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EL 1718, EL 1719 AND EL 1725

SAFARI, LAKE WOORONG AND LEONARD RISE (COOBER PEDY RIDGE PROJECT)

CONSECUTIVE JOINT PARTIAL SURRENDER REPORTS FOR THE PERIODS 12/5/91 TO 13/11/93, AND 12/5/91 TO 7/4/94

Submitted by

BHP Minerals Ltd
1994

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PRIMARY INDUSTRIES AND RESOURCES SA

CR 8018

EXPLORATION LICENCES 1718, 1719 AND 1725 SOUTH AUSTRALIA

RELINQUISHMENT REPORT, PARTIAL AREA REDUCTION FROM EL1719 AND 1725, TOTAL AREA REDUCTION FROM EL1718

13TH NOVEMBER, 1993

Volume 1 of 1

Prepared by:

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Project Geologist

Issued by:

M Raetz
Program Leader

BHP Minerals
Exploration Department

Distribution:

Hawthorn
Brisbane
South Australian Department of Mines and Energy
M Raetz

SUMMARY

BHP Minerals Limited has partially relinquished EL's 1719 and 1725, and totally relinquished EL1718 on the 12th November 1993. These are the first relinquishments from the Coober Pedy Ridge Project.

Exploration for Pb-Ag-Zn and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area, South Australia, started in 1991. The work completed comprised aeromagnetic interpretation, depth to basement studies, anomaly selection, ground magnetic surveying, drilling of selected targets, bedrock geochemical analysis, geological and geochemical evaluation.

One RC hole (CR9306) was drilled in EL1719 intersecting basement at 73 metres. The magnetic target intersected is a magnetite quartz feldspar biotite rock (BIF).

Two RC holes (CR9116 and CR9208) were drilled in EL1725, intersecting basement at 56 metres and 74 metres, respectively. The magnetic targets intersected are quartz magnetite rock (BIF) and magnetite rich granite.

Three RC holes (CR9127, CR9203, CR9214) were drilled in EL1718. Hole CR9127 did not reach the basement. Hole CR 9203 reached the basement at 212 metres and CR9214 at 234 metres. These two holes intersected the magnetic targets which were, quartz magnetite and a complex BIF unit, respectively.

With these relinquishments, BHP's total Coober Pedy Ridge Project was reduced 38% in area. The relinquished areas are considered less prospective for any or all of the following reasons: 1) excessive depth to basement; 2) insignificant geochemical results; or, 3) less prospective stratigraphy.

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1 INTRODUCTION

BHP Minerals Ltd (BHP) is actively exploring for Zn-Pb-Ag and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area, South Australia. BHP applied for EL's 1712, 1718, 1719 and 1725 located south of Coober Pedy, in 1991 (Figure 1). These Exploration Licences (EL) form a contiguous block of ground.

On 12th November 1993 EL's 1719 and 1725, were partially relinquished and EL1718 was totally relinquished. This report summarises the work completed in the relinquished areas from the 13th May 1991 to 12th November 1993.

2 LOCATION AND ACCESS

The tenements are located on the Coober Pedy and Billa Kalina 1:250,000 sheets (Figure 1). The main access is by the Stuart Highway and Tarcoola-Alice Springs railway. Station roads and tracks provide reasonable access throughout the area covered by these licences.

3 EXPLORATION RATIONALE

BHP is exploring for Zn-Pb-Ag and Cu-Au mineralisation in the area. Aeromagnetic data was used to map the mainly covered basement rocks that are interpreted to be of Proterozoic age.

4 TRADITIONAL LANDOWNER LIAISONS

BHP has been liaising with Mr Ricky Brown, a person recognised as having knowledge of the Coober Pedy area, in order to avoid sites significant to the Aboriginal people. Drill sites in the BHP tenements were inspected and Mr Brown advised, that to the best of his knowledge, no sites of significance would be affected by BHP activities (Read 1991a, 1991b, 1992a, 1992b, and 1992c; Valdez 1994).

5 ENVIRONMENTAL CONSIDERATIONS

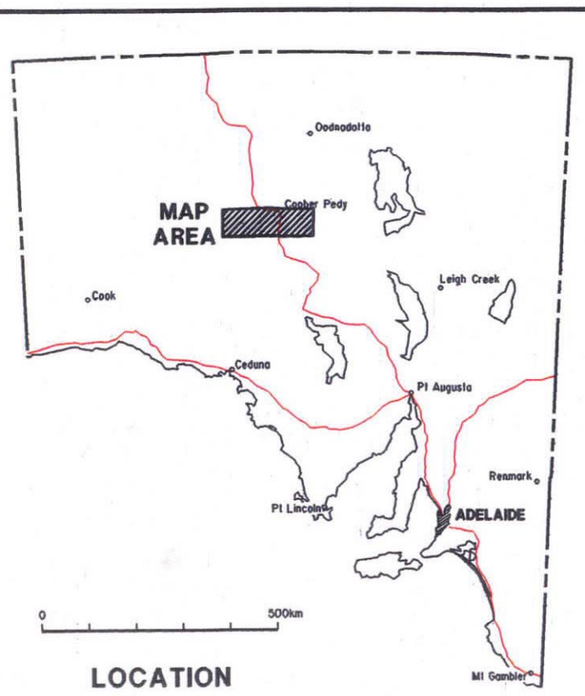
Heavy vehicle access to drill sites was made via existing station tracks where possible. Short access tracks were graded into Anomalies 11, 29, 32, 41, 46 and 47. Drill holes were rehabilitated by backfilling with cuttings. Sumps, dug for mud collection when mud-drilling, were backfilled after drilling finished. Excess material was either removed from site or buried and covered by local soil.

133°30'
134°
134°30'
135°
135°30'
29°
29°30'

YERADA
PHILLIPSON
COOBER PEDY
ENGENINA

Anomaly 46
Anomaly 32
CR9127
Anomaly 29
CD9206
Anomaly 47
Anomaly II
CR9116
Anomaly 41
CR9208
Pioneers Swamp
Wurley Lagoon
Lake Woorong
Lake Phillipson
Coober Pedy
STUART HIGHWAY

EL1718 SAFARI (relinquished)
EL1719 LAKE WOORONG
EL1725 COOBER PEDY
EL1712 BRUMBY CREEK
EL1758 LAKE PHILLIPSON



LOCATION

Anomaly II — Ground magnetic traverses and anomaly number

CD9206 • — BHP 1991-93 Reverse Circulation drill hole (located in anomaly)

Relinquished portion of ELs

Scale 1:500,000

0 10 20 30 40 km

/COOBER/500-COMP.DGN

BHP Minerals Pty. Ltd.
A.C.N. 008 694 782

COOBER PEDY RIDGE, S.A.
SUMMARY OF FIELD WORK

Prepared: M. Valdez	Date: 14th Feb. 1994	FIGURE 1
Drawn: A. R. Veale/USin	Project No.: B49, FK2-4	
Centre: Melbourne	Drawing No.: A3 - 1948	

6 RELINQUISHMENT FROM EL1719

Two areas were relinquished from this licence (Figure 1), a northern area and a southern area. The **northern area** relinquished is defined by:

Starting at point being intersection of longitude 134°07'E and latitude 29°00'S,
thence due East to Longitude 134°24'E,
thence due South to latitude 29°02'S,
thence due West to Longitude 134°07'E, and
thence due North to point of commencement.

The **southern area** relinquished from this licence is define by:

Commencing at point being intersection of longitude 133°55'E and latitude 29°18'S,
thence due East to longitude 134°12'E,
thence due South to latitude 29°27'S,
thence due East to longitude 134°15'E,
thence due South to latitude 29°30'S,
thence due West to longitude 134°00'E,
thence due North to latitude 29°25'S,
thence due West to longitude 135°55'E, and
thence due North to point of commencement.

6.1 Exploration completed for the period from 12th May 1991 to 13th November 1993 in the relinquished areas

6.1.1 Depth to basement study

Depth to basement was calculated for the tenement blocks using previous drilling information. The northern area has an interpreted cover thickness mostly greater than 300 metres. The southern area shows an interpreted depth to basement usually less than 300 metres. Also, depth to the top of magnetic basement was calculated.

6.1.2 Aeromagnetic interpretation and target selection

Interpretation of the basement rocks was made by Read (1991a), using previous drilling information and geology of the outcropping rocks.

Two aeromagnetic targets were selected from the southern area for ground magnetic surveying, Anomaly 29 and Anomaly 47. The data collected was processed and the anomalies were modelled. These models are included in Appendix 1.

6.1.3 Drilling

-195m TD.

One hole was drilled, CR9206, which is located in Anomaly 47. The target was Cu-Au mineralisation. Hole specifications are summarised in Table 1.

The magnetic rocks intersected were: magnetite quartz BIF unit (134 - 150 m), and quartz magnetite feldspar gneiss (150 - 178 m). Graphic drill hole sections are included in Appendix 2 and descriptive drill logs in Appendix 3.

The best assay result come from the 64 to 74 m interval, with 192 ppm Cu, 20 ppm Pb, 25 ppm Zn and with Au and Ag below detection limits. These results correspond with quartz felspar haematite granofels. Complete assay results are included in Appendix 4.

7 RELINQUISHMENT FROM EL1725

EL 1725, Coober Pedy, is located south of the town of Coober Pedy, mostly included in the Coober Pedy Precious Stones Field. Here the exploration licence commences 50 m below surface. The top 50 m portion of ground is reserved for opal mining. Two areas, **northern and southern areas,** were relinquished from this licence (Figure 1). The **northern area** is defined by:

Starting by point being intersection of longitude 134°24'E and latitude 29°00S',
thence due East to longitude 134°42'E,
thence due South to latitude 29°02'S,
thence due West to longitude 134°24'E, and
thence due North to point of commencement.

The **southern area** relinquished from this licence is defined by:

Starting by point being intersection of longitude 134°27'E and latitude 29°18'S,
thence due East to longitude 134°45'E,
thence due South to latitude 29°28'S,
thence due East to longitude 135°04'E,
thence due South to latitude 29°30'S,
thence due West to longitude 134°35'E,
thence due North to latitude 29°22'E,
thence due West to longitude 134°30'E,
thence due North to latitude 29°19'S,
thence due West to longitude 134°27'E, and
thence due North to point of commencement.

TABLE 1
DRILL HOLE SPECIFICATONS, EL 1719

Hole	East	North	Grid	Inc.	Azimuth	Hole type	Interpreted depth to target (m)	Actual depth to target (m)	Total depth of hole (m)	Target	Target type
CR9206	131,000	130,800	Local	-60°	340°	RC	200	90	195	Ironstone	Cu-Au target

TABLE 2
DRILL HOLE SPECIFICATIONS, EL1725

Hole	East	North	Grid	Inc.	Azimuth	Hole type	Interpreted depth to target (m)	Actual depth to target (m)	Total depth of hole (m)	Target	Target type
CR9116	465,000	6,758,005	AMG	-90°	354°	RC	100-110	64	100	- Magnetite quartzite/ skarn	BHT target
CR9208	451,900	6,752,300	AMG	-60°	354°	RC	150	76-100	112	- Mt Woods quartzite	BHT target

7.1 Exploration completed for the period from 12th May 1991 to 13th November 1993, in the abdicated areas

7.1.1 Depth to basement study

The depth to basement was studied using previous drilling information. The northern area is in an area with interpreted depth to basement greater than 150 metres. The southern area, with greater drill hole density than the northern one, shows mostly depth to basement less than 100 metres, with a relative small area with depth greater than 170 metres. Also, depth to the top of magnetic basement was calculated.

7.1.2 Aeromagnetic Interpretation and target selection

Interpretation of the basement rocks (Read, 1991a and 1992c) was made using aeromagnetic data and previous drill hole information. No targets were selected from the now relinquished northern area. Two aeromagnetic anomalies were selected from the southern area: Anomaly 11 and Anomaly 41. Ground magnetic surveys were compiled and magnetic models produced (Appendix 1) to select drill targets.

7.1.3 Drilling

Holes CR9116 and CR9208 were drilled in the southern area testing Anomalies 11 and 41 respectively. Hole specifications are shown in Table 3.

The magnetic targets were intersected in both holes, a BIF unit in hole CR9116, and a magnetic granite in hole CR9208. Graphic drill hole sections are included in Appendix 2 and descriptive sections in Appendix 3.

The best assay results from CR9116 come from 80 to 84 m interval with 11 ppm Cu, 9 ppm Pb, 39 ppm Zn, 0.09 ppm Au and 0.09 ppm Ag, which correspond to a quartz magnetite unit.

CR9208 shows as best result: 24 ppm Cu, 24 ppm Pb, 53 ppm Zn, <1 ppm Ag and < 0.02 ppm Au, from the 96 to 100 m interval which correspond to quartz feldspar biotite granofels rock. Complete assay results are included in Appendix 4.

8 TOTAL RELINQUISHMENT OF EL1718

8.1 Exploration completed for the period from 12th May 1991 to 13th November 1993

8.1.1 Depth to basement study

A depth to basement study was complete using previous drilling data. Also, depths to the top of magnetic basement were calculated.

An increase in depth to basement (from 20 metres to greater than 200 metres) is interpreted towards the west side of the tenement.

8.1.2 Aeromagnetic interpretation and target selection

An interpretation of the basement rocks was made by Read (1991a, 1992c) using previous drilling information and aeromagnetic data.

This interpretation was used later to select magnetic anomalies. As result, two Anomalies were selected for ground magnetic surveys, Anomaly 32 and 46. The ground magnetic data was modelled (see Appendix 1), and drill hole locations established.

8.1.3 Drilling

Holes CR9127, CR9203 and CR9214 were drilled within the relinquished portion of the tenement. During 1991, hole CR9127 was drilled failing to reach the basement. Consequently, during 1992 hole CR9214 was drilled in the same anomaly, intersecting the basement at 234 metres. Holes specifications are included in Table 3. Hole CR9214 intersected the magnetic target at the 214 - 254 m interval, corresponding to a complex BIF unit. Geology log sections are included in Appendix 2 and descriptive logs in Appendix 3.

The best geochemistry came from the 258 - 262 m interval with 130 ppm Cu, 26 ppm Zn, 20 ppm Pb, <0.02 ppm Au and 1 ppm Ag, which corresponds to quartz biotite gneiss. The complete list of assay results is included in Appendix 4.

During 1992, hole CR9203 was drilled intersecting a highly magnetic basement rock from 238 to 248 metres. This intersection corresponds with a magnetite-haematite-chlorite- barite? magnetite body.

The best geochemical results, 11 ppm Cu, 30 ppm, Pb and 280 ppm Zn come from the 248 - 250 m interval, corresponding with a quartz-magnetite-patchy haematite rock.

TABLE 3
DRILL HOLE SPECIFICATIONS, EL1718

Hole	East	North	Grid	Inc.	Azimuth	Hole type	Interpreted depth to target (m)	Actual depth to target (m)	Actual depth of hole (m)	Target	Target type
CR9127	373,100	6,778,700	AMG	-90°	354°	RC	240-250	No Intersected	119	- Magnetite quartzite	BHT target
CR9203	150,000	151,000	Local	-90°	354°	RC	200	240-244	272	- BIF	BHT target
CR9214	373,100	6,778,700	AMG	-90°	354°	RC	160	240-254	264	-Magnetite quartzite	BHT target

DISCUSSION

After two and half years of reconnaissance drilling into covered basement it became feasible to relinquish some areas, as exploration began to focus.

The areas relinquished were obviously considered less prospective than the areas retained for any or all of the following reasons:

- excessive depth to basement;
- insignificant geochemical results; or,
- less prospective stratigraphy.

However it is fair to say that the area relinquished have not been exhaustively explored, but simply reflect the company most reasonable option at this time.
The geological basement interpretation map has been omitted from this report because it really reflects an overview interpretation, including areas still on closed file.
The reference list is included for completeness, although those reports remain on closed file at present.

REFERENCES

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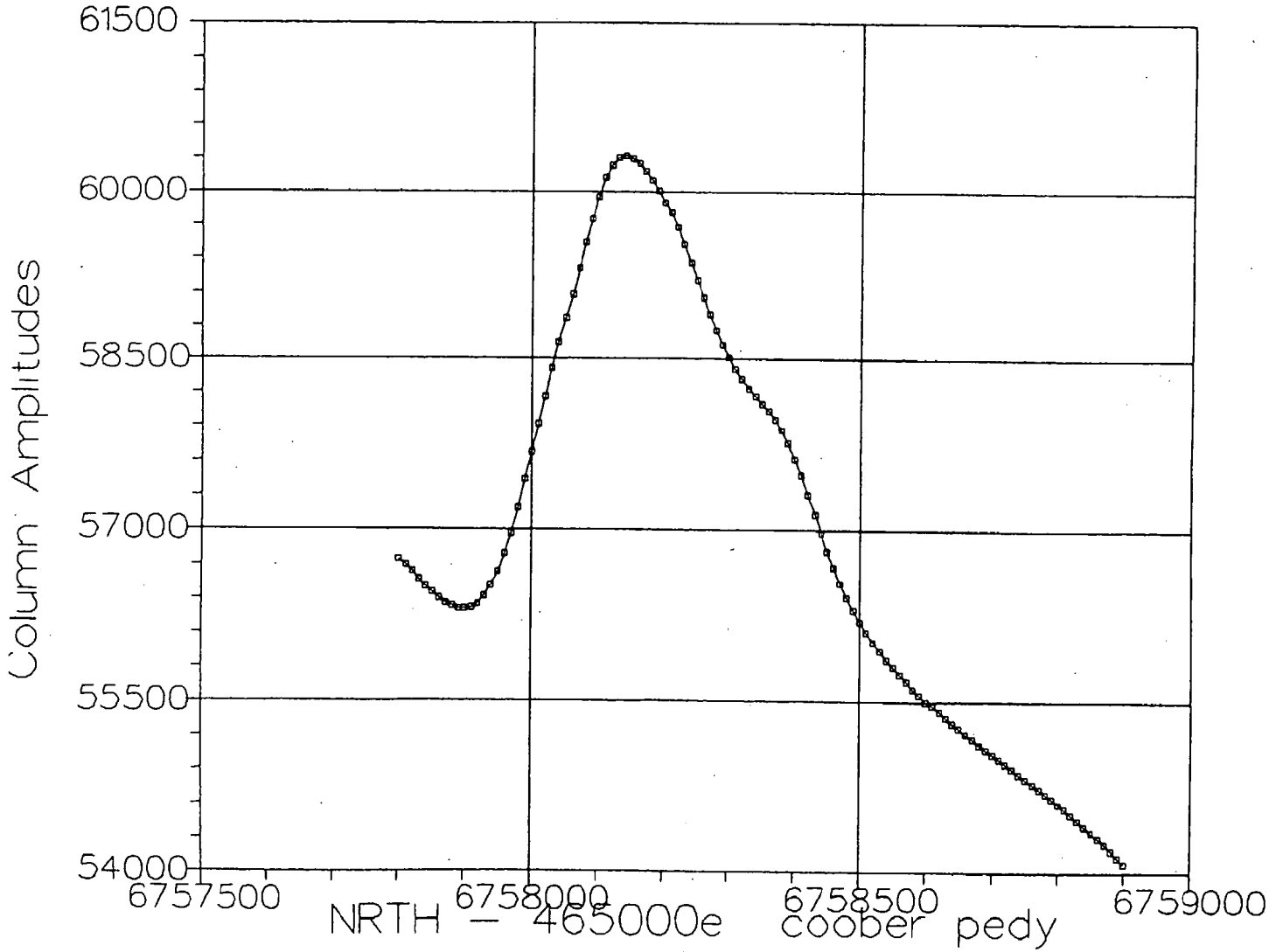
Valdez, M.A., 1994. Exploration Licences 1712, 1718, 1719 and 1725, South Australia, Joint Sixth Report for the year ended 13th November 1993. BHP Minerals, CR8011.

APPENDIX 1

MAGNETIC MODEL

Anomaly 11



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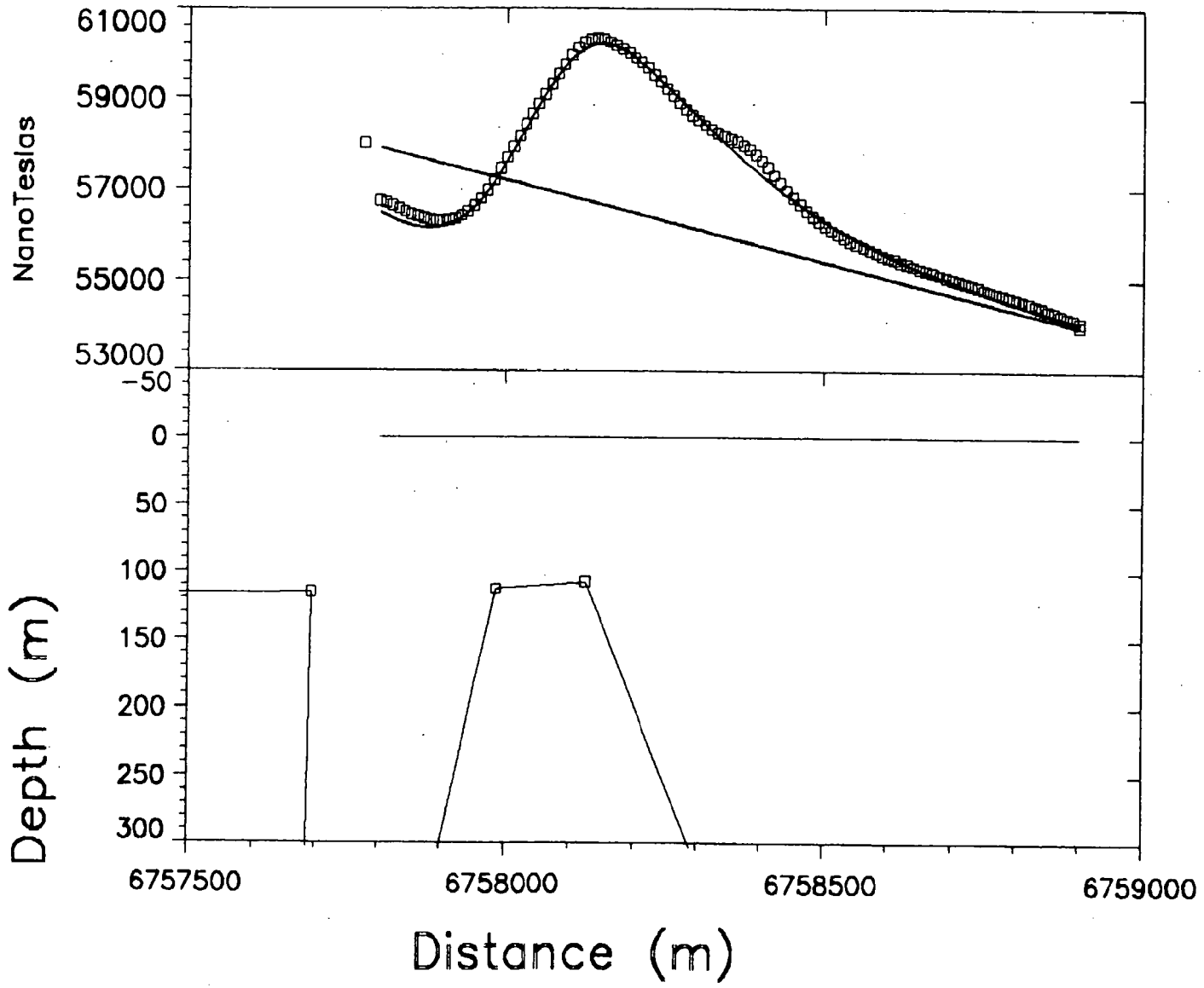

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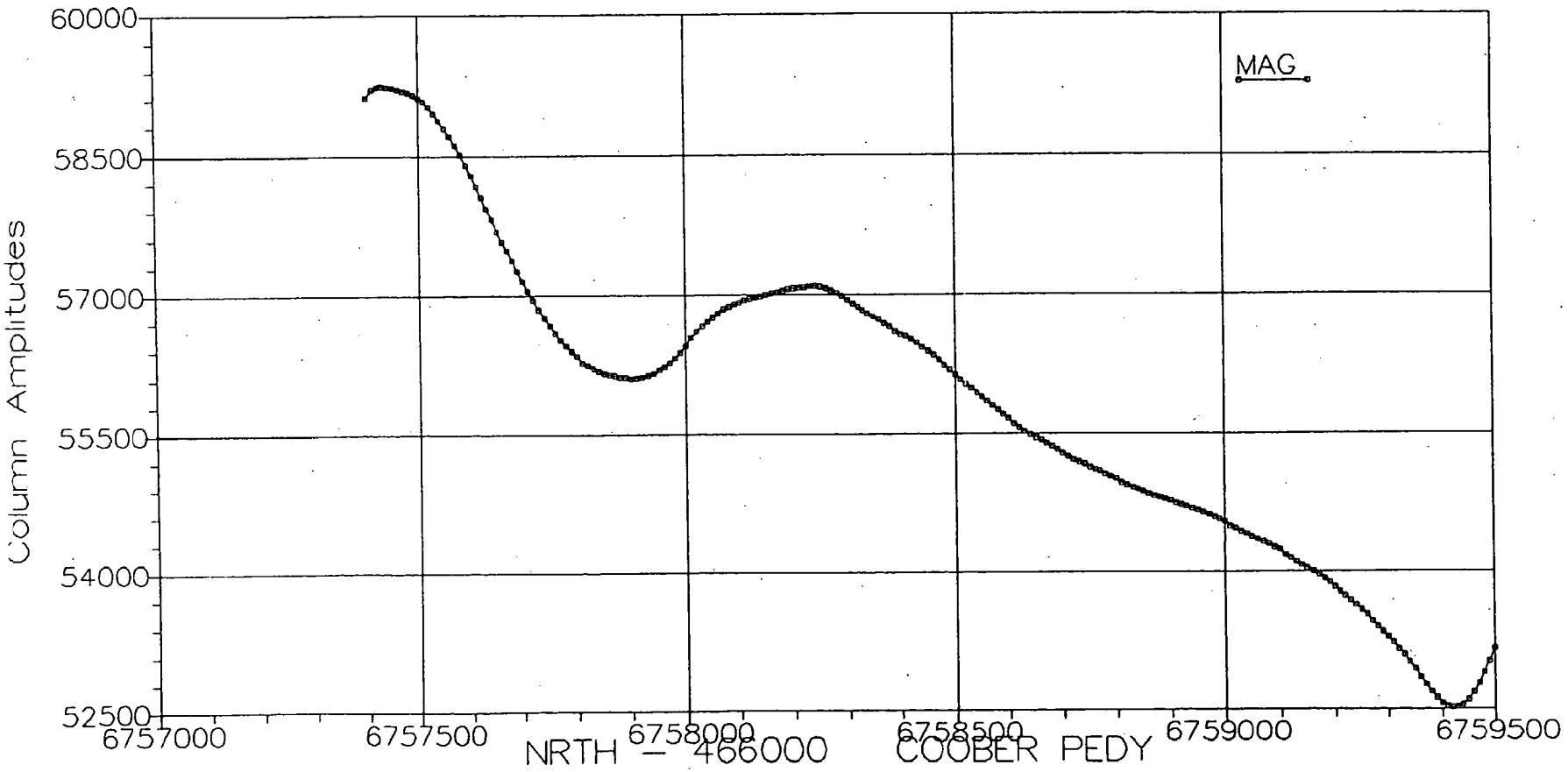
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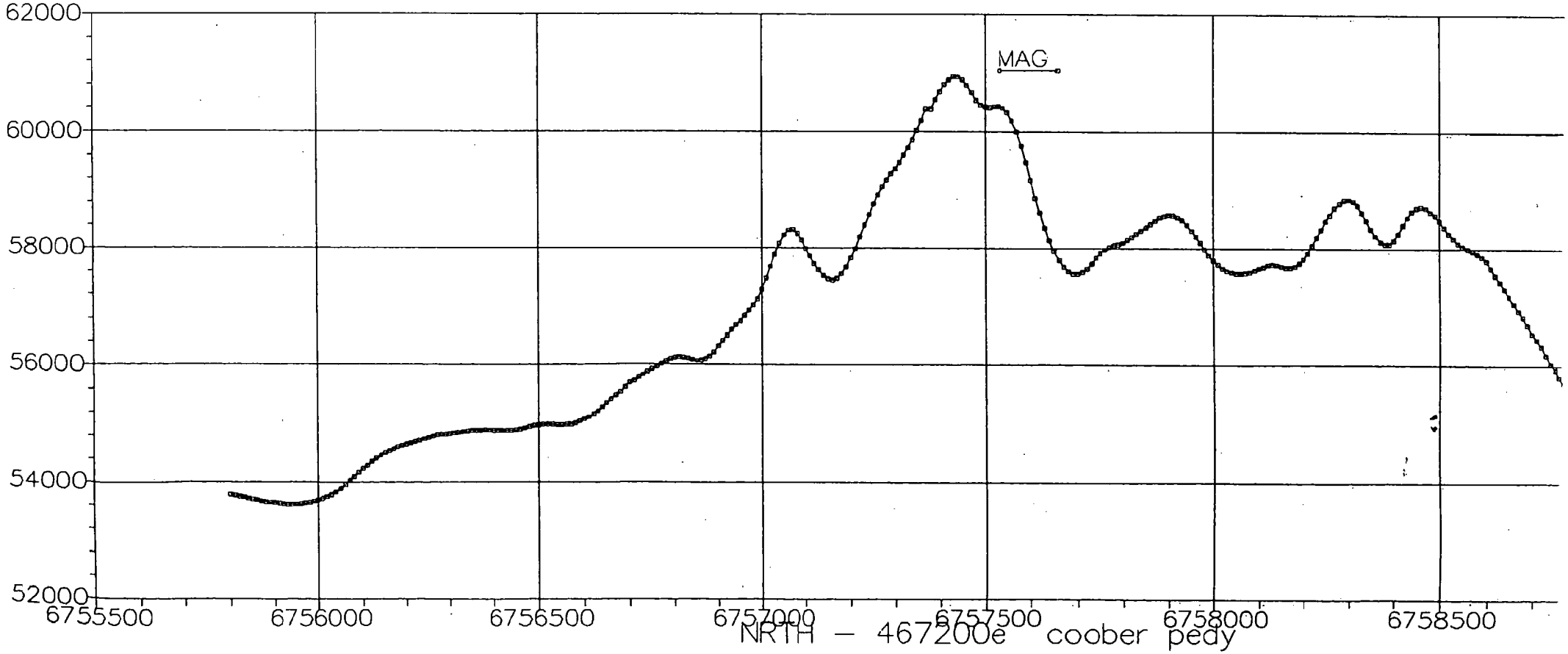
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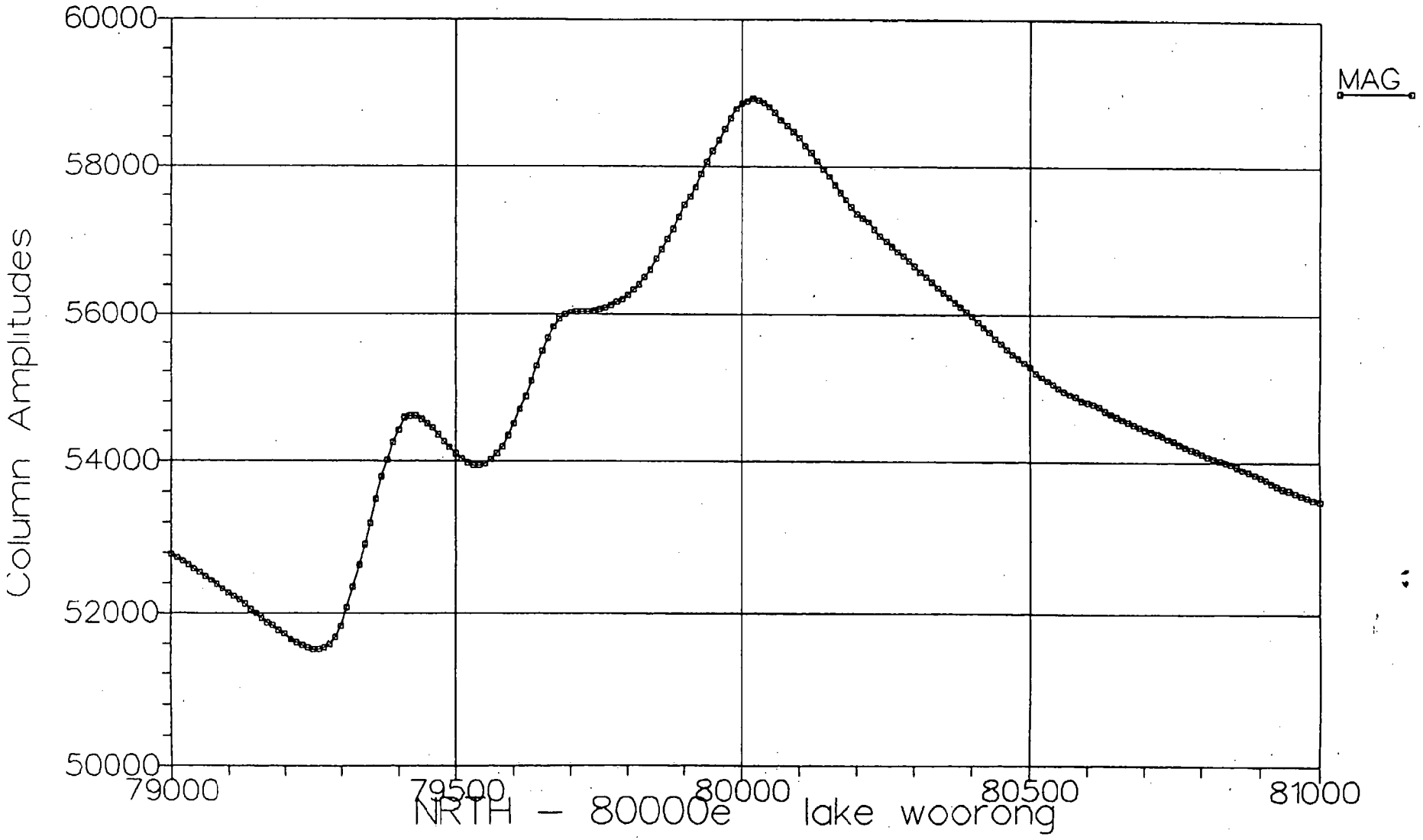
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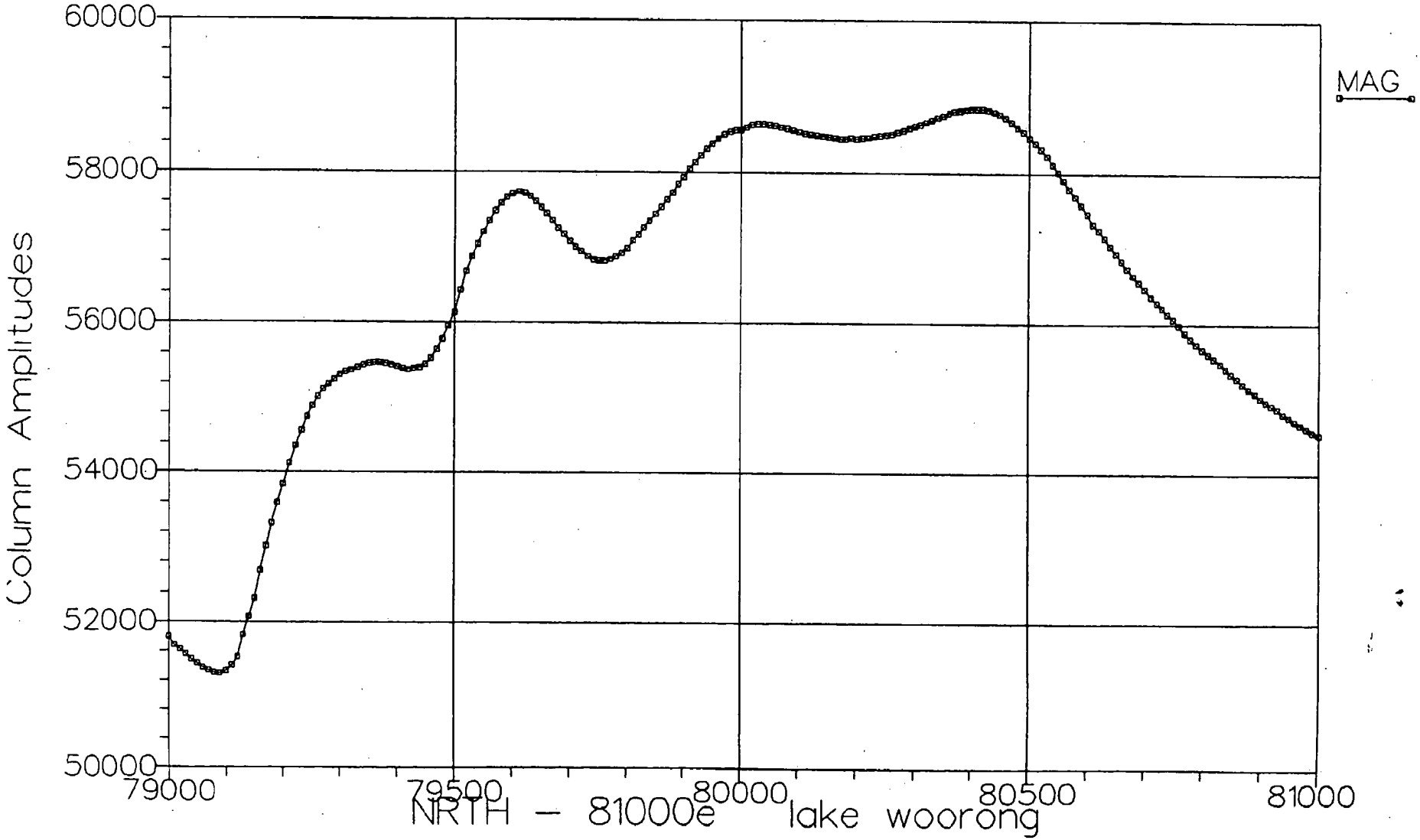
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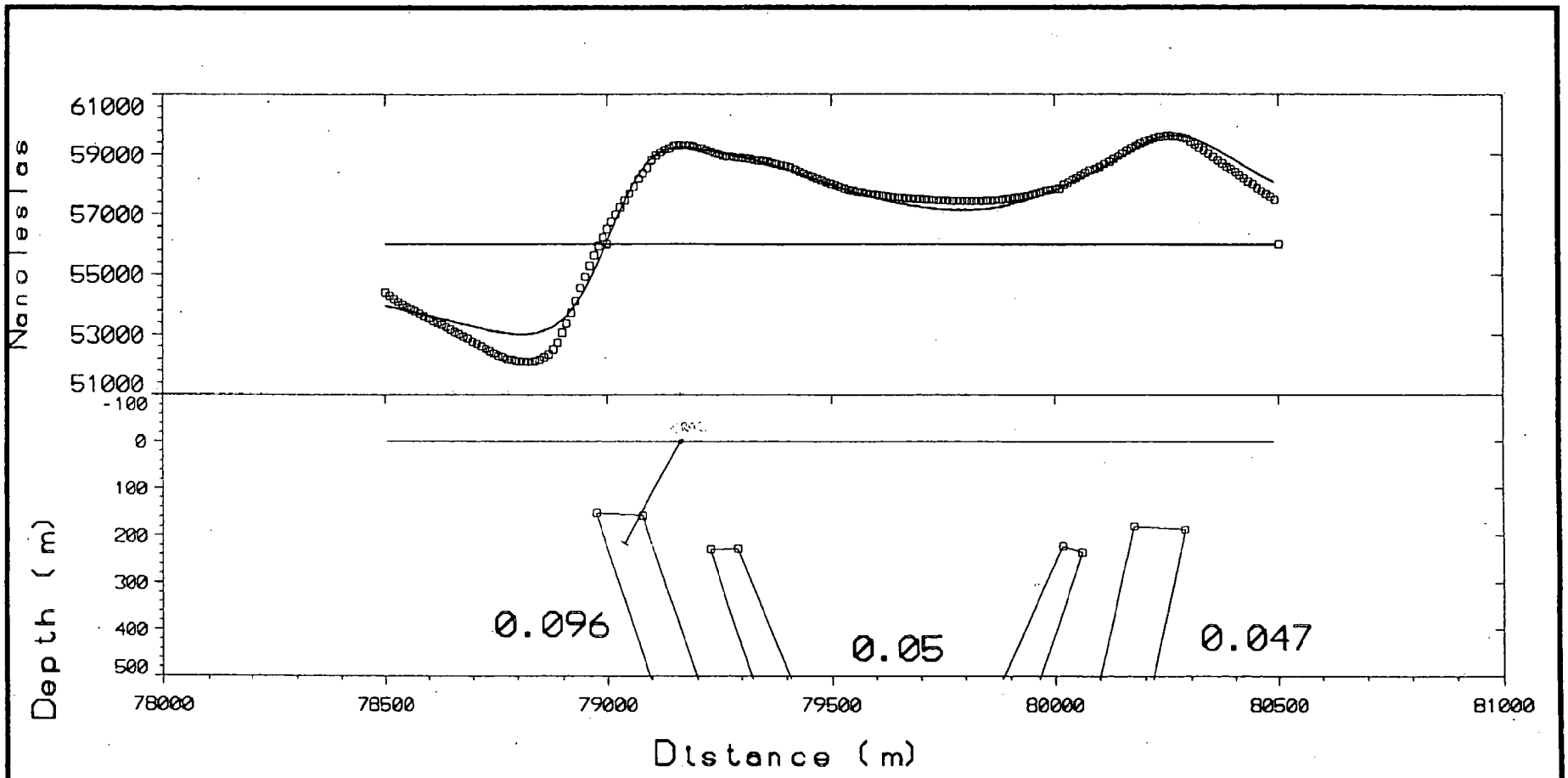

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Drill Hole – Anomaly 29

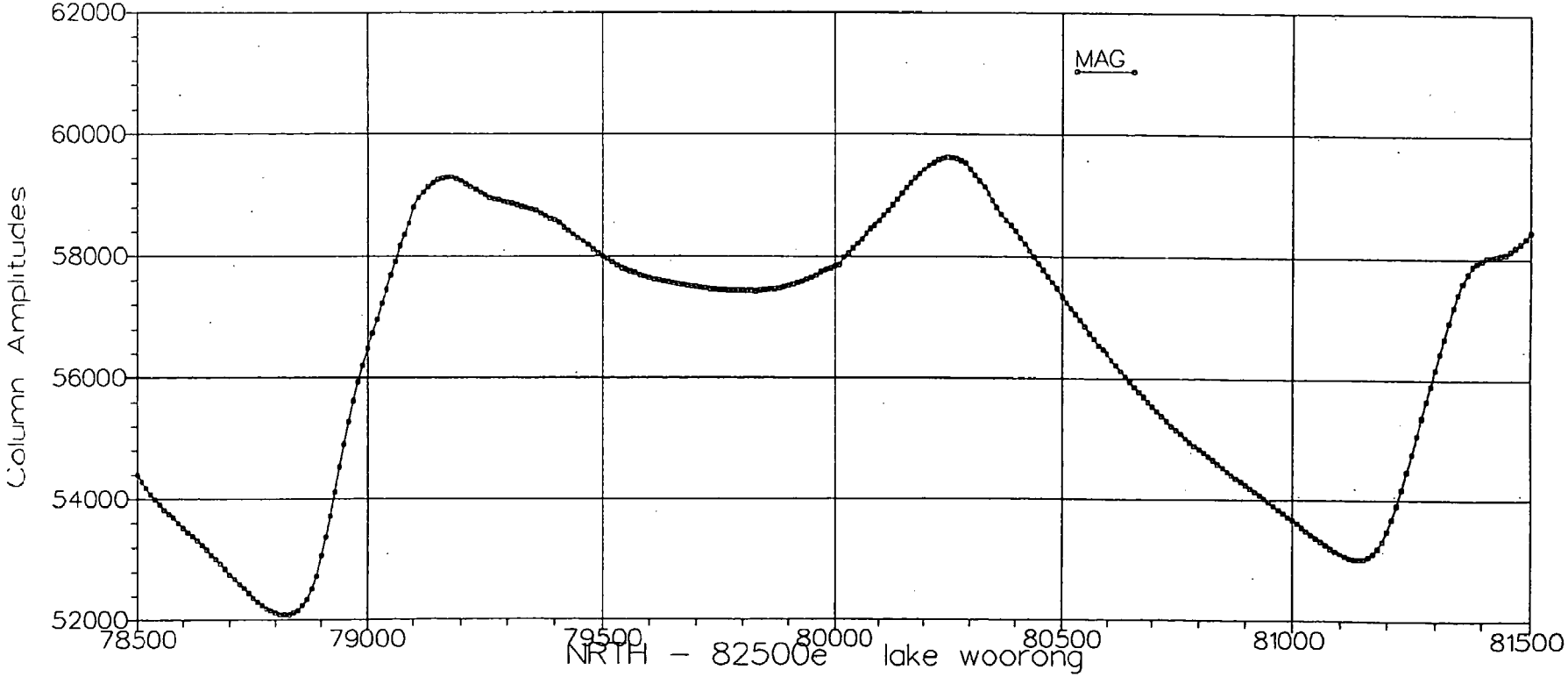
East: 82500E

North: 79160 N

Inclination: - 60° grid south

Depth to target: 180-200 m

Est. depth of hole: 250 m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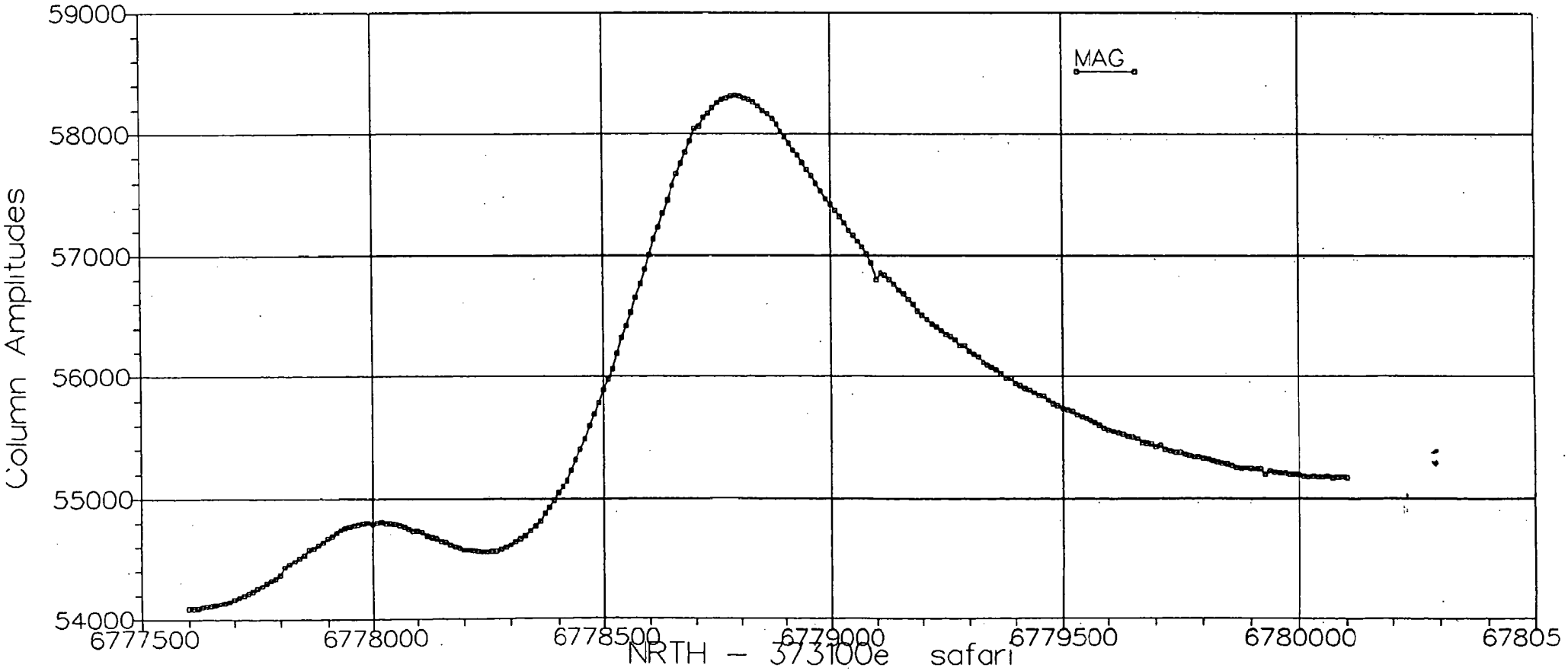
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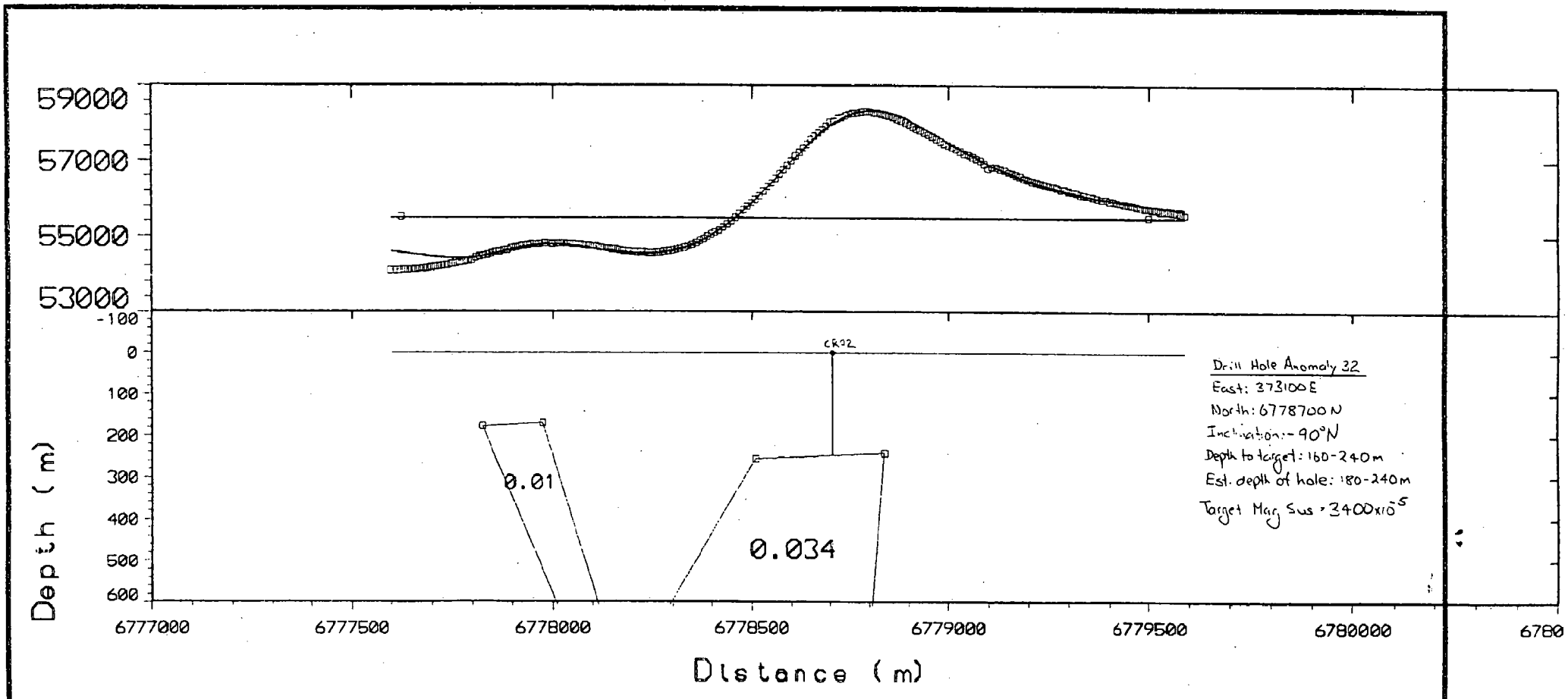

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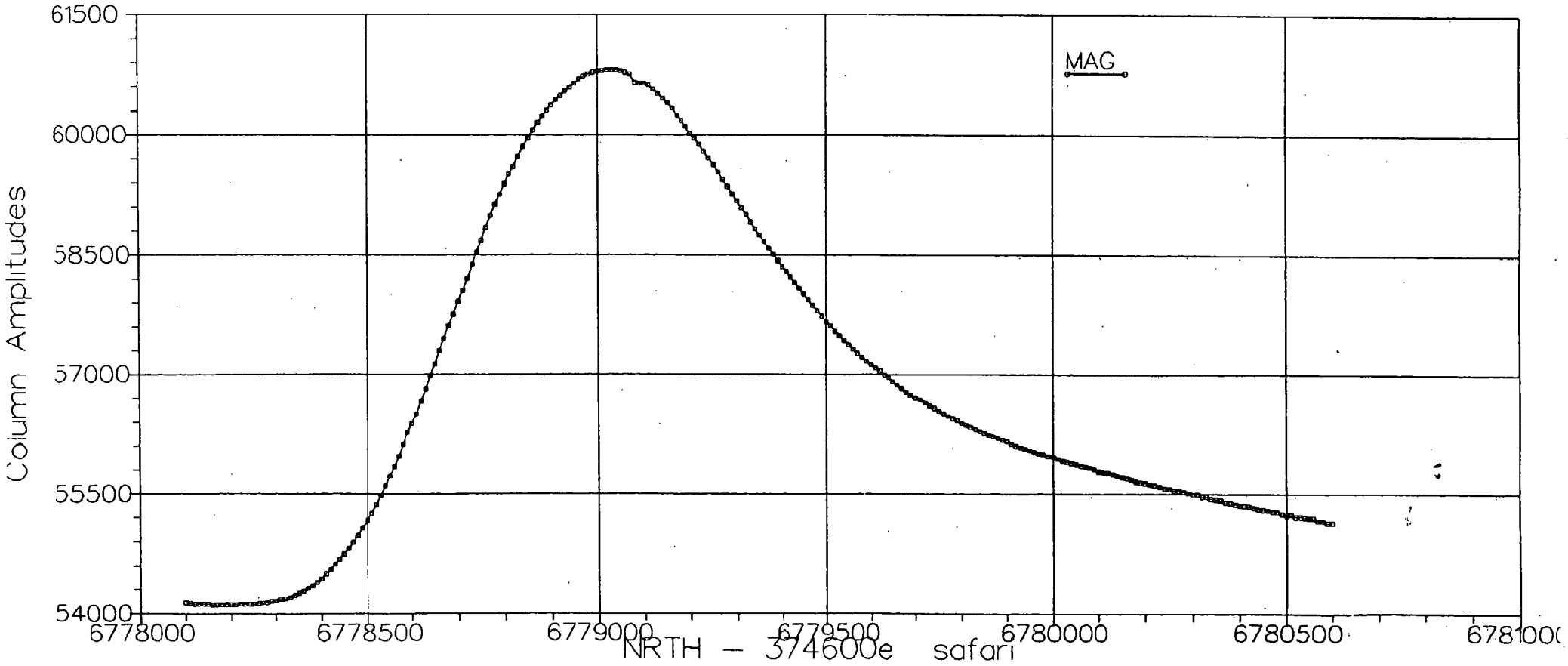
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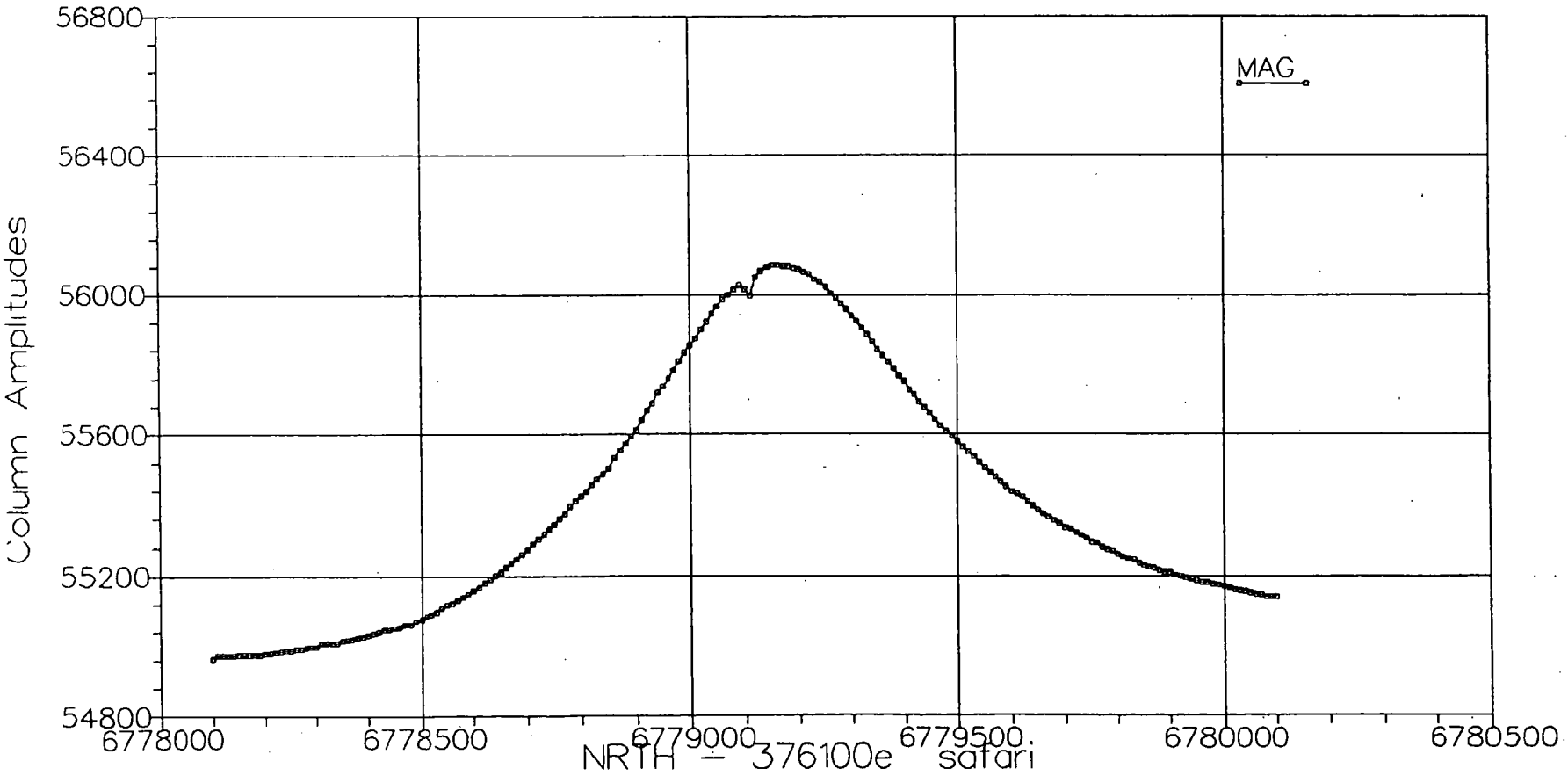
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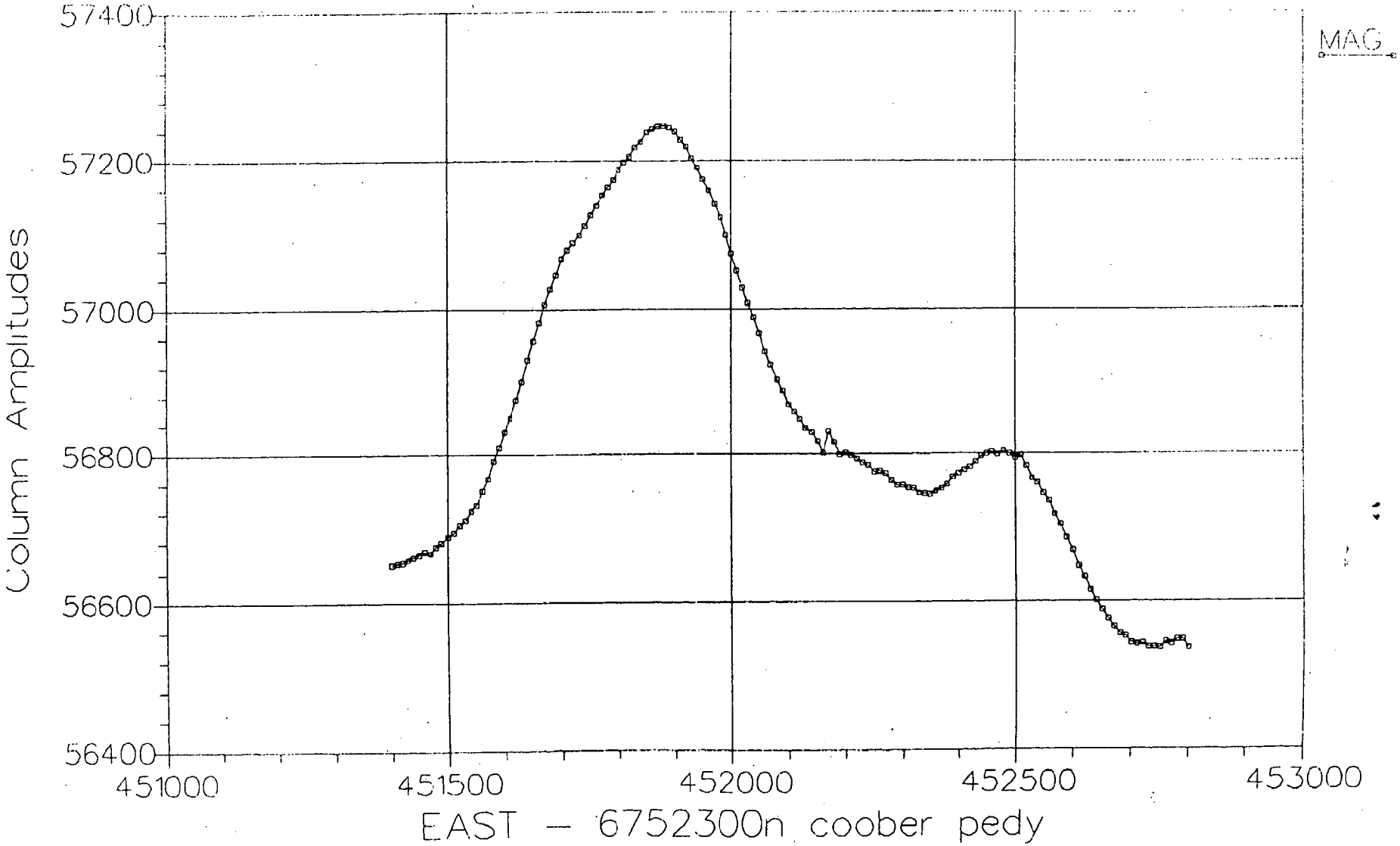
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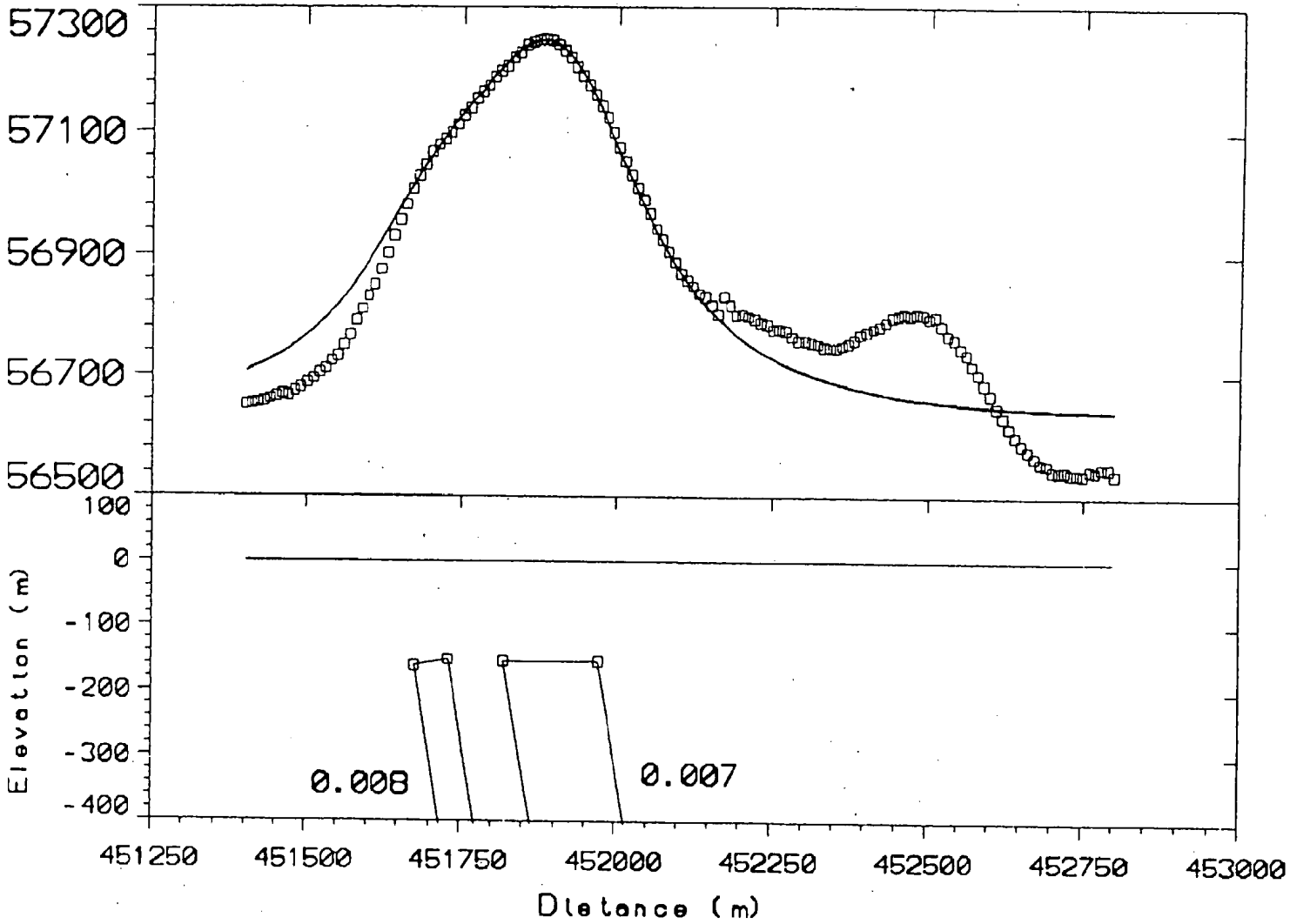

