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BILLITON AUSTRALIA, ~~THE~~ METALS DIVISION OF
THE SHELL COMPANY OF AUSTRALIA LIMITED

E.L. 39/83 - CATTLEY RANGE

Progress Report on Exploration for the Period 23/8/87 to 22/8/88

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CONTENTS

LIST OF FIGURES

18	Soil geochemical anomaly east of Cattley Creek	1:5000	D/LD51/024
19	Soil geochemical anomaly west of Cattley Creek	1:2000	D/LD51/026
20	Costean Profiles east of Cattley Creek	1: 500	D/LD51/025
21	Costean Profile west of Cattley Creek	1: 500	D/LD51/027
22	Detailed geological plan of area around Drill Hole CRD 86-1	1:2500	D/LD51/037
23	Diamond drill section CRD 86-1, CRD 88-1, Line 5900N	1:1000	D/LD51/038

LIST OF APPENDICES

1. Auger sample geochemical results
2. Costean sample geochemical results
3. Diamond drill log CRD 88-1
4. Whole rock analyses, Harker diagrams and down hole plots, CRD 86-1

SUMMARY

Exploration licence 39/83 of area 44 square kilometres was granted on 22nd August 1983 and is due for partial reduction (50%) on 22nd August 1988.

This report details exploration carried out on the licence by Billiton Australia during the 1987-88 season. A separate report outlines that area of the tenement that will be relinquished according to Mines Department regulations.

The principal exploration target within the licence is a volcanogenic massive base metal sulphide deposit by analogy with known Tasmanian orebodies at Rosebery, Que River and Hellyer. Whilst no two orebodies are similar, aspects of gross setting, paleo environment, hydrothermal alteration and geochemical-geophysical character can be utilized to predict areas of better potential. The Cattley Range licence is considered to protect such an area.

The licence has been explored for the past five years by utilizing exploration methods of gridding, C horizon soil sampling, costeaning, EM 37 and Sirotem surveying, geological mapping, rock chip sampling and diamond drilling. Work carried out during the 1987-88 season involved gridding, soil sampling, costeaning, geological mapping and diamond drilling.

The results of the soil sampling and costeaning surveys indicate that no further work is recommended on the four geochemically anomalous zones. The remaining two areas of interest are located in the north and central western portions of the licence. At the former area, a group of geophysical EM anomalies underlie a Tertiary basalt plateau at a position where structural offsetting of the Cambrian sequence has been postulated. The potential for structurally remobilized base and precious metals is recognized here. In the central western area, a small inlier of Cambrian lavas and volcaniclastics has been mapped and explored in detail. Two diamond drill holes have intersected a broad sequence of intensely hydrothermally altered clastic units interpreted to be mass debris flows and vitric ashes. The local setting is conducive to the development of a VMS system and further work is recommended to define the alteration more closely and to predict local zones of anomalism.

1.0 INTRODUCTION

Exploration Licence 39/83, covering 44 km², was granted to the Shell Company of Australia Limited on 22nd August, 1983. The tenement is due for a 50% reduction in area on the 22nd August 1988 and a separate report will document the relevant portion for relinquishment. The area is located 50 kilometres south of Burnie partially within an A.P.P.M. Concession and encloses the Cattley Range. (Fig. 1).

The principal exploration target within the licence is massive volcanogenic base metal sulphides with type characteristics of Hellyer-Que River. The more distal deposit type (viz Rosebery) is also a valid target and geological evidence to date on EL 39/83 would suggest good prospectivity for both VMS types.

The gross exploration philosophy applicable to this licence relates to the strike/stratigraphic proximity of Hellyer (13 kms) the continuity of a major rift margin fault (Henty Fault) north from Hellyer and the presence within the licence and adjacent licences of strongly altered and geochemically anomalous lithologies (Two Hummocks, Cattley North, Basin Road).

This report summarizes exploration carried out over the last five years and including the 1987-88 season. Previous Billiton reports detail the annual activities since the inception of the licence. (Billiton reports 08.2489, 08.2887, 08.3410, 08.3545).

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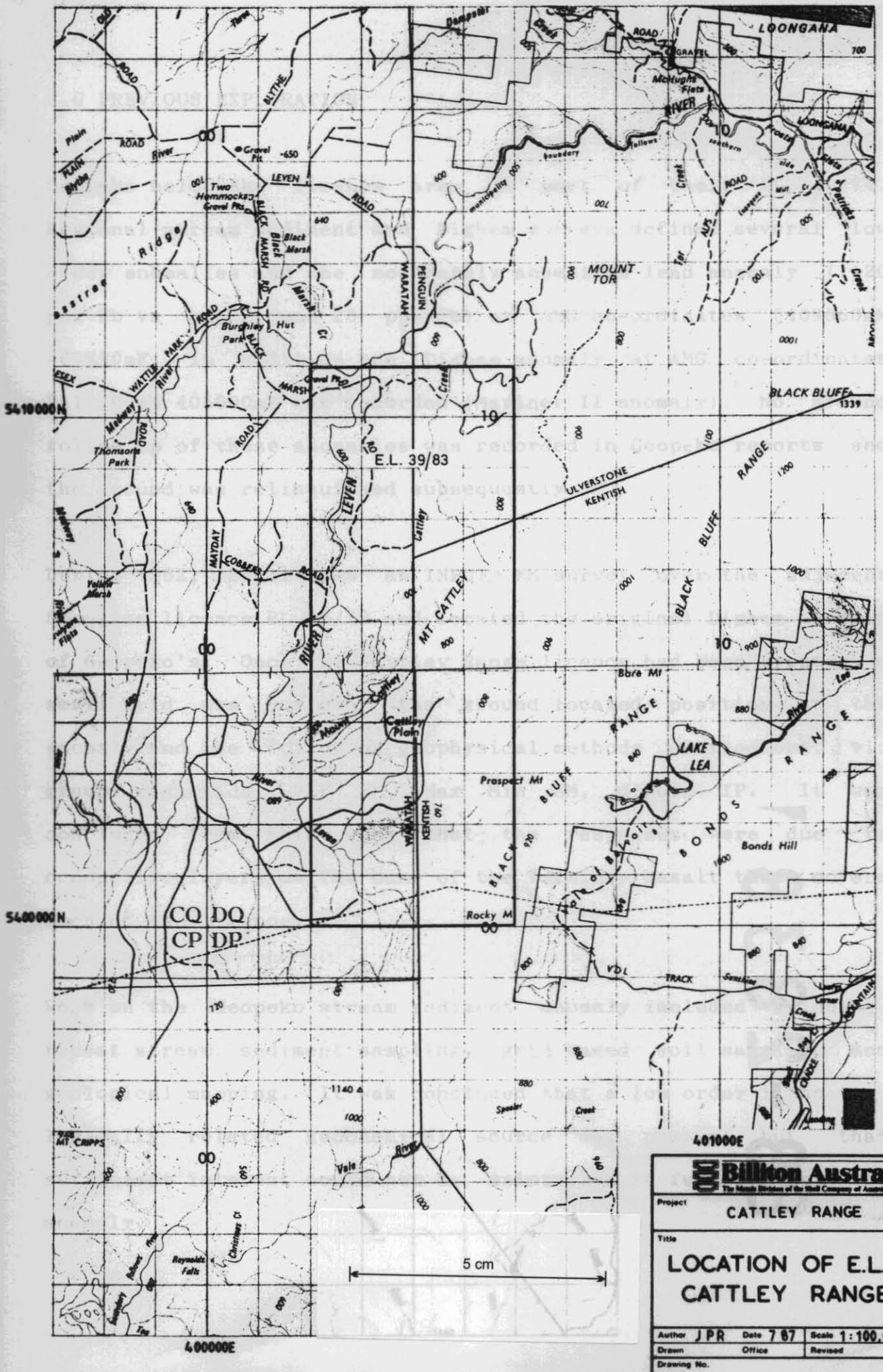

Billiton Australia
The Minerals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: LOCATION OF E.L.39/83 CATTLEY RANGE

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Drawing No.					Fig. No. 1

2.0 PREVIOUS EXPLORATION

Geopeko held the licence area as part of their EL 10/74. Regional stream sediment and Dighem surveys defined several low order anomalies and one moderately anomalous lead anomaly (<120 ppm Pb vs background 20 ppm Pb) at AMG co-ordinates 5409560mN 403930mE. In addition one Dighem anomaly at AMG co-ordinates 5410200mN 405000mE was recorded (Mariner II anomaly). No ground follow up of these anomalies was recorded in Geopeko reports and the ground was relinquished subsequently.

During 1982, Shell flew an INPUT EM survey over the adjacent Loongana licence EL 36/79 and located the original Dighem anomaly of Geopeko's. Once the Cattley Range licence had been granted, a small grid was cut over the ground located position of the anomaly and the following geophysical methods carried out: viz ground magnetics, VLF EM, Max Min EM, dipole IP. It was concluded from this work that the responses were due to conductive layers at the base of the Tertiary basalt that covers much of the licence.

Work on the Geopeko stream sediment anomaly included gridding, repeat stream sediment sampling, grid based soil sampling and geological mapping. It was concluded that a low order litho-logically related geochemical source was present but that sufficient interest could not be maintained to further test the anomaly.

During the 1984-85 season, exploration focussed on geophysical testing of all Cambrian windows within the tenement. Gridding (42 kms), EM 37 surveying (12 line kms) and geological mapping (1:20,000 scale) were carried out, principally in the northern portion of the licence. In addition, one line of dipole-dipole IP was completed on line 9800N and 42 kms of ground magnetics was completed. Several low order EM anomalies were recorded in the vicinity of the previously known INPUT, Dighem, IP anomalies but these responses were not considered to be due to a bedrock conductor.

Continued gridding (28 kms), EM 37 surveying (15 kms) and ground magnetics (19 kms) in 1985-86 completed the EM coverage of the southern portion of Cambrian lithologies and resulted in the definition of a three line 600 metre strike length bedrock conductor. (Lines 5600N, 5900N, 6200N). Detailing of this anomaly was carried out using Sirotem (3.25 line kms) and at the time, modelling suggested that the source was most probably conductive clays beneath the Tertiary basalt.

Other work carried out during 1985-86 focussed on additional auger sampling on three lines across the IP anomaly at 9800N and the soil Pb anomaly on line 9400N. This work did not produce anomalous geochemistry associated with the IP anomaly but did define weak sporadic Pb geochemistry coincident with previous soil sampling on and near line 9400N. Slightly elevated lead values (240ppm Pb) are associated with felsic tuffs on line 9600N at 11060-11120E.

Evaluation of the EM anomaly on lines 5600N-6200N was the prime focus on exploration during 1986-87. One line of Max Min EM was completed on line 5600N across the EM 37 anomaly position and 129 auger samples were collected on lines 5300N, 5600N, 5700N, 5800N, 5900N, 6000N. Detailed grid mapping and rock chip sampling was carried out along these lines also.

Diamond drill hole CRD 86-1 was completed at 278 metres after having passed through the interpreted position of an EM 37 conductor (Anomaly 5A). Geological logging, petrological examination, sampling assaying and down hole EM surveying were also completed on the diamond drill hole.

3.0 EXPLORATION COMPLETED 1987-1988

An emphasis on the geological and geochemical aspects of exploration was maintained during the year and the following methods were utilized.

- gridding : A total of 5.6kms of grid was cut at the north end of the licence (lines 10800N-11400N)

- auger sampling: C horizon soils taken at 25 metre spacing on lines 200 metres apart. A total of 923 samples were collected and analysed for Cu Zn Ag (AAS), Pb As Ba (XRF) and Au (FA). Results are compiled as Appendix 1.

- costeaning: three costeans were dug, and later infilled, on lines 9600N, 10200N, 10400N for a total length of 330 metres. A total of 80 samples were submitted for analysis for Cu Zn Ag (AAS), Pb As Ba (XRF) and Au (FA). Appendix 2 details the analytical results.

- diamond drilling: one diamond drill hole (CRD 88-1) was completed at 306 metres depth. (Appendix 3). A total of 214 samples were submitted for analysis for Cu Zn Ag (AAS), Pb As Ba (XRF), Au (FA). In addition, 10 samples were despatched for petrological examination. A further batch of 18 samples from diamond drill hole CRD 86-1 were submitted for whole rock analysis. (Appendix 4).

- geological mapping and compilation: a detailed compilation at 1:5000 scale of previous exploration results has been completed. In addition detailed mapping was carried out in the southern part of the licence in the vicinity of drill holes CRD 86-1 and CRD 88-1.

4.0 GEOLOGICAL SETTING

The regional geological setting is of considerable economic importance due in part to the proximity of the Que-Hellyer volcanic complex (see Fig. 2). The latter is situated approximately 13 kms to the south west of and regionally on strike from the Cattley Range tenement. The Henty Fault Zone is a major structural feature that abuts the eastern edge of the Que-
Hellyer complex and has long been interpreted as a reactivated rift margin relief structure. Its continuation north of Que-Hellyer is in doubt as post Cambrian cover obscures its presence but there are suggestions that a similar feature is present on the Cattley Range licence (see later).

Construction of a generalized stratigraphic column (Fig. 3) and cross sections (Fig. 4) through the Que-Hellyer complex from Mines Department data illustrates several points that pertain to the Cattley Range tenement. An equivalent set of diagrams is shown in Figs. 5 and 6 and summarized below viz.

Characteristic	Que-Hellyer	Cattley Range South End
Total lava package thickness	770m	>350m
Volcanism hiatus	<100m	50m
Compositional differentiation at hiatus	basalt-andesite	andesite-dacite

Alteration extent	confined to volcanic hiatus	extensive from volcanic hiatus into hanging wall
Alteration types	zoned sericite-carbonate-pyrite-chlorite	pervasive sericite-carbonate, minor chlorite trace pyrite
Cessation of final volcanism	not economically important	moderately altered and of economic significance
Henty Fault Zone	transgresses the regional strike and terminates the Que-Hellyer anticline.	a similar structure occupies the axis of a tight anticline

The above points are not meant to imply an equivalence between the two areas but serve to indicate that there are important economic related characteristics in both areas. It seems likely that the Cattley sequence is younger than the Que Hellyer volcanics, and no direct correlation should be made. However, as with many Archaean deposits, there is good evidence to suggest that stratigraphic stacking of mineralized bodies may occur. This cannot be proved but by analogy is a plausible conclusion supported by the local geological setting. The licence is now interpreted to cover two lithologically different sequences separated by a postulated NNE trending fault. The fault can be traced northwards into the south eastern corner of Native Track Tier and also to the south onto the Pancontinental tenement. (EL 14/85). There is a good possibility that it may represent a structure related to an offset of the Henty Fault System north of Hellyer.

A detailed compilation of the local geology together with results of previous geochemical and geophysical surveys is shown on Figs. 7 to 17 and described below.

The western sequence consists of predominantly fine micaceous sandstones and silts that show a consistent flat dip (15-40°) to the west and northwest. At the northern end of the licence and within the Loongana licence (EL 36/79) strikes are almost ENE. The Two Hummocks locality is consistent with this interpretation although there, a different stratigraphic level is exposed.

The eastern sequence consists of localized andesitic lava centres and intrusive quartz porphyries flanked by a mixed sequence of sericitized and carbonatised fine epiclastics and black shales, sandstones and silts. Undifferentiated fine quartz and feldspar phyric volcaniclastics are also prevalent. This sequence consistently displays a steep (75-80°) easterly dip and in several locations, both eastern and western sequences are juxtaposed.

Two target areas have resulted from this interpretation: the area around CRD 86-1 in the south and the northern area in the vicinity of numerous coincident geophysical anomalies.

Diamond drill hole CRD 86-1 (1986-87 Annual Report) intersected strongly altered (sericite, carbonate) coarse epiclastics at the bottom of the hole (220-280m), a fact not anticipated from surface mapping. Immediately to the west of this position (200m)

an andesitie lava/quartz porphyry complex has been mapped. Tertiary basalt has partially obscured Cambrian geology, however, and it is not possible to observe a contact of volcanics with epiclastics. It is considered that this hiatus in volcanism represents a prime locus for VMS mineralization by virtue of:

a) the proximity of a possible fault (and hence mineralizing conduit)
b) the discrete nature of the lava/intrusive complex
c) the intense alteration observed in CRD 86-1
d) sporadic anomalous base metal soil geochemistry (185ppm Pb, 0.03ppm Au, 1150ppm Ba).

The northern area is of interest as it is the site of a proposed left lateral offset of the earlier postulated fault. The offset is based on distribution of western and eastern sequences and the recognition of open cross folds and faults in the Cattley North area. Tertiary basalt obscures a significant porportion of the underlying Cambrian and it is here that several generations of geophysical surveys have detected weak anomalies, generally co-incident. viz INPUT EM, Dighem, Max-Min, EM-37.

The anomalies have been previously considered to represent conductive surficial clay layers within the Tertiary basalt cap. However this new interpretation would imply that a bedrock source is more likely whether it be fault related or not. Note that discontinuous outcrops of andesitic lava have also been noted in the vicinity of this offset position.

5.0 EXPLORATION RESULTS

Much of the work carried out on the licence during the reporting period has focussed on geological mapping and grasping a workable interpretation of the geological setting. This has been discussed in section 4.0. The remaining work completed has included C horizon soil sampling, costeaning and diamond drilling.

5.1 Auger Soil Sampling

Details of this work are included in section 3.0 and Appendix 1. The programme was designed to delineate surface geochemical anomalies that may be coincident with previously recognized EM 37 geophysical anomalies or that may be situated in an interesting local geological setting. Widespread Tertiary basalt cover has obscured much of the underlying Cambrian geology and geochemistry and these areas remain untested.

Sample collection was supervised to ensure that post-Cambrian cover was not sampled and that only non leached C-horizon soils/weathered rock were collected. Accordingly, some areas have been left unsampled.

