	45	25		<1
	11	- 6		25	30	35	25		<1
	12	- 8	T	30	25	40	30	1	<1
	13	- 10	T	25	7	30	25	0	<1
	14	- 12	T	25	10	35	30	0	<1
164	17815	0m - 2m		16	<5	25	12		<1
	16	- 4	T	20	<5	40	15	0	<1
	17	- 6	T	25	<5	45	20	1	<1
	18	- 8	T	30	<5	45	25	1	<1
165	17819	0m - 2m		14	10	25	12		<1
	20	- 4		25	10	35	15		<1
	21	- 6		[illegible]	16	30	75		<1
	22	- 8		35	10	25	65		<1
	23	-10		25	10	30	60		<1
	24	-12		25	5	25	55		<1
	25	-14		20	5	19	40		<1
	26	-16		25	13	19	30		<1
	27	-18		35	<5	25	50		<1
	28	-20		55	<5	25	45		<1
	29	-22		20	<5	20	50		<1
	30	-24		19	5	20	45		<1
	31	-26		16	<5	16	40		<1
	32	-28		14	<5	16	50		<1
	33	-30		16	<5	12	45		<1
	34	-32		14	<5	20	45		<1
	35	-34		18	<5	20	40		<1
	36	-36	T	25	<5	30	35	0	<1
	37	-38	T	20	<5	30	35	0	<1
	38	-40	T	25	<5	35	30	0	<1
166	17839	0m - 2m		18	5	25	17		<1
	40	- 4		20	<5	25	35		<1
	41	- 6	T	25	<5	30	55	0	<1
	42	- 8	T	30	<5	40	65	0	<1
	43	-10	T	25	<5	40	60	2	<1

Assay Data - GR405 (cont.)

Hole No:	Sample No:	Depth(M):	Au D/T:	Cu ppm:	Bi ppm:	Pb ppm:	Zn ppm:	Ag ppm:	Mo ppm:
167	17844	Om- 2m		15	<5	20	12		<1
	45	- 4		30	<5	20	45		<1
	46	- 6	T	30	<5	35	45	1	<1
	47	- 8	T	25	<5	30	55	0	<1
	48	-10	T	25	<5	40	55	0	<1
168	17849	Om- 2m		18	<5	25	15		<1
	50	- 4		25	<5	30	35		<1
	51	- 6		25	<5	25	55		<1
	52	- 8		20	<5	30	55		<1
	53	- 10	T	20	13	35	65	0	<1
	54	- 12	T	20	<5	30	50	0	<1
	55	- 14	T	20	<5	25	50	1	<1

APPENDIX III

Geochemical zones - GR 405

	Cu:			Zn:		
Hole No:	Depth (M)	Zone:	Avge. ppm Cu:	Depth (M)	Zone:	Avge. ppm Zn:
97	14-26	Dep.	37.0	14-54	-	69.5
	26-36	Sup.	96.0			
	36-54	1°	61.0			
98	4-22	Dep.	29.5	4-40	Sup.	101.7
	22-40	Sup.	49.5	40-48	1°	50.0
	40-48	1°	18.0			
99	6-30	Dep.	11.5	6-18	Dep.	63.3
	30-42	Sup.	37.5	18-32	Sup.	92.0
				32-42	1°	50.0
100	6-34	-	21.3	6-10	Dep.	50.0
				10-18	Sup.	115.0
				18-34	1°	75.5
101	16-32	-	13.5	16-32	-	51.25
102	8-12	-	19.5	8-12	-	30.0
103	10-20	-	19.0	10-20	-	42.0
104	6-20	-	15.0	6-20	-	39.4
105	4-14	-	9.6	4-14	-	19.2
106	4-18	-	23.0	4-18		69.4
107	6-10	-	8.5	6-10		15.0
108	6-10	Dep.	14.5	6-10	Sup.	75.8
	10-18	Sup.	101.25	18-22	1°	32.5
	18-22	1°	22.5			
109	10-38	-	51.0	10-38	-	65.0
110	4-12	-	20.5	4-12	-	17.25
111	10-44	-	29.2	10-44	-	57.6
112	6-30	-	27.5	6-30	-	51.0
113	10-20	Dep.	13.4	10-20	Dep.	27.4
	20-26	Sup.	28.3	20-30	Sup.	67.0
	26-30	1°	16.0			
114	8-30	-	28.5	8-30	-	38.7
115	10-26	Dep.	76.9	10-30	-	49.0
	26-30	Sup.	130.5			
116	4-26	-	18.0	4-26	-	62.5
117	4-6	Dep.	65.0	4-6	Dep.	35.0
	6-10	Sup.	85.0	6-10	Sup.	77.8
	10-20	1°	43.0	10-20	1°	42.8
118	4-26	-	37.5	4-26	-	51.8