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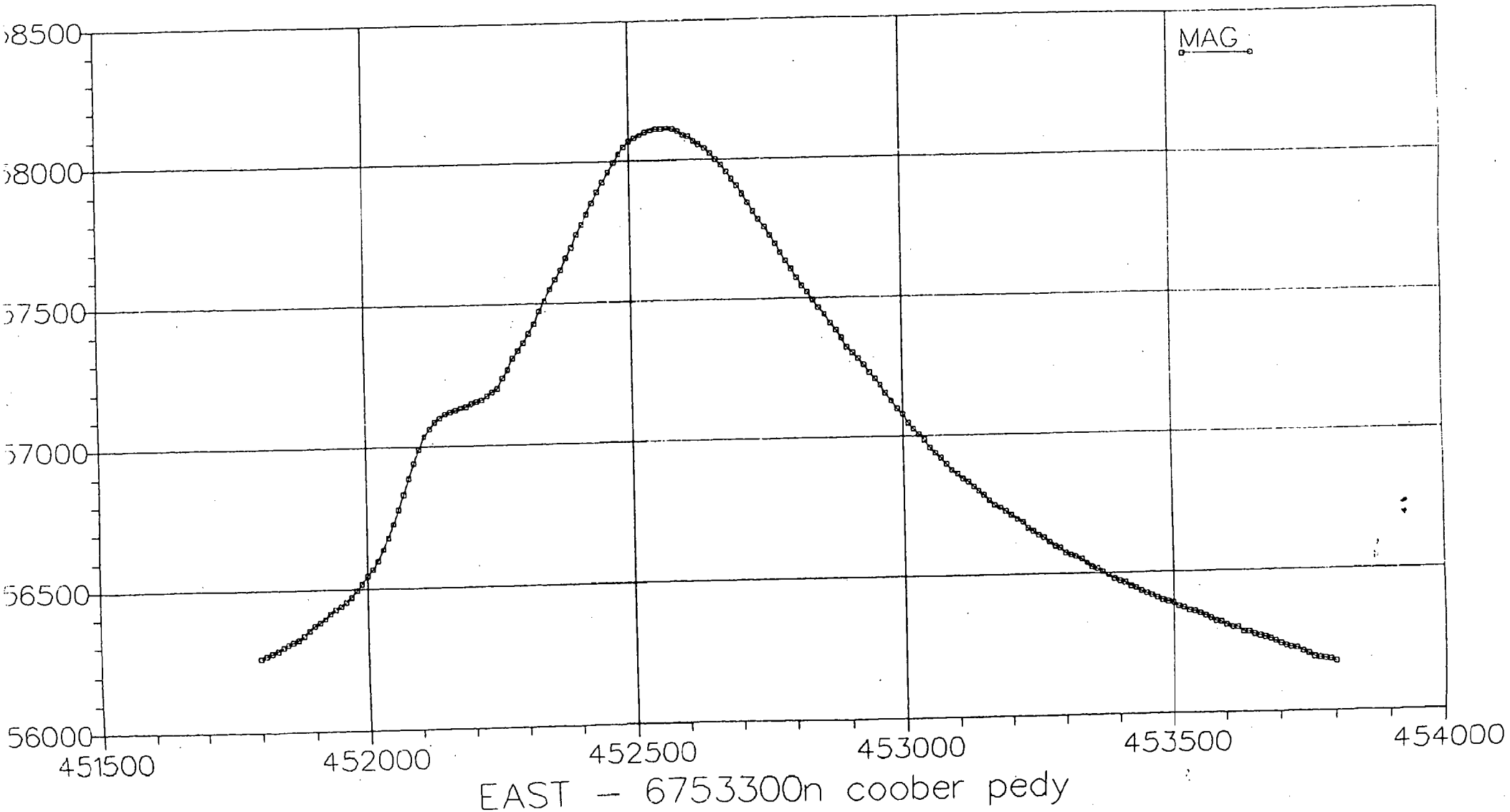
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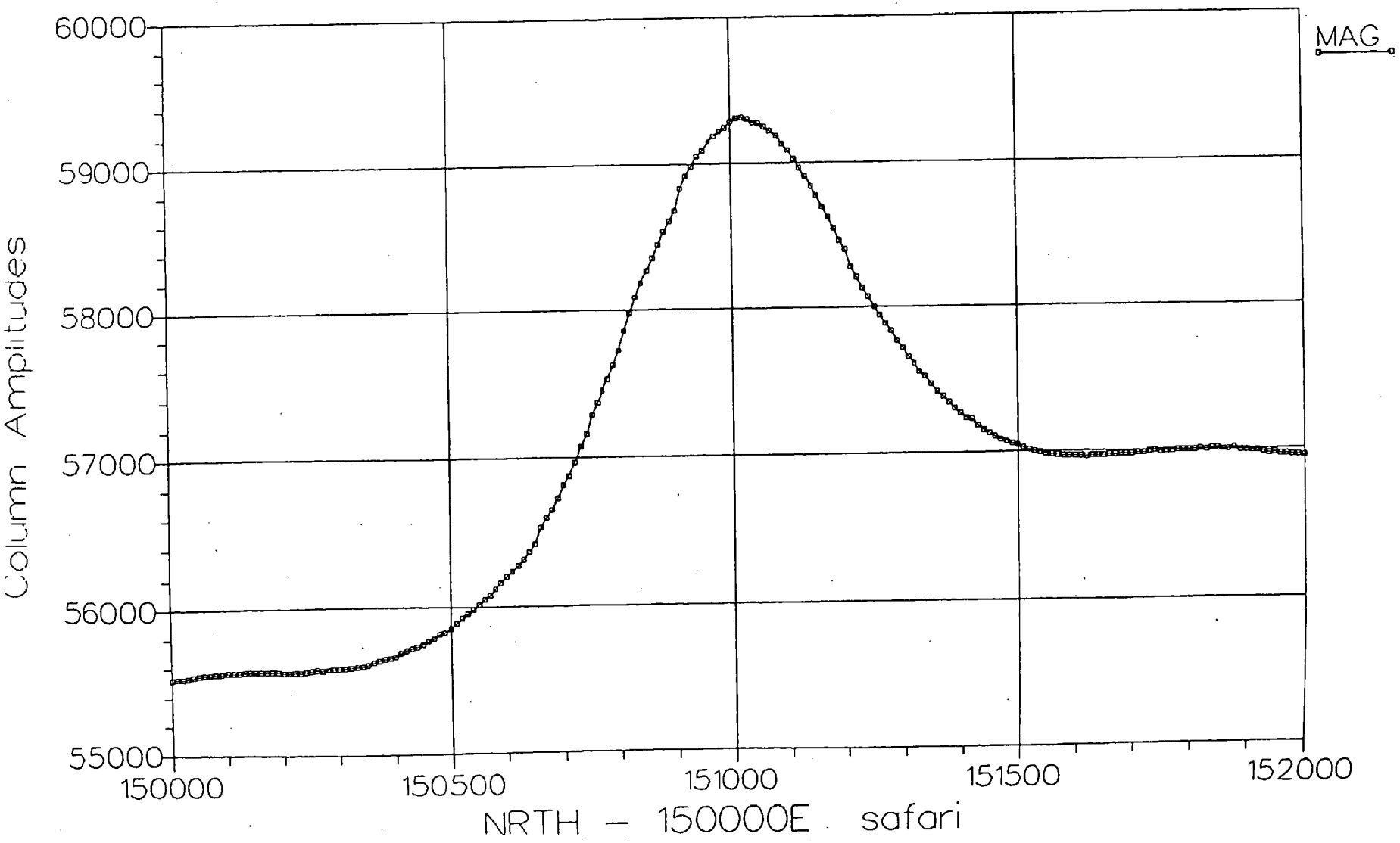
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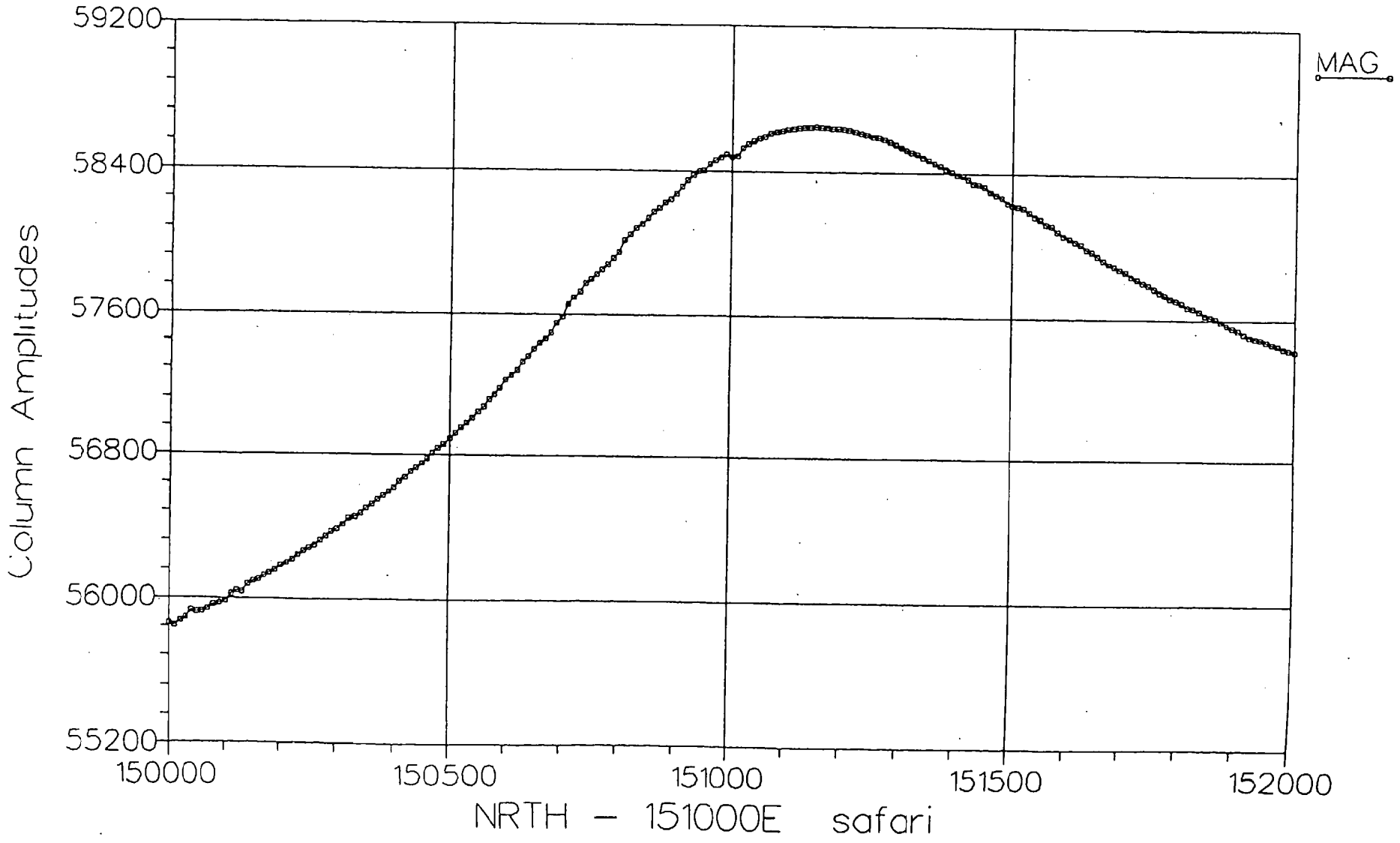
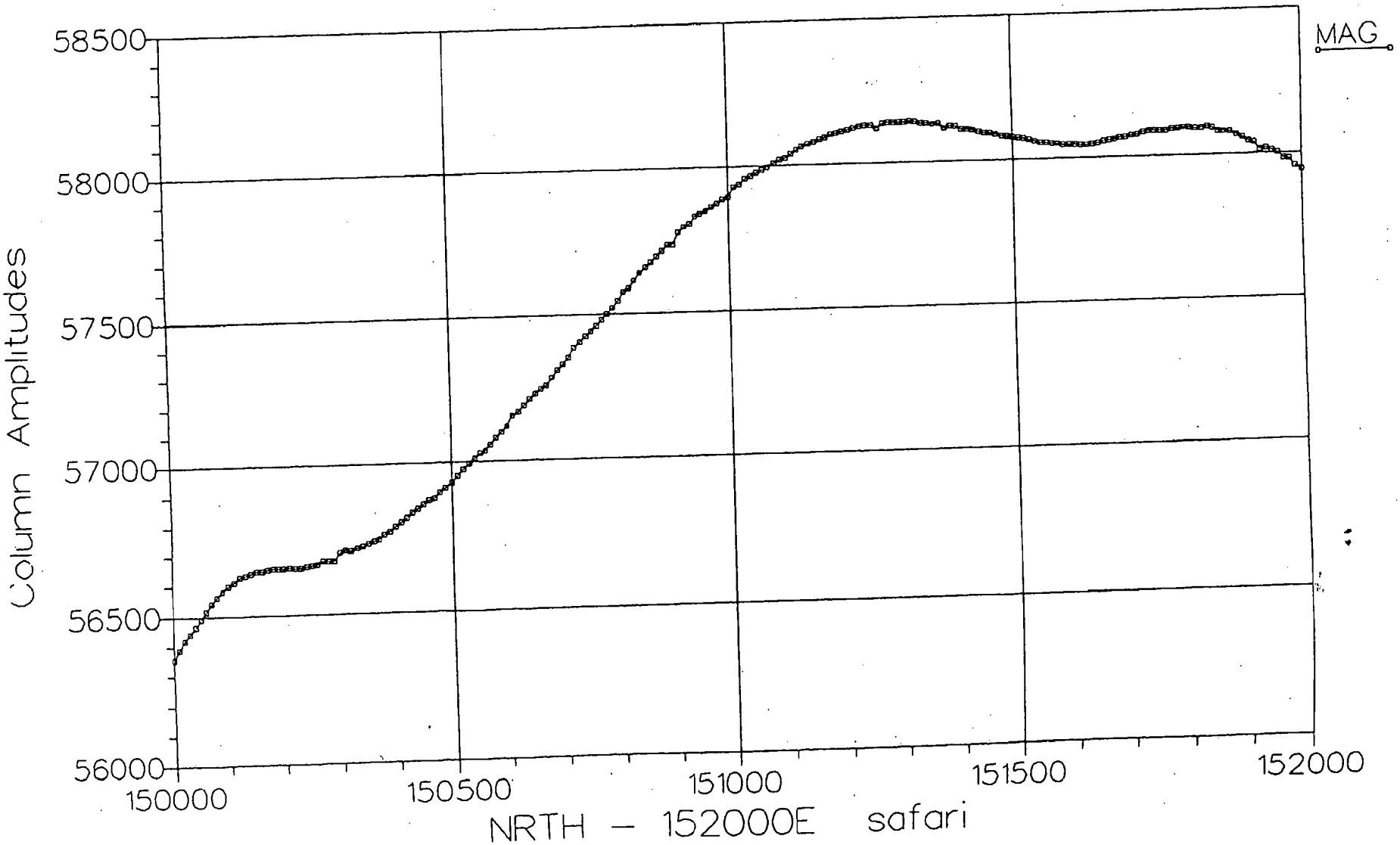
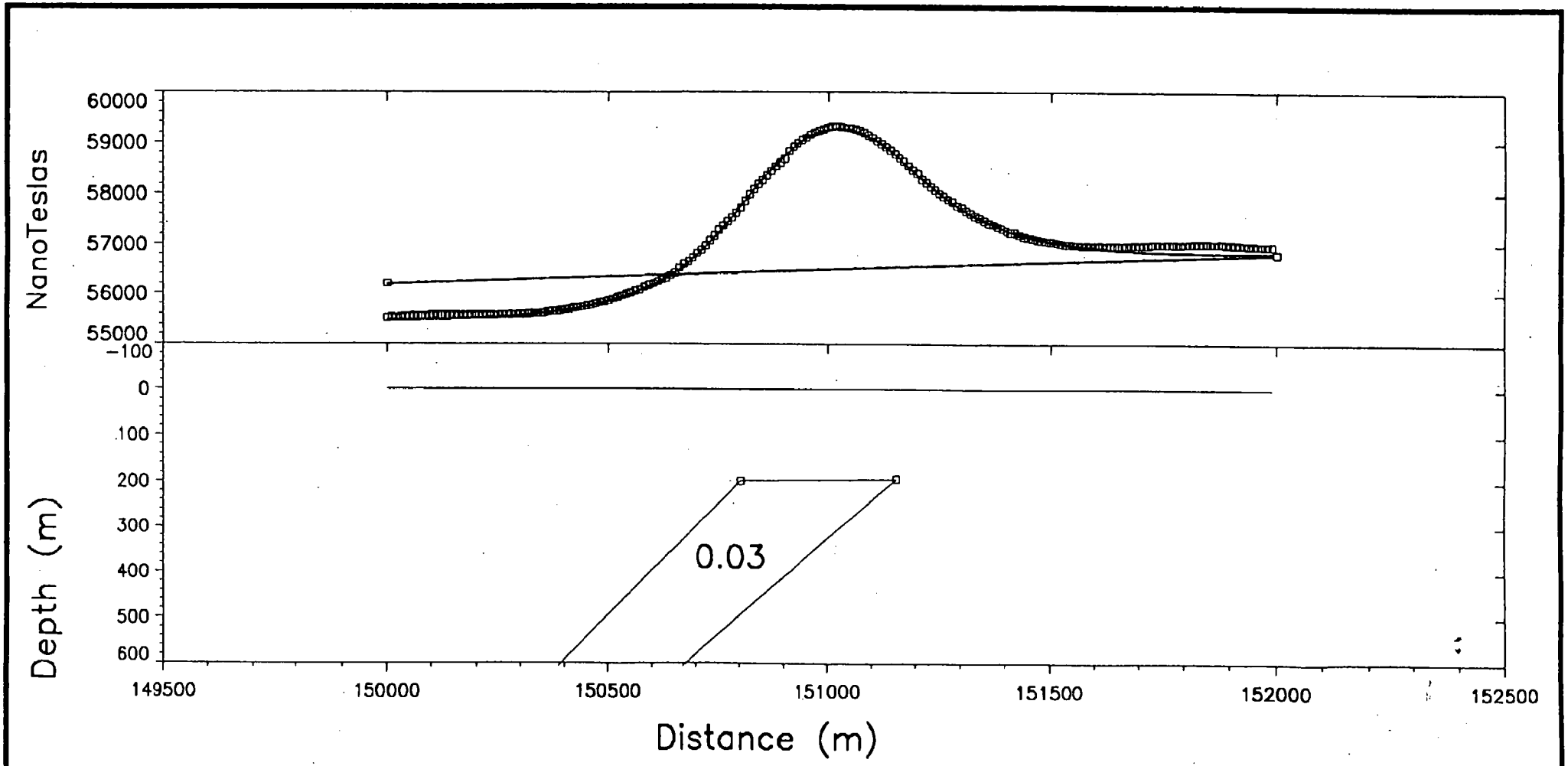
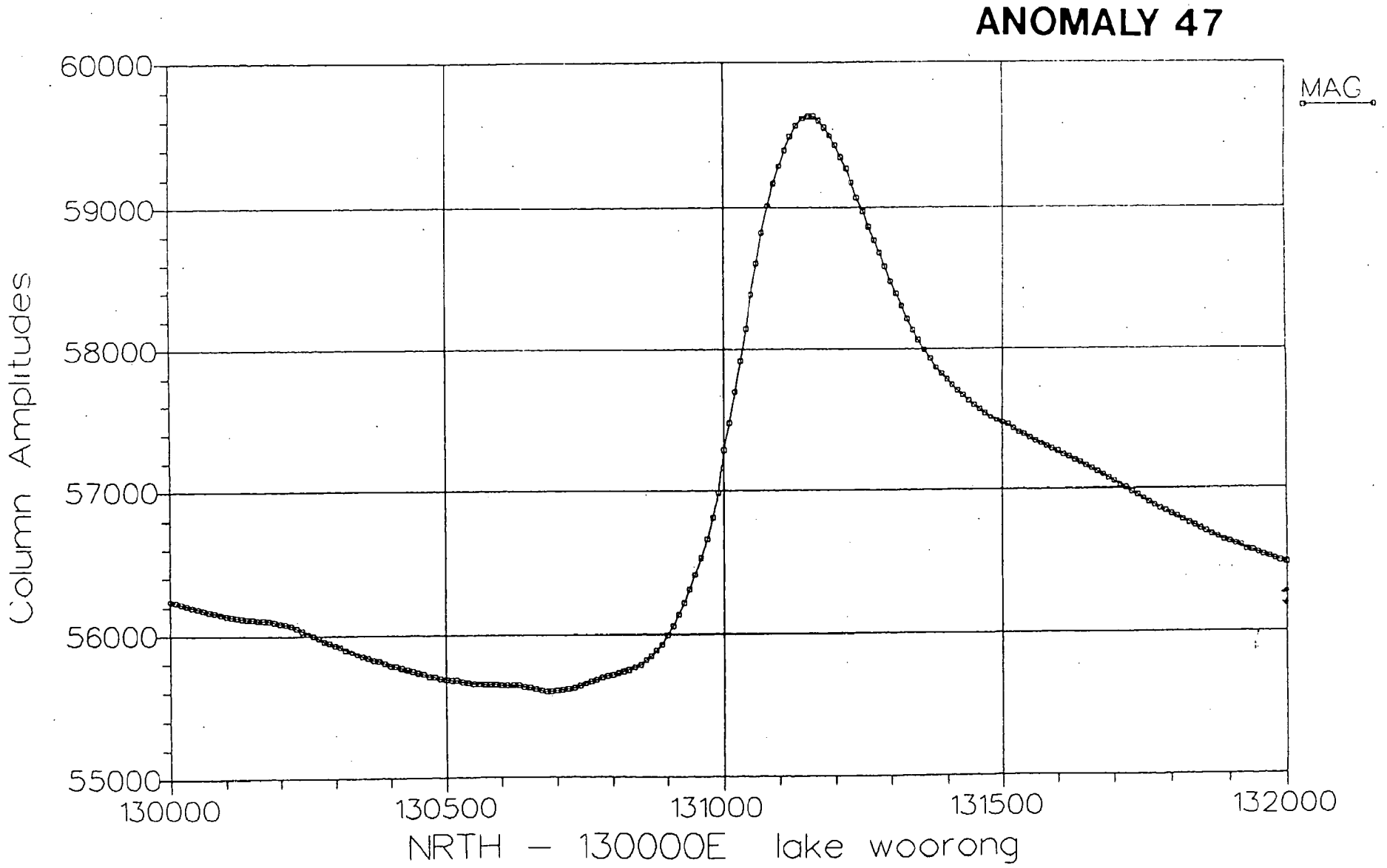
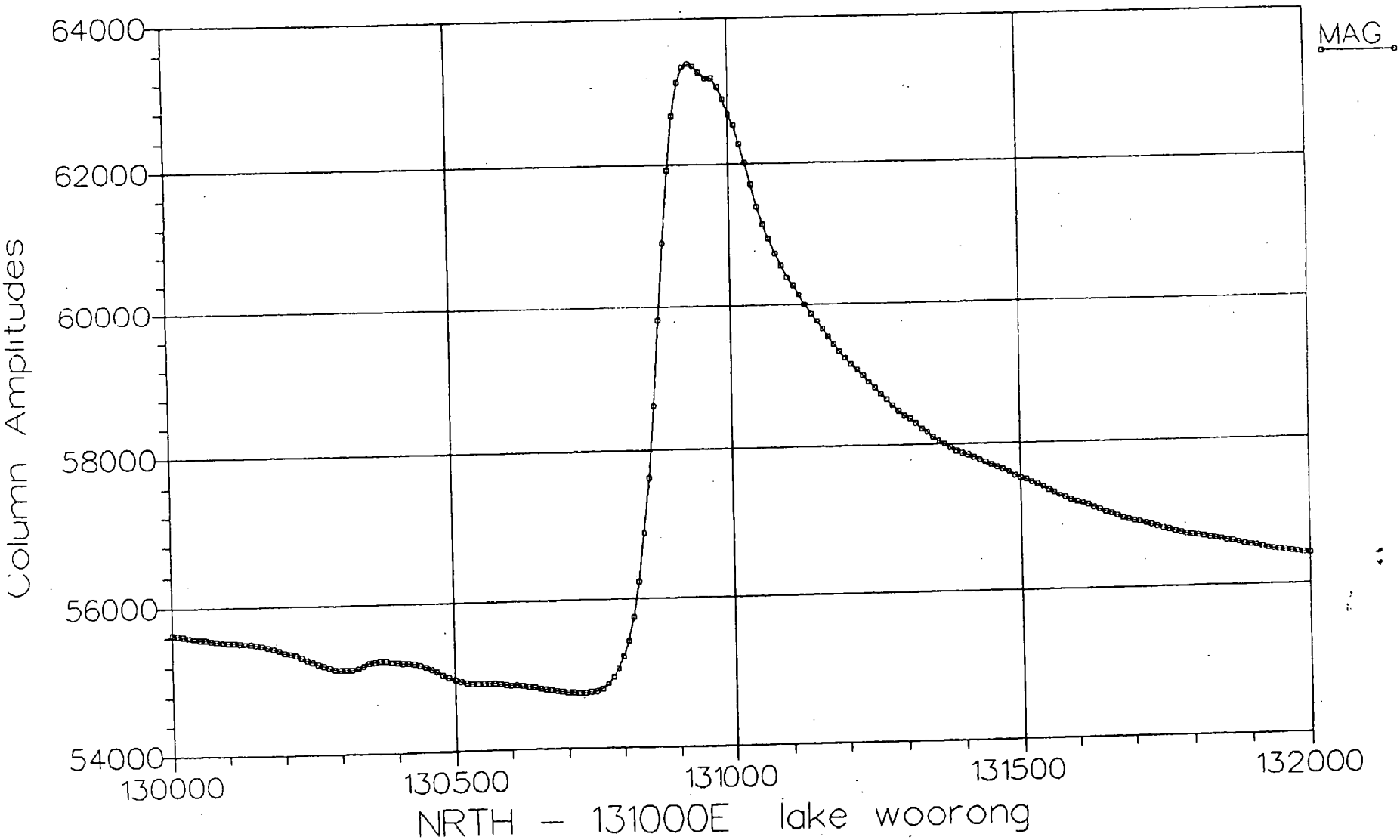

59200
58400
57600
56800
56000
55200
Column Amplitudes
150000
150500
151000
151500
152000
NRTH – 151000E safari
MAG

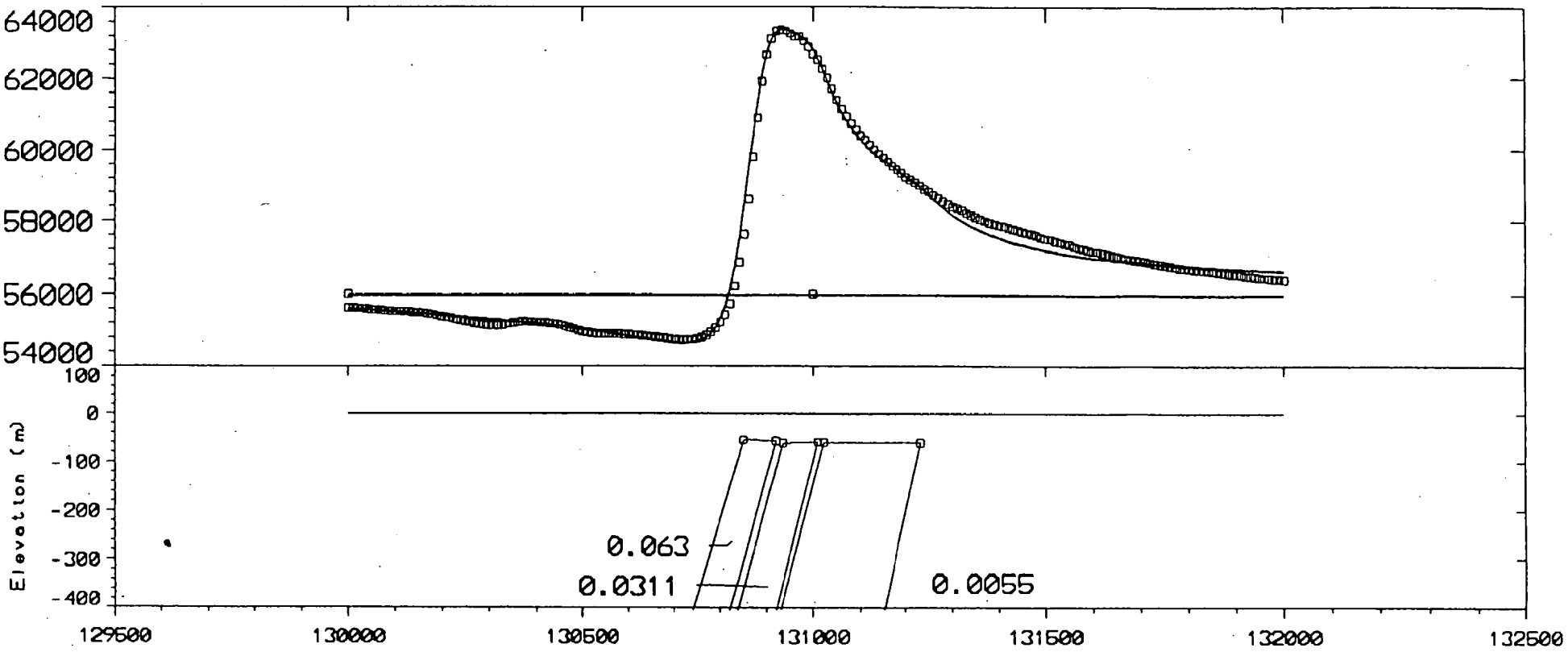

MAG
58500
58000
57500
57000
56500
56000
Column Amplitudes
150000
150500
151000
151500
152000
NRTH – 152000E safari



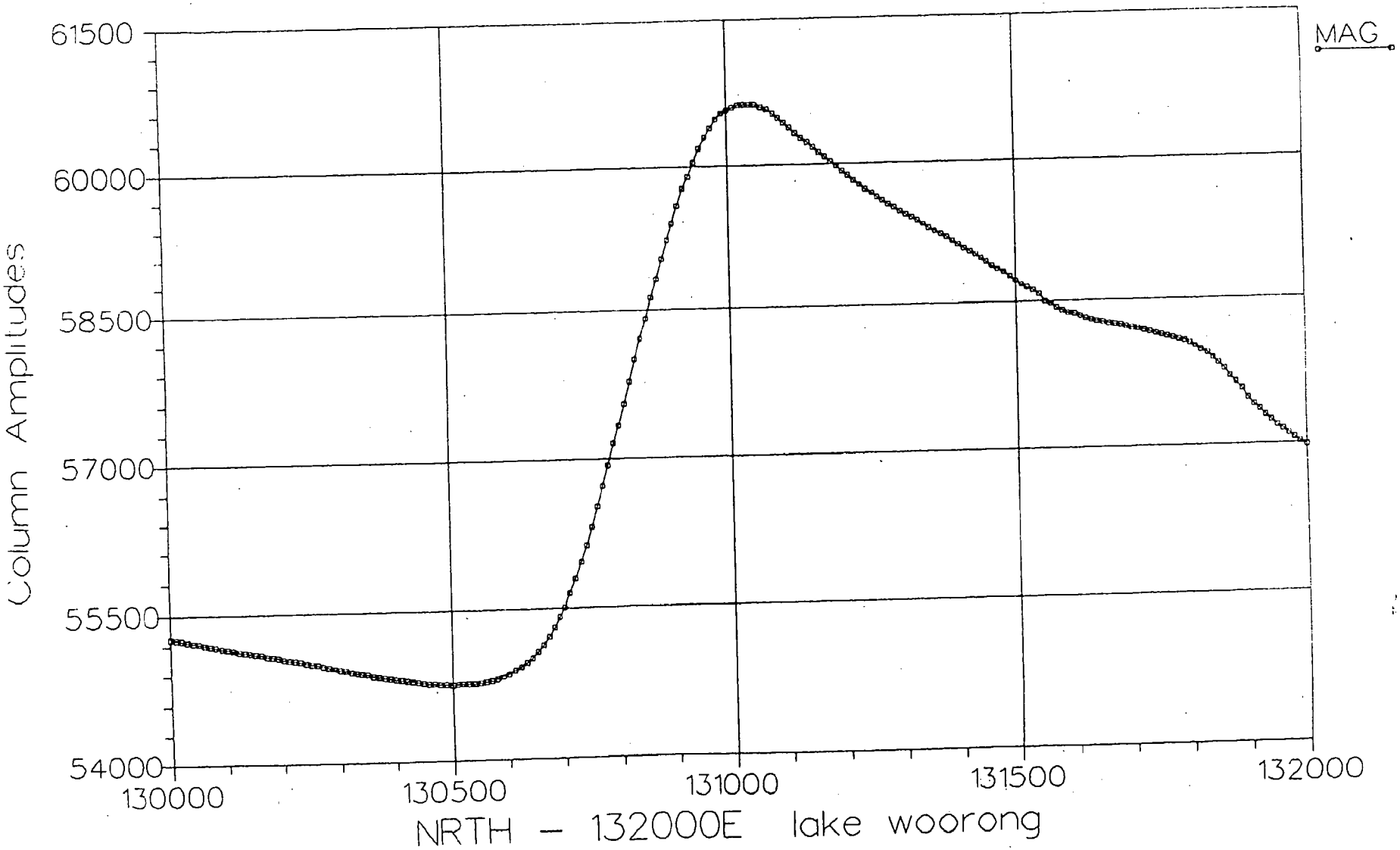
Inducing field : 56000. nt Inclination : −61.00 deg Strike Direction : 270.00 deg Profile Direction : 360.00 deg All Directions are Clockwise from Magnetic North	for: BHP MINERALS by: BHP Minerals, Ltd. Data Set: 150000E — Date: MAY 1992 Scale: 1:10000 — Profile: 15000	SOUTH AUSTRALIA ANOMALY 46 LINE 150000E COOBER PEDY RIDGE Vertical Exaggeration: 1.00 : 1

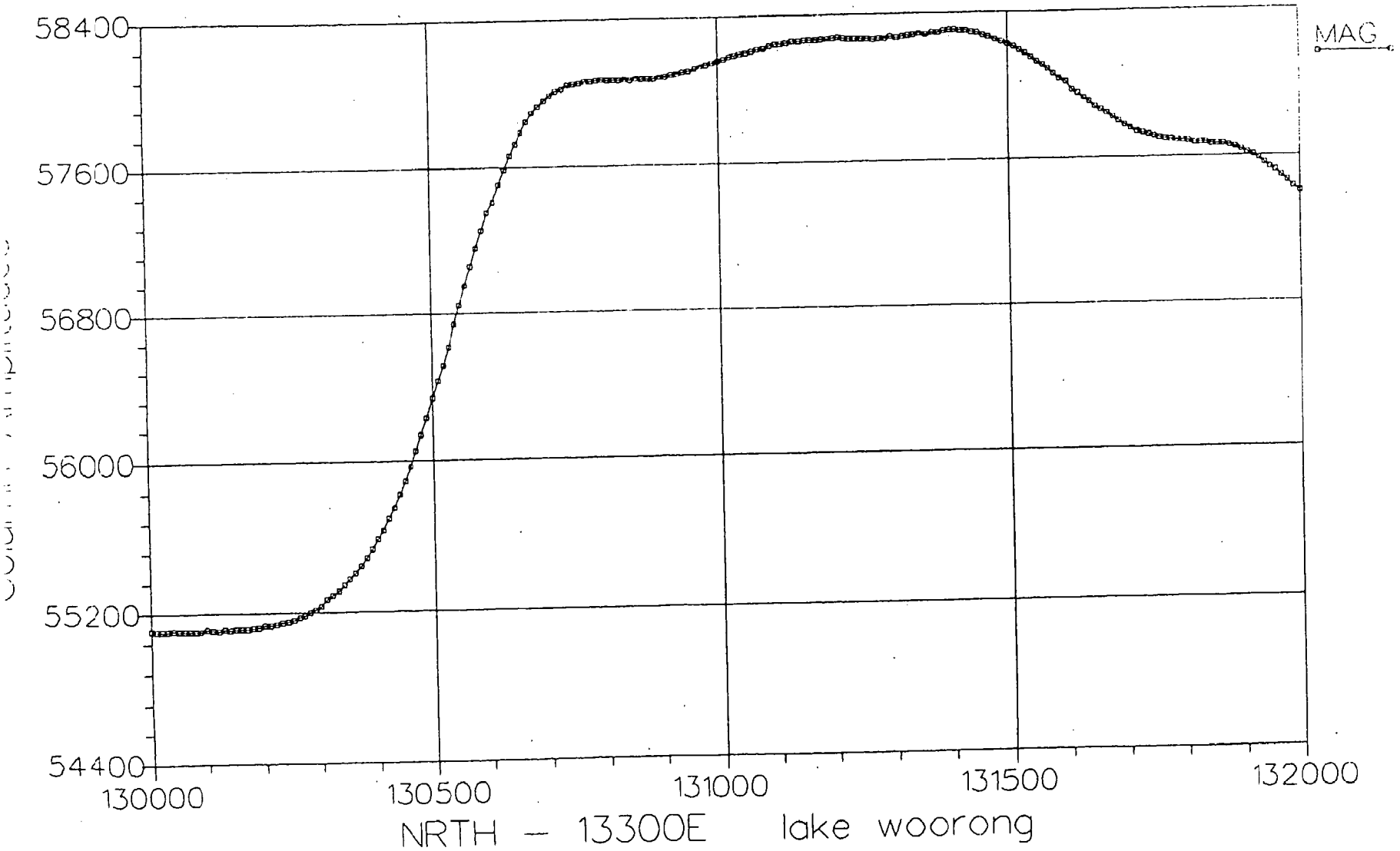

ANOMALY 47
MAG
60000
59000
58000
57000
56000
55000
Column Amplitudes
130000
130500
131000
131500
132000
NRTH — 130000E lake woorong

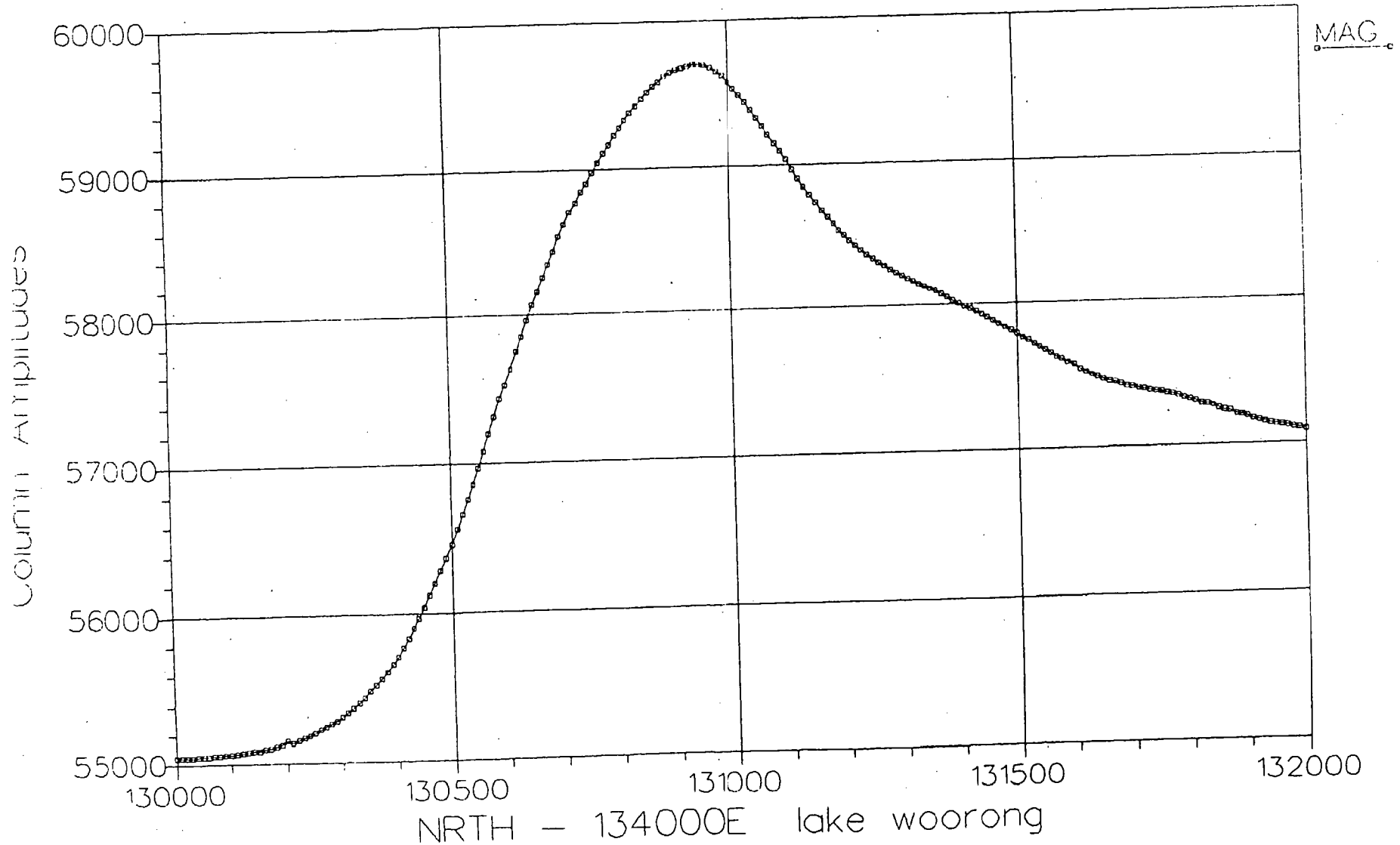

MAG
64000
62000
60000
58000
56000
54000
Column Amplitudes
130000
130500
131000
131500
132000
NRTH – 131000E lake woorong



Inducing field : 56000. nt	BHP Minerals	Coober Pedy Ridge
Inclination : -61.00 deg	by: BHP Exploration	Anomaly 47 : Lake Woorong
Strike Direction : 255.00 deg	Data Set: 131000E / Date: JUNE 1992	
Profile Direction : 345.00 deg	Scale: 1:10000 / Profile:	Vertical Exaggeration: 1.00 : 1
All Directions are Clockwise from Magnetic North		

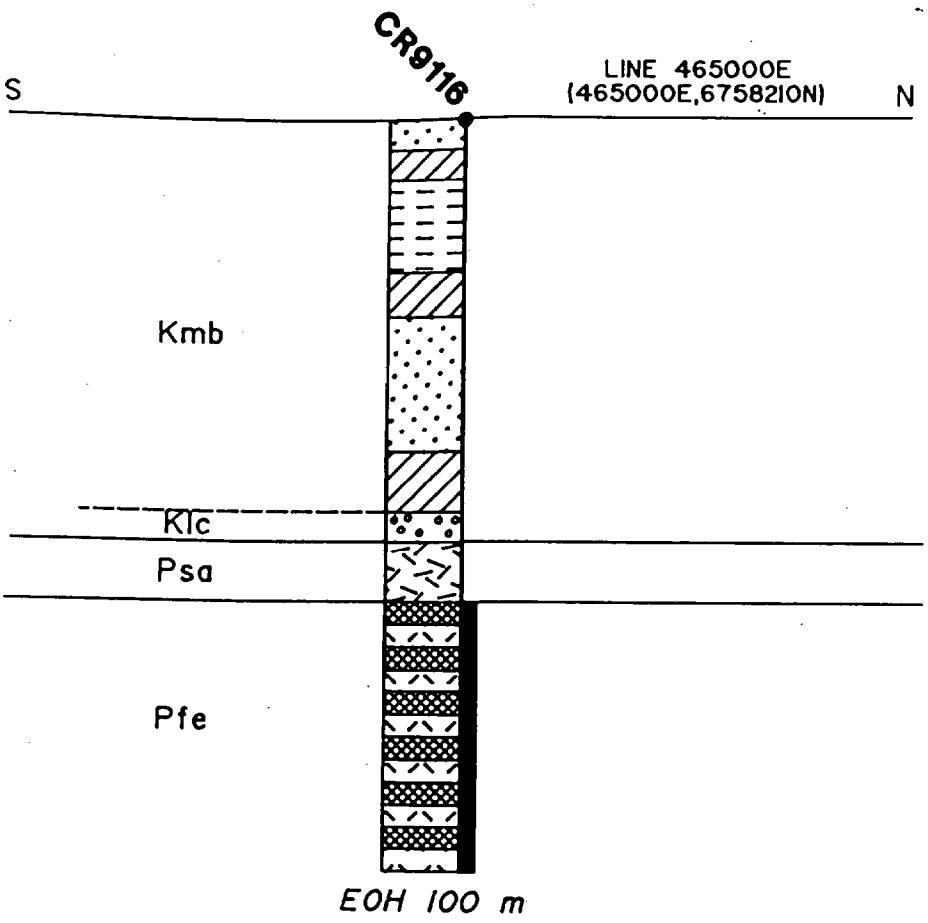

MAG
61500
60000
58500
57000
55500
54000
Column Amplitudes
130000
130500
131000
131500
132000
NRTH – 132000E lake woorong


58400
57600
56800
56000
55200
54400
130000
130500
131000
131500
132000
MAG
NRTH – 13300E lake woorong


60000
59000
58000
57000
56000
55000
MAG
130000
130500
131000
131500
132000
NRTH – 134000E lake woorong

APPENDIX 2

GRAPHIC DRILL LOGS



LEGEND

CRETACEOUS

Kmb — BULLDOG SHALE
Ferruginous red unconsolidated sand
Sandy yellow clay
Tan clayey quartz siltstone

Klc — CADNA-OWIE FORMATION
Sandy quartz gravel

EARLY PROTEROZOIC

Psa — *Weathered quartz feldspar biotite arenite.*

Pfe — MT WOODS FORMATION
Quartz magnetite orthopyroxene clinopyroxene apatite BIF (phosphatic BIF)

Magnetic section of drill hole

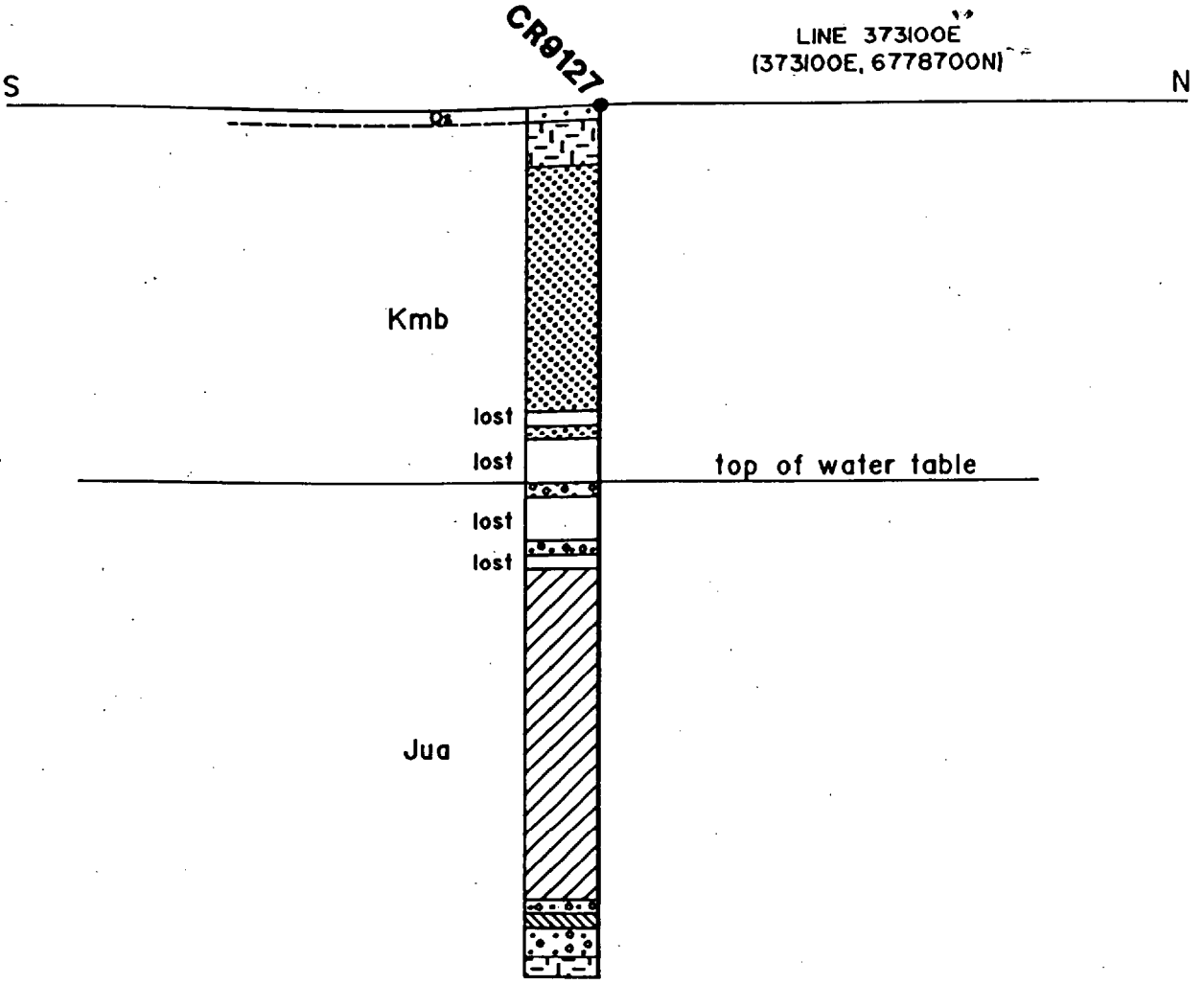
Scale 1:1000
0 20 40 60 80 metres

Date drilled : 19/9/91

Prepared: J. Read
Drawn: F Barlow

BHP Minerals (Asia Pacific Division)

Prof. No.: FK4



LEGEND

QUATERNARY Qs — *Ferruginous quartz sand*

CRETACEOUS Kmb — BULLDOG SHALE
Cherty quartz sandstone
Medium grained ferruginous tan quartz sand

JURASSIC Jua — ALGEBUCKINA SANDSTONE
Medium grey clayey sand
Light grey sandy clay
Medium grey sandy clay
Quartz sandstone

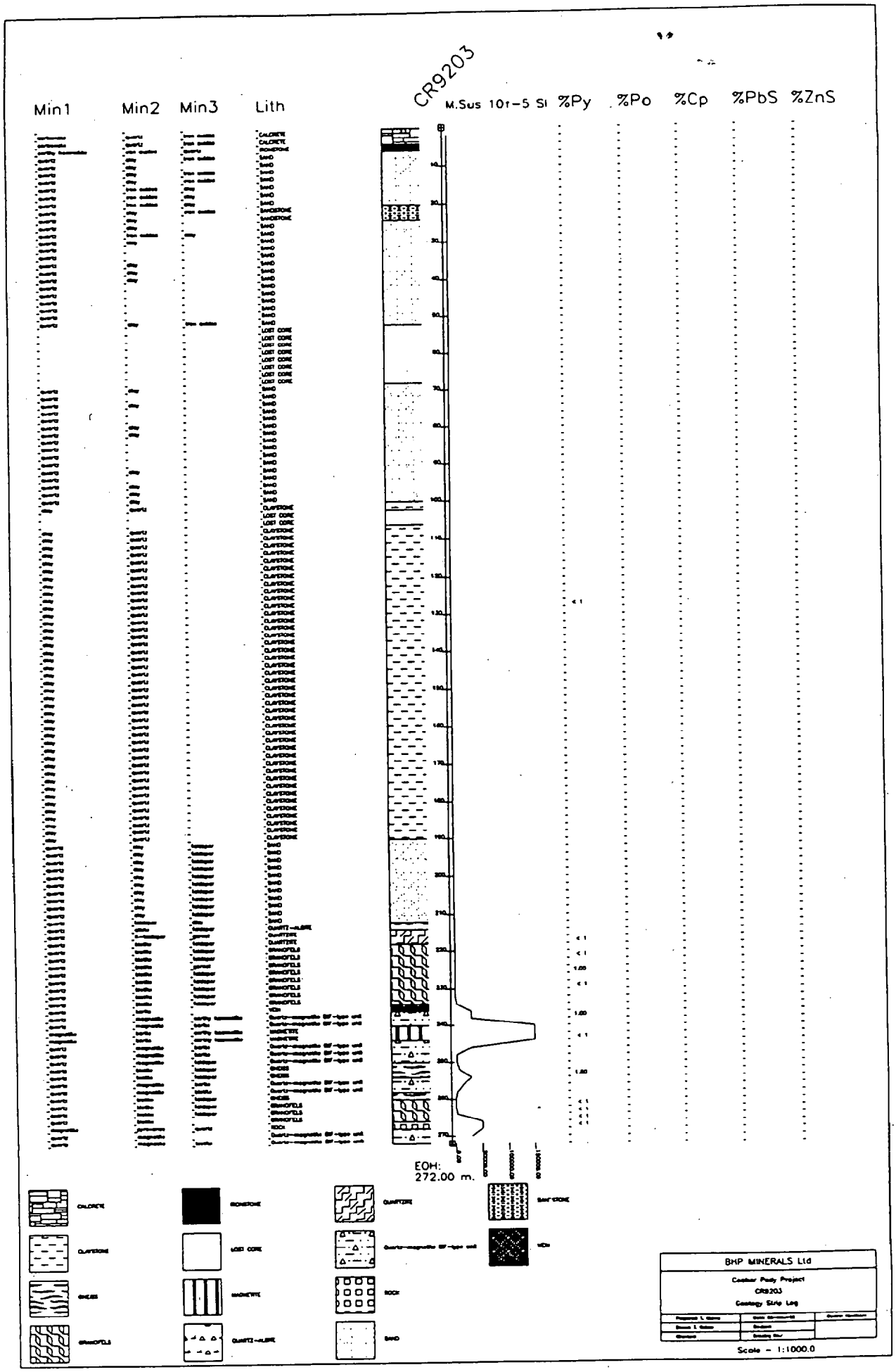
Scale 1:1000
0 20 40 60 80 metres

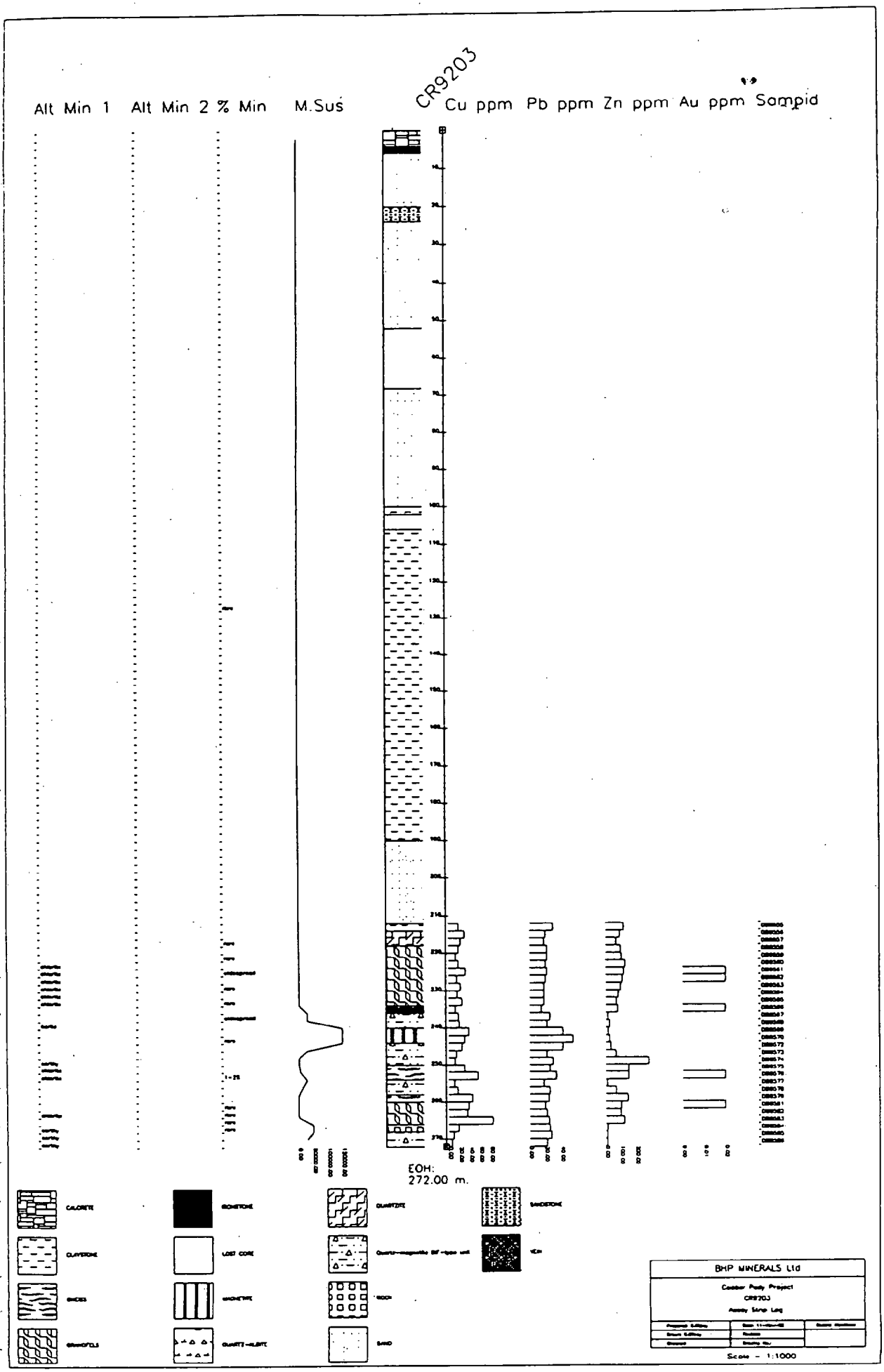
Date drilled : 23/10/91

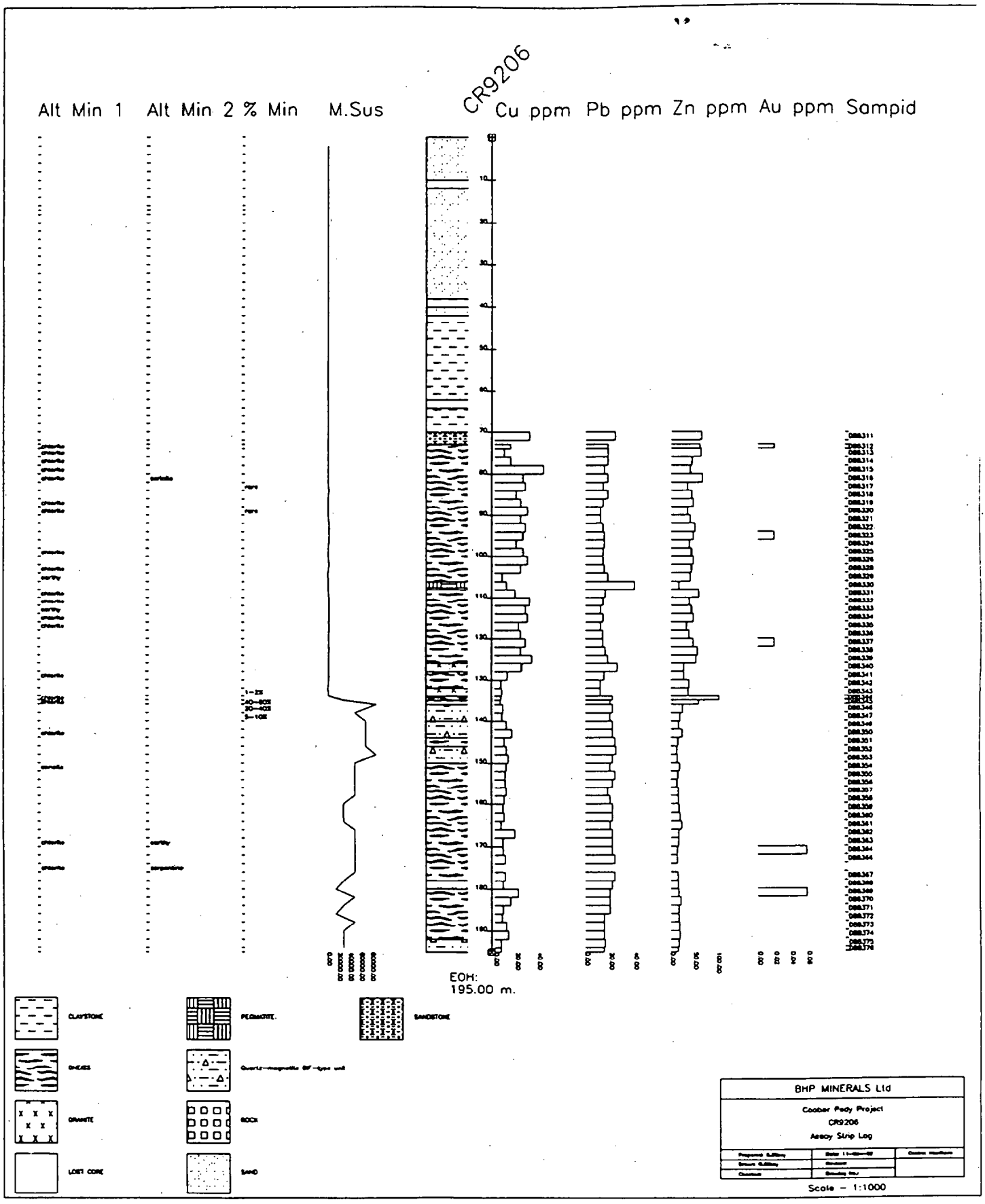
Prepared: J. Read
Drawn: F. Barlow

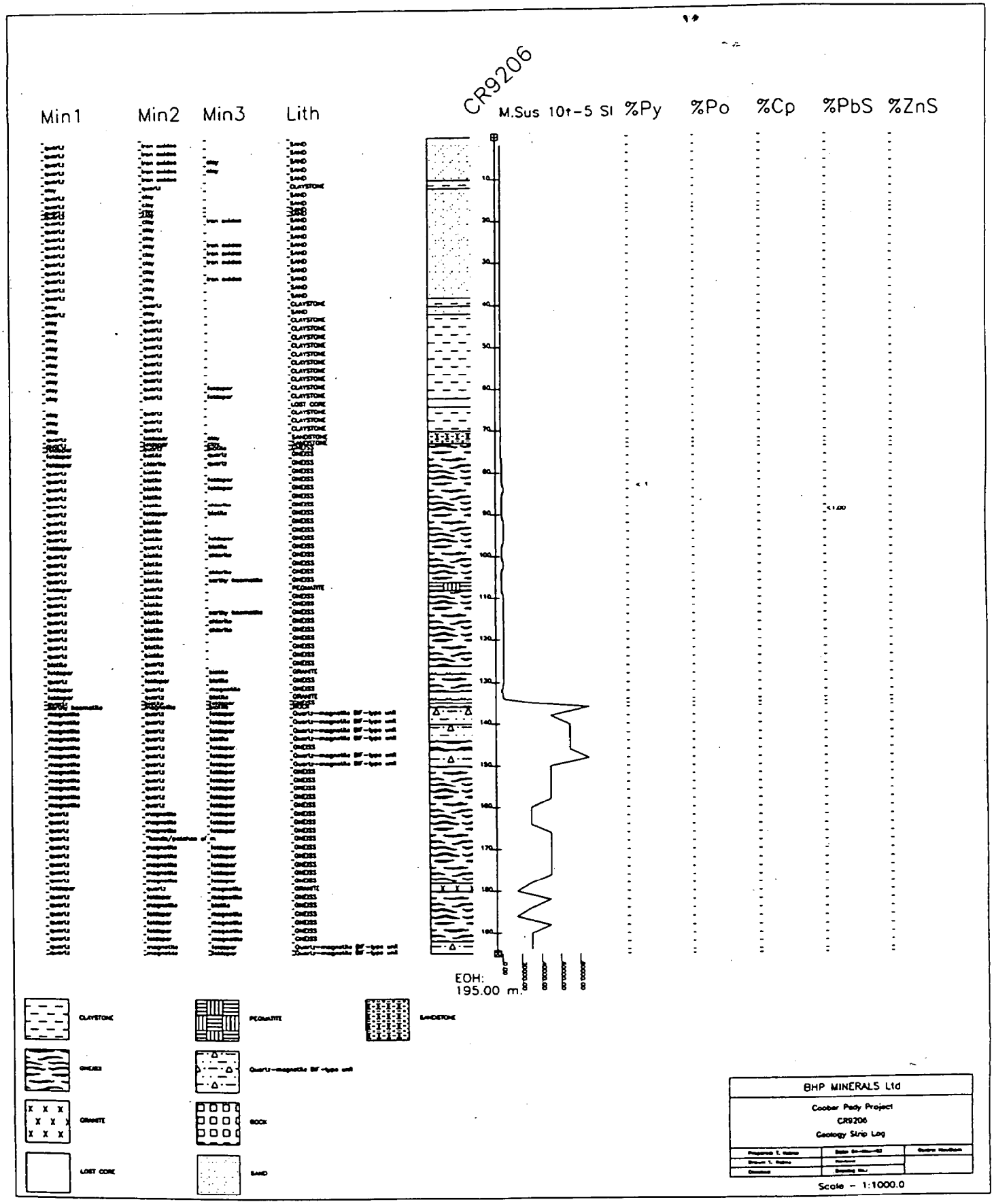
BHP Minerals (Asia Pacific Division)
EL 1718, SAFARI. S.A.

Proj. No.: FK4
Drg No.: A4-3182H


CR9203
Min1
Min2
Min3
Lith
M.Sus 10r-5 SI
%Py
%Po
%Cp
%PbS
%ZnS
EOH:
272.00 m.
BHP MINERALS Ltd
Coobar Pady Project
CR9203
Geology Strip Log
Scale - 1:1000.0


CR9203
Alt Min 1
Alt Min 2
% Min
M.Sus
Cu ppm
Pb ppm
Zn ppm
Au ppm
Sampid
EOH:
272.00 m.
CALCRETE
CLAYSTONE
GNEISS
GRANOFELS
IRONSTONE
LOST CORE
MAGNETITE
QUARTZ-HEMATITE
QUARTZITE
SAND
SANDSTONE
VEIN
BHP MINERALS Ltd
Scale - 1:1000


CR9206
Alt Min 1
Alt Min 2
% Min
M.Sus
Cu ppm
Pb ppm
Zn ppm
Au ppm
Sampid
EOH:
195.00 m.
CLAYSTONE
GNEISS
GRANITE
LOST CORE
SANDSTONE
ROCK
SAND
BHP MINERALS Ltd
Coober Pedy Project
CR9206
Assay Strip Log
Scale - 1:1000


Min1
Min2
Min3
Lith
CR9206
M.Sus 10⁻⁵ SI
%Py
%Po
%Cp
%PbS
%ZnS
EOH:
195.00 m.
CLAYSTONE
GNEISS
GRANITE
LOST CORE
PEGMATITE
BOCK
SAND
SANDSTONE
BHP MINERALS Ltd
Coober Pedy Project
CR9206
Geology Strip Log
Scale - 1:1000.0

Pontifex & Associates Pty. Ltd.

L. (08) 332 6744
H. (08) 31 3816
X (08) 332 5062

26 KENSINGTON ROAD, ROSE PARK
SOUTH AUSTRALIA

P.O. BOX 91, NORWOOD
SOUTH AUSTRALIA 5067

MINERALOGICAL REPORT NO. 6186

by A.C. Purvis, PhD

September 17th, 1992

TO:	D.J. Gilbert B.H.P. Minerals 801 Glenferrie Rd HAWTHORN VIC 3122
YOUR REFERENCE:	Your letter dated 28/7/92
MATERIAL:	Percussion drill chip samples
IDENTIFICATION:	MRL 24099 to 24109, CR9204 to CR9205, CR9206, CR9208
WORK REQUESTED:	Initially preparation only of composite polished thin sections; later phone request to provide petrographic, mineragraphic descriptions and report.
SAMPLES & SECTIONS:	Returned to you with this report.

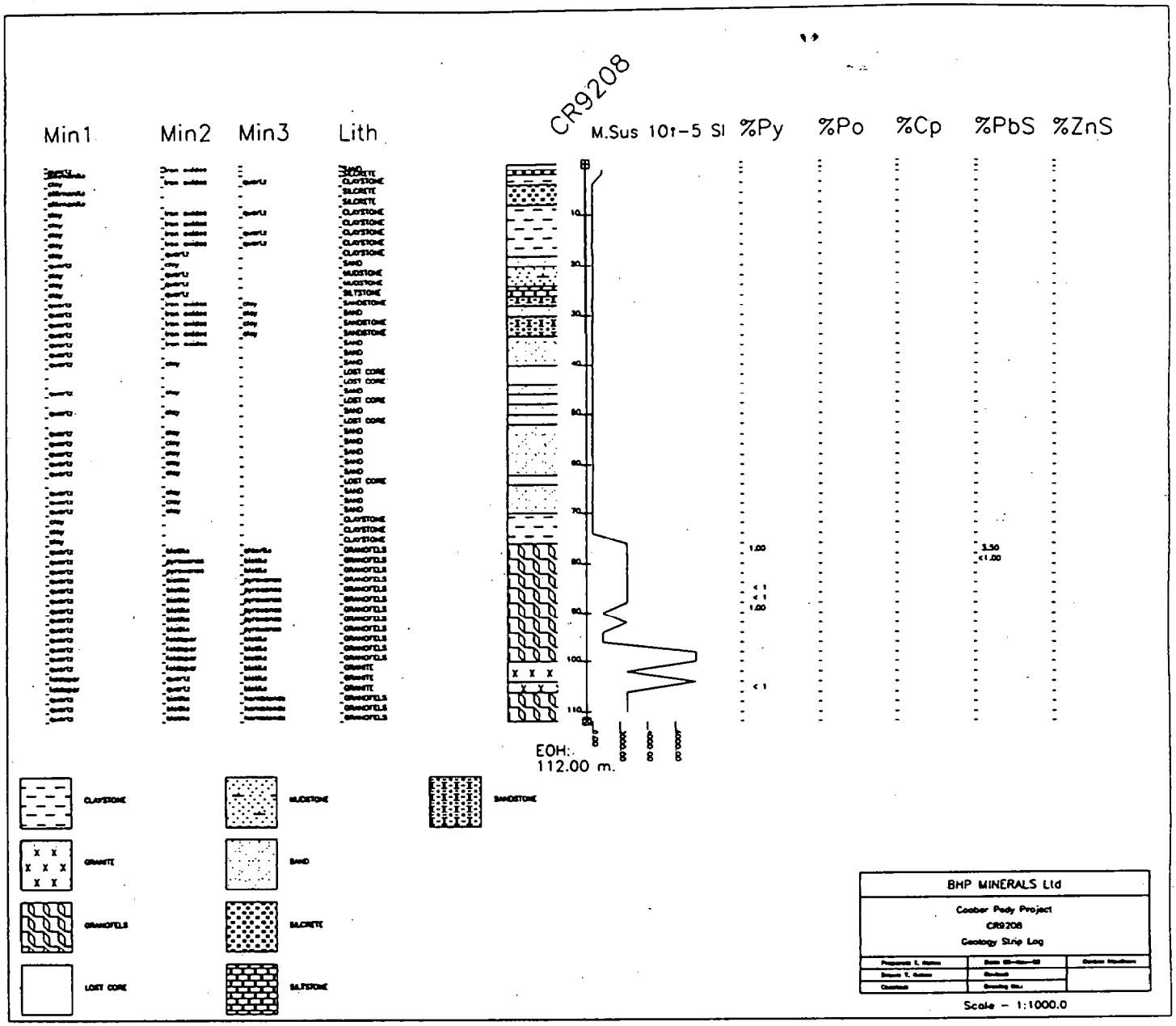
PONTIFEX & ASSOCIATES PTY LTD

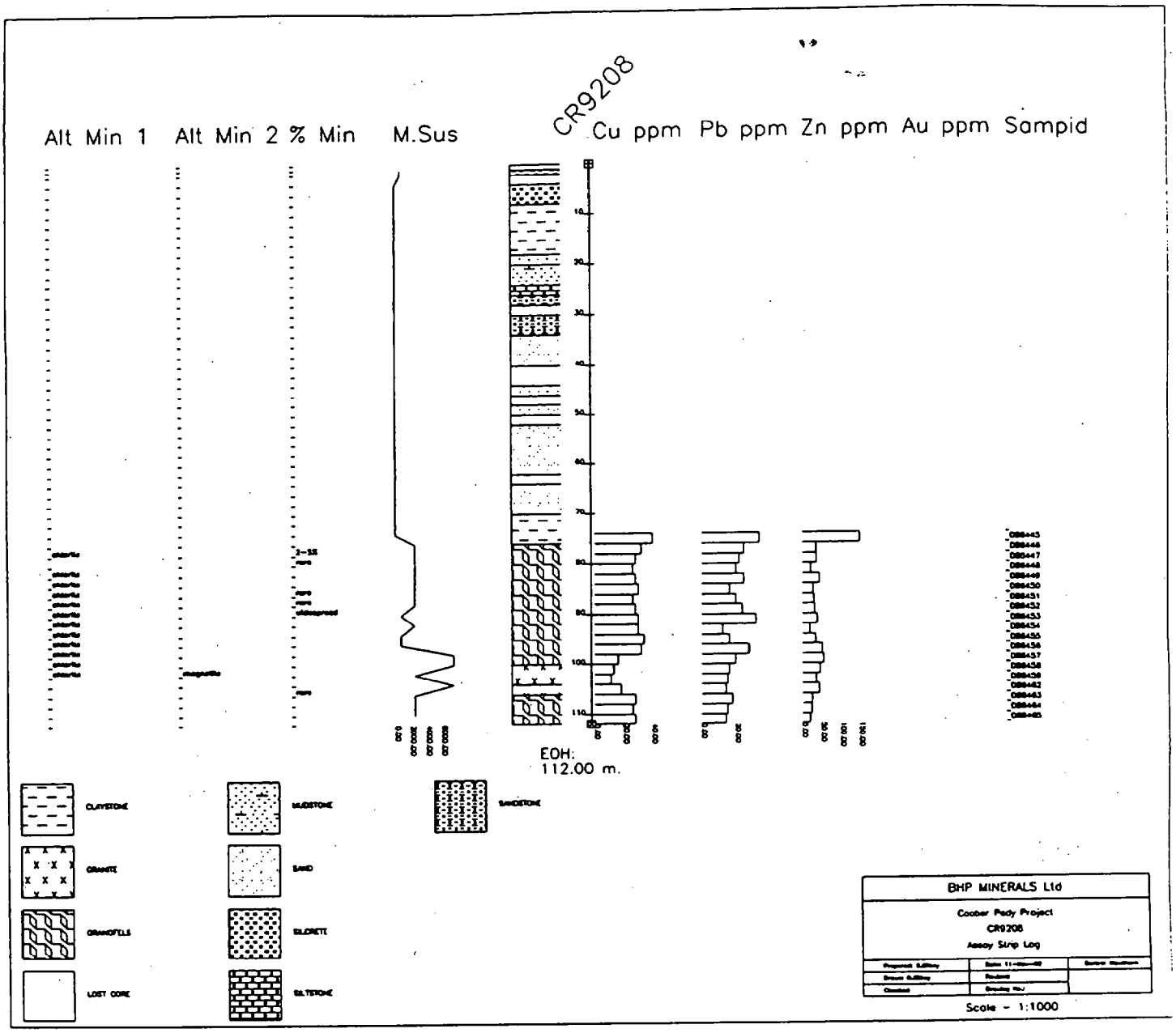
MRL 24107
CR 9206, 136-138m

Magnetite-apatite facies impure BIF with quartz, orthoclase, plagioclase, fresh to altered orthopyroxene and biotite.

Complex oxide lenses enclosing fresh to chlorite ± carbonate altered orthopyroxene crystals and minor to abundant granular apatite, are abundant in this rock. The host rock is rich in coarse quartz with moderately abundant orthoclase and minor plagioclase. Partial rims of plagioclase enclose some of the oxide-sulphide lenses and there are inclusions of hercynite in the magnetite. Fine to coarse biotite (to 4mm grain size) occurs in some of the chips.

Fresh to partly oxidised coarse magnetite is the dominant opaque mineral with minor titanhematite containing ex-solution lamellae of ilmenite.