A routine statistical analysis of the data indicated the following levels of base metal anomalism

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viz Cu > 42ppm

Pb > 185ppm

Zn > 125ppm

Ag > 1ppm

Ba > 553ppm

As > 27ppm

Au >0.02ppm

Using these thresholds a number of areas of interest were delineated viz

	Line(N)	Co-ords(E)	Geochemical Anomalism (ppm max. values)
*	10600	11750	910Pb
1*	10400	11750-11825	650Pb 120Zn
*	10200	11700-11825	340Pb 195Zn 46As 0.05Au
	10000	11775-11850	155Pb 155Zn 840Ba
2*	9800	11600	270Pb 74As 1000Ba
	9600	11075-11150	330Pb
	9600	11650-11725	290Pb
	9400	11125	230Pb
	9400	12075	115Pb 1600Zn 125As 1240Ba
	9200	11450-11500	130Pb
	8800	11300-11325	160Zn
*	8800	11625-11675	140Pb 340Zn
*	8600	11625	270Pb
3*	8400	11550	130Pb
*	8200	11475-11525	125Pb 105Zn 135Cu
*	8200	11675-11750	190Pb 130Zn
	7800	10900-11000	185Pb 190Zn
*	5900	11750	185Pb 0.03Au
4*	5900	11825-11925	140Zn 1150Ba
	5900	12575	270Pb

Many of these anomalies are single point, non continuous and/ or low order and only four zones were considered worthy of attention, as indicated by *.

Zone 1 has a strike extent in excess of 600m and is concordant with the regional strike. Limited outcrop and logging of auger chips suggested the presence of a mixed sequence of andesitic-dacitic ?lavas and fine sandy-silty volcaniclastics. (see Fig. 18). Costeaning was considered to be the most appropriate method of follow up (see Section 5.2)

Zone 2 has been investigated previously as an area of stream sediment and soil sample base metal anomalism. A small grid has been cut over the anomaly and infill sampling carried out. An open ended Pb Zn anomaly of dimensions 300m x 150m was defined and poorly exposed silts, sands and fine volcaniclastics were mapped. (Fig. 19). Costeaning was also considered to be a suitable follow up method (see Section 5.2).

A poorly defined Pb Zn anomaly occurs at Zone 3 over a strike length of 600m. Marginally anomalous values and the poor definition of the anomaly have precluded any follow up at this stage.

Zone 4 shows weak scattered Pb Zn (Ba Au) anomalism but is of interest in view of the geological interpretation placed on this area (see Section 4.0). A detailed discussion is presented in Section 5.3.

5.2 Costeaning

Three costeans have been excavated over surface soil geochemical anomalies of zone 1 and 2 (see Section 5.1). A CAT 225 hydraulic excavator was utilized to expose bedrock at depths of between 0.5m and 2m. All costeans were logged and chip sampled according to geological constraints (see Figs. 20, 21; Appendix 2) then infilled. Top soil that had previously been separated was placed on top of the filled trench and vegetation placed where possible.

At Zone 1 two costeans were dug on lines 10200N and 10400N (11675-11825E and 11725-11825E, respectively) and intersected a sequence of feldspar porphyritic andesitic lavas with intercalated siliceous and fine grained siltstones, cherts and minor graphitic shale. A variable but strong carbonate development was obvious in many of the silts in addition to strong local manganiferous staining. Detailed sampling and assaying (Cu Pb Zn Ag Ba As Au) revealed maxima of 1040ppm Pb 220ppm Zn (non coincident). Within costean 10400N, a 59m wide zone of +500ppm Pb was recorded.

To resolve the Zone 2 anomaly, a costean was placed on line 9600N from 11075E-11165E and revealed a sequence of fine micaceous sandstone, fine siltstone and calcareous siltstone. Weak ferruginous quartz veining was intersected at two stratigraphic levels over narrow widths (cms). Detailed channel sampling and assaying (Cu Pb Zn Ag As Ba Au) revealed maxima of 880ppm Pb, 430ppm Zn (non coincident) from a strongly calcareous siltstone.

It is considered that the original geochemical anomalies at both areas have been explained by the presence of either weak ferruginous quartz veining and/or the development of pervasive carbonate and manganese. Scavenging of base metals from surrounding sediments is accepted as providing the most probable mechanism for the anomalism, probably facilitated by the proximity of the left lateral offset fault in the case of zone 1 and the major NE-SW trending fault in the case of zone 2.

5.3 Diamond Drilling

In view of the geological interpretation of the southern area of the licence as suggested in section 4.0, detailed mapping was carried out in the area west of the drill hole CRD 86-1. (Fig. 22). Exposure is limited to road cuts and rare deeply incised creeks that have eroded the remnant Tertiary basalt cap. However, a stratigraphic column has been established and from top to base consists of:-

>150m	EPICLASTIC	- fine grained quartz phyric felsic - moderate sericite alteration
80m	SEDIMENT	- black sulphidic shale
180m	EPICLASTIC	- coarse felsic and reworked - very strong sericite-carbonate-(pyrite) alteration
120m	SHALLOW INTRUSIVE	- quartz phyric rhyodacite
150m	LAVA	- dacitic, feldspar phyric
50m	VOLCANICLASTIC	- felsic fine grained - moderate to strong sericite-carbonate-quartz alteration
>150m	LAVA	- feldspar phyric andesite

622

The strong alteration mapped in the clastic units is most interesting and in particular the style observed in the lower volcaniclastic. Here fine vitric ashes crop out in an old quarry and are pervasively altered and quartz veined. Sulphide is however not present in significant amounts but restricted to small irregular pseudomorphed clots. The dacitic unit above the basal clastic horizon has some clastic character as observed in the northern creek but overall appears to be more of a lava sequence. The quartz phyric rhyodacite on the other hand is massive, not particularly altered and although concordant with stratigraphy it has been interpreted as a later or synvolcanic intrusive.

A decision to test the basal andesite lava-clastic unit contact was made in view of the regional reconstruction of the environment, the local intense alteration and weak sporadic geochemistry. Diamond drill hole CRD 88-1 was collared on 3/6/88 and completed on 15/6/88 at a depth of 306 metres.

Details of the hole are as follows: (see Fig. 23)

Hole No.	: CRD 88-1
Collar Co-ords	: 5900N 12005E
Inclination	: 50°
Azimuth	: 288°
Depth	: 306.4m

Summary Log:

0- 32.2	Quartz feldspar phyric rhyodacitic intrusive.
32.3- 92.5	Sericitized and silicified dacitic polymict epiclastic (mass. debris flow).
92.5-136.0	Very fine grained felsic volcaniclastic (vitric ash)
136.0-146.8	Mixed fine grained brecciated volcaniclastic, siliceous siltstone and arenaceous volcaniclastic.
146.8-164.2	Fine grained siliceous volcaniclastic.
164.2-174.7	Medium grained dacitic volcaniclastic, strongly broken and part of a fault zone.
174.7-306.4	Dacitic to andesitic lavas with numerous thin chalcedonic interflow cherts of probable vitric ash origin.
EOH	

All core has been cut and samples submitted for analysis of Cu Zn Ag (AAS), Pb As Ba (XRF) and Au (F.A.). In addition, ten samples have been submitted for petrological description. At the time of writing, results are still awaited for both analytical and petrological samples.

Whole rock silicate analyses of samples from CRD 86-1 (Appendix 4) have been compared with an AMIRA data base for the Mt. Read Volcanics and with analyses from Rosebery. Harker diagrams have been plotted to compare S_1O_2 vs Na_2O, CaO, K_2O, MgO, Al_2O_3, Sr and Na_2O vs K_2O. These plots consistently indicate that the samples represent intensively altered volcanics characteristic of a Cambrian VMS system. Down hole variations are sometimes erratic although two consistent points emerge:

1. The quartz feldspar rhyodacitic volcanic shows abnormal geochemical trends suggesting that it is a later intrusive and not a lava.

2. Depletion in Na_2O and enrichment in K_2O increases slightly down hole.

The results of the drilling, although incomplete, allow some premature conclusions to be made. It is apparent that the intense sericite-carbonate alteration observed in CRD 86-1 is also present in CRD 88-1 although not in the basal andesite lava. The contact between andesite lava and clastic sequences is marked by a wide fault zone whose dip is discordant to stratigraphic dip (i.e. 50°E vs 80°E). The lack of observed alteration in the lava may therefore be a function of its time relationship with the clastic sequence.

The steep easterly dips consistently recorded in CRD 88-1 are at odds with moderate dips logged in CRD 86-1. It is suggested that the postulated regional fault (Henty fault extension) may pass to the west to CRD 88-1 and has resulted in a dramatic steepening of stratigraphy.

6.0 CONCLUSIONS AND RECOMMENDATIONS

There are several regional characteristics that support optimism for the economic potential of the Cattley Range tenement viz

- the strike proximity to the Que-Hellyer volcanic complex.
- the proximity to the Henty Fault or equivalent structure that may have represented a fundamental rift margin structure.
- the widespread and intense sericite-carbonate alteration that is observed at Two Hummocks, Basin Road and the south end of the Cattley Range tenement.

- the presence of possible localized volcanic centres within the Cattley Range tenement.

With regard to the local geological setting, the current interpretation indicates the presence of a NNE trending fault that transects a shallow westerly dipping sequence of greywackes from a steep easterly dipping sequence of mass debris flows, vitric ash, shales, siltstones that overlie small discrete volcanic and subvolcanic centres. It is considered that there is significant economic potential at the locus of these features for the development of a VMS base metal deposit.

Extensive soil sampling has delineated four geochemically anomalous zones, two of which have been investigated by costeaning and one which has been tested by diamond drilling. The fourth zone is considered to be a low order anomaly only and no follow up is recommended at this stage. Logging and sampling of the costeans indicated that the source of the base metal anomalism is scavenging of base metals together within manganese and carbonate into sheared sequences of intercalated siltstones, arenites and andesitic volcaniclastics. No further work is recommended at this stage.

Diamond drilling of CRD 88-1 has confirmed the presence of a stratigraphically extensive altered sequence of mass debris flows and fine vitric ash situated above a faulted andesite ?lava mass. The lack of obvious visible alteration in the ?lava may indicate

a separate origin or time frame between the two sequences or merely a structural offsetting. Analyses from the core have not been returned but only rare sulphide occurrences were noted. Whole rock analyses of core samples from CRD 86-1 have been plotted as Harker diagrams and down hole plots. When these are compared with similar diagrams from Rosebery and background MRV analyses there is a strong conclusion that the alteration observed at Cattley Range is typical of a Cambrian VMS system and does not merely reflect a regional hydrothermal alteration pattern. Plots of S_1O_2 versus Na_2O, K_2O, Sr and Na_2O versus K_2O show the best enhancement of depletion or enrichment while plots of down hole depth versus Na_2O, CaO, K_2O, TiO_2 indicate an enhancement of depletion/enrichmentto the work. These studies say nothing of the base metal potential of such a system however but may be used to indicate vectors to increased alteration.

It is recommended that future work should focus on deciphering the alteration system in terms of its zoning, intensity and economic significance. A grid based sampling programme may be of some use in determining vectors, provided fresh samples can be secured. Trace element analyses may also be useful if the less mobile elements are studied. More regional mapping may also aid in determining the significance of the local sequence in terms of its economic potential.

The group of geophysical anomalies on lines 10000N-10600N (Fig. 14) have not been satisfactorily explained. Previous conclusions suggested that they were due to conductive clay layers within or at the base of the Tertiary basalt but in view of the current interpretation, an alternative explanation is possible. The responses correlate reasonably well with the interpreted position of a left lateral fault offset that has displaced the postulated NNE trending fault. If this latter structure is of regional significance then remobilization of base/precious metals into a favourable structural site may be feasible.

Provision for diamond drilling is recommended at a site to be detailed after completing regional mapping and whole rock/trace element sampling. The area of geophysical anomalies in the north requires satisfactory explanation and is an obvious candidate for drilling. The southern area around CRD 86-1/88-1 has been discussed previously and requires target definition before embarking on further drilling.

APPENDIX 1

Auger Sample Geochemical Results

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YOUR REF: 11613/LD51/JPR

Mr. J. Randell,
Billiton Australia,
P.O. Box 860,
Spreyton
DEVONPORT
TAS 7310

October 13, 1987

Dear Jeff,

RE: JOB COM872364

Enclosed are the assays for the samples delivered to our laboratory on September 18, 1987

Yours Sincerely,
COMLABS SERVICES PTY LTD

per :

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ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

	SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10600N	11300E	18	60	<1	<0.01	<0.01	<0.01	-
10600N	11325E	6	30	<1	<0.01	-	-	-
10600N	11350E	5	40	<1	<0.01	-	-	-
10600N	11375E	8	46	<1	<0.01	-	-	-
10600N	11400E	9	30	<1	<0.01	<0.01	<0.01	-
10600N	11425E	9	26	<1	<0.01	-	-	-
10600N	11450E	6	14	<1	<0.01	-	-	-
10600N	11475E	6	14	<1	<0.01	-	-	-
10600N	11500E	4	12	<1	<0.01	-	-	-
10600N	11525E	6	9	<1	<0.01	<0.01	<0.01	-
10600N	11550E	6	10	<1	<0.01	<0.01	<0.01	<0.01
10600N	11575E	5	16	<1	<0.01	-	-	-
10600N	11600E	3	26	<1	<0.01	-	-	-
10600N	11625E	4	18	<1	<0.01	-	-	-
10600N	11650E	2	26	<1	<0.01	<0.01	<0.01	-
10600N	11675E	2	10	<1	<0.01	-	-	-
10600N	11700E	2	32	<1	<0.01	-	-	-
10600N	11725E	3	6	<1	<0.01	-	-	-
10600N	11750E	4	42	<1	<0.01	-	-	-
10600N	11775E	2	9	<1	<0.01	-	-	-
10600N	11800E	2	16	<1	<0.01	<0.01	<0.01	-
10600N	11825E	4	8	<1	<0.01	-	-	-
10600N	11850E	2	6	<1	<0.01	-	-	-
10600N	11875E	6	16	<1	<0.01	-	-	-
10600N	11900E	2	9	<1	<0.01	-	-	-
	UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
	SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10600N 11925E	5	32	<1	<0.01	-	-	-
10600N 11950E	28	60	<1	<0.01	-	-	-
10600N 11975E	8	32	<1	<0.01	-	-	-
10600N 12000E	9	44	<1	<0.01	<0.01	<0.01	-
10600N 12025E	7	50	<1	<0.01	-	-	-
10600N 12050E	4	32	1	<0.01	<0.01	<0.01	-
10600N 12075E	5	18	<1	<0.01	-	-	-
10600N 12100E	4	30	<1	<0.01	-	-	-
10600N 12125E	2	24	<1	0.01	0.01	0.01	-
10600N 12150E	5	36	1	0.01	-	-	-
10600N 12175E	5	40	<1	<0.01	-	-	-
10600N 12200E	4	44	<1	0.01	-	-	-
10600N 12225E	2	44	1	<0.01	-	-	-
10600N 12250E	3	22	1	0.01	<0.01	0.02	-
10600N 12275E	2	12	<1	0.02	-	-	-
10600N 12300E	2	14	<1	<0.01	<0.01	<0.01	-
10600N 12325E	2	10	<1	0.01	-	-	-
10600N 12350E	3	14	<1	0.02	-	-	-
10600N 12375E	2	14	<1	0.01	-	-	-
10600N 12400E	3	14	<1	<0.01	-	-	-
10400N 11425E	10	30	1	<0.01	-	-	-
10400N 11450E	9	30	1	0.01	-	-	-
10400N 11475E	8	34	1	<0.01	-	-	-
10400N 11500E	3	6	<1	<0.01	-	-	-
10400N 11525E	3	12	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10400N 11550E	3	10	<1	<0.01	<0.01	<0.01	-
10400N 11575E	2	12	<1	<0.01	-	-	-
10400N 11600E	3	50	<1	0.02	<0.01	0.03	-
10400N 11625E	9	9	<1	<0.01	-	-	-
10400N 11650E	3	12	<1	<0.01	-	-	-
10400N 11675E	5	10	<1	<0.01	-	-	-
10400N 11700E	7	46	1	<0.01	-	-	-
10400N 11725E	6	34	1	<0.01	<0.01	<0.01	-
10400N 11750E	14	120	1	<0.01	-	-	-
10400N 11775E	12	75	1	<0.01	-	-	-
10400N 11800E	10	100	1	<0.01	<0.01	<0.01	<0.01
10400N 11825E	12	85	1	<0.01	-	-	-
10400N 11850E	8	55	1	<0.01	<0.01	<0.01	-
10400N 11875E	6	50	1	<0.01	-	-	-
10400N 11900E	5	20	<1	<0.01	-	-	-
10400N 11925E	7	30	<1	<0.01	-	-	-
10400N 11950E	4	38	<1	<0.01	-	-	-
10400N 11975E	3	20	<1	<0.01	-	-	-
10400N 12000E	2	22	<1	<0.01	-	-	-
10400N 12025E	2	20	<1	<0.01	-	-	-
10400N 12050E	<2	20	<1	<0.01	<0.01	<0.01	-
10400N 12075E	2	20	<1	<0.01	-	-	-
10400N 12100E	6	38	<1	0.05	-	-	-
10400N 12125E	5	42	<1	0.02	-	-	-
10400N 12150E	3	20	<1	0.02	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10400N 12175E	6	22	<1	<0.01	-	-	-
10400N 12200E	6	28	<1	0.03	0.04	0.02	-
10400N 12225E	5	16	<1	<0.01	-	-	-
10400N 12250E	14	55	<1	0.03	-	-	-
10400N 12275E	12	42	<1	<0.01	-	-	-
10400N 12300E	9	38	1	<0.01	<0.01	<0.01	-
10400N 12325E	9	46	<1	0.02	<0.01	0.03	-
10400N 12350E	8	36	<1	<0.01	-	-	-
10400N 12375E	5	12	<1	0.02	-	-	-
10400N 12400E	12	28	<1	0.02	-	-	-
10200N 11450E	30	60	1	0.02	-	-	-
10200N 11475E	36	70	1	0.03	0.05	<0.01	-
10200N 11500E	20	32	<1	<0.01	-	-	-
10200N 11525E	8	12	<1	0.04	-	-	-
10200N 11550E	LNR	LNR	LNR	LNR	-	-	-
10200N 11575E	9	50	<1	<0.01	<0.01	<0.01	-
10200N 11600E	12	55	1	<0.01	-	-	-
10200N 11625E	12	65	1	<0.01	-	-	-
10200N 11650E	9	44	<1	<0.01	-	-	-
10200N 11675E	8	44	<1	<0.01	-	-	-
10200N 11700E	12	85	<1	0.03	-	-	-
10200N 11725E	16	120	1	0.03	-	-	-
10200N 11750E	22	90	<1	0.05	-	-	-
10200N 11775E	22	195	1	<0.01	-	-	-
10200N 11800E	26	195	1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10200N 11825E	26	65	1	<0.01	0.01	<0.01	-
10200N 11850E	10	32	<1	0.01	-	-	-
10200N 11875E	4	16	1	<0.01	-	-	-
10200N 11900E	2	14	<1	<0.01	-	-	-
10200N 11925E	2	12	<1	<0.01	-	-	-
10200N 11950E	4	14	1	<0.01	<0.01	<0.01	-
10200N 11975E	5	16	1	<0.01	-	-	-
10200N 12000E	9	18	1	<0.01	-	-	-
10200N 12025E	9	26	1	0.01	-	-	-
10200N 12050E	3	9	<1	0.01	-	-	-
10200N 12075E	8	16	1	<0.01	<0.01	<0.01	-
10200N 12100E	2	9	<1	<0.01	-	-	-
10200N 12125E	2	24	<1	<0.01	-	-	-
10200N 12150E	6	30	1	0.01	-	-	-
10200N 12175E	8	55	1	<0.01	<0.01	<0.01	-
10200N 12200E	4	26	1	<0.01	-	-	-
10200N 12225E	4	12	<1	<0.01	-	-	-
10200N 12250E	6	14	<1	<0.01	-	-	-
10200N 12275E	4	12	<1	<0.01	-	-	-
10200N 12300E	4	12	<1	0.02	-	-	-
10200N 12325E	8	22	<1	<0.01	<0.01	<0.01	-
10200N 12350E	10	16	1	<0.01	-	-	-
10200N 12375E	8	18	<1	<0.01	-	-	-
10200N 12400E	6	16	<1	<0.01	-	-	-
10000N 11300E	80	95	1	<0.01	<0.01	<0.01	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10000N 11325E	65	120	1	<0.01	-	-	-
10000N 11350E	70	105	1	<0.01	-	-	-
10000N 11375E	65	130	1	<0.01	-	-	-
10000N 11400E	70	130	1	<0.01	-	-	-
10000N 11425E	60	95	1	<0.01	<0.01	<0.01	-
10000N 11450E	70	155	1	<0.01	<0.01	<0.01	-
10000N 11475E	14	38	<1	<0.01	-	-	-
10000N 11550E	5	22	<1	<0.01	-	-	-
10000N 11575E	3	10	<1	<0.01	-	-	-
10000N 11600E	4	18	1	<0.01	<0.01	<0.01	-
10000N 11625E	2	8	<1	<0.01	-	-	-
10000N 11650E	3	12	1	<0.01	-	-	-
10000N 11675E	<2	9	1	<0.01	-	-	-
10000N 11700E	2	8	<1	<0.01	-	-	-
10000N 11725E	2	7	<1	<0.01	-	-	-
10000N 11750E	6	42	<1	<0.01	<0.01	<0.01	-
10000N 11775E	7	46	1	<0.01	-	-	-
10000N 11800E	12	70	1	<0.01	-	-	-
10000N 11825E	20	50	1	<0.01	-	-	-
10000N 11850E	2	14	<1	<0.01	-	-	-
10000N 11875E	3	18	<1	<0.01	-	-	-
10000N 11900E	2	16	<1	<0.01	-	-	-
10000N 11925E	5	14	<1	<0.01	-	-	-
10000N 11950E	<2	7	<1	<0.01	<0.01	<0.01	-
10000N 11975E	4	7	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