Geochemical Zones - GR 405 (cont.)

Hole No:	Cu: Depth: (M)	Zone:	Avge. ppm Cu:	Zn: Depth (M):	Zone:	Avge. ppm Zn:
119	14-18	-	24.3	4-18	-	42.0
120	6-26	-	23.8	6-26	-	47.0
121	8-16 16-20 20-32	Dep. Sup. 1°	29.5 80.0 42.5	8-32	-	26.7
122	10-24	-	17.1	10-24	-	39.3
123	6-8	-	30.0	6-8	-	16.0
124	4-12	-	14.8	4-12	-	15.0
125	2-4	-	35.0	2-4	-	30.0
126	2-8	-	38.3	2-8	-	19.7
127	2-5	-	14.0	2-5	-	10.5
128	2-10	-	15.0	2-10	-	41.3
129	4-24	-	30.9	4-24	-	35.4
130	8-22	-	20.0	8-22	-	21.7
131	4-6	-	45.0	4-6	-	14.0
132	4-8	-	28.0	4-8	-	11.0
133	6-8	-	19.0	6-8	-	20.0
134	4-5	-	19.0	4-5	-	45.0
135	16-18	-	20.0	16-18	-	20.0
136*	0-5	-	19.6	0-5	-	15.7
	* Not bedrock					
137	16-50	-	22.0	16-22 22-32 32-50	Dep. Sup. 1°	68.0 111.0 75.6
138	10-30	-	23.1	10-22 22.30	Dep. Sup.	26.3 90.0
139	no bedrock assay		-	-	-	-
140	" "	"	-	-	-	-
141	4-16 16-24 25-25	Dep. Sup. 1°	25.0 80.0 35.0	4-10 10-24 24-25	Dep. Sup. 1°	38.3 120.7 70.0
142	10-30	-	20.5	10-30	-	62.0
143	12-22 22-28 28-38	Dep. Sup. 1°	23.6 35.0 25.0	12-22 22-28 28-38	Dep. Sup. 1°	16.4 75.0 42.0