CR9208
Min1
Min2
Min3
Lith
M.Sus 10t-5 SI
%Py
%Po
%Cp
%PbS
%ZnS
EOH:
112.00 m.
CLAYSTONE
GRANITE
GRANOFELS
LOST CORE
MUDSTONE
SAND
SILCRETE
SILTSTONE
SANDSTONE
BHP MINERALS Ltd
Coober Pedy Project
CR9208
Geology Strip Log
Scale - 1:1000.0



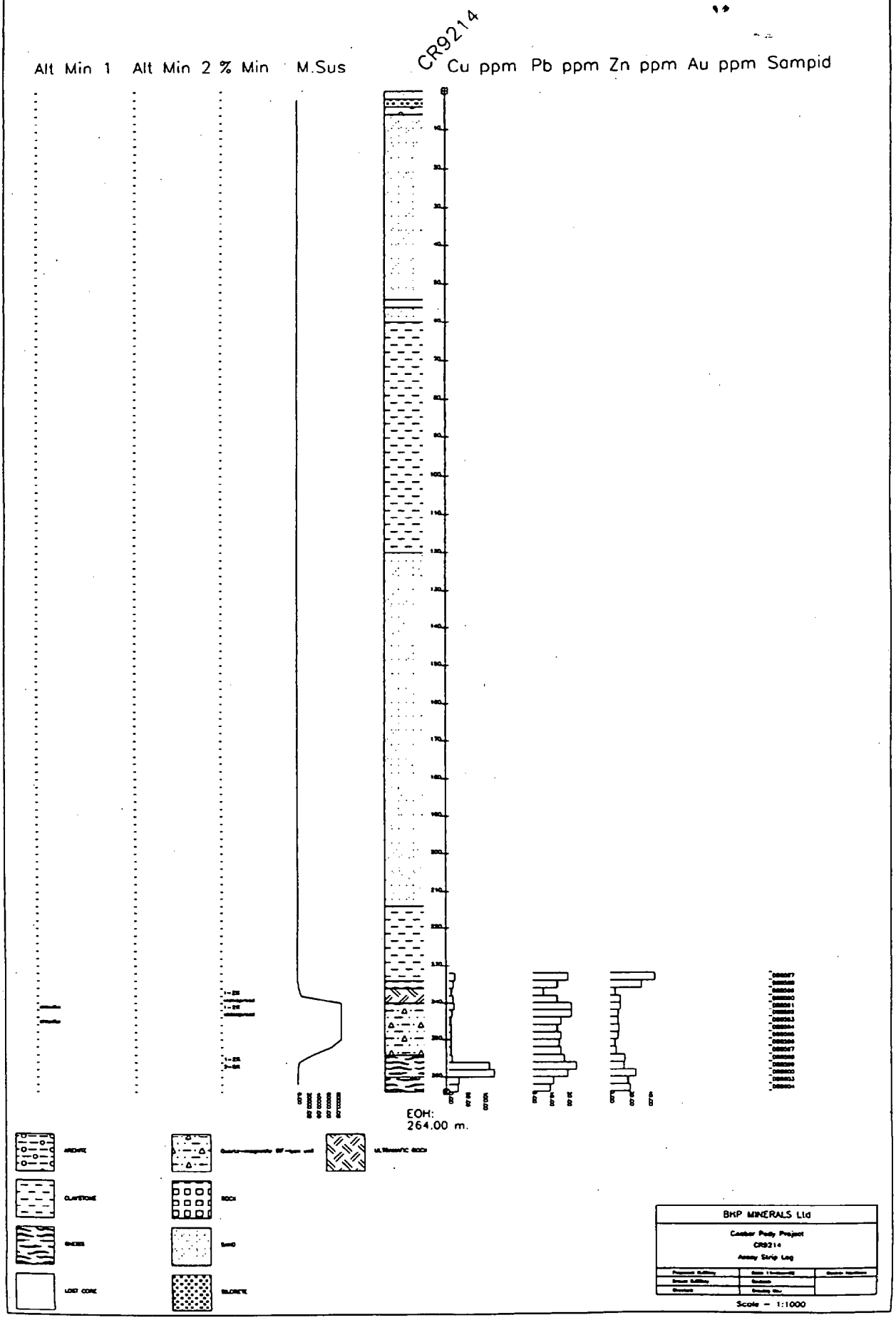
BHP MINERALS Ltd

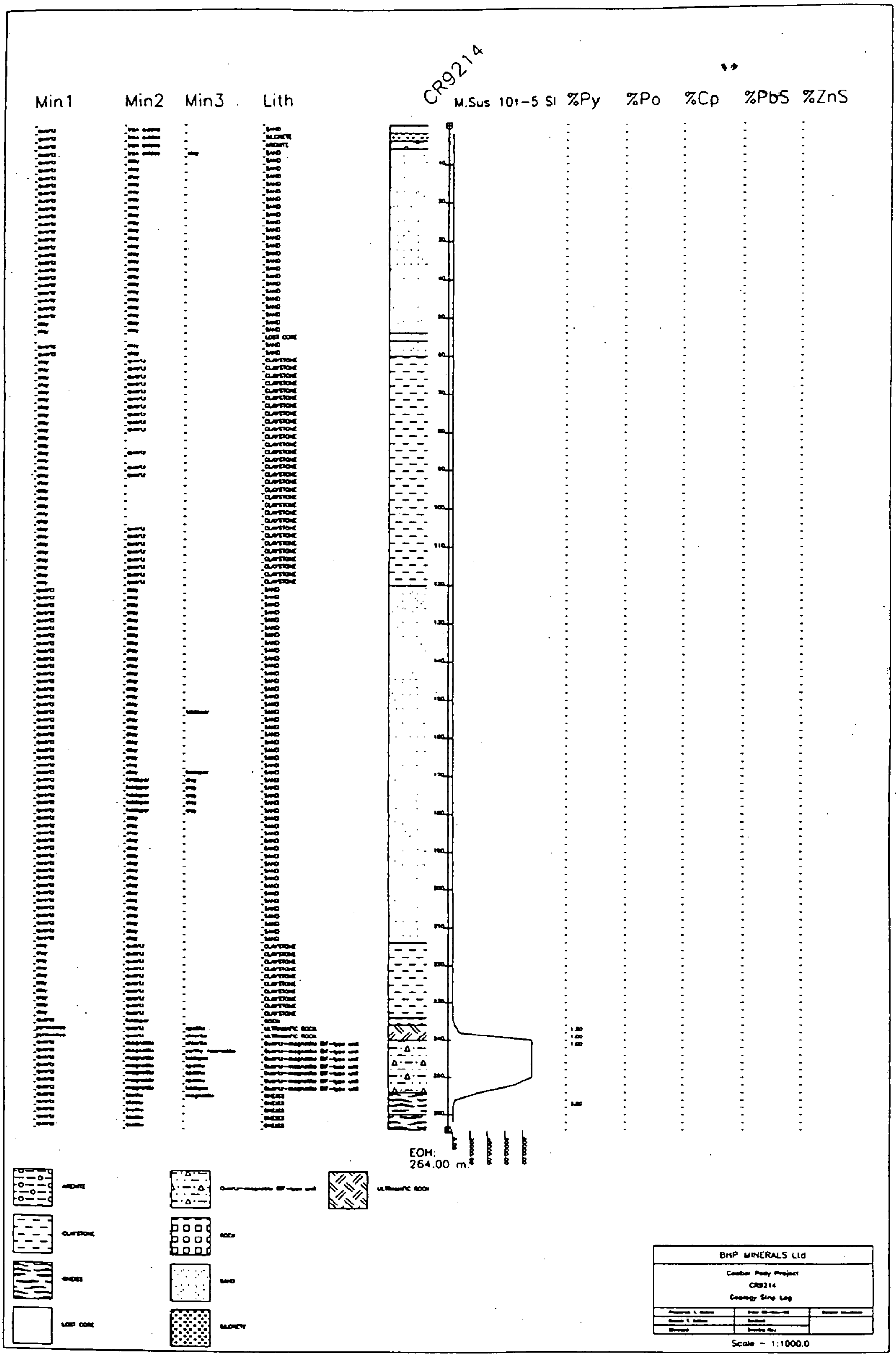
Coober Pedy Project

CR9208

Assay Strip Log

Scale - 1:1000


Alt Min 1
Alt Min 2
% Min
M.Sus
CR9214
Cu ppm
Pb ppm
Zn ppm
Au ppm
Sampid
EOH:
264.00 m.
ARGILLITE
CLAYSTONE
GNEISS
LOST CORE
ROCK
SAND
GRAVELS
ULTRAMAFIC ROCK
BHP MINERALS Ltd
Cadoux Pody Project
CR9214
Assay Strip Log
Scale - 1:1000



CR9214
Min1
Min2
Min3
Lith
M.Sus 10↑-5 SI
%Py
%Po
%Cp
%PbS
%ZnS
EOH:
264.00 m.
BHP MINERALS Ltd
CR9214
Scale - 1:1000.0

APPENDIX 3

DESCRIPTIVE DRILL LOGS

BHP Minerals - Southern Proterozoic Logsheet

t : COOBER PEDY RIDGE Hole Name : CR91016 Hole Length : 100 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
g : 465000 Northing : 6758210 Amg Zone : 53
de : -29.304541 Longitude : 134.639598 Surface Rl : 170 Coord Reliability : TAPE
h : 355 Inclination : -90

From - To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0 2		clayey ferruginous SAND	quartz clay	Medium light Red					
2 4		ferruginous clayey SAND	quartz clay	Medium Red					
4 6		sandy CLAYSTONE	clay quartz	Medium light Yellow					
6 8		sandy CLAYSTONE	clay quartz	Medium light Yellow					
8 10		clayey SILTSTONE	quartz clay	light Tan					
10 12		clayey SILTSTONE	quartz clay	light Tan					
12 14		clayey SILTSTONE	quartz clay	light Tan					
14 16		clayey SILTSTONE	quartz clay	light Tan					
16 18		clayey SILTSTONE	quartz clay	light Tan					
18 20		clayey ferruginous SILTSTONE	quartz clay	light Red					
20 22		sandy CLAYSTONE	clay quartz	light Tan					
22 24		silty CLAYSTONE	clay quartz	light Tan					

BHP Minerals - Southern Proterozoic Logsheet

t : COOBER PEDY RIDGE Hole Name : CR91016 Hole Length : 100 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
g : 465000 Northing : 6758210 Amg Zone : 53
de : -29.304541 Longitude : 134.639598 Surface Rl : 170 Coord Reliability : TAPE
h : 355 Inclination : -90

From - To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24 - 26		sandy CLAYSTONE	clay quartz	Medium light Red					
26 - 28		clayey SAND	quartz clay	Medium light Red					
28 - 30		clayey ferruginous SAND	quartz clay	Medium light Brown (Umber)					
30 - 32		clayey SAND	quartz clay	Medium light Tan					
32 - 34		clayey SAND	quartz clay	Medium Tan					
34 - 36		clayey SAND	quartz clay	Medium light Tan					
36 - 38		clayey SAND	quartz clay	light Tan					
38 - 40		clayey SAND	quartz clay	light Tan					
40 - 42		clayey SAND	quartz clay	Medium light Tan					
42 - 44		clayey SAND	quartz clay	Medium Grey					
44 - 46		sandy CLAYSTONE	clay quartz	Medium dark Grey					
46 - 48		CLAYSTONE	clay quartz	light Grey					

BHP Minerals - Southern Proterozoic Logsheet

t : COOBER PEDY RIDGE Hole Name : CR91016 Hole Length : 100 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
g : 465000 Northing : 6758210 Amg Zone : 53
de : -29.304541 Longitude : 134.639598 Surface Rl : 170 Coord Reliability : TAPE
h : 355 Inclination : -90

From	To	(m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50			CLAYSTONE	clay quartz	light Grey					
50	52		DL7853	CLAYSTONE	clay quartz	Medium light Grey					
52	54		DL7854	clayey GRAVEL, UNCONSOLIDATED	quartz clay	light Grey					
54	56		DL7855	clayey SAND	quartz clay	Medium light Grey					
56	58		DL7856	ARENITE	quartz biotite feldspar	Medium light Grey					
58	60		DL7857	ARENITE	quartz feldspar biotite	Medium light Grey					
60	62		DL7858	ARENITE	quartz feldspar gypsum	Medium light Grey					
62	64		DL7859	ARENITE	quartz feldspar gypsum	Medium light Grey					
64	66		DL7860	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
66	68		DL7861	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
68	70		DL7862	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
70	72		DL7863	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					

BHP Minerals - Southern Proterozoic Logsheet

t : COOBER PEDY RIDGE Hole Name : CR91016 Hole Length : 100 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
g : 465000 Northing : 6758210 Amg Zone : 53
de : -29.304541 Longitude : 134.639598 Surface Rl : 170 Coord Reliability : TAPE
h : 355 Inclination : -90

From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74	DL7864	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
74	76	DL7865	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
76	78	DL7866	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
78	80	DL7867	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
80	82	DL7868	magnetite-bearing QUARTZITE	quartz biotite feldspar	Medium dark Grey					
82	84	DL7869	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
84	86	DL7870	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
86	88	DL7871	magnetite-bearing garnetiferous QUARTZITE	quartz biotite garnet	Medium dark Grey					
88	90	DL7872	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
90	92	DL7873	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
92	94	DL7874	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
94	96	DL7875	magnetite-bearing QUARTZITE	quartz biotite feldspar	Medium dark Grey					

BHP Minerals - Southern Proterozoic Logsheet

: COOBER PEDY RIDGE Hole Name : CR91016 Hole Length : 100 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
) : 465000 Northing : 6758210 Amg Zone : 53
le : -29.304541 Longitude : 134.639598 Surface Rl : 170 Coord Reliability : TAPE
: 355 Inclination : -90

From - To (m)		Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98	DL7876	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium dark Grey					
98	100	DL7877	magnetite-bearing QUARTZITE	quartz biotite feldspar	Medium dark Grey					

rd Samples Logged Sample Number From To

ate Samples logged Sample Number From To

BHP Minerals - Southern Proterozoic Logsheet

: COOBER PEDY RIDGE Hole Name : CR91027 Hole Length : 119 Contractor : FRANK WALSH DRILLING Locality : EL 1718 SA Logged By : J. READ
: 373100 Northing : 6778700 Amg Zone : 53
e : -29.113746 Longitude : 133.695759 Surface Rl : 170 Coord Reliability : TAPE
: 355 Inclination : -90

From	To	(m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	2			ferruginous oxidised SAND	quartz iron oxides	Medium dark Red					100-500
2	4			ferruginous cherty SANDSTONE	quartz iron oxides	Medium light White					100-500
4	6			ferruginous SILCRETE	quartz iron oxides earthy haematite	Medium Red					10-100
6	8			ferruginous SANDSTONE	quartz iron oxides earthy haematite	Medium light Red					10-100
8	10			ferruginous SAND	quartz iron oxides earthy haematite	light White					10-100
10	12			oxidised ferruginous SAND	quartz iron oxides	light Tan					100-500
12	14			oxidised siliceous SAND	quartz	light Tan					10-100
14	16			oxidised siliceous SAND	quartz	light Red					10-100
16	18			oxidised siliceous SAND	quartz	light Red					10-100
18	20			ferruginous siliceous SAND	quartz clay	Medium light Tan					10-100
20	22			ferruginous siliceous SAND	quartz clay iron oxides	light Tan					10-100
22	24			ferruginous siliceous SAND	quartz clay iron oxides	light Red					10-100

BHP Minerals - Southern Proterozoic Logsheet

: COOBER PEDY RIDGE Hole Name : CR91027 Hole Length : 119 Contractor : FRANK WALSH DRILLING Locality : EL 1718 SA Logged By : J. READ
: 373100 Northing : 6778700 Amg Zone : 53
le : -29.113746 Longitude : 133.695759 Surface Rl : 170 Coord Reliability : TAPE
: 355 Inclination : -90

From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24	26		siliceous oxidised SAND	quartz clay	Spotty Tan					10-100
26	28		siliceous oxidised SAND	quartz clay	light Tan					< 10
28	30		siliceous ferruginous SAND	quartz clay iron oxides	Medium Tan					< 10
30	32		siliceous ferruginous SAND	quartz clay iron oxides	Medium Tan					< 10
32	34		siliceous SAND	quartz clay	Medium light Grey					< 10
34	36		siliceous ferruginous SAND	quartz clay iron oxides	Medium Tan					< 10
36	38		siliceous ferruginous SAND	quartz clay iron oxides	light White					< 10
38	40		LOST CORE							
40	42		siliceous clayey SAND	quartz clay	Medium light Tan					< 10
42	44		LOST CORE							
44	46		LOST CORE							
46	48		LOST CORE							

BHP Minerals - Southern Proterozoic Logsheet

: COOBER PEDY RIDGE Hole Name : CR91027 Hole Length : 119 Contractor : FRANK WALSH DRILLING Locality : EL 1718 SA Logged By : J. READ
: 373100 Northing : 6778700 Amg Zone : 53
e : -29.113746 Longitude : 133.695759 Surface Rl : 170 Coord Reliability : TAPE
: 355 Inclination : -90

From	To	(m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50			siliceous clayey SAND	quartz clay	light Grey					< 10
50	52			LOST CORE							
52	54			LOST CORE							
54	56			LOST CORE							
56	58			oxidised clayey SAND	quartz clay iron oxides	light Grey					< 10
58	60			LOST CORE							
60	62			monotonous sequence of sandy CLAYSTONE	clay quartz	Medium light Grey					< 10
62	64			monotonous sequence of pyritic CLAYSTONE	clay quartz pyroboles	Medium light Grey					< 10
64	66			sandy CLAYSTONE	clay quartz	Medium light Grey					< 10
66	68			sandy CLAYSTONE	clay quartz	Medium light Grey					< 10
68	70			clayey SAND	quartz clay	Medium light Grey					< 10
70	72			clayey SAND	quartz clay	Medium light Grey					< 10

BHP Minerals - Southern Proterozoic Logsheet

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From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74		clayey SAND	quartz clay	Medium light Grey					< 10
74	76		sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
76	78		sandy monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					10-100
78	80		sandy monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					< 10
80	82		sandy monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					< 10
82	84		CLAYSTONE	clay	Medium light Grey					10-100
84	86		monotonous sequence of sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
86	88		monotonous sequence of sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
88	90		monotonous sequence of sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
90	92		monotonous sequence of sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
92	94		monotonous sequence of CLAYSTONE	clay	Medium light Grey					< 10
94	96		monotonous sequence of pyritic CLAYSTONE	clay quartz pyroboles	Medium light Grey					10-100

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ıde : -29.113746 Longitude : 133.695759 Surface Rl : 170 Coord Reliability : TAPE
:h : 355 Inclination : -90

From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98		monotonous sequence of CLAYSTONE	clay	Medium light Grey					10-100
98	100		monotonous sequence of CLAYSTONE	clay	Medium light Grey					10-100
100	102		monotonous sequence of pyritic CLAYSTONE	clay quartz pyroboles	Medium light Grey					10-100
102	104		monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					10-100
104	106		monotonous sequence of pyritic CLAYSTONE	clay quartz pyroboles	Medium light Grey					10-100
106	108		monotonous sequence of pyritic CLAYSTONE	clay quartz pyroboles	Medium light Grey					10-100
108	110	DL7514	complex clayey SAND	quartz clay pyroboles	Medium light Grey					< 10
110	112		sandy CLAYSTONE	clay pyroboles	Medium light Grey					< 10
112	114		siliceous SAND	quartz	Medium Brown (Umber)					< 10
114	116		siliceous SAND	quartz	Medium light Brown (Umber)					< 10
116	118	DL7515	siliceous pyritic SANDSTONE	quartz pyroboles	Medium light White					< 10
118	120	DL7516	siliceous pyritic SANDSTONE	quartz pyroboles	Medium light White					10-100

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ırd Samples Logged	Sample Number	From	To

:ate Samples logged	Sample Number	From	To

BHP Minerals - Southern Proterozoic Logsheet

ect : COOBER PEDY RIDGE Hole Name : CR9203 Hole Length : 272 Contractor : FRANK WALSH DRILLING Locality : EL 1718 SA Logged By : J.READ
ing : 390375 Northing : 6787121 Amg Zone : 53
tude : -29.039364 Longitude : 133.874102 Surface Rl : 80 Coord Reliability : SATL
imuth : 355 Inclination : 90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	2		ferruginous CALCRETE	carbonate quartz iron oxides	Medium light Tan					100-500 x 10 -5 SI Units
2	4		ferruginous CALCRETE	carbonate quartz iron oxides	Medium light Tan					100-500 x 10 -5 SI Units
4	6		ferruginous IRONSTONE	earthy haematite iron oxides quartz	Medium dark Red					10-100 x 10 -5 SI Units
6	8		clayey SAND	quartz clay iron oxides	light White					< 10 x 10 -5 SI Units
8	10		clayey SAND	quartz clay	light White					< 10 x 10 -5 SI Units
10	12		clayey SAND	quartz clay iron oxides	Medium light White					< 10 x 10 -5 SI Units
12	14		clayey SAND	quartz clay iron oxides	Medium light White					< 10 x 10 -5 SI Units
14	16		clayey SAND	quartz iron oxides clay	Medium light White					< 10 x 10 -5 SI Units
16	18		clayey SAND	quartz iron oxides clay	Medium light Brown (Umber)					< 10 x 10 -5 SI Units
18	20		clayey SAND	quartz iron oxides clay	Medium Tan					< 10 x 10 -5 SI Units
20	22		clayey ferruginous SANDSTONE	quartz clay iron oxides	Medium Tan					< 10 x 10 -5 SI Units
22	24		clayey ferruginous SANDSTONE	quartz clay gypsum	Medium light Tan					10-100 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

ect : COOBER PEDY RIDGE | Hole Name : CR9203 | Hole Length : 272 | Contractor : FRANK WALSH DRILLING | Locality : EL 1718 SA | Logged By : J.READ
ing : 390375 | Northing : 6787121 | Amg Zone : 53
tude : -29.039364 | Longitude : 133.874102 | Surface Rl : 80 | Coord Reliability : SATL
imuth : 355 | Inclination : 90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24	26		clayey SAND	quartz clay	Medium light Tan					10-100 x 10 -5 SI Units
26	28		clayey ferruginous SAND	quartz iron oxides clay	light White					10-100 x 10 -5 SI Units
28	30		clayey SAND	quartz clay	Medium Tan					10-100 x 10 -5 SI Units
30	32		SAND	quartz	Medium light White					10-100 x 10 -5 SI Units
32	34		SAND	quartz	Medium light White					10-100 x 10 -5 SI Units
34	36		clayey SAND	quartz clay	Medium light White					10-100 x 10 -5 SI Units
36	38		clayey SAND	quartz clay	Medium light White					10-100 x 10 -5 SI Units
38	40		clayey SAND	quartz clay	Medium light White					10-100 x 10 -5 SI Units
40	42		siliceous SAND	quartz	light White					< 10 x 10 -5 SI Units
42	44		siliceous SAND	quartz	light White					< 10 x 10 -5 SI Units
44	46		siliceous SAND	quartz	light White					10-100 x 10 -5 SI Units
46	48		siliceous SAND	quartz	light White					10-100 x 10 -5 SI Units

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Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50		siliceous SAND	quartz	light White					10-100 x 10 -5 SI Units
50	52		siliceous clayey SAND	quartz clay iron oxides	Medium light White					10-100 x 10 -5 SI Units
52	54		LOST CORE							
54	56		LOST CORE							
56	58		LOST CORE							
58	60		LOST CORE							
60	62		LOST CORE							
62	64		LOST CORE							
64	66		LOST CORE							
66	68		LOST CORE							
68	70		siliceous SAND	quartz clay	light White					
70	72		siliceous unconsolidated SAND	quartz	Pale (very light) White					

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Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74		siliceous unconsolidated SAND	quartz clay	Pale (very light) White					
74	76		siliceous unconsolidated SAND	quartz	Pale (very light) White					
76	78		siliceous unconsolidated SAND	quartz	Pale (very light) White					
78	80		siliceous unconsolidated SAND	quartz clay	Pale (very light) White					
80	82		siliceous unconsolidated SAND	quartz clay	Pale (very light) White					
82	84		siliceous unconsolidated SAND	quartz	Pale (very light) White					
84	86		siliceous unconsolidated SAND	quartz	Pale (very light) White					
86	88		siliceous unconsolidated SAND	quartz	Pale (very light) White					
88	90		siliceous unconsolidated SAND	quartz	Pale (very light) White					
90	92		clayey unconsolidated SAND	quartz clay	Pale (very light) White					
92	94		unconsolidated SAND	quartz	Pale (very light) White					
94	96		unconsolidated clayey SAND	quartz clay	Medium light Grey					

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Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98		unconsolidated clayey SAND	quartz clay	Medium light Grey					
98	100		unconsolidated clayey SAND	quartz clay	Medium Grey					
100	102		sandy CLAYSTONE	clay quartz	Medium dark Grey					
102	104		LOST CORE							
104	106		LOST CORE							
106	108		sandy co-dominant CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
108	110		sandy co-dominant CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
110	112		sandy co-dominant CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
112	114		sandy co-dominant CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
114	116		sandy co-dominant CLAYSTONE	clay quartz	Medium dark Grey					10-100 x 10 -5 SI Units
116	118		sandy co-dominant CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
118	120		sandy co-dominant CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units

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Depth From - To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
120 122		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
122 124		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
124 126		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					10-100 x 10 -5 SI Units
126 128		co-dominant sandy CLAYSTONE	clay quartz pyroboles	Medium dark Grey	rare trace (<				< 10 x 10 -5 SI Units
128 130		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
130 132		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
132 134		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
134 136		co-dominant CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
136 138		co-dominant CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
138 140		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
140 142		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
142 144		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units

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Depth From - To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
144 146		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
146 148		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
148 150		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
150 152		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
152 154		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
154 156		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
156 158		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					< 10 x 10 -5 SI Units
158 160		co-dominant sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
160 162		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
162 164		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
164 166		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
166 168		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units

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Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
168	170		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
170	172		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
172	174		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
174	176		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					< 10 x 10 -5 SI Units
176	178		co-dominant sandy CLAYSTONE	clay quartz	Medium dark Grey					10-100 x 10 -5 SI Units
178	180		monotonous sequence of CLAYSTONE	clay quartz	Medium Grey					10-100 x 10 -5 SI Units
180	182		monotonous sequence of CLAYSTONE	clay quartz	Medium Grey					< 10 x 10 -5 SI Units
182	184		monotonous sequence of CLAYSTONE	clay quartz	Medium Grey					10-100 x 10 -5 SI Units
184	186		monotonous sequence of CLAYSTONE	clay quartz	Medium Grey					10-100 x 10 -5 SI Units
186	188		monotonous sequence of CLAYSTONE	clay quartz	Medium Grey					10-100 x 10 -5 SI Units
188	190		monotonous sequence of CLAYSTONE	clay quartz	Medium Grey					10-100 x 10 -5 SI Units
190	192		clayey SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units

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Depth From - To (m)		Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
192	194		clayey SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
194	196		clayey SAND	quartz clay feldspar	Medium Grey					< 10 x 10 -5 SI Units
196	198		clayey SAND	quartz clay feldspar	Medium Grey					< 10 x 10 -5 SI Units
198	200		clayey SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
200	202		clayey complex SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
202	204		clayey complex SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
204	206		clayey complex SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
206	208		clayey complex SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
208	210		clayey complex SAND	quartz clay feldspar	Medium Grey					10-100 x 10 -5 SI Units
210	212		clayey complex SAND	quartz feldspar clay	Medium Grey					10-100 x 10 -5 SI Units
214	216	DB8556	garnetiferous siliceous QUARTZITE	quartz K-feldspar garnet	light White					100-500 x 10 -5 SI Units
216	218	DB8557	siliceous foliated QUARTZITE	quartz biotite feldspar	light White	rare trace (<	trace 1%)	chlorite		100-500 x 10 -5 SI Units

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Depth From - To (m)		Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
218	220	DB8558	foliated granitic GRANOFELS	quartz biotite feldspar	Medium light White		trace 1%)	chlorite		100-500 x 10 -5 SI Units
220	222	DB8559	garnetiferous foliated GRANOFELS	quartz biotite feldspar	light White	rare trace (<	trace 1%)	chlorite		100-500 x 10 -5 SI Units
222	224	DB8560	garnetiferous siliceous GRANOFELS	quartz biotite garnet	light White		minor (1-)	feldspar	irreg. patches, not re chlorite eins	100-500 x 10 -5 SI Units
224	226	DB8561	garnetiferous siliceous GRANOFELS	quartz biotite feldspar	Medium light White	widespread trace (<			irreg. patches, not re chlorite eins	100-500 x 10 -5 SI Units
226	228	DB8562	garnetiferous siliceous GRANOFELS	quartz biotite feldspar	Medium light White				pervasive zone chlorite	100-500 x 10 -5 SI Units
228	230	DB8563	garnetiferous siliceous GRANOFELS	quartz biotite feldspar	Medium light White	rare trace (<	minor (1-)	chlorite	pervasive zone chlorite	100-500 x 10 -5 SI Units
230	232	DB8564	garnetiferous siliceous GRANOFELS	quartz biotite feldspar	Medium light White				pervasive zone chlorite	100-500 x 10 -5 SI Units
232	234	DB8565	garnetiferous siliceous GRANOFELS	quartz biotite feldspar	Medium light White				pervasive zone chlorite	100-500 x 10 -5 SI Units
234	236	DB8566	massive VEIN	quartz barite	light White					1000-5000 x 10 -5 SI Units
236	238	DB8567	magnetite-bearing siliceous Quartz-magnetite unit	quartz magnetite earthy haematite	Medium dark Black (Noir)	widespread trace (<				20000-40000 x 10 -5 SI Units
238	240	DB8568	altered siliceous Quartz-magnetite unit	quartz magnetite barite	Medium Black (Noir)		co- minant (25-50%)	barite	disseminated se barite acent to veins	20000-40000 x 10 -5 SI Units
240	242	DB8569	MAGNETITE	magnetite barite earthy haematite	Medium dark Black (Noir)		co- minant (25-50%)	barite		>100000 x 10 -5 SI Units

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Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
242	244	DB8570	MAGNETITE	magnetite barite earthy haematite	Medium dark Black (Noir)	rare trace (<	co-minant (25-50%)	barite		>100000 x 10 -5 SI Units
242	244	DB8571	MAGNETITE	magnetite barite earthy haematite	Medium dark Black (Noir)	rare trace (<	co-minant (25-50%)	barite		>100000 x 10 -5 SI Units
244	246	DB8572	Quartz-magnetite unit	quartz magnetite barite	Medium dark White		co-minant (25-50%)	barite		>100000 x 10 -5 SI Units
246	248	DB8573	Quartz-magnetite unit	quartz magnetite barite	Medium dark White		co-minant (25-50%)	barite		20000-40000 x 10 -5 SI Units
248	250	DB8574	Quartz-magnetite unit	quartz magnetite feldspar	Medium dark White				irreg. patches, not re earthy haeins	1000-5000 x 10 -5 SI Units
250	252	DB8575	foliated garnetiferous GNEISS	quartz biotite feldspar	Medium dark Green				pervasive zone chlorite	1000-5000 x 10 -5 SI Units
252	254	DB8576	foliated GNEISS	quartz biotite feldspar	Medium dark Black (Noir)	1-2%			pervasive zone chlorite	5000-10000 x 10 -5 SI Units
254	256	DB8577	massive Quartz-magnetite unit	quartz magnetite barite	Dark Black (Noir)		co-minant (25-50%)	barite		20000-40000 x 10 -5 SI Units
256	258	DB8578	massive micaceous Quartz-magnetite unit	quartz magnetite biotite	Dark Black (Noir)					10000-20000 x 10 -5 SI Units
258	260	DB8579	foliated GNEISS	quartz biotite feldspar	Medium dark Black (Noir)					1000-5000 x 10 -5 SI Units
260	262	DB8581	garnetiferous massive GRANOFELS	quartz biotite feldspar	Medium White	rare trace (<				100-500 x 10 -5 SI Units
260	262	DB8580								

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itude : -29.039364 Longitude : 133.874102 Surface Rl : 80 Coord Reliability : SATL
zimuth : 355 Inclination : 90

Depth From - To (m)		Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
262	264	DB8582	garnetiferous massive GRANOFELS	quartz biotite feldspar	Medium White	rare trace (<	rare ace (<<1%)	pyroboles	pervasive zone chlorite	100-500 x 10 -5 SI Units
264	266	DB8583	garnetiferous foliated GRANOFELS	quartz biotite	Medium Black (Noir)	rare trace (<				1000-5000 x 10 -5 SI Units
266	268	DB8584	magnetite-bearing ROCK	magnetite pyroxenes quartz	Dark Black (Noir)	rare trace (<			pervasive zone earthy ha	40000-60000 x 10 -5 SI Units
268	270	DB8585	graphitic Quartz-magnetite unit	quartz magnetite	Dark Black (Noir)				irreg. patches, not re earthy haeins	40000-60000 x 10 -5 SI Units
270	272	DB8586	graphitic Quartz-magnetite unit	quartz magnetite biotite	Dark Black (Noir)				irreg. patches, not re earthy haeins	20000-40000 x 10 -5 SI Units

Standard Samples Logged	Sample Number	From	To
CR9203	DB8580	260	262

Duplicate Samples logged	Sample Number	From	To
CR9203	DB8571	242	244

BHP Minerals - Southern Proterozoic Logsheet

ct : COOBER PEDY RIDGE | Hole Name : CR9214 | Hole Length : 264 | Contractor : FRANKWALSH DRILLING | Locality : EL 1718 SA | Logged By : J.READ
ng : 373100 | Northing : 6778670 | Amg Zone : 53
ude : -29.114016 | Longitude : 133.695755 | Surface Rl : 150 | Coord Reliability : TAPE
muth : 355 | Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
102	104		monotonous sequence of CLAYSTONE	clay	Medium light Grey					< 10 x 10 -5 SI Units
104	106		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
106	108		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
108	110		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
110	112		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
112	114		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
114	116		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
116	118		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
118	120		sandy CLAYSTONE	clay quartz	light Grey					< 10 x 10 -5 SI Units
120	122		clayey SAND	quartz clay	light Grey					< 10 x 10 -5 SI Units
122	124		clayey SAND	quartz clay	light Grey					< 10 x 10 -5 SI Units
124	126		clayey SAND	quartz clay	light White					< 10 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

ct : COOBER PEDY RIDGE Hole Name : CR9214 Hole Length : 264 Contractor : FRANKWALSH DRILLING Locality : EL 1718 SA Logged By : J.READ
ng : 373100 Northing : 6778670 Amg Zone : 53
ude : -29.114016 Longitude : 133.695755 Surface Rl : 150 Coord Reliability : TAPE
muth : 355 Inclination : -90

Depth From - To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
126 - 128		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
128 - 130		clayey SAND	quartz clay	light White					< 10 x 10 -5 SI Units
130 - 132		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
132 - 134		clayey SAND	quartz clay	light White					
134 - 136		clayey SAND	quartz clay	light White					
136 - 138		clayey SAND	quartz clay	light White					
138 - 140		clayey SAND	quartz clay	light White					
140 - 142		clayey SAND	quartz clay	light White					
142 - 144		clayey SAND	quartz clay	light White					
144 - 146		clayey SAND	quartz clay	light White					
146 - 148		clayey SAND	quartz clay	light White					
148 - 150		clayey SAND	quartz clay	Pale (very light) White					

BHP Minerals - Southern Proterozoic Logsheet

ect : COOBER PEDY RIDGE | Hole Name : CR9214 | Hole Length : 264 | Contractor : FRANKWALSH DRILLING | Locality : EL 1718 SA | Logged By : J.READ
ing : 373100 | Northing : 6778670 | Amg Zone : 53
tude : -29.114016 | Longitude : 133.695755 | Surface Rl : 150 | Coord Reliability : TAPE
imuth : 355 | Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
150	152		clayey SAND	quartz clay	Pale (very light) White					
152	154		clayey SAND	quartz clay feldspar	Pale (very light) White					
154	156		clayey SAND	quartz clay	Pale (very light) White					
156	158		clayey SAND	quartz clay	Pale (very light) White					
158	160		clayey SAND	quartz clay	Pale (very light) White					
160	162		clayey SAND	quartz clay	light Grey					
162	164		clayey SAND	quartz clay	light Grey					
164	166		clayey SAND	quartz clay	light Grey					
166	168		clayey SAND	quartz clay	light Grey					
168	170		SAND	quartz clay feldspar	light Grey					
170	172		SAND	quartz feldspar clay	light White					
172	174		SAND	quartz feldspar clay	light White					

BHP Minerals - Southern Proterozoic Logsheet

ct : COOBER PEDY RIDGE | Hole Name : CR9214 | Hole Length : 264 | Contractor : FRANKWALSH DRILLING | Locality : EL 1718 SA | Logged By : J.READ
ng : 373100 | Northing : 6778670 | Amg Zone : 53
ude : -29.114016 | Longitude : 133.695755 | Surface Rl : 150 | Coord Reliability : TAPE
muth : 355 | Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
174	176		SAND	quartz feldspar clay	light White					
176	178		SAND	quartz feldspar clay	light White					
178	180		SAND	quartz feldspar clay	light White					
180	182		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
182	184		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
184	186		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
186	188		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
188	190		SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
190	192		SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
192	194		SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
194	196		SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
196	198		SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

:ct : COOBER PEDY RIDGE Hole Name : CR9214 Hole Length : 264 Contractor : FRANKWALSH DRILLING Locality : EL 1718 SA Logged By : J.READ
ng : 373100 Northing : 6778670 Amg Zone : 53
ude : -29.114016 Longitude : 133.695755 Surface Rl : 150 Coord Reliability : TAPE
muth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
198	200		SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
200	202		clayey SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
202	204		clayey SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
204	206		clayey SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
206	208		clayey SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
208	210		clayey SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
210	212		clayey SAND	quartz clay	Pale (very light) White					10-100 x 10 -5 SI Units
212	214		clayey SAND	quartz clay	light White					10-100 x 10 -5 SI Units
214	216		sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
216	218		sandy massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
218	220		sandy massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
220	222		massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

ect : COOBER PEDY RIDGE | Hole Name : CR9214 | Hole Length : 264 | Contractor : FRANKWALSH DRILLING | Locality : EL 1718 SA | Logged By : J.READ
ing : 373100 | Northing : 6778670 | Amg Zone : 53
tude : -29.114016 | Longitude : 133.695755 | Surface Rl : 150 | Coord Reliability : TAPE
imuth : 355 | Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
222	224		massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
224	226		massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
226	228		massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
228	230		massive CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
230	232		massive sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
232	234	DB8587	massive sandy CLAYSTONE	clay quartz	Dark Grey					10-100 x 10 -5 SI Units
234	236	DB8588	ROCK	quartz feldspar	Medium Red					10-100 x 10 -5 SI Units
236	238	DB8589	graphitic siliceous ULTRAMAFIC ROCK	pyroxenes quartz apatite	Very dark Black (Noir)	1-2%	minor (1-)	earthy haematite		1000-5000 x 10 -5 SI Units
238	240	DB8590	graphitic altered ULTRAMAFIC ROCK	pyroxenes quartz chlorite	Very dark Black (Noir)	widespread trace (<	minor (1-)	quartz		5000-10000 x 10 -5 SI Units
240	242	DB8591	graphitic altered Quartz-magnetite unit	quartz magnetite chlorite	Medium dark White	widespread trace (<			pervasive zone chlorite	80000-100000 x 10 -5 SI Units
242	244	DB8592	graphitic Quartz-magnetite unit	quartz magnetite earthy haematite	Medium White					80000-100000 x 10 -5 SI Units
244	246	DB8593	graphitic altered Quartz-magnetite unit	quartz magnetite feldspar	Medium White		minor (1-)	chlorite	irreg. patches, not re chlorite eins	80000-100000 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

ect : COOBER PEDY RIDGE Hole Name : CR9214 Hole Length : 264 Contractor : FRANKWALSH DRILLING Locality : EL 1718 SA Logged By : J.READ
ing : 373100 Northing : 6778670 Amg Zone : 53
tude : -29.114016 Longitude : 133.695755 Surface Rl : 150 Coord Reliability : TAPE
imuth : 355 Inclination : -90

Depth From - To (m)		Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
246	248	D88594	graphitic altered Quartz-magnetite unit	quartz magnetite apatite	Medium White		sub-dinate (5-25%)	chlorite		80000-100000 x 10 -5 SI Units
248	250	D88595	graphitic altered Quartz-magnetite unit	quartz magnetite apatite	Medium White					80000-100000 x 10 -5 SI Units
250	252	D88596	graphitic altered Quartz-magnetite unit	quartz magnetite apatite	Medium White					80000-100000 x 10 -5 SI Units
252	254	D88597	graphitic Quartz-magnetite unit	quartz magnetite feldspar	Medium White					60000-80000 x 10 -5 SI Units
254	256	D88598	complex micaceous GNEISS	quartz biotite magnetite	Dark Black (Noir)					20000-40000 x 10 -5 SI Units
256	258	D88599	pyritic micaceous GNEISS	quartz biotite	Dark Black (Noir)	2-5%	minor (1-)	pyroboles		1000-5000 x 10 -5 SI Units
258	260	D88600	micaceous GNEISS	quartz biotite	Medium light White					500-1000 x 10 -5 SI Units
258	260	D88601	micaceous GNEISS	quartz biotite	Medium light White					500-1000 x 10 -5 SI Units
258	260	D88602								
260	262	D88603	siliceous GNEISS	quartz biotite	light White					100-500 x 10 -5 SI Units
262	264	D88604	siliceous GNEISS	quartz biotite	light White					100-500 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

ect : COOBER PEDY RIDGE Hole Name : CR9214 Hole Length : 264 Contractor : FRANKWALSH DRILLING Locality : EL 1718 SA Logged By : J.READ
ing : 373100 Northing : 6778670 Amg Zone : 53
tude : -29.114016 Longitude : 133.695755 Surface Rl : 150 Coord Reliability : TAPE

Standard Samples Logged	Sample Number	From	To
CR9214	DB8602	258	260

Duplicate Samples logged	Sample Number	From	To
CR9214	DB8601	258	260

COOBER PEDY RIDGE PROJECT
DRILL HOLE HEADER SHEET

HOLE NAME: CR 9116 INCLINATION: VERTICAL

TOTAL DEPTH (m): 100m

START DATE: 19.9.91 FINISH DATE: 20.9.91

EASTING CO-ORDINATE (m): 465000

NORTHING CO-ORDINATE (m): 6758210

REDUCED LEVEL (m):

GRID TYPE (AMG, GEO, LOCAL): AMG

ACCURACY (TOPO, GRID, SURV, OTHER): GRID

PROJECT NAME: COOBER PEDY RIDGE

AREA (EL NUMBER OR NAME): EL 1725

SHEET NAME (100,000 scale topo): COOBER PEDY

JOB NUMBER: 849

LOGGED BY: J.C.

CONTRACTOR FOR DRILLING: WALSH PTY LTD

RIG TYPE: 8X8 CUSTOMBUILT

REHABILITATION (Y/N): N

COMMENT ON DRILL HOLE: Large scale gneissic banding - up to 1m - reflected in MT content (mag-sus readings) - enriched over 1m thick

READ\DRILL.SHT

BHP MINERALS

COOBER PEDY RIDGE PROJECT

SHEET 1 OF 2 HOLE NO. CR9116

LOGGED BY J.C. DATE 19.9.91

FLAG	HOLE NAME	INTERVAL From (metres)	INTERVAL To (metres)	% Recovery	SAMPLE Sample Prefix	SAMPLE Sample Number	LITHOLOGY Rock Type	LITHOLOGY Rock Type Qualifier Q1	LITHOLOGY Rock Type Qualifier Q2	LITHOLOGY Rock Type Texture	LITHOLOGY Qualifing Mineral 1 Amount	LITHOLOGY Qualifing Mineral 1 Name	LITHOLOGY Qualifing Mineral 2 Amount	LITHOLOGY Qualifing Mineral 2 Name	LITHOLOGY Qualifing Mineral 3 Amount	LITHOLOGY Qualifing Mineral 3 Name	LITHOLOGY Rock Colour Lightness	LITHOLOGY Rock Colour Hue 1	LITHOLOGY Rock Colour Hue 2	LITHOLOGY Grain Size	STRUCTURES Contact Type	STRUCTURES Interbeds	STRUCTURES Weathering	MINERALISATION % Mineralisation	MINERALISATION Sulfide Occurence Mode	MINERALISATION Sulfide Grain Size	MINERALISATION Pyrite	MINERALISATION Pyrrhotite	MINERALISATION Chalcopyrite	MINERALISATION Galena	MINERALISATION Sphalerite	MINERALISATION Other	MINERALISATION Other %	VEINING Vein Mineral Type 1	VEINING Vein Mineral Type 1 %	VEINING Vein Mineral Type 2	VEINING Vein Mineral Type 2 %	ALTERATION Alteration Type 1	ALTERATION Mineral 1	ALTERATION Mineral 2	ALTERATION Alteration Type 2	ALTERATION Mineral 1	ALTERATION Mineral 2	Magnetic Susceptibility	COMMENTS Comments
1 2	3 4 5 6 7 8	9 10 11 12	13 14 15 16	17 18	19 20 21 22 23 24	25	26 27 28 29	30 31	32 33	34 35	36 37 38		39 40 41		42 43 44 45		46 47	48	49	50	51 52	53 54	55 56	57 58	59 60	61	62 63	64	65	66	67 68	69	70 71	72	73 74 75	76 78 79		80 81	82 83	84 85	86 87	88 89	90 91	92 93	
OB	CR9116	00	02	40			SANDCYFE				QZCCY						6R			J			W1																						
			04	60			SANDFECY				DQZSCY						5RE			J			W1																						
			06	40			CLAYSA				DCYCQZ						6Y			A			W1																						
			08	30			CLAYSA				DCYTQZ						6Y			A			W1																						
		1 0	30				SILTCY				DQZCCY						7TY			G			W1																						
		12	30				SILTCY				DQZCCY						7T			G			W1																						
		14	40				SILTCY				DQZCCY						7T			G			W1																						
		16	30				SILTCY				DQZCCY						7T			H			W1																						
		18	40				SILTCY				DQZCCY						7TY			G			W1																						
		20	30				SILTCYFE				DQZCCY						7R			I			W1																						
		22	30				CLAYSA				DCYCQZ						7T			I			W1																						
		24	30				CLAYSL				DCM CQZ						7TY			G			W1																						
		26	30				CLAYSA				DCM CQZ						6R			J			W1																						
		28	30				SANDCY				DQZCCY						6RT			J			W1																						
		30	30				SANDCMFE				DQZCCY						6U			K			W1																						
		32	20				SANDCY				DQZCCY						6T			H			W1																						
		34	20				SANDCY				DQZMCY						5TU			J			W1																						Water Table.
		36	30				SANDCY				DQZCCY						6T			K			W1																						
		38	30				SANDCY				DQZSCM						7T			K			W1																						Minor gravels.
		40	30				SANDCM				CQZCCY						7T			L			W1																						
		42	50				SANDCY				CQZCCY						6TE			H			W2																						
		44	50				SANDCY				DQZSCY						5EU			J			W2																						
		46	50				CLAYSA				DCYCQZ						4E			A			W2																						
		48	40				CLAY				DCYMQZ						7E			A			W2																						
		50	50				CLAY				DCYMQZ						7E			A			W2																						
		52	50	DL	7853		CLAY				DCYTQZ						6E			A			W2																						
		54	50		54		GRAVCM				DQZSCY						7E			L			W2																						Weathered basement recemented layer.
		56	60		55		SANDCY				DQZCCY						6E			G			W2																						"
C2		56	60	DL	7856		AREN				DQZMBI	MFO					6EG			E			W2																						Quartz ex biotite.

< ≪1% 1 < 1% 3 2-5% 5 10-20% 7 40-60% 9 80-99%
2 1-2% 4 5-10% 6 20-40% 8 60-80% > 100%

BHP MINERALS

COOBER PEDY RIDGE PROJECT

SHEET 2 OF 2 HOLE NO. CR9116

LOGGED BY J.C. DATE 19/20.9.91

Flag	Hole Name	From (metres)	To (metres)	% Recovery	Sample Prefix	Sample Number	Rock Type	Rock Type Qualifier Q1	Q2	Rock Type Texture	Qualifying Mineral 1 Amount	Name	Qualifying Mineral 2 Amount	Name	Qualifying Mineral 3 Amount	Name	Rock Colour Lightness	Hue 1	Hue 2	Grain Size	Weathering	Mineralisation Other	%	Veining	Comments
C2	CR9116	55	60	70	DL	7857	AREN				D	QZ	S	FD	S	B1	6	E	G	H	W2				" Chlorite ex BI
			62	80		58	AREN				D	QZ	S	FD	S	GY	6	E	G	H	W2				"
			64	90		59	AREN				D	QZ	S	FD	S	GY	6	E	G	H	W2				"
RR	UNIT LOOKS LIKE RECEMENTED WEATHERED ROCK MINERALS QZ, FD, BI + GYPSUM CEMENT/MICROVEINS.																								MT - DI, IA.
		64	66	90		60	QZIT	MT		GN	D	QZ	S	BI	M	MT	5	E	R	H	W3	MT	4		"
			68			61	QZIT	MT		GN	D	QZ	S	BI	M	MT	5	E	R	H	W3	MT	5		"
			70			62	QZIT	MT		GN	D	QZ	S	BI	M	FD	5	E	R	T	W3	MT	3		"
			72			63	QZIT	MT		GN	D	QZ	S	BI	S	MT	5	E	R	T		MT	4		"
			74			64	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	4		"
			76			65	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			78			66	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			80			67	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		Trace Mica-Musc?
			82			68	QZIT	MT		GN	D	QZ	S	BI	S	FD	4	E	R	I		MT	5		
			84			69	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5	* qtz-mag-plag-apatite-BIF	
			86			70	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			88			71	QZIT	MT	GA	GN	D	QZ	S	BI	T	GA	4	E	R	I		MT	5		Trace fine gr. pale pink GA.
			90			72	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			92			73	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			94			74	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			96			75	QZIT	MT		GN	D	QZ	S	BI	S	FD	4	E	R	I		MT	5		
			98			76	QZIT	MT		GN	D	QZ	S	BI	S	MT	4	E	R	I		MT	5		
			100		OL	7877	QZIT	MT		GN	D	QZ	S	BI	S	FD	5	E	R	I		MT	5		

([illegible] - GA)

< <<1%	1 < 1%	3 2-5%	5 10-20%	7 40-60%	9 80-99%
	2 1-2%	4 5-10%	6 20-40%	8 60-80%	> 100%

COOBER PEDY RIDGE PROJECT
DRILL HOLE HEADER SHEET

HOLE NAME: CR9127 INCLINATION: -90° N

TOTAL DEPTH (m): 119m

START DATE: 23/10/91 FINISH DATE: 25/10/91

EASTING CO-ORDINATE (m): 373100 E

NORTHING CO-ORDINATE (m): 6778700 N

REDUCED LEVEL (m):

GRID TYPE (AMG, GEO, LOCAL): AMG

ACCURACY (TOPO, GRID, SURV, OTHER): GRID

PROJECT NAME: Coober Pedy Ridge

AREA (EL NUMBER OR NAME): Safari EL 1718

SHEET NAME (100,000 scale topo): Yerada 1:100,000

JOB NUMBER: FK4

LOGGED BY: J Read

CONTRACTOR FOR DRILLING: Frank Walsh Drilling

RIG TYPE: Walsh Built 8x8 RC

REHABILITATION (Y/N):

COMMENT ON DRILL HOLE: Drilled on aeromagnetic anomaly 32
EOH in flowing sand, could not control.
72m of casing left in hole in case we need a

READ\DRILLSHT

BHP MINERALS

COOBER PEDY RIDGE PROJECT

SHEET 1 OF 3 HOLE NO. CR9127

LOGGED BY J Read DATE 25/10/91

Flag	Hole Name	From (metres)	To (metres)	% Recovery	Sample Prefix	Sample Number	Rock Type	Rock Type Qualifier Q1	Rock Type Qualifier Q2	Rock Type Texture	Qualifing Mineral 1 Amount	Qualifing Mineral 1 Name	Qualifing Mineral 2 Amount	Qualifing Mineral 2 Name	Qualifing Mineral 3 Amount	Qualifing Mineral 3 Name	Rock Colour Lightness	Hue 1	Hue 2	Grain Size	Contact Type	Interbeds	Weathering	% Mineralisation	Sulfide Occurence Mode	Sulfide Grain Size	Pyrite	Pyrrhotite	Chalcopyrite	Galena	Sphalerite	Other	%	Other	%	Vein Mineral Type 1	%	Vein Mineral Type 2	%	Alteration Type 1	Mineral 1	Mineral 2	Alteration Type 2	Mineral 1	Mineral 2	Magnetic Susceptibility	Comments
0	BCR9127	0	2	20			SAND	FE	OX	EQ	D	QZ	S	FE			4	R	U	I			W1																							10	Recent sand
0	BCR9127	2	4	30			SNST	FE	CH	EQ	D	QZ	M	FE			6	W	R	H			W1																							10	Cherty sandstone
0	BCR9127	4	6	30			SILC	FE		CH	D	QZ	M	FE	M	HE	5	R	W	H			W1																							>1	Silcrete & cherty sandstone
0	BCR9127	6	8	30			SNST	FE		CH	D	QZ	S	FE	M	HE	6	R	U	I			W1																							>1	ferruginous cherty sandstone
0	BCR9127	8	10	30			SAND	FE			D	QZ	M	FE	M	HE	7	U	R	J			W1																							>1	coarse qtz sand
RR	CONTAINS HEMATITIC & FERRUGINOUS CLASTS																																														
0	BCR9127	10	12	30			SAND	OX	FE		D	QZ	T	FE			7	T		H			W1																							10	Bleached sand. Unusually magnetic
0	BCR9127	12	14	50			SAND	OX	SI		>	QZ					7	T	Y	H			W1																							>1	
0	BCR9127	14	16	30			SAND	OX	SI	EQ	>	QZ					7	R	E	G			W1																							<1	Change in sand colour to light pink
0	BCR9127	16	18	30			SAND	OX	SI	EQ	>	QZ					7	R	E	G			W1																							<1	
0	BCR9127	18	20	20			SAND	FE	SI	CY	D	QZ	M	CY			6	T	U	G			W1																							>1	Colour change to tan brown
0	BCR9127	20	22	20			SAND	FE	SI	CY	D	QZ	M	CY	T	FE	7	T	U	G			W1																							>1	
0	BCR9127	22	24	20			SAND	FE	SI	CY	D	QZ	M	CY	T	FE	7	R	U	H			W1																							>1	
0	BCR9127	24	26	10			SAND	SI	OX	CY	D	QZ	S	CY			5	T		H			W1																							>1	Colour change to bright tan
0	BCR9127	26	28	10			SAND	SI	OX	CY	D	QZ	S	CY			7	T	E	I			W1																							<1	
0	BCR9127	28	30	05			SAND	SI	FE	CY	D	QZ	S	CY	M	FE	5	T	R	J			W1																							<1	coarser sand
0	BCR9127	30	32	05			SAND	SI	FE	CY	D	QZ	S	CY	M	FE	5	T	R	K			W1																							>1	bottom of coarse sand
0	BCR9127	32	34	10			SAND	SI		CY	D	QZ	S	CY			6	E	T	J			W1																							>1	change in grain size & colour, poorly sorted
0	BCR9127	34	36	30			SAND	SI	FE	CY	D	QZ	S	CY	M	FE	5	T	E	G			W1																							<1	fine sand
0	BCR9127	36	38	30			SAND	SI	FE	CY	D	QZ	M	CY	M	FE	7	W	T	K			W1																							<1	ironstone clasts
0	BCR9127	38	40	00			LOST																																									
0	BCR9127	40	42	10			SAND	SI		CY	D	QZ	S	CY			6	T	U	K			W1																							<1	
0	BCR9127	42	44	00			LOST																																									
0	BCR9127	44	46	00			LOST																																									
0	BCR9127	46	48	00			LOST																																									
0	BCR9127	48	50	05			SAND	SI		CY	D	QZ	[illegible]	CY			7	E		H			W1																							<1	Abundant clay
0	BCR9127	50	52	00			LOST																																									water table
0	BCR9127	52	54	00			LOST																																									water sample taken
0	BCR9127	54	56	00			LOST																																									

< ≪1% 1 < 1% 3 2-5% 5 10-20% 7 40-60% 9 80-99%

BHP MINERALS

COOBER PEDY RIDGE PROJECT

SHEET 2 OF 3 HOLE NO. CR9127

LOGGED BY J. Read DATE 24/10/91

Flag	Hole Name	From (metres)	To (metres)	% Recovery	Rock Type	Rock Type Qualifier 01	Rock Type Qualifier 02	Rock Type Texture	Qualifing Mineral 1 Amount	Qualifing Mineral 1 Name	Qualifing Mineral 2 Amount	Qualifing Mineral 2 Name	Qualifing Mineral 3 Amount	Qualifing Mineral 3 Name	Rock Colour (Lightness / Hue 1 / Hue 2)	Grain Size	Weathering	Magnetic Susceptibility	Comments
0	BCR9127	56	58	10	SAND	SI	OX	CY	D	QZ	S	CY	T	FE /	7ET	I	W1	<1	
0	BCR9127	58	60	00	LOST														
RR	BASE OF SAND SEQUENCE																		
0	BCR9127	60	62	30	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	<1	Clay, Sandy
0	BCR9127	62	64	40	CLAY	PY	MO	SA	D	CY	T	PY	T	QZ	6E	A	W1	<1	
RR	CONTAINS DETRITAL PYRITE CLASTS																		
0	BCR9127	64	66	30	CLAY			SA	D	CY	M	QZ			6E	C	W1	<1	greater % of sand
0	BCR9127	66	68	40	CLAY			SA	D	CY	S	QZ			6E	C	W1	<1	% of sand increasing
0	BCR9127	68	70	40	SAND			CY	D	QZ	C	CY			6E	[illegible]	W1	<1	clayey sand
RR	CONTAINS DETRITAL PYRITE CLASTS																		
0	BCR9127	70	72	40	SAND			CY	D	QZ	C	CY			6E	I	W1	<1	contains silcrete clasts
0	BCR9127	72	74	40	SAND			CY	D	QZ	C	CY			6E	I	W1	<1	Coarse clayey gravel sand
0	BCR9127	74	76	60	CLAY			SA	D	CY	M	QZ			6E	A	W1	<1	sandy clay
0	BCR9127	76	78	60	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	>1	
0	BCR9127	78	80	60	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	>1	
0	BCR9127	80	82	60	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	<1	
0	BCR9127	82	84	60	CLAY		MO		>	CY					6E	A	W1	>1	
0	BCR9127	84	86	50	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	>1	
0	BCR9127	86	88	50	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	>1	
0	BCR9127	88	90	50	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	>1	
0	BCR9127	90	92	30	CLAY		MO	SA	D	CY	T	QZ			6E	A	W1	>1	
0	BCR9127	92	94	30	CLAY		MO		>	CY					6E	A	W1	<1	
0	BCR9127	94	96	30	CLAY	PY	MO	SA	D	CY	T	QZ	T	PY	6E	A	W1	>1	detrital pyrite
0	BCR9127	96	98	30	CLAY		MO		>	CY					6E	A	W1	>1	
0	BCR9127	98	100	30	CLAY		MO		>	CY					6E	A	W1	<1	
0	BCR9127	100	102	30	CLAY	PY	MO	SA	D	CY	M	QZ	T	PY	6E	A	W1	<1	detrital pyrite
0	BCR9127	102	104	30	CLAY		MO	SA	D	CY	M	QZ			6E	A	W1	<1	
0	BCR9127	104	106	30	CLAY	PY	MO	SA	D	CY	M	QZ	T	PY	6E	A	W1	<1	detrital pyrite
0	BCR9127	106	108	30	CLAY	PY	MO	SA	D	CY	S	QZ	T	PY	6E	A	W1	<1	amount of sand increasing

< ≪1% 1 < 1% 3 2-5% 5 10-20% 7 40-60% 9 80-99%

BHP MINERALS

COOBER PEDY RIDGE PROJECT

SHEET 3 OF 3 HOLE NO. CR9127

LOGGED BY J Redd DATE 24/10/9

Flag	Hole Name	From (metres)	To (metres)	% Recovery	Sample Prefix	Sample Number	Rock Type	Rock Type Qualifier 01	Rock Type Qualifier 02	Rock Type Texture	Qualifing Mineral 1 Amount	Qualifing Mineral 1 Name	Qualifing Mineral 2 Amount	Qualifing Mineral 2 Name	Qualifing Mineral 3 Amount	Qualifing Mineral 3 Name	Rock Colour Lightness	Hue 1	Hue 2	Grain Size	Contact Type	Interbeds	Weathering	Mineralisation	Veining	Alteration	Magnetic Susceptibility	Comments
0B	CR9127	108	110	30	DL7	S14	SAND		CO	CY	D	QZ	C	CY	T	PY	6	E		G			W1				<1	
RR	CLAYEY SAND CONTAINING SILCRETE PEBBLES																										<1	
0B	CR9127	110	112	30			CLAY			SA	D	CY	C	QZ	T	PY	6	E		A			W1				<1	Base of clay
0B	CR9127	112	114	30			SAND	SI		EQ	>	QZ					S	U	T	6			W1				<1	fine flowing sand.
0B	CR9127	114	116	20			SAND	SI		EQ	>	QZ					6	U	E	6			W1				<1	
0B	CR9127	116	118	30	DL7	S15	SNST	SI	PY		D	QZ	S	PY			6	W	T	H			W2				<1	
RR	PYRITE CEMENTED QTZ SANDSTONE																											
0B	CR9127	118	119	20	DL7	S16	SNST	SI	PY	EQ	D	QZ	S	PY			6	W	T	H			W2				>1	
RR	END OF HOLE																											
CC	COULD NOT CONTROL FLOWING SAND																											

< ≪1% 1 < 1% 3 2-5% 5 10-20% 7 40-60% 9 80-99%

APPENDIX 4

DRILL SURVEY RESULTS

(Refer to Descriptive drill logs in Appendix 3 for sample number location down hole)

CLASSIC LABORATORIES LTD
Incorporated in WA; a wholly owned subsidiary of Amdel Ltd
Osman Place, Thebarton, South Australia 5031
Telephone: (08) 43 5722 Facsimile: (08) 234 0321

A.C.N. 009 076 555

Please note our new Phone Number is (08) 416 5300

Mr Jeremy Read
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

CR 9116

FINAL ANALYSIS REPORT

Your Order No: 16409/B49 Our Job Number : 1AD3068

Samples received : 07-OCT-1991 Results reported : 21-OCT-1991
No. of samples : 109
Report comprises a cover sheet and pages 1 to 6

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

John Waters
Laboratory Manager - Adelaide

CC	Mr J Read	VIC
CC	Mr M Raetz	VIC
MM	Mr M Raetz	VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

"RELIABLE ANALYSES AT COMPETITIVE COST"

CLASSIC LABORATORIES

Job: 1AD3068
O/N: 16409/B49

ANALYTICAL REPORT

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7814	0.06	0.06	--	--	4	3	11
DL7815	0.08	0.06	0.10	--	3	5	14
DL7816	0.04	0.04	--	--	5	7	11
DL7817	0.06	0.06	--	--	6	5	16
DL7818	0.06	0.06	--	--	5	5	14
DL7819	0.04	0.04	--	--	8	7	20
DL7820	0.06	0.06	--	--	5	5	24
DL7821	0.08	0.08	--	--	3	9	30
DL7822	0.06	0.06	--	--	3	7	32
DL7823	0.06	0.06	--	--	5	7	24
DL7824	0.04	0.04	--	--	5	7	25
DL7825	0.04	0.04	--	--	6	7	45
DL7826	0.02	0.02	--	--	4	9	40
DL7827	0.02	0.02	--	--	11	9	25
DL7828	0.06	0.06	--	--	4	9	20
DL7829	0.10	0.10	--	--	4	8	17
DL7830	0.08	0.08	--	--	3	8	25
DL7831	0.10	0.10	--	--	4	11	38
DL7832	0.02	0.02	--	--	9	14	45
DL7833	0.02	0.02	--	--	5	7	25
DL7834	<0.02	<0.02	--	--	4	8	22
DL7835	0.02	0.02	--	--	5	5	20
DL7836	0.02	0.02	--	--	6	6	22
DL7837	0.02	0.02	--	--	7	9	28
DL7838	<0.02	<0.02	--	--	3	5	36
DL7839	0.02	0.02	--	--	2	7	50
DL7840	<0.02	<0.02	--	--	3	9	46
DL7841	<0.02	<0.02	--	--	3	8	64
DL7842	<0.02	<0.02	--	--	4	7	20
DL7843	0.04	0.04	--	--	10	12	46
DL7844	<0.02	<0.02	--	--	3	6	22
DL7845	0.02	0.02	--	--	7	8	20
DL7846	0.02	0.02	--	--	3	8	22
DL7847	<0.02	<0.02	--	--	8	6	24
DL7848	0.02	0.02	--	--	2	6	17
DL7849	0.04	0.04	--	--	4	7	16
DL7850	0.02	0.02	--	--	5	7	22
DL7851	<0.02	<0.02	--	--	4	7	38
DL7852	0.04	0.04	--	--	6	5	16
DL7853	<0.02	<0.02	--	--	4	5	42
DL7854	<0.02	<0.02	--	--	6	2	13
DL7855	0.02	0.02	--	--	9	4	42
DL7856	0.02	0.02	--	--	5	5	42
DL7857	<0.02	<0.02	--	--	6	5	26
DL7858	0.02	0.02	--	--	3	8	22
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CR9126

CLASSIC LABORATORIES

Job: 1AD3068
O/N: 16409/B49

ANALYTICAL REPORT

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7859	0.02	0.02	--	--	2	4	25
DL7860	0.02	0.02	--	--	2	6	34
DL7861	0.04	0.04	0.04	--	4	6	24
DL7862	0.06	0.06	--	--	5	6	38
DL7863	0.08	0.08	--	--	11	8	34
DL7864	0.08	0.08	--	--	7	9	32
DL7865	0.04	0.04	--	--	10	8	26
DL7866	0.08	0.08	0.08	--	8	9	25
DL7867	0.08	0.08	--	--	9	10	32
DL7868	0.08	0.08	--	--	12	8	45
DL7869	0.10	0.10	--	--	10	9	34
DL7870	0.06	0.06	--	--	5	9	36
DL7871	0.06	0.06	--	--	12	8	24
DL7872	0.06	0.06	--	--	6	8	35
DL7873	0.06	0.06	--	--	6	8	28
DL7874	0.06	0.06	--	--	7	7	44
DL7875	0.08	0.08	--	--	7	10	36
DL7876	0.06	0.06	--	--	5	7	28
DL7877	0.04	0.04	--	--	5	7	28
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CR9116

CLASSIC LABORATORIES

Job: 1AD3068
O/N: 16409/B49

ANALYTICAL REPORT

Sample	Ag
DL7814	0.4
DL7815	0.6
DL7816	0.4
DL7817	0.6
DL7818	0.6
DL7819	0.4
DL7820	0.6
DL7821	0.6
DL7822	0.6
DL7823	0.6
DL7824	0.4
DL7825	0.4
DL7826	0.6
DL7827	0.6
DL7828	0.6
DL7829	0.8
DL7830	0.6
DL7831	0.6
DL7832	0.4
DL7833	0.6
DL7834	0.4
DL7835	0.6
DL7836	0.6
DL7837	0.6
DL7838	0.4
DL7839	0.4
DL7840	0.4
DL7841	0.4
DL7842	0.4
DL7843	0.6
DL7844	0.6
DL7845	0.6
DL7846	0.6
DL7847	0.4
DL7848	0.4
DL7849	0.4
DL7850	0.4
DL7851	0.4
DL7852	0.4
DL7853	0.2
DL7854	0.2
DL7855	0.4
DL7856	0.6
DL7857	0.6
DL7858	0.8
Units	ppm
DL	0.2
Scheme	AA7

CR9116

CLASSIC LABORATORIES

Job: 1AD3068
O/N: 16409/B49

ANALYTICAL REPORT

CR9116

Sample	Ag
DL7859	0.8
DL7860	1.0
DL7861	0.8
DL7862	0.6
DL7863	0.6
DL7864	0.8
DL7865	0.8
DL7866	0.8
DL7867	0.8
DL7868	0.8
DL7869	1.0
DL7870	0.8
DL7871	0.8
DL7872	0.8
DL7873	0.8
DL7874	0.8
DL7875	0.8
DL7876	0.6
DL7877	0.8
Units	ppm
DL	0.2
Scheme	AA7

CLASSIC LABORATORIES LTD
Incorporated in WA; a wholly owned subsidiary of Amdel Ltd
Osman Place, Thebarton, South Australia 5031
Telephone: (08) 43 5722 Facsimile: (08) 234 0321

Please note our new Phone Number is (08) 416 5300

Mr Jeremy Read
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

CR9127

21 NOV 1991

F I N A L A N A L Y S I S R E P O R T

Your Order No: 16416/FK4 Our Job Number : 1AD3401

Samples received : 07-NOV-1991 Results reported : 19-NOV-1991
No. of samples : 3
Report comprises a cover sheet and pages 1 to 2

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

John Waters
Laboratory Manager - Adelaide

CC	Mr Jeremy Read	VIC
CC	Mr Mike Raetz	VIC
MM	Mr Mike Raetz	VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

"RELIABLE ANALYSES AT COMPETITIVE COST"

CLASSIC LABORATORIES

Job: 1AD3401
O/N: 16416/FK4

ANALYTICAL REPORT

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL 7514	0.04	0.06	0.04	--	6	9	12
DL 7515	0.02	0.02	0.02	--	9	15	9
DL 7516	<0.02	0.02	<0.02	--	8	6	7
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

Job: 1AD3401
O/N: 16416/FK4

ANALYTICAL REPORT

Sample	Ag
DL 7514	<0.2
DL 7515	0.4
DL 7516	0.2
Units	ppm
DL	0.2
Scheme	AA7

amdel
ANALYTICAL SERVICES

Amdel Laboratories Limited
Brown Street, Thebarton, 5031
Telephone: (08) 416 5300 Facsimile: (08) 234 0321

CR9203

Mr Jeremy Read
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

FINAL ANALYSIS REPORT

Your Order No: 17814-FK4 Our Job Number : 2AD2512

Samples received : 01-SEP-1992 Results reported : 07-SEP-1992
No. of samples : 32
Report comprises a cover sheet and pages 1 to 2

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

for John Waters
Laboratory Manager - Adelaide

MM	Mr J Read	VIC
CC	Mr L Bettenay	VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

amdel

Job: 2AD2512
O/N: 17814-FK4

ANALYTICAL REPORT

Sample	Au Avg	Au	Au Rpl	Au SS
DB8555	<0.02	<0.02	--	<0.02
DB8556	<0.02	<0.02	--	--
DB8557	<0.02	<0.02	--	--
DB8558	<0.02	<0.02	--	--
DB8559	<0.02	<0.02	--	--
DB8560	<0.02	<0.02	--	--
DB8561	0.02	0.02	--	--
DB8562	0.02	0.02	--	--
DB8563	<0.02	<0.02	--	--
DB8564	<0.02	<0.02	--	--
DB8565	<0.02	<0.02	--	--
DB8566	0.02	0.02	--	--
DB8567	<0.02	<0.02	--	--
DB8568	<0.02	<0.02	--	--
DB8569	<0.02	<0.02	--	--
DB8570	<0.02	<0.02	--	--
DB8571	<0.02	<0.02	--	--
DB8572	<0.02	<0.02	--	--
DB8573	<0.02	<0.02	--	--
DB8574	<0.02	<0.02	--	--
DB8575	<0.02	<0.02	--	<0.02
DB8576	0.02	0.02	--	--
DB8577	<0.02	<0.02	--	--
DB8578	<0.02	<0.02	--	--
DB8579	<0.02	<0.02	--	--
DB8580	0.08	0.10	0.06	--
DB8581	0.02	0.02	--	--
DB8582	<0.02	<0.02	--	--
DB8583	<0.02	<0.02	--	--
DB8584	<0.02	<0.02	--	--
DB8585	<0.02	<0.02	--	--
DB8586	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

amdel

Job: 2AD2512
O/N: 17814-FK4

ANALYTICAL REPORT

Sample	Cu	Pb	Zn	Ag
DB8555	18	30	120	<1
DB8556	30	20	94	<1
DB8557	22	18	68	<1
DB8558	18	22	98	<1
DB8559	13	22	105	<1
DB8560	18	20	130	<1
DB8561	32	22	120	<1
DB8562	15	20	110	<1
DB8563	22	18	100	<1
DB8564	16	18	84	<1
DB8565	25	18	72	<1
DB8566	12	15	80	<1
DB8567	18	26	14	1
DB8568	19	22	26	1
DB8569	38	42	16	2
DB8570	30	55	26	2
DB8571	30	60	30	2
DB8572	25	42	34	2
DB8573	14	22	66	<1
DB8574	11	30	280	1
DB8575	30	26	150	1
DB8576	56	34	150	1
DB8577	10	18	9	<1
DB8578	17	26	70	1
DB8579	45	25	145	1
DB8580	5000	830	2850	3
DB8581	38	20	105	<1
DB8582	35	22	100	<1
DB8583	84	25	125	1
DB8584	18	26	10	1
DB8585	9	28	9	1
DB8586	5	22	8	1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