758037

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
10000N 12000E	6	14	<1	<0.01	<0.01	<0.01	-
10000N 12025E	5	12	<1	<0.01	-	-	-
10000N 12050E	4	9	1	<0.01	-	-	-
10000N 12075E	5	12	<1	<0.01	<0.01	<0.01	-
10000N 12100E	4	14	<1	<0.01	-	-	-
10000N 12125E	4	12	1	<0.01	-	-	-
10000N 12150E	4	9	<1	<0.01	-	-	-
10000N 12175E	4	9	<1	0.02	-	-	-
10000N 12200E	5	14	1	<0.01	<0.01	<0.01	-
10000N 12225E	6	18	<1	<0.01	-	-	-
10000N 12250E	4	10	<1	<0.01	<0.01	<0.01	-
10000N 12275E	4	8	<1	0.02	-	-	-
10000N 12300E	4	6	<1	<0.01	-	-	-
10000N 12325E	6	10	<1	<0.01	-	-	-
10000N 12350E	3	6	<1	<0.01	-	-	-
10000N 12375E	4	12	<1	<0.01	-	-	-
10000N 12400E	3	8	<1	<0.01	-	-	-
5300N 11525E	7	24	<1	0.04	-	-	-
5300N 11550E	8	22	<1	<0.01	-	-	-
5300N 11600E	8	42	1	<0.01	-	-	-
5300N 11625E	12	120	1	<0.01	<0.01	<0.01	-
5300N 11650E	10	48	1	<0.01	-	-	-
5300N 11675E	6	44	1	<0.01	<0.01	<0.01	-
5300N 11700E	8	65	1	<0.01	-	-	-
5300N 11725E	6	24	<1	0.02	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
5300N 11750E	12	42	<1	<0.01	-	-	-
5300N 11775E	7	36	<1	0.02	-	-	-
5300N 11825E	9	135	<1	<0.01	<0.01	<0.01	-
5300N 11850E	6	48	1	<0.01	-	-	-
5300N 11875E	16	100	1	<0.01	-	-	-
5300N 11900E	7	14	1	<0.01	<0.01	<0.01	-
5300N 11925E	9	42	1	<0.01	-	-	-
5300N 11950E	7	30	<1	<0.01	<0.01	<0.01	-
5300N 11975E	7	30	1	<0.01	-	-	-
5300N 12000E	7	24	<1	<0.01	-	-	-
5300N 12025E	5	28	<1	<0.01	-	-	-
5300N 12050E	6	38	<1	<0.01	-	-	-
5300N 12075E	4	14	<1	<0.01	-	-	-
7100N 10875E	50	85	1	<0.01	-	-	-
7100N 10900E	46	85	1	<0.01	-	-	-
7100N 11025E	26	95	1	0.03	0.05	<0.01	-
7100N 11050E	22	100	1	<0.01	-	-	-
7100N 11100E	22	125	<1	0.05	-	-	-
5900N 11700E	20	85	1	<0.01	-	-	-
5900N 11725E	10	55	1	<0.01	-	-	-
5900N 11750E	9	40	1	0.03	-	-	-
5900N 11775E	10	80	1	<0.01	<0.01	<0.01	-
5900N 11800E	9	44	1	<0.01	-	-	-
5900N 11825E	6	140	<1	<0.01	-	-	-
5900N 11850E	8	85	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
5900N 11875E	12	65	1	<0.01	<0.01	<0.01	<0.01
5900N 11900E	12	55	<1	<0.01	<0.01	<0.01	-
5900N 11925E	10	130	<1	<0.01	-	-	-
5900N 11950E	10	80	<1	<0.01	-	-	-
5900N 11975E	10	44	<1	<0.01	-	-	-
5900N 12000E	14	42	<1	<0.01	-	-	-
5900N 12025E	24	44	1	<0.01	<0.01	<0.01	-
5900N 12050E	8	48	1	<0.01	-	-	-
5900N 12075E	38	26	<1	<0.01	-	-	-
5900N 12100E	9	24	<1	<0.01	-	-	-
5900N 12125E	9	32	<1	<0.01	<0.01	<0.01	-
5900N 12150E	22	75	1	0.02	-	-	-
5600N 11625E	14	50	1	<0.01	-	-	-
5600N 11650E	32	100	1	<0.01	-	-	-
5600N 11700E	9	26	<1	<0.01	-	-	-
5600N 11725E	7	44	<1	<0.01	-	-	-
5600N 11750E	9	60	1	<0.01	-	-	-
5600N 11775E	8	75	1	<0.01	-	-	-
5600N 11800E	9	60	1	0.02	-	-	-
5600N 11825E	7	60	1	<0.01	-	-	-
5600N 11850E	8	55	1	<0.01	<0.01	<0.01	<0.01
5600N 11875E	9	40	1	<0.01	-	-	-
5600N 11900E	10	40	<1	<0.01	-	-	-
5600N 11925E	10	44	<1	<0.01	-	-	-
5600N 11950E	9	50	1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
5600N 11975E	9	36	<1	<0.01	<0.01	<0.01	-
5600N 12000E	9	36	<1	<0.01	-	-	-
5600N 12025E	10	28	<1	0.03	-	-	-
5600N 12050E	10	44	<1	<0.01	-	-	-
5600N 12075E	12	46	1	<0.01	-	-	-
5600N 12100E	20	55	1	<0.01	<0.01	<0.01	<0.01
5600N 12125E	18	65	1	<0.01	-	-	-
7800N 10500E	22	105	<1	<0.01	-	-	-
7800N 10525E	18	40	1	0.02	-	-	-
7800N 10550E	20	48	<1	<0.01	-	-	-
7800N 10575E	24	80	1	<0.01	-	-	-
7800N 10600E	18	38	1	<0.01	-	-	-
7800N 10625E	28	110	1	<0.01	-	-	-
7800N 10650E	32	130	1	<0.01	-	-	-
7800N 10675E	18	55	1	<0.01	-	-	-
7800N 10700E	20	95	1	<0.01	<0.01	<0.01	-
7800N 10725E	18	90	<1	<0.01	-	-	-
7800N 10750E	20	95	1	<0.01	-	-	-
7800N 10775E	26	65	1	<0.01	-	-	-
7800N 10825E	16	90	1	<0.01	<0.01	<0.01	-
7800N 10850E	24	130	<1	<0.01	-	-	-
7800N 10875E	20	100	<1	<0.01	-	-	-
7800N 10900E	26	135	1	<0.01	-	-	-
7800N 10925E	24	155	<1	<0.01	-	-	-
7800N 10950E	20	135	<1	<0.01	<0.01	<0.01	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
7800N 10975E	12	140	<1	<0.01	<0.01	<0.01	<0.01
7800N 11000E	22	190	<1	<0.01	-	-	-
7800N 11025E	18	75	<1	<0.01	-	-	-
7800N 11050E	18	95	<1	<0.01	-	-	-
8200N 11000E	5	12	<1	<0.01	-	-	-
8200N 11025E	5	16	<1	<0.01	-	-	-
8200N 11050E	10	28	<1	<0.01	-	-	-
8200N 11075E	16	46	<1	<0.01	-	-	-
8200N 11100E	9	22	<1	<0.01	<0.01	<0.01	-
8200N 11125E	10	20	<1	<0.01	-	-	-
8200N 11150E	7	9	<1	<0.01	<0.01	<0.01	-
8200N 11175E	12	24	<1	<0.01	-	-	-
8200N 11200E	12	18	<1	<0.01	-	-	-
8200N 11225E	6	5	<1	<0.01	-	-	-
8200N 11250E	6	5	<1	<0.01	-	-	-
8200N 11275E	6	6	<1	<0.01	-	-	-
8200N 11300E	10	20	<1	<0.01	-	-	-
8200N 11325E	8	16	<1	<0.01	-	-	-
8200N 11350E	20	26	1	<0.01	<0.01	<0.01	-
8200N 11375E	34	36	1	<0.01	-	-	-
8200N 11400E	32	60	1	<0.01	<0.01	<0.01	-
8200N 11425E	44	70	1	<0.01	-	-	-
8200N 11450E	34	65	1	<0.01	-	-	-
8200N 11475E	32	105	<1	<0.01	<0.01	<0.01	-
8200N 11500E	135	55	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
8200N 11525E	24	75	<1	<0.01	-	-	-
8200N 11550E	16	32	<1	<0.01	-	-	-
8200N 11575E	55	65	<1	<0.01	-	-	-
8200N 11600E	20	48	1	<0.01	<0.01	<0.01	-
8200N 11625E	16	46	1	<0.01	-	-	-
8200N 11650E	16	60	1	<0.01	<0.01	<0.01	-
8200N 11675E	16	70	1	<0.01	-	-	-
8200N 11700E	12	75	1	<0.01	-	-	-
8200N 11725E	12	60	<1	<0.01	-	-	-
8200N 11750E	14	75	<1	<0.01	-	-	-
8200N 11775E	36	80	<1	<0.01	-	-	-
8200N 10400E	16	36	<1	<0.01	-	-	-
8200N 10425E	16	40	<1	<0.01	-	-	-
8200N 10450E	12	24	<1	<0.01	-	-	-
8200N 10475E	16	44	<1	<0.01	-	-	-
8200N 10500E	12	60	<1	<0.01	<0.01	<0.01	-
8200N 10525E	12	50	<1	<0.01	-	-	-
8200N 10550E	20	75	1	<0.01	<0.01	<0.01	-
8200N 10575E	20	100	<1	<0.01	-	-	-
8200N 10600E	22	100	<1	<0.01	-	-	-
8200N 10625E	28	60	1	<0.01	-	-	-
8200N 10650E	26	105	1	<0.01	-	-	-
8200N 10675E	14	115	<1	<0.01	<0.01	<0.01	-
8200N 10700E	20	105	<1	<0.01	-	-	-
8200N 10725E	20	110	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
8200N 10750E	38	130	<1	<0.01	<0.01	<0.01	-
8200N 10775E	20	55	1	<0.01	-	-	-
8400N 11175E	12	12	1	<0.01	<0.01	<0.01	-
8400N 11200E	10	12	<1	<0.01	-	-	-
8400N 11225E	8	16	1	<0.01	-	-	-
8400N 11250E	9	12	<1	<0.01	-	-	-
8400N 11275E	7	12	<1	<0.01	-	-	-
8400N 11300E	7	12	<1	<0.01	-	-	-
8400N 11325E	9	18	1	<0.01	-	-	-
8400N 11350E	10	20	<1	<0.01	-	-	-
8400N 11375E	16	44	1	<0.01	-	-	-
8400N 11400E	12	24	1	<0.01	-	-	-
8400N 11425E	8	16	<1	<0.01	-	-	-
8400N 11450E	9	20	<1	<0.01	<0.01	<0.01	-
8400N 11475E	18	16	1	<0.01	-	-	-
8400N 11500E	10	16	<1	<0.01	-	-	-
8400N 11525E	12	75	1	<0.01	<0.01	<0.01	-
8400N 11550E	7	18	<1	<0.01	-	-	-
8400N 11575E	12	28	1	<0.01	<0.01	<0.01	-
8400N 11600E	14	24	1	<0.01	-	-	-
8400N 11625E	12	24	<1	<0.01	-	-	-
8400N 11650E	16	32	<1	<0.01	<0.01	<0.01	-
8400N 11675E	12	22	<1	<0.01	-	-	-
8400N 11700E	16	44	1	<0.01	-	-	-
8400N 11725E	10	16	1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
8400N 11750E	20	60	1	<0.01	-	-	-
8400N 11775E	20	50	1	0.01	0.02	<0.01	-
8400N 11800E	20	115	1	<0.01	-	-	-
8800N 11200E	9	20	<1	<0.01	-	-	-
8800N 11225E	6	14	<1	<0.01	-	-	-
8800N 11250E	8	48	<1	<0.01	-	-	-
8800N 11275E	18	65	<1	<0.01	-	-	-
8800N 11300E	28	135	1	<0.01	-	-	-
8800N 11325E	42	160	1	<0.01	<0.01	<0.01	-
8800N 11350E	26	60	1	<0.01	-	-	-
8800N 11375E	9	18	<1	<0.01	-	-	-
8800N 11400E	7	12	<1	<0.01	-	-	-
8800N 11425E	8	20	<1	<0.01	-	-	-
8800N 11450E	8	18	<1	<0.01	-	-	-
8800N 11475E	10	55	<1	<0.01	-	-	-
8800N 11500E	10	105	<1	<0.01	<0.01	<0.01	-
8800N 11525E	7	14	<1	<0.01	-	-	-
8800N 11550E	6	16	<1	<0.01	-	-	-
8800N 11575E	9	36	<1	<0.01	-	-	-
8800N 11600E	10	50	<1	<0.01	-	-	-
8800N 11625E	14	75	<1	<0.01	<0.01	<0.01	-
8800N 11650E	12	125	<1	<0.01	-	-	-
8800N 11675E	10	340	1	<0.01	-	-	-
8800N 11700E	12	46	<1	<0.01	-	-	-
9200N 11175E	12	46	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
9200N 11200E	10	26	<1	<0.01	<0.01	<0.01	-
9200N 11225E	5	12	<1	<0.01	-	-	-
9200N 11250E	6	12	<1	<0.01	-	-	-
9200N 11275E	6	14	<1	<0.01	<0.01	<0.01	-
9200N 11300E	7	16	<1	<0.01	-	-	-
9200N 11325E	9	22	<1	<0.01	-	-	-
9200N 11350E	10	24	<1	<0.01	-	-	-
9200N 11375E	12	46	<1	<0.01	-	-	-
9200N 11400E	14	24	<1	<0.01	-	-	-
9200N 11425E	14	38	<1	<0.01	-	-	-
9200N 11450E	18	24	<1	<0.01	-	-	-
9200N 11475E	12	28	<1	<0.01	-	-	-
9200N 11500E	8	24	<1	<0.01	-	-	-
9200N 11525E	7	14	<1	<0.01	<0.01	<0.01	-
9200N 11550E	5	9	<1	<0.01	<0.01	<0.01	-
9200N 11575E	5	7	<1	<0.01	-	-	-
9200N 11600E	6	10	<1	<0.01	-	-	-
9200N 11625E	4	12	<1	<0.01	-	-	-
9200N 11650E	6	14	<1	<0.01	-	-	-
8600N 11050E	60	135	1	<0.01	<0.01	<0.01	-
8600N 11075E	55	120	1	<0.01	-	-	-
8600N 11100E	60	120	1	<0.01	-	-	-
8600N 11125E	48	105	1	<0.01	-	-	-
8600N 11150E	20	50	<1	<0.01	<0.01	<0.01	-
8600N 11175E	6	18	<1	<0.01	<0.01	<0.01	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
8600N 11200E	5	20	<1	<0.01	-	-	-
8600N 11225E	7	20	<1	<0.01	-	-	-
8600N 11250E	6	20	<1	<0.01	-	-	-
8600N 11275E	10	38	<1	<0.01	-	-	-
8600N 11300E	14	42	<1	<0.01	-	-	-
8600N 11325E	12	28	<1	<0.01	-	-	-
8600N 11350E	8	22	<1	<0.01	-	-	-
8600N 11375E	12	30	<1	<0.01	-	-	-
8600N 11400E	12	22	<1	<0.01	-	-	-
8600N 11425E	6	16	<1	<0.01	-	-	-
8600N 11450E	7	14	<1	<0.01	-	-	-
8600N 11475E	7	14	<1	<0.01	-	-	-
8600N 11500E	6	8	<1	<0.01	-	-	-
8600N 11525E	6	9	<1	<0.01	<0.01	<0.01	-
8600N 11550E	7	16	<1	<0.01	-	-	-
8600N 11575E	80	60	<1	<0.01	-	-	-
8600N 11600E	10	20	<1	<0.01	-	-	-
8600N 11625E	9	55	<1	<0.01	-	-	-
8600N 11650E	9	70	<1	<0.01	<0.01	<0.01	<0.01
8600N 11675E	8	55	<1	<0.01	-	-	-
8600N 11700E	10	70	<1	<0.01	-	-	-
8600N 11725E	18	70	<1	<0.01	-	-	-
8600N 11750E	18	70	<1	<0.01	-	-	-
8600N 11775E	12	38	<1	<0.01	<0.01	<0.01	-
8600N 11800E	12	48	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
9000N 11100E	60	95	1	<0.01	-	-	-
9000N 11125E	80	100	<1	<0.01	-	-	-
9000N 11150E	75	115	1	<0.01	-	-	-
9000N 11175E	30	60	<1	<0.01	<0.01	<0.01	-
9000N 11200E	12	38	1	<0.01	-	-	-
9000N 11225E	6	18	<1	<0.01	-	-	-
9000N 11250E	4	12	<1	<0.01	-	-	-
9000N 11275E	4	10	<1	<0.01	-	-	-
9000N 11300E	4	9	<1	<0.01	-	-	-
9000N 11325E	6	12	<1	<0.01	-	-	-
9000N 11350E	6	18	<1	<0.01	-	-	-
9000N 11375E	7	36	<1	<0.01	-	-	-
9000N 11400E	6	40	<1	<0.01	<0.01	<0.01	-
9000N 11425E	5	14	<1	<0.01	<0.01	<0.01	-
9000N 11450E	10	24	<1	<0.01	-	-	-
9000N 11475E	8	42	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10600N 11300E	140	110	8
10600N 11325E	155	60	12
10600N 11350E	300	40	8
10600N 11375E	270	75	7
10600N 11400E	160	165	3
10600N 11425E	175	42	9
10600N 11450E	125	34	2
10600N 11475E	95	18	5
10600N 11500E	95	18	<2
10600N 11525E	75	4	6
10600N 11550E	100	14	9
10600N 11575E	110	12	7
10600N 11600E	230	10	6
10600N 11625E	105	38	10
10600N 11650E	310	10	2
10600N 11675E	200	4	7
10600N 11700E	280	4	24
10600N 11725E	30	18	<2
10600N 11750E	360	910	5
10600N 11775E	105	20	4
10600N 11800E	340	18	4
10600N 11825E	45	<4	9
10600N 11850E	170	4	2
10600N 11875E	95	10	<2
10600N 11900E	240	<4	7
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10600N 11925E	450	18	5
10600N 11950E	410	20	10
10600N 11975E	390	16	4
10600N 12000E	340	24	8
10600N 12025E	330	34	2
10600N 12050E	320	26	4
10600N 12075E	290	12	<2
10600N 12100E	540	6	8
10600N 12125E	520	8	5
10600N 12150E	510	20	6
10600N 12175E	540	14	9
10600N 12200E	330	65	6
10600N 12225E	490	26	5
10600N 12250E	590	12	4
10600N 12275E	430	10	3
10600N 12300E	410	10	8
10600N 12325E	480	8	8
10600N 12350E	460	6	6
10600N 12375E	470	10	3
10600N 12400E	250	<4	8
10400N 11425E	350	40	6
10400N 11450E	500	55	7
10400N 11475E	260	55	8
10400N 11500E	60	8	3
10400N 11525E	105	16	<2
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10400N 11550E	80	10	6
10400N 11575E	75	6	7
10400N 11600E	130	46	14
10400N 11625E	45	10	10
10400N 11650E	60	44	14
10400N 11675E	60	22	<2
10400N 11700E	200	80	18
10400N 11725E	230	44	55
10400N 11750E	310	650	34
10400N 11775E	230	320	20
10400N 11800E	340	175	10
10400N 11825E	240	110	14
10400N 11850E	340	95	10
10400N 11875E	450	34	7
10400N 11900E	280	60	<2
10400N 11925E	390	26	10
10400N 11950E	350	32	10
10400N 11975E	220	12	<2
10400N 12000E	210	<4	5
10400N 12025E	180	<4	10
10400N 12050E	210	<4	10
10400N 12075E	180	6	<2
10400N 12100E	400	18	7
10400N 12125E	540	14	<2
10400N 12150E	540	16	2
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