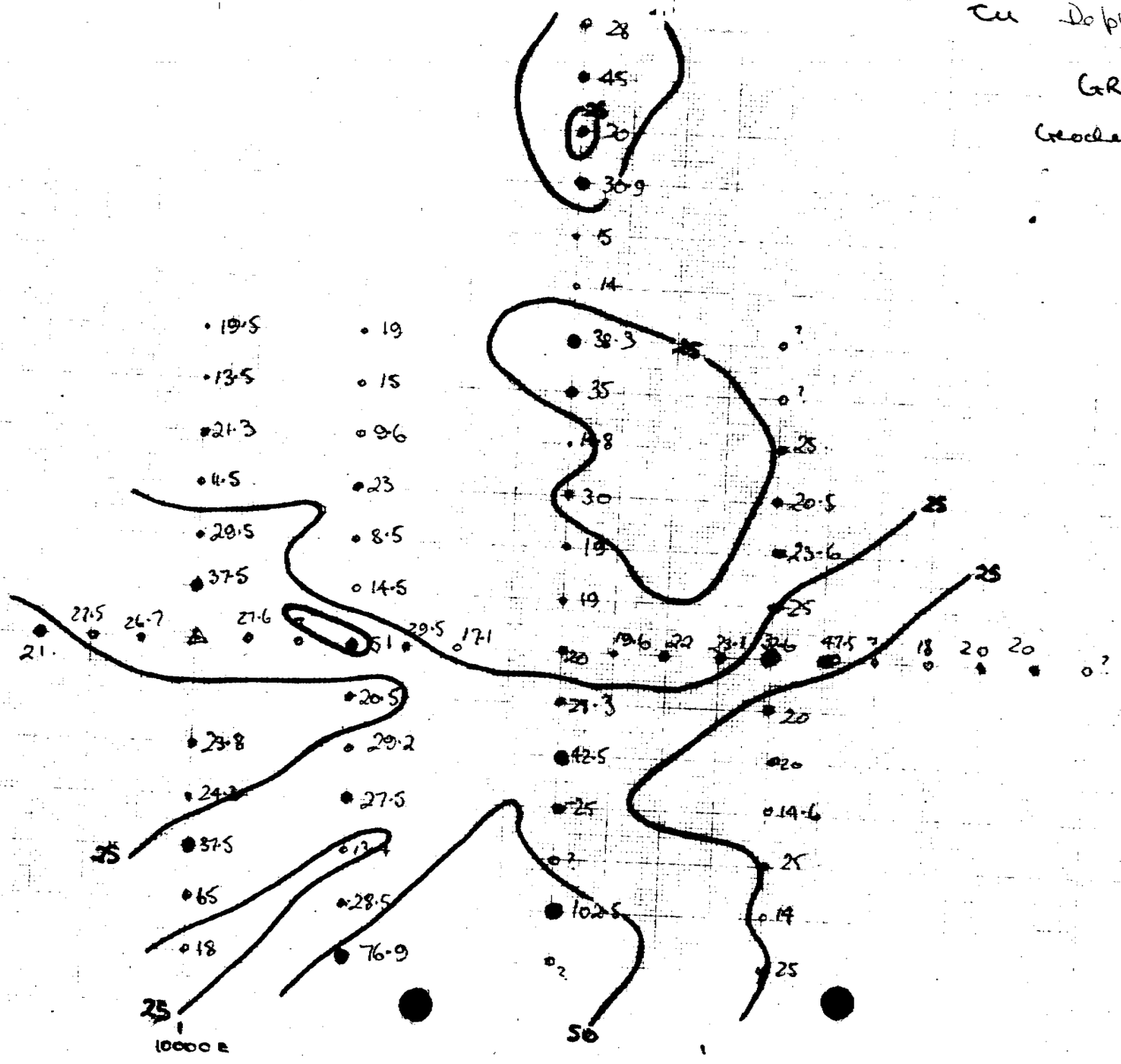
Geochemical Zones - GR 405 (cont.)