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Amdel Laboratories Limited
Brown Street, Thebarton, 5031
Telephone: (08) 416 5300 Facsimile: (08) 234 0321

Mr Jeremy Read
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

CR9206
CR9208

FINAL ANALYSIS REPORT

Your Order No: 17807/FK3

Our Job Number : 2AD2173

Samples received : 03-AUG-1992
No. of samples : 155

Results reported : 07-AUG-1992

Report comprises a cover sheet and pages 1 to 8

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

for John Waters
Laboratory Manager - Adelaide

MM	Mr J Read	VIC
CC	L Bettenay	VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

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Job: 2AD2173
O/N: 17807/fk3

ANALYTICAL REPORT

CR9208

Sample	Au Avg	Au	Au Rpl	Au SS1
DB8445	<0.02	<0.02	--	<0.02
DB8446	<0.02	<0.02	--	--
DB8447	<0.02	<0.02	--	--
DB8448	<0.02	<0.02	--	--
DB8449	<0.02	<0.02	--	--
DB8450	<0.02	<0.02	--	--
DB8451	<0.02	<0.02	--	--
DB8452	<0.02	<0.02	--	--
DB8453	<0.02	<0.02	--	--
DB8454	<0.02	<0.02	--	--
DB8455	<0.02	<0.02	--	--
DB8456	<0.02	<0.02	--	--
DB8457	<0.02	<0.02	--	--
DB8458	<0.02	<0.02	--	--
DB8459	<0.02	<0.02	--	--
DB8460	<0.02	<0.02	--	--
DB8461	0.08	0.08	0.08	--
DB8462	<0.02	<0.02	--	--
DB8463	<0.02	<0.02	--	--
DB8464	<0.02	<0.02	--	--
DB8465	<0.02	0.02	--	<0.02
DB8388	<0.02	<0.02	--	--
DB8389	<0.02	<0.02	--	--
DB8390	<0.02	<0.02	--	--
DB8391	<0.02	<0.02	--	--
DB8392	<0.02	<0.02	--	--
DB8393	<0.02	<0.02	--	--
DB8394	<0.02	<0.02	--	--
DB8395	<0.02	<0.02	--	--
DB8396	<0.02	<0.02	--	--
DB8397	0.02	0.02	--	--
DB8398	<0.02	<0.02	--	--
DB8399	<0.02	<0.02	--	--
DB8400	<0.02	<0.02	--	--
DB8401	<0.02	<0.02	--	--
DB8402	<0.02	<0.02	--	--
DB8403	<0.02	<0.02	--	--
DB8404	<0.02	<0.02	--	--
DB8405	<0.02	<0.02	--	--
DB8406	<0.02	<0.02	--	--
DB8407	<0.02	<0.02	--	<0.02
DB8408	<0.02	<0.02	--	--
DB8409	<0.02	<0.02	--	--
DB8410	<0.02	<0.02	--	--
DB8411	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

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ANALYTICAL REPORT

Job: 2AD2173
O/N: 17807/fk3

Sample	Au Avg	Au	Au Rpl	Au SS1
DB8412	<0.02	<0.02	--	--
DB8413	<0.02	<0.02	--	--
DB8414	0.02	0.02	--	--
DB8415	<0.02	<0.02	--	--
DB8416	<0.02	<0.02	--	--
DB8417	<0.02	<0.02	--	--
DB8418	<0.02	<0.02	--	--
DB8419	<0.02	<0.02	--	--
DB8420	<0.02	<0.02	--	--
DB8421	<0.02	<0.02	--	--
DB8422	<0.02	<0.02	--	--
DB8423	<0.02	<0.02	--	--
DB8424	<0.02	<0.02	--	--
DB8425	<0.02	<0.02	--	--
DB8426	<0.02	<0.02	--	--
DB8427	<0.02	<0.02	--	<0.02
DB8428	<0.02	<0.02	--	--
DB8429	<0.02	<0.02	--	--
DB8430	<0.02	<0.02	--	--
DB8431	<0.02	<0.02	--	--
DB8432	<0.02	<0.02	--	--
DB8433	<0.02	<0.02	--	--
DB8434	<0.02	<0.02	--	--
DB8435	<0.02	<0.02	--	--
DB8436	<0.02	<0.02	--	--
DB8437	<0.02	<0.02	--	--
DB8438	<0.02	<0.02	--	--
DB8439	<0.02	<0.02	--	--
DB8440	<0.02	<0.02	--	--
DB8441	<0.02	<0.02	--	--
DB8442	<0.02	<0.02	--	--
DB8443	<0.02	<0.02	--	--
DB8444	<0.02	<0.02	--	--
DB8311	<0.02	<0.02	--	--
DB8312	0.02	0.02	--	--
DB8313	<0.02	<0.02	--	<0.02
DB8314	<0.02	<0.02	--	--
DB8315	<0.02	<0.02	--	--
DB8316	<0.02	<0.02	--	--
DB8317	<0.02	<0.02	--	--
DB8318	<0.02	<0.02	--	--
DB8319	<0.02	<0.02	--	--
DB8320	<0.02	<0.02	--	--
DB8321	<0.02	<0.02	--	--
DB8322	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

CR9206

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Job: 2AD2173
O/N: 17807/fk3

ANALYTICAL REPORT

Sample	Au Avg	Au	Au Rp1	Au SS1
DB8323	0.02	0.02	--	--
DB8324	<0.02	<0.02	--	--
DB8325	<0.02	<0.02	--	--
DB8326	<0.02	<0.02	--	--
DB8327	<0.02	<0.02	--	--
DB8328	<0.02	<0.02	--	--
DB8329	<0.02	<0.02	--	--
DB8330	<0.02	<0.02	--	--
DB8331	<0.02	<0.02	--	--
DB8332	<0.02	<0.02	--	--
DB8333	<0.02	<0.02	--	<0.02
DB8334	<0.02	<0.02	--	--
DB8335	<0.02	<0.02	--	--
DB8336	<0.02	<0.02	--	--
DB8337	0.02	0.02	--	--
DB8338	<0.02	<0.02	--	--
DB8339	<0.02	<0.02	--	--
DB8340	<0.02	<0.02	--	--
DB8341	<0.02	<0.02	--	--
DB8342	<0.02	<0.02	--	--
DB8343	<0.02	<0.02	--	--
DB8344	<0.02	<0.02	--	--
DB8345	<0.02	<0.02	--	--
DB8346	<0.02	<0.02	--	--
DB8347	<0.02	<0.02	--	--
DB8348	0.08	0.08	0.10	--
DB8349	<0.02	<0.02	--	--
DB8350	<0.02	<0.02	--	--
DB8351	<0.02	<0.02	--	--
DB8352	<0.02	<0.02	--	--
DB8353	<0.02	<0.02	--	<0.02
DB8354	<0.02	<0.02	--	--
DB8355	<0.02	<0.02	--	--
DB8356	<0.02	<0.02	--	--
DB8357	<0.02	<0.02	--	--
DB8358	<0.02	<0.02	--	--
DB8359	<0.02	<0.02	--	--
DB8360	<0.02	<0.02	--	--
DB8361	<0.02	<0.02	--	--
DB8362	<0.02	<0.02	--	--
DB8363	<0.02	<0.02	--	--
DB8364	0.06	0.06	--	--
DB8365	<0.02	<0.02	--	--
DB8366	<0.02	<0.02	--	--
DB8367	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

Job: 2AD2173
O/N: 17807/fk3

ANALYTICAL REPORT

CR9206

Sample	Au Avg	Au	Au Rp1	Au SS1
DB8368	<0.02	<0.02	--	--
DB8369	0.06	0.06	--	--
DB8370	<0.02	<0.02	--	--
DB8371	<0.02	<0.02	--	--
DB8372	<0.02	<0.02	--	--
DB8373	<0.02	<0.02	--	<0.02
DB8374	<0.02	<0.02	--	--
DB8375	<0.02	<0.02	--	--
DB8376	<0.02	<0.02	--	--
DB8377	<0.02	<0.02	--	--
DB8378	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DB8379	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DB8380	<0.02	<0.02	--	--
DB8381	0.02	0.02	--	--
DB8382	<0.02	<0.02	--	--
DB8383	<0.02	<0.02	--	--
DB8384	<0.02	<0.02	--	--
DB8385	<0.02	<0.02	--	--
DB8386	<0.02	<0.02	--	--
DB8387	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

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Job: 2AD2173
O/N: 17807/fk3

ANALYTICAL REPORT

CR9208

Sample	Cu	Pb	Zn	Ag
DB8445	40	34	150	<1
DB8446	32	25	35	<1
DB8447	28	22	36	<1
DB8448	26	20	22	<1
DB8449	28	25	44	<1
DB8450	30	16	28	<1
DB8451	26	20	30	<1
DB8452	28	24	32	<1
DB8453	30	32	38	<1
DB8454	30	12	20	<1
DB8455	34	16	34	<1
DB8456	32	28	52	<1
DB8457	16	20	55	<1
DB8458	13	16	46	<1
DB8459	11	15	36	<1
DB8460	11	18	38	<1
DB8461	4800	810	2600	3
DB8462	18	14	44	<1
DB8463	28	18	25	<1
DB8464	26	15	24	<1
DB8465	28	14	20	<1
DB8388	14	12	30	<1
DB8389	24	14	42	<1
DB8390	30	22	92	<1
DB8391	40	18	28	<1
DB8392	56	20	35	<1
DB8393	28	18	28	<1
DB8394	15	14	20	<1
DB8395	16	12	22	<1
DB8396	18	16	34	<1
DB8397	14	12	24	<1
DB8398	20	15	28	<1
DB8399	14	12	34	<1
DB8400	17	10	28	<1
DB8401	17	10	16	<1
DB8402	19	10	18	<1
DB8403	19	12	30	<1
DB8404	25	12	28	<1
DB8405	10	12	25	<1
DB8406	4	14	32	<1
DB8407	6	15	30	<1
DB8408	6	14	24	<1
DB8409	6	12	36	<1
DB8410	7	18	24	<1
DB8411	13	18	22	<1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

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ANALYTICAL REPORT

Job: 2AD2173
O/N: 17807/fk3

Sample	Cu	Pb	Zn	Ag
DB8412	10	15	24	<1
DB8413	10	15	24	<1
DB8414	12	20	20	1
DB8415	14	18	20	1
DB8416	12	18	18	1
DB8417	16	18	16	1
DB8418	15	16	24	1
DB8419	18	15	26	1
DB8420	7	14	26	<1
DB8421	20	16	22	1
DB8422	16	15	19	<1
DB8423	13	14	28	<1
DB8424	20	15	32	1
DB8425	17	14	22	<1
DB8426	15	16	20	<1
DB8427	16	14	20	<1
DB8428	12	14	28	<1
DB8429	12	20	48	1
DB8430	9	14	28	<1
DB8431	6	12	26	<1
DB8432	9	15	26	1
DB8433	6	15	30	<1
DB8434	9	10	8	<1
DB8435	8	14	16	<1
DB8436	7	14	20	<1
DB8437	7	12	30	<1
DB8438	9	12	20	<1
DB8439	9	12	14	<1
DB8440	10	16	25	<1
DB8441	9	14	22	<1
DB8442	12	14	22	<1
DB8443	13	12	42	<1
DB8444	15	16	54	<1
DB8311	32	24	65	<1
DB8312	15	18	62	<1
DB8313	9	18	64	<1
DB8314	15	18	45	<1
DB8315	45	15	42	<1
DB8316	26	18	68	<1
DB8317	28	14	36	<1
DB8318	20	18	45	<1
DB8319	24	14	48	<1
DB8320	30	12	36	<1
DB8321	24	12	42	<1
DB8322	28	14	52	<1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

CR9206

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Job: 2AD2173
O/N: 17807/fk3

ANALYTICAL REPORT

Sample	Cu	Pb	Zn	Ag
DB8323	26	15	48	<1
DB8324	20	15	40	<1
DB8325	26	14	44	<1
DB8326	30	14	48	<1
DB8327	28	12	40	<1
DB8328	24	15	44	<1
DB8329	7	18	42	<1
DB8330	11	40	17	<1
DB8331	19	16	60	<1
DB8332	32	14	40	<1
DB8333	28	12	44	<1
DB8334	30	14	48	<1
DB8335	22	12	34	<1
DB8336	24	14	40	<1
DB8337	28	14	48	<1
DB8338	24	16	58	<1
DB8339	34	18	54	<1
DB8340	25	26	28	<1
DB8341	12	15	28	<1
DB8342	6	12	40	<1
DB8343	7	12	38	<1
DB8344	6	22	105	<1
DB8345	5	20	60	1
DB8346	8	22	26	1
DB8347	7	20	20	1
DB8348	4900	800	2650	3
DB8349	11	22	17	1
DB8350	16	22	25	1
DB8351	9	24	15	1
DB8352	11	25	13	1
DB8353	13	22	14	1
DB8354	11	20	19	1
DB8355	10	24	15	1
DB8356	10	22	13	<1
DB8357	11	18	16	1
DB8358	9	20	16	<1
DB8359	8	22	18	<1
DB8360	9	22	20	<1
DB8361	6	20	24	<1
DB8362	19	22	17	<1
DB8363	8	22	17	1
DB8364	8	22	14	1
DB8365	8	22	14	1
DB8366	10	24	14	1
DB8367	10	24	15	1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

amdel

Job: 2AD2173
O/N: 17807/fk3

ANALYTICAL REPORT

CR9206

Sample	Cu	Pb	Zn	Ag
DB8368	8	22	16	1
DB8369	22	20	17	<1
DB8370	15	20	22	<1
DB8371	8	20	17	1
DB8372	7	15	17	<1
DB8373	11	15	19	<1
DB8374	13	15	20	<1
DB8375	6	16	18	<1
DB8376	6	15	15	<1
DB8377	7	16	17	<1
DB8378	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DB8379	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DB8380	14	12	42	<1
DB8381	19	16	28	<1
DB8382	19	12	26	<1
DB8383	17	14	30	<1
DB8384	14	12	32	<1
DB8385	14	14	34	<1
DB8386	19	14	32	<1
DB8387	15	14	26	<1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

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ANALYTICAL SERVICES

Mr Noted. C/10.

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Mr Jeremy Read
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

CR9214

FINAL ANALYSIS REPORT

Your Order No: FK4/17816 Our Job Number : 2AD2735

Samples received : 21-SEP-1992 Results reported : 30-SEP-1992
No. of samples : 18
Report comprises a cover sheet and pages 1 to 2

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

for John Waters
Laboratory Manager - Adelaide

MM Mr Jeremy Read VIC
CC Mr Mike Raetz VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insuffcent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

Amdel Laboratories Limited A.C.N. 009 076 555

Gandel

ANALYTICAL REPORT

Job: 2AD2735
O/N: FK4/17816

Sample	Au Avg	Au	Au Rpl	Au SS
DB8587	<0.02	<0.02	--	--
DB8588	<0.02	<0.02	--	--
DB8589	<0.02	<0.02	--	--
DB8590	<0.02	<0.02	--	--
DB8591	<0.02	<0.02	--	--
DB8592	<0.02	<0.02	--	--
DB8593	<0.02	<0.02	--	--
DB8594	<0.02	<0.02	--	--
DB8595	<0.02	<0.02	--	--
DB8596	<0.02	<0.02	--	--
DB8597	<0.02	<0.02	--	--
DB8598	<0.02	<0.02	--	--
DB8599	<0.02	<0.02	--	--
DB8600	<0.02	<0.02	--	--
DB8601	<0.02	<0.02	--	--
DB8602	0.06	0.06	--	--
DB8603	<0.02	<0.02	--	--
DB8604	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

Chemex

ANALYTICAL REPORT

Job: 2AD2735
O/N: FK4/17816

Sample	Cu	Pb	Zn	Ag
DB8587	16	20	46	<1
DB8588	11	14	32	<1
DB8589	7	6	5	<1
DB8590	11	14	10	<1
DB8591	13	22	10	1
DB8592	8	22	8	2
DB8593	4	16	8	1
DB8594	6	14	9	1
DB8595	6	16	8	2
DB8596	5	15	5	1
DB8597	5	16	6	1
DB8598	8	18	15	1
DB8599	115	25	14	1
DB8600	130	20	26	<1
DB8601	160	20	24	1
DB8602	5200	810	3000	3
DB8603	28	12	18	<1
DB8604	26	10	20	<1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

CR 8401

EXPLORATION LICENCES 1719 AND 1725 SOUTH AUSTRALIA

RELINQUISHMENT REPORT,
PARTIAL AREA REDUCTION FROM
EL1719 AND 1725
April 1994

M Valdez
Project Geologist

BHP Minerals
Exploration Department

Distribution:

1 Hawthorn
1 Brisbane
2 Mines and Energy South Australia

8782
~~8234/V03~~

SUMMARY

BHP Minerals Limited has again partially relinquished EL's 1719 and 1725 on the 7th April 1994. These are the second relinquishments from the Coober Pedy Ridge Project.

Exploration for Zn-Pb-Ag and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area, South Australia, started in 1991. The work completed comprised of aeromagnetic interpretation, depth to basement studies, anomaly selection, ground magnetic surveying, drilling of selected targets, bedrock geochemical analysis, geological and geochemical evaluation.

One RC hole (CR9120) was drilled in EL1719 intersecting basement at 124m. The magnetic target intersected is a quartz magnetite rock.

Four RC holes and one Diamond drill hole (CR9115, CR9117, CR9213, CR93001 and CD93009) were drilled in EL1725, intersecting basement at 34.5, 93.5, 114, 149 and 62m respectively. The magnetic target intersected are magnetite quartzite, amphibolite + metasediments, magnetite gneiss, syntectonic granite + BIF, and garnet quartz magnetite gneiss.

With these relinquishments, BHP's total Coober Pedy Ridge Project has been reduced by 9.6% overall. The relinquished areas are considered less prospective for any or all of the following reasons: 1) excessive depth to basement; 2) insignificant geochemical results; or, 3) less prospective stratigraphy.

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1 INTRODUCTION

BHP Minerals Ltd (BHP) is actively exploring for Zn-Pb-Ag and Cu-Au mineralisation in Lower Proterozoic rocks of the Coober Pedy Ridge area, South Australia. BHP applied for EL's 1712, 1718, 1719 and 1725 located south of Coober Pedy, in 1991 (Figure 1). These Exploration Licences form a contiguous block of ground. In November 1993 EL 1712, 1719 were partially relinquished and EL 1718 totally relinquished (Valdez 1994b), Table 1.

On 7th April 1994 EL's 1719 and 1725, were again partially relinquished (Fig. 1, Table 1). This report summarises the work completed in the now relinquished areas from the 13th May 1991 to 7th April 1994.

2 LOCATION AND ACCESS

The tenements are located on the Coober Pedy and Billa Kalina 1:250,000 sheets (Figure 1). The main access is by the Stuart Highway and Tarcoola-Alice Springs railway. Station roads and tracks provide reasonable access throughout the area covered by these licences.

3 EXPLORATION RATIONALE

BHP is exploring for Zn-Pb-Ag and Cu-Au mineralisation in the area. Aeromagnetic data was used to map the mainly covered basement rocks that are interpreted to be of Proterozoic age.

4 TRADITIONAL LANDOWNER LIAISONS

BHP has been liaising with Mr Ricky Brown, a person recognised as having knowledge of the Coober Pedy area, in order to avoid sites significant to the Aboriginal people. Drill sites in the BHP tenements were inspected and Mr. Brown advised, that to the best of his knowledge, no sites of significance would be affected by BHP activities Read 1991a, 1991b, 1992a, 1992b and 1992c; Valdez 1994a).

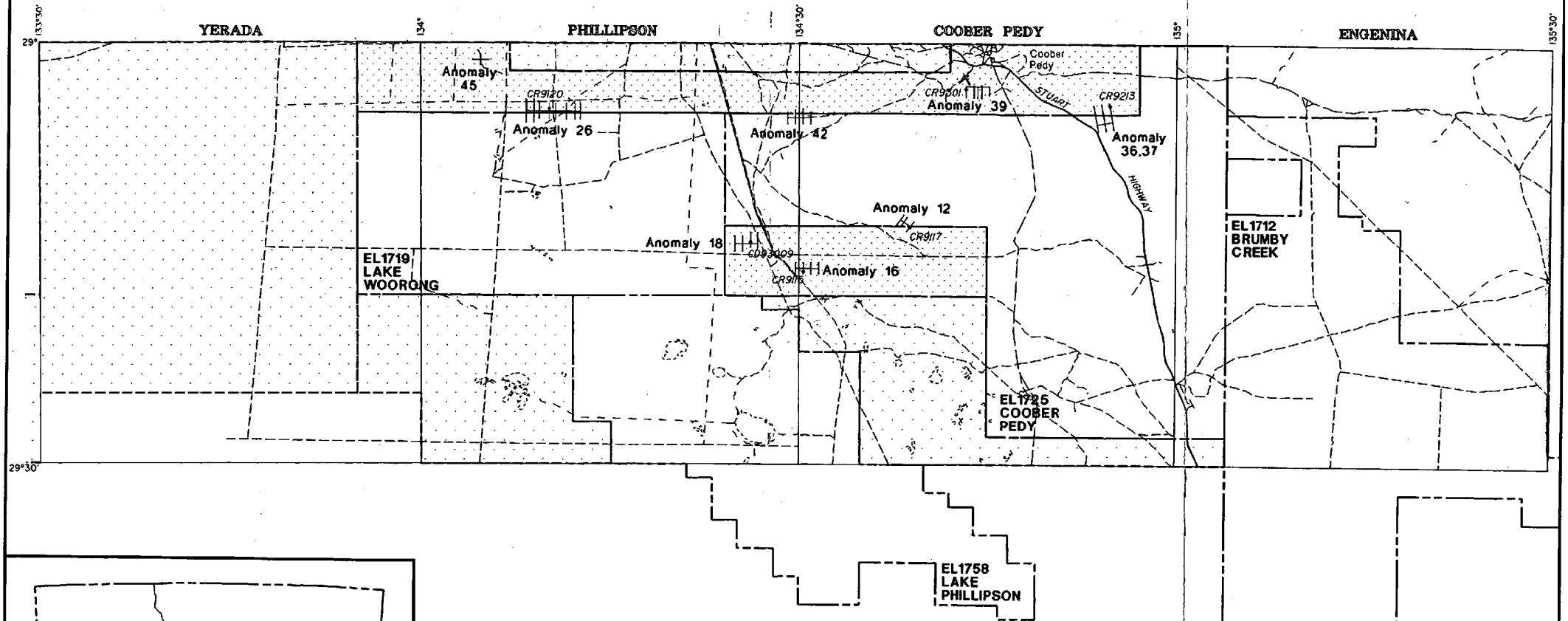
5 ENVIRONMENTAL CONSIDERATIONS

Heavy vehicle access to drill sites was made via existing station tracks where possible. Short access tracks were graded into Anomalies 12, 16, 18, 36/37 and 39. Drill holes were rehabilitated by backfilling with cuttings. Sumps, dug for mud collection when mud-drilling, were backfilled after drilling finished. Excess material was either removed from site or buried and covered by local soil.

TABLE 1

AREA REDUCTIONS

Exploration Licence No.	**Original Area (Km^2)**	**First Relinquishment November 1993 Area reduction (Km^2)**	**This Relinquishment April 1994 Area reduction (Km^2)**	**Actual Area (Km^2)**
1712	1955	0.00	0.00	1955
1718	2407	(2407)	0.00	----
1719	2124	(715)	(281)	1128
1725	3199	(649)	(648)	1902
Total	9685	3,771	929	4,985
	100%	(-38.94%)	(-9.59%)	51.47%



BHP Minerals Pty. Ltd.
A.C.N. 008 694 782

COOBER PEDY RIDGE, S.A.
SUMMARY OF FIELD WORK IN RELINQUISHED AREAS

Prepared: M. Valdez	Date: 18th July 1994
Drawn: A.Veale/USIn	Project No.: B49, FK2-4
Centre: Melbourne	Drawing No.: A3 - 2050

FIGURE 1

6 RELINQUISHMENT FROM EL1719

Approximately 281km^2 were relinquished from this licence (Figure 1, Table 1). The relinquished area is defined by:

Commencing at a point being the intersection of longitude 133^{0}55'E and latitude 29^{0}00'S
thence due East to Longitude 134^{0}07'E,
thence due South to latitude 29^{0}02'S,
thence due East to Longitude 134^{0}24'E
thence due South to Latitude 29^{0}05'
thence due West to Longitude 133^{0}55', and
thence due North to point of commencement.

6.1 Exploration completed for the period from 12th May 1991 to 7th April 1994 in the relinquished area

6.1.1 Depth to basement study

Depth to basement was calculated for the tenement blocks using previous drilling information. Depths from 100 to 200m were expected. CR9120 intersected basement at a depth of 124m on Anomaly 26 (Read, 1991b).

6.1.2 Aeromagnetic interpretation and target selection

Interpretation of the basement rocks was made by Read (1991a), using previous drilling information and geology of the Mt. Woods Inlier located to the east within EL1725.

One aeromagnetic target was selected for ground magnetic surveying, Anomaly 26. The data collected was processed and a selected anomaly modelled. This model is included in Appendix 1.

6.1.3 Drilling

RC hole, CR9120, was drilled at Anomaly 26. The target was an east-west elongated magnetic feature interpreted to be prospective for Broken Hill Type (BHT) mineralisation. Hole specifications are summarised in Table 2.

TABLE 2

Drill hole specifications from relinquished portion of EL1719

Anomaly No.	Hole	Co-ord's East	Co-ord's North	Grid	Dip	Azimuth	Hole Type	Est. Depth to Target	Depth to basement (m)	Actual depth to target	Total depth of hole	Target
26	CR9120	419,100	6,782,720	AMG	-90	-	RC	80-100	124	124-131	131	Quartz magnetite horizon within Kararri Mylonite Zone.

Basement was intersected at 124m and comprised of quartz-magentite (BIF unit). The magnetic target intersected was a quartz-magnetite unit (124m - 131m). Graphic drill hole sections are included in Appendix 2 and descriptive drill logs in Appendix 3.

The best assay results came from the 126-128m interval with 0.10ppm Au, 14ppm Cu, 8ppm Pb, 42ppm Zn, 0.5ppm Ag. These results correspond with a garnetiferous quartz-magnetite rock. Complete assay results are included in Appendix 4.

7 RELINQUISHMENT FROM EL1725

EL 1725, Coober Pedy, is located south of the town of Coober Pedy, mostly included in the Coober Pedy Precious Stones Field. Here the exploration licence commences 50m below surface. The top 50m portion of ground is reserved for opal mining. Two areas, **northern and southern areas,** were relinquished from this licence (Figure 1, Table 1). The **northern area** is defined by:

Commencing at a point being the intersection of longitude 134°24'E and latitude 29°02'S,
thence due East to longitude 134°42'E,
thence due North to Latitude 29°00'S,
thence due East to Longitude 134°57'E,
thence due South to Latitude 29°05'S,
thence due West to longitude 134°24'E, and
thence due North to point of commencement.

The **southern area** relinquished from this licence is defined by:
Commencing at a point being the intersection of longitude 134°27'E and latitude 29°13'S,
thence due East to longitude 134°45'E,
thence due South to latitude 29°13'S,
thence due West to longitude 134°27'E, and
thence due North to point of commencement.

7.1 Exploration completed for the period from 12th May 1991 to 7th April 1994

7.1.1 Depth to basement study

Depth to basement was calculated for the tenement blocks using previous drilling information (Read, 1991a).

Depth to basement was expected to be between 100 and 200m in the northern area, and between 35 and 150m in the southern area. The drill holes revealed depths from 114 to 149m in anomalies 39 and 36/37 respectively (northern area). Basement was intersected at 24.5, 62 and 93.5m in anomalies 16, 18 and 12 respectively.

7.1.2 Aeromagnetic interpretation and target selection

Interpretation of the basement rocks was made by Read (1991a), using previous drilling information and geology of the outcropping rocks.

Six aeromagnetic anomalies were selected for ground magnetic surveying, anomalies 11, 12, 16, 18, 36 and 39 (Read, 1991, 1992a, 1992b, 1992c; Valdez 1994a). The data collected was processed and selected magnetic anomalies were modelled (see Appendix 1).

7.1.3 Drilling

Five RC holes and one Diamond drill hole were drilled within the relinquished area. Hole specifications and targets are summarised in Table 3.

A total of 224m of Diamond drilling and 973m of RC drilling were completed.

Best assay results are summarised in Table 4. Complete assay results are included in Appendix 4.

TABLE 3

Drill hole specifications from relinquished portion of EL1725

Anomaly No.	Hole	Co-ord's East	Co-ord's North	Grid	Dip	Azimuth	Hole Type	Est. Depth to Target (m)	Depth to Basement (m)	Actual depth to target (m)	Total depth of hole (m)	Target
12	CR9117	41,500	9,910	LOCAL	-60°	34°	RC	130-150	108	-	230	Amphibolite, meta sediments
16	CR9115	452,000	6,761,700	AMG	-60°	355°	RC	170	40	40	156	Magnetite quartzite
18	CD93009	445,000	6,765,700	AMG	-60°	354°	MUD/DDH	110	72	102-174	224	Garnet quartz magnetite gneiss
36/37	CR9213	122,000	122,250	LOCAL	-60°	345°	RC	150	132	142-186	208	Garnet quartz-magnetite
39	CR93001	472,900	6,785,960	AMG	-60°	354°	MUD/RC	170	172	210-276	279	Syn-Tectonic Granite/BIF

TABLE 4

Best assay results, RC and DDH drilling from relinquished areas

Anomaly	Hole	Depth (m)	Cu (ppm)	Pb (ppm)	Zn (ppm)	Ag (ppm)	Au (ppm)	Rock Type
12	CR9117	192-196	5	4	19	1.20	0.18	Quartz magnetite rock
16	CR9115	58-60	7	6	12	0.60	0.10	Magnetite quartzite
18	CD93009	86-87.5	105	5	28	1.00	<0.02	Magnetite garnet quartz feldspar amphibole gneiss
37	CR9213	186-190	8	8	62	<1.00	0.02	Quartz biotite gneiss
39	CR93001	226-270	46	15	88	0.75	<0.02	Quartz amphibole garnet chlorite gneiss

9 DISCUSSION

After almost three years of reconnaissance drilling into covered basement further area reduction is warranted over EL's 1719 and 1725 (Valdez 1994a). Exploration work continues on the remaining areas of the licences.

The areas were relinquished for any or all of the following reasons:

- excessive depth to basement
- insignificant geochemical results
- less prospective stratigraphy

However it is fair to say that the areas relinquished have not been exhaustively explored, but that the reduction simply reflects the company's most reasonable option at this time.

The geological basement interpretation map has been omitted from this report because it really reflects an overview interpretation, including areas still on closed file.

The reference list is included for completeness, although those reports remain on closed file at present.

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Read, J.J., 1991a. Exploration Licences 1712, 1718, 1719 and 1725, South Australia, Joint First Quaterly Report for the Three Months Ended 13th August 1991, BHP Minerals, CR 7392.

Read, J.J., 1991b. Exploration Licences 1712, 1718, 1719 and 1725, South Australia, Joint Second Quarterly Report for the Three Months Ended 13th November 1991, BHP Minerals, CR 7474.

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Read, J.J., 1992b. Exploration Licences 1712, 1718, 1719 and 1725, South Australia, Joint Fourth Quarterly Report for the Three Months Ended 13th May 1992, BHP Minerals, CR 7485.

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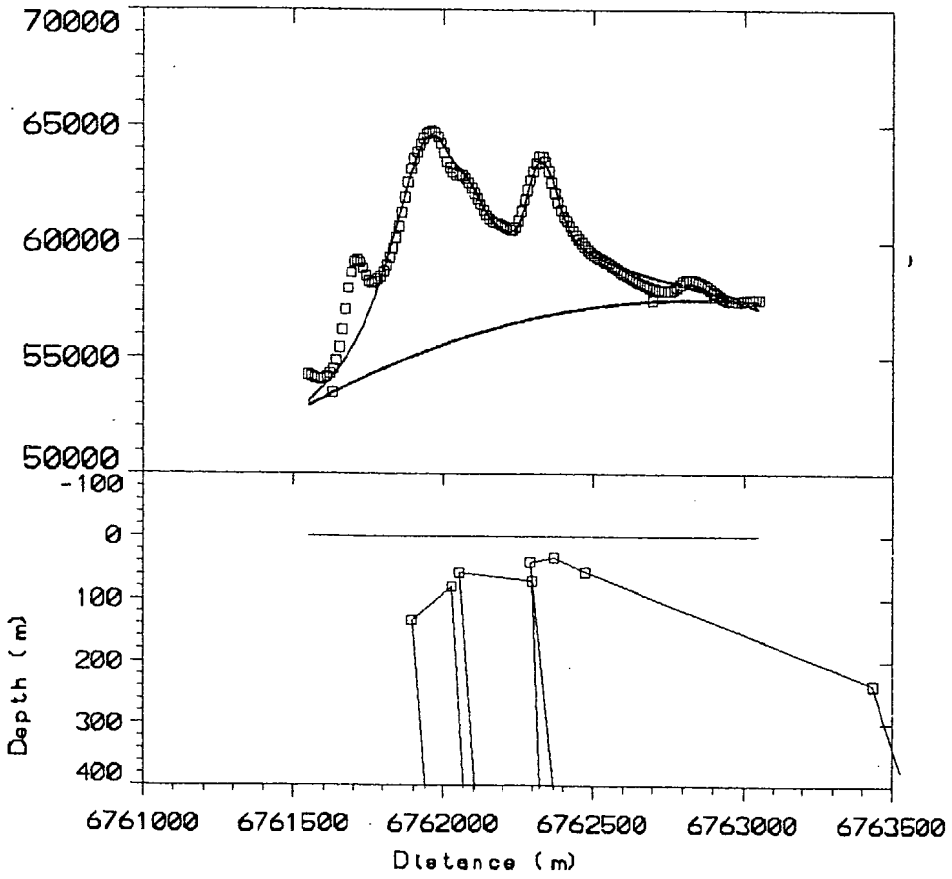
Appendix 1

Ground Magnetic Profiles and Models and Sections

EL No.	Anomaly	Line	Ground Mag		Model
			From	To	
1719	26	422,400E	6,781,700N	6,783,700N	Yes (2)
1719	26	419,100E	6,781,700N	6,783,700N	Yes (2)
1725	16	452,000E	6,761,500N	6,763,000N	Yes
1725	18	445,000E	6,764,800N	6,766,800N	Yes
1725	36/37	122,000E*	119,000N	121,000N	Yes (3)
1725	36/37	122,000E*	121,500N	122,700N	Yes (2)
1725	39	472,900E	6,784,750N	6,790,150N	Yes
1725	45	410,300E	6,788,550N	6,786,350N	Yes (2)

* Local co-ordinates



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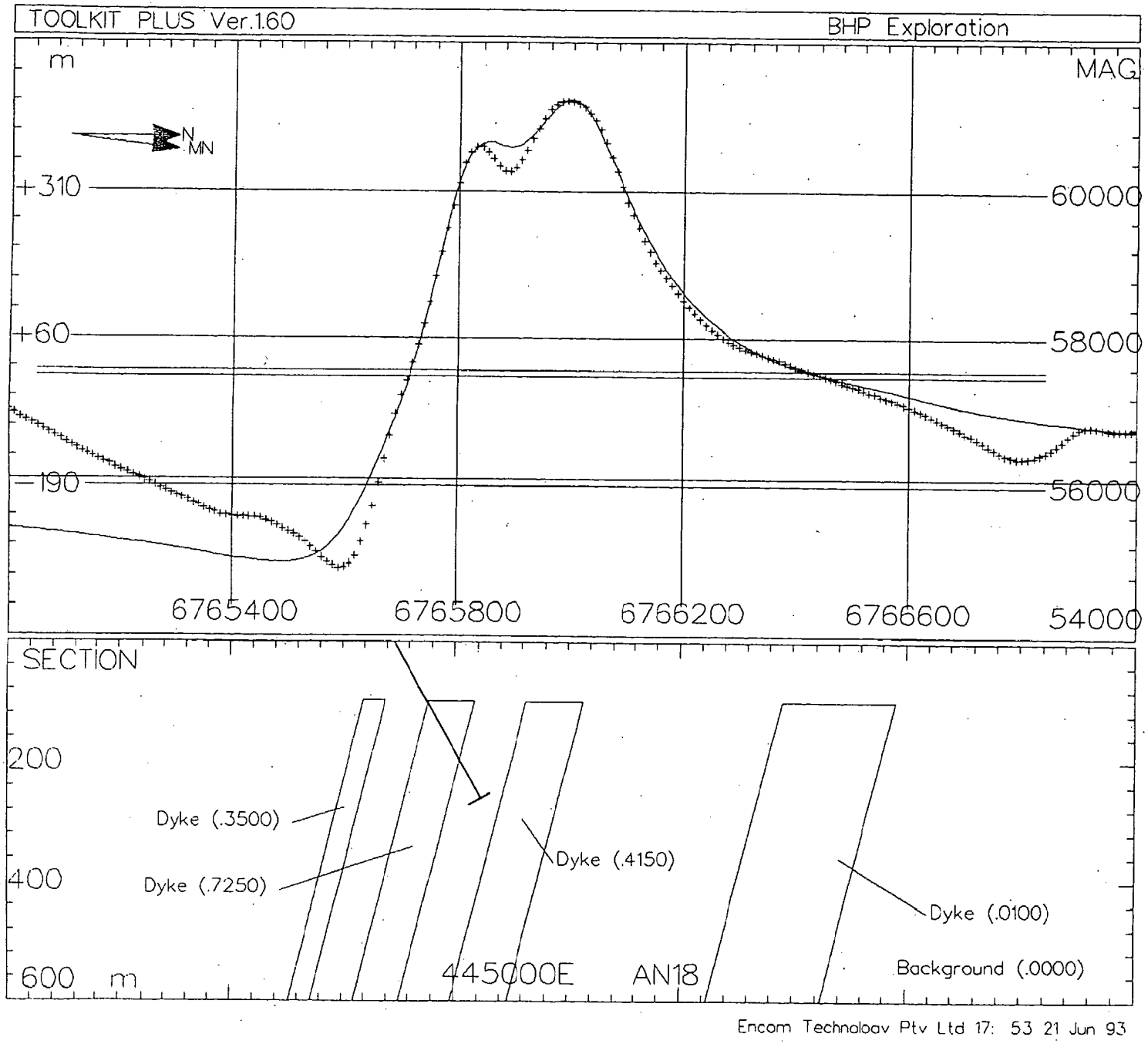
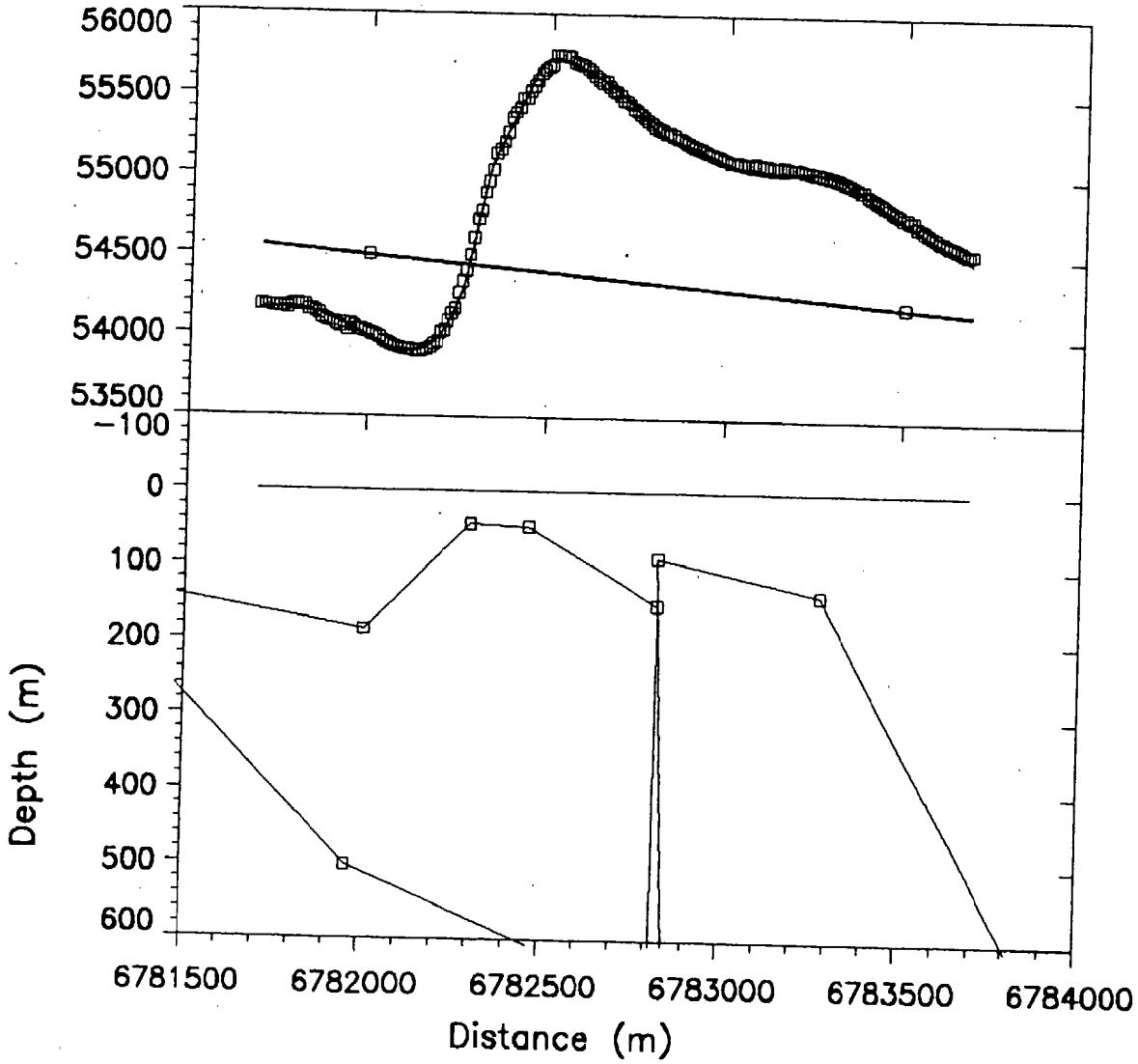
Inclination : -65.00 deg	by: BHP Minerals, Ltd.		ANOMALY 16 SOUTH AUSTRALIA
Strike Direction : 270 ~~90.00~~ deg	Data Set: 452000E	Date: JUNE 1991	
Profile Direction : 360 180.00 deg	Scale: 1:20000	Profile: 45200	Vertical Exaggeration: 2.00 : 1
All Directions are Clockwise from Magnetic North			



AN 18

445000E
6765700N
Incl^{n} -60°N
Azimuth 355°
Depth of hole 300m
Depth to mag 110m
Susc 72500 x 10^{-5}SI



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Inclination : −61.00 deg	by: BHP Minerals, Ltd.	ANOMALY 26
Strike Direction : 270.00 deg	Data Set: 422400E / Date: JUNE 1991	COOBER PEDY RIDGE
Profile Direction : 360.00 deg	Scale: 1:20000 / Profile: 42240	Vertical Exaggeration: 2.00 : 1
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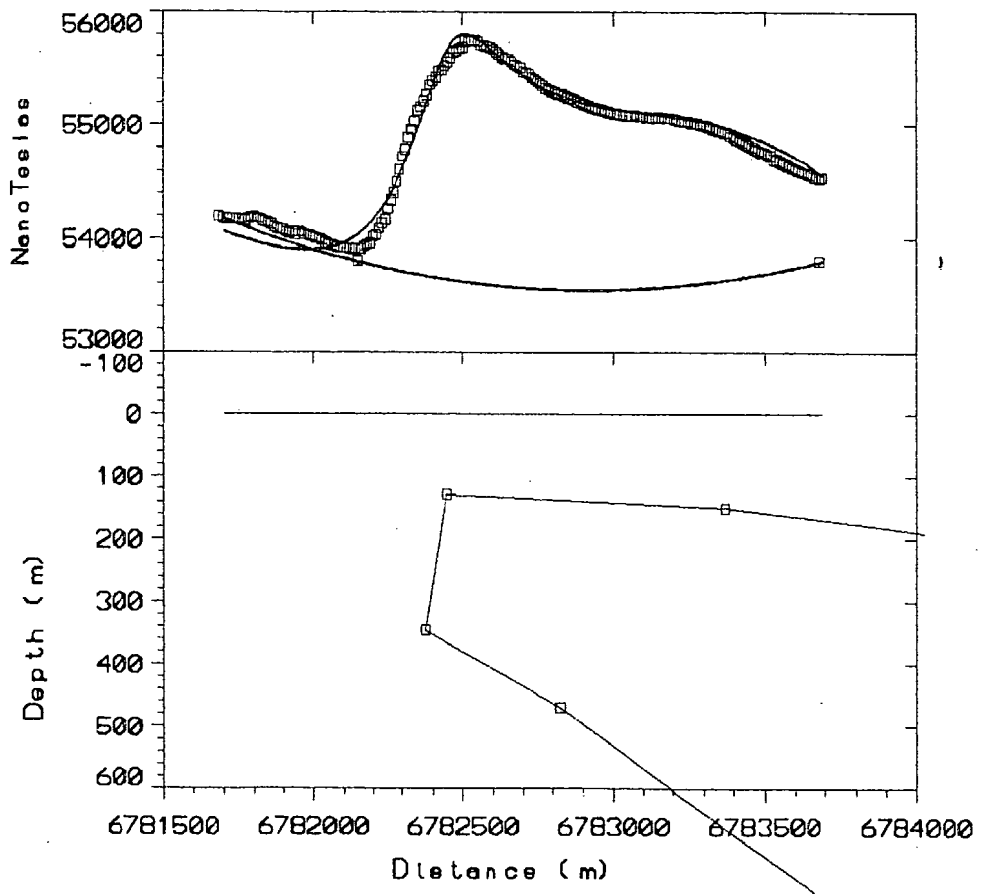

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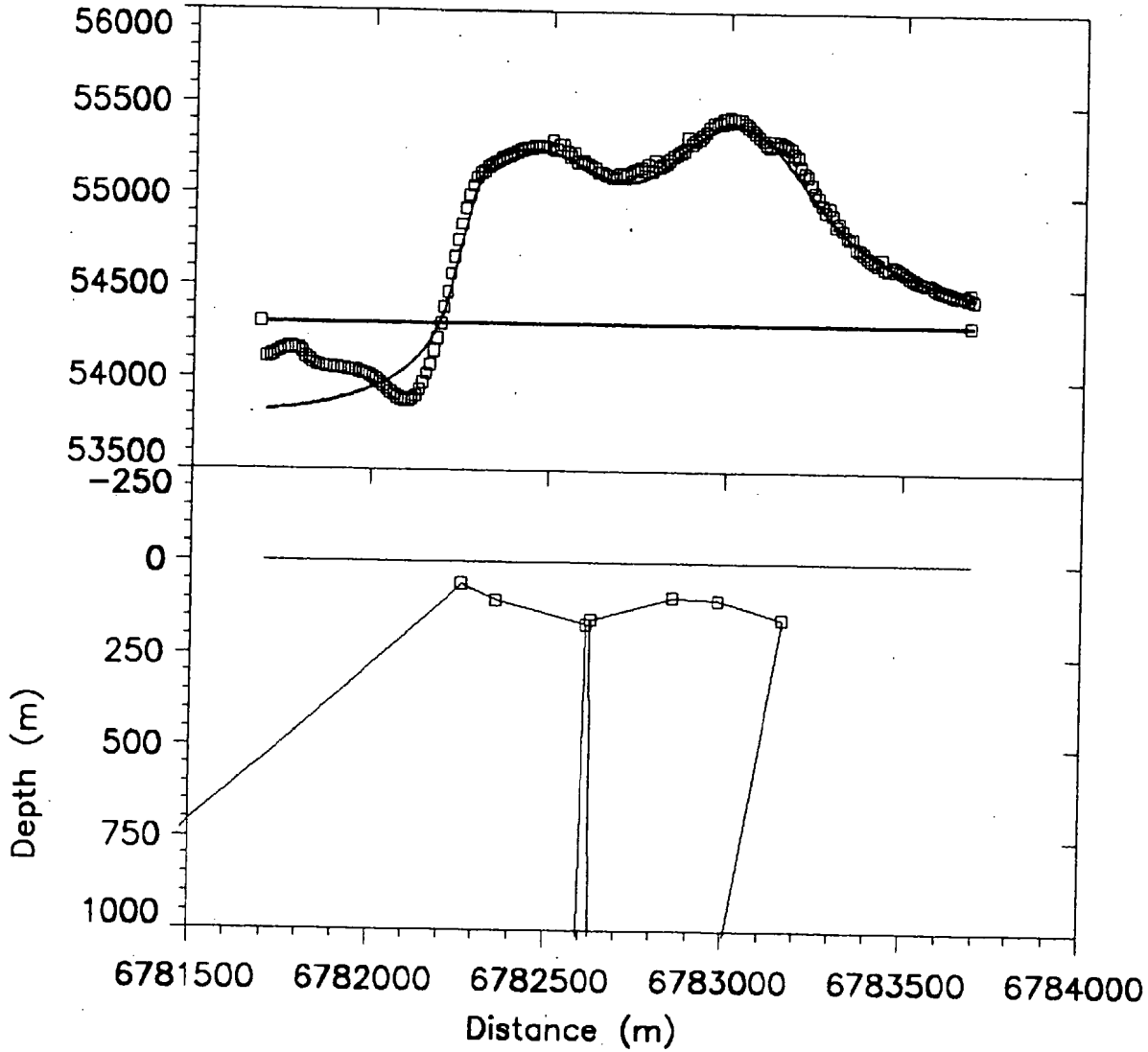
Profile Direction : 180 ~~180.00~~ deg	Scale: 1:20000	Profile: 42240	Vertical Exaggeration: 2.00 : 1
All Directions are Clockwise from Magnetic North			

6782000 – 54500

6785500 – 54200



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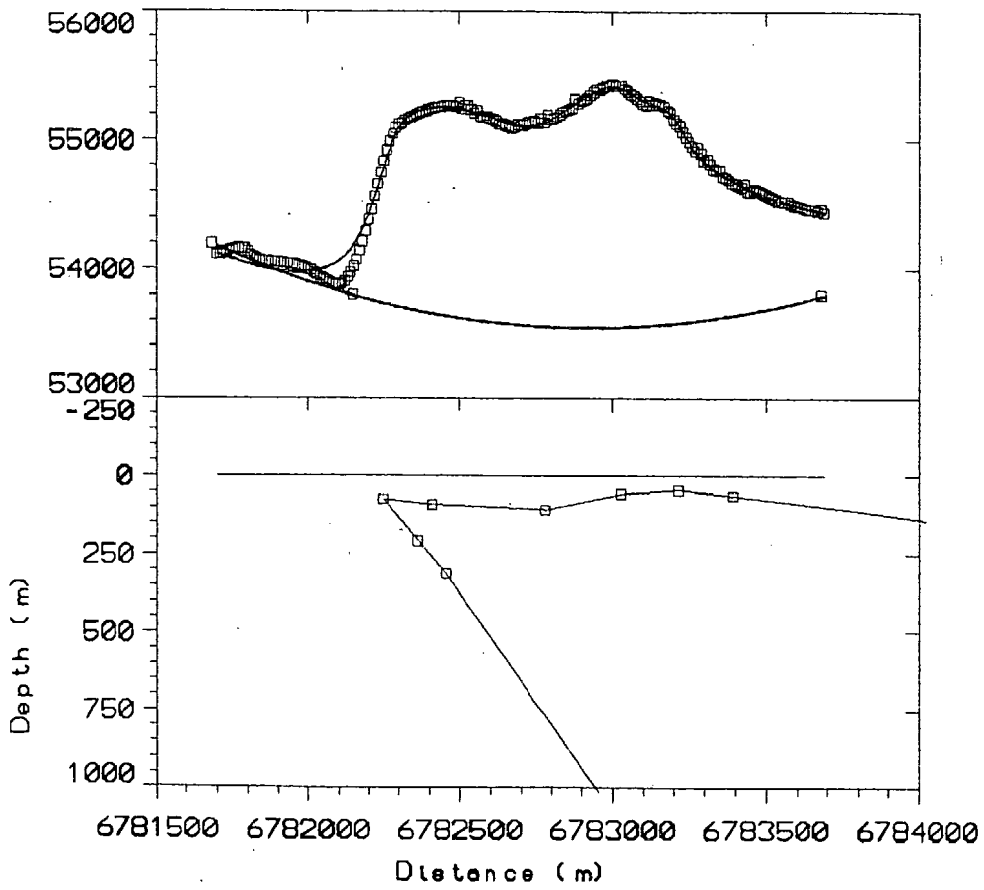
Profile Direction : 360.00 deg	Scale: 1:20000 / Profile: 41910	Vertical Exaggeration: 1.00 : 1
All Directions are Clockwise from Magnetic North		



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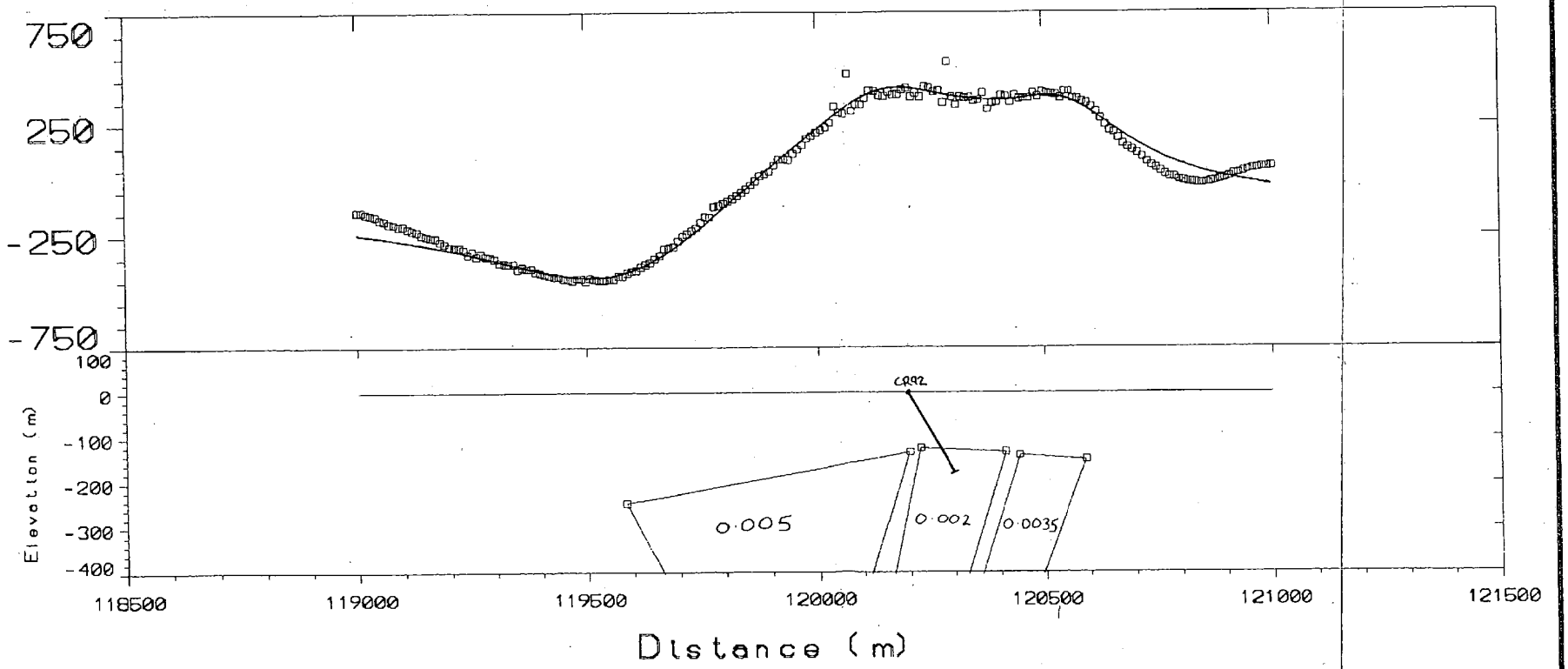
Strike Direction : ~~270~~ ~~90.00~~ deg	Data Set: 419100E	Date: JUNE 1991	
Profile Direction : ~~360~~ ~~180.00~~ deg	Scale: 1:20000	Profile: 41910	Vertical Exaggeration: 1.00 : 1
All Directions are Clockwise from Magnetic North			

Drill Hole- Anomaly 36

East: 122000E
North: 120200N
Inclination: -60° grid N
Depth to target: 150m
Est. Depth Of Hole: 200m
Target Mag Sus: 200 $\times 10^{-5}$ S.I. units



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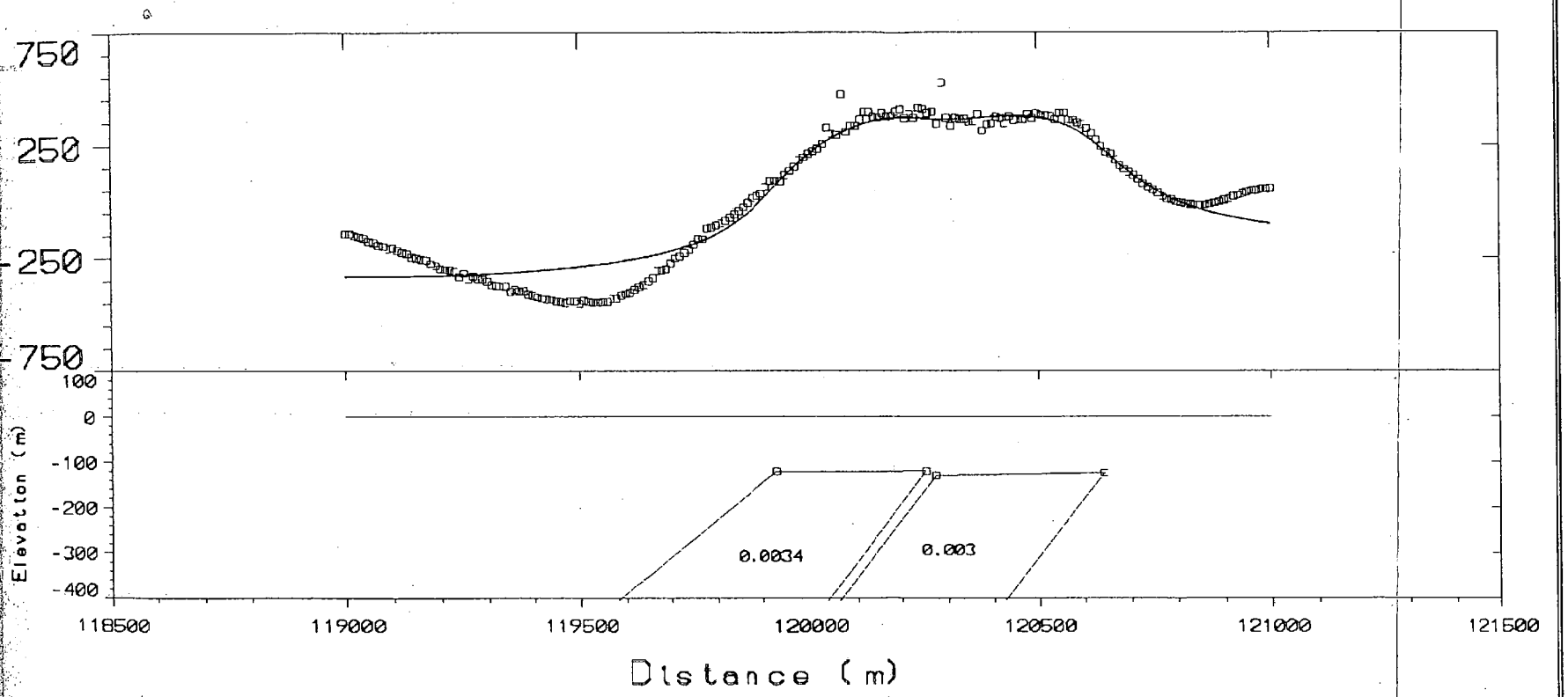
Profile Direction : 350.00 deg	Scale: 1:10000 / Profile: NONE	Vertical Exaggeration: 1.00 : 1
All Directions are Clockwise from Magnetic North		

Anomaly 36- Alternative Model



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Inclination : -61.00 deg	by: BHP Exploration	Anomaly 36/37
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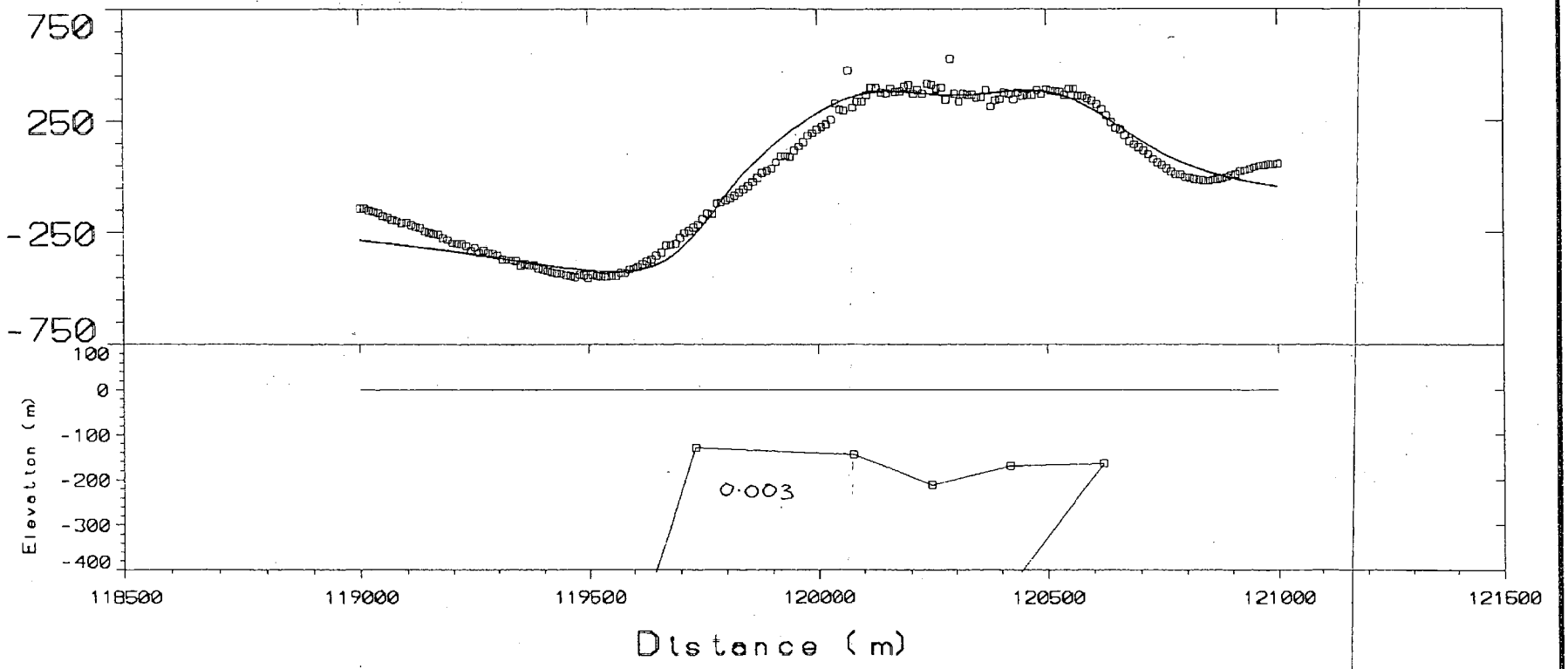
Profile Direction : 350.00 deg	Scale: 1:10000 / Profile: S END	Vertical Exaggeration: 1.00 : 1
All Directions are Clockwise from Magnetic North		

Anomaly 36- Alternative Model



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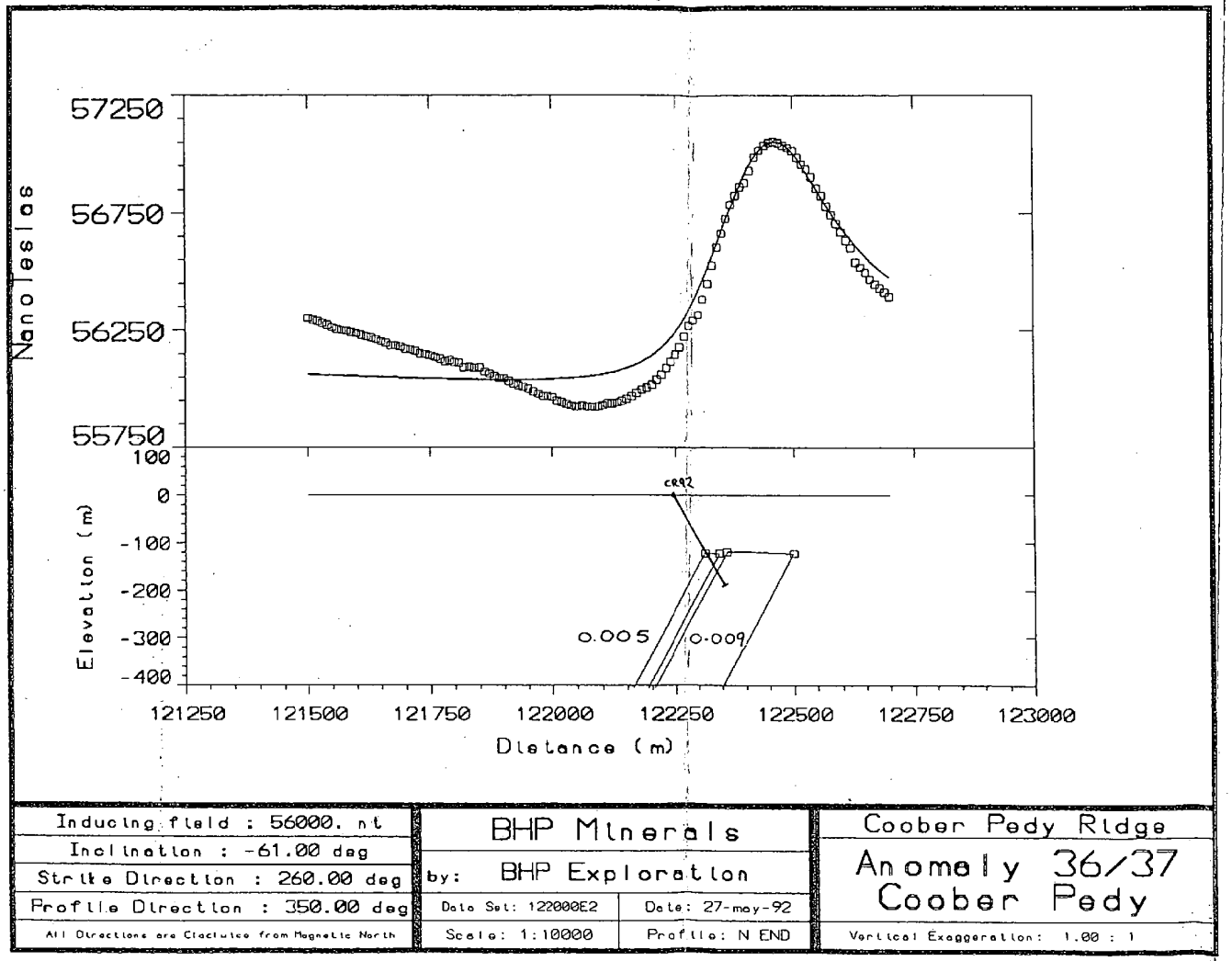
Strike Direction : 260.00 deg	Data Set: 122000E / Date: 27-may-92	Coober Pedy
Profile Direction : 350.00 deg	Scale: 1:10000 / Profile: NONE	Vertical Exaggeration: 1.00 : 1
All Directions are Clockwise from Magnetic North		

Drill Hole - Anomaly 37

East: 122000 E
North: 122250 N
Inclination: -60° grid N
Depth To Target: 150m
Est. Depth of Hole: 220m
Target Mag Sus: 500 $\times 10^{-5}$, 900 $\times 10^{-5}$ S.I. Units



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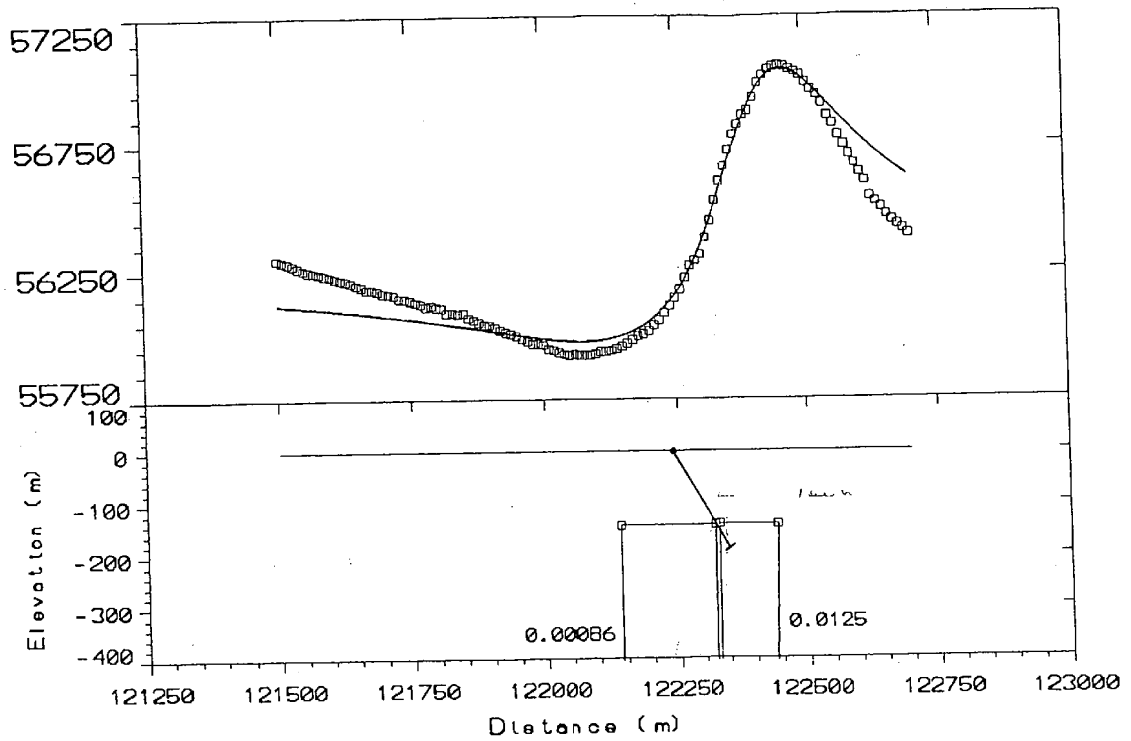
Inclination : -61.00 deg	by: BHP Exploration	Anomaly 36/37 Coober Pedy
Strike Direction : 260.00 deg	Data Set: 122000E2 / Date: 27-may-92	
Profile Direction : 350.00 deg		
All Directions are Clockwise from Magnetic North	Scale: 1:10000 / Profile: N END	Vertical Exaggeration: 1.00 : 1

Drill Hole - Anomaly 37

East: 122000E
North: 12250N
Inclination: -60° grid N
Depth to Target: 150m
Est. Depth of Hole: 220m
Target Mag Sus: 5000×10^{-5}, 9000×10^{-5} S.I. units