758051

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10400N 12175E	370	18	8
10400N 12200E	410	12	7
10400N 12225E	410	12	10
10400N 12250E	660	20	14
10400N 12275E	630	8	16
10400N 12300E	750	16	4
10400N 12325E	450	22	<2
10400N 12350E	650	14	14
10400N 12375E	420	4	4
10400N 12400E	660	18	6
10200N 11450E	210	110	16
10200N 11475E	130	60	9
10200N 11500E	145	20	4
10200N 11525E	115	10	6
10200N 11550E	LNR	LNR	LNR
10200N 11575E	300	48	12
10200N 11600E	200	125	22
10200N 11625E	250	95	16
10200N 11650E	135	95	16
10200N 11675E	135	80	14
10200N 11700E	190	175	36
10200N 11725E	290	160	38
10200N 11750E	370	80	40
10200N 11775E	350	75	46
10200N 11800E	260	150	30
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10200N 11825E	450	340	6
10200N 11850E	280	28	7
10200N 11875E	310	50	7
10200N 11900E	410	95	7
10200N 11925E	370	32	7
10200N 11950E	400	30	18
10200N 11975E	300	38	10
10200N 12000E	290	65	20
10200N 12025E	430	170	46
10200N 12050E	360	8	<2
10200N 12075E	320	8	16
10200N 12100E	350	10	2
10200N 12125E	220	<4	10
10200N 12150E	210	6	3
10200N 12175E	300	8	10
10200N 12200E	340	4	10
10200N 12225E	300	8	<2
10200N 12250E	290	12	6
10200N 12275E	340	16	2
10200N 12300E	290	8	7
10200N 12325E	380	10	7
10200N 12350E	220	6	6
10200N 12375E	270	6	5
10200N 12400E	350	10	4
10000N 11300E	380	6	<2
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10000N 11325E	130	20	4
10000N 11350E	460	<4	9
10000N 11375E	135	20	5
10000N 11400E	260	4	9
10000N 11425E	280	14	2
10000N 11450E	160	12	6
10000N 11475E	210	26	12
10000N 11550E	220	20	7
10000N 11575E	175	14	7
10000N 11600E	230	26	10
10000N 11625E	260	<4	9
10000N 11650E	280	10	3
10000N 11675E	210	6	5
10000N 11700E	170	30	3
10000N 11725E	210	30	3
10000N 11750E	260	65	7
10000N 11775E	580	85	7
10000N 11800E	730	155	18
10000N 11825E	840	130	20
10000N 11850E	770	50	9
10000N 11875E	440	28	7
10000N 11900E	320	12	7
10000N 11925E	310	26	18
10000N 11950E	220	14	<2
10000N 11975E	450	22	20
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
10000N 12000E	320	6	6
10000N 12025E	220	<4	4
10000N 12050E	230	4	2
10000N 12075E	250	<4	9
10000N 12100E	270	4	4
10000N 12125E	370	<4	2
10000N 12150E	210	8	3
10000N 12175E	320	6	3
10000N 12200E	200	<4	10
10000N 12225E	220	16	5
10000N 12250E	320	<4	8
10000N 12275E	240	14	4
10000N 12300E	65	6	3
10000N 12325E	420	20	7
10000N 12350E	240	6	7
10000N 12375E	360	10	<2
10000N 12400E	380	<4	5
5300N 11525E	90	14	2
5300N 11550E	115	28	7
5300N 11600E	240	<4	7
5300N 11625E	220	28	9
5300N 11650E	155	34	<2
5300N 11675E	145	28	<2
5300N 11700E	250	22	5
5300N 11725E	85	16	7
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
5300N 11750E	110	10	3
5300N 11775E	165	6	9
5300N 11825E	300	6	10
5300N 11850E	165	28	10
5300N 11875E	300	36	10
5300N 11900E	350	28	6
5300N 11925E	270	22	10
5300N 11950E	230	14	4
5300N 11975E	220	8	16
5300N 12000E	165	20	3
5300N 12025E	440	26	4
5300N 12050E	195	36	12
5300N 12075E	240	4	5
7100N 10875E	85	<4	10
7100N 10900E	105	<4	9
7100N 11025E	140	60	9
7100N 11050E	210	32	12
7100N 11100E	420	55	2
5900N 11700E	480	10	5
5900N 11725E	340	90	12
5900N 11750E	240	185	12
5900N 11775E	670	4	9
5900N 11800E	220	8	9
5900N 11825E	1150	40	10
5900N 11850E	900	8	3
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
5900N 11875E	180	48	5
5900N 11900E	190	26	10
5900N 11925E	145	85	20
5900N 11950E	240	18	7
5900N 11975E	260	10	6
5900N 12000E	190	4	10
5900N 12025E	190	8	4
5900N 12050E	190	8	8
5900N 12075E	230	6	10
5900N 12100E	230	6	7
5900N 12125E	640	6	5
5900N 12150E	150	6	5
5600N 11625E	510	38	6
5600N 11650E	240	20	9
5600N 11700E	750	6	7
5600N 11725E	310	20	8
5600N 11750E	190	16	12
5600N 11775E	170	16	8
5600N 11800E	195	24	9
5600N 11825E	210	8	8
5600N 11850E	140	12	5
5600N 11875E	155	8	14
5600N 11900E	220	8	10
5600N 11925E	180	<4	6
5600N 11950E	260	4	10
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

758057

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
5600N 11975E	370	4	12
5600N 12000E	320	<4	8
5600N 12025E	250	14	3
5600N 12050E	280	12	7
5600N 12075E	200	20	6
5600N 12100E	185	32	7
5600N 12125E	165	42	8
7800N 10500E	190	80	18
7800N 10525E	150	28	12
7800N 10550E	125	40	16
7800N 10575E	155	110	34
7800N 10600E	155	65	12
7800N 10625E	270	100	28
7800N 10650E	330	100	18
7800N 10675E	175	50	8
7800N 10700E	195	46	10
7800N 10725E	240	38	14
7800N 10750E	155	32	5
7800N 10775E	105	38	7
7800N 10825E	250	28	14
7800N 10850E	250	60	22
7800N 10875E	240	42	20
7800N 10900E	240	55	20
7800N 10925E	250	100	18
7800N 10950E	230	125	22
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

758058

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
7800N 10975E	260	44	10
7800N 11000E	240	185	26
7800N 11025E	230	70	18
7800N 11050E	300	75	12
8200N 11000E	220	28	5
8200N 11025E	240	14	12
8200N 11050E	250	75	5
8200N 11075E	240	60	5
8200N 11100E	220	32	2
8200N 11125E	230	32	6
8200N 11150E	230	14	5
8200N 11175E	240	24	9
8200N 11200E	260	14	5
8200N 11225E	220	6	8
8200N 11250E	190	12	3
8200N 11275E	230	4	3
8200N 11300E	180	6	5
8200N 11325E	175	12	10
8200N 11350E	210	18	7
8200N 11375E	150	14	4
8200N 11400E	280	12	3
8200N 11425E	125	6	7
8200N 11450E	320	<4	9
8200N 11475E	270	55	9
8200N 11500E	195	24	12
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
8200N 11525E	170	60	12
8200N 11550E	510	60	28
8200N 11575E	210	28	8
8200N 11600E	240	14	7
8200N 11625E	250	12	6
8200N 11650E	250	10	3
8200N 11675E	170	16	7
8200N 11700E	190	6	2
8200N 11725E	220	6	6
8200N 11750E	770	<4	3
8200N 11775E	120	16	8
8200N 10400E	145	60	14
8200N 10425E	135	75	18
8200N 10450E	170	42	18
8200N 10475E	115	38	18
8200N 10500E	105	125	14
8200N 10525E	100	105	14
8200N 10550E	140	70	16
8200N 10575E	140	70	22
8200N 10600E	180	90	20
8200N 10625E	110	20	6
8200N 10650E	220	34	<2
8200N 10675E	120	100	20
8200N 10700E	220	190	48
8200N 10725E	170	185	36
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
8200N 10750E	240	50	22
8200N 10775E	120	55	26
8400N 11175E	210	10	12
8400N 11200E	230	16	12
8400N 11225E	210	42	3
8400N 11250E	150	4	6
8400N 11275E	165	8	3
8400N 11300E	170	65	6
8400N 11325E	220	55	8
8400N 11350E	440	10	8
8400N 11375E	300	65	20
8400N 11400E	230	28	12
8400N 11425E	140	6	7
8400N 11450E	185	14	9
8400N 11475E	210	65	<2
8400N 11500E	195	24	14
8400N 11525E	210	85	44
8400N 11550E	185	130	26
8400N 11575E	185	60	10
8400N 11600E	135	50	6
8400N 11625E	270	12	4
8400N 11650E	180	10	7
8400N 11675E	150	12	6
8400N 11700E	145	20	16
8400N 11725E	110	20	8
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
8400N 11750E	150	55	14
8400N 11775E	200	105	50
8400N 11800E	210	130	20
8800N 11200E	100	24	5
8800N 11225E	330	30	2
8800N 11250E	370	50	20
8800N 11275E	165	18	16
8800N 11300E	155	34	10
8800N 11325E	250	85	10
8800N 11350E	220	40	7
8800N 11375E	220	6	4
8800N 11400E	220	8	<2
8800N 11425E	250	14	7
8800N 11450E	280	6	5
8800N 11475E	240	10	14
8800N 11500E	360	40	10
8800N 11525E	110	<4	2
8800N 11550E	185	<4	10
8800N 11575E	270	32	6
8800N 11600E	210	65	8
8800N 11625E	195	130	40
8800N 11650E	250	130	18
8800N 11675E	280	140	16
8800N 11700E	135	14	7
9200N 11175E	590	26	4
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

758062

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
9200N 11200E	590	12	10
9200N 11225E	350	<4	12
9200N 11250E	410	<4	6
9200N 11275E	310	4	10
9200N 11300E	310	<4	4
9200N 11325E	370	12	10
9200N 11350E	250	10	10
9200N 11375E	240	60	2
9200N 11400E	250	34	9
9200N 11425E	280	70	3
9200N 11450E	280	130	7
9200N 11475E	260	90	18
9200N 11500E	210	110	14
9200N 11525E	165	60	12
9200N 11550E	180	16	7
9200N 11575E	175	4	4
9200N 11600E	330	8	7
9200N 11625E	390	20	8
9200N 11650E	290	18	5
8600N 11050E	165	8	4
8600N 11075E	120	18	7
8600N 11100E	185	<4	9
8600N 11125E	140	<4	12
8600N 11150E	300	20	5
8600N 11175E	240	32	9
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
8600N 11200E	280	32	2
8600N 11225E	260	6	9
8600N 11250E	250	10	2
8600N 11275E	340	30	<2
8600N 11300E	260	20	9
8600N 11325E	270	28	7
8600N 11350E	260	10	9
8600N 11375E	260	38	9
8600N 11400E	390	30	6
8600N 11425E	270	12	6
8600N 11450E	210	10	5
8600N 11475E	160	10	4
8600N 11500E	155	8	<2
8600N 11525E	270	10	<2
8600N 11550E	210	10	7
8600N 11575E	440	44	3
8600N 11600E	95	50	12
8600N 11625E	250	270	6
8600N 11650E	320	55	14
8600N 11675E	150	40	24
8600N 11700E	230	30	18
8600N 11725E	95	20	8
8600N 11750E	160	32	12
8600N 11775E	140	8	6
8600N 11800E	145	10	18
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

758064

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
9000N 11100E	130	10	2
9000N 11125E	220	4	5
9000N 11150E	470	<4	10
9000N 11175E	230	18	10
9000N 11200E	330	8	6
9000N 11225E	280	10	<2
9000N 11250E	175	8	5
9000N 11275E	165	<4	3
9000N 11300E	175	<4	4
9000N 11325E	260	8	4
9000N 11350E	260	26	7
9000N 11375E	330	4	18
9000N 11400E	470	8	8
9000N 11425E	360	<4	6
9000N 11450E	210	<4	7
9000N 11475E	380	12	8
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS SERVICES PTY. LTD.

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Cu	Zn	Ag	Au	Au Dp1	Au Dp2	Au Dp3
8200N 10800E	26	100	<1	<0.01	-	-	-
8200N 10825E	18	95	1	<0.01	-	-	-
8200N 10850E	18	170	<1	<0.01	-	-	-
8200N 10875E	36	155	<1	<0.01	-	-	-
8200N 10900E	10	30	<1	<0.01	-	-	-
8200N 10925E	14	65	<1	<0.01	-	-	-
8200N 10950E	16	75	<1	<0.01	-	-	-
8200N 10975E	7	20	<1	<0.01	-	-	-
9000N 11500E	7	36	<1	<0.01	-	-	-
9000N 11525E	7	16	<1	<0.01	-	-	-
9000N 11550E	7	10	1	<0.01	-	-	-
9000N 11575E	7	16	1	<0.01	-	-	-
9000N 11600E	5	10	<1	<0.01	-	-	-
9000N 11625E	7	14	<1	<0.01	-	-	-
9000N 11650E	5	12	<1	<0.01	-	-	-
9000N 11675E	8	20	1	<0.01	<0.01	<0.01	-
9000N 11700E	8	16	<1	<0.01	-	-	-
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	AAS1	AAS1	AAS3	FAS1	FAS1	FAS1	FAS1

COMLABS SERVICES PTY. LTD.

758066

ANALYTICAL REPORT

JOB COM872364
O/N : 11613/LD51/JPR

SAMPLE	Ba	Pb	As
8200N 10800E	270	46	32
8200N 10825E	250	44	26
8200N 10850E	310	80	55
8200N 10875E	270	42	20
8200N 10900E	190	36	14
8200N 10925E	280	46	26
8200N 10950E	280	50	16
8200N 10975E	195	60	12
9000N 11500E	250	22	9
9000N 11525E	420	22	3
9000N 11550E	200	16	7
9000N 11575E	175	22	8
9000N 11600E	690	8	5
9000N 11625E	420	8	10
9000N 11650E	490	14	6
9000N 11675E	440	65	12
9000N 11700E	300	32	4
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

758067

COMLABS SERVICES PTY. LTD.