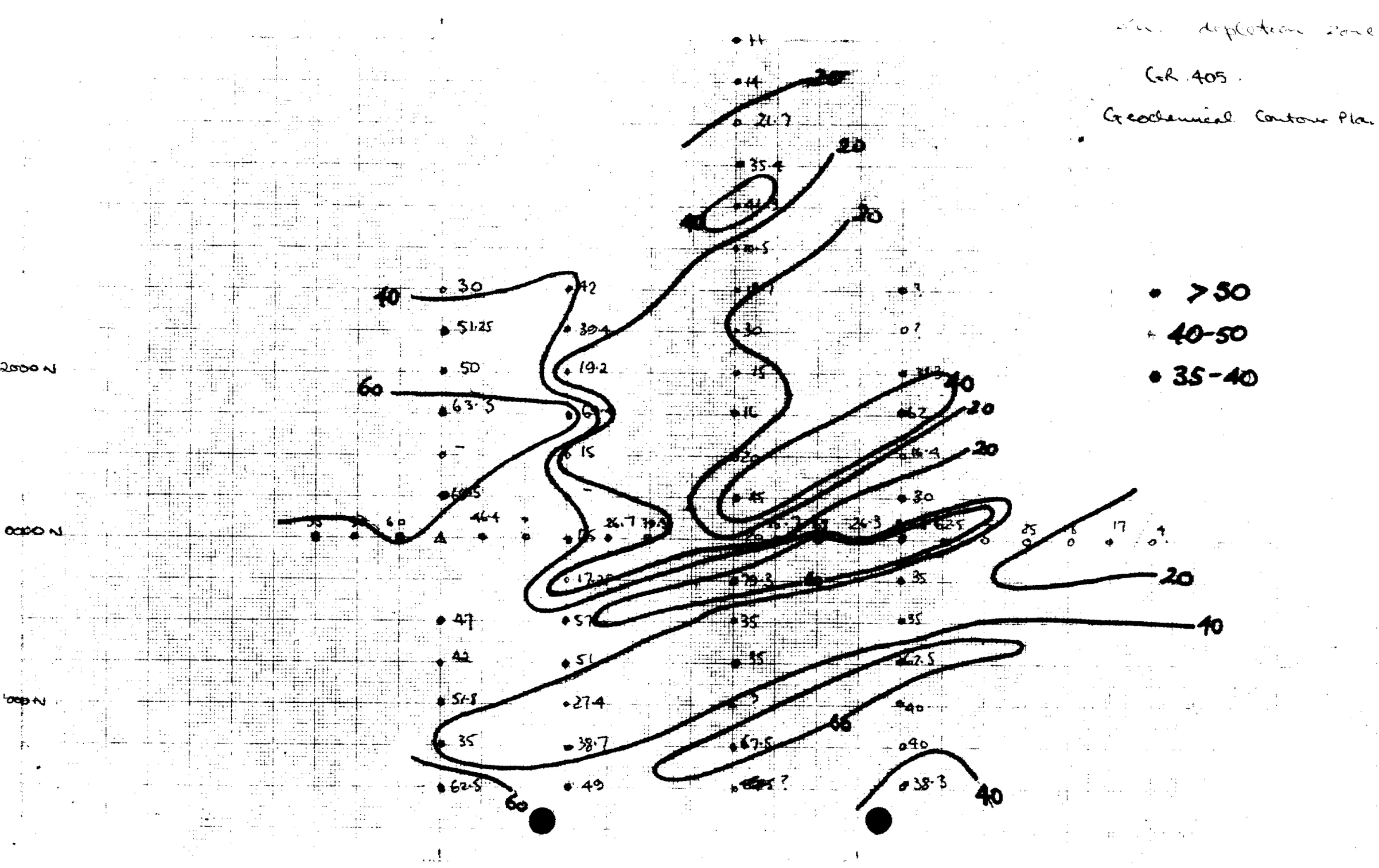
	Cu:			Zn:		
Hole No:	Depth: (M)	Zone:	Avge. ppm Cu:	Depth (M):	Zone:	Avge. ppm Zn:
144	No bedrock assay		-	-	-	-
145	4-5	-	20.0	4-5	-	17.0
146	6-7	-	20.0	6-7	-	18.0
147	8-10	-	18.0	8-10	-	25.0
148	No bedrock assay					
149	6-10	-	47.5	6-10	-	62.5
150	12-30	-	32.6	12-30	-	89.4
151	6-7	-	20.0	6-7	-	35.0
152	6-8	-	20.0	6-8	-	35.0
153	4-20	-	14.6	4-20	-	62.5
154	2-3	-	25.0	2-3	-	40.0
155	4-6	-	14.0	4-6	-	40.0
156	6-11	-	25.0	6-11	-	38.3
157	No bedrock assay					
158	4-7	-	102.5	4-7	-	67.5
159	No bedrock assay					
160	4-5	-	25.0	4-5	-	35.0
161	8-12	-	42.5	8-12	-	35.0
162	14-24 24-28 28-42	Dep. Sup. 1	28.3 82.5 30.7	14-42	-	79.3
163	10-12	-	25.0	10-12	-	30.0
164	No bedrock assay					
165	4-40	-	27.6	4-40	-	46.4
166	4-10	-	26.7	4-10	-	60.0
167	2-10	-	27.5	2-10	-	50.0
168	4-14	-	21.0	4-14	-	55.0