Alternative Model



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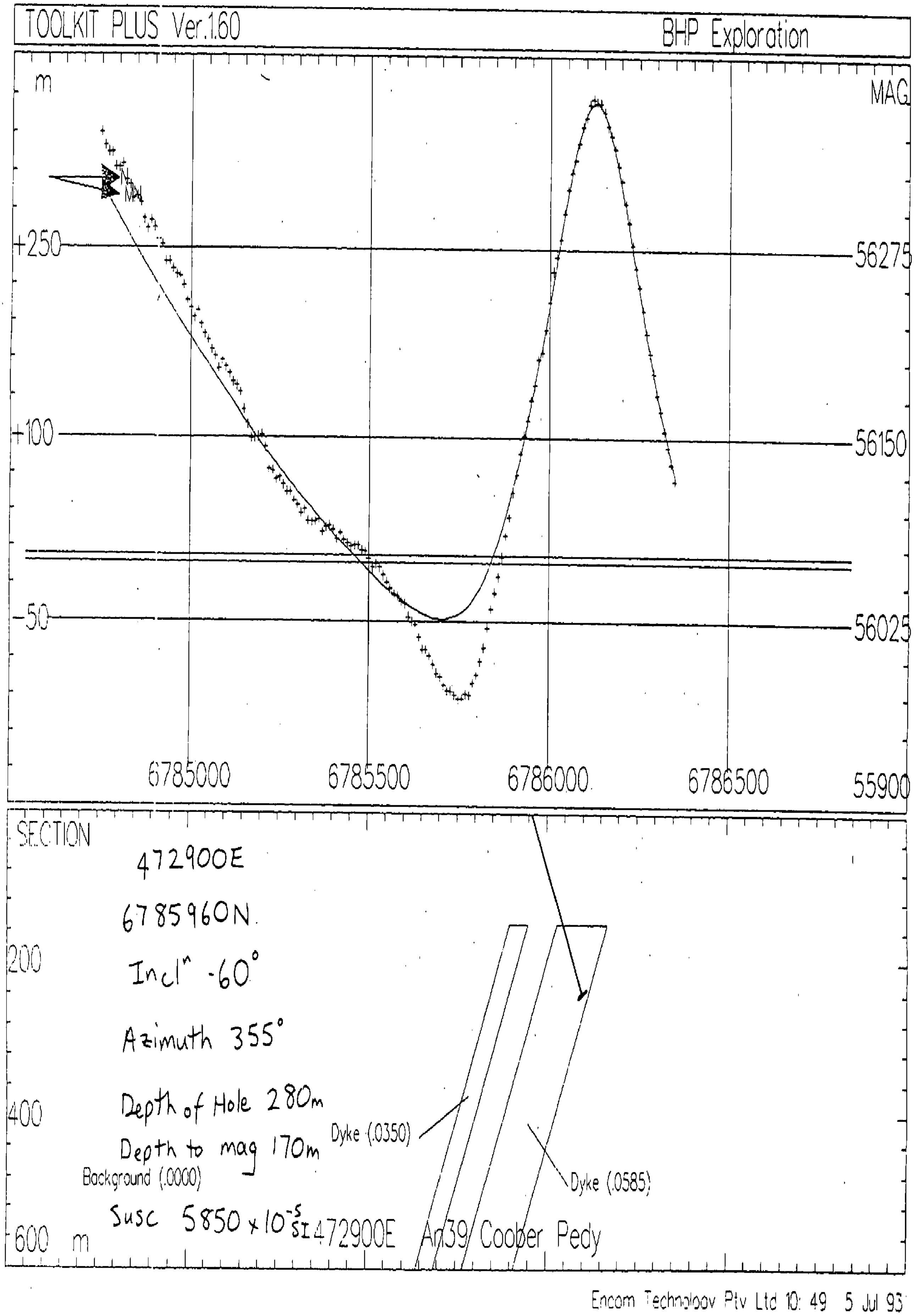
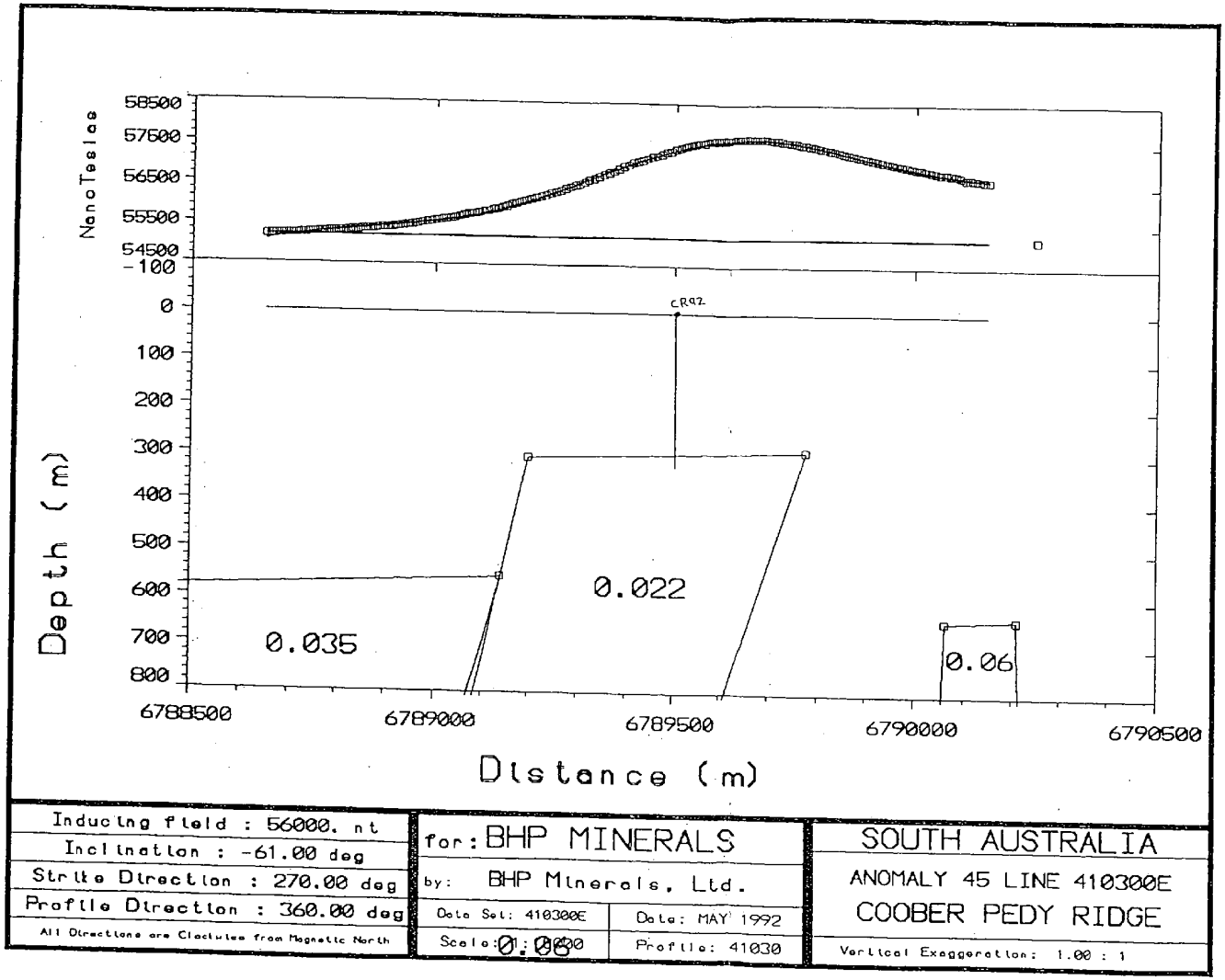


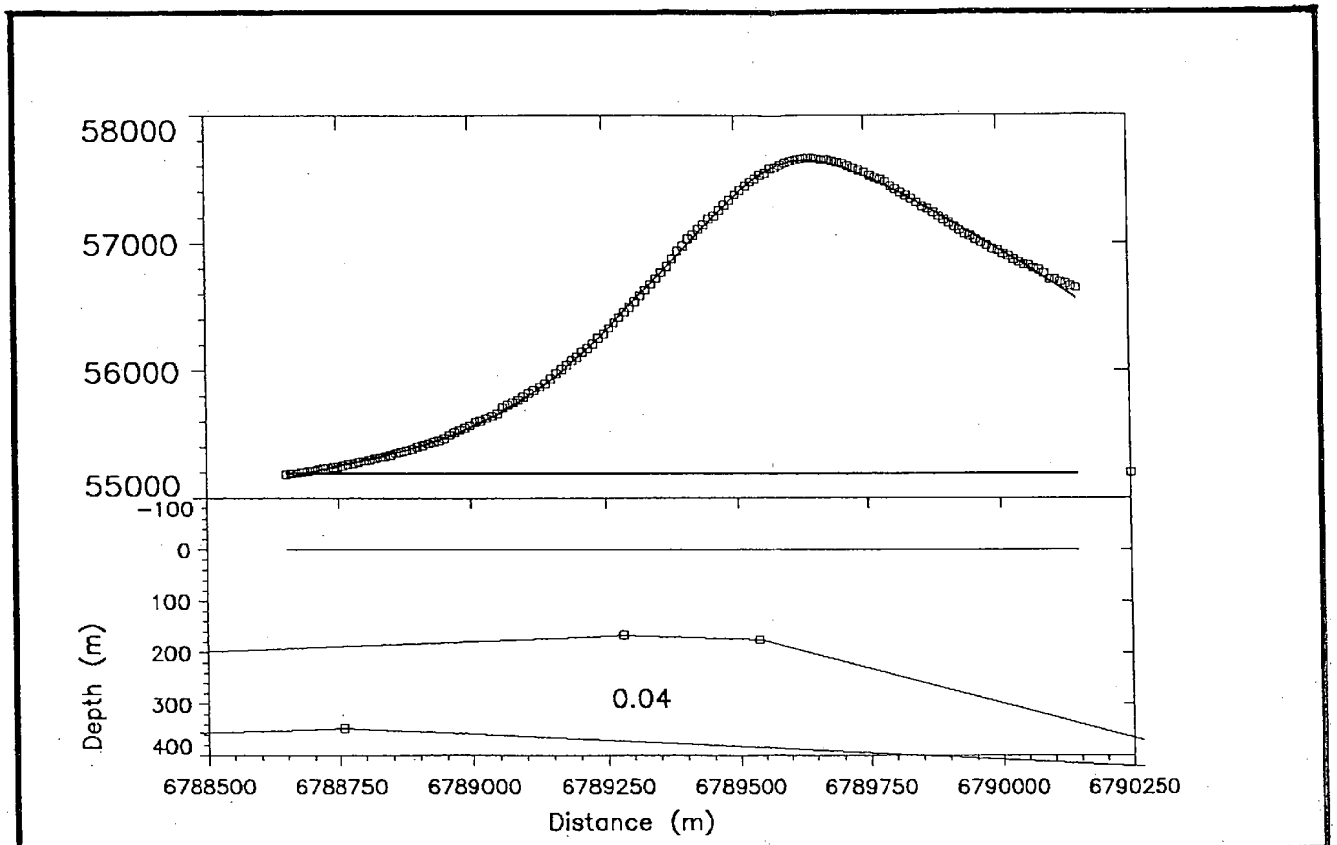
TOOLKIT PLUS Ver.1.60
BHP Exploration
m
MAG
+250
+100
-50
56275
56150
56025
55900
6785000
6785500
6786000
6786500
SECTION
472900E
6785960N
Incl^n -60°
Azimuth 355°
Depth of Hole 280m
Depth to mag 170m
Dyke (.0350)
Dyke (.0585)
Background (.0000)
Susc 5850 x 10^-5 SI
200
400
600 m
472900E An39 Coober Pedy
Encom Technology Pty Ltd 10:49 5 Jul 93



Alternative Drill Site

Drill Hole Anomaly 45

East: 410300E
North: 6789500N
Inclination: -90°
Depth to target: 280-300
Est. depth of hole: 300
Target Mag Sus: 2200×10^{-5}



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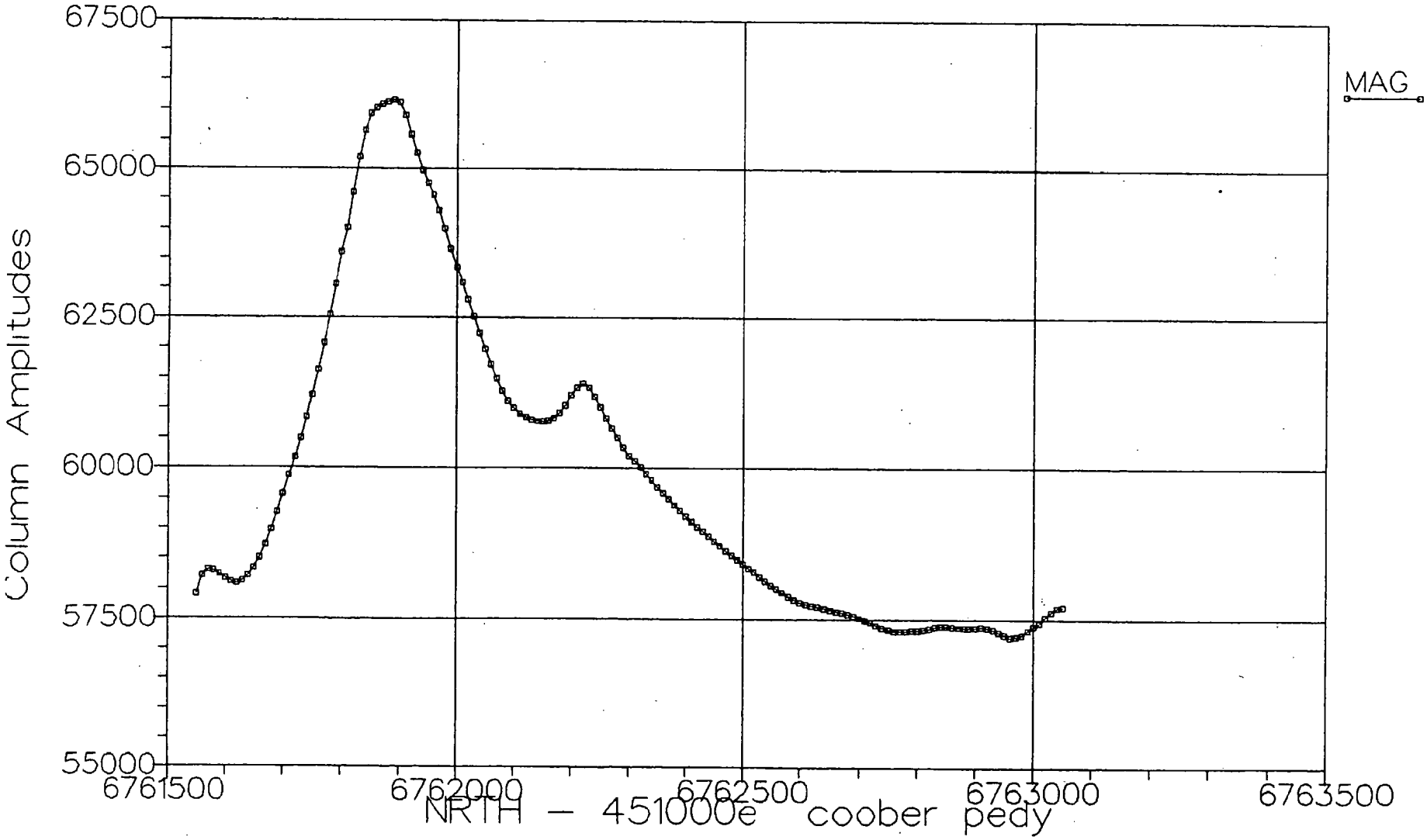
All Directions are Clockwise from Magnetic North		

Anomaly 16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65000
62500
60000
57500
55000
Column Amplitudes
6761500
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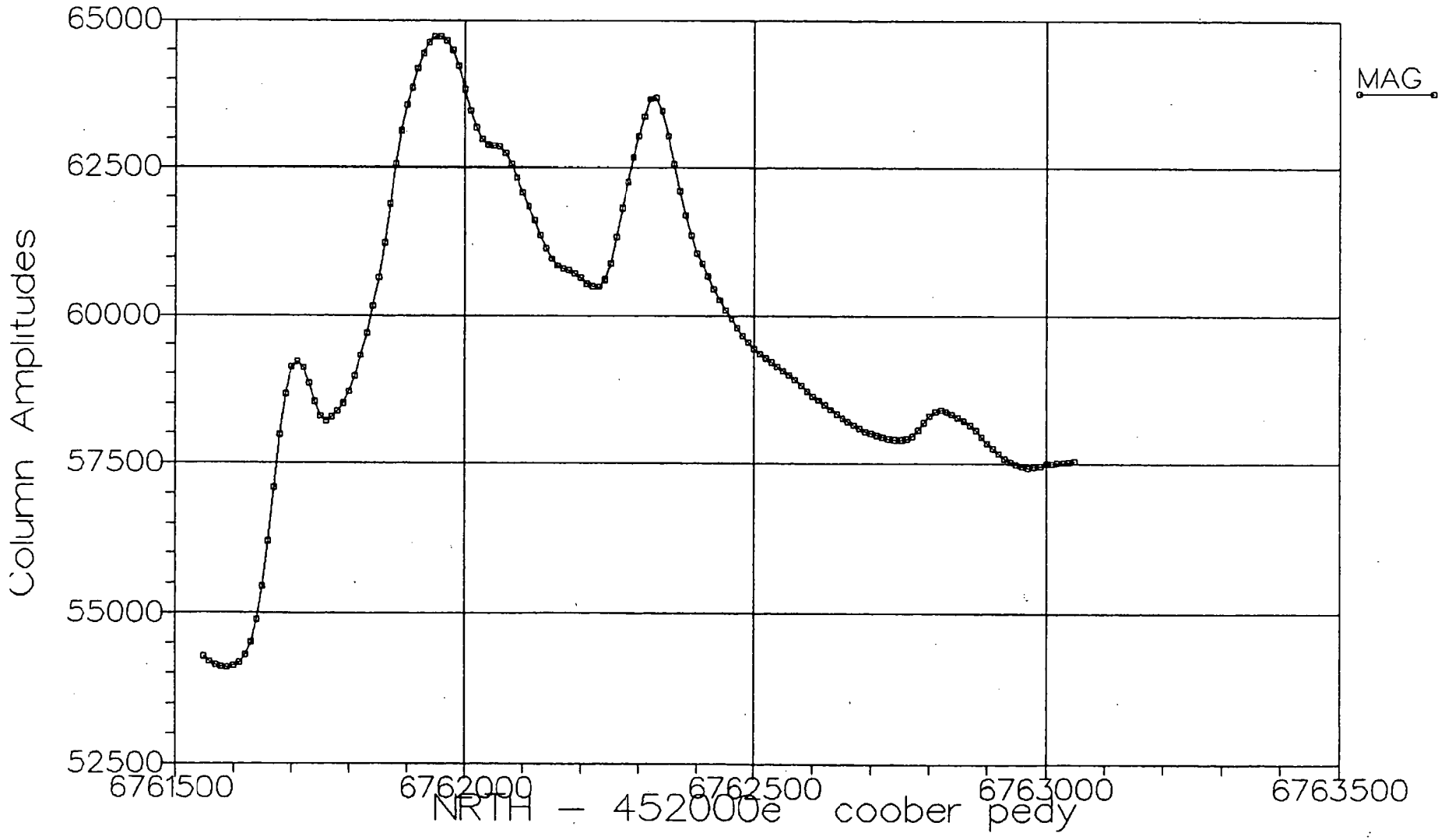
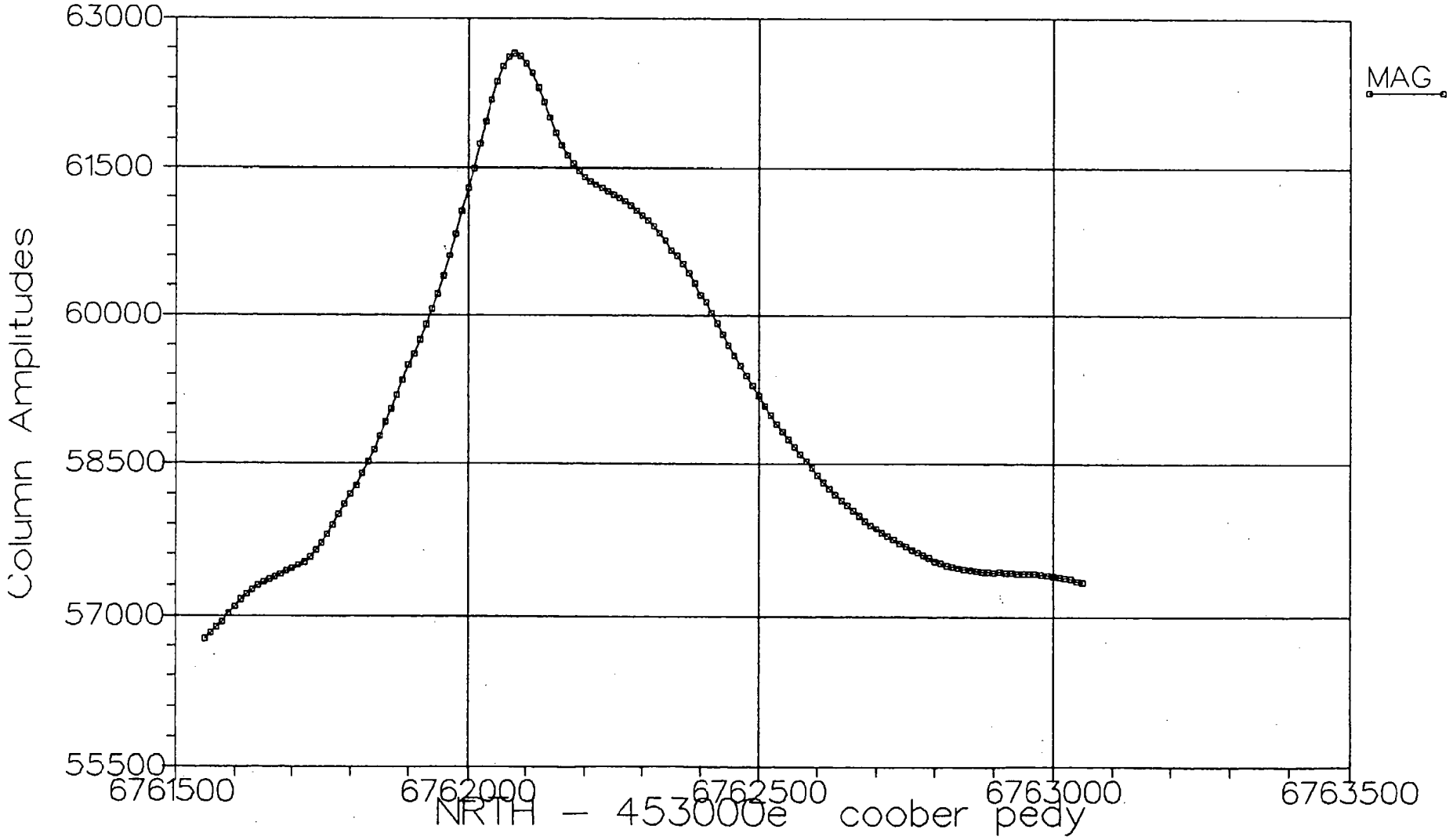
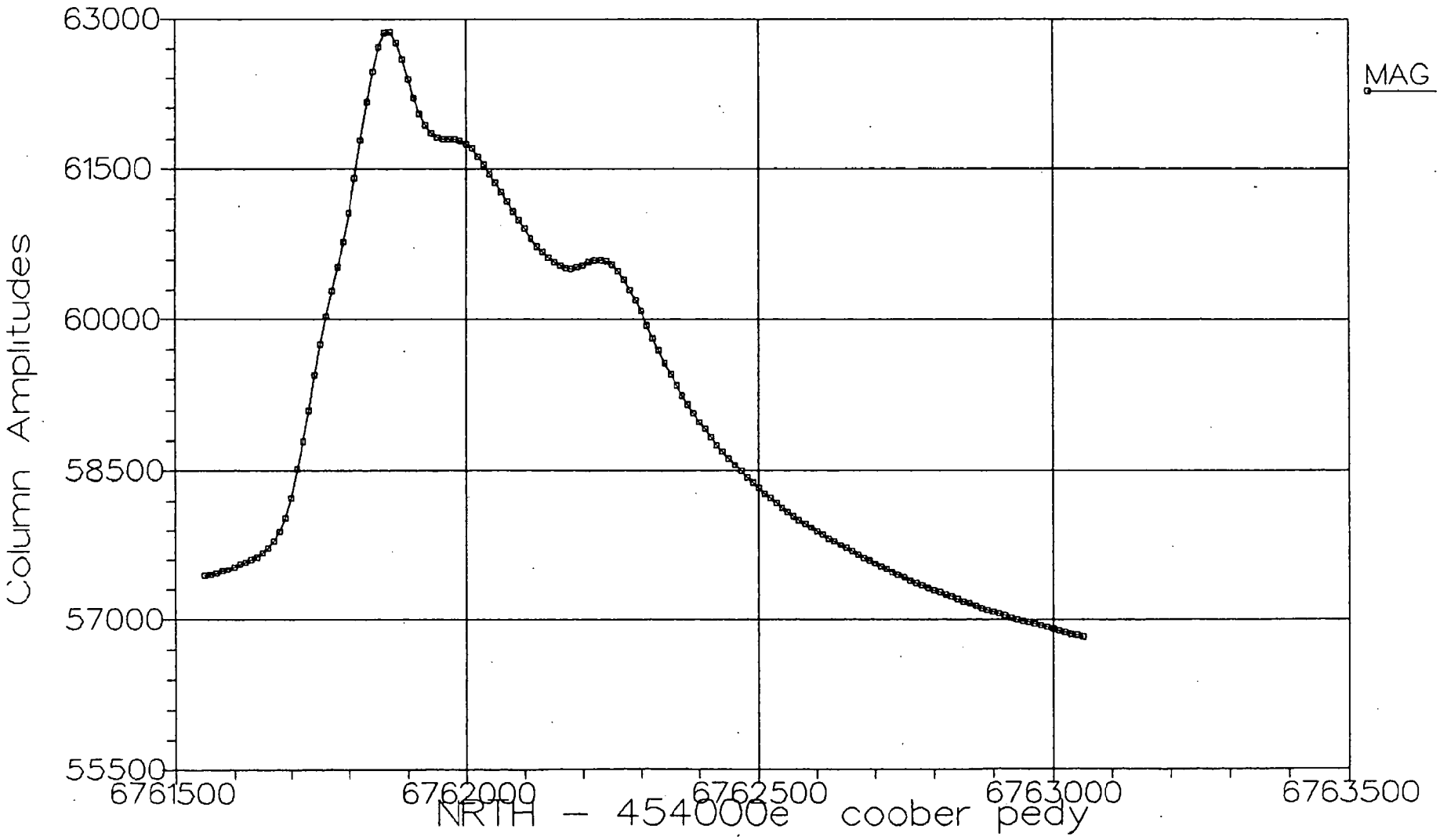
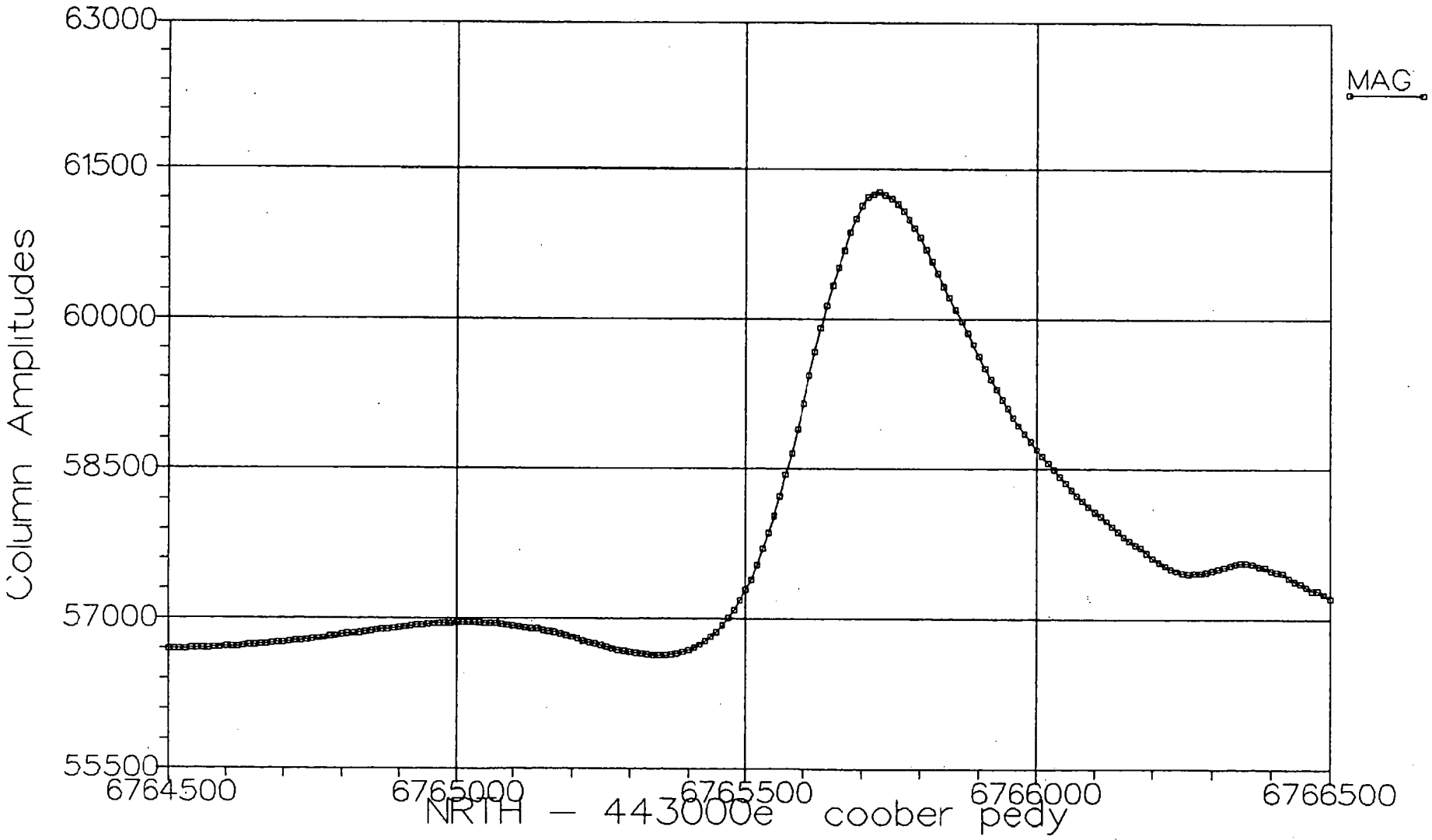
6762500
6763000
6763500
NRTH — 451000e coober pedy
MAG

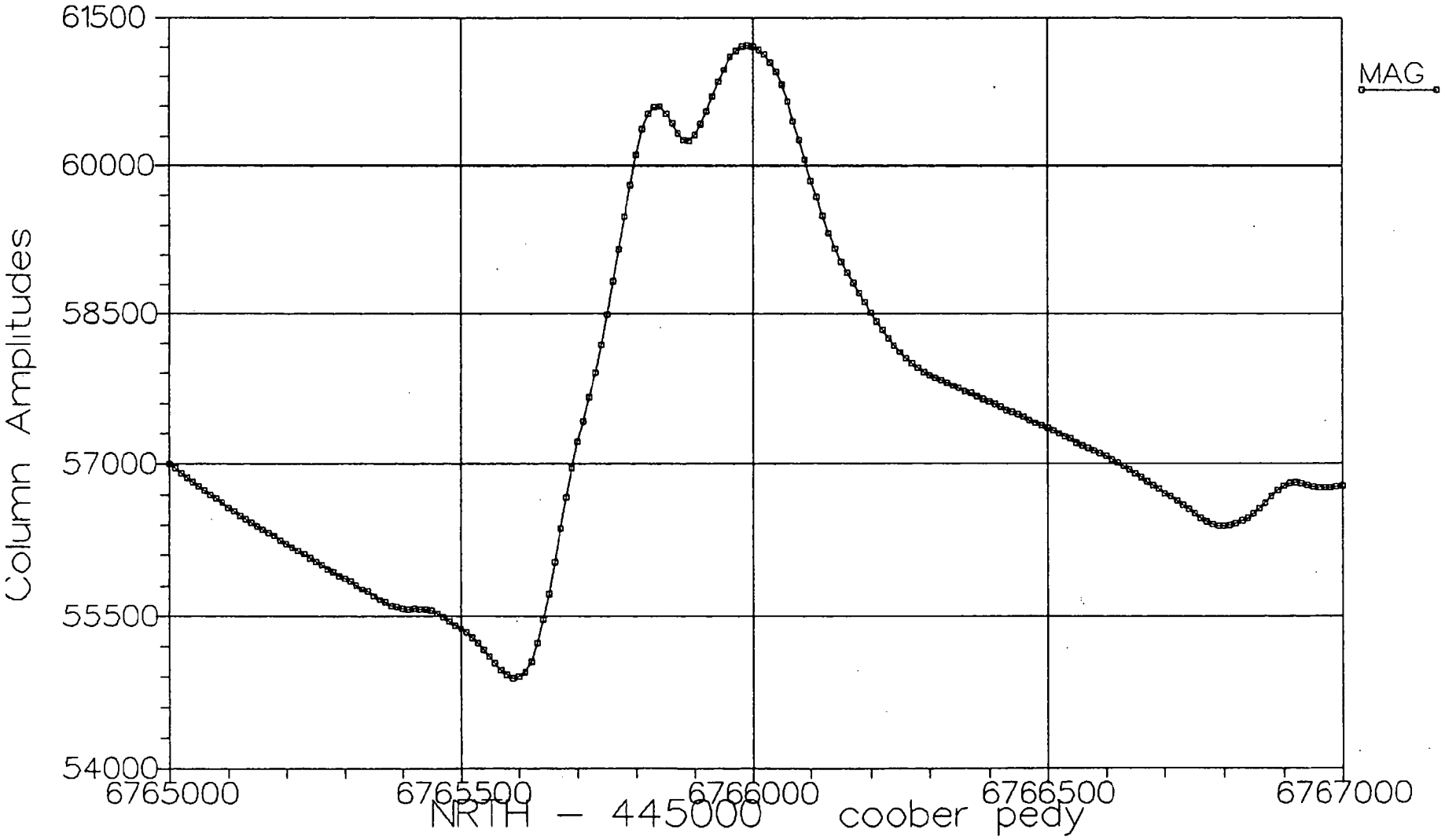

65000
62500
60000
57500
55000
52500
Column Amplitudes
MAG
6761500
6762000
6762500
6763000
6763500
NRTH — 452000e coober pedy

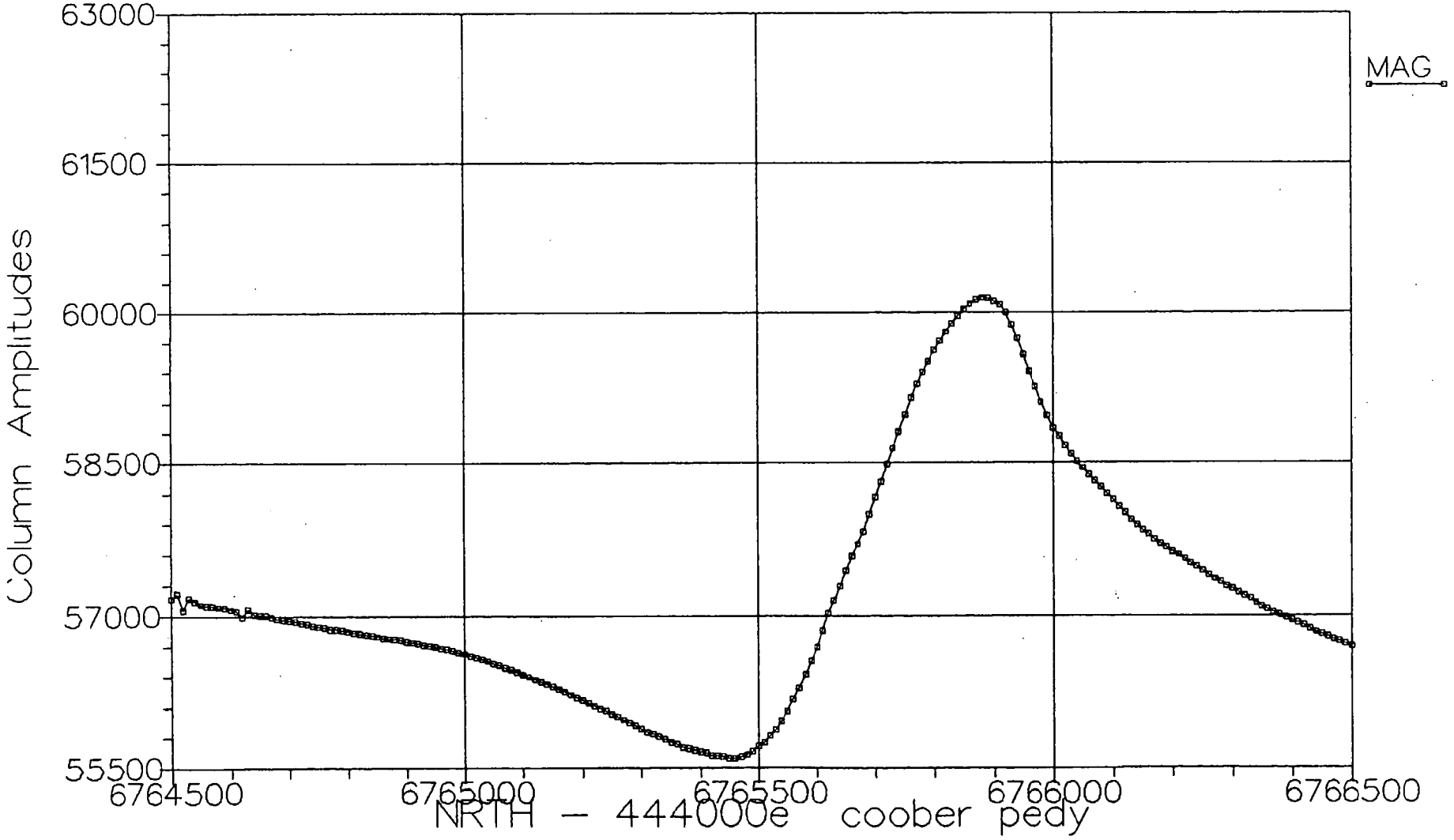

63000
61500
60000
58500
57000
55500
Column Amplitudes
6761500
6762000
6762500
6763000
6763500
NRTH — 453000e coober pedy
MAG

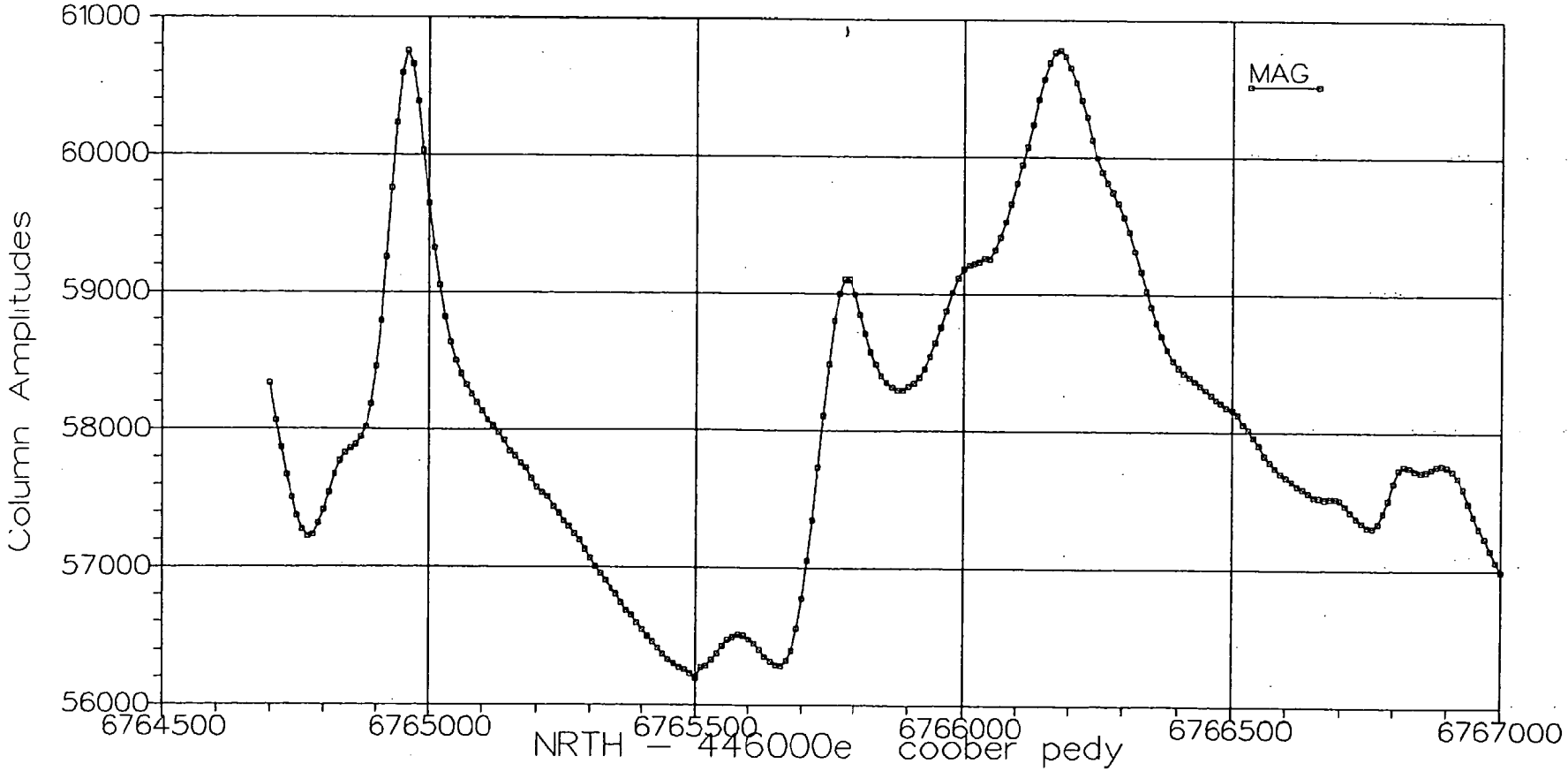

63000
61500
60000
58500
57000
55500
Column Amplitudes
6761500
6762000
6762500
6763000
6763500
NRTH — 454000e coober pedy
MAG

Anomaly 18

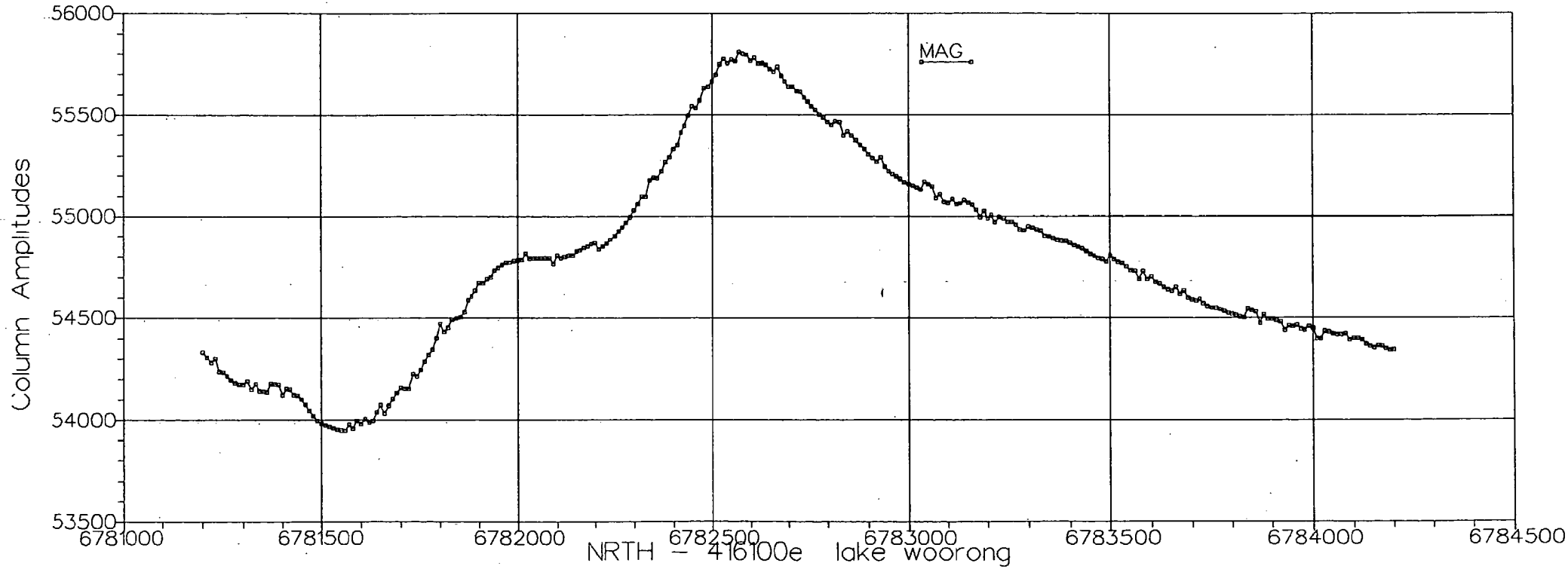

63000
61500
60000
58500
57000
55500
Column Amplitudes
MAG
6764500
6765000
6765500
6766000
6766500
NRTH — 443000e coober pedy


61500
60000
58500
57000
55500
54000
Column Amplitudes
6765000
6765500
6766000
6766500
6767000
NRTH – 445000
coober pedy
MAG


63000
61500
60000
58500
57000
55500
Column Amplitudes
MAG
6764500
6765000
6765500
6766000
6766500
NRTH — 444000e coober pedy


61000
60000
59000
58000
57000
56000
Column Amplitudes
MAG
6764500
6765000
6765500
6766000
6766500
6767000
NRTH — 446000e
coober pedy

Anomaly 26


MAG
Column Amplitudes
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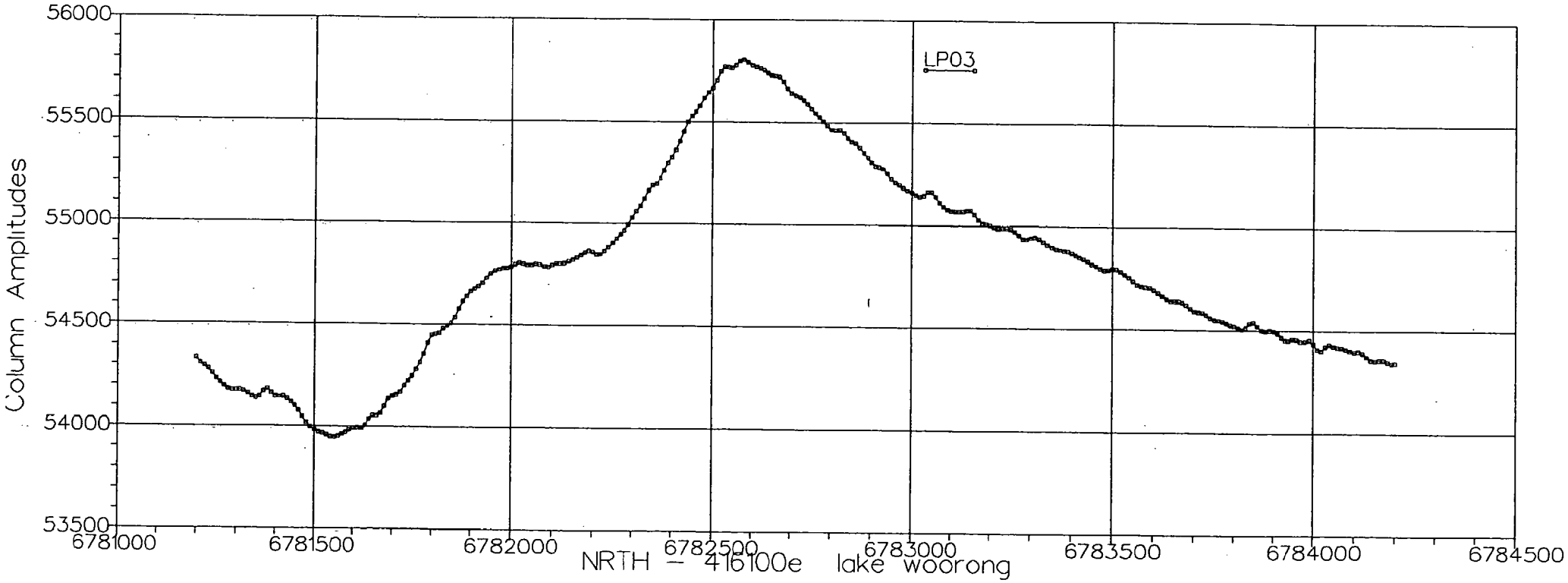
55500
55000
54500
54000
53500
6781000
6781500
6782000
6782500
6783000
6783500
6784000
6784500
NRTH – 416100e lake woorong


LP03
Column Amplitudes
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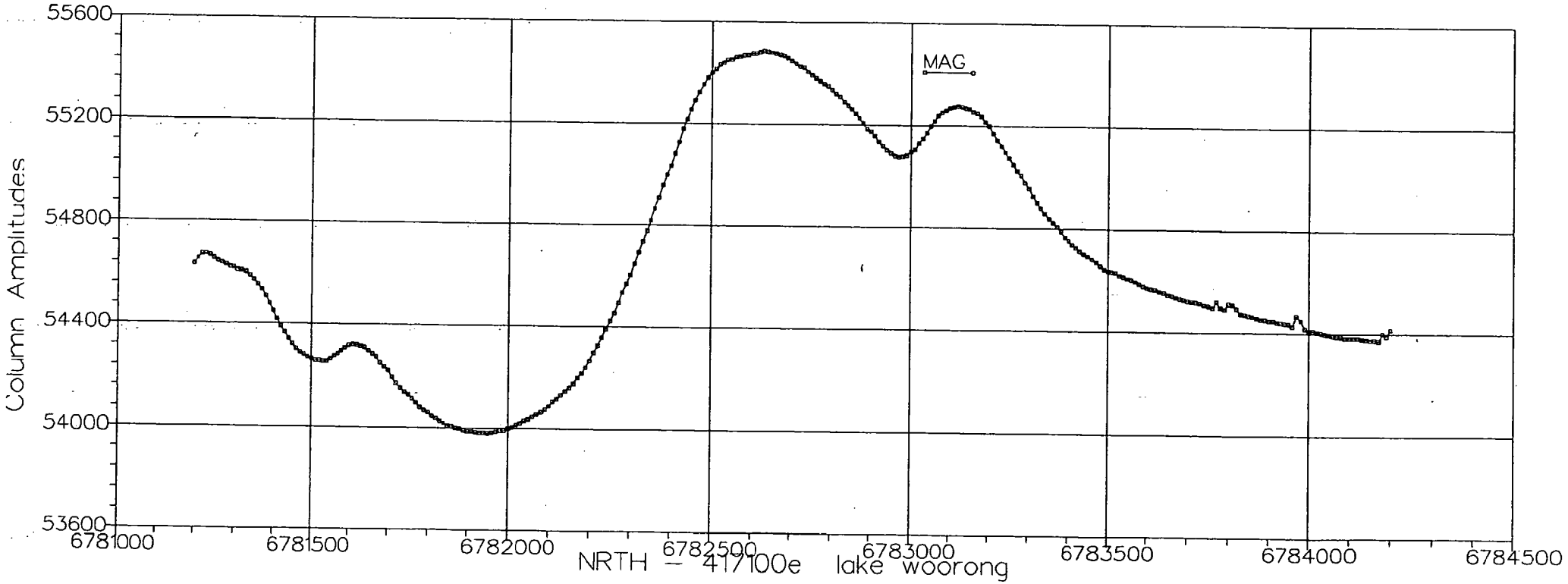
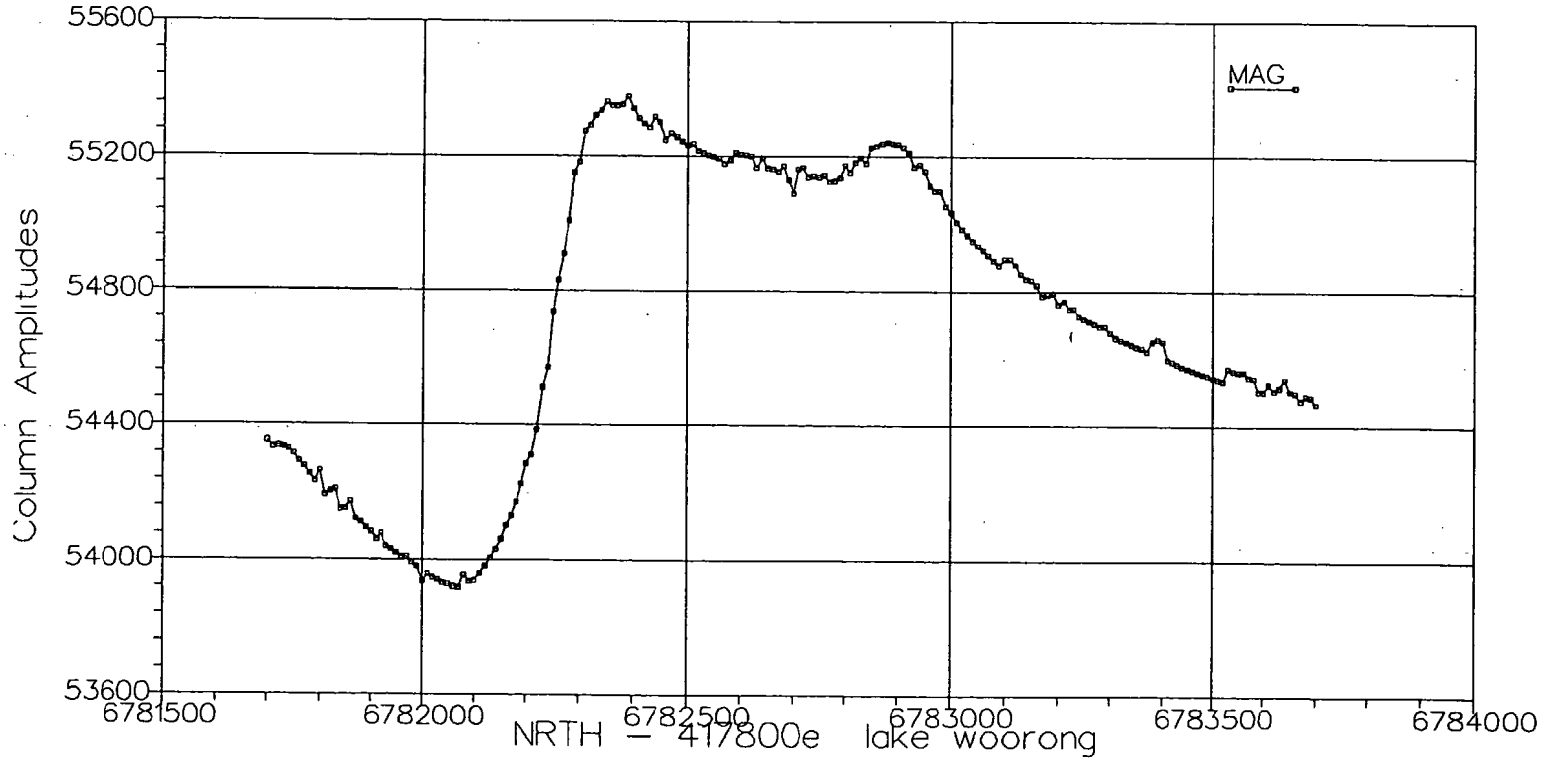
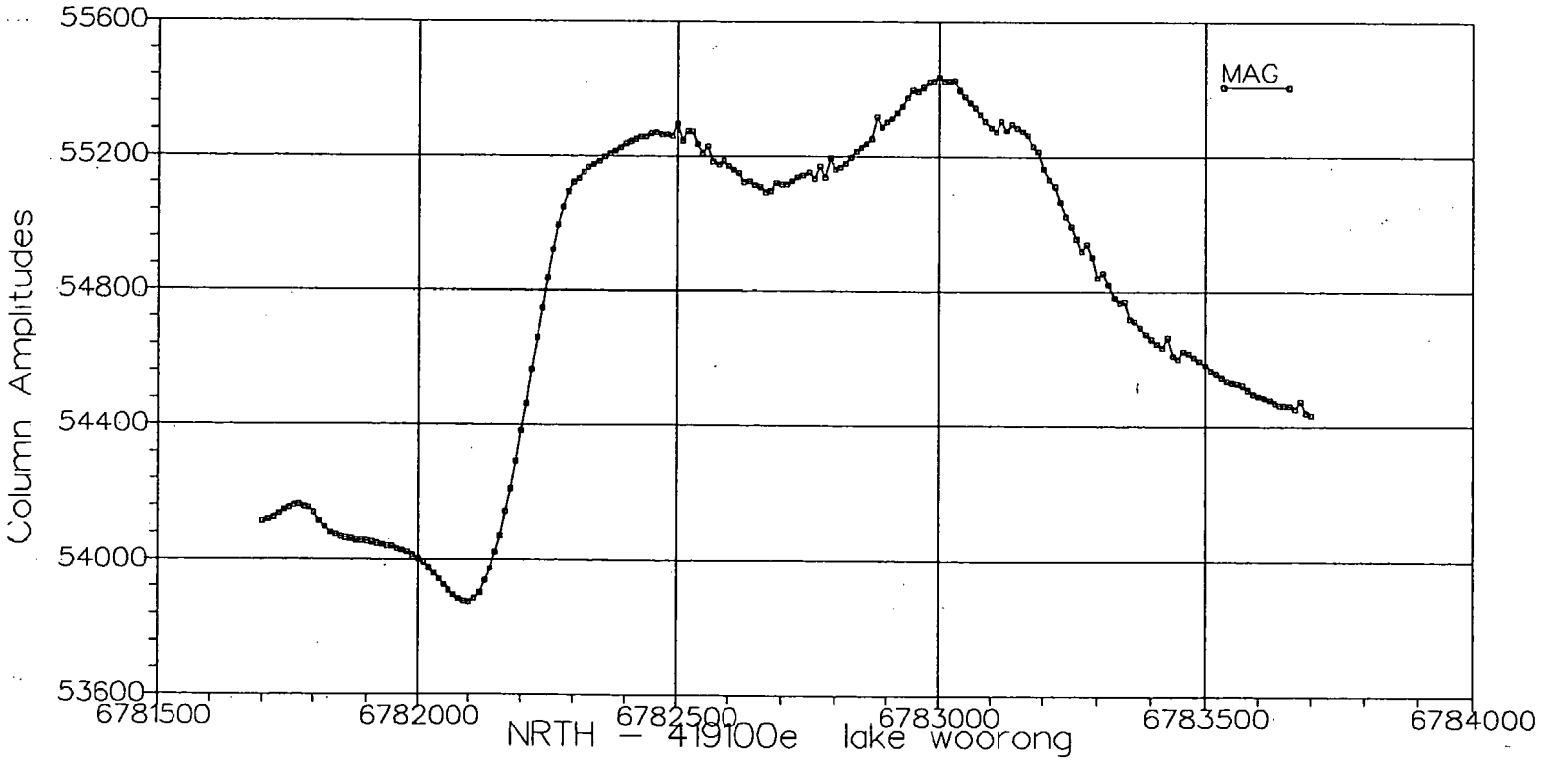
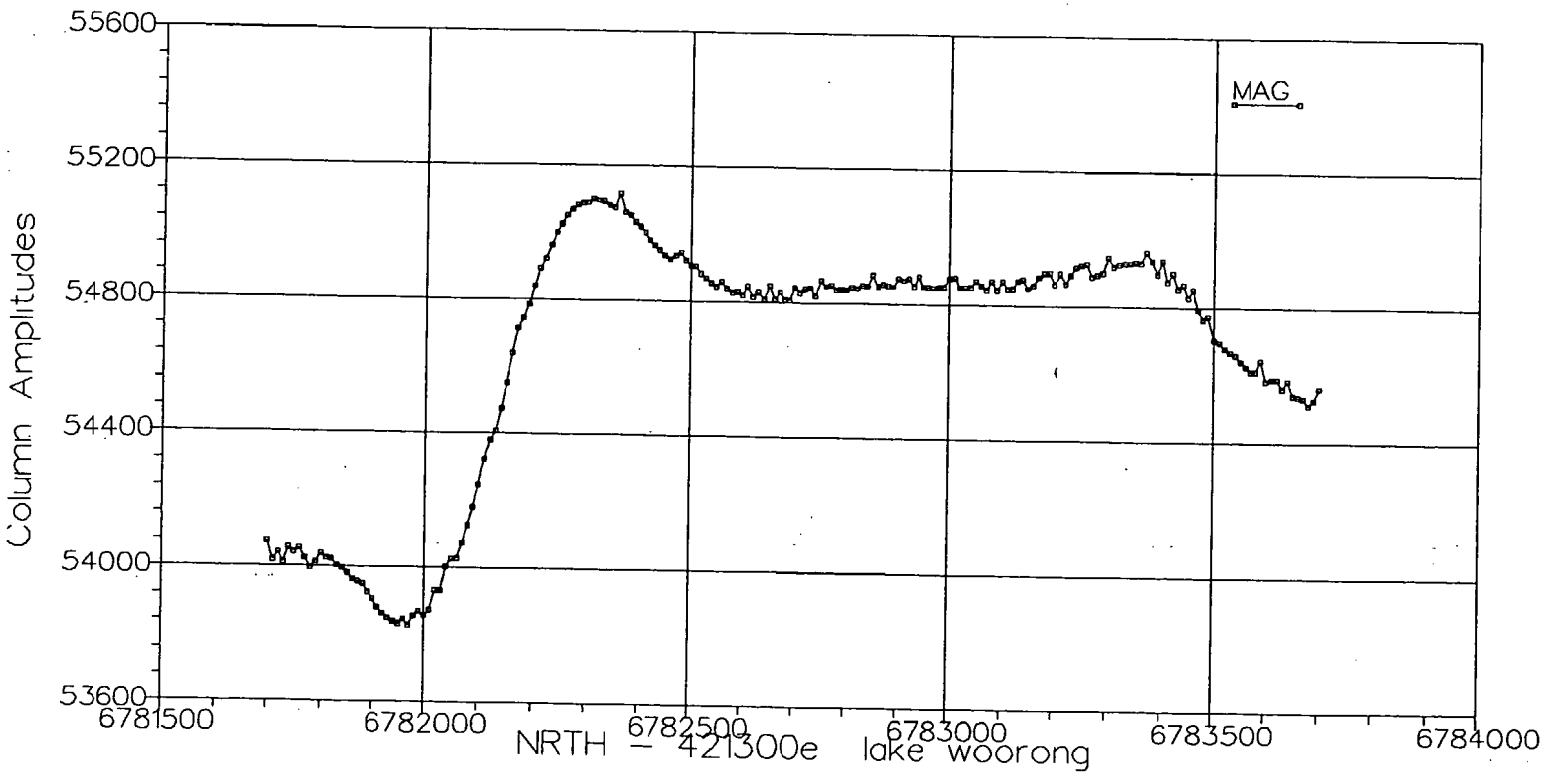
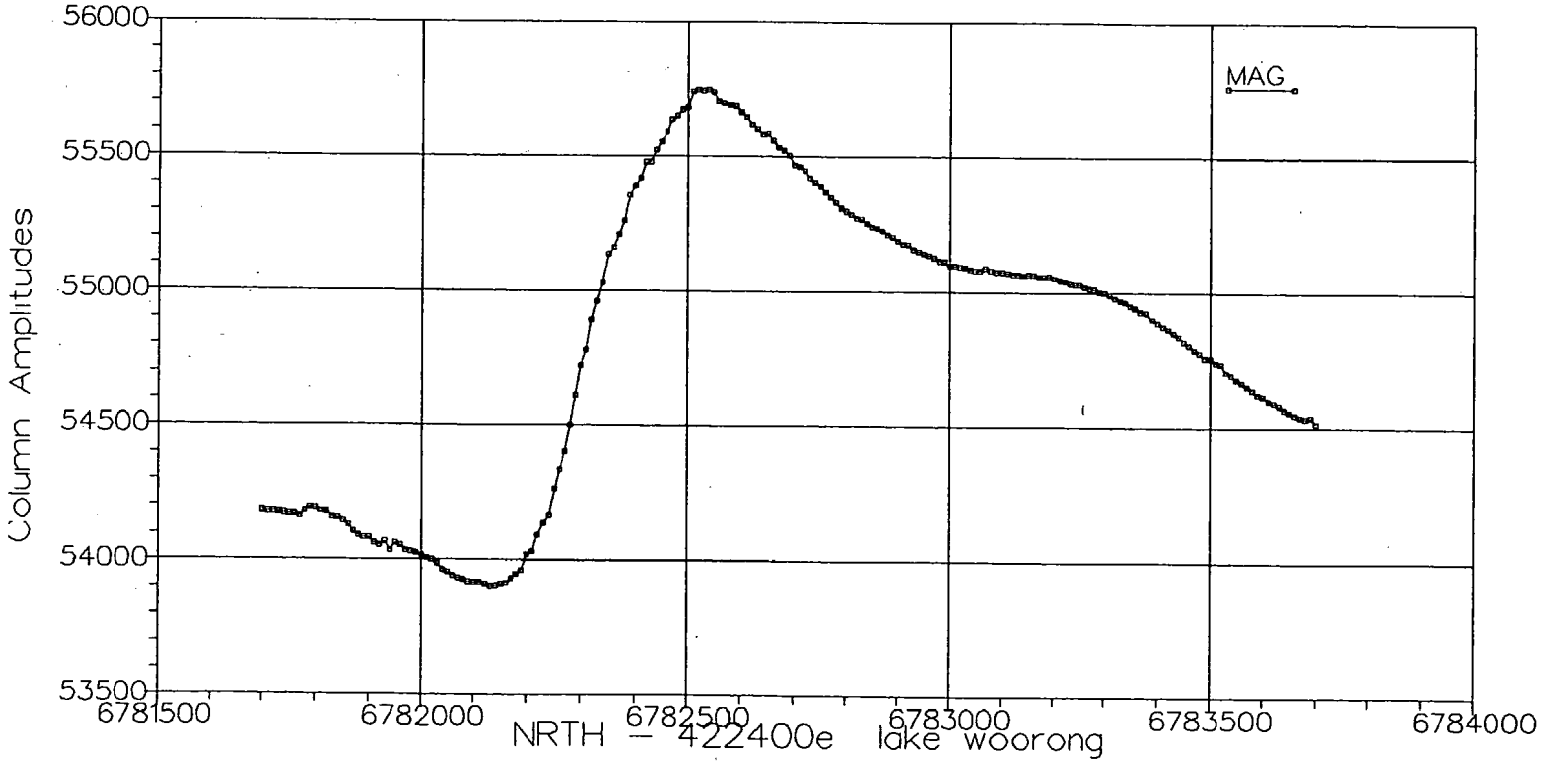
55500
55000
54500
54000
53500
6781000
6781500
6782000
6782500
6783000
6783500
6784000
6784500
NRTH — 416100e lake woorong

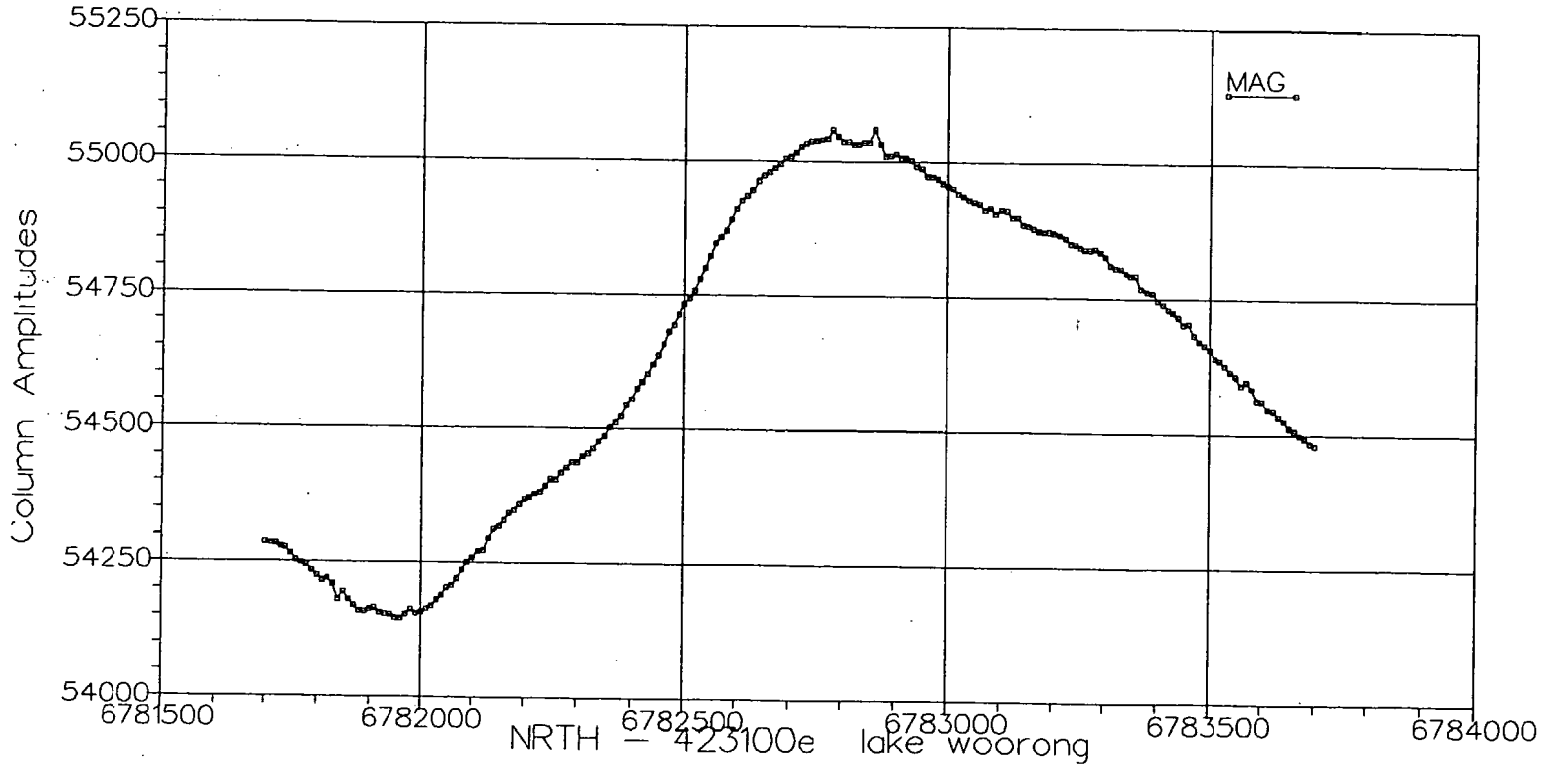

55600
55200
54800
54400
54000
53600
Column Amplitudes
MAG
6781000
6781500
6782000
6782500
6783000
6783500
6784000
6784500
NRTH — 417100e lake woorong


55600
55200
54800
54400
54000
53600
Column Amplitudes
MAG
6781500
6782000
6782500
6783000
6783500
6784000
NRTH — 417800e lake woorong