305 South Road, Mile End South, South Australia 5031 Telephone (08) 43 5722 Telex LABCOM AA89323 Facsimile No. (08) 234 0321

NATA REGISTERED No. 1526

OUR REF. COM 873578

YOUR REF. Order No. 11620/LD51/JPR

Mr. J. Randell,
Billiton Australia Ltd.,
P.O. Box 860,
DEVONPORT. TAS. 7310.

28th December, 1987

Dear Jeff,

RE: JOB COM 873578

Enclosed are the assays for the samples delivered to our laboratory on the 15th December, 1987.

Yours sincerely,
COMLABS SERVICES PTY LTD

per :

Report Length : 42 Pages

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
11400N 11800E	<0.01	<0.01	<0.01	<0.01	5	8	<1
11400N 11825E	<0.01	<0.01	--	--	4	10	<1
11400N 11850E	<0.01	--	--	--	2	5	<1
11400N 11875E	<0.01	--	--	--	2	9	<1
11400N 11900E	<0.01	--	--	--	6	5	<1
11400N 11925E	<0.01	--	--	--	4	5	<1
11400N 11950E	<0.01	--	--	--	34	175	1
11400N 11975E	<0.01	--	--	--	7	18	<1
11400N 12000E	<0.01	--	--	--	5	50	<1
11400N 12025E	<0.01	<0.01	<0.01	--	2	4	<1
11400N 12050E	<0.01	<0.01	<0.01	--	3	14	<1
11400N 12075E	<0.01	--	--	--	2	3	<1
11400N 12100E	<0.01	--	--	--	4	9	<1
11400N 12125E	<0.01	--	--	--	<2	4	<1
11400N 12150E	<0.01	--	--	--	<2	4	<1
11400N 12175E	<0.01	--	--	--	<2	4	<1
11400N 12200E	<0.01	<0.01	<0.01	--	2	5	<1
11400N 12225E	<0.01	--	--	--	11	30	<1
11400N 12250E	<0.01	--	--	--	2	7	<1
11400N 12275E	<0.01	--	--	--	2	6	<1
11400N 12300E	<0.01	<0.01	<0.01	--	7	17	<1
11400N 12325E	<0.01	--	--	--	4	28	<1
11400N 12350E	<0.01	--	--	--	2	8	<1
11400N 12375E	<0.01	--	--	--	<2	17	<1
11400N 12400E	<0.01	--	--	--	2	7	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

GCB

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
11400N 12425E	<0.01	--	--	--	9	46	1
11400N 12450E	<0.01	<0.01	<0.01	--	7	36	<1
11400N 12475E	<0.01	--	--	--	8	58	<1
11400N 12500E	<0.01	--	--	--	6	26	<1
11200N 12000E	<0.01	--	--	--	3	4	<1
11200N 12025E	<0.01	<0.01	<0.01	--	6	5	<1
11200N 12050E	<0.01	--	--	--	5	4	<1
11200N 12075E	<0.01	--	--	--	4	3	<1
11200N 12100E	<0.01	--	--	--	3	15	<1
11200N 12125E	<0.01	--	--	--	2	18	1
11200N 12150E	<0.01	--	--	--	2	7	<1
11200N 12175E	<0.01	--	--	--	2	6	<1
11200N 12200E	<0.01	--	--	--	2	3	<1
11200N 12225E	<0.01	--	--	--	4	5	<1
11200N 12250E	<0.01	--	--	--	<2	4	<1
11200N 12275E	<0.01	<0.01	<0.01	--	<2	4	<1
11200N 12300E	<0.01	--	--	--	<2	5	<1
11200N 12325E	<0.01	<0.01	<0.01	--	<2	4	<1
11200N 12350E	<0.01	--	--	--	<2	5	<1
11200N 12375E	<0.01	--	--	--	<2	9	<1
11200N 12400E	<0.01	--	--	--	<2	11	1
11200N 12425E	<0.01	--	--	--	4	17	1
11200N 12450E	<0.01	--	--	--	5	11	<1
11200N 12475E	<0.01	--	--	--	4	14	<1
11200N 12500E	<0.01	--	--	--	4	13	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
11200N 12525E	<0.01	--	--	--	3	13	<1
11200N 12550E	<0.01	--	--	--	2	14	<1
11200N 12575E	<0.01	<0.01	<0.01	--	5	18	<1
11200N 12600E	<0.01	--	--	--	4	34	1
11200N 12625E	<0.01	<0.01	<0.01	--	3	13	<1
11200N 12650E	<0.01	--	--	--	5	22	1
11200N 12675E	<0.01	--	--	--	5	20	<1
11200N 12700E	<0.01	--	--	--	8	44	1
11000N 11300E	L.N.R.	--	--	--	L.N.R.	L.N.R.	L.N.R.
11000N 11325E	L.N.R.	--	--	--	L.N.R.	L.N.R.	L.N.R.
11000N 11350E	<0.01	--	--	--	9	8	<1
11000N 11375E	<0.01	<0.01	<0.01	--	8	7	<1
11000N 11400E	<0.01	--	--	--	24	42	1
11000N 11425E	<0.01	--	--	--	11	16	1
11000N 11450E	<0.01	--	--	--	34	30	1
11000N 11475E	<0.01	--	--	--	12	16	1
11000N 11500E	<0.01	--	--	--	11	14	<1
11000N 12000E	0.02	<0.01	0.03	--	6	4	<1
11000N 12025E	<0.01	--	--	--	4	4	<1
11000N 12050E	<0.01	--	--	--	5	6	<1
11000N 12075E	<0.01	--	--	--	3	2	<1
11000N 12100E	<0.01	--	--	--	3	4	<1
11000N 12125E	<0.01	<0.01	<0.01	--	5	2	<1
11000N 12150E	<0.01	--	--	--	4	3	<1
11000N 12175E	<0.01	--	--	--	6	5	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
11000N 12200E	<0.01	--	--	--	4	3	<1
11000N 12225E	<0.01	<0.01	<0.01	--	7	3	<1
11000N 12250E	<0.01	<0.01	0.01	--	3	3	<1
11000N 12275E	<0.01	--	--	--	3	5	<1
11000N 12300E	<0.01	--	--	--	3	5	<1
11000N 12325E	<0.01	--	--	--	4	4	2
11000N 12350E	<0.01	--	--	--	4	5	<1
11000N 12375E	<0.01	--	--	--	5	7	<1
11000N 12400E	<0.01	--	--	--	4	5	<1
11000N 12425E	<0.01	--	--	--	6	9	<1
11000N 12450E	<0.01	--	--	--	4	17	<1
11000N 12475E	<0.01	--	--	--	8	36	<1
11000N 12500E	<0.01	<0.01	<0.01	--	5	17	<1
11000N 12525E	<0.01	<0.01	<0.01	--	3	14	<1
11000N 12550E	<0.01	--	--	--	4	11	<1
11000N 12575E	<0.01	--	--	--	4	12	<1
11000N 12600E	<0.01	--	--	--	4	9	<1
11000N 12625E	<0.01	--	--	--	3	8	<1
11000N 12650E	<0.01	--	--	--	3	9	<1
11000N 12675E	<0.01	<0.01	<0.01	--	3	2	<1
11000N 12700E	<0.01	--	--	--	4	12	<1
11000N 12725E	<0.01	--	--	--	4	5	<1
11000N 12750E	<0.01	<0.01	<0.01	<0.01	3	10	<1
11000N 12775E	<0.01	--	--	--	5	20	<1
11000N 12800E	<0.01	--	--	--	8	28	1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
10800N 11200E	<0.01	--	--	--	9	19	1
10800N 11225E	<0.01	--	--	--	5	11	<1
10800N 11250E	<0.01	--	--	--	5	12	1
10800N 11275E	<0.01	<0.01	<0.01	--	6	5	<1
10800N 11300E	<0.01	--	--	--	6	5	<1
10800N 11325E	<0.01	--	--	--	9	11	1
10800N 11350E	<0.01	<0.01	<0.01	--	44	90	1
10800N 11375E	<0.01	<0.01	<0.01	--	7	10	1
10800N 11400E	<0.01	--	--	--	7	13	1
10800N 11425E	<0.01	--	--	--	7	10	<1
10800N 11450E	<0.01	--	--	--	5	7	<1
10800N 11475E	<0.01	--	--	--	5	10	1
10800N 11500E	<0.01	--	--	--	5	3	<1
10800N 11525E	<0.01	--	--	--	5	2	<1
10800N 11550E	<0.01	--	--	--	7	3	<1
10800N 11575E	<0.01	--	--	--	3	<2	<1
10800N 11600E	<0.01	--	--	--	14	30	1
10800N 11625E	<0.01	<0.01	<0.01	--	4	4	<1
10800N 11650E	<0.01	--	--	--	4	3	1
10800N 11675E	<0.01	--	--	--	4	3	<1
10800N 11700E	<0.01	<0.01	<0.01	--	5	2	<1
10800N 11725E	<0.01	--	--	--	5	2	<1
10800N 11750E	<0.01	--	--	--	3	3	<1
10800N 11775E	<0.01	--	--	--	3	3	<1
10800N 11800E	<0.01	--	--	--	2	2	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
10800N 11825E	<0.01	--	--	--	3	2	<1
10800N 11850E	<0.01	<0.01	<0.01	--	2	2	<1
10800N 11875E	<0.01	<0.01	<0.01	--	2	2	<1
10800N 11900E	<0.01	--	--	--	4	5	<1
10800N 11925E	<0.01	--	--	--	<2	3	<1
10800N 11950E	<0.01	--	--	--	2	2	<1
10800N 11975E	<0.01	--	--	--	<2	3	<1
10800N 12000E	<0.01	--	--	--	<2	<2	<1
10800N 12025E	<0.01	--	--	--	<2	3	<1
10800N 12050E	<0.01	<0.01	<0.01	--	<2	5	<1
10800N 12075E	<0.01	--	--	--	2	34	1
10800N 12100E	<0.01	--	--	--	2	13	<1
10800N 12125E	<0.01	--	--	--	2	5	<1
10800N 12150E	<0.01	<0.01	<0.01	--	3	2	<1
10800N 12175E	<0.01	--	--	--	<2	2	<1
10800N 12200E	<0.01	--	--	--	<2	2	<1
10800N 12225E	<0.01	--	--	--	<2	12	<1
10800N 12250E	<0.01	--	--	--	2	18	<1
10800N 12275E	<0.01	--	--	--	2	13	<1
10800N 12300E	<0.01	<0.01	<0.01	--	<2	12	<1
10800N 12325E	<0.01	--	--	--	<2	13	<1
10800N 12350E	<0.01	--	--	--	<2	11	<1
10800N 12375E	<0.01	--	--	--	<2	10	<1
10800N 12400E	<0.01	<0.01	<0.01	--	<2	9	<1
9800N 11500E	<0.01	<0.01	<0.01	--	17	86	1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9800N 11525E	<0.01	--	--	--	4	16	<1
9800N 11550E	<0.01	--	--	--	3	5	<1
9800N 11575E	<0.01	--	--	--	4	5	<1
9800N 11600E	<0.01	--	--	--	4	11	<1
9800N 11625E	<0.01	--	--	--	5	8	<1
9800N 11650E	<0.01	<0.01	<0.01	--	3	34	<1
9800N 11675E	<0.01	--	--	--	8	4	<1
9800N 11700E	<0.01	--	--	--	12	78	<1
9800N 11725E	<0.01	--	--	--	6	52	<1
9800N 11750E	<0.01	<0.01	<0.01	--	7	26	<1
9800N 11775E	<0.01	--	--	--	7	24	<1
9800N 11800E	<0.01	--	--	--	4	7	<1
9800N 11825E	<0.01	--	--	--	5	11	<1
9800N 11850E	<0.01	--	--	--	4	11	<1
9800N 11875E	<0.01	--	--	--	5	12	<1
9800N 11900E	<0.01	<0.01	<0.01	--	3	9	<1
9800N 11925E	<0.01	--	--	--	3	16	<1
9800N 11950E	<0.01	--	--	--	2	3	<1
9800N 11975E	<0.01	--	--	--	<2	4	<1
9800N 12000E	<0.01	<0.01	<0.01	--	3	8	<1
9800N 12075E	<0.01	--	--	--	2	4	<1
9800N 12100E	<0.01	--	--	--	2	4	<1
9800N 12125E	<0.01	<0.01	<0.01	--	2	4	<1
9800N 12150E	<0.01	--	--	--	2	4	<1
9800N 12175E	<0.01	--	--	--	2	3	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

074

758075

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9800N 12200E	<0.01	--	--	--	3	5	<1
9600N 11500E	<0.01	--	--	--	9	32	<1
9600N 11525E	<0.01	--	--	--	5	24	<1
9600N 11550E	<0.01	--	--	--	2	11	<1
9600N 11575E	<0.01	<0.01	<0.01	--	2	7	<1
9600N 11600E	<0.01	--	--	--	<2	24	<1
9600N 11625E	<0.01	<0.01	<0.01	--	2	9	<1
9600N 11650E	<0.01	--	--	--	<2	38	<1
9600N 11675E	<0.01	--	--	--	<2	9	<1
9600N 11700E	<0.01	--	--	--	2	20	<1
9600N 11725E	<0.01	--	--	--	2	8	<1
9600N 11750E	<0.01	--	--	--	<2	2	<1
9600N 11775E	<0.01	--	--	--	<2	11	<1
9600N 11800E	<0.01	--	--	--	<2	12	<1
9600N 11825E	<0.01	<0.01	<0.01	<0.01	<2	72	<1
9600N 11850E	<0.01	--	--	--	<2	7	<1
9600N 11875E	<0.01	<0.01	<0.01	--	<2	6	<1
9600N 11900E	<0.01	--	--	--	<2	4	1
9600N 11925E	<0.01	--	--	--	<2	<2	<1
9600N 11950E	<0.01	--	--	--	<2	3	<1
9600N 11975E	<0.01	--	--	--	<2	<2	<1
9600N 12000E	<0.01	--	--	--	<2	2	<1
9600N 12025E	<0.01	--	--	--	<2	3	<1
9600N 12050E	<0.01	<0.01	<0.01	--	<2	3	<1
9600N 12075E	<0.01	<0.01	<0.01	--	<2	14	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9600N 12100E	<0.01	--	--	--	<2	12	<1
9600N 12125E	<0.01	--	--	--	<2	3	<1
9600N 12150E	<0.01	--	--	--	<2	6	<1
9600N 12175E	<0.01	--	--	--	<2	3	<1
9600N 12200E	<0.01	--	--	--	<2	9	<1
9400N 11500E	<0.01	--	--	--	2	14	<1
9400N 11525E	<0.01	--	--	--	<2	6	<1
9400N 11550E	<0.01	<0.01	<0.01	--	<2	<2	<1
9400N 11575E	<0.01	--	--	--	<2	<2	<1
9400N 11600E	<0.01	<0.01	<0.01	--	<2	<2	<1
9400N 11625E	<0.01	--	--	--	<2	<2	<1
9400N 11650E	<0.01	--	--	--	<2	4	<1
9400N 11675E	<0.01	--	--	--	<2	<2	<1
9400N 11700E	<0.01	--	--	--	<2	6	<1
9400N 11725E	<0.01	--	--	--	<2	8	<1
9400N 11750E	<0.01	--	--	--	<2	2	<1
9400N 11775E	<0.01	--	--	--	<2	<2	<1
9400N 11800E	<0.01	<0.01	<0.01	--	<2	2	<1
9400N 11825E	<0.01	--	--	--	<2	<2	<1
9400N 11850E	<0.01	<0.01	<0.01	--	<2	<2	<1
9400N 11875E	<0.01	--	--	--	<2	2	<1
9400N 11900E	<0.01	--	--	--	<2	19	<1
9400N 11925E	<0.01	--	--	--	<2	<2	<1
9400N 11950E	<0.01	--	--	--	<2	<2	<1
9400N 11975E	<0.01	--	--	--	<2	<2	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9400N 12000E	<0.01	--	--	--	<2	<2	<1
9400N 12025E	<0.01	--	--	--	<2	<2	<1
9400N 12050E	<0.01	<0.01	<0.01	--	<2	3	<1
9400N 12075E	<0.01	--	--	--	<2	1600	<1
9400N 12100E	<0.01	<0.01	<0.01	<0.01	<2	15	<1
9400N 12125E	0.01	--	--	--	<2	46	<1
9400N 12150E	<0.01	--	--	--	<2	<2	<1
9400N 12175E	<0.01	--	--	--	<2	<2	<1
9400N 12200E	<0.01	<0.01	<0.01	--	<2	<2	<1
9200N 11600E	<0.01	--	--	--	<2	2	<1
9200N 11625E	<0.01	--	--	--	<2	2	<1
9200N 11650E	<0.01	--	--	--	<2	3	<1
9200N 11700E	0.02	--	--	--	<2	<2	<1
9200N 11750E	<0.01	--	--	--	<2	<2	<1
9200N 11775E	<0.01	<0.01	<0.01	--	<2	<2	<1
9200N 11800E	<0.01	--	--	--	4	<2	<1
9200N 11825E	<0.01	<0.01	<0.01	--	4	3	<1
9200N 11850E	<0.01	--	--	--	4	6	<1
9200N 11875E	<0.01	--	--	--	5	64	<1
9200N 11900E	<0.01	--	--	--	2	8	<1
9200N 11925E	<0.01	--	--	--	<2	3	<1
9200N 11950E	0.01	--	--	--	2	<2	<1
9200N 11975E	<0.01	--	--	--	<2	<2	<1
9200N 12000E	<0.01	--	--	--	<2	<2	<1
9200N 12025E	<0.01	<0.01	<0.01	--	2	<2	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