GR 405

APPENDIX IV

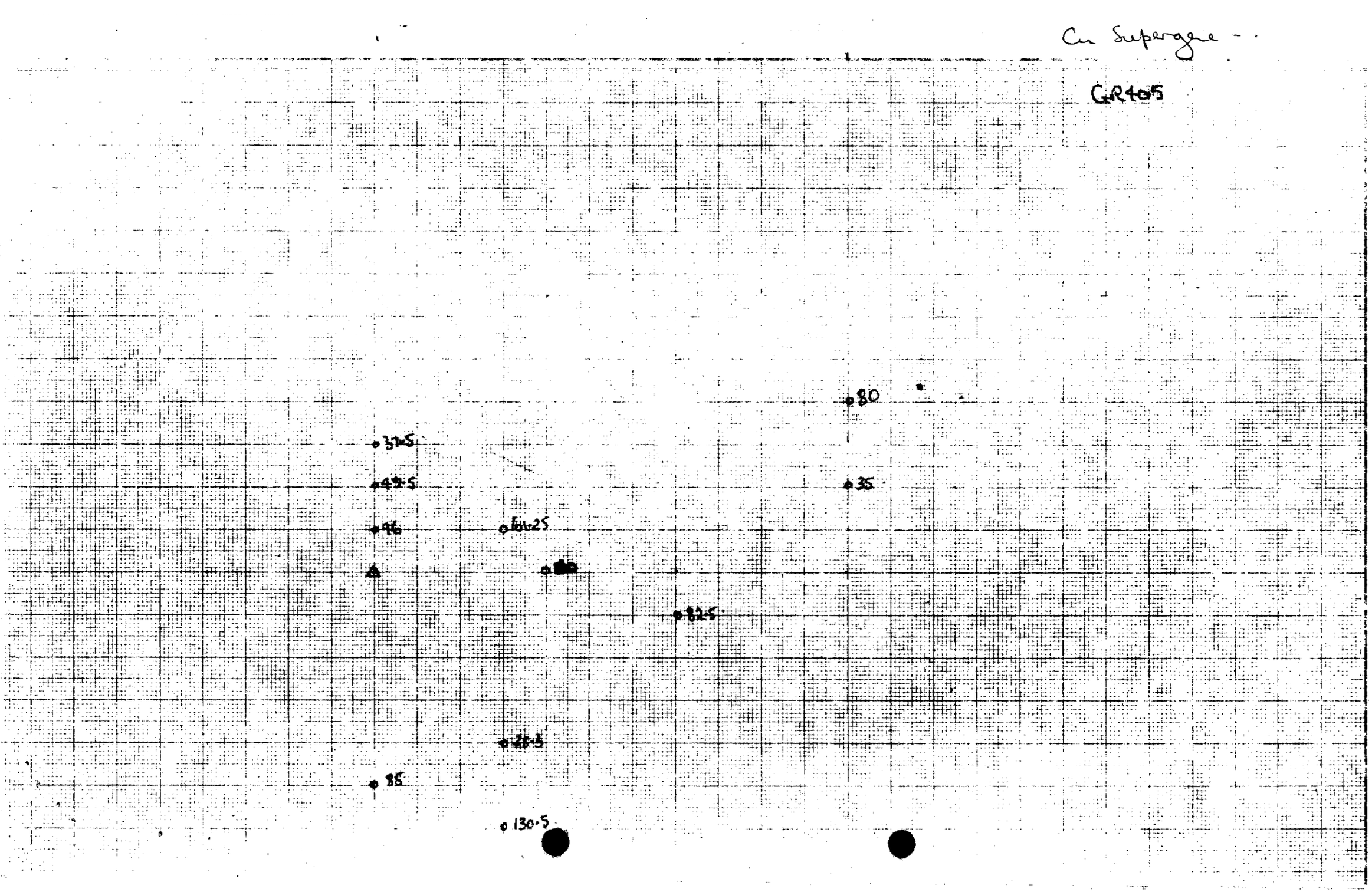
Geochemical contour plan and Scatter diagram.