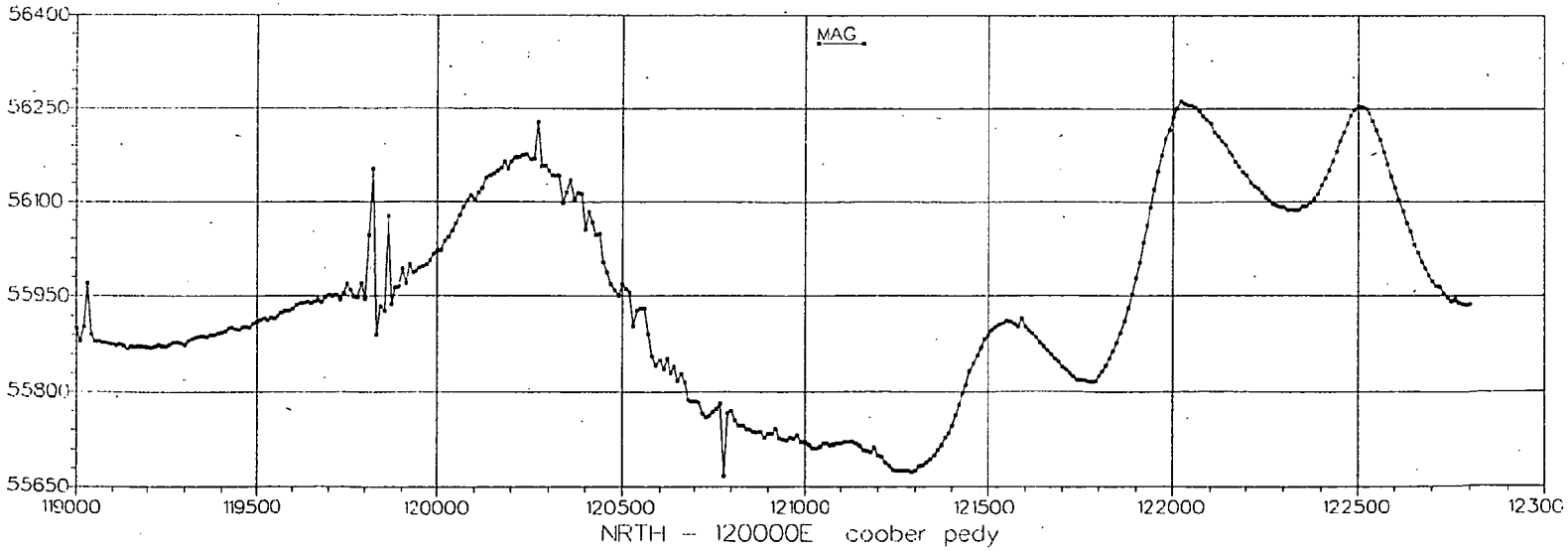

55600
55200
54800
54400
54000
53600
Column Amplitudes
MAG
6781500
6782000
6782500
6783000
6783500
6784000
NRTH — 419100e lake woorong

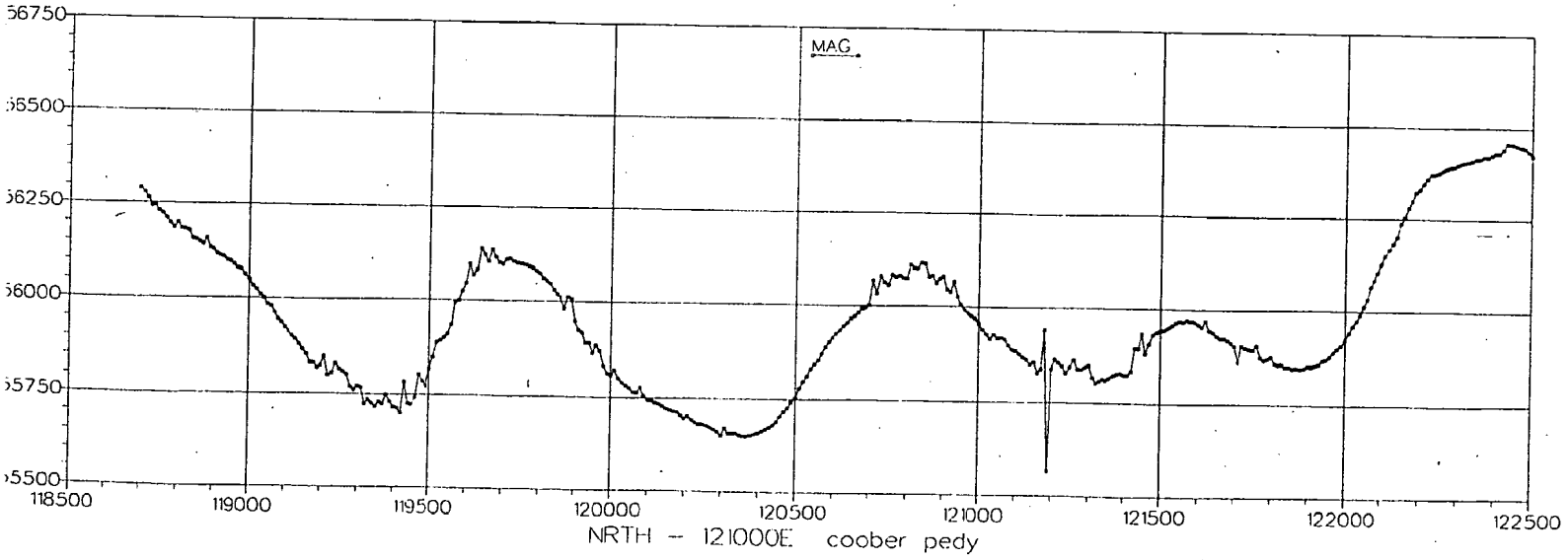

55600
55200
54800
54400
54000
53600
Column Amplitudes
MAG
6781500
6782000
6782500
6783000
6783500
6784000
NRTH — 421300e lake woorong

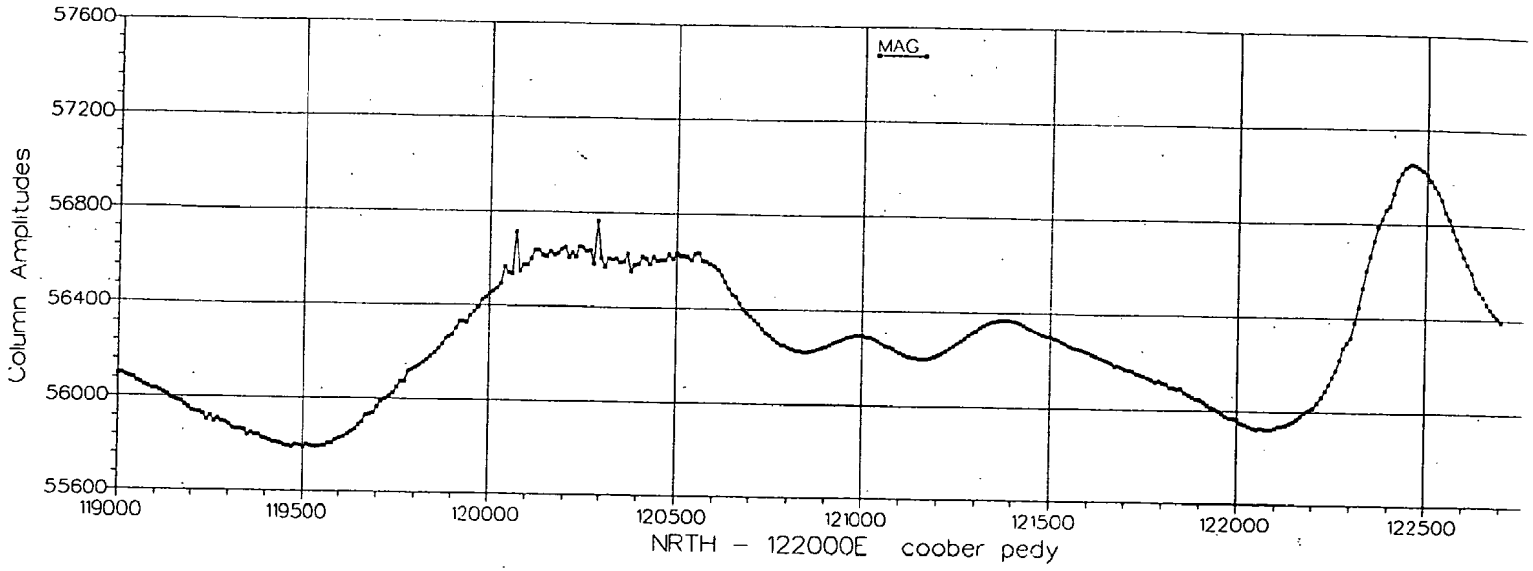

56000
55500
55000
54500
54000
53500
Column Amplitudes
MAG
6781500
6782000
6782500
6783000
6783500
6784000
NRTH — 422400e lake woorong

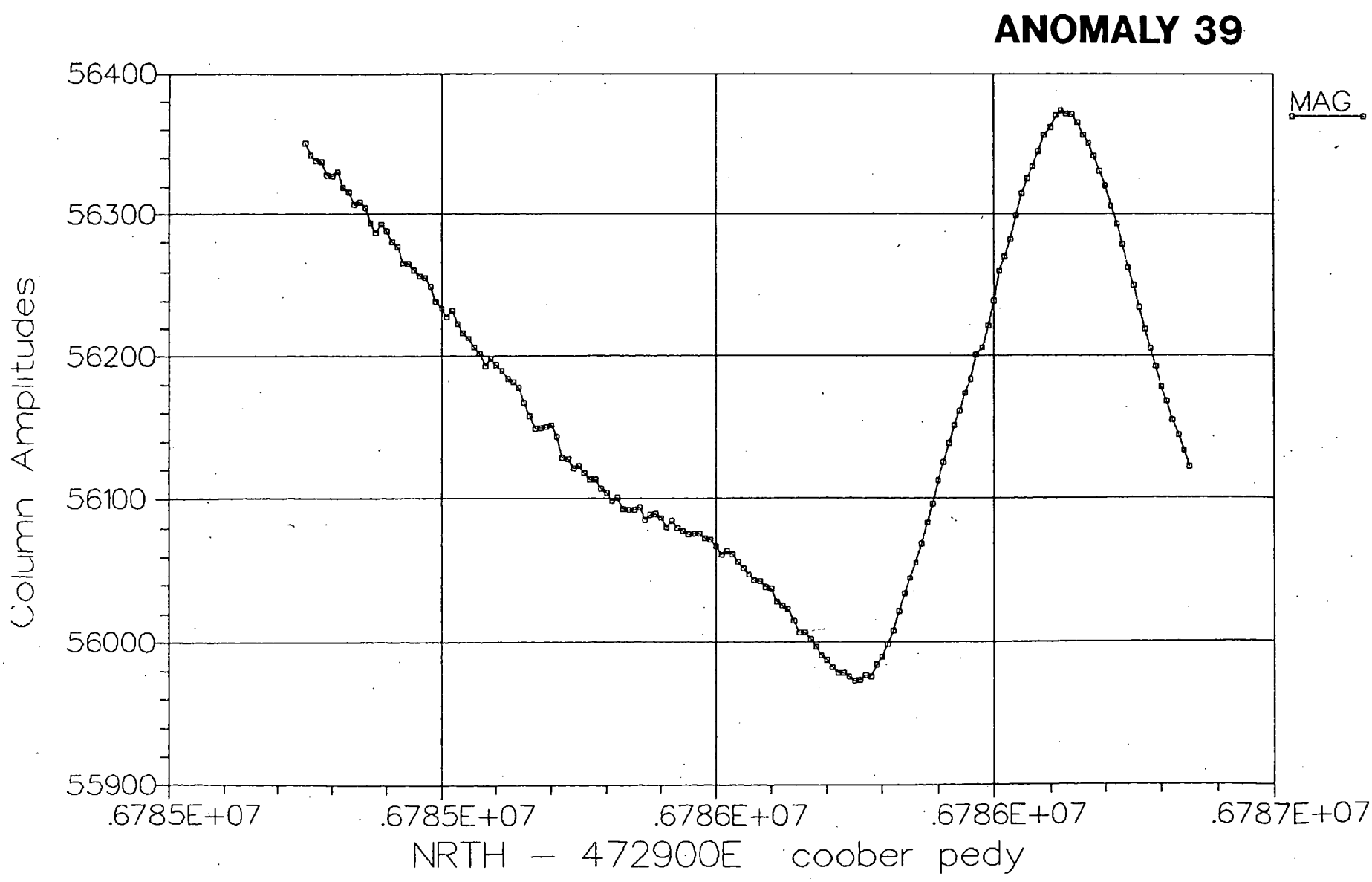

55250
55000
54750
54500
54250
54000
Column Amplitudes
MAG
6781500
6782000
6782500
6783000
6783500
6784000
NRTH — 423100e lake woorong

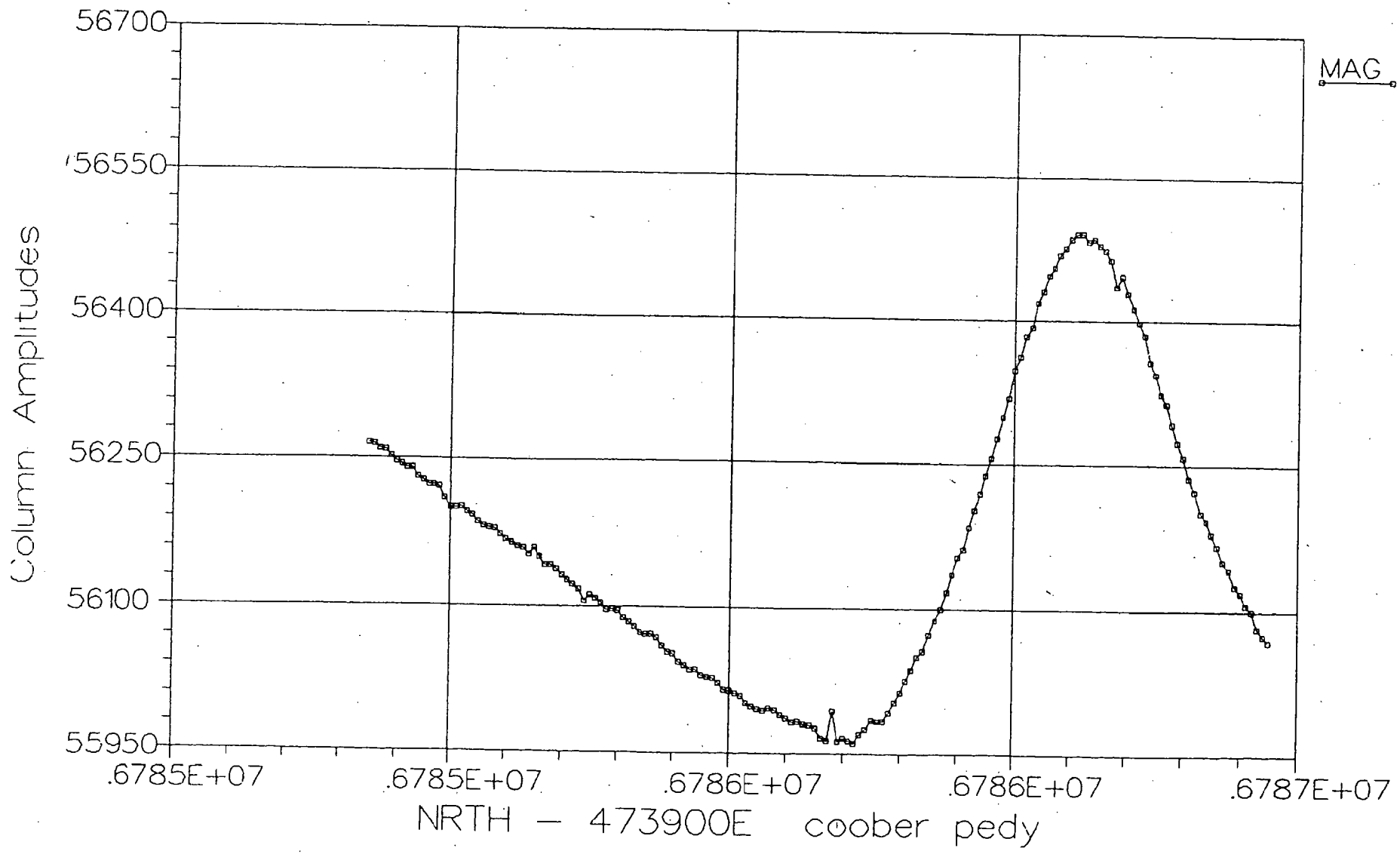
ANOMALY 36/37

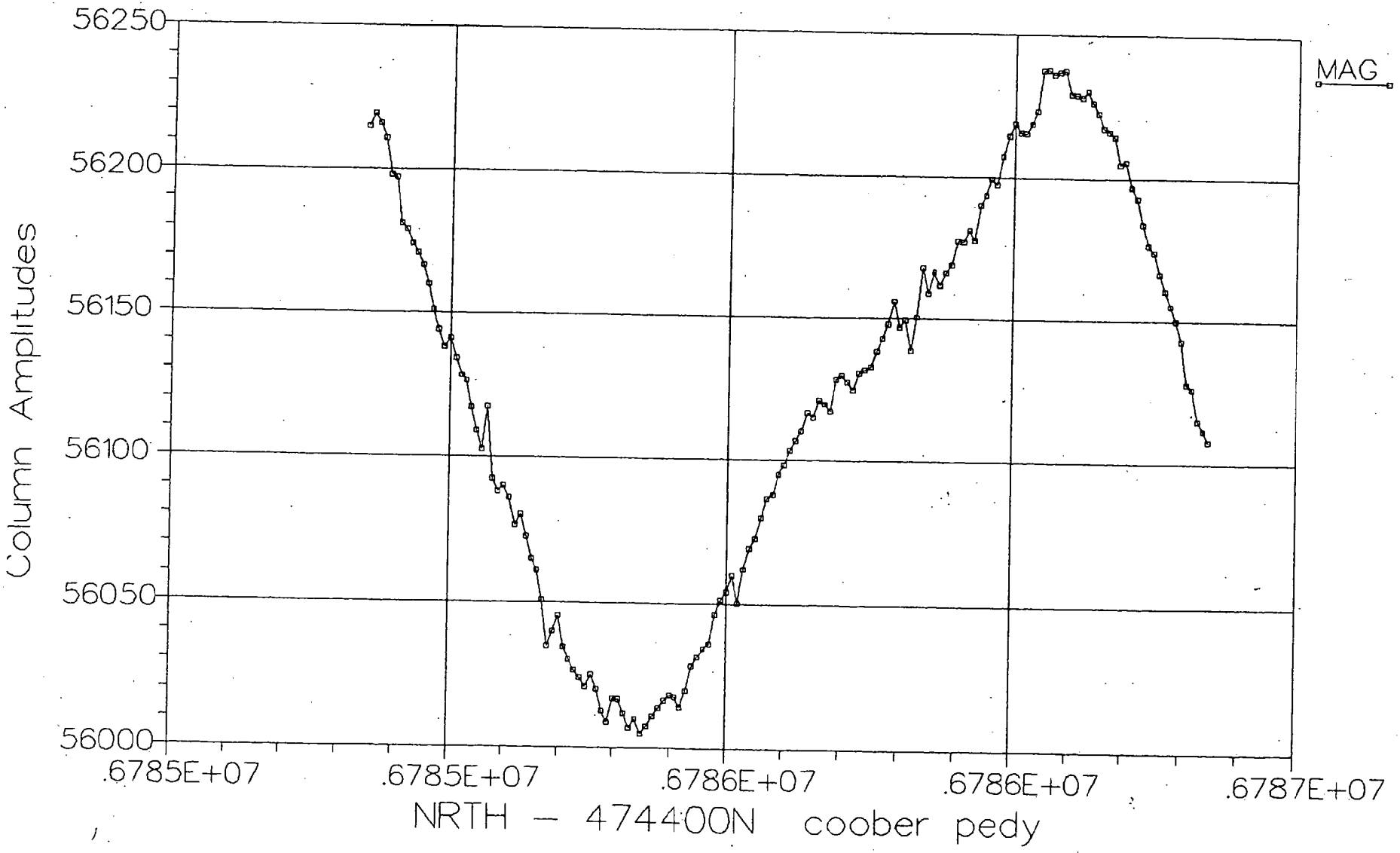


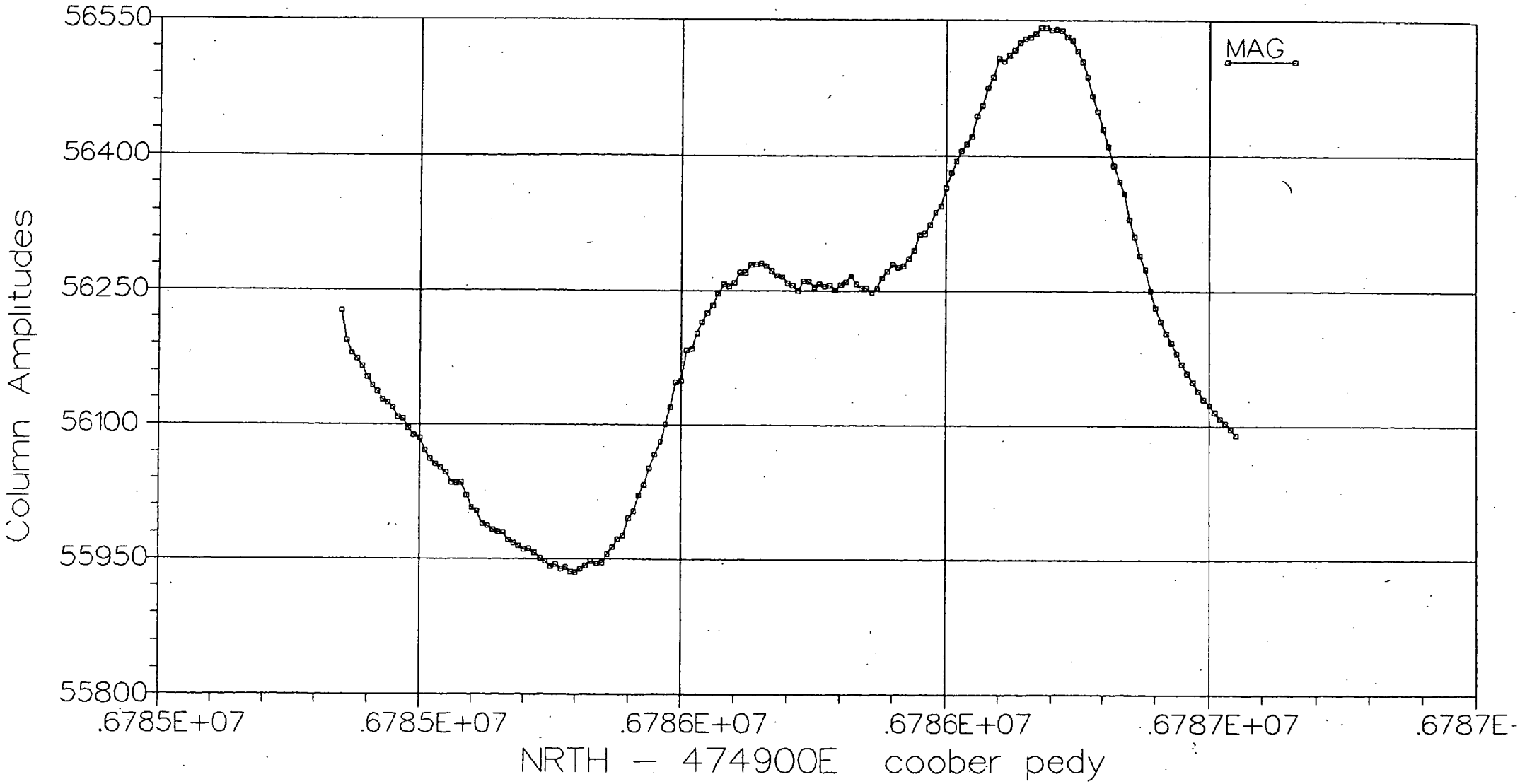

56750
56500
56250
56000
55750
55500
MAG
118500
119000
119500
120000
120500
121000
121500
122000
122500
NRTH -- 121000E coober pedy

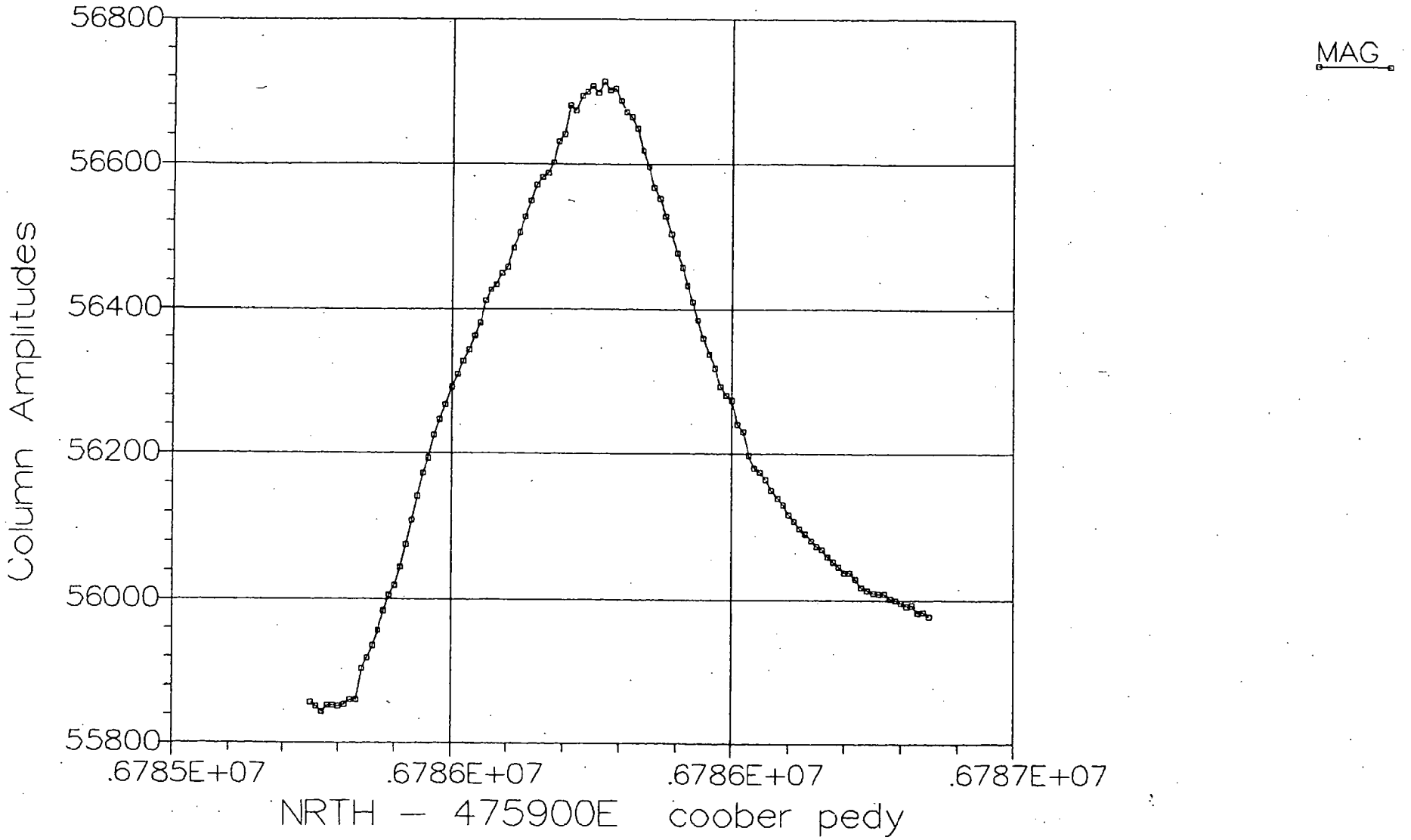

57600
57200
56800
56400
56000
55600
Column Amplitudes
MAG
119000
119500
120000
120500
121000
121500
122000
122500
NRTH – 122000E coober pedy


ANOMALY 39
MAG
56400
56300
56200
56100
56000
55900
Column Amplitudes
.6785E+07
.6785E+07
.6786E+07
.6786E+07
.6787E+07
NRTH — 472900E coober pedy

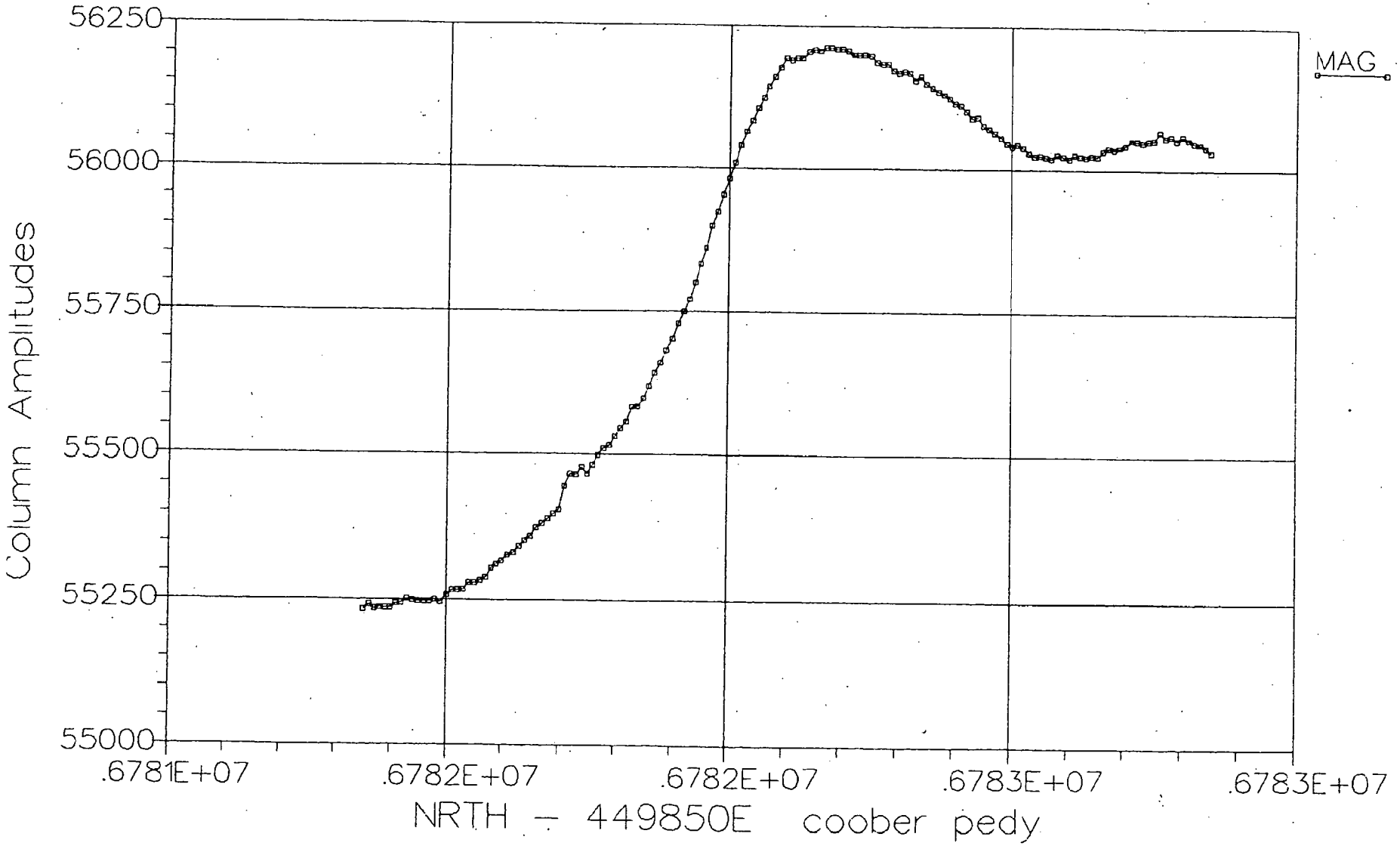

56700
56550
56400
56250
56100
55950
Column Amplitudes
MAG
.6785E+07
.6785E+07
.6786E+07
.6786E+07
.6787E+07
NRTH — 473900E coober pedy


56250
56200
56150
56100
56050
56000
Column Amplitudes
MAG
.6785E+07
.6785E+07
.6786E+07
.6786E+07
.6787E+07
NRTH — 474400N coober pedy


56550
56400
56250
56100
55950
55800
Column Amplitudes
MAG
.6785E+07
.6785E+07
.6786E+07
.6786E+07
.6787E+07
.6787E-
NRTH — 474900E coober pedy


56800
56600
56400
56200
56000
55800
Column Amplitudes
.6785E+07
.6786E+07
.6786E+07
.6787E+07
NRTH — 475900E coober pedy
MAG

ANOMALY 42


56250
56000
55750
55500
55250
55000
Column Amplitudes
MAG
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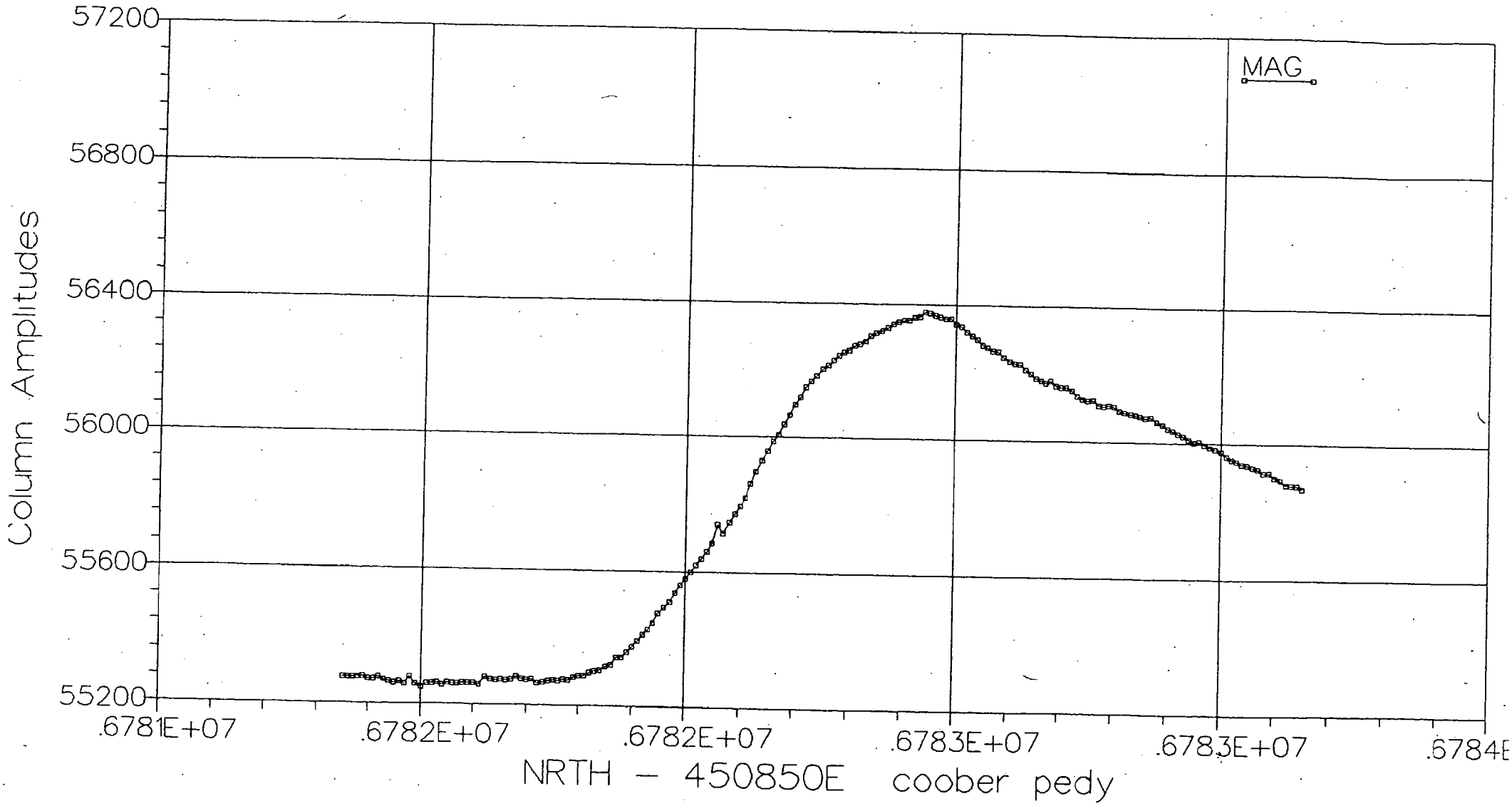
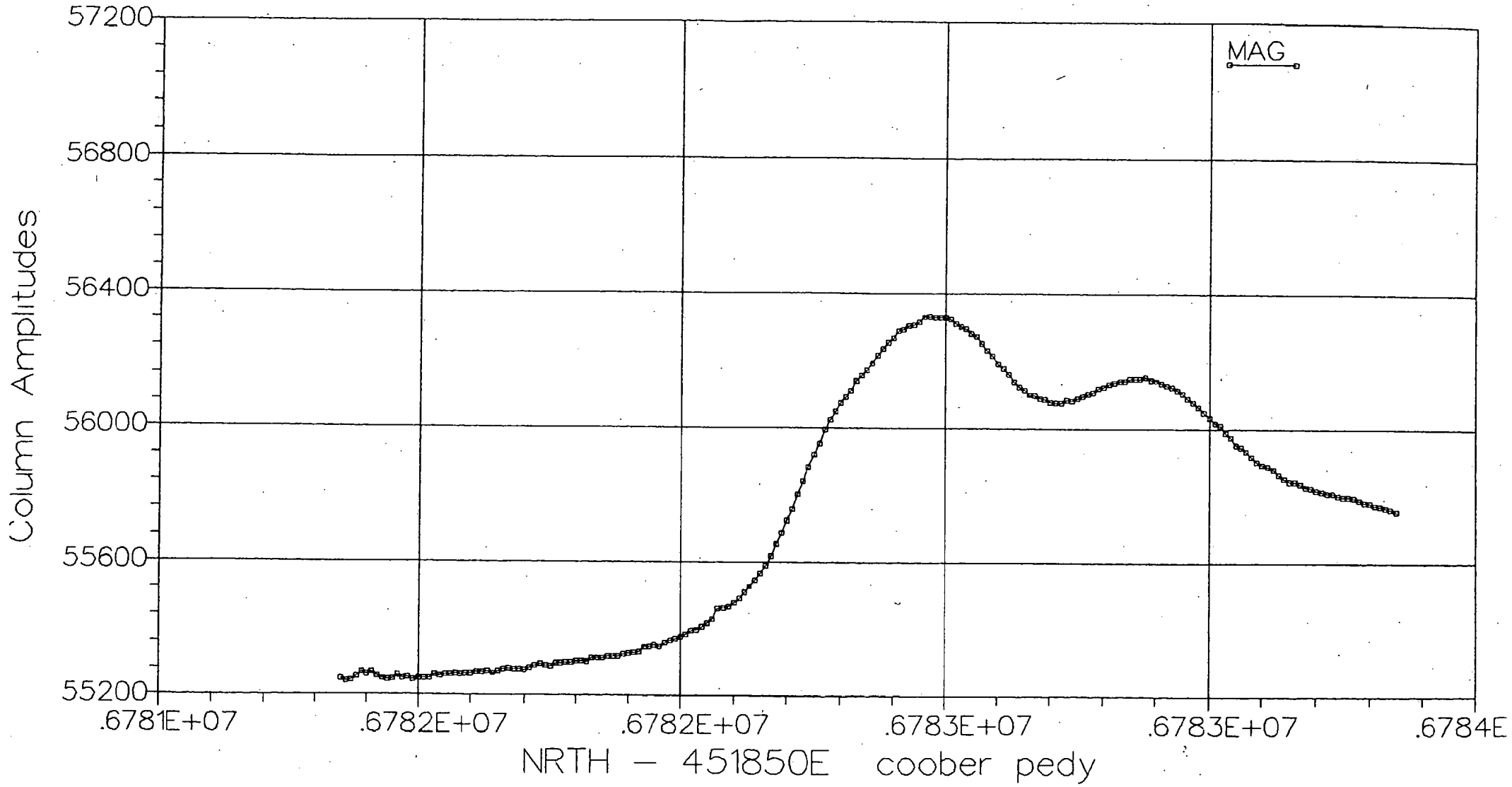
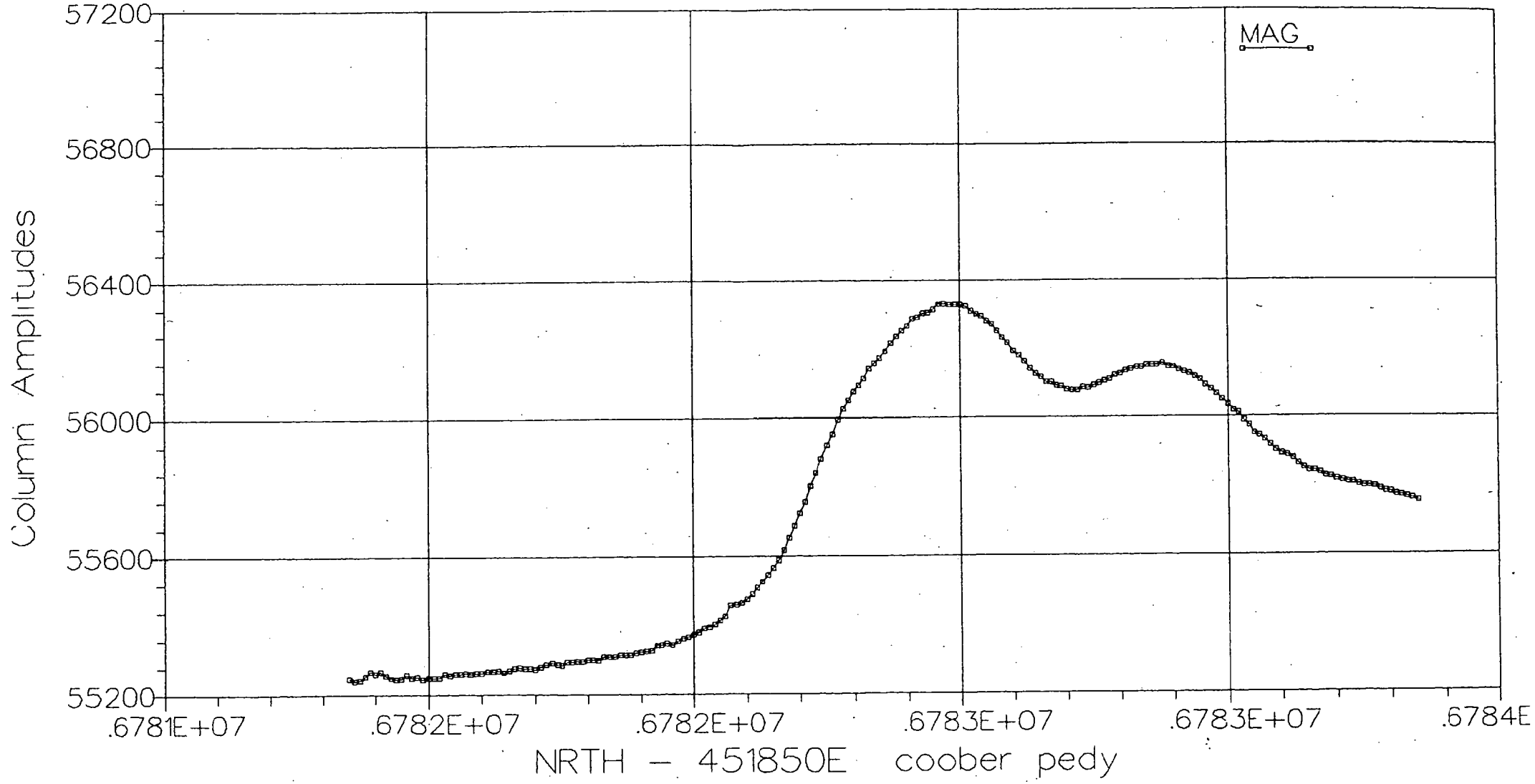
.6782E+07
.6782E+07
.6783E+07
.6783E+07
NRTH - 449850E coober pedy


57200
56800
56400
56000
55600
55200
Column Amplitudes
MAG
.6781E+07
.6782E+07
.6782E+07
.6783E+07
.6783E+07
.6784E
NRTH - 450850E coober pedy


57200
56800
56400
56000
55600
55200
Column Amplitudes
MAG
.6781E+07
.6782E+07
.6782E+07
.6783E+07
.6783E+07
.6784E
NRTH — 451850E coober pedy


MAG
57200
56800
56400
56000
55600
55200
Column Amplitudes
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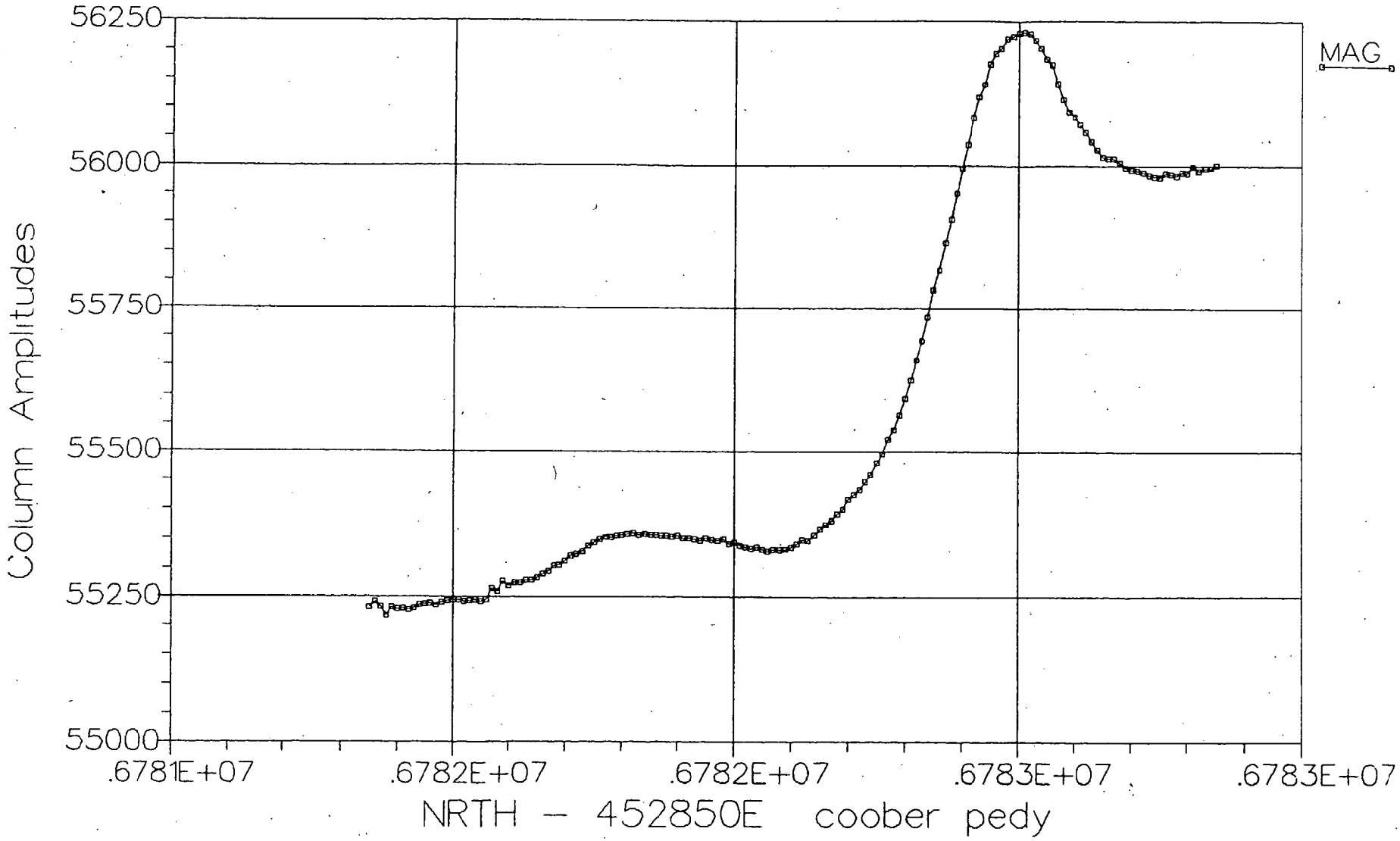
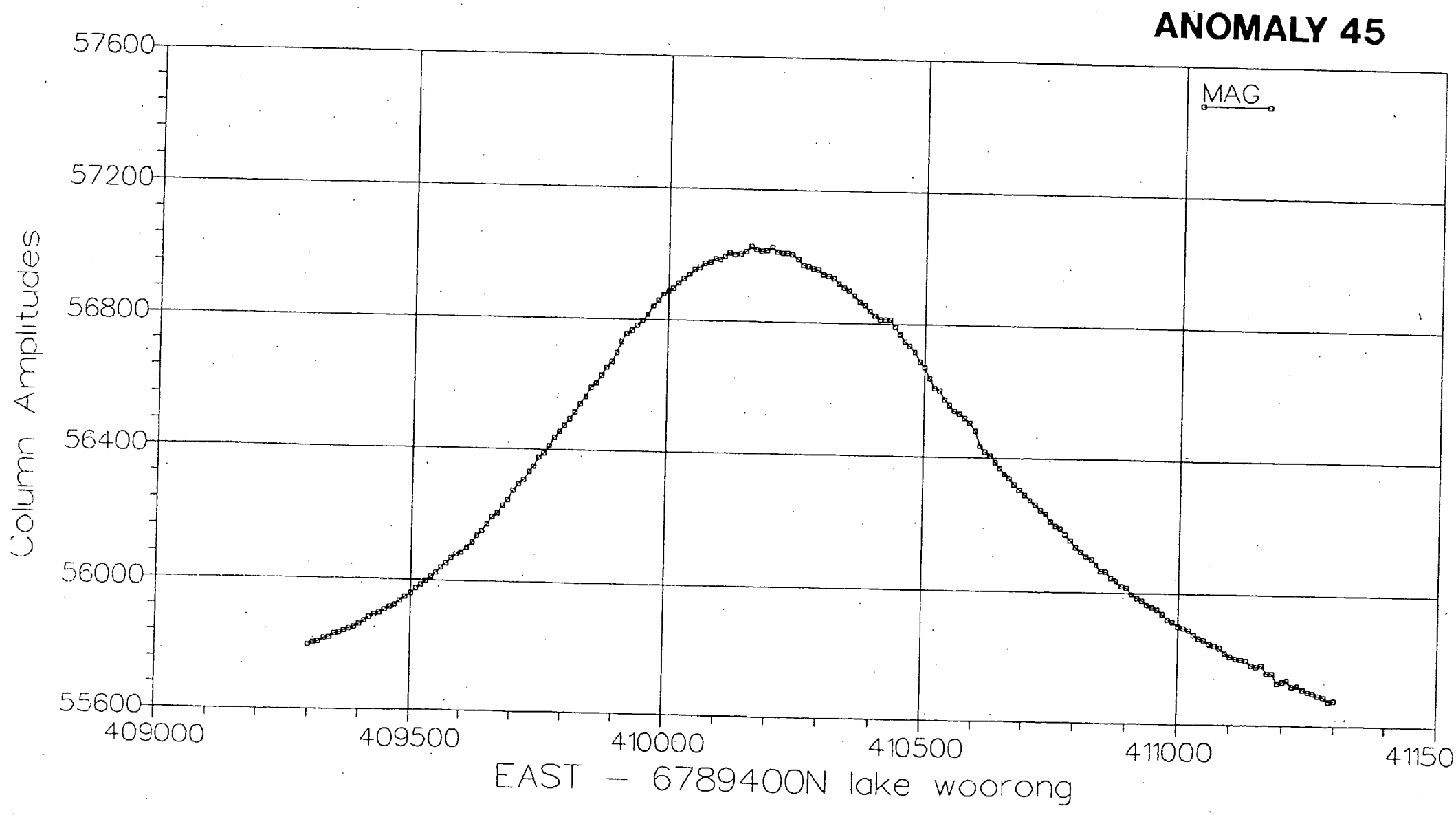
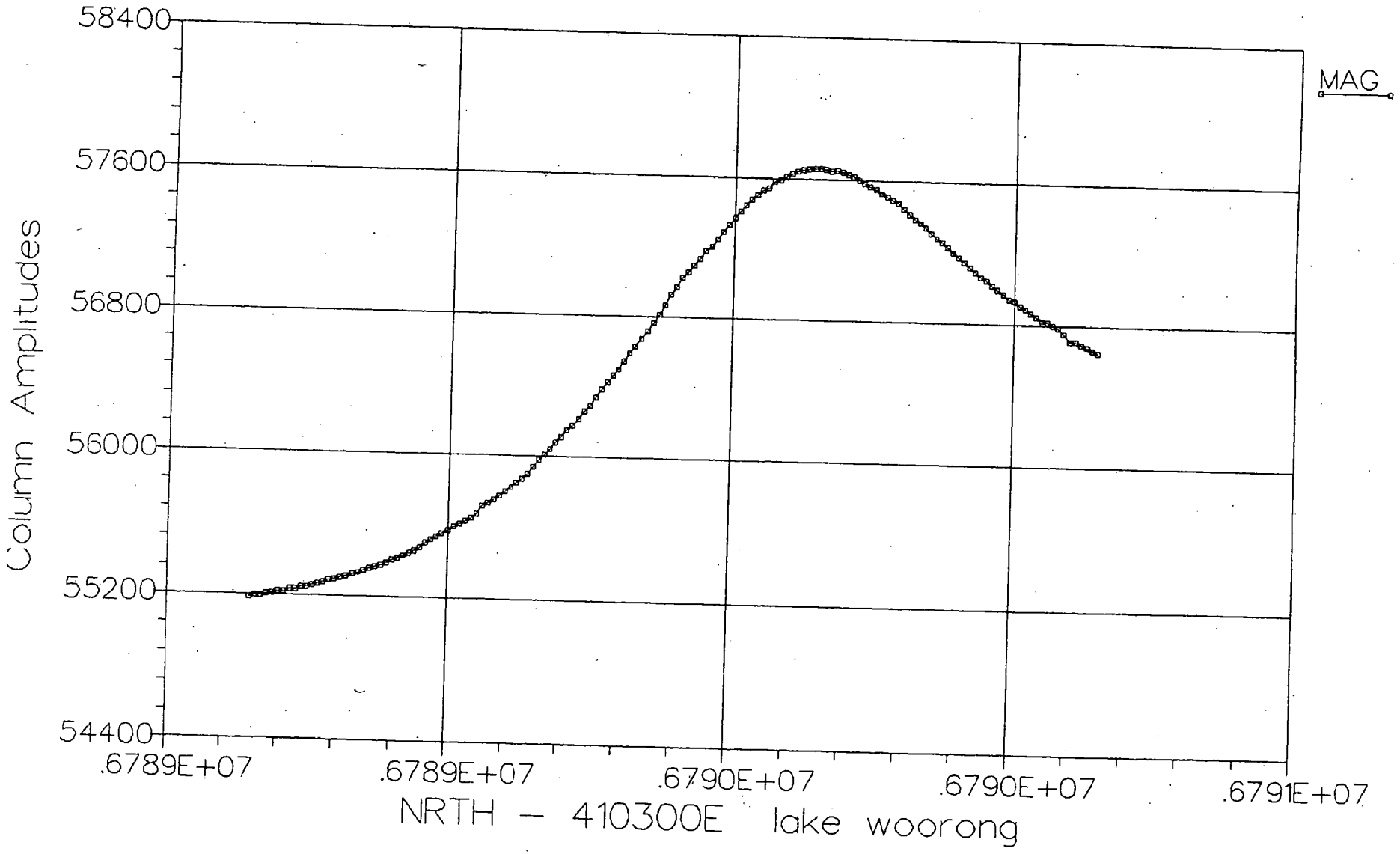
.6782E+07
.6782E+07
.6783E+07
.6783E+07
.6784E
NRTH – 451850E coober pedy


56250
56000
55750
55500
55250
55000
Column Amplitudes
.6781E+07
.6782E+07
.6782E+07
.6783E+07
.6783E+07
NRTH - 452850E coober pedy
MAG


ANOMALY 45
MAG
57600
57200
56800
56400
56000
55600
Column Amplitudes
409000
409500
410000
410500
411000
41150
EAST – 6789400N lake woorong

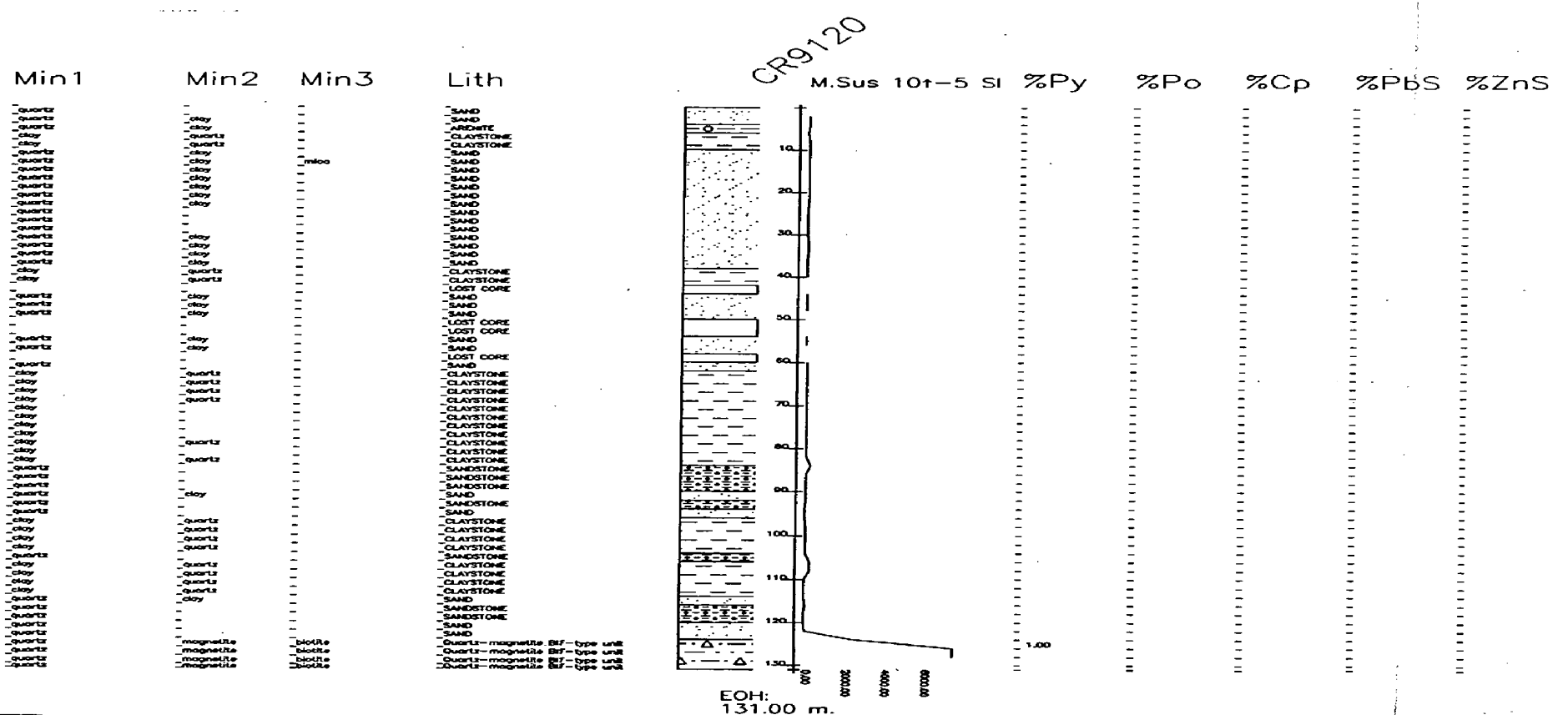

58400
57600
56800
56000
55200
54400
Column Amplitudes
.6789E+07
.6789E+07
.6790E+07
.6790E+07
.6791E+07
NRTH – 410300E lake woorong
MAG

Appendix 2

Graphic Drill hole Sections

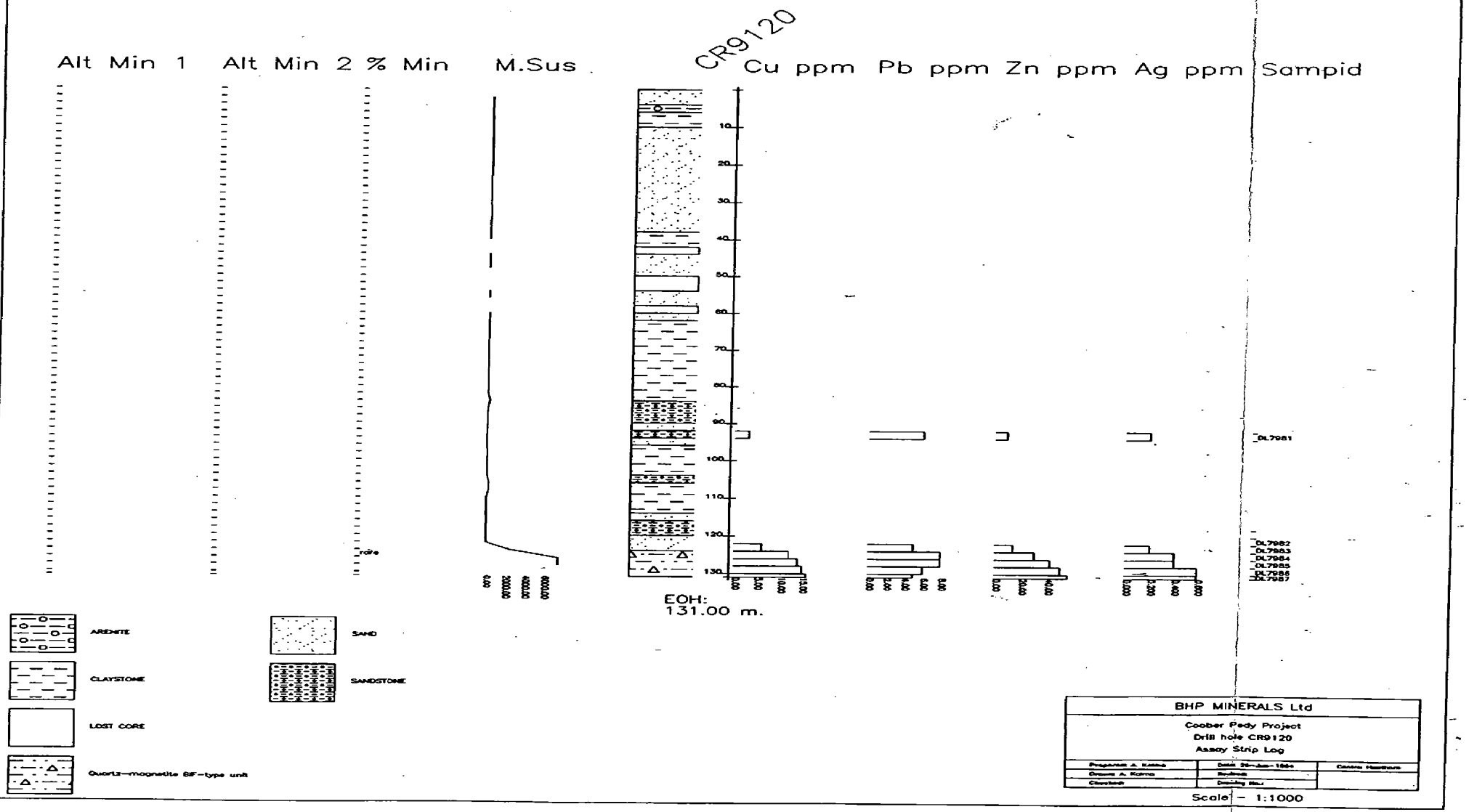
(Geology and Assay Strip Logs)

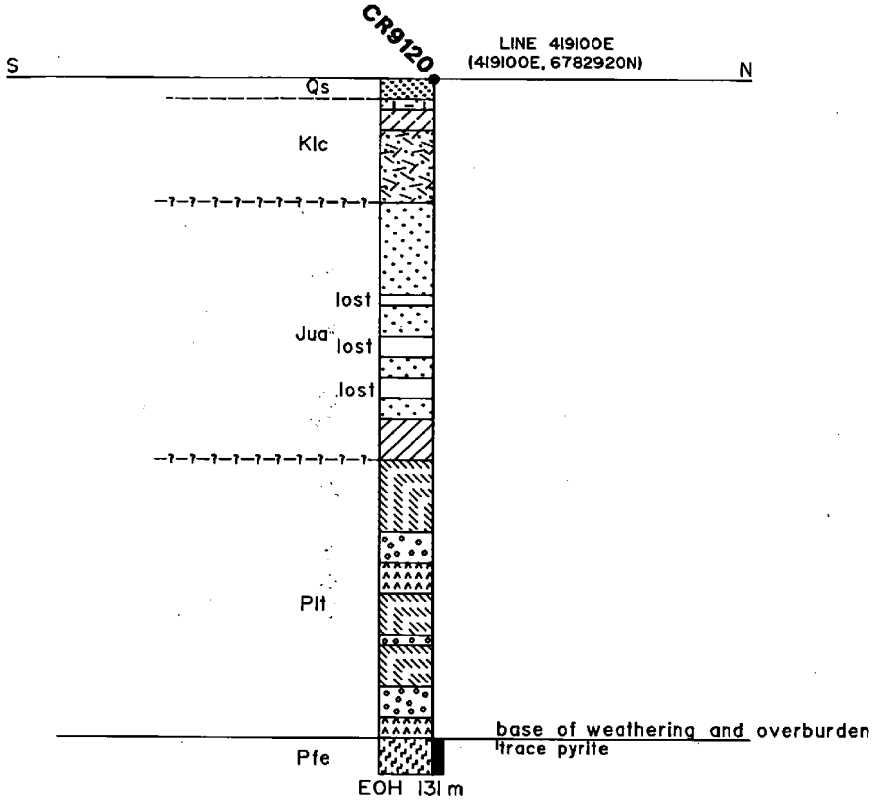
Hole	Anomaly	EL
CR9120	26	1719
CR9115	16	1725
CR9117	12	1725
CR9213	36/37	1725
CR93001	39	1725
CR93009	18	1725



BHP MINERALS Ltd		
Coober Pedy Project Drill hole CR9120 Geology Strip Log		
Prepared: A. Kalma	Date: 20-Jun-1994	Datum: Northern
Drawn: A. Kalma	Revised:	
Checked:	Drawing No:	

Scale − 1:1000


Alt Min 1
Alt Min 2 % Min
M.Sus
CR9120
Cu ppm
Pb ppm
Zn ppm
Ag ppm
Sampid
EOH:
131.00 m.
ARGHITE
CLAYSTONE
LOST CORE
Quartz-magnetite BIF-type unit
SAND
SANDSTONE
BHP MINERALS Ltd
Coober Pedy Project
Drill hole CR9120
Assay Strip Log
Scale - 1:1000



LEGEND

QUATERNARY	Qs	*Undifferentiated ferruginous quartz sand*
CRETACEOUS	Klc	CADNA-OWIE FORMATION *Quartz arenite* *Light tan ferruginous clay* *Siliceous light tan coarse grained quartz sand*
JURASSIC	Jua	ALGEBUCKINA SANDSTONE *Coarse grained sand* *Dark grey carbonaceous clay*
PERMIAN	Plt	MOUNT TOONDINA FORMATION *Light grey claystone* *Pale quartz sandstone* *Clayey quartz sand*
EARLY PROTEROZOIC	Pfe_2	SUITE TWO - QUARTZ MAGNETITE *Gneissic quartz magnetite*

Magnetic section of drill hole

Scale 1:1000

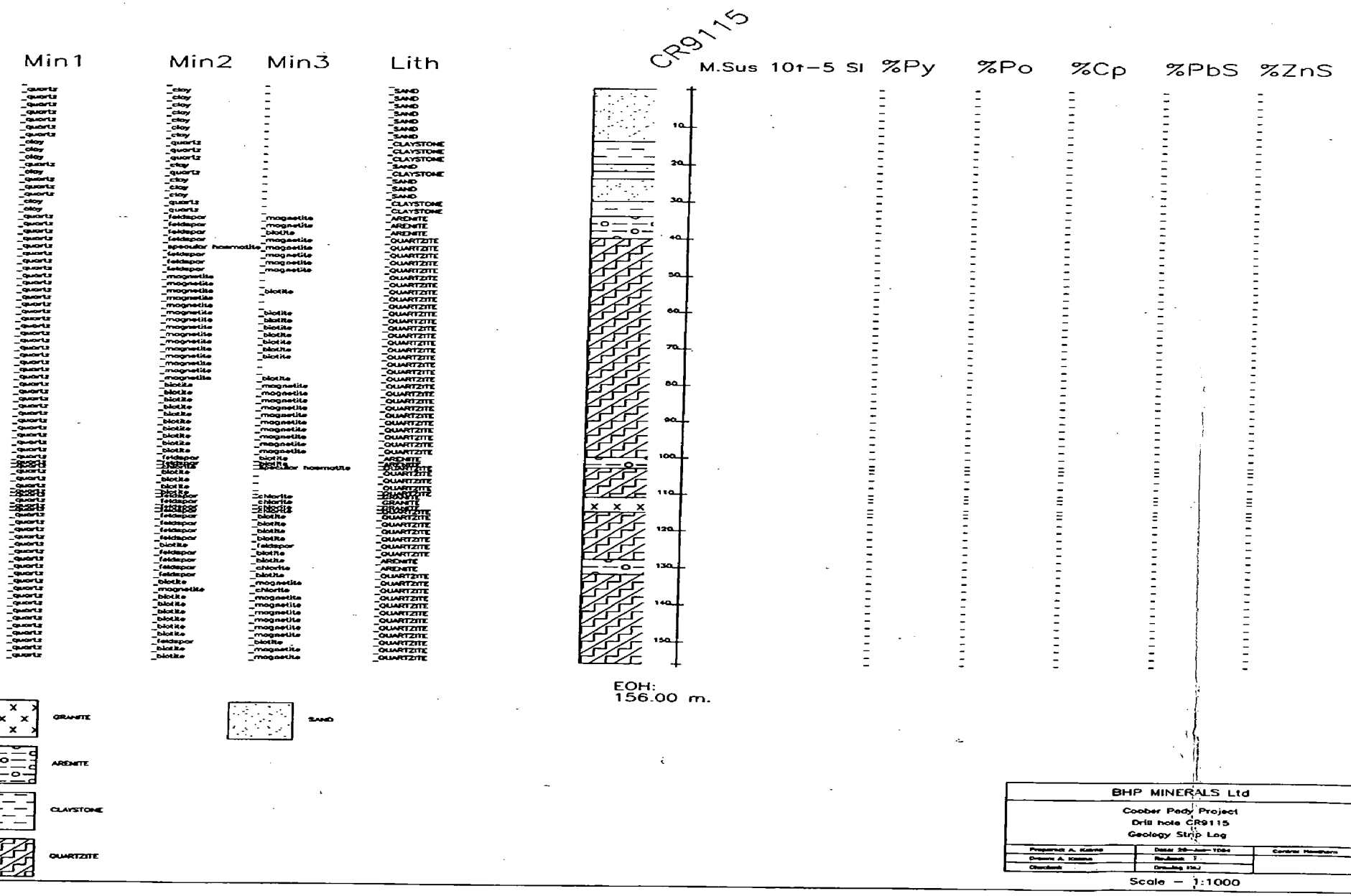
0 20 40 60 80 metres

Date drilled : 2/10/91

BHP Minerals
Asia Pacific Division

EL 1719, LAKE WOORONG, S.A.
ANOMALY 26
DRILL SECTION, HOLE CR9120

Prepared: J. Read	Date: Dec 1991	Fig
Drawn: F. Barlow	Project No.: FK4	
Centre: Melbourne	Drawing No.: A3-1958N	