758078

C77

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9200N 12050E	<0.01	0.01	<0.01	--	<2	<2	<1
9200N 12075E	<0.01	--	--	--	<2	<2	<1
9200N 12100E	0.03	--	--	--	<2	<2	<1
9200N 12125E	0.03	--	--	--	2	<2	<1
9200N 12150E	0.01	--	--	--	<2	<2	<1
9200N 12175E	<0.01	<0.01	<0.01	--	<2	2	<1
9200N 12200E	<0.01	--	--	--	<2	2	<1
9000N 11500E	<0.01	--	--	--	2	30	<1
9000N 11525E	<0.01	<0.01	<0.01	--	<2	12	<1
9000N 11550E	<0.01	--	--	--	<2	4	<1
9000N 11575E	<0.01	--	--	--	<2	5	<1
9000N 11600E	<0.01	--	--	--	<2	6	<1
9000N 11625E	<0.01	--	--	--	<2	9	<1
9000N 11650E	<0.01	<0.01	<0.01	--	2	6	<1
9000N 11675E	<0.01	--	--	--	2	10	<1
9000N 11700E	<0.01	--	--	--	<2	10	<1
9000N 11725E	<0.01	--	--	--	<2	8	<1
9000N 11750E	<0.01	--	--	--	<2	17	<1
9000N 11775E	<0.01	<0.01	<0.01	--	<2	<2	<1
9000N 11800E	<0.01	--	--	--	<2	<2	<1
9000N 11825E	<0.01	--	--	--	10	<2	1
9000N 11850E	0.01	--	--	--	11	2	1
9000N 11875E	<0.01	--	--	--	9	<2	<1
9000N 11900E	<0.01	<0.01	<0.01	--	9	<2	<1
9000N 11925E	<0.01	--	--	--	6	<2	1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

758079

C78

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9000N 11950E	0.02	--	--	--	9	<2	<1
9000N 11975E	0.01	--	--	--	5	2	<1
9000N 12000E	<0.01	--	--	--	6	2	<1
9000N 12025E	<0.01	<0.01	<0.01	--	5	<2	<1
9000N 12050E	<0.01	--	--	--	5	<2	<1
9000N 12075E	0.01	--	--	--	4	<2	1
9000N 12100E	<0.01	<0.01	<0.01	--	2	<2	<1
9000N 12125E	0.01	--	--	--	4	<2	<1
9000N 12150E	<0.01	--	--	--	2	<2	<1
8800N 11700E	<0.01	--	--	--	3	26	<1
8800N 11725E	<0.01	--	--	--	8	18	<1
8800N 11750E	<0.01	--	--	--	2	6	<1
8800N 11775E	0.01	--	--	--	4	5	<1
8800N 11800E	<0.01	0.01	<0.01	--	2	10	1
8800N 11825E	<0.01	<0.01	<0.01	--	6	15	<1
8800N 11850E	<0.01	--	--	--	4	15	1
8800N 11875E	<0.01	0.01	<0.01	--	4	46	<1
8800N 11900E	0.01	--	--	--	10	26	<1
8800N 11925E	0.01	--	--	--	4	4	1
8800N 11950E	<0.01	--	--	--	2	<2	<1
8800N 11975E	<0.01	--	--	--	<2	<2	1
8800N 12000E	0.01	--	--	--	2	<2	1
8800N 12025E	0.02	0.04	<0.01	--	2	<2	1
8800N 12050E	<0.01	--	--	--	<2	<2	1
8800N 12075E	<0.01	<0.01	<0.01	--	2	2	1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

679

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
8800N 12100E	0.01	--	--	--	11	<2	<1
8800N 12125E	<0.01	--	--	--	4	<2	<1
8800N 12150E	<0.01	--	--	--	3	2	<1
8800N 12175E	<0.01	--	--	--	2	<2	<1
8800N 12200E	<0.01	--	--	--	<2	<2	<1
8800N 12225E	<0.01	--	--	--	3	<2	<1
8800N 12250E	<0.01	--	--	--	<2	<2	<1
8800N 12275E	<0.01	--	--	--	<2	<2	<1
8800N 12300E	<0.01	--	--	--	<2	<2	<1
8600N 11800E	<0.01	--	--	--	3	34	<1
8600N 11825E	0.09	--	--	--	5	17	<1
8600N 11875E	<0.01	--	--	--	4	28	<1
8600N 11900E	<0.01	<0.01	<0.01	--	<2	3	<1
8600N 11925E	<0.01	--	--	--	<2	2	<1
8600N 11950E	<0.01	--	--	--	<2	3	<1
8600N 11975E	<0.01	<0.01	<0.01	--	<2	<2	<1
8600N 12000E	<0.01	<0.01	<0.01	--	2	<2	<1
8600N 12025E	<0.01	--	--	--	<2	<2	<1
8600N 12050E	0.02	--	--	--	<2	<2	<1
8600N 12075E	<0.01	--	--	--	<2	<2	<1
8600N 12100E	<0.01	--	--	--	<2	<2	<1
8600N 12125E	<0.01	--	--	--	<2	<2	<1
8600N 12150E	0.03	--	--	--	<2	<2	<1
8600N 12175E	<0.01	--	--	--	2	2	<1
8600N 12200E	<0.01	--	--	--	<2	3	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
8600N 12225E	<0.01	<0.01	<0.01	--	<2	<2	<1
8600N 12250E	<0.01	--	--	--	<2	<2	<1
8600N 12275E	<0.01	--	--	--	2	6	<1
8600N 12300E	<0.01	--	--	--	<2	2	<1
8400N 11800E	<0.01	--	--	--	2	60	<1
8400N 11825E	<0.01	--	--	--	6	32	<1
8400N 11850E	<0.01	--	--	--	10	48	<1
8400N 11875E	<0.01	--	--	--	12	58	<1
8400N 11900E	<0.01	--	--	--	9	38	<1
8400N 11925E	<0.01	--	--	--	17	62	<1
8400N 11950E	<0.01	<0.01	<0.01	--	12	46	<1
8400N 11975E	<0.01	<0.01	<0.01	<0.01	3	10	<1
8400N 12000E	<0.01	--	--	--	<2	5	<1
8400N 12025E	<0.01	--	--	--	<2	2	<1
8400N 12050E	0.01	--	--	--	9	30	<1
8400N 12075E	<0.01	--	--	--	<2	5	<1
8400N 12100E	0.01	--	--	--	<2	3	<1
8400N 12125E	<0.01	--	--	--	<2	<2	<1
8400N 12150E	<0.01	--	--	--	<2	3	<1
8400N 12175E	<0.01	--	--	--	<2	<2	<1
8400N 12200E	0.01	--	--	--	<2	2	<1
8400N 12225E	<0.01	0.01	<0.01	<0.01	<2	3	<1
8400N 12250E	0.01	--	--	--	<2	<2	<1
8400N 12275E	0.01	0.01	0.01	--	<2	<2	<1
8400N 12300E	0.03	--	--	--	<2	<2	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
8200N 11750E	0.01	--	--	--	3	50	<1
8200N 11775E	0.01	--	--	--	22	84	<1
8200N 11800E	0.01	--	--	--	13	64	<1
8200N 11825E	0.01	--	--	--	5	24	<1
8200N 11850E	0.02	0.01	0.02	--	3	19	<1
8200N 11875E	0.01	--	--	--	13	105	<1
8200N 11900E	0.01	--	--	--	13	78	<1
8200N 11925E	0.03	--	--	--	11	52	<1
8200N 11950E	<0.01	0.01	<0.01	--	9	54	<1
8200N 11975E	0.01	--	--	--	11	50	<1
8200N 12000E	0.02	--	--	--	7	28	<1
8200N 12025E	0.01	--	--	--	7	28	<1
8200N 12050E	0.01	0.01	0.01	--	7	26	<1
8200N 12075E	0.02	--	--	--	<2	10	<1
8200N 12100E	0.03	--	--	--	<2	2	<1
8200N 12125E	<0.01	<0.01	<0.01	--	<2	<2	<1
8200N 12150E	<0.01	0.01	<0.01	<0.01	<2	<2	<1
8200N 12175E	0.01	--	--	--	<2	<2	<1
8200N 12200E	0.02	--	--	--	<2	<2	<1
8200N 12225E	0.01	--	--	--	<2	<2	<1
8200N 12250E	L.N.R.	--	--	--	L.N.R.	L.N.R.	L.N.R.
8200N 12275E	0.03	--	--	--	12	70	<1
8200N 12300E	0.01	0.01	0.01	--	<2	38	<1
5000N 11700E	0.02	--	--	--	<2	40	<1
5000N 11725E	0.01	--	--	--	<2	82	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

758083

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
5000N 11750E	0.01	--	--	--	<2	66	<1
5000N 11775E	0.01	0.02	<0.01	--	<2	54	<1
5000N 11800E	0.02	0.02	0.02	--	<2	50	<1
5000N 11825E	0.01	--	--	--	<2	30	<1
5000N 11850E	0.02	--	--	--	<2	20	<1
5000N 11875E	0.01	--	--	--	<2	28	<1
5000N 11900E	0.01	--	--	--	<2	38	<1
5000N 11925E	0.01	0.01	0.01	--	<2	30	<1
5000N 11950E	0.02	--	--	--	<2	22	<1
5000N 11975E	0.04	--	--	--	<2	20	<1
5000N 12000E	0.01	--	--	--	<2	20	<1
5000N 12025E	<0.01	0.01	<0.01	--	<2	20	<1
5000N 12050E	0.01	--	--	--	<2	34	<1
5000N 12075E	0.01	--	--	--	<2	28	<1
5000N 12100E	<0.01	--	--	--	<2	52	<1
5000N 12125E	0.01	--	--	--	<2	44	<1
5000N 12150E	0.04	--	--	--	<2	19	<1
5000N 12175E	0.02	--	--	--	I.S.	I.S.	I.S.
5000N 12200E	0.02	--	--	--	<2	16	<1
5000N 12225E	0.01	--	--	--	<2	3	<1
5000N 12250E	0.02	--	--	--	<2	5	<1
5000N 12275E	<0.01	0.01	<0.01	--	<2	4	<1
5000N 12300E	<0.01	<0.01	<0.01	--	10	56	<1
5000N 12325E	0.02	--	--	--	<2	4	<1
5000N 12350E	0.02	--	--	--	4	18	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
5000N 12375E	0.01	--	--	--	3	10	<1
5000N 12400E	0.01	--	--	--	<2	80	<1
5000N 12425E	0.01	0.01	0.01	--	<2	15	<1
5000N 12450E	0.01	--	--	--	<2	6	<1
5000N 12475E	0.02	--	--	--	<2	<2	<1
5000N 12500E	0.01	--	--	--	<2	<2	<1
5000N 12525E	<0.01	0.01	<0.01	--	<2	<2	<1
5000N 12550E	0.01	--	--	--	<2	3	<1
5000N 12575E	0.02	--	--	--	<2	<2	<1
5000N 12600E	0.02	0.01	0.02	--	<2	2	<1
5000N 12625E	0.04	--	--	--	<2	2	<1
5000N 12650E	0.02	--	--	--	<2	2	<1
5000N 12675E	0.01	--	--	--	<2	3	<1
5000N 12700E	<0.01	--	--	--	<2	2	<1
5000N 12725E	<0.01	--	--	--	<2	5	<1
5000N 12750E	0.01	--	--	--	<2	14	<1
5000N 12775E	<0.01	<0.01	<0.01	--	<2	11	<1
5000N 12800E	<0.01	--	--	--	<2	4	<1
5000N 12825E	<0.01	--	--	--	<2	<2	<1
5000N 12850E	<0.01	<0.01	<0.01	--	<2	5	<1
5000N 12875E	<0.01	--	--	--	4	7	<1
5000N 12900E	<0.01	--	--	--	2	9	<1
4700N 12100E	<0.01	--	--	--	8	46	<1
4700N 12125E	<0.01	--	--	--	9	62	<1
4700N 12150E	<0.01	--	--	--	7	42	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
4700N 12175E	<0.01	--	--	--	8	42	<1
4700N 12200E	<0.01	<0.01	<0.01	--	6	42	<1
4700N 12225E	<0.01	<0.01	<0.01	--	6	52	<1
4700N 12250E	<0.01	--	--	--	6	44	<1
4700N 12275E	<0.01	--	--	--	8	42	<1
4700N 12300E	<0.01	--	--	--	24	82	2
4700N 12325E	<0.01	<0.01	<0.01	--	9	22	<1
4700N 12350E	<0.01	--	--	--	4	10	<1
4700N 12375E	<0.01	--	--	--	3	4	<1
4700N 12400E	<0.01	--	--	--	12	82	<1
4700N 12425E	<0.01	--	--	--	8	9	<1
4700N 12450E	<0.01	<0.01	<0.01	--	3	5	<1
4700N 12475E	<0.01	--	--	--	4	3	<1
4700N 12500E	<0.01	--	--	--	3	38	<1
4700N 12525E	<0.01	--	--	--	2	6	<1
4700N 12550E	0.01	--	--	--	2	15	<1
4700N 12575E	<0.01	<0.01	<0.01	--	<2	8	<1
4700N 12600E	<0.01	--	--	--	2	22	<1
4700N 12625E	<0.01	--	--	--	<2	11	<1
4700N 12650E	<0.01	--	--	--	<2	10	<1
4700N 12675E	<0.01	--	--	--	<2	9	<1
4700N 12700E	<0.01	<0.01	<0.01	--	<2	2	<1
4700N 12725E	<0.01	--	--	--	<2	3	<1
4700N 12750E	<0.01	--	--	--	<2	2	<1
4700N 12775E	<0.01	--	--	--	2	6	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

605

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
4700N 12800E	<0.01	<0.01	<0.01	--	3	2	<1
4700N 12825E	<0.01	--	--	--	2	3	<1
4700N 12850E	<0.01	--	--	--	2	<2	<1
4700N 12875E	<0.01	--	--	--	<2	2	<1
4700N 12900E	<0.01	--	--	--	<2	<2	<1
4400N 11700E	<0.01	--	--	--	36	50	<1
4400N 11725E	<0.01	<0.01	<0.01	--	15	40	<1
4400N 11750E	<0.01	<0.01	<0.01	--	22	60	<1
4400N 11775E	<0.01	--	--	--	17	92	<1
4400N 11800E	<0.01	--	--	--	16	88	<1
4400N 11825E	0.01	0.02	<0.01	--	18	110	<1
4400N 11850E	<0.01	--	--	--	2	5	<1
4400N 11875E	<0.01	--	--	--	4	15	<1
4400N 11900E	<0.01	--	--	--	3	13	<1
4400N 11925E	<0.01	--	--	--	15	66	2
4400N 11950E	<0.01	--	--	--	22	88	<1
4400N 11975E	<0.01	<0.01	<0.01	--	11	62	<1
4400N 12000E	<0.01	--	--	--	10	70	<1
4400N 12025E	<0.01	<0.01	<0.01	--	7	52	<1
4400N 12050E	<0.01	--	--	--	13	48	<1
4400N 12075E	<0.01	--	--	--	10	42	<1
4400N 12100E	<0.01	--	--	--	28	80	<1
4400N 12125E	<0.01	--	--	--	24	98	<1
4400N 12150E	0.01	--	--	--	26	86	<1
4400N 12175E	<0.01	--	--	--	38	120	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

626

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
4400N 12200E	<0.01	--	--	--	26	120	<1
4400N 12225E	<0.01	<0.01	<0.01	--	22	100	<1
4400N 12250E	<0.01	<0.01	<0.01	--	17	88	<1
4400N 12275E	<0.01	--	--	--	17	72	<1
4400N 12300E	<0.01	--	--	--	14	105	<1
4400N 12325E	<0.01	--	--	--	20	64	<1
4400N 12350E	<0.01	--	--	--	5	7	<1
4400N 12375E	<0.01	--	--	--	24	105	<1
4400N 12400E	<0.01	--	--	--	15	120	<1
4400N 12425E	<0.01	--	--	--	4	13	<1
4400N 12450E	<0.01	--	--	--	2	4	<1
4400N 12475E	<0.01	<0.01	<0.01	--	4	44	<1
4400N 12500E	<0.01	--	--	--	<2	8	<1
4400N 12525E	<0.01	<0.01	<0.01	--	<2	2	<1
4400N 12550E	<0.01	--	--	--	<2	4	<1
4400N 12575E	<0.01	--	--	--	<2	2	<1
4400N 12600E	<0.01	--	--	--	<2	<2	<1
4400N 12625E	<0.01	--	--	--	<2	<2	<1
4400N 12650E	<0.01	--	--	--	<2	3	<1
4400N 12675E	<0.01	--	--	--	<2	125	<1
4400N 12700E	<0.01	--	--	--	<2	9	<1
4400N 12725E	<0.01	<0.01	<0.01	--	<2	4	<1
4400N 12750E	<0.01	--	--	--	<2	<2	<1
4400N 12775E	<0.01	--	--	--	<2	<2	<1
4400N 12800E	<0.01	--	--	--	2	4	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

627

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
11400N 11800E	7	<2	250
11400N 11825E	3	<2	140
11400N 11850E	5	<2	160
11400N 11875E	7	<2	230
11400N 11900E	5	<2	165
11400N 11925E	13	<2	270
11400N 11950E	54	8	270
11400N 11975E	5	4	250
11400N 12000E	12	4	220
11400N 12025E	3	<2	240
11400N 12050E	10	<2	370
11400N 12075E	<2	3	140
11400N 12100E	12	<2	250
11400N 12125E	5	<2	150
11400N 12150E	5	<2	400
11400N 12175E	3	<2	220
11400N 12200E	12	3	190
11400N 12225E	2	<2	220
11400N 12250E	5	2	110
11400N 12275E	3	<2	190
11400N 12300E	12	3	640
11400N 12325E	20	2	270
11400N 12350E	6	<2	180
11400N 12375E	11	6	510
11400N 12400E	11	<2	130
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
11400N 12425E	10	9	480
11400N 12450E	7	2	420
11400N 12475E	11	<2	780
11400N 12500E	18	<2	450
11200N 12000E	6	<2	210
11200N 12025E	5	<2	100
11200N 12050E	2	2	70
11200N 12075E	9	<2	70
11200N 12100E	12	<2	350
11200N 12125E	3	3	260
11200N 12150E	5	3	145
11200N 12175E	5	<2	125
11200N 12200E	4	2	40
11200N 12225E	2	<2	40
11200N 12250E	3	3	40
11200N 12275E	<2	<2	40
11200N 12300E	4	2	70
11200N 12325E	<2	4	50
11200N 12350E	2	4	40
11200N 12375E	40	2	140
11200N 12400E	12	<2	200
11200N 12425E	13	4	300
11200N 12450E	10	<2	240
11200N 12475E	16	<2	230
11200N 12500E	6	<2	300
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
11200N 12525E	6	<2	360
11200N 12550E	7	<2	730
11200N 12575E	8	6	800
11200N 12600E	20	<2	570
11200N 12625E	13	6	490
11200N 12650E	15	2	480
11200N 12675E	11	5	640
11200N 12700E	17	4	660
11000N 11300E	L.N.R.	L.N.R.	L.N.R.
11000N 11325E	L.N.R.	L.N.R.	L.N.R.
11000N 11350E	9	4	125
11000N 11375E	6	5	120
11000N 11400E	15	5	120
11000N 11425E	8	3	95
11000N 11450E	10	<2	140
11000N 11475E	22	2	140
11000N 11500E	3	4	85
11000N 12000E	4	<2	45
11000N 12025E	<2	4	50
11000N 12050E	9	<2	60
11000N 12075E	3	<2	25
11000N 12100E	8	2	50
11000N 12125E	5	<2	30
11000N 12150E	6	<2	30
11000N 12175E	4	3	40
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

630

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
11000N 12200E	<2	<2	40
11000N 12225E	4	<2	70
11000N 12250E	2	<2	80
11000N 12275E	<2	<2	90
11000N 12300E	5	<2	125
11000N 12325E	2	2	85
11000N 12350E	9	<2	120
11000N 12375E	11	<2	105
11000N 12400E	8	<2	130
11000N 12425E	9	2	280
11000N 12450E	10	2	400
11000N 12475E	34	<2	380
11000N 12500E	7	2	320
11000N 12525E	6	5	450
11000N 12550E	6	<2	310
11000N 12575E	6	2	650
11000N 12600E	6	<2	430
11000N 12625E	6	3	360
11000N 12650E	8	<2	380
11000N 12675E	9	<2	90
11000N 12700E	7	2	280
11000N 12725E	6	<2	110
11000N 12750E	6	5	190
11000N 12775E	15	3	185
11000N 12800E	17	4	250
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
10800N 11200E	78	3	185
10800N 11225E	36	<2	55
10800N 11250E	44	3	70
10800N 11275E	9	<2	30
10800N 11300E	10	<2	25
10800N 11325E	11	4	40
10800N 11350E	9	10	200
10800N 11375E	16	3	95
10800N 11400E	22	<2	95
10800N 11425E	15	2	50
10800N 11450E	18	3	85
10800N 11475E	13	3	100
10800N 11500E	2	3	55
10800N 11525E	7	<2	25
10800N 11550E	3	<2	35
10800N 11575E	3	<2	20
10800N 11600E	9	<2	25
10800N 11625E	6	<2	40
10800N 11650E	9	<2	60
10800N 11675E	<2	<2	25
10800N 11700E	<2	2	15
10800N 11725E	<2	4	50
10800N 11750E	2	2	20
10800N 11775E	5	2	60
10800N 11800E	<2	<2	25
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
10800N 11825E	<2	<2	25
10800N 11850E	5	<2	40
10800N 11875E	<2	<2	30
10800N 11900E	<2	<2	35
10800N 11925E	3	2	65
10800N 11950E	5	<2	35
10800N 11975E	7	<2	80
10800N 12000E	<2	<2	95
10800N 12025E	2	<2	95
10800N 12050E	4	3	100
10800N 12075E	14	<2	420
10800N 12100E	10	6	300
10800N 12125E	4	<2	230
10800N 12150E	4	<2	180
10800N 12175E	3	<2	50
10800N 12200E	<2	2	45
10800N 12225E	10	<2	280
10800N 12250E	11	3	370
10800N 12275E	14	2	340
10800N 12300E	9	<2	370
10800N 12325E	10	<2	670
10800N 12350E	15	<2	350
10800N 12375E	16	<2	410
10800N 12400E	13	<2	450
9800N 11500E	100	11	290
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
9800N 11525E	92	4	140
9800N 11550E	36	<2	100
9800N 11575E	12	6	90
9800N 11600E	270	74	1000
9800N 11625E	16	9	490
9800N 11650E	86	32	420
9800N 11675E	4	44	1200
9800N 11700E	92	16	320
9800N 11725E	30	4	390
9800N 11750E	22	10	710
9800N 11775E	68	18	610
9800N 11800E	36	16	240
9800N 11825E	100	34	390
9800N 11850E	30	9	350
9800N 11875E	66	15	220
9800N 11900E	13	5	270
9800N 11925E	20	11	280
9800N 11950E	6	<2	310
9800N 11975E	7	5	250
9800N 12000E	20	2	195
9800N 12075E	3	4	280
9800N 12100E	<2	7	220
9800N 12125E	12	2	240
9800N 12150E	10	<2	280
9800N 12175E	4	<2	220
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
9800N 12200E	12	<2	270
9600N 11500E	15	5	290
9600N 11525E	26	8	410
9600N 11550E	38	5	175
9600N 11575E	24	3	145
9600N 11600E	42	3	430
9600N 11625E	98	10	240
9600N 11650E	120	10	780
9600N 11675E	88	8	220
9600N 11700E	290	8	180
9600N 11725E	270	9	105
9600N 11750E	22	3	85
9600N 11775E	12	2	70
9600N 11800E	38	11	460
9600N 11825E	28	40	280
9600N 11850E	7	3	300
9600N 11875E	7	7	510
9600N 11900E	10	3	310
9600N 11925E	2	3	280
9600N 11950E	8	<2	520
9600N 11975E	5	5	300
9600N 12000E	4	2	270
9600N 12025E	9	2	330
9600N 12050E	18	<2	310
9600N 12075E	48	9	420
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
9600N 12100E	48	8	410
9600N 12125E	22	<2	320
9600N 12150E	36	3	320
9600N 12175E	46	3	155
9600N 12200E	84	24	290
9400N 11500E	30	5	270
9400N 11525E	13	2	250
9400N 11550E	4	3	75
9400N 11575E	8	<2	140
9400N 11600E	24	<2	85
9400N 11625E	13	<2	120
9400N 11650E	30	9	185
9400N 11675E	18	5	135
9400N 11700E	48	<2	195
9400N 11725E	100	13	210
9400N 11750E	62	4	80
9400N 11775E	5	7	80
9400N 11800E	13	6	75
9400N 11825E	11	7	75
9400N 11850E	15	<2	70
9400N 11875E	13	5	120
9400N 11900E	56	<2	270
9400N 11925E	<2	2	270
9400N 11950E	5	3	15
9400N 11975E	4	<2	30
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
9400N 12000E	<2	2	20
9400N 12025E	2	2	15
9400N 12050E	5	<2	15
9400N 12075E	115	125	1240
9400N 12100E	15	3	60
9400N 12125E	9	7	50
9400N 12150E	10	<2	40
9400N 12175E	11	<2	40
9400N 12200E	7	<2	30
9200N 11600E	12	3	300
9200N 11625E	6	5	190
9200N 11650E	18	<2	280
9200N 11700E	12	4	65
9200N 11750E	14	<2	75
9200N 11775E	4	2	60
9200N 11800E	4	5	45
9200N 11825E	9	3	90
9200N 11850E	18	4	75
9200N 11875E	120	15	250
9200N 11900E	38	5	165
9200N 11925E	3	<2	90
9200N 11950E	2	4	40
9200N 11975E	5	<2	25
9200N 12000E	6	2	35
9200N 12025E	<2	4	15
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
9200N 12050E	4	3	25
9200N 12075E	8	<2	20
9200N 12100E	7	<2	45
9200N 12125E	5	<2	25
9200N 12150E	9	4	55
9200N 12175E	24	2	210
9200N 12200E	46	<2	540
9000N 11500E	20	3	280
9000N 11525E	22	5	300
9000N 11550E	17	2	220
9000N 11575E	15	<2	165
9000N 11600E	9	<2	290
9000N 11625E	14	2	430
9000N 11650E	9	<2	320
9000N 11675E	54	6	430
9000N 11700E	32	8	290
9000N 11725E	50	3	270
9000N 11750E	50	<2	330
9000N 11775E	8	<2	105
9000N 11800E	8	2	75
9000N 11825E	6	2	140
9000N 11850E	9	2	65
9000N 11875E	7	3	75
9000N 11900E	9	4	60
9000N 11925E	7	<2	40
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
9000N 11950E	<2	4	45
9000N 11975E	6	7	80
9000N 12000E	8	2	60
9000N 12025E	<2	4	70
9000N 12050E	12	2	70
9000N 12075E	6	<2	50
9000N 12100E	5	3	55
9000N 12125E	<2	4	65
9000N 12150E	5	<2	65
8800N 11700E	13	4	175
8800N 11725E	10	8	230
8800N 11750E	3	3	155
8800N 11775E	4	<2	260
8800N 11800E	9	4	320
8800N 11825E	24	6	210
8800N 11850E	28	6	290
8800N 11875E	30	11	370
8800N 11900E	48	12	360
8800N 11925E	80	2	270
8800N 11950E	11	3	220
8800N 11975E	30	2	490
8800N 12000E	6	5	175
8800N 12025E	3	3	140
8800N 12050E	34	3	260
8800N 12075E	36	4	370
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

758100

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
8800N 12100E	34	<2	440
8800N 12125E	58	<2	450
8800N 12150E	44	<2	490
8800N 12175E	48	2	480
8800N 12200E	32	4	520
8800N 12225E	10	9	280
8800N 12250E	15	<2	550
8800N 12275E	6	<2	220
8800N 12300E	4	2	420
8600N 11800E	9	12	185
8600N 11825E	11	11	135
8600N 11875E	26	9	330
8600N 11900E	22	<2	165
8600N 11925E	13	4	195
8600N 11950E	13	2	200
8600N 11975E	12	4	210
8600N 12000E	2	<2	210
8600N 12025E	5	<2	200
8600N 12050E	11	<2	175
8600N 12075E	8	2	300
8600N 12100E	11	3	390
8600N 12125E	13	<2	350
8600N 12150E	19	<2	460
8600N 12175E	14	9	570
8600N 12200E	8	4	500
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
8600N 12225E	17	<2	770
8600N 12250E	18	4	480
8600N 12275E	15	<2	630
8600N 12300E	17	2	550
8400N 11800E	48	12	220
8400N 11825E	34	16	230
8400N 11850E	80	14	280
8400N 11875E	10	6	190
8400N 11900E	17	7	240
8400N 11925E	10	4	180
8400N 11950E	15	<2	145
8400N 11975E	9	4	340
8400N 12000E	<2	<2	350
8400N 12025E	7	5	320
8400N 12050E	80	<2	550
8400N 12075E	17	3	490
8400N 12100E	17	<2	540
8400N 12125E	7	<2	560
8400N 12150E	5	19	720
8400N 12175E	<2	5	470
8400N 12200E	6	6	710
8400N 12225E	7	3	540
8400N 12250E	13	<2	770
8400N 12275E	32	5	470
8400N 12300E	19	5	460
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
8200N 11750E	8	<2	820
8200N 11775E	6	4	165
8200N 11800E	<2	2	250
8200N 11825E	14	3	165
8200N 11850E	12	<2	110
8200N 11875E	22	3	175
8200N 11900E	18	2	175
8200N 11925E	10	3	110
8200N 11950E	12	5	115
8200N 11975E	12	11	95
8200N 12000E	10	4	60
8200N 12025E	2	4	65
8200N 12050E	13	2	120
8200N 12075E	11	5	390
8200N 12100E	8	3	350
8200N 12125E	2	7	360
8200N 12150E	7	5	630
8200N 12175E	<2	6	360
8200N 12200E	2	5	240
8200N 12225E	4	<2	320
8200N 12250E	L.N.R.	L.N.R.	L.N.R.
8200N 12275E	8	4	290
8200N 12300E	26	4	220
5000N 11700E	12	8	240
5000N 11725E	20	9	250
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
5000N 11750E	32	9	260
5000N 11775E	34	8	135
5000N 11800E	40	7	180
5000N 11825E	48	7	210
5000N 11850E	28	9	195
5000N 11875E	50	3	160
5000N 11900E	36	8	195
5000N 11925E	30	8	180
5000N 11950E	36	5	165
5000N 11975E	28	11	165
5000N 12000E	56	6	250
5000N 12025E	32	6	220
5000N 12050E	28	8	210
5000N 12075E	7	4	240
5000N 12100E	16	<2	270
5000N 12125E	18	3	290
5000N 12150E	34	5	290
5000N 12175E	22	<2	290
5000N 12200E	24	4	180
5000N 12225E	5	4	175
5000N 12250E	10	<2	165
5000N 12275E	7	6	175
5000N 12300E	44	12	430
5000N 12325E	20	4	360
5000N 12350E	66	14	310
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
5000N 12375E	42	<2	320
5000N 12400E	38	12	370
5000N 12425E	30	3	250
5000N 12450E	9	<2	210
5000N 12475E	8	<2	220
5000N 12500E	11	<2	240
5000N 12525E	26	<2	270
5000N 12550E	12	<2	340
5000N 12575E	13	<2	260
5000N 12600E	3	4	260
5000N 12625E	4	2	440
5000N 12650E	6	5	400
5000N 12675E	12	<2	390
5000N 12700E	10	2	470
5000N 12725E	16	<2	470
5000N 12750E	24	<2	450
5000N 12775E	22	<2	610
5000N 12800E	7	5	490
5000N 12825E	4	<2	370
5000N 12850E	14	4	480
5000N 12875E	80	<2	750
5000N 12900E	130	<2	660
4700N 12100E	28	2	155
4700N 12125E	38	6	180
4700N 12150E	38	7	200
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
4700N 12175E	50	3	120
4700N 12200E	86	4	200
4700N 12225E	46	8	470
4700N 12250E	48	12	300
4700N 12275E	64	7	260
4700N 12300E	110	7	240
4700N 12325E	38	15	210
4700N 12350E	16	2	190
4700N 12375E	5	<2	130
4700N 12400E	78	9	310
4700N 12425E	15	4	350
4700N 12450E	9	4	290
4700N 12475E	6	4	250
4700N 12500E	56	4	420
4700N 12525E	8	<2	400
4700N 12550E	78	8	430
4700N 12575E	36	<2	400
4700N 12600E	24	4	620
4700N 12625E	155	26	390
4700N 12650E	3	<2	370
4700N 12675E	11	4	490
4700N 12700E	4	5	310
4700N 12725E	8	<2	300
4700N 12750E	16	<2	340
4700N 12775E	5	3	260
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
4700N 12800E	14	<2	290
4700N 12825E	11	<2	440
4700N 12850E	14	3	410
4700N 12875E	19	<2	510
4700N 12900E	42	<2	690
4400N 11700E	17	5	370
4400N 11725E	20	4	210
4400N 11750E	10	<2	300
4400N 11775E	5	6	330
4400N 11800E	5	4	360
4400N 11825E	18	2	340
4400N 11850E	30	<2	220
4400N 11875E	74	5	350
4400N 11900E	86	11	350
4400N 11925E	5	12	280
4400N 11950E	10	9	230
4400N 11975E	12	3	165
4400N 12000E	12	<2	100
4400N 12025E	6	5	85
4400N 12050E	11	<2	80
4400N 12075E	2	6	250
4400N 12100E	11	4	170
4400N 12125E	11	<2	125
4400N 12150E	9	<2	135
4400N 12175E	5	2	160
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
4400N 12200E	12	2	105
4400N 12225E	<2	6	200
4400N 12250E	14	6	120
4400N 12275E	26	5	300
4400N 12300E	115	36	360
4400N 12325E	56	17	300
4400N 12350E	30	6	270
4400N 12375E	125	22	360
4400N 12400E	90	13	280
4400N 12425E	4	2	380
4400N 12450E	13	<2	270
4400N 12475E	48	<2	480
4400N 12500E	5	4	490
4400N 12525E	11	<2	520
4400N 12550E	11	<2	660
4400N 12575E	6	2	710
4400N 12600E	2	<2	880
4400N 12625E	5	<2	630
4400N 12650E	3	2	610
4400N 12675E	22	<2	420
4400N 12700E	42	4	630
4400N 12725E	5	4	730
4400N 12750E	6	<2	520
4400N 12775E	7	2	590
4400N 12800E	9	6	830
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
11200N 12725E	<0.01	--	--	--	2	4	<1
11200N 12800E	<0.01	--	--	--	3	<2	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

CLASSIC COMLABS LIMITED

Job: COM873578
O/N: 11620/LD51/JPR

ANALYTICAL REPORT

SAMPLE	Pb	As	Ba
11200N 12725E	6	3	280
11200N 12800E	14	<2	90
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

APPENDIX 2

Costean Sample Geochemical Results

120

758111

COMLABS SERVICES PTY. LTD.

305 South Road, Mile End South, South Australia 5031 Telephone (08) 43 5722 Telex LABCOM AA89323 Facsimile No (08) 234 0321

NATA REGISTERED No. 1526

OUR REF COM 873125

YOUR REF 11618/LD51/JRP

Mr. J. Randell,
Billiton Australia Limited,
P.O. Box 860,
DEVONPORT. TAS. 7310.

3rd December, 1987

Dear Jeff,

RE: JOB COM 873125

Enclosed are the assays for the samples delivered to our laboratory on the 16th November, 1987.

Yours sincerely,
COMLABS SERVICES PTY LTD

per

Report Length : 8 Pages

111

758112

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
9600N 11075E	0.02	0.03	0.01	--	22	140	<1
9600N 11080E	0.05	--	--	--	14	130	1
9600N 11084E	0.02	0.02	0.01	--	12	150	<1
9600N 11087E	0.01	--	--	--	8	76	<1
9600N 11090E	<0.01	--	--	--	11	145	1
9600N 11095E	<0.01	--	--	--	28	115	1
9600N 11100E	<0.01	--	--	--	14	165	<1
9600N 11105E	0.03	--	--	--	17	220	<1
9600N 11108E	0.02	--	--	--	10	220	<1
9600N 11111E	<0.01	<0.01	<0.01	--	13	290	<1
9600N 11114E	<0.01	<0.01	<0.01	<0.01	16	430	<1
9600N 11117E	0.01	--	--	--	7	125	1
9600N 11120E	0.01	--	--	--	4	135	<1
9600N 11123E	0.01	--	--	--	4	105	<1
9600N 11125E	<0.01	--	--	--	4	175	<1
9600N 11129E	<0.01	--	--	--	3	76	<1
9600N 11132E	0.01	--	--	--	7	56	<1
9600N 11134E	L.N.R.	--	--	--	L.N.R.	L.N.R.	L.N.R.
9600N 11137E	<0.01	--	--	--	9	130	<1
9600N 11140E	<0.01	--	--	--	5	62	<1
9600N 11144E	<0.01	<0.01	<0.01	--	2	44	<1
9600N 11149E	0.01	--	--	--	2	46	<1
9600N 11154E	<0.01	--	--	--	2	50	<1
9600N 11159E	<0.01	<0.01	<0.01	--	2	60	<1
10400N 11726E	0.01	--	--	--	3	56	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

112

758113

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
10400N 11730E	0.01	--	--	--	4	48	<1
10400N 11735E	<0.01	--	--	--	5	92	<1
10400N 11740E	<0.01	--	--	--	12	135	<1
10400N 11743E	<0.01	--	--	--	13	190	<1
10400N 11744E	<0.01	--	--	--	8	105	1
10400N 11747E	<0.01	<0.01	0.01	--	12	88	<1
10400N 11751E	0.01	--	--	--	13	145	1
10400N 11754E	<0.01	0.01	<0.01	--	8	115	<1
10400N 11757.5E	0.01	--	--	--	6	140	<1
10400N 11760E	<0.01	--	--	--	9	120	<1
10400N 11765E	<0.01	--	--	--	15	130	<1
10400N 11770E	<0.01	<0.01	<0.01	--	9	94	<1
10400N 11775E	<0.01	--	--	--	13	52	<1
10400N 11780E	0.01	--	--	--	12	80	<1
10400N 11785E	<0.01	--	--	--	11	130	<1
10400N 11789E	0.01	<0.01	0.02	--	17	175	<1
10400N 11792E	<0.01	--	--	--	30	130	1
10400N 11795E	<0.01	--	--	--	13	210	1
10400N 11799E	<0.01	--	--	--	7	135	<1
10400N 11805E	<0.01	--	--	--	5	105	<1
10400N 11810E	<0.01	<0.01	<0.01	--	12	190	1
10400N 11815E	<0.01	--	--	--	15	220	<1
10400N 11820E	<0.01	--	--	--	5	76	<1
10200N 11675E	0.01	<0.01	0.02	--	<2	24	<1
10200N 11680E	<0.01	--	--	--	2	20	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

758114

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
10200N 11715E	<0.01	--	--	--	2	28	<1
10200N 11720E	<0.01	<0.01	<0.01	--	2	26	<1
10200N 11723E	<0.01	--	--	--	7	115	<1
10200N 11725E	<0.01	--	--	--	8	84	<1
10200N 11726E	<0.01	--	--	--	17	54	<1
10200N 11731E	<0.01	--	--	--	12	86	<1
10200N 11736E	<0.01	--	--	--	10	60	<1
10200N 11742E	<0.01	--	--	--	20	88	<1
10200N 11748E	<0.01	<0.01	<0.01	--	13	54	<1
10200N 11752E	<0.01	--	--	--	22	96	<1
10200N 11755E	<0.01	--	--	--	7	24	<1
10200N 11761E	<0.01	--	--	--	6	24	<1
10200N 11762E	<0.01	--	--	--	5	26	<1
10200N 11766E	<0.01	--	--	--	7	58	<1
10200N 11770E	<0.01	--	--	--	20	125	<1
10200N 11774E	<0.01	<0.01	<0.01	--	6	210	<1
10200N 11777E	0.03	--	--	--	13	86	<1
10200N 11781E	0.02	--	--	--	8	42	<1
10200N 11783E	<0.01	<0.01	<0.01	--	9	54	<1
10200N 11786E	<0.01	--	--	--	10	68	1
10200N 11787E	<0.01	--	--	--	8	105	<1
10200N 11790E	<0.01	--	--	--	7	110	<1
10200N 11793E	<0.01	<0.01	<0.01	--	8	88	<1
10200N 11795E	<0.01	--	--	--	12	98	<1
10200N 11799E	<0.01	--	--	--	9	94	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Au Avg	Au Dp1	Au Dp2	Au Dp3	Cu	Zn	Ag
10200N 11803E	<0.01	--	--	--	19	185	<1
10200N 11805E	<0.01	--	--	--	12	64	<1
10200N 11810E	<0.01	<0.01	<0.01	--	18	48	<1
10200N 11815E	<0.01	--	--	--	24	44	<1
10200N 11820E	0.01	--	--	--	16	84	<1
UNITS	ppm	ppm	ppm	ppm	ppm	ppm	ppm
SCHEME	FAS1	FAS1	FAS1	FAS1	AAS1	AAS1	AAS3

115

758116

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Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Pb	Ba	As
9600N 11075E	36	450	2
9600N 11080E	36	520	5
9600N 11084E	40	470	5
9600N 11087E	36	240	3
9600N 11090E	180	350	18
9600N 11095E	310	390	22
9600N 11100E	175	260	11
9600N 11105E	880	450	48
9600N 11108E	450	560	26
9600N 11111E	150	670	40
9600N 11114E	160	690	28
9600N 11117E	96	730	32
9600N 11120E	50	830	24
9600N 11123E	52	550	15
9600N 11125E	76	470	32
9600N 11129E	90	740	14
9600N 11132E	58	460	18
9600N 11134E	L.N.R.	L.N.R.	L.N.R.
9600N 11137E	76	1120	15
9600N 11140E	76	1120	7
9600N 11144E	92	1000	8
9600N 11149E	200	930	12
9600N 11154E	140	860	3
9600N 11159E	86	970	3
10400N 11726E	78	630	20
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

758117

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Pb	Ba	As
10400N 11730E	140	610	12
10400N 11735E	330	490	11
10400N 11740E	330	420	46
10400N 11743E	260	390	68
10400N 11744E	210	520	32
10400N 11747E	240	400	34
10400N 11751E	950	590	46
10400N 11754E	260	250	17
10400N 11757.5E	1020	420	38
10400N 11760E	730	470	13
10400N 11765E	940	260	36
10400N 11770E	570	340	22
10400N 11775E	590	220	12
10400N 11780E	540	360	17
10400N 11785E	710	280	17
10400N 11789E	520	300	24
10400N 11792E	1040	380	20
10400N 11795E	600	470	22
10400N 11799E	480	400	20
10400N 11805E	630	520	13
10400N 11810E	410	300	28
10400N 11815E	360	400	10
10400N 11820E	180	300	5
10200N 11675E	105	165	12
10200N 11680E	74	175	18
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Pb	Ba	As
10200N 11715E	135	480	8
10200N 11720E	50	310	4
10200N 11723E	64	430	32
10200N 11725E	84	410	44
10200N 11726E	110	370	46
10200N 11731E	125	380	40
10200N 11736E	140	330	72
10200N 11742E	92	360	48
10200N 11748E	96	330	42
10200N 11752E	105	360	34
10200N 11755E	26	300	7
10200N 11761E	260	380	10
10200N 11762E	54	360	6
10200N 11766E	42	430	22
10200N 11770E	78	410	36
10200N 11774E	70	450	38
10200N 11777E	195	550	78
10200N 11781E	100	480	40
10200N 11783E	170	550	58
10200N 11786E	190	510	64
10200N 11787E	115	600	68
10200N 11790E	410	410	50
10200N 11793E	370	520	36
10200N 11795E	250	370	26
10200N 11799E	390	320	36
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

COMLABS

Job: COM873125
O/N: 11618/LD5/JPR

ANALYTICAL REPORT

SAMPLE	Pb	Ba	As
10200N 11803E	310	340	50
10200N 11805E	200	480	50
10200N 11810E	82	400	48
10200N 11815E	94	480	34
10200N 11820E	350	670	17
UNITS	ppm	ppm	ppm
SCHEME	XRF1	XRF1	XRF1

APPENDIX 3

Diamond Drill Log CRD 88-1

120

SHLMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION

DRILL LOG SHEET

HEADING SHEET

COLLAR INFORMATION

DATA TYPE	COLLAR CO-ORDINATES EASTING	NORTHING	ELEVATION	COLLAR SURVEY AZIMUTH	DIP	HOLE NAME	TOTAL DEPTH	HOLE TYPE	DESC CODE	REMARKS
				288	50	CRD88-1	306.4			

PROJECT CATTLEY RANGE	HOLE NAME CRD 88-1
LOGGED BY J. RANDELL	TOTAL DEPTH 306.4m
CONTRACTOR DIAMOND DRILLING TAS	RIG LY 37
CREW K. HOW.	DATE STARTED 3/6/88 FINISHED 15/6/88

CORE STORAGE NO OF TRAYS	CORE STORAGE LOCATION	SAMPLE STORAGE
M & P LAB		ASSAY LAB

DESC.	SIZE	FROM	TO	TOTAL	REMARKS
NON CORE		0	3.6	3.6	NO CORE/SAMPLE
CORE	HQ	3.6	18.6	15.0	
	NQ	18.6	306.4	287.8	
	BQ				
CASING					
CASING LEFT	PVC	0	306		(S) steel (P) plastic

SURVEY INFORMATION

DISTANCE FROM COLLAR TO TOP	TO BOTTOM	AZIMUTH	DIP	REMARKS
0		288	50	
50		290	50.75	
100		292	51	
150		294	50	
203		295	49	
250		296	49	
306				

PLOTTING KEY

SYMBOL DESC. CODE	SYMBOL Q/LOG	INTERVAL FROM	INTERVAL TO	SYMBOL DESC. CODE	SYMBOL Q/LOG	INTERVAL FROM	INTERVAL TO

ASSAY INFORMATION

DISTANCE FROM COLLAR TO TOP	TO BOTTOM	Cu	Pb	Zn	Ag	Au	SAMPLE NO	CORE ANGLE	ROCK TYPE	DIAM	DESC CODE	GRAPHIC LOG
										HQ		
18.6										NQ		
31.0	32.3											
32.3	33.0											
33.0	34.0											
34.0	35.0											

DESCRIPTIVE LOG

3.6 - 32.3 // QUARTZ FELDSPAR PHYRIC RHYODACITIC ? INTRUSIVE

3.6 - 9.1 : Strongly broken, orange pink weathered, medium grained, minor chloritic patches.

9.1 - 13.6 : Deep pink-orange massive medium to coarse grained feldspar-quartz phyric, rare quartz veinlets (50° CA)

13.6 - 15.2 : Strongly broken, pink (K-spar) quartz feldspar phyric with strong Fe + Mn on fracture planes. Clay zones infilling fractures.

15.2 - 24.5 : Massive pink-red coarse grained quartz feldspar phyric. Rare very fine pyrite. Minor quartz-carbonate veinlets from 21.5 - 22.5m.

24.5 - 25.0 : Weak to moderate quartz + pyrite veinlets with small (5cm) stockwork at 24.8m.

27.8 - 32.3 : Very fine quartz-carbonate veinlets of moderate intensity with zones of pale green bleaching. Bottom 5cm bleached.

32.3 - 92.5 // SERICITIZED + SILICIFIED DACITIC EPICLASTIC

Contact sharp @ 35° CA.

DRILLING OBJECTIVES / SUMMARY: Hole designed to test the dacite/sandbank lava contact on line 5900N and to determine the stratigraphic extent of the sericitized and carbonated volcaniclastics. The main contact is in fact faulted at a low-moderate angle and occupied by an intrusive porphyry. The alteration remains intense within the clastic sequence.

REPORT REFERENCE:

SHEET 1 OF

758121

121

SHLMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION

DRILL LOG SHEET

CONTINUATION SHEET

PROJECT	CATTLEY RANGE	HOLE NAME	CRD 88-1
LOGGED BY	J. RANDELL	TOTAL DEPTH	306·4m

Distance from collar: To top	Distance from collar: To bottom	Cu	Pb	Zn	Ag	Au
35·0	36·0					
36·0	37·0					
37·0	38·0					
38·0	39·0					
39·0	40·0					
40·0	41·0					
41·0	42·0					
42·0	43·0					
43·0	44·0					
44·0	45·0					
45·0	46·0					
46·0	47·0					
47·0	48·0					
48·0	49·0					
49·0	50·0					
50·0	51·0					
51·0	52·0					
52·0	53·0					
53·0	54·0					
54·0	55·0					
55·0	56·0					
56·0	57·0					
57·0	58·0					
58·0	59·0					
59·0	60·0					
60·0	61·0					
61·0	62·0					
62·0	63·0					
63·0	64·0					
64·0	65·0					
65·0	66·0					
66·0	67·0					
67·0	68·0					
68·0	69·0					
69·0	70·0					
70·0	71·0					
71·0	72·0					
72·0	73·0					
73·0	74·0					
74·0	75·0					
75·0	76·0					
76·0	77·0					
77·0	78·0					
78·0	79·0					
79·0	80·0					
80·0	81·0					
81·0	82·0					
82·0	83·0					
83·0	84·0					
84·0	85·0					

ASSAY INFORMATION

DESCRIPTIVE LOG

32·3 – 35·0 : Pale green strongly sericitized and moderately silicified with pink K-feldspar med. grained phenocrysts. Minor well rounded chalcedonic clasts (lapilli size). Vague layering @ 35° LCA. Becoming bleached from 34·3m. Weak to moderate thin ferruginous carbonate veinlets from 34·1–35·0 (PET 33·8m)

35·0 – 41·9 : Medium grained feldspar phyric silicified and weakly sericitized rhyodacitic epiclastic with minor well rounded pebble clasts of very fine grained acid volcanic.

41·9 – 57·9 : Strongly feldspar phyric dark green medium grained. Small zone of sideritic carbonate veinlets from 41·8 – 42·0. Minor thin irregular carbonate veinlets elsewhere. (PET 49·1m) Minor wispy chloritic pumiceous clasts becoming more common down hole. Degree of sericite bleaching more intense down hole. Rare lapilli size recrystallized pink clasts. Rare elongate very fine grained black sediment clasts.

57·9 – 63·5 : Compositionally similar to above but now getting rare to minor pebble to cobble size well rounded polymict clasts of fine grained black shale, grey fine to medium grained arenite, very fine grained chalcedonic acid volcanic. Note that some clasts are highly angular.

63·5 – 64·0 : Strongly layered 30–40° LCA bleached wispy fine grained carbonated possible ash fall deposit.

64·0 – 68·0 : Grey-pink fine to medium grained silicified matrix with coarse irregular chloritic pumice clasts, grey fine grained chalcedonic clasts and coarse pink angular clasts.

68·0 – [illegible] pink K-spar alteration. Some clasts completely altered to pink-red, others show [illegible] advanced alteration. Clast frequency increasing and now predominantly grey silicified shales, sub-angular to sub-rounded. (PET 69·8m)

Fairly uniform texture, no sorting or layering evident. At 89·5 5cm wide very large clasts appears to be layered at 65° LCA very fine grained grey acid volcanic.

From 89·7, becoming less chloritic + finer grained, clasts to 0·4cms.

90·4 – 92·5 : Very fine grained clastic with vague layering 45–50° LCA.

SHEET 2 OF

758122

122

SHLMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION

DRILL LOG SHEET

CONTINUATION SHEET

PROJECT	CATTLEY RANGE	HOLE NAME	CRD 88-1
LOGGED BY	J. RANDELL	TOTAL DEPTH	306.4m

ASSAY INFORMATION

DISTANCE FROM COLLAR TO TOP	DISTANCE FROM COLLAR TO BOTTOM	Cu	Pb	Zn	Ag	Au	SAMPLE NO	CORE ANGLE	ROCK TYPE	DUMP	DESC CODE	GRAPHIC LOG	DESCRIPTIVE LOG
85.0	86.0	PPM	PPM	PPM	PPM	PPM							Abs increasing sericitic alteration, becoming mottled pale green-pink.
86.0	87.0												
87.0	88.0												
88.0	89.0												92.5 – 136.0 // VERY FINE GRAINED RED GREEN FELSIC VOLCANICLASTIC
89.0	90.0												
90.0	91.0												
91.0	92.5												Sharp but diffuse contact 50° LCA.
92.5	94.0												Vague layering @ 40° LCA, moderately quartz veined. Moderately broken core. Small 5cm zones of carbonate-quartz-pyrite veins.
94.0	95.0												
95.0	96.0												
96.0	97.0												98.0-98.2: Band of very fine grained chloritic rock. Sharp contacts upper 35° LCA, lower 50° LCA.
97.0	98.0												
98.0	99.0												
99.0	100.0												
100.0	101.0												PET 98.2-104: Predominantly pink-red and 44.0m vaguely layered 40-45° LCA.
101.0	102.0												
102.0	103.0												104-109: Strongly broken, more strong green sericitic patches.
103.0	104.0												
104.0	105.0												109-114: Strongly broken core due to leached out quartz-sulphide veins. Vague layering at 45° LCA.
105.0	106.0												
106.0	107.0												
107.0	108.0												114-122.4: Weakly broken, massive poorly defined layering.
108.0	109.0												
109.0	110.0												PET 122.4-130: Very fine grained chalcedonic 127.3m pale green massive, minor quartz veinlets. Strongly broken from 128m. Abs minor breccia zones and rare bands of quartz veins.
110.0	111.0												
111.0	112.0												
112.0	113.0												130-136: Pale red massive but medium grained feldspar phyric. Small zone of pale green sericite. Increasing carbonate-quartz veining and at 134.1m, 20cm zone of grey green breccia.
113.0	114.0												
114.0	115.0												
115.0	116.0												
116.0	117.0												
117.0	118.0												
118.0	119.0												Bottom contact sharp @ 50° LCA.
119.0	120.0												
120.0	121.0												136.0-139.8 // GREY GREEN FINE GRAINED SILICEOUS BRECCIATED VOLCANICLASTIC
121.0	122.0												
122.0	123.0												
123.0	124.0												
124.0	125.0												Upper contact sharp 45° LCA; Lower contact obscure
125.0	126.0												
126.0	127.0												131-137.2: Strong coarse breccia with abundant carbonate infill.
127.0	128.0												
128.0	129.0												139.6-139.8: Strong carbonate breccia. Strong bleaching throughout.
129.0	130.0												
130.0	131.0												139.8-140.6 // GREY BLACK TO GREEN FINE POORLY LAMINATED SILICEOUS SILTSTONE.
131.0	132.0												
132.0	133.0												
133.0	134.0												
134.0	135.0												
135.0	136.0												Strongly broken, poorly laminated @ 50-60° LCA. Breccia zone at base.

SHEET 9 OF

7581123

123

SHLMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION

DRILL LOG SHEET

CONTINUATION SHEET

PROJECT	CATTLEY RANGE	HOLE NAME	CRD 88-1
LOGGED BY	J. RANDELL	TOTAL DEPTH	306.4m

ASSAY INFORMATION

Distance from collar: To top	To bottom	Cu	Pb	Zn	Ag	Au	Sample No	Core angle	Rock type	Diam	Desc code	Graphic log