Cu Depletion zone
GR405 -
Geochemical contour plan.
• >30
25-30
• 20-25.
10000 E


Geochemical Contour Plan
> 50
40-50
35-40
2000 N
0000 N
1000 N

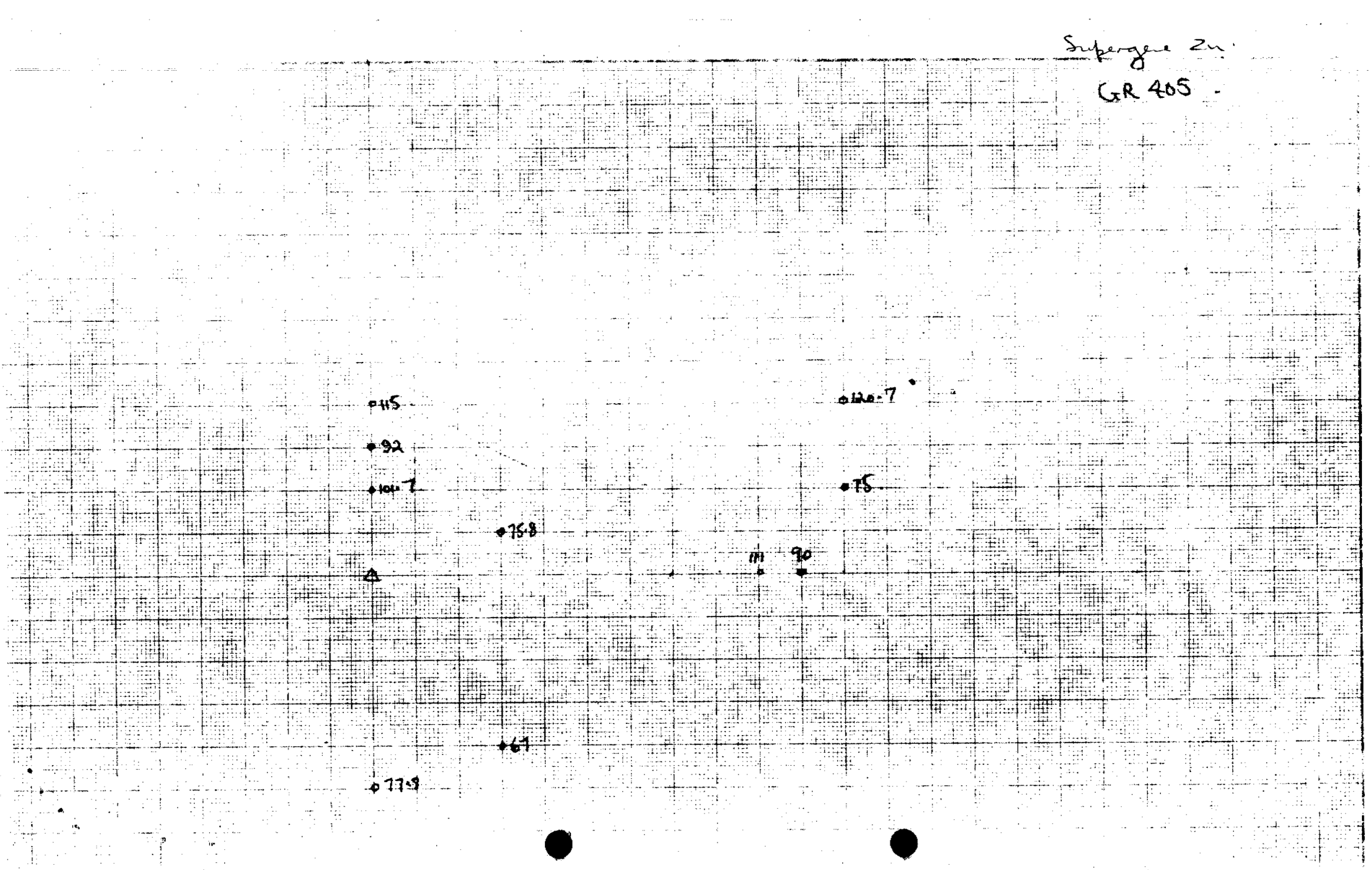
Cu Supergene -

GR405



Supergene Zn.

GR 405 -



GR405

Scatter diagram

Cu v Zn.