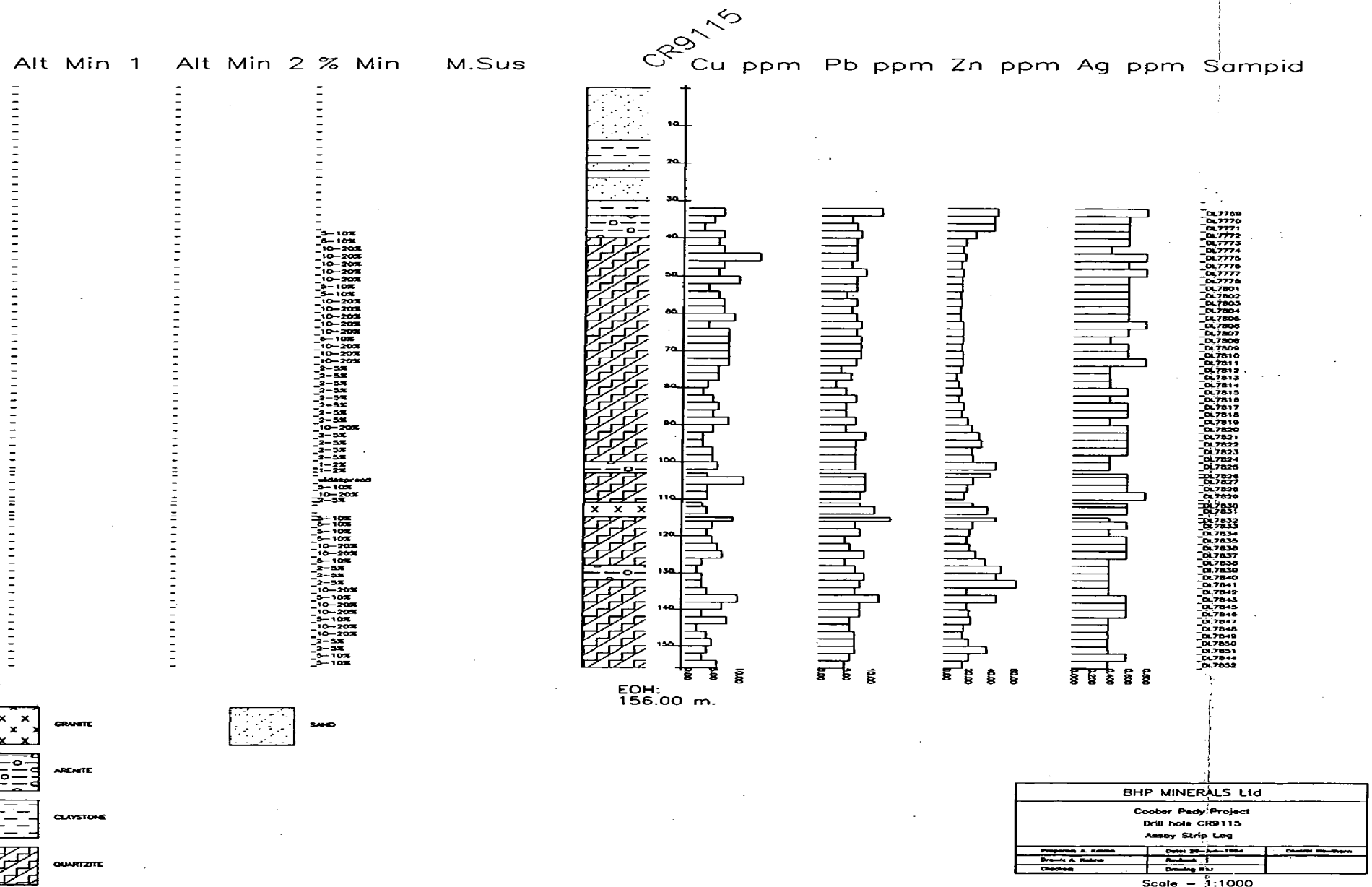
BHP MINERALS Ltd

Coober Pedy Project

Drill hole CR9115

Geology Strip Log

Scale – 1:1000



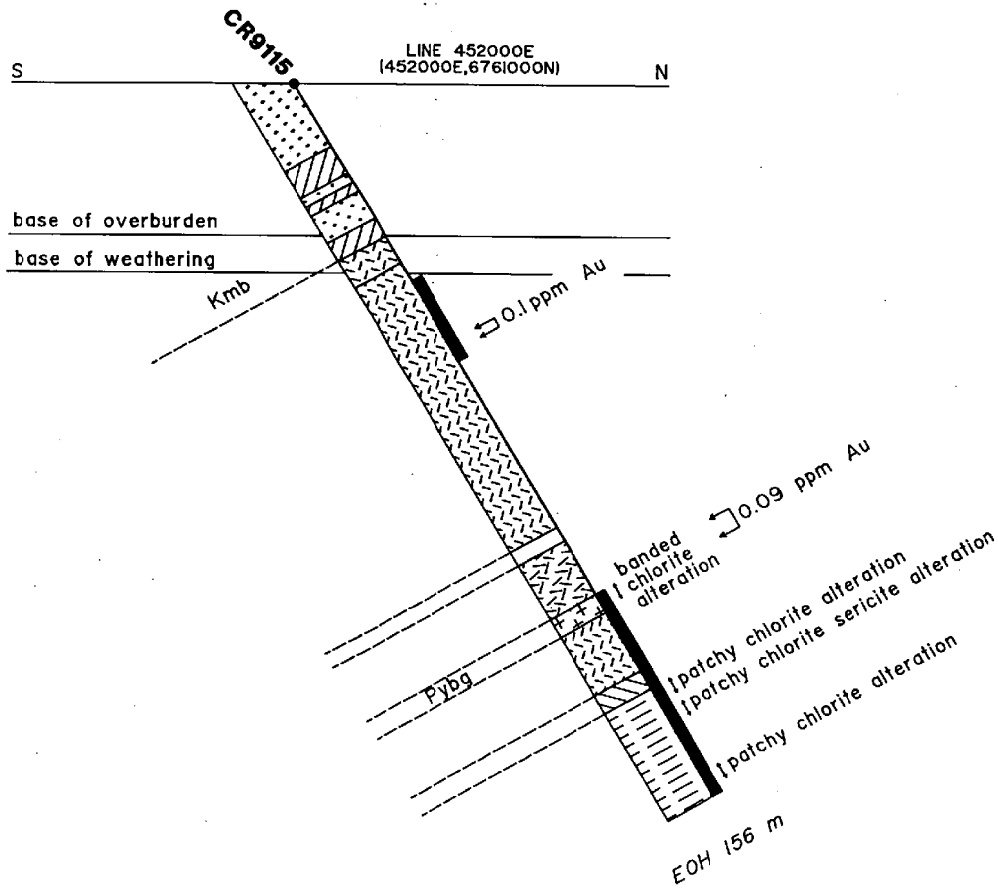
BHP MINERALS Ltd

Coober Pedy Project

Drill hole CR9115

Assay Strip Log

Scale - 1:1000



LEGEND

CRETACEOUS

BULLDOG SHALE
Light red-brown ferruginous unconsolidated sands

Light tan and light grey sandy clay

MIDDLE PROTEROZOIC

SKYLARK HILLS GRANITE
Magnetic quartz feldspar granite

EARLY PROTEROZOIC

Quartz + orthoclase + cordierite + plagioclase granofels (meta pelite)

Quartz orthoclase magnetite + cordierite + plagioclase granofels, with hercynite, sillimanite corundum and sapphirine (meta pelite)

Retrogressed quartz plagioclase orthoclase magnetite granofels

Quartz feldspar biotite quartzite with minor magnetite

Granitic quartz feldspar biotite granulite

Quartz orthoclase cordierite plagioclase granofels with magnetite hematite, sillimanite, biotite and zircon, (meta pelite)

Magnetic section of drill hole

Scale 1:1000

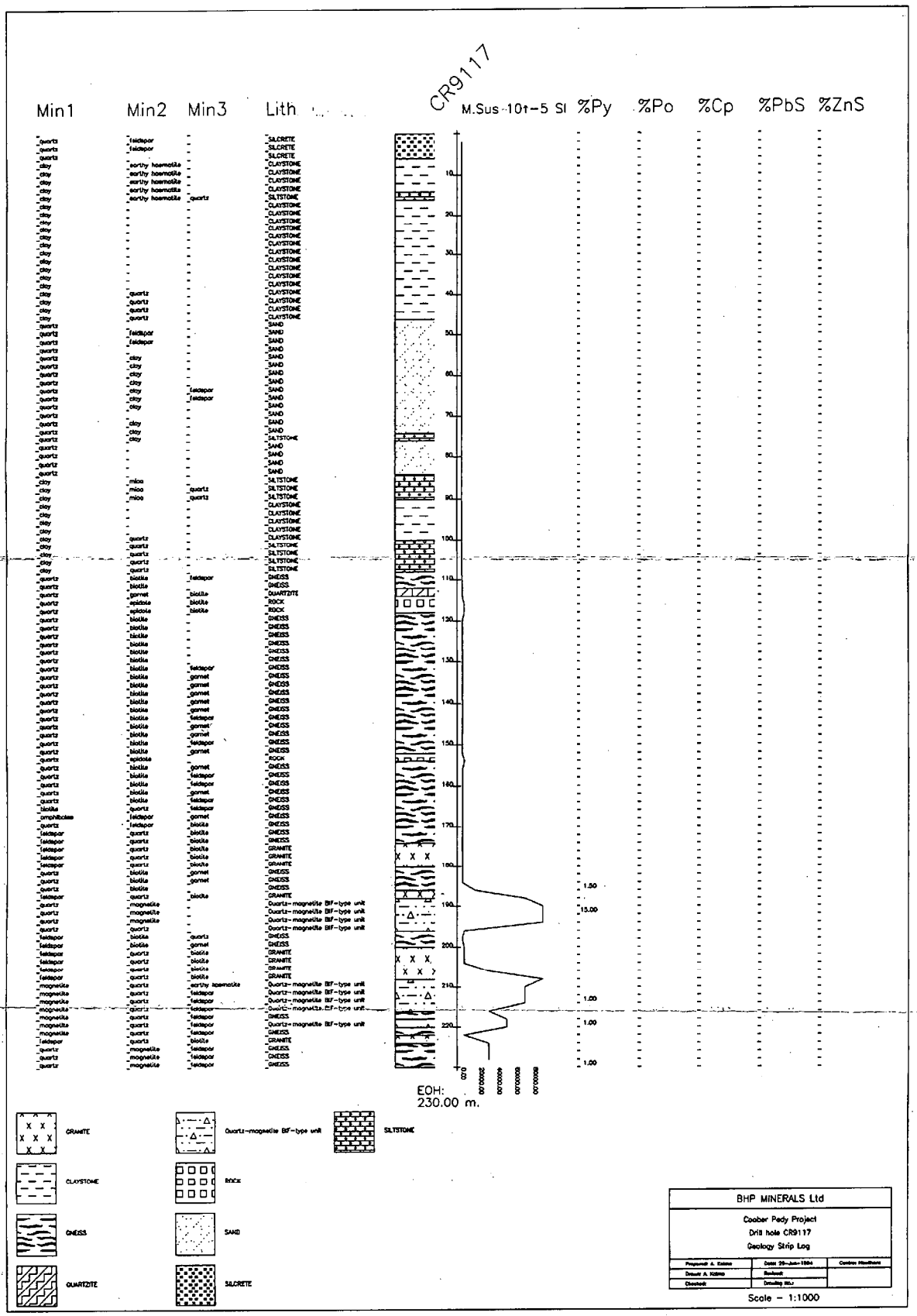
0 20 40 60 80 metres

Date drilled : 16/9/91

BHP Minerals
Asia Pacific Division

EL 1725, COOBER PEDY, S.A.
ANOMALY 16
DRILL SECTION, HOLE CR9115

Prepared: J. Read	Date: Nov 1991	Fig
Drawn: F. Barlow	Project No.: FK4	
Centre: Melbourne	Drawing No.: A3-1958L	



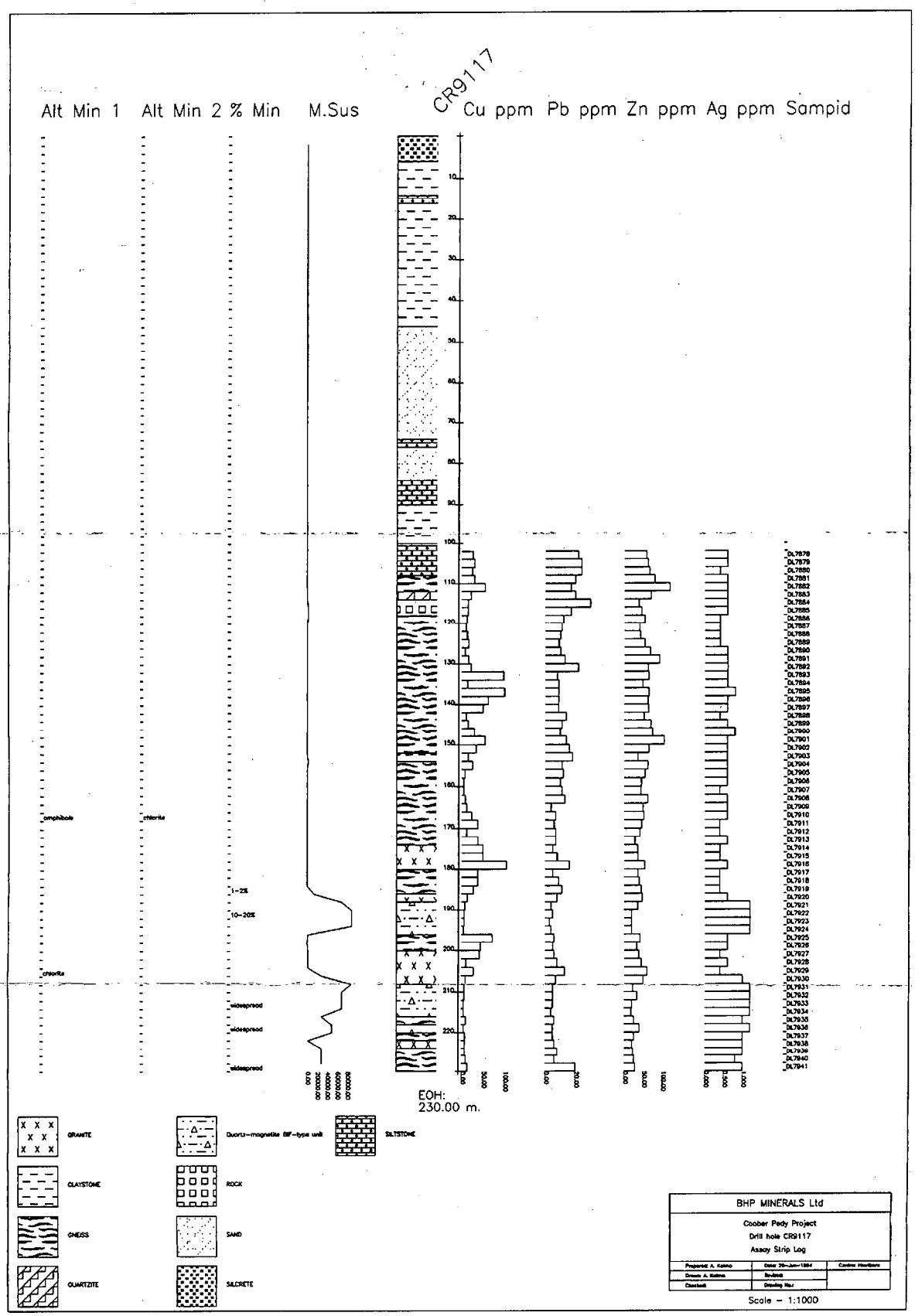
BHP MINERALS Ltd

Coober Pedy Project

Drill hole CR9117

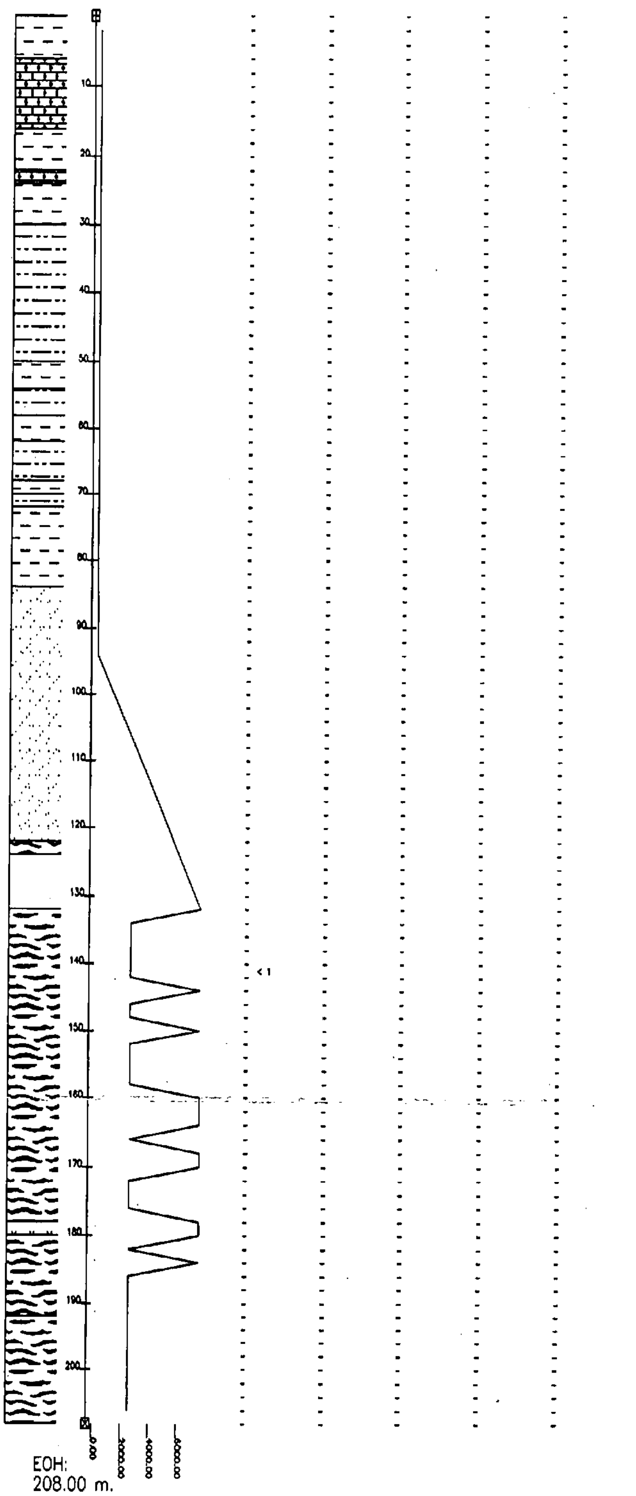
Geology Strip Log

Scale - 1:1000

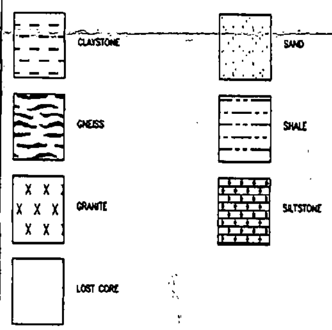

CR9117
Alt Min 1
Alt Min 2
% Min
M.Sus
Cu ppm
Pb ppm
Zn ppm
Ag ppm
Sampid
amphibole
chlorite
chlorite
1-2%
10-20%
widespread
widespread
widespread
EOH:
230.00 m.
GRANITE
GNEISS
QUARTZITE
CLAYSTONE
Quartz-magnetite BIF-type unit
ROCK
SAND
SILCRETE
SILTSTONE
BHP MINERALS Ltd
Coober Pedy Project
Drill hole CR9117
Assay Strip Log
Scale - 1:1000

CR9213

Min1	Min2	Min3	Lith
clay	iron oxides		CLAYSTONE
clay	iron oxides		CLAYSTONE
clay	iron oxides		CLAYSTONE
clay	iron oxides	earthy haematite	SILTSTONE
clay	iron oxides		SILTSTONE
quartz	clay		SILTSTONE
quartz	clay	earthy haematite	SILTSTONE
clay	quartz		SILTSTONE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz	iron oxides	CLAYSTONE
clay	earthy haematite		SILTSTONE
clay	iron oxides		CLAYSTONE
clay	iron oxides		CLAYSTONE
clay	iron oxides	quartz	CLAYSTONE
clay	quartz	iron oxides	SHALE
clay	quartz	iron oxides	SHALE
clay	quartz	iron oxides	SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		SHALE
clay	quartz		CLAYSTONE
clay			SHALE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
clay	quartz		CLAYSTONE
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay		SAND
quartz	clay	feldspar	SAND
quartz	clay	feldspar	SAND
quartz	clay		SAND
quartz	clay	feldspar	SAND
quartz	clay		SAND
quartz	clay	feldspar	SAND
quartz	clay	feldspar	SAND
quartz	clay	feldspar	SAND
quartz	feldspar	biotite	GNEISS
			LOST CORE
			LOST CORE
			LOST CORE
			LOST CORE
feldspar	quartz	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
feldspar	quartz	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
feldspar	quartz	biotite	GNEISS
feldspar	quartz	biotite	GNEISS
feldspar	biotite	quartz	GNEISS
quartz	plagioclase	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
feldspar	quartz	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
feldspar	quartz	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GRANITE
quartz	feldspar	magnetite	GNEISS
quartz	feldspar	biotite	GNEISS
feldspar	quartz	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS
quartz	feldspar	biotite	GNEISS



EOH:
208.00 m.



BHP MINERALS Ltd

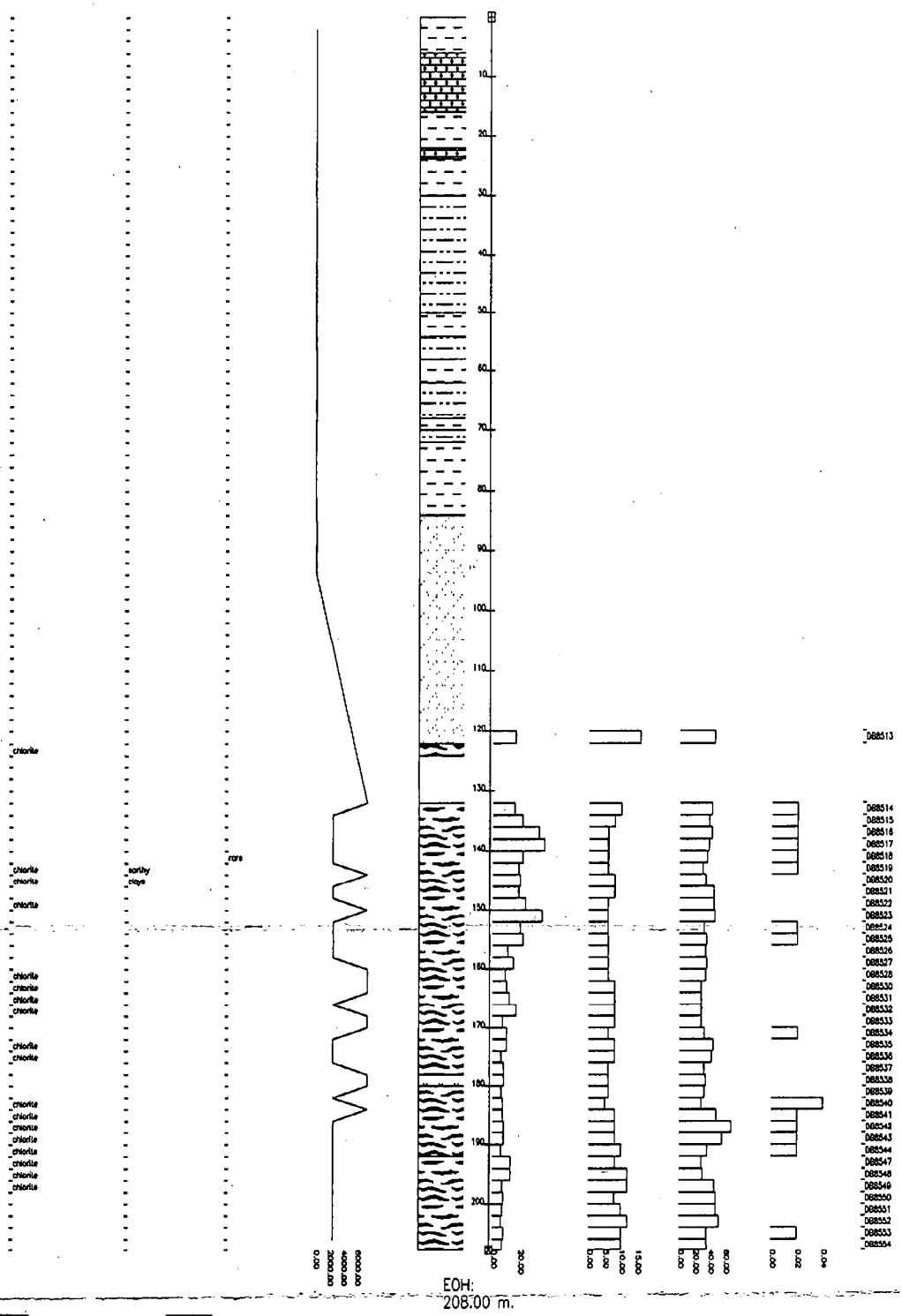
Coober Pedy Project
CR9213
Geology Strip Log

Prepared: T. Kotmo	Date: 05-Nov-92	Contract: Hawthorn
Drawn: T. Kotmo	Revised:	
Checked:	Drawing No.:	

Scale – 1:1000.0

CR9213

Alt Min 1 | Alt Min 2 | % Min | M.Sus | Cu ppm | Pb ppm | Zn ppm | Au ppm | Sampid

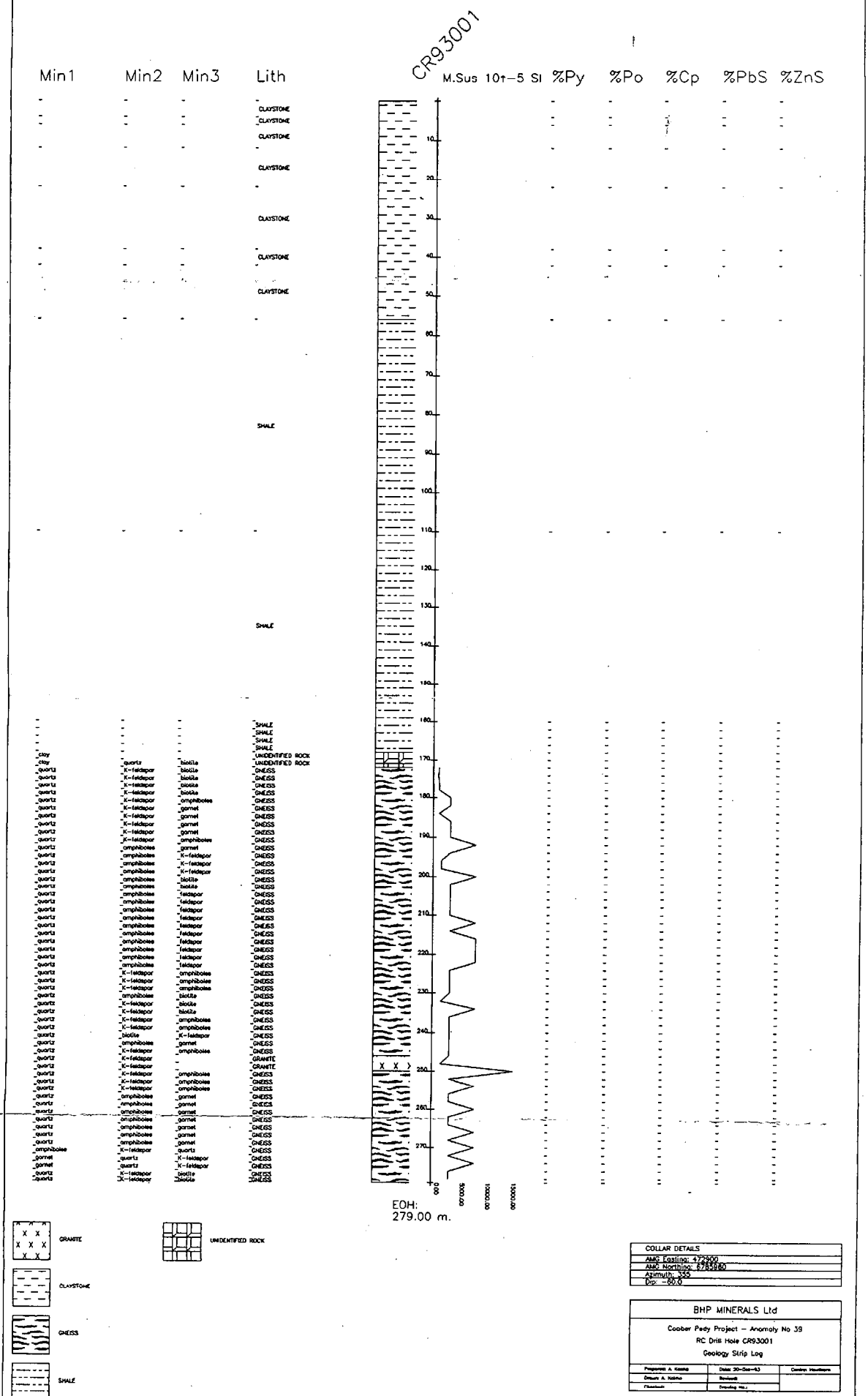


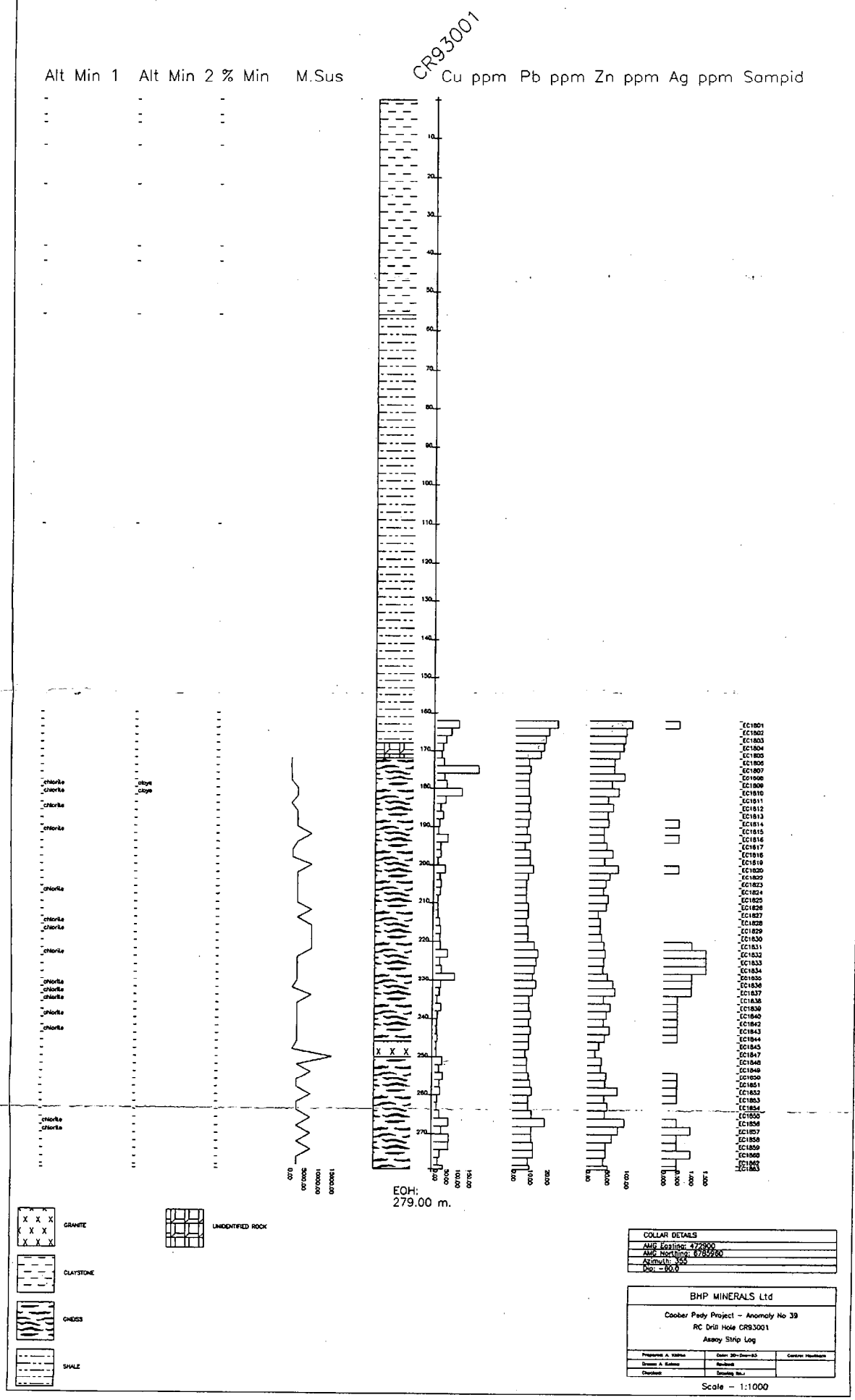
EOH:
208.00 m.

CLAYSTONE
SHALE
GNEISS
SILTSTONE
GRANITE
SAND

BHP MINERALS Ltd

Coober Pedy Project
CR9213
Assay Strip Log


CR93001
Min1
Min2
Min3
Lith
M.Sus 10↑-5 SI
%Py
%Po
%Cp
%PbS
%ZnS
CLAYSTONE
SHALE
UNIDENTIFIED ROCK
GNEISS
GRANITE
EOH:
279.00 m.
GRANITE
UNIDENTIFIED ROCK
CLAYSTONE
GNEISS
SHALE
COLLAR DETAILS
AMG Easting: 472900
AMG Northing: 6785880
Azimuth: 335
Dip: -60.0
BHP MINERALS Ltd
Coober Pedy Project – Anomaly No 39
RC Drill Hole CR93001
Geology Strip Log
Scale – 1:1000



COLLAR DETAILS
AMG Easting: 472900
AMG Northing: 6785260
Azimuth: 355
Dip: -60.0

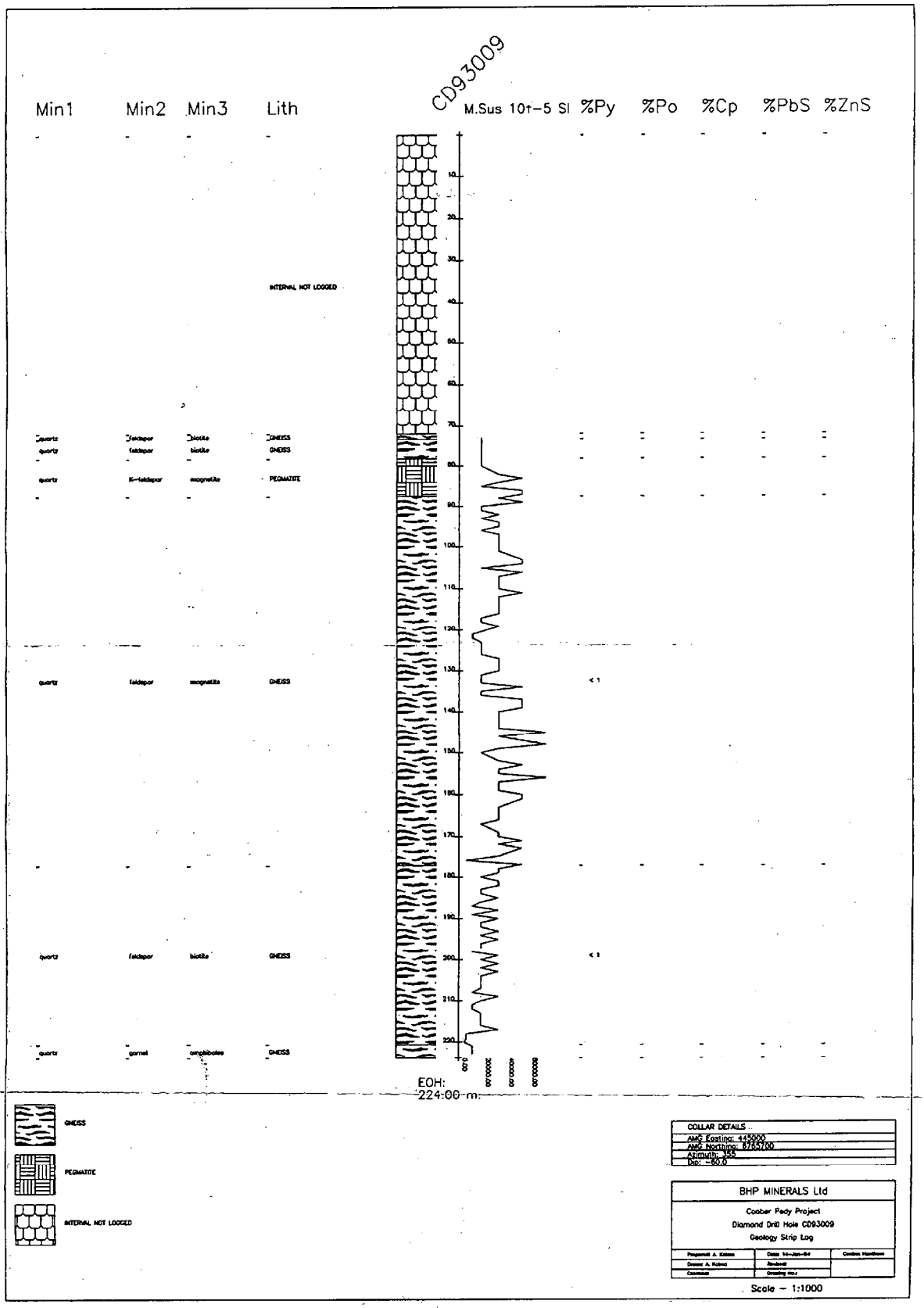
BHP MINERALS Ltd

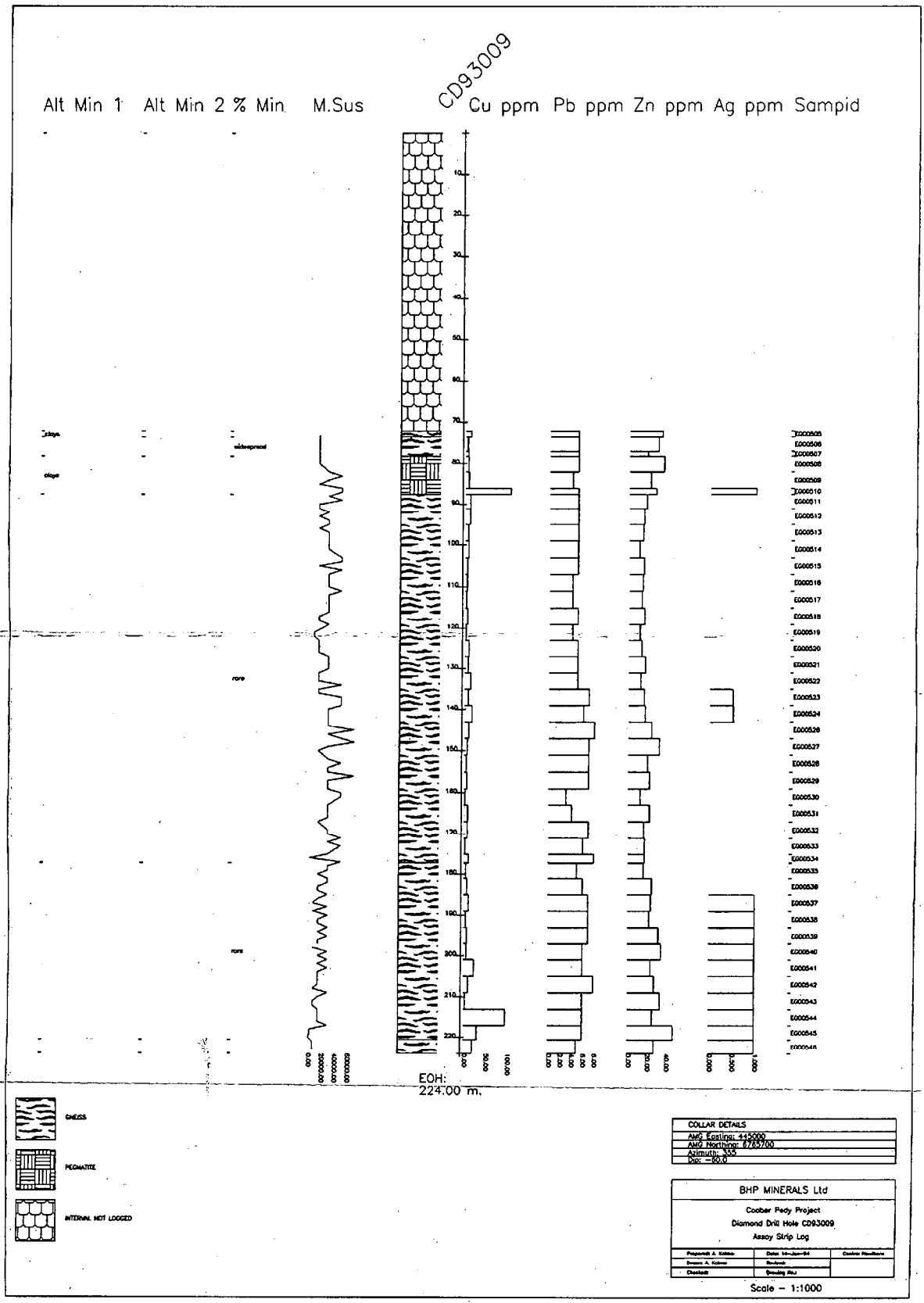
Coober Pedy Project – Anomaly No 39

RC Drill Hole CR93001

Assay Strip Log

Scale – 1:1000


CD93009
Min1
Min2
Min3
Lith
M.Sus 10t-5 SI
%Py
%Po
%Cp
%PbS
%ZnS
INTERVAL NOT LOGGED
quartz
feldspar
biotite
GNEISS
quartz
feldspar
biotite
GNEISS
quartz
K-feldspar
magnetite
PEGMATITE
quartz
feldspar
magnetite
GNEISS
quartz
feldspar
biotite
GNEISS
quartz
garnet
amphiboles
GNEISS
EOH:
224.00 m
GNEISS
PEGMATITE
INTERVAL NOT LOGGED
COLLAR DETAILS
AMG Easting: 445009
AMG Northing: 6735700
Azimuth: 360
Dip: -60.0
BHP MINERALS Ltd
Cooper Pedy Project
Diamond Drill Hole CD93009
Geology Strip Log
Scale - 1:1000


CD93009
Alt Min 1
Alt Min 2
% Min
M.Sus
Cu ppm
Pb ppm
Zn ppm
Ag ppm
Sampid
EOH:
224.00 m.
GNEISS
PEGMATITE
INTERVAL NOT LOGGED
COLLAR DETAILS
AMG Eastings: 415000
AMG Northings: 6765700
Azimuth: 355
Dip: -60.0
BHP MINERALS Ltd
Coober Pedy Project
Diamond Drill Hole CD93009
Assay Strip Log
Scale - 1:1000

Appendix 3

Descriptive Drillhole Logs

(Holes CR9115, CR9117, CR9120, CR9213, CR93001 and CD93009)

Appendix 3

Descriptive Drillhole Logs

(Holes CR9115, CR9117, CR9120, CR9213, CR93001 and CD93009)

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	2		clayey ferruginous SAND	quartz clay	light Red					
2	4		clayey SAND	quartz clay	Pale (very light) Red					
4	6		clayey SAND	quartz clay	Palest White					
6	8		clayey SAND	quartz clay	Medium light Brown (Umber)					
8	10		clayey SAND	quartz clay	light Brown (Umber)					
10	12		clayey SAND	quartz clay	light Brown (Umber)					
12	14		clayey SAND	quartz clay	light Grey					
14	16		sandy CLAYSTONE	clay quartz	light Tan					
16	18		sandy CLAYSTONE	clay quartz	light Tan					
18	20		sandy CLAYSTONE	clay quartz	light Tan					
20	22		clayey SAND	quartz clay	light Tan					
22	24		sandy CLAYSTONE	clay quartz	light Tan					

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24	26		silty clayey SAND	quartz clay	light Tan					
26	28		clayey SAND	quartz clay	Medium light Tan					
28	30		clayey SAND	quartz clay	light Grey					
30	32		sandy CLAYSTONE	clay quartz	light Grey					
32	34	DL7769	sandy CLAYSTONE	clay quartz	light Grey					
34	36	DL7770	ARENITE	quartz feldspar magnetite	Pale (very light) Grey					
36	38	DL7771	ARENITE	quartz feldspar magnetite	Pale (very light) Grey					
38	40	DL7772	granitic ARENITE	quartz feldspar biotite	Pale (very light) Grey					
40	42	DL7773	magnetite-bearing QUARTZITE	quartz feldspar magnetite	Medium Grey					
42	44	DL7774	magnetite-bearing QUARTZITE	quartz specular haematite magnetite	Medium Grey					
44	46	DL7775	magnetite-bearing QUARTZITE	quartz feldspar magnetite	Medium Grey					
46	48	DL7776	magnetite-bearing QUARTZITE	quartz feldspar magnetite	Medium Grey					

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50	DL7777	magnetite-bearing QUARTZITE	quartz feldspar magnetite	Medium Grey					
50	52	DL7778	magnetite-bearing QUARTZITE	quartz magnetite	Medium Grey					
52	54	DL7801	magnetite-bearing QUARTZITE	quartz magnetite	Medium Grey					
54	56	DL7802	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
56	58	DL7803	magnetite-bearing QUARTZITE	quartz magnetite	Medium Grey					
58	60	DL7804	magnetite-bearing QUARTZITE	quartz magnetite	Medium Grey					
60	62	DL7805	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
62	64	DL7806	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
64	66	DL7807	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
66	68	DL7808	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
68	70	DL7809	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
70	72	DL7810	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74	DL7811	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
74	76	DL7812	magnetite-bearing QUARTZITE	quartz magnetite	Medium Grey					
76	78	DL7813	magnetite-bearing QUARTZITE	quartz magnetite	Medium Grey					
78	80	DL7814	magnetite-bearing QUARTZITE	quartz magnetite biotite	Medium Grey					
80	82	DL7815	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
82	84	DL7816	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
84	86	DL7817	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
86	88	DL7818	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
88	90	DL7819	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
90	92	DL7820	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
92	94	DL7821	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
94	96	DL7822	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98	DL7823	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
98	100	DL7824	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium Grey					
100	102	DL7825	ARENITE	quartz feldspar biotite	Medium light Tan					
102	103	DL7826	ARENITE	quartz feldspar biotite	Medium light Tan					
103	104	DL7826	QUARTZITE	quartz chlorite specular haematite	Medium Red					
104	106	DL7827	magnetite-bearing pyritic QUARTZITE	quartz biotite pyroboles	Medium Grey					
106	108	DL7828	magnetite-bearing QUARTZITE	quartz biotite	Medium Grey					
108	110	DL7829	magnetite-bearing QUARTZITE	quartz biotite	Medium Grey					
110	111	DL7830	magnetite-bearing QUARTZITE	quartz biotite	Medium Grey					
115	116	DL7832	magnetite-bearing QUARTZITE	quartz feldspar chlorite	Medium light Grey					
116	118	DL7833	magnetite-bearing QUARTZITE	quartz feldspar biotite	Medium Grey					
118	120	DL7834	magnetite-bearing QUARTZITE	quartz feldspar biotite	Medium Grey					

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
120	122	DL7835	magnetite-bearing	quartz	Medium					
				feldspar	Grey					
			QUARTZITE	biotite						
122	124	DL7836	magnetite-bearing	quartz	Medium light					
				feldspar	Grey					
			QUARTZITE	biotite						
124	126	DL7837	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	feldspar						
126	128	DL7838	magnetite-bearing	quartz	Medium light					
				feldspar	Grey					
			QUARTZITE	biotite						
128	130	DL7839		quartz	Medium light					
				feldspar	Grey					
			ARENITE	biotite						
132	134	DL7841		quartz	Medium light					
				feldspar	Grey					
			QUARTZITE	biotite						
134	136	DL7842	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	magnetite						
138	140	DL7845	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	magnetite						
140	142	DL7846	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	magnetite						
142	144	DL7847	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	magnetite						
144	146	DL7848	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	magnetite						
146	148	DL7849	magnetite-bearing	quartz	Medium light					
				biotite	Grey					
			QUARTZITE	magnetite						

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91015 Hole Length : 156 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON
Easting : 452000 Northing : 6761700 Amg Zone : 53
Latitude : -29.272615 Longitude : 134.50589 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
148	150	DL7850	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium light Grey					
150	152	DL7851	QUARTZITE	quartz feldspar biotite	Medium light Grey					
152	154	DL7844	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium light Grey					
154	156	DL7852	magnetite-bearing QUARTZITE	quartz biotite magnetite	Medium light Grey					

Standard Samples Logged	Sample Number	From	To

Duplicate Samples logged	Sample Number	From	To

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	2		cherty SILCRETE	quartz feldspar	light Grey					10-100
2	4		cherty SILCRETE	quartz feldspar	light Grey					10-100
4	6		cherty SILCRETE	quartz	light Grey					< 10
6	8		oxidised CLAYSTONE	clay earthy haematite	Medium light Grey					< 10
8	10		oxidised silty CLAYSTONE	clay earthy haematite	Pale (very light) Grey					< 10
10	12		oxidised silty CLAYSTONE	clay earthy haematite	Medium Red					< 10
12	14		oxidised silty CLAYSTONE	clay earthy haematite gypsum	Medium Red					< 10
14	16		oxidised clayey SILTSTONE	clay earthy haematite quartz	Medium Red					< 10
16	18		oxidised clayey CLAYSTONE	clay	Medium light White					< 10
18	20		oxidised CLAYSTONE	clay	light Red					< 10
20	22		oxidised CLAYSTONE	clay	light Red					< 10
22	24		oxidised CLAYSTONE	clay	light Red					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24	26		oxidised clayey CLAYSTONE	clay	Medium Red					10-100
26	28		oxidised clayey CLAYSTONE	clay	Medium Red					10-100
28	30		oxidised clayey CLAYSTONE	clay	Medium dark Tan					< 10
30	32		oxidised clayey CLAYSTONE	clay	Medium Tan					10-100
32	34		oxidised clayey CLAYSTONE	clay	Medium dark Tan					10-100
34	36		oxidised CLAYSTONE	clay	Medium light Tan					< 10
36	38		oxidised CLAYSTONE	clay	light Tan					< 10
38	40		siliceous CLAYSTONE	clay quartz	Medium dark Black (Noir)					< 10
40	42		siliceous CLAYSTONE	clay quartz	Medium dark Black (Noir)					< 10
42	44		siliceous CLAYSTONE	clay quartz	Medium Black (Noir)					< 10
44	46		sandy CLAYSTONE	clay quartz	Medium Brown (Umber)					< 10
46	48		oxidised sandy SAND	quartz	Medium light Tan					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50		oxidised sandy SAND	quartz feldspar	Medium light Tan					< 10
50	52		oxidised siliceous SAND	quartz feldspar	Medium Brown (Umber)					< 10
52	54		oxidised siliceous SAND	quartz	Medium Brown (Umber)					< 10
54	56		oxidised clayey SAND	quartz clay	Medium dark Brown (Umber)					< 10
56	58		oxidised clayey SAND	quartz clay	Medium Brown (Umber)					< 10
58	60		oxidised clayey SAND	quartz clay	Medium Brown (Umber)					< 10
60	62		oxidised clayey SAND	quartz clay	Medium light Brown (Umber)					< 10
62	64		oxidised clayey SAND	quartz clay feldspar	Medium light Brown (Umber)					< 10
64	66		clayey siliceous SAND	quartz clay feldspar	Medium Brown (Umber)					< 10
66	68		clayey siliceous SAND	quartz clay	Medium light Tan					< 10
68	70		clayey siliceous SAND	quartz	Medium light Tan					< 10
70	72		clayey siliceous SAND	quartz clay	Medium light Tan					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74		clayey siliceous SAND	quartz clay	Medium light Tan					< 10
74	76		clayey siliceous SILTSTONE	quartz clay	Medium Grey					< 10
76	78		siliceous oxidised SAND	quartz	Medium light Grey					< 10
78	80		siliceous oxidised SAND	quartz	Medium light Grey					< 10
80	82		siliceous oxidised SAND	quartz	Medium light Grey					10-100
82	84		siliceous SAND	quartz	light Brown (Umber)					< 10
84	86		siliceous clayey SILTSTONE	clay mica	Medium dark Grey					< 10
86	88		clayey carbonaceous SILTSTONE	clay mica quartz	Medium dark Grey					< 10
88	90		clayey sandy SILTSTONE	clay mica quartz	Dark Grey					< 10
90	92		carbonaceous CLAYSTONE	clay	Medium dark Black (Noir)					< 10
92	94		carbonaceous CLAYSTONE	clay	Medium Black (Noir)					< 10
94	96		carbonaceous CLAYSTONE	clay	Medium dark Black (Noir)					10-100

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98		carbonaceous CLAYSTONE	clay	Medium Black (Noir)					10-100
98	100		silty CLAYSTONE	clay quartz	Medium light Grey					10-100
100	102		clayey siliceous SILTSTONE	clay quartz	Medium Grey					10-100
102	104	DL7878	clayey siliceous SILTSTONE	clay quartz	Medium Grey					10-100
104	106	DL7879	sandy clayey SILTSTONE	clay quartz	Medium Grey					10-100
106	108	DL7880	sandy SILTSTONE	clay quartz	Medium Grey					10-100
108	110	DL7881	siliceous garnetiferous GNEISS	quartz biotite feldspar	light Grey					10-100
110	112	DL7882	siliceous garnetiferous GNEISS	quartz biotite	light Grey					100-500
112	114	DL7883	siliceous garnetiferous QUARTZITE	quartz garnet biotite	Medium light White					500-1000
114	116	DL7884	siliceous ROCK	quartz epidote biotite	light White					500-1000
116	118	DL7885	siliceous ROCK	quartz epidote biotite	light White					1000-5000
118	120	DL7886	siliceous GNEISS	quartz biotite	light White					1000-5000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
120	122	DL7887	siliceous GNEISS	quartz biotite	light White					500-1000
122	124	DL7888	siliceous GNEISS	quartz biotite	light White					500-1000
124	126	DL7889	siliceous GNEISS	quartz biotite	light White					500-1000
126	128	DL7890	siliceous GNEISS	quartz biotite	Medium light White					500-1000
128	130	DL7891	siliceous GNEISS	quartz biotite	Medium light White					500-1000
130	132	DL7892	siliceous GNEISS	quartz biotite feldspar	Medium light White					500-1000
132	134	DL7893	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium Green					500-1000
134	136	DL7894	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium Green					500-1000
136	138	DL7895	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium Green					500-1000
138	140	DL7896	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium Green					100-500
140	142	DL7897	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium Green					500-1000
142	144	DL7898	siliceous garnetiferous GNEISS	quartz biotite feldspar	Medium light White					500-1000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
144	146	DL7899	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium light White					500-1000
146	148	DL7900	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium light White					500-1000
148	150	DL7901	siliceous garnetiferous GNEISS	quartz biotite feldspar	Medium dark Green					100-500
150	152	DL7902	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium light Green					100-500
152	154	DL7903	siliceous ROCK	quartz epidote	Medium White					100-500
154	156	DL7904	GNEISS	quartz biotite garnet	Medium Black (Noir)					1000-5000
156	158	DL7905	siliceous garnetiferous GNEISS	quartz biotite feldspar	Medium Green					500-1000
158	160	DL7906	siliceous garnetiferous GNEISS	quartz biotite feldspar	Medium Green					500-1000
160	162	DL7907	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium Blue					500-1000
162	164	DL7908	siliceous garnetiferous GNEISS	quartz biotite feldspar	Medium dark Green					500-1000
164	166	DL7909	garnetiferous GNEISS	biotite quartz feldspar	Dark Green					500-1000
166	168	DL7910	garnetiferous mafic GNEISS	amphiboles feldspar garnet chlorite	Dark Green				irreg. patches, not re amphiboleeins	500-1000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
168	170	DL7911	siliceous garnetiferous GNEISS	quartz feldspar biotite	Medium dark Black (Noir)					500-1000
170	172	DL7912	siliceous garnetiferous GNEISS	feldspar quartz biotite	Medium Red					500-1000
172	174	DL7913	siliceous garnetiferous GNEISS	feldspar quartz biotite	Medium Green					500-1000
174	176	DL7914	siliceous GRANITE	feldspar quartz biotite	Medium light Red					500-1000
176	178	DL7915	siliceous massive GRANITE	feldspar quartz biotite	Medium light Red					500-1000
178	180	DL7916	meta- garnetiferous GRANITE	feldspar quartz biotite	Medium Red					500-1000
180	182	DL7917	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium light White					500-1000
182	184	DL7918	siliceous garnetiferous GNEISS	quartz biotite garnet	Medium light White					500-1000
184	186	DL7919	siliceous GNEISS	quartz biotite	Medium dark White	1-2%	minor (1-)	feldspar		500-1000
186	188	DL7920	siliceous massive GRANITE	feldspar quartz biotite	Medium Orange					10000-20000
188	190	DL7921	siliceous massive Quartz-magnetite unit	quartz magnetite	Medium dark Black (Noir)					60000-80000
190	192	DL7922	siliceous massive Quartz-magnetite unit	quartz magnetite pyroboles	Medium dark Black (Noir)	10-20%				80000-100000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91017 Hole Length : 230 Contractor : FRANK WALSH DRILLING Locality : EL 1725 CO Logged By : J. CAMERON/J. READ
Easting : 465790 Northing : 6767880 Amg Zone : 53
Latitude : -29.217287 Longitude : 134.648032 Surface Rl : 170 Coord Reliability : TAPE
Azimuth : 34 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
192	194	DL7923	siliceous massive Quartz-magnetite unit	quartz magnetite	Medium dark Black (Noir)					80000-100000
194	196	DL7924	siliceous massive Quartz-magnetite unit	quartz quartz	Medium dark Black (Noir)					80000-100000
196	198	DL7925	garnetiferous GNEISS	feldspar biotite quartz	Medium Red					1000-5000
198	200	DL7926	garnetiferous GNEISS	feldspar biotite garnet	Medium Red					500-1000
200	202	DL7927	massive GRANITE	feldspar quartz biotite	Medium light Red					1000-5000
202	204	DL7928	massive GRANITE	feldspar quartz biotite	Medium light Red					1000-5000
204	206	DL7929	massive GRANITE	feldspar quartz biotite	Medium light Red				irreg. patches, not re chlorite eins	1000-5000
206	208	DL7930	massive GRANITE	feldspar quartz biotite	Medium Red					20000-40000
208	210	DL7931	gneissic magnetite-bearing Quartz-magnetite unit	magnetite quartz earthy haematite	Dark Black (Noir)		dominant 50%)	feldspar		80000-100000
210	212	DL7932	gneissic magnetite-bearing Quartz-magnetite unit	magnetite quartz feldspar	Dark Black (Noir)					60000-80000
212	214	DL7933	gneissic magnetite-bearing Quartz-magnetite unit	magnetite quartz feldspar	Dark Black (Noir)	widespread trace (<				60000-80000
214	216	DL7934	gneissic magnetite-bearing Quartz-magnetite unit	magnetite quartz feldspar	Dark Black (Noir)					60000-80000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91020 Hole Length : 131 Contractor : FRANK WALSH DRILLING Locality : EL 1719 LA Logged By : J. READ
Easting : 419100 Northing : 6782920 Amg Zone : 53
Latitude : -29.079428 Longitude : 134.168786 Surface Rl : 180 Coord Reliability : TAPE
Azimuth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	2		ferruginous oxidised SAND	quartz	Medium Red					100-500
2	4		ferruginous clayey SAND	quartz clay	light Red					10-100
4	6		oxidised clayey ARENITE	quartz clay gypsum	light White					10-100
6	8		ferruginous sandy CLAYSTONE	clay quartz	Medium light Tan					< 10
8	10		sandy CLAYSTONE	clay quartz	Medium dark Tan					10-100
10	12		siliceous oxidised SAND	quartz clay	Medium dark Tan					10-100
12	14		siliceous oxidised SAND	quartz clay mica	Medium dark Tan					10-100
14	16		siliceous oxidised SAND	quartz clay	Medium dark Tan					10-100
16	18		siliceous oxidised SAND	quartz clay	Medium Tan					10-100
18	20		siliceous oxidised SAND	quartz clay	Medium light Tan					10-100
20	22		siliceous clayey SAND	quartz clay	Medium Tan					10-100
22	24		siliceous clayey SAND	quartz clay	light Tan					10-100

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91020 Hole Length : 131 Contractor : FRANK WALSH DRILLING Locality : EL 1719 LA Logged By : J. READ
Easting : 419100 Northing : 6782920 Amg Zone : 53
Latitude : -29.079428 Longitude : 134.168786 Surface Rl : 180 Coord Reliability : TAPE
Azimuth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24	26		siliceous oxidised SAND	quartz	Pale (very light) Grey					< 10
26	28		siliceous oxidised SAND	quartz	Pale (very light) Grey					< 10
28	30		siliceous oxidised SAND	quartz	Pale (very light) Grey					< 10
30	32		siliceous clayey SAND	quartz clay	Medium light Tan					< 10
32	34		siliceous ferruginous SAND	quartz clay	Medium Tan					10-100
34	36		ferruginous clayey SAND	quartz clay	Medium Tan					10-100
36	38		siliceous clayey SAND	quartz clay	Pale (very light) Grey					< 10
38	40		oxidised sandy CLAYSTONE	clay quartz	Pale (very light) Grey					< 10
40	42		ferruginous sandy CLAYSTONE	clay quartz	light Grey					< 10
42	44		LOST CORE							
44	46		ferruginous clayey SAND	quartz clay	Medium Tan					< 10
46	48		ferruginous clayey SAND	quartz clay	Medium light Tan					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91020 Hole Length : 131 Contractor : FRANK WALSH DRILLING Locality : EL 1719 LA Logged By : J. READ
Easting : 419100 Northing : 6782920 Amg Zone : 53
Latitude : -29.079428 Longitude : 134.168786 Surface Rl : 180 Coord Reliability : TAPE
Azimuth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50		oxidised clayey SAND	quartz clay	light Grey					< 10
50	52		LOST CORE							
52	54		LOST CORE							
54	56		siliceous oxidised SAND	quartz clay	Pale (very light) Grey					< 10
56	58		ferruginous clayey SAND	quartz clay	Medium Tan					< 10
58	60		LOST CORE							
60	62		siliceous oxidised SAND	quartz	Pale (very light) Grey					10-100
62	64		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					10-100
64	66		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					10-100
66	68		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					10-100
68	70		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					10-100
70	72		monotonous sequence of CLAYSTONE	clay	Medium Grey					10-100

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91020 Hole Length : 131 Contractor : FRANK WALSH DRILLING Locality : EL 1719 LA Logged By : J. READ
Easting : 419100 Northing : 6782920 Amg Zone : 53
Latitude : -29.079428 Longitude : 134.168786 Surface Rl : 180 Coord Reliability : TAPE
Azimuth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74		monotonous sequence of CLAYSTONE	clay	Medium Grey					10-100
74	76		monotonous sequence of CLAYSTONE	clay	Medium Grey					10-100
76	78		monotonous sequence of CLAYSTONE	clay	Medium light Grey					10-100
78	80		monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					10-100
80	82		monotonous sequence of CLAYSTONE	clay	Medium light Grey					10-100
82	84		monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					10-100
84	86		complex siliceous SANDSTONE	quartz	Pale (very light) White					100-500
86	88		siliceous SANDSTONE	quartz	Pale (very light) White					10-100
88	90		siliceous SANDSTONE	quartz	light Grey					10-100
90	92		siliceous clayey SAND	quartz clay	light Grey					10-100
92	94	DL7981	siliceous pyritic SANDSTONE	quartz pyroboles	Medium light Grey					10-100
94	96		siliceous SAND	quartz	light Grey					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91020 Hole Length : 131 Contractor : FRANK WALSH DRILLING Locality : EL 1719 LA Logged By : J. READ
Easting : 419100 Northing : 6782920 Amg Zone : 53
Latitude : -29.079428 Longitude : 134.168786 Surface Rl : 180 Coord Reliability : TAPE
Azimuth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98		sandy CLAYSTONE	clay quartz	Medium light Grey					< 10
98	100		sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
100	102		sandy monotonous sequence of CLAYSTONE	clay quartz	Medium light Grey					10-100
102	104		sandy CLAYSTONE	clay quartz	Medium light Grey					10-100
104	106		siliceous SANDSTONE	quartz	light Grey					10-100
106	108		complex sandy CLAYSTONE	clay quartz	Medium light Grey					100-500
108	110		complex sandy CLAYSTONE	clay quartz	Medium light Grey					100-500
110	112		complex sandy CLAYSTONE	clay quartz	Medium light Grey					< 10
112	114		complex sandy CLAYSTONE	clay quartz	Medium light Grey					< 10
114	116		siliceous clayey SAND	quartz clay	light Grey					< 10
116	118		siliceous SANDSTONE	quartz	Pale (very light) Grey					10-100
118	120		siliceous SANDSTONE	quartz	Pale (very light) Grey					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR91020 Hole Length : 131 Contractor : FRANK WALSH DRILLING Locality : EL 1719 LA Logged By : J. READ
Easting : 419100 Northing : 6782920 Amg Zone : 53
Latitude : -29.079428 Longitude : 134.168786 Surface Rl : 180 Coord Reliability : TAPE
Azimuth : 355 Inclination : -90

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
120	122	DL7982	siliceous clayey SAND	quartz	Palest Grey					< 10
122	124	DL7983	siliceous clayey SAND	quartz	Pale (very light) Grey					10-100
124	126	DL7984	siliceous garnetiferous Quartz-magnetite unit	quartz magnetite biotite	Medium light White	widespread trace (<				1000-5000
126	128	DL7985	siliceous garnetiferous Quartz-magnetite unit	quartz magnetite biotite	Medium light Blue					5000-10000
128	130	DL7986	siliceous garnetiferous Quartz-magnetite unit	quartz magnetite biotite	light Blue					5000-10000
130	131	DL7987	siliceous garnetiferous Quartz-magnetite unit	quartz magnetite biotite	light Blue					

Standard Samples Logged	Sample Number	From	To

Duplicate Samples logged	Sample Number	From	To

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	2		ferruginous clayey CLAYSTONE	clay iron oxides	light Tan					< 10
2	4		ferruginous clayey CLAYSTONE	clay iron oxides	light Tan					< 10
4	6		ferruginous massive CLAYSTONE	clay iron oxides	Medium light Tan					< 10
6	8		clayey ferruginous SILTSTONE	clay iron oxides earthy haematite	Medium dark Brown (Umber)					< 10
8	10		ferruginous SILTSTONE	clay iron oxides	Medium Yellow					< 10
10	12		SILTSTONE	quartz clay	Medium Grey					< 10
12	14		SILTSTONE	quartz clay earthy haematite	Medium Red					< 10
14	16		clayey SILTSTONE	clay quartz	Pale (very light) Grey					< 10
16	18		sandy unconsolidated CLAYSTONE	clay quartz	Pale (very light) Grey					< 10
18	20		sandy CLAYSTONE	clay quartz	Pale (very light) Grey					< 10
20	22		sandy ferruginous CLAYSTONE	clay quartz iron oxides	light Grey					< 10
22	24		ferruginous SILTSTONE	clay earthy haematite gypsum	Medium light Red					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
24	26		CLAYSTONE	clay iron oxides	Medium Grey					< 10
26	28		CLAYSTONE	clay iron oxides	Medium Grey					< 10
28	30		sandy monotonous sequence of CLAYSTONE	clay iron oxides quartz	Medium Grey					< 10
30	32		ferruginous SHALE	clay quartz iron oxides	Medium dark Brown (Umber)					< 10
32	34		ferruginous SHALE	clay quartz iron oxides	Medium dark Brown (Umber)					< 10
34	36		ferruginous SHALE	clay quartz iron oxides	Medium dark Brown (Umber)					< 10
36	38		SHALE	clay quartz gypsum	Medium dark Brown (Umber)					< 10
38	40		carbonaceous SHALE	clay quartz gypsum	Medium dark Brown (Umber)					< 10
40	42		carbonaceous sandy SHALE	clay quartz	Dark Grey					< 10
42	44		carbonaceous sandy SHALE	clay quartz	Dark Grey					< 10
44	46		carbonaceous sandy SHALE	clay quartz	Dark Grey					< 10
46	48		carbonaceous sandy SHALE	clay quartz	Dark Grey					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
48	50		carbonaceous monotonous sequence of SHALE	clay quartz	Dark Grey					< 10
50	52		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					< 10
52	54		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					< 10
54	56		carbonaceous monotonous sequence of SHALE	clay quartz	Medium dark Grey					< 10
56	58		carbonaceous sandy SHALE	clay quartz	Dark Grey					< 10
58	60		carbonaceous CLAYSTONE	clay quartz	Medium dark Grey					< 10
60	62		carbonaceous massive CLAYSTONE	clay quartz	Dark Grey					< 10
62	64		carbonaceous monotonous sequence of SHALE	clay quartz	Dark Grey					< 10
64	66		carbonaceous monotonous sequence of SHALE	clay quartz	Dark Grey					< 10
66	68		carbonaceous monotonous sequence of SHALE	clay quartz	Dark Grey					< 10
68	70		carbonaceous monotonous sequence of CLAYSTONE	clay quartz	Dark Grey					< 10
70	72		carbonaceous monotonous sequence of SHALE	clay	Dark Grey					< 10

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
72	74		carbonaceous CLAYSTONE	clay quartz	Medium dark Grey					< 10
74	76		carbonaceous CLAYSTONE	clay quartz	Medium dark Grey					< 10
76	78		carbonaceous CLAYSTONE	clay quartz	Medium dark Grey					< 10
78	80		carbonaceous CLAYSTONE	clay quartz	Dark Grey					< 10
80	82		carbonaceous CLAYSTONE	clay quartz	Dark Grey					< 10
82	84		carbonaceous CLAYSTONE	clay quartz	Dark Grey					< 10
84	86		clayey SAND	quartz clay	Medium White					< 10
86	88		siliceous clayey SAND	quartz clay	Medium light White					10-100
88	90		siliceous clayey SAND	quartz clay	Medium light White					10-100
90	92		siliceous unconsolidated SAND	quartz clay	light White					10-100
92	94		siliceous unconsolidated SAND	quartz clay	light White					10-100
94	96		siliceous unconsolidated SAND	quartz clay	light White					10-100

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
96	98		siliceous unconsolidated SAND	quartz clay	light White					
98	100		siliceous unconsolidated SAND	quartz clay	light White					
100	102		siliceous unconsolidated SAND	quartz clay	light White					
102	104		siliceous unconsolidated SAND	quartz clay	Medium light White					
104	106		unconsolidated SAND	quartz clay	light White					
106	108		unconsolidated SAND	quartz clay feldspar	light White					
108	110		unconsolidated SAND	quartz clay feldspar	light White					
110	112		unconsolidated SAND	quartz clay	Pale (very light) White					
112	114		unconsolidated SAND	quartz clay feldspar	Pale (very light) White					
114	116		unconsolidated SAND	quartz clay	light White					
116	118		unconsolidated SAND	quartz clay feldspar	light White					
118	120		unconsolidated SAND	quartz clay feldspar	light White					

BHP Minerals - Southern Proterozoic Logsheet

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Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
120	122	DB8513	complex clayey SAND	quartz clay feldspar	Medium light White					
122	124		weathered altered GNEISS	quartz feldspar biotite	Medium Brown (Umber)				irreg. patches, not re chlorite eins	
124	126		LOST CORE							
126	128		LOST CORE							
128	130		LOST CORE							
130	132		LOST CORE							
132	134	DB8514	magnetite-bearing possible GNEISS	feldspar quartz biotite	Medium Orange					5000-10000
134	136	DB8515	magnetite-bearing massive GNEISS	quartz feldspar biotite	Medium light Orange					1000-5000
136	138	DB8516	magnetite-bearing garnetiferous GNEISS	feldspar quartz biotite	Medium dark Orange					1000-5000
138	140	DB8517	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange					1000-5000
140	142	DB8518	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium dark Orange	rare trace (<				1000-5000
142	144	DB8519	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium dark Orange earthy ha		minor (1-)	feldspar	irreg. patches, not re chlorite eins	1000-5000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
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Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
144	146	DB8520	magnetite-bearing siliceous GNEISS	feldspar quartz biotite clays	Medium Orange				irreg. patches, not re chlorite eins	5000-10000
146	148	DB8521	magnetite-bearing garnetiferous GNEISS	feldspar quartz biotite	Medium Orange					1000-5000
148	150	DB8522	magnetite-bearing garnetiferous GNEISS	feldspar biotite quartz	Medium Orange				irreg. patches, not re chlorite eins	1000-5000
150	152	DB8523	magnetite-bearing garnetiferous GNEISS	quartz plagioclase biotite	Medium Orange					5000-10000
152	154	DB8524	magnetite-bearing GNEISS	quartz feldspar biotite	Medium Orange					1000-5000
154	156	DB8525	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange					1000-5000
156	158	DB8526	magnetite-bearing siliceous GNEISS	feldspar quartz biotite	Medium dark Orange					1000-5000
158	160	DB8527	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange					1000-5000
160	162	DB8528	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange				irreg. patches, not re chlorite eins	5000-10000
162	164	DB8530	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange				irreg. patches, not re chlorite eins	5000-10000
164	166	DB8531	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange				irreg. patches, not re chlorite eins	5000-10000
166	168	DB8532	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange		trace 1%)	chlorite	irreg. patches, not re chlorite eins	1000-5000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
168	170	DB8533	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange					5000-10000
170	172	DB8534	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange					5000-10000
172	174	DB8535	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange				irreg. patches, not re chlorite eins	1000-5000
174	176	DB8536	magnetite-bearing granitic GNEISS	feldspar quartz biotite	Medium Orange				irreg. patches, not re chlorite eins	1000-5000
176	178	DB8537	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange					1000-5000
178	180	DB8538	magnetite-bearing GRANITE	quartz feldspar biotite	Medium light Orange					5000-10000
180	182	DB8539	magnetite-bearing siliceous GNEISS	quartz feldspar magnetite	Medium Orange					5000-10000
182	184	DB8540	magnetite-bearing micaceous GNEISS	quartz feldspar biotite	Medium Orange				irreg. patches, not re chlorite eins	1000-5000
184	186	DB8541	magnetite-bearing micaceous GNEISS	feldspar quartz biotite	Medium dark Orange				pervasive zone chlorite	5000-10000
186	188	DB8542	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium light Orange				pervasive zone chlorite	1000-5000
188	190	DB8543	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange		trace 1%)	chlorite	irreg. patches, not re chlorite eins	1000-5000
190	192	DB8544	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange		trace 1%)	chlorite	irreg. patches, not re chlorite eins	1000-5000

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR92013 Hole Length : 208 Contractor : FRANKWALSH DRILLING Locality : EL 1725 CO Logged By : J.READ
Easting : 491360 Northing : 6783901 Amg Zone : 53
Latitude : -29.073119 Longitude : 134.911231 Surface Rl : 214 Coord Reliability : TAPE
Azimuth : 345 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
192	194	DB8547	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium dark Orange				irreg. patches, not re chlorite eins	1000-5000
194	196	DB8548	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium dark Orange				pervasive zone chlorite	1000-5000
196	198	DB8549	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium dark Orange				pervasive zone chlorite	1000-5000
198	200	DB8550	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium Orange		trace 1%)	quartz		1000-5000
200	202	DB8551	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium light Orange					1000-5000
202	204	DB8552	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium light Orange					1000-5000
204	206	DB8553	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium light Orange					1000-5000
206	208	DB8554	magnetite-bearing siliceous GNEISS	quartz feldspar biotite	Medium light Orange					1000-5000

Standard Samples Logged	Sample Number	From	To
CR92013	DB8546	190	192

Duplicate Samples logged	Sample Number	From	To
CR92013	DB8529	160	162
CR92013	DB8545	190	192

Project : COOBER PEDY RIDGE | Hole Name : CD93009 | Hole Length : 224 | Contractor : SILVER CITY | Locality : EL1725 | Prospect : ANOMALY 18
Easting : 445000 | Northing : 6765700 | Amg Zone : 53
Latitude : -29.236228 | Longitude : 134.434033 | Surface Rl : 180 | Coord Reliability : TAPE | Logged By : M VALDEZ

Depth From -	To (m)	Type	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Other Mineral	Alteration	Weathering
0	72	major litho	INTERVAL NOT LOGGED						
72	73.4	minor litho	garnetiferous magnetite-bearing GNEISS	quartz feldspar biotite	Medium Grey			clays crude bands and irregular patches	MODERATE WEATHERING
72	177.25	major litho	garnetiferous magnetite-bearing GNEISS	quartz feldspar biotite	Medium dark Black (Noir)		widespread trace (<1 magnetite		FRESH ROCK
78.2	87.5	minor litho	granitic magnetite-bearing PEGMATITE	quartz K-feldspar magnetite	Medium light Red			clays disseminations	FRESH ROCK
87.5	177.25	minor litho	magnetite-bearing garnetiferous GNEISS	quartz feldspar magnetite	Medium Grey	rare trace (<<1%			FRESH ROCK
91.81	91.93	minor litho	BRECCIA	amphiboles quartz clay	Medium light Grey				FRESH ROCK
102.06	102.54	minor litho	GRANITE	K-feldspar quartz clay	Medium Red				FRESH ROCK
111.6	111.8	minor litho	PEGMATITE	quartz K-feldspar	Medium light Red				FRESH ROCK
164.08	164.23	minor litho	GRANITE	K-feldspar quartz	Medium light Red				FRESH ROCK
176.3	176.67	minor litho	PEGMATITE	quartz K-feldspar amphiboles	light White				FRESH ROCK
177.25	220.6	major litho	magnetite-bearing garnetiferous GNEISS	quartz feldspar biotite	Medium light Grey	rare trace (<<1%			FRESH ROCK
187.05	187.4	minor litho	granitic PEGMATITE	K-feldspar quartz biotite	Medium Red				FRESH ROCK

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE
Easting : 472900
Latitude : -29.054275
Azimuth : 355

Hole Name : CR93001
Northing : 6785960
Longitude : 134.721622
Inclination : -60

Hole Length : 279
Amg Zone : 53
Surface Rl : 120

Contractor : FRANK WALSH DRILLING

Coord Reliability : TAPE

Locality : EL1725 COO

Logged By : S.MCCAUGHEY

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
0	4		CLAYSTONE		Medium light Orange					
4	6		sandy CLAYSTONE		Medium dark Orange					
6	12		CLAYSTONE		Medium White					
12	22		sandy CLAYSTONE		light Red					
22	38		sandy CLAYSTONE		Pale (very light) Orange					
38	42		sandy CLAYSTONE		Pale (very light) Red					
42	56		sandy CLAYSTONE		Pale (very light) Tan					
56	110		SHALE		Medium dark Grey					
110	160		sandy SHALE		light Grey					
160	162		sandy clayey SHALE		light Grey					
162	164	EC1801	sandy clayey SHALE		light Grey					
164	166	EC1802	sandy clayey SHALE		light Grey					

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE
Easting : 472900
Latitude : -29.054275
Azimuth : 355

Hole Name : CR93001
Northing : 6785960
Longitude : 134.721622
Inclination : -60

Hole Length : 279
Amg Zone : 53
Surface Rl : 120

Contractor : FRANK WALSH DRILLING

Coord Reliability : TAPE

Locality : EL1725 COO Logged By : S.MCCAUGHEY

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
166	168	EC1803	sandy clayey SHALE		light Grey					
168	170	EC1804	clayey UNIDENTIFIED ROCK	clay	light Grey					
170	172	EC1805	clayey UNIDENTIFIED ROCK	clay quartz biotite	light Grey					
172	174	EC1806	possible clayey GNEISS	quartz K-feldspar biotite	Pale (very light) Tan					100-500 x 10 -5 SI Units
174	176	EC1807	weathered clayey GNEISS	quartz K-feldspar biotite	Pale (very light) Tan					10-100 x 10 -5 SI Units
176	178	EC1808	weathered clayey GNEISS	quartz K-feldspar biotite	Pale (very light) Tan					100-500 x 10 -5 SI Units
178	180	EC1809	weathered clayey GNEISS	quartz K-feldspar biotite	Pale (very light) Tan clays				chlorite	100-500 x 10 -5 SI Units
180	182	EC1810	altered GNEISS	quartz K-feldspar amphiboles	Medium light Tan clays				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
182	184	EC1811	weathered GNEISS	quartz K-feldspar garnet	light Tan					1000-5000 x 10 -5 SI Units
184	186	EC1812	weathered altered GNEISS	quartz K-feldspar garnet	light Tan				pervasive zone chlorite	100-500 x 10 -5 SI Units
186	188	EC1813	GNEISS	quartz K-feldspar garnet	light Tan					1000-5000 x 10 -5 SI Units
188	190	EC1814	GNEISS	quartz K-feldspar garnet	light Tan					1000-5000 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR93001 Hole Length : 279 Contractor : FRANK WALSH DRILLING Locality : EL1725 COO Logged By : S.MCCAUGHEY
Easting : 472900 Northing : 6785960 Amg Zone : 53
Latitude : -29.054275 Longitude : 134.721622 Surface Rl : 120 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
190	192	EC1815	GNEISS	quartz K-feldspar amphiboles	light Tan				chlorite	1000-5000 x 10 -5 SI Units
192	194	EC1816	GNEISS	quartz amphiboles garnet	Medium Grey					5000-10000 x 10 -5 SI Units
194	196	EC1817	GNEISS	quartz amphiboles K-feldspar	light Grey					1000-5000 x 10 -5 SI Units
196	198	EC1818	GNEISS	quartz amphiboles K-feldspar	light Grey					500-1000 x 10 -5 SI Units
198	200	EC1819	GNEISS	quartz amphiboles K-feldspar	light Grey					500-1000 x 10 -5 SI Units
200	202	EC1821	GNEISS	quartz amphiboles biotite	Medium light Grey					5000-10000 x 10 -5 SI Units
200	202	EC1820	GNEISS	quartz amphiboles biotite	Medium light Grey					5000-10000 x 10 -5 SI Units
202	204	EC1822	GNEISS	quartz amphiboles biotite	Medium light Grey					1000-5000 x 10 -5 SI Units
204	206	EC1823	GNEISS	quartz amphiboles feldspar	Medium light Grey					1000-5000 x 10 -5 SI Units
206	208	EC1824	GNEISS	quartz amphiboles feldspar	Medium light Grey				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
208	210	EC1825	GNEISS	quartz amphiboles feldspar	Medium light Grey					1000-5000 x 10 -5 SI Units
210	212	EC1826	GNEISS	quartz amphiboles feldspar	Medium light Grey					1000-5000 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR93001 Hole Length : 279 Contractor : FRANK WALSH DRILLING Locality : EL1725 COO Logged By : S.MCCAUGHEY
Easting : 472900 Northing : 6785960 Amg Zone : 53
Latitude : -29.054275 Longitude : 134.721622 Surface Rl : 120 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
212	214	EC1827	GNEISS	quartz amphiboles feldspar	Medium light Grey					5000-10000 x 10 -5 SI Units
214	216	EC1828	GNEISS	quartz amphiboles feldspar	Medium light Grey				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
216	218	EC1829	GNEISS	quartz amphiboles feldspar	Medium light Grey				irreg. patches, not re chlorite eins	5000-10000 x 10 -5 SI Units
218	220	EC1830	GNEISS	quartz amphiboles feldspar	Medium light Grey					5000-10000 x 10 -5 SI Units
220	222	EC1831	GNEISS	quartz amphiboles feldspar	Medium light Grey					5000-10000 x 10 -5 SI Units
222	224	EC1832	GNEISS	quartz amphiboles feldspar	Medium light Grey				irreg. patches, not re chlorite eins	5000-10000 x 10 -5 SI Units
224	226	EC1833	GNEISS	quartz K-feldspar amphiboles	light Tan					1000-5000 x 10 -5 SI Units
226	228	EC1834	GNEISS	quartz K-feldspar amphiboles	light Tan					1000-5000 x 10 -5 SI Units
228	230	EC1835	GNEISS	quartz K-feldspar amphiboles	light Tan					1000-5000 x 10 -5 SI Units
230	232	EC1836	GNEISS	quartz amphiboles biotite	Medium Grey				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
232	234	EC1837	GNEISS	quartz K-feldspar biotite	light Tan				irreg. patches, not re chlorite eins	500-1000 x 10 -5 SI Units
234	236	EC1838	GNEISS	quartz K-feldspar biotite	light Tan				pervasive zone chlorite	5000-10000 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR93001 Hole Length : 279 Contractor : FRANK WALSH DRILLING Locality : EL1725 COO Logged By : S.MCCAUGHEY
Easting : 472900 Northing : 6785960 Amg Zone : 53
Latitude : -29.054275 Longitude : 134.721622 Surface Rl : 120 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
236	238	EC1839	GNEISS	quartz K-feldspar amphiboles	Medium Tan					1000-5000 x 10 -5 SI Units
238	240	EC1840	GNEISS	quartz K-feldspar amphiboles	Medium Tan				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
238	240	EC1841	GNEISS	quartz K-feldspar amphiboles	Medium Tan				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
240	242	EC1842	GNEISS	quartz biotite K-feldspar	Pale (very light) Tan					1000-5000 x 10 -5 SI Units
242	244	EC1843	GNEISS	quartz amphiboles garnet	Pale (very light) Tan				irreg. patches, not re chlorite eins	1000-5000 x 10 -5 SI Units
244	246	EC1844	GNEISS	quartz K-feldspar amphiboles	Pale (very light) Grey					1000-5000 x 10 -5 SI Units
246	248	EC1845	foliated GRANITE	quartz K-feldspar	light Red					1000-5000 x 10 -5 SI Units
246	248	EC1846	foliated GRANITE	quartz K-feldspar	light Red					1000-5000 x 10 -5 SI Units
248	250	EC1847	foliated GRANITE	quartz K-feldspar	light Red					500-1000 x 10 -5 SI Units
250	252	EC1848	GNEISS	quartz K-feldspar amphiboles	light Red					10000-20000 x 10 -5 SI Units
252	254	EC1849	GNEISS	quartz K-feldspar amphiboles	light Red					1000-5000 x 10 -5 SI Units
254	256	EC1850	GNEISS	quartz K-feldspar amphiboles	light Red					5000-10000 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE Hole Name : CR93001 Hole Length : 279 Contractor : FRANK WALSH DRILLING Locality : EL1725 COO Logged By : S.MCCAUGHEY
Easting : 472900 Northing : 6785960 Amg Zone : 53
Latitude : -29.054275 Longitude : 134.721622 Surface Rl : 120 Coord Reliability : TAPE
Azimuth : 355 Inclination : -60

Depth From	To (m)	Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
256	258	EC1851	GNEISS	quartz amphiboles garnet	light Red					1000-5000 x 10 -5 SI Units
258	260	EC1852	GNEISS	quartz amphiboles garnet	light Red					1000-5000 x 10 -5 SI Units
260	262	EC1853	GNEISS	quartz amphiboles garnet	light Red					5000-10000 x 10 -5 SI Units
262	264	EC1854	GNEISS	quartz amphiboles garnet	light Red					1000-5000 x 10 -5 SI Units
264	266	EC1855	GNEISS	quartz amphiboles garnet	light Red					1000-5000 x 10 -5 SI Units
266	268	EC1856	GNEISS	quartz amphiboles garnet	light Red				chlorite	5000-10000 x 10 -5 SI Units
268	270	EC1857	GNEISS	quartz amphiboles garnet	light Red				chlorite	1000-5000 x 10 -5 SI Units
270	272	EC1858	GNEISS	amphiboles K-feldspar quartz	light Red					5000-10000 x 10 -5 SI Units
272	274	EC1859	GNEISS	garnet quartz K-feldspar	light Red					1000-5000 x 10 -5 SI Units
274	276	EC1860	GNEISS	garnet quartz K-feldspar	light Red					5000-10000 x 10 -5 SI Units
274	276	EC1861	GNEISS	garnet quartz K-feldspar	light Red					5000-10000 x 10 -5 SI Units
276	278	EC1862	GNEISS	quartz K-feldspar biotite	light Grey					1000-5000 x 10 -5 SI Units

BHP Minerals - Southern Proterozoic Logsheet

Project : COOBER PEDY RIDGE
Easting : 472900
Latitude : -29.054275
Azimuth : 355

Hole Name : CR93001
Northing : 6785960
Longitude : 134.721622
Inclination : -60

Hole Length : 279
Amg Zone : 53
Surface Rl : 120

Contractor : FRANK WALSH DRILLING

Coord Reliability : TAPE

Locality : EL1725 COO

Logged By : S.MCCAUGHEY

Depth From - To (m)		Sample No.	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Vein %	Vein Type	Alteration	Magsus
278	279	EC1864								
278	279	EC1863	GNEISS	quartz K-feldspar biotite	light Grey					1000-5000 x 10 -5 SI Units

Standard Samples Logged	Sample Number	From	To
CR93001	EC1864	278	279

Duplicate Samples logged	Sample Number	From	To
CR93001	EC1821	200	202
CR93001	EC1841	238	240
CR93001	EC1846	246	248
CR93001	EC1861	274	276

Project : COOBER PEDY RIDGE | Hole Name : CD93009 | Hole Length : 224 | Contractor : SILVER CITY | Locality : EL1725 | Prospect : ANOMALY 18
Easting : 445000 | Northing : 6765700 | Amg Zone : 53
Latitude : -29.236228 | Longitude : 134.434033 | Surface Rl : 180 | Coord Reliability : TAPE | Logged By : M VALDEZ

Depth From -	To (m)	Type	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Other Mineral	Alteration	Weathering
187.7	189	minor litho	granitic PEGMATITE	K-feldspar quartz biotite	Medium Red				FRESH ROCK
192.75	193.5	minor litho	magnetite-bearing GNEISS	quartz feldspar biotite	Dark Black (Noir)				FRESH ROCK
194.95	200.2	minor litho	magnetite-bearing PEGMATITE	quartz feldspar magnetite	Medium light Grey				FRESH ROCK
200.2	200.95	minor litho	GNEISS	quartz feldspar biotite	Medium light Red				FRESH ROCK
200.95	201.93	minor litho	granitic PEGMATITE	K-feldspar quartz garnet	Medium light Red				FRESH ROCK
201.93	202.55	minor litho	GNEISS	quartz feldspar magnetite	light White				FRESH ROCK
202.55	203.3	minor litho	PEGMATITE	quartz K-feldspar garnet	Medium light Red				FRESH ROCK
203.3	205	minor litho	magnetite-bearing GNEISS	quartz feldspar magnetite	Medium light Black (Noir)				FRESH ROCK
205	224	minor litho	garnetiferous GNEISS	quartz feldspar biotite	Medium light Red				FRESH ROCK
206.35	206.7	minor litho	granitic PEGMATITE	quartz K-feldspar amphiboles	Medium light Red				FRESH ROCK
214.15	215.25	minor litho	granitic PEGMATITE	quartz K-feldspar garnet	Medium light Red				FRESH ROCK
216.4	217.22	minor litho	granitic PEGMATITE	quartz K-feldspar garnet	Medium light Red				FRESH ROCK

Project : COOBER PEDY RIDGE | Hole Name : CD93009 | Hole Length : 224 | Contractor : SILVER CITY | Locality : EL1725 | Prospect : ANOMALY 18
Easting : 445000 | Northing : 6765700 | Amg Zone : 53
Latitude : -29.236228 | Longitude : 134.434033 | Surface Rl. : 180 | Coord Reliability : TAPE | Logged By : M VALDEZ

Depth From -	To (m)	Type	Rocktype	Minerals	Colour	Pyrite/Pyrrhotite %	Other Mineral	Alteration	Weathering
217.5	218.1	minor litho	granitic PEGMATITE	quartz K-feldspar garnet	Medium light Red				FRESH ROCK
220.6	224	major litho	garnetiferous GNEISS	quartz garnet amphiboles	Medium light Red				FRESH ROCK
221.7	222	minor litho	garnetiferous GNEISS	garnet quartz K-feldspar	Medium Red				FRESH ROCK

oject : COOBER PEDY RIDGE | Hole Name : CD93009 | Hole Length : 224 | Contractor : SILVER CITY
asting : 445000 | Northing : 6765700 | Amg Zone : 53
atitude : -29.236228 | Longitude : 134.434033 | Surface Rl : 180 | Coord Reliability : TAPE
cality : EL1725 | Prospect : ANOMALY 18 | Logged By : M VALDEZ

Geol From	Geol To	Magsus
72	73	10000-20000 x 10 -5 SI Units
73	74	10000-20000 x 10 -5 SI Units
74	75	10000-20000 x 10 -5 SI Units
75	76	10000-20000 x 10 -5 SI Units
76	77	10000-20000 x 10 -5 SI Units
77	78	10000-20000 x 10 -5 SI Units
78	79	20000-40000 x 10 -5 SI Units
79	80	10000-20000 x 10 -5 SI Units
80	81	10000-20000 x 10 -5 SI Units
81	82	20000-40000 x 10 -5 SI Units
82	83	20000-40000 x 10 -5 SI Units
83	84	40000-60000 x 10 -5 SI Units
84	85	20000-40000 x 10 -5 SI Units
85	86	10000-20000 x 10 -5 SI Units
86	87	40000-60000 x 10 -5 SI Units
87	88	40000-60000 x 10 -5 SI Units
88	89	20000-40000 x 10 -5 SI Units
89	90	40000-60000 x 10 -5 SI Units
90	91	10000-20000 x 10 -5 SI Units
91	92	10000-20000 x 10 -5 SI Units
92	93	20000-40000 x 10 -5 SI Units
93	94	10000-20000 x 10 -5 SI Units
94	95	20000-40000 x 10 -5 SI Units
95	96	20000-40000 x 10 -5 SI Units
96	97	10000-20000 x 10 -5 SI Units
97	98	20000-40000 x 10 -5 SI Units
98	99	20000-40000 x 10 -5 SI Units
99	100	20000-40000 x 10 -5 SI Units
100	101	20000-40000 x 10 -5 SI Units
101	102	20000-40000 x 10 -5 SI Units
102	103	20000-40000 x 10 -5 SI Units
103	104	40000-60000 x 10 -5 SI Units
104	105	40000-60000 x 10 -5 SI Units
105	106	10000-20000 x 10 -5 SI Units
106	107	40000-60000 x 10 -5 SI Units
107	108	20000-40000 x 10 -5 SI Units
108	109	20000-40000 x 10 -5 SI Units
109	110	20000-40000 x 10 -5 SI Units
110	111	20000-40000 x 10 -5 SI Units
111	112	40000-60000 x 10 -5 SI Units
112	113	20000-40000 x 10 -5 SI Units
113	114	20000-40000 x 10 -5 SI Units
114	115	40000-60000 x 10 -5 SI Units
115	116	20000-40000 x 10 -5 SI Units
116	117	20000-40000 x 10 -5 SI Units
117	118	10000-20000 x 10 -5 SI Units
118	119	10000-20000 x 10 -5 SI Units
119	120	20000-40000 x 10 -5 SI Units
120	121	5000-10000 x 10 -5 SI Units
121	122	5000-10000 x 10 -5 SI Units
122	123	5000-10000 x 10 -5 SI Units
123	124	10000-20000 x 10 -5 SI Units
124	125	10000-20000 x 10 -5 SI Units
125	126	10000-20000 x 10 -5 SI Units
126	127	10000-20000 x 10 -5 SI Units
127	128	20000-40000 x 10 -5 SI Units
128	129	5000-10000 x 10 -5 SI Units
129	130	20000-40000 x 10 -5 SI Units
130	131	20000-40000 x 10 -5 SI Units
131	132	10000-20000 x 10 -5 SI Units
132	133	10000-20000 x 10 -5 SI Units
133	134	10000-20000 x 10 -5 SI Units
134	135	40000-60000 x 10 -5 SI Units
135	136	10000-20000 x 10 -5 SI Units
136	137	10000-20000 x 10 -5 SI Units
137	138	40000-60000 x 10 -5 SI Units
138	139	40000-60000 x 10 -5 SI Units
139	140	40000-60000 x 10 -5 SI Units
140	141	20000-40000 x 10 -5 SI Units
141	142	20000-40000 x 10 -5 SI Units
142	143	20000-40000 x 10 -5 SI Units
143	144	20000-40000 x 10 -5 SI Units
144	145	20000-40000 x 10 -5 SI Units
145	146	60000-80000 x 10 -5 SI Units
146	147	20000-40000 x 10 -5 SI Units

oject : COOBER PEDY RIDGE | Hole Name : CD93009 | Hole Length : 224 | Contractor : SILVER CITY
sting : 445000 | Northing : 6765700 | Amg Zone : 53
titude : -29.236228 | Longitude : 134.434033 | Surface Rl : 180 | Coord Reliability : TAPE
cality : EL1725 | Prospect : ANOMALY 18 | Logged By : M VALDEZ

Geol From	Geol To	Magsus
147	148	40000-60000 x 10 -5 SI Units
148	149	60000-80000 x 10 -5 SI Units
149	150	20000-40000 x 10 -5 SI Units
150	151	10000-20000 x 10 -5 SI Units
151	152	40000-60000 x 10 -5 SI Units
152	153	20000-40000 x 10 -5 SI Units
153	154	40000-60000 x 10 -5 SI Units
154	155	20000-40000 x 10 -5 SI Units
155	156	20000-40000 x 10 -5 SI Units
156	157	60000-80000 x 10 -5 SI Units
157	158	20000-40000 x 10 -5 SI Units
158	159	20000-40000 x 10 -5 SI Units
159	160	20000-40000 x 10 -5 SI Units
160	161	40000-60000 x 10 -5 SI Units
161	162	40000-60000 x 10 -5 SI Units
162	163	40000-60000 x 10 -5 SI Units
163	164	20000-40000 x 10 -5 SI Units
164	165	20000-40000 x 10 -5 SI Units
165	166	20000-40000 x 10 -5 SI Units
166	167	20000-40000 x 10 -5 SI Units
167	168	10000-20000 x 10 -5 SI Units
168	169	20000-40000 x 10 -5 SI Units
169	170	20000-40000 x 10 -5 SI Units
170	171	20000-40000 x 10 -5 SI Units
171	172	40000-60000 x 10 -5 SI Units
172	173	20000-40000 x 10 -5 SI Units
173	174	40000-60000 x 10 -5 SI Units
174	175	40000-60000 x 10 -5 SI Units
175	176	20000-40000 x 10 -5 SI Units
176	177	1000-5000 x 10 -5 SI Units
177	178	40000-60000 x 10 -5 SI Units
178	179	20000-40000 x 10 -5 SI Units
179	180	20000-40000 x 10 -5 SI Units
180	181	10000-20000 x 10 -5 SI Units
181	182	20000-40000 x 10 -5 SI Units
182	183	20000-40000 x 10 -5 SI Units
183	184	10000-20000 x 10 -5 SI Units
184	185	10000-20000 x 10 -5 SI Units
185	186	20000-40000 x 10 -5 SI Units
186	187	10000-20000 x 10 -5 SI Units
187	188	5000-10000 x 10 -5 SI Units
188	189	20000-40000 x 10 -5 SI Units
189	190	5000-10000 x 10 -5 SI Units
190	191	20000-40000 x 10 -5 SI Units
191	192	10000-20000 x 10 -5 SI Units
192	193	10000-20000 x 10 -5 SI Units
193	194	20000-40000 x 10 -5 SI Units
194	195	10000-20000 x 10 -5 SI Units
195	196	20000-40000 x 10 -5 SI Units
196	197	10000-20000 x 10 -5 SI Units
197	198	10000-20000 x 10 -5 SI Units
197.1	202.3	
198	199	5000-10000 x 10 -5 SI Units
199	200	20000-40000 x 10 -5 SI Units
200	201	10000-20000 x 10 -5 SI Units
201	202	20000-40000 x 10 -5 SI Units
202	203	10000-20000 x 10 -5 SI Units
203	204	20000-40000 x 10 -5 SI Units
204	205	10000-20000 x 10 -5 SI Units
205	206	10000-20000 x 10 -5 SI Units
206	207	10000-20000 x 10 -5 SI Units
207	208	10000-20000 x 10 -5 SI Units
208	209	5000-10000 x 10 -5 SI Units
209	210	20000-40000 x 10 -5 SI Units
210	211	10000-20000 x 10 -5 SI Units
211	212	5000-10000 x 10 -5 SI Units
212	213	5000-10000 x 10 -5 SI Units
213	214	10000-20000 x 10 -5 SI Units
214	215	10000-20000 x 10 -5 SI Units
215	216	10000-20000 x 10 -5 SI Units
216	217	10000-20000 x 10 -5 SI Units
217	218	20000-40000 x 10 -5 SI Units
218	219	1000-5000 x 10 -5 SI Units
219	220	1000-5000 x 10 -5 SI Units
220	221	500-1000 x 10 -5 SI Units

oject : COOBER PEDY RIDGE
sting : 445000
titude : -29.236228
cality : EL1725

Hole Name : CD93009
Northing : 6765700
Longitude : 134.434033
Prospect : ANOMALY 18

Hole Length : 224
Amg Zone : 53
Surface Rl : 180
Logged By : M VALDEZ

Contractor : SILVER CITY
Coord Reliability : TAPE

Geol From	Geol To	Magsus
221	222	5000-10000 x 10 -5 SI Units
222	223	5000-10000 x 10 -5 SI Units
223	224	5000-10000 x 10 -5 SI Units

Appendix 4

Assay Results

EL No.	Anomaly	Hole	Sample No.	
			From	To
1719	26	CR9120	DL7981	DL7987
1725	12	CR9117	DL7878	DL7941
	16	CR9115	DL7769	DL7852
	18	CD93009	DG505	EG548
	37	CR9213	DB8513	DB8554
	39	CR93001	EC1861	EC1864

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3068
O/N: 16409/B49

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7769	0.04	0.04	--	--	7	12	45
DL7770	0.02	0.02	--	--	5	6	42
DL7771	0.02	0.02	--	--	3	7	42
DL7772	0.04	0.04	--	--	7	8	26
DL7773	0.04	0.04	--	--	6	7	18
DL7774	0.04	0.04	--	--	7	7	15
DL7775	0.06	0.06	--	--	14	7	17
DL7776	0.04	0.04	--	--	7	6	13
DL7777	0.04	0.04	--	--	6	9	15
DL7778	0.04	0.04	--	--	10	7	14
DL7779	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7780	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7781	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7782	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7783	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7784	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7785	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7786	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7787	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7788	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7789	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7790	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7791	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7792	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7793	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7794	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7795	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7796	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7797	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7798	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7799	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7800	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7801	0.06	0.06	--	--	4	7	14
DL7802	0.06	0.06	--	--	6	5	12
DL7803	0.06	0.06	--	--	7	7	13
DL7804	0.10	0.10	--	--	7	6	12
DL7805	0.06	0.06	--	--	9	7	12
DL7806	0.10	0.10	--	--	4	8	15
DL7807	0.06	0.06	--	--	8	7	15
DL7808	0.06	0.06	--	--	8	8	15
DL7809	0.06	0.06	--	--	8	8	14
DL7810	0.06	0.06	--	--	8	8	15
DL7811	0.08	0.08	--	--	8	7	15
DL7812	0.06	0.06	--	--	6	4	12
DL7813	0.08	0.08	--	--	6	6	9
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3068
O/N: 16409/B49

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7814	0.06	0.06	--	--	4	3	11
DL7815	0.08	0.06	0.10	--	3	5	14
DL7816	0.04	0.04	--	--	5	7	11
DL7817	0.06	0.06	--	--	6	5	16
DL7818	0.06	0.06	--	--	5	5	14
DL7819	0.04	0.04	--	--	8	7	20
DL7820	0.06	0.06	--	--	5	5	24
DL7821	0.08	0.08	--	--	3	9	30
DL7822	0.06	0.06	--	--	3	7	32
DL7823	0.06	0.06	--	--	5	7	24
DL7824	0.04	0.04	--	--	5	7	25
DL7825	0.04	0.04	--	--	6	7	45
DL7826	0.02	0.02	--	--	4	9	40
DL7827	0.02	0.02	--	--	11	9	25
DL7828	0.06	0.06	--	--	4	9	20
DL7829	0.10	0.10	--	--	4	8	17
DL7830	0.08	0.08	--	--	3	8	25
DL7831	0.10	0.10	--	--	4	11	38
DL7832	0.02	0.02	--	--	9	14	45
DL7833	0.02	0.02	--	--	5	7	25
DL7834	<0.02	<0.02	--	--	4	8	22
DL7835	0.02	0.02	--	--	5	5	20
DL7836	0.02	0.02	--	--	6	6	22
DL7837	0.02	0.02	--	--	7	9	28
DL7838	<0.02	<0.02	--	--	3	5	36
DL7839	0.02	0.02	--	--	2	7	50
DL7840	<0.02	<0.02	--	--	3	9	46
DL7841	<0.02	<0.02	--	--	3	8	64
DL7842	<0.02	<0.02	--	--	4	7	20
DL7843	0.04	0.04	--	--	10	12	46
DL7844	<0.02	<0.02	--	--	3	6	22
DL7845	0.02	0.02	--	--	7	8	20
DL7846	0.02	0.02	--	--	3	8	22
DL7847	<0.02	<0.02	--	--	8	6	24
DL7848	0.02	0.02	--	--	2	6	17
DL7849	0.04	0.04	--	--	4	7	16
DL7850	0.02	0.02	--	--	5	7	22
DL7851	<0.02	<0.02	--	--	4	7	38
DL7852	0.04	0.04	--	--	6	5	16
DL7853	<0.02	<0.02	--	--	4	5	42
DL7854	<0.02	<0.02	--	--	6	2	13
DL7855	0.02	0.02	--	--	9	4	42
DL7856	0.02	0.02	--	--	5	5	42
DL7857	<0.02	<0.02	--	--	6	5	26
DL7858	0.02	0.02	--	--	3	8	22
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3068
O/N: 16409/B49

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7859	0.02	0.02	--	--	2	4	25
DL7860	0.02	0.02	--	--	2	6	34
DL7861	0.04	0.04	0.04	--	4	6	24
DL7862	0.06	0.06	--	--	5	6	38
DL7863	0.08	0.08	--	--	11	8	34
DL7864	0.08	0.08	--	--	7	9	32
DL7865	0.04	0.04	--	--	10	8	26
DL7866	0.08	0.08	0.08	--	8	9	25
DL7867	0.08	0.08	--	--	9	10	32
DL7868	0.08	0.08	--	--	12	8	45
DL7869	0.10	0.10	--	--	10	9	34
DL7870	0.06	0.06	--	--	5	9	36
DL7871	0.06	0.06	--	--	12	8	24
DL7872	0.06	0.06	--	--	6	8	35
DL7873	0.06	0.06	--	--	6	8	28
DL7874	0.06	0.06	--	--	7	7	44
DL7875	0.08	0.08	--	--	7	10	36
DL7876	0.06	0.06	--	--	5	7	28
DL7877	0.04	0.04	--	--	5	7	28
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3068
O/N: 16409/B49

Sample	Ag
DL7769	0.8
DL7770	0.6
DL7771	0.6
DL7772	0.6
DL7773	0.6
DL7774	0.4
DL7775	0.8
DL7776	0.6
DL7777	0.8
DL7778	0.6
DL7779	L.N.R.
DL7780	L.N.R.
DL7781	L.N.R.
DL7782	L.N.R.
DL7783	L.N.R.
DL7784	L.N.R.
DL7785	L.N.R.
DL7786	L.N.R.
DL7787	L.N.R.
DL7788	L.N.R.
DL7789	L.N.R.
DL7790	L.N.R.
DL7791	L.N.R.
DL7792	L.N.R.
DL7793	L.N.R.
DL7794	L.N.R.
DL7795	L.N.R.
DL7796	L.N.R.
DL7797	L.N.R.
DL7798	L.N.R.
DL7799	L.N.R.
DL7800	L.N.R.
DL7801	0.6
DL7802	0.6
DL7803	0.6
DL7804	0.6
DL7805	0.6
DL7806	0.8
DL7807	0.6
DL7808	0.4
DL7809	0.6
DL7810	0.6
DL7811	0.8
DL7812	0.4
DL7813	0.4
Units	ppm
DL	0.2
Scheme	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3068
O/N: 16409/B49

Sample	Ag
DL7814	0.4
DL7815	0.6
DL7816	0.4
DL7817	0.6
DL7818	0.6
DL7819	0.4
DL7820	0.6
DL7821	0.6
DL7822	0.6
DL7823	0.6
DL7824	0.4
DL7825	0.4
DL7826	0.6
DL7827	0.6
DL7828	0.6
DL7829	0.8
DL7830	0.6
DL7831	0.6
DL7832	0.4
DL7833	0.6
DL7834	0.4
DL7835	0.6
DL7836	0.6
DL7837	0.6
DL7838	0.4
DL7839	0.4
DL7840	0.4
DL7841	0.4
DL7842	0.4
DL7843	0.6
DL7844	0.6
DL7845	0.6
DL7846	0.6
DL7847	0.4
DL7848	0.4
DL7849	0.4
DL7850	0.4
DL7851	0.4
DL7852	0.4
DL7853	0.2
DL7854	0.2
DL7855	0.4
DL7856	0.6
DL7857	0.6
DL7858	0.8
Units	ppm
DL	0.2
Scheme	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3068
O/N: 16409/B49

Sample	Ag
DL7859	0.8
DL7860	1.0
DL7861	0.8
DL7862	0.6
DL7863	0.6
DL7864	0.8
DL7865	0.8
DL7866	0.8
DL7867	0.8
DL7868	0.8
DL7869	1.0
DL7870	0.8
DL7871	0.8
DL7872	0.8
DL7873	0.8
DL7874	0.8
DL7875	0.8
DL7876	0.6
DL7877	0.8
Units	ppm
DL	0.2
Scheme	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3067
O/N: 16408/B49

Sample	Au Avg	Au	Au Rpl	Au SS1	Cu	Pb	Zn
DL7878	0.02	0.02	--	0.04	26	22	58
DL7879	<0.02	<0.02	--	--	30	24	62
DL7880	0.02	0.02	--	--	25	24	66
DL7881	<0.02	<0.02	--	--	30	20	80
DL7882	0.02	0.02	--	--	54	17	120 — 110
DL7883	<0.02	<0.02	--	--	22	20	70 — 112
DL7884	<0.02	<0.02	--	--	15	30	38
DL7885	<0.02	<0.02	--	--	15	17	45
DL7886	<0.02	<0.02	--	--	12	12	54
DL7887	0.04	0.04	--	--	10	11	40
DL7888	<0.02	<0.02	--	--	13	10	42
DL7889	<0.02	<0.02	--	--	16	9	54
DL7890	<0.02	<0.02	--	--	8	10	68
DL7891	0.02	0.02	--	--	16	13	92
DL7892	<0.02	<0.02	--	--	22	22	62
DL7893	<0.02	<0.02	--	--	98	8	64
DL7894	<0.02	<0.02	--	--	14	9	48
DL7895	<0.02	<0.02	--	--	100	9	65
DL7896	<0.02	<0.02	--	--	62	9	62
DL7897	0.02	0.02	--	--	50	9	64
DL7898	0.02	0.02	--	0.02	11	14	52
DL7899	0.04	0.04	--	--	15	11	70
DL7900	<0.02	<0.02	--	--	30	10	75
DL7901	<0.02	<0.02	--	--	54	14	105
DL7902	0.02	0.02	--	--	34	16	65
DL7903	<0.02	<0.02	--	--	15	18	35
DL7904	<0.02	<0.02	--	--	26	11	62
DL7905	<0.02	<0.02	--	--	8	12	55
DL7906	0.04	0.04	--	--	5	10	45
DL7907	<0.02	<0.02	--	--	5	11	44
DL7908	0.04	0.04	--	--	9	13	62
DL7909	0.04	0.04	--	--	12	4	50
DL7910	0.04	0.04	--	--	24	7	52
DL7911	0.04	0.04	--	--	38	6	46
DL7912	0.02	0.02	--	--	12	7	42
DL7913	0.02	0.02	--	--	38	7	28
DL7914	0.06	0.06	--	--	50	5	35
DL7915	0.02	0.02	--	--	50	8	36
DL7916	0.04	0.04	--	--	105	16	54
DL7917	<0.02	<0.02	--	--	38	5	36
DL7918	0.04	0.04	--	0.04	38	9	40
DL7919	0.04	0.04	--	--	28	11	45
DL7920	0.08	0.08	--	--	13	8	48
DL7921	0.14	0.14	--	--	8	4	36
DL7922	0.14	0.16	0.10	--	6	5	20
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3067
O/N: 16408/B49

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7923	0.18	0.22	0.14	--	6	3	19
DL7924	0.18	0.22	0.14	--	5	4	20
DL7925	0.02	0.02	--	--	72	6	42
DL7926	0.02	0.02	--	--	44	5	32
DL7927	0.06	0.06	--	--	42	6	38
DL7928	0.06	0.06	--	--	10	8	45
DL7929	0.10	0.10	--	--	28	13	60
DL7930	0.12	0.12	0.12	--	9	7	50
DL7931	0.14	0.14	--	--	6	5	22
DL7932	0.12	0.12	--	--	6	5	34
DL7933	0.14	0.18	0.10	--	5	5	20
DL7934	0.16	0.16	--	--	5	4	18
DL7935	0.12	0.12	--	--	10	6	25
DL7936	0.12	0.12	--	--	5	5	40
DL7937	0.12	0.12	--	--	8	5	25
DL7938	0.12	0.12	--	0.12	7	6	20
DL7939	0.10	0.10	--	--	7	8	22
DL7940	0.16	0.16	0.14	--	9	6	25
DL7941	0.14	0.14	--	--	13	20	28
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3067
O/N: 16408/B49

Sample	Ag
DL7878	0.6
DL7879	0.6
DL7880	0.4
DL7881	0.6
DL7882	0.6
DL7883	0.6
DL7884	0.6
DL7885	0.6
DL7886	0.4
DL7887	0.4
DL7888	0.4
DL7889	0.4
DL7890	0.6
DL7891	0.6
DL7892	0.6
DL7893	0.6
DL7894	0.6
DL7895	0.8
DL7896	0.6
DL7897	0.6
DL7898	0.4
DL7899	0.6
DL7900	0.8
DL7901	0.6
DL7902	0.6
DL7903	0.6
DL7904	0.6
DL7905	0.6
DL7906	0.6
DL7907	0.4
DL7908	0.6
DL7909	0.6
DL7910	0.6
DL7911	0.4
DL7912	0.4
DL7913	0.6
DL7914	0.4
DL7915	0.4
DL7916	0.6
DL7917	0.4
DL7918	0.4
DL7919	0.4
DL7920	0.6
DL7921	1.2
DL7922	1.2
Units	ppm
DL	0.2
Scheme	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3067
O/N: 16408/B49

Sample	Ag
DL7923	1.2
DL7924	1.2
DL7925	0.6
DL7926	0.6
DL7927	0.4
DL7928	0.6
DL7929	0.4
DL7930	1.0
DL7931	1.2
DL7932	1.2
DL7933	1.2
DL7934	1.2
DL7935	1.0
DL7936	1.2
DL7937	1.0
DL7938	1.0
DL7939	1.0
DL7940	0.8
DL7941	1.0
Units	ppm
DL	0.2
Scheme	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3071
O/N: 16412/FK2

Sample	Au Avg	Au	Au Rp1	Au SS1	Cu	Pb	Zn
DL7981	0.02	<0.02	--	0.04	3	6	9
DL7982	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.	L.N.R.
DL7983	<0.02	<0.02	--	--	6	5	14
DL7984	0.04	0.04	--	--	12	8	30
DL7985	0.10	0.10	--	--	14	8	42
DL7986	0.02	0.02	--	--	15	6	50
DL7987	<0.02	<0.02	--	--	16	5	56
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02	1	1	1
Scheme	AA7	AA7	AA7	AA7	AA7	AA7	AA7

CLASSIC LABORATORIES

ANALYTICAL REPORT

Job: 1AD3071
O/N: 16412/FK2

Sample	Ag
DL7981	0.2
DL7982	L.N.R.
DL7983	0.2
DL7984	0.4
DL7985	0.4
DL7986	0.6
DL7987	0.6
Units	ppm
DL	0.2
Scheme	AA7

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ANALYTICAL SERVICES

Amdel Laboratories Limited
Brown Street, Thebarton, 5031
Telephone: (08) 416 5300 Facsimile: (08) 234 0321

Mr Jeremy Read
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

FINAL ANALYSIS REPORT

Your Order No: 17811/B49 Our Job Number : 2AD2404

Samples received : 24-AUG-1992 Results reported : 28-AUG-1992
No. of samples : 42
Report comprises a cover sheet and pages 1 to 2

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

for John Waters
Laboratory Manager - Adelaide

MM	Mr J Read	VIC
CC	Mr L Bettenay	VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

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ANALYTICAL REPORT

Job: 2AD2404
O/N: 17811/B49

Sample	Au Avg	Au	Au Rpl	Au SS
DB8513	<0.02	<0.02	--	0.02
DB8514	0.02	0.02	--	--
DB8515	0.02	0.02	--	--
DB8516	0.02	0.02	--	--
DB8517	0.02	0.02	--	--
DB8518	0.02	0.02	--	--
DB8519	0.02	0.02	--	--
DB8520	<0.02	<0.02	--	--
DB8521	<0.02	<0.02	--	--
DB8522	<0.02	<0.02	--	--
DB8523	<0.02	<0.02	--	--
DB8524	0.02	0.02	--	--
DB8525	0.02	0.02	--	--
DB8526	<0.02	<0.02	--	--
DB8527	<0.02	<0.02	--	--
DB8528	<0.02	<0.02	--	--
DB8529	<0.02	<0.02	--	--
DB8530	<0.02	<0.02	--	--
DB8531	<0.02	<0.02	--	--
DB8532	<0.02	<0.02	--	--
DB8533	<0.02	<0.02	--	<0.02
DB8534	0.02	0.02	--	--
DB8535	<0.02	<0.02	--	--
DB8536	<0.02	<0.02	--	--
DB8537	<0.02	<0.02	--	--
DB8538	<0.02	<0.02	--	--
DB8539	<0.02	<0.02	--	--
DB8540	0.04	0.04	--	--
DB8541	0.02	0.02	--	--
DB8542	0.02	0.02	--	--
DB8543	0.02	0.02	--	--
DB8544	0.02	0.02	--	--
DB8545	0.04	0.04	--	--
DB8546	0.10	0.10	--	--
DB8547	<0.02	<0.02	--	--
DB8548	<0.02	<0.02	--	--
DB8549	<0.02	<0.02	--	--
DB8550	<0.02	<0.02	--	--
DB8551	<0.02	<0.02	--	--
DB8552	<0.02	<0.02	--	--
DB8553	0.02	0.02	--	<0.02
DB8554	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm
DL	0.02	0.02	0.02	0.02
Scheme	AA7	AA7	AA7	AA7

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ANALYTICAL REPORT

Job: 2AD2404
O/N: 17811/B49

Sample	Cu	Pb	Zn	Ag
DB8513	17	16	46	<1
DB8514	16	10	42	<1
DB8515	22	8	38	<1
DB8516	34	6	42	<1
DB8517	38	6	38	<1
DB8518	22	6	36	<1
DB8519	19	6	30	<1
DB8520	20	8	34	<1
DB8521	19	8	45	<1
DB8522	24	6	45	<1
DB8523	36	6	46	<1
DB8524	20	6	32	<1
DB8525	22	6	35	<1
DB8526	11	6	34	<1
DB8527	15	6	35	<1
DB8528	9	6	34	<1
DB8529	12	6	35	<1
DB8530	10	8	28	<1
DB8531	12	8	28	<1
DB8532	17	8	28	<1
DB8533	7	8	28	<1
DB8534	10	6	32	<1
DB8535	10	8	44	<1
DB8536	6	8	42	<1
DB8537	8	6	32	<1
DB8538	8	6	34	<1
DB8539	6	6	32	<1
DB8540	7	5	28	<1
DB8541	7	8	48	<1
DB8542	8	8	68	<1
DB8543	8	8	56	<1
DB8544	6	10	36	<1
DB8545	5	12	36	<1
DB8546	5100	850	2850	3
DB8547	13	8	28	<1
DB8548	13	12	30	<1
DB8549	7	12	46	<1
DB8550	8	8	48	<1
DB8551	7	10	48	<1
DB8552	6	12	52	<1
DB8553	8	10	36	<1
DB8554	7	10	36	<1
Units	ppm	ppm	ppm	ppm
DL	2	4	2	1
Scheme	AA1A	AA1A	AA1A	AA1A

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ANALYTICAL SERVICES

Amdel Laboratories Limited
Brown Street, Thebarton, 5031
Telephone: (08) 416 5300 Facsimile: (08) 234 0321

Mr Mike Raetz
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

FINAL ANALYSIS REPORT

Your Order No: 17830 Our Job Number : 3AD2574

Samples received : 22-JUL-1993 Results reported : 05-AUG-1993
No. of samples : 67
Report comprises a cover sheet and pages 1 to 4

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Miss Anne Reed quoting the above job number.

Approved Signatory:

John Waters
Laboratory Manager - Adelaide

CC Mr Mike Raetz VIC
MM Mr Mike Raetz VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

ANALYTICAL REPORT

Job: 3AD2574
O/N: 17830

Sample	Cu	Pb	Zn	Ag	Fe	Mn	P
EC1801	96	25	110	0.5	9.20	5400	280
EC1802	64	20	95	<0.5	8.50	3300	340
EC1803	42	18	92	<0.5	8.00	2050	400
EC1804	28	17	88	<0.5	7.00	1600	340
EC1805	22	15	78	<0.5	6.60	1450	310
EC1806	32	8	65	<0.5	5.20	730	100
EC1807	185	9	64	<0.5	3.54	710	145
EC1808	34	8	90	<0.5	5.95	4150	560
EC1809	44	8	58	<0.5	4.64	1980	290
EC1810	110	8	76	<0.5	6.50	2000	250
EC1811	40	9	48	<0.5	3.96	1980	160
EC1812	18	8	62	<0.5	5.00	450	195
EC1813	30	9	48	<0.5	4.88	960	350
EC1814	14	8	50	0.5	5.95	1200	140
EC1815	9	7	38	<0.5	5.75	930	220
EC1816	50	9	38	0.5	7.60	980	670
EC1817	19	6	46	<0.5	4.92	810	200
EC1818	20	9	62	<0.5	4.70	1000	340
EC1819	8	9	40	<0.5	3.70	670	250
EC1820	40	11	76	0.5	7.35	900	580
EC1821	36	10	74	0.5	7.05	910	510
EC1822	16	8	54	<0.5	4.30	850	430
EC1823	22	7	44	<0.5	4.34	1080	220
EC1824	18	7	38	<0.5	4.92	700	240
EC1825	9	7	50	<0.5	4.26	830	170
EC1826	9	8	46	<0.5	4.96	690	220
EC1827	9	8	25	<0.5	4.90	620	150
EC1828	16	7	30	<0.5	4.52	580	170
EC1829	20	8	30	<0.5	5.05	590	195
EC1830	18	8	34	<0.5	5.65	730	185
EC1831	20	12	40	1.0	5.95	900	310
EC1832	52	14	44	1.5	6.40	920	410
EC1833	18	13	40	1.5	4.70	1100	120
EC1834	26	12	38	1.5	5.35	890	270
EC1835	84	11	50	1.0	6.70	950	140
EC1836	24	13	64	1.0	6.55	940	270
EC1837	17	11	70	1.0	5.60	1400	300
EC1838	8	9	40	0.5	7.15	950	410
EC1839	26	9	58	0.5	5.25	2200	160
EC1840	10	10	48	0.5	6.35	940	290
EC1841	10	11	54	0.5	6.50	960	330
EC1842	7	9	40	0.5	3.94	530	230
EC1843	7	10	56	0.5	4.42	650	165
EC1844	10	9	44	0.5	5.90	760	210
EC1845	5	9	30	<0.5	2.10	560	195
Units	ppm	ppm	ppm	ppm	%	ppm	ppm
DL	1	3	1	0.5	0.01	5	5
Scheme	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E

ANALYTICAL REPORT

Job: 3AD2574
O/N: 17830

Sample	Cu	Pb	Zn	Ag	Fe	Mn	P
EC1846	5	9	38	<0.5	2.22	620	195
EC1847	6	7	20	<0.5	1.65	360	195
EC1848	32	8	36	<0.5	5.60	910	170
EC1849	17	8	34	<0.5	4.50	1480	115
EC1850	35	9	48	0.5	5.95	1180	400
EC1851	20	10	46	0.5	5.95	1040	360
EC1852	24	11	78	0.5	7.10	1140	690
EC1853	11	9	44	0.5	6.75	1000	220
EC1854	9	9	52	<0.5	5.30	1040	230
EC1855	22	11	45	<0.5	5.70	1220	190
EC1856	62	19	96	0.5	7.55	1540	460
EC1857	30	11	80	1.0	6.40	1450	300
EC1858	64	11	64	0.5	6.75	1760	350
EC1859	62	12	48	0.5	7.05	1720	160
EC1860	24	12	48	1.0	6.30	1820	150
EC1861	32	20	55	1.5	7.50	2000	150
EC1862	15	9	42	0.5	7.10	820	155
EC1863	38	10	54	0.5	5.35	1980	115
EC1864	940	480	1060	2.0	21.8	1220	2750
EC4428	34	32	90	<0.5	4.72	830	480
EC4429	30	30	84	<0.5	5.95	1320	370
EC4430	14	11	36	<0.5	2.58	700	480
Units	ppm	ppm	ppm	ppm	%	ppm	ppm
DL	1	3	1	0.5	0.01	5	5
Scheme	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E

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ANALYTICAL REPORT

Job: 3AD2574
O/N: 17830

Sample	Ni	Co	As	Au Avg	Au Au Rpl	Au SS
EC1801	28	19	2	<0.02	<0.02	--	<0.02
EC1802	28	16	2	<0.02	<0.02	--	--
EC1803	26	14	2	<0.02	<0.02	--	--
EC1804	25	13	2	0.02	0.02	--	--
EC1805	24	11	<1	<0.02	<0.02	--	--
EC1806	17	8	1	0.02	0.02	--	--
EC1807	22	12	<1	<0.02	<0.02	--	--
EC1808	28	13	1	<0.02	<0.02	--	--
EC1809	22	11	<1	<0.02	<0.02	--	--
EC1810	32	15	2	<0.02	<0.02	--	--
EC1811	24	9	1	<0.02	<0.02	--	--
EC1812	19	12	<1	<0.02	<0.02	--	--
EC1813	19	11	<1	0.02	0.02	--	--
EC1814	30	13	2	<0.02	<0.02	--	--
EC1815	30	11	<1	<0.02	<0.02	--	--
EC1816	17	22	3	0.02	0.02	--	--
EC1817	25	12	1	<0.02	<0.02	--	--
EC1818	20	12	1	<0.02	<0.02	--	--
EC1819	13	7	1	<0.02	<0.02	--	--
EC1820	22	17	2	0.02	0.02	--	--
EC1821	22	16	2	<0.02	<0.02	--	<0.02
EC1822	18	11	<1	0.02	0.02	--	--
EC1823	24	12	1	0.02	0.02	--	--
EC1824	25	12	<1	0.02	0.02	--	--
EC1825	22	10	<1	0.02	0.02	--	--
EC1826	24	12	1	<0.02	<0.02	--	--
EC1827	25	10	1	<0.02	<0.02	--	--
EC1828	24	9	1	0.04	0.04	--	--
EC1829	26	11	2	<0.02	<0.02	--	--
EC1830	32	12	1	<0.02	<0.02	--	--
EC1831	34	14	<1	<0.02	<0.02	--	--
EC1832	32	17	<1	<0.02	<0.02	--	--
EC1833	30	13	<1	<0.02	<0.02	--	--
EC1834	30	12	1	<0.02	<0.02	--	--
EC1835	36	16	<1	<0.02	<0.02	--	--
EC1836	30	17	3	<0.02	<0.02	--	--
EC1837	28	14	<1	0.04	0.04	--	--
EC1838	25	13	3	<0.02	<0.02	--	--
EC1839	40	15	<1	<0.02	<0.02	--	--
EC1840	28	14	2	<0.02	<0.02	--	--
EC1841	28	15	<1	<0.02	<0.02	--	<0.02
EC1842	14	8	<1	<0.02	<0.02	--	--
EC1843	22	11	2	<0.02	<0.02	--	--
EC1844	24	11	1	0.04	0.04	--	--
EC1845	8	5	1	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	1	2	1	0.02	0.02	0.02	0.02
Scheme	IC2E	IC2E	IC2E	AA7	AA7	AA7	AA7

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ANALYTICAL REPORT

Job: 3AD2574
O/N: 17830

Sample	Ni	Co	As	Au Avg	Au Au Rpl	Au SS
EC1846	9	5	1	<0.02	<0.02	--	--
EC1847	5	3	2	<0.02	<0.02	--	--
EC1848	22	9	<1	0.02	0.02	--	--
EC1849	25	9	2	<0.02	<0.02	--	--
EC1850	24	12	1	0.02	0.02	--	--
EC1851	24	13	<1	0.02	0.02	--	--
EC1852	24	17	1	<0.02	<0.02	--	--
EC1853	32	14	2	<0.02	<0.02	--	--
EC1854	25	13	1	0.02	0.02	--	--
EC1855	24	12	<1	<0.02	<0.02	--	--
EC1856	28	22	1	<0.02	<0.02	--	--
EC1857	28	16	<1	<0.02	<0.02	--	--
EC1858	32	20	<1	<0.02	<0.02	--	--
EC1859	38	18	<1	<0.02	<0.02	--	--
EC1860	34	16	<1	<0.02	<0.02	--	--
EC1861	42	20	4	<0.02	<0.02	--	<0.02
EC1862	28	14	1	0.02	0.02	--	--
EC1863	40	17	1	0.02	0.02	--	--
EC1864	58	46	17	<0.02	<0.02	--	--
EC4428	32	17	3	<0.02	<0.02	--	--
EC4429	34	16	4	0.02	0.02	--	--
EC4430	17	8	13	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	1	2	1	0.02	0.02	0.02	0.02
Scheme	IC2E	IC2E	IC2E	AA7	AA7	AA7	AA7

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ANALYTICAL SERVICES

AKACMA

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Brown Street, Thebarton, 5031
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Mr Mike Raetz
BHP Exploration Ltd
801 Glenferrie Road
Hawthorn
VIC 3122

FINAL ANALYSIS REPORT

Your Order No: 17835/FK3 Our Job Number : 3AD3846

Samples received : 04-NOV-1993 Results reported : 11-NOV-1993
No. of samples : 58
Report comprises a cover sheet and pages 1 to 4

This report relates specifically to the samples tested in so far as that the samples as supplied are truly representative of the sample source.

Note:
If you have any enquiries please contact Mr Trevor Francis quoting the above job number.

Approved Signatory:

John Waters
Laboratory Manager - Adelaide

CC Mr Mike Raetz VIC
MM Mr Mike Raetz VIC

Report Codes:
N.A. - Not Analysed.
L.N.R. - Listed But Not Received.
I.S. - Insufficent Sample.

Distribution Codes:
CC - Carbon Copy
EM - Electronic Media
MM - Magnetic Media

ANALYTICAL REPORT

Job: 3AD3846
O/N: 17835/FK3

Sample	Cu	Pb	Zn	Ag	Fe	Mn	P
EG 491	5	50	50	0.5	10.00	1350	1320
EG 492	11	10	48	0.5	9.75	1420	1120
EG 493	19	14	58	0.5	11.4	1680	1320
EG 494	10	10	26	<0.5	8.15	640	1080
EG 495	100	10	24	<0.5	11.6	1160	4450
EG 496	34	8	16	<0.5	12.4	500	1260
EG 497	12	9	28	0.5	11.7	1100	1600
EG 498	5	15	32	0.5	12.1	1000	1120
EG 499	3	8	40	0.5	9.15	1020	1250
EG 500	9	8	40	0.5	11.6	1380	820
EG 501	15	9	38	1.0	10.9	1260	1300
EG 502	5	6	38	<0.5	10.1	920	680
EG 503	7	6	38	<0.5	10.5	950	730
EG 504	880	460	960	1.5	20.6	1120	2550
EG 505	12	5	34	<0.5	9.70	530	230
EG 506	4	5	30	<0.5	11.4	700	130
EG 507	6	5	19	<0.5	12.4	650	125
EG 508	6	5	36	<0.5	13.0	510	100
EG 509	7	4	22	<0.5	11.2	340	105
EG 510	105	5	28	1.0	13.8	390	185
EG 511	11	5	18	<0.5	14.6	600	270
EG 512	10	5	15	<0.5	14.2	720	270
EG 513	6	5	14	<0.5	14.6	720	290
EG 514	7	5	10	<0.5	12.6	740	200
EG 515	4	5	15	<0.5	13.4	860	360
EG 516	4	4	14	<0.5	13.0	1180	250
EG 517	3	4	13	<0.5	12.4	1100	350
EG 518	5	5	16	<0.5	12.2	990	410
EG 519	2	4	11	<0.5	9.10	760	115
EG 520	9	5	13	<0.5	12.3	780	250
EG 521	7	5	17	<0.5	12.1	850	195
EG 522	13	5	12	<0.5	12.9	710	240
EG 523	8	7	16	0.5	13.4	780	260
EG 524	16	6	17	0.5	14.9	880	150
EG 525	13	4	19	<0.5	13.9	890	170
EG 526	9	8	24	<0.5	18.2	1340	470
EG 527	6	7	32	<0.5	19.6	1150	1100
EG 528	4	7	20	<0.5	19.6	1020	690
EG 529	6	7	22	<0.5	19.1	1000	1260
EG 530	2	3	12	<0.5	11.6	760	230
EG 531	8	4	22	<0.5	12.7	840	410
EG 532	7	7	16	<0.5	13.7	880	260
EG 533	2	6	17	<0.5	15.1	1000	310
EG 534	10	8	17	<0.5	14.4	980	200
EG 535	4	5	16	<0.5	13.4	1060	160
Units	ppm	ppm	ppm	ppm	%	ppm	ppm
DL	1	3	1	0.5	0.01	5	5
Scheme	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E

ANALYTICAL REPORT

Job: 3AD3846
O/N: 17835/FK3

Sample	Cu	Pb	Zn	Ag	Fe	Mn	P
EG 536	7	6	25	<0.5	14.0	740	270
EG 537	11	7	24	1.0	10.9	470	105
EG 538	4	7	22	1.0	14.6	640	290
EG 539	7	7	32	1.0	13.2	460	55
EG 540	6	6	35	1.0	12.4	620	40
EG 541	24	6	24	1.0	10.9	710	55
EG 542	10	8	28	1.0	11.4	520	185
EG 543	3	6	34	1.0	11.9	480	100
EG 544	96	6	26	1.0	11.4	470	150
EG 545	30	6	48	1.0	6.75	670	140
EG 546	20	5	28	1.0	3.64	400	95
EG 547	25	8	28	1.0	3.64	440	105
EG 548	800	460	1020	2.5	22.1	1200	2600
Units	ppm	ppm	ppm	ppm	%	ppm	ppm
DL	1	3	1	0.5	0.01	5	5
Scheme	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E	IC2E

Sample	Ni	Co	As	Au Avg	Au	Au Rpl	Au SS
EG 491	36	15	<1	<0.02	<0.02	--	<0.02
EG 492	34	14	<1	<0.02	<0.02	--	--
EG 493	46	17	<1	<0.02	<0.02	--	--
EG 494	14	8	<1	<0.02	<0.02	--	--
EG 495	28	18	1	<0.02	<0.02	--	--
EG 496	26	12	<1	<0.02	<0.02	--	--
EG 497	30	15	<1	<0.02	<0.02	--	--
EG 498	22	11	<1	<0.02	<0.02	--	--
EG 499	22	11	<1	<0.02	<0.02	--	--
EG 500	42	15	<1	<0.02	<0.02	--	--
EG 501	38	18	<1	0.02	0.02	--	--
EG 502	28	13	<1	<0.02	<0.02	--	--
EG 503	28	12	<1	<0.02	<0.02	--	--
EG 504	48	42	10	<0.02	<0.02	--	--
EG 505	24	9	<1	<0.02	<0.02	--	--
EG 506	24	10	<1	<0.02	<0.02	--	--
EG 507	22	11	<1	<0.02	<0.02	--	--
EG 508	16	12	<1	<0.02	<0.02	--	--
EG 509	8	10	<1	0.02	0.02	--	--
EG 510	19	25	<1	<0.02	<0.02	--	--
EG 511	20	9	<1	<0.02	<0.02	--	<0.02
EG 512	25	9	<1	<0.02	<0.02	--	--
EG 513	24	10	<1	0.02	0.02	--	--
EG 514	19	7	<1	<0.02	<0.02	--	--
EG 515	19	8	<1	<0.02	<0.02	--	--
EG 516	17	8	<1	<0.02	<0.02	--	--
EG 517	18	8	<1	<0.02	<0.02	--	--
EG 518	15	7	<1	<0.02	<0.02	--	--
EG 519	24	9	<1	<0.02	<0.02	--	--
EG 520	20	8	<1	<0.02	<0.02	--	--
EG 521	22	9	<1	<0.02	<0.02	--	--
EG 522	22	8	<1	0.02	0.02	--	--
EG 523	22	9	<1	<0.02	<0.02	--	--
EG 524	17	8	<1	<0.02	<0.02	--	--
EG 525	18	8	<1	0.02	0.02	--	--
EG 526	18	8	<1	<0.02	<0.02	--	--
EG 527	20	9	<1	<0.02	<0.02	--	--
EG 528	20	8	<1	<0.02	<0.02	--	--
EG 529	18	7	<1	<0.02	<0.02	--	--
EG 530	24	8	<1	<0.02	<0.02	--	--
EG 531	22	9	<1	<0.02	<0.02	--	<0.02
EG 532	20	7	<1	<0.02	<0.02	--	--
EG 533	22	8	<1	<0.02	<0.02	--	--
EG 534	19	6	<1	<0.02	<0.02	--	--
EG 535	25	10	<1	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	1	2	1	0.02	0.02	0.02	0.02
Scheme	IC2E	IC2E	IC2E	AA7	AA7	AA7	AA7

Sample	Ni	Co	As	Au Avg	Au	Au Rpl	Au SS
EG 536	20	8	<1	<0.02	<0.02	--	--
EG 537	16	7	<1	<0.02	<0.02	--	--
EG 538	22	9	<1	<0.02	<0.02	--	--
EG 539	20	11	<1	<0.02	<0.02	--	--
EG 540	22	11	<1	<0.02	<0.02	--	--
EG 541	24	10	<1	<0.02	<0.02	--	--
EG 542	25	10	<1	<0.02	<0.02	--	--
EG 543	30	12	<1	<0.02	<0.02	--	--
EG 544	42	14	<1	<0.02	<0.02	--	--
EG 545	40	12	<1	<0.02	<0.02	--	--
EG 546	28	8	<1	<0.02	<0.02	--	--
EG 547	30	10	<1	<0.02	<0.02	--	--
EG 548	48	42	9	<0.02	<0.02	--	--
Units	ppm	ppm	ppm	ppm	ppm	ppm	ppm
DL	1	2	1	0.02	0.02	0.02	0.02
Scheme	IC2E	IC2E	IC2E	AA7	AA7	AA7	AA7

'P Minerals - Southern Proterozoic Logsheet (Page No 12 of 12)

oject : COOBER PEDY RIDGE
asting : 445000
atitude : -29.236228
cality : EL1725

Hole Name : CD93009
Northing : 6765700
Longitude : 134.434033
Prospect : ANOMALY 18

Hole Length : 224
Amg Zone : 53
Surface Rl : 180
Logged By : M VALDEZ

Contractor : SILVER CITY
Coord Reliability : TAPE

Sample No	From	To	Sample Type	Cu	Pb	Zn	Ag	Auavg	Fe	Mn	P	Ni	Co	As
EG00505	72	73.4	FILL	12	5	34	-.5	-.02	9.7	530	230	24	9	-1
EG00506	73.4	77	FILL	4	5	30	-.5	-.02	11.4	700	130	24	10	-1
EG00507	77	78.2	FILL	6	5	19	-.5	-.02	12.4	650	125	22	11	-1
EG00508	78.2	82	FILL	6	5	36	-.5	-.02	13	510	100	16	12	-1
EG00509	82	86	FILL	7	4	22	-.5	.02	11.2	340	105	8	10	-1
EG00510	86	87.5	FILL	105	5	28	1	-.02	13.8	390	185	19	25	-1
EG00511	87.5	91	FILL	11	5	18	-.5	-.02	14.6	600	270	20	9	-1
EG00512	91	95	FILL	10	5	15	-.5	-.02	14.2	720	270	25	9	-1
EG00513	95	99	FILL	6	5	14	-.5	.02	14.6	720	290	24	10	-1
EG00514	99	103	FILL	7	5	10	-.5	-.02	12.6	740	200	19	7	-1
EG00515	103	107	FILL	4	5	15	-.5	-.02	13.4	860	360	19	8	-1
EG00516	107	111	FILL	4	4	14	-.5	-.02	13	1180	250	17	8	-1
EG00517	111	115	FILL	3	4	13	-.5	-.02	12.4	1100	350	18	8	-1
EG00518	115	119	FILL	5	5	16	-.5	-.02	12.2	990	410	15	7	-1
EG00519	119	123	FILL	2	4	11	-.5	-.02	9.1	760	115	24	9	-1
EG00520	123	127	FILL	9	5	13	-.5	-.02	12.3	780	250	20	8	-1
EG00521	127	131	FILL	7	5	17	-.5	-.02	12.1	850	195	22	9	-1
EG00522	131	135	FILL	13	5	12	-.5	.02	12.9	710	240	22	8	-1
EG00523	135	139	FILL	8	7	16	.5	-.02	13.4	780	260	22	9	-1
EG00524	139	143	QC	16	6	17	.5	-.02	14.9	880	150	17	8	-1
EG00525	139	143	DPQC	13	4	19	-.5	.02	13.9	890	170	18	8	-1
EG00526	143	147	FILL	9	8	24	-.5	-.02	18.2	1340	470	18	8	-1
EG00527	147	151	FILL	6	7	32	-.5	-.02	19.6	1150	1100	20	9	-1
EG00528	151	155	FILL	4	7	20	-.5	-.02	19.6	1020	690	20	8	-1
EG00529	155	159	FILL	6	7	22	-.5	-.02	19.1	1000	1260	18	7	-1
EG00530	159	163	FILL	2	3	12	-.5	-.02	11.6	760	230	24	8	-1
EG00531	163	167	FILL	8	4	22	-.5	-.02	12.7	840	410	22	9	-1
EG00532	167	171	FILL	7	7	16	-.5	-.02	13.7	880	260	20	7	-1
EG00533	171	175	FILL	2	6	17	-.5	-.02	15.1	1000	310	22	8	-1
EG00534	175	177.25	FILL	10	8	17	-.5	-.02	14.4	980	200	19	6	-1
EG00535	177.25	181	FILL	4	5	16	-.5	-.02	13.4	1060	160	25	10	-1
EG00536	181	185	FILL	7	6	25	-.5	-.02	14	740	270	20	8	-1
EG00537	185	189	FILL	11	7	24	1	-.02	10.9	470	105	16	7	-1
EG00538	189	193	FILL	4	7	22	1	-.02	14.6	640	290	22	9	-1
EG00539	193	197	FILL	7	7	32	1	-.02	13.2	460	55	20	11	-1
EG00540	197	201	FILL	6	6	35	1	-.02	12.4	620	40	22	11	-1
EG00541	201	205	FILL	24	6	24	1	-.02	10.9	710	55	24	10	-1
EG00542	205	209	FILL	10	8	28	1	-.02	11.4	520	185	25	10	-1
EG00543	209	213	FILL	3	6	34	1	-.02	11.9	480	100	30	12	-1
EG00544	213	217	FILL	96	6	26	1	-.02	11.4	470	150	42	14	-1
EG00545	217	220.6	FILL	30	6	48	1	-.02	6.75	670	140	40	12	-1
EG00546	220.6	240	QC	20	5	28	1	-.02	3.64	400	95	28	8	-1
EG00547	220.6	240	DPQC	25	8	28	1	-.02	3.64	440	105	30	10	-1
EG00548	220.6	240	SS	800	460	1020	2.5	-.02	22.1	1200	2600	48	42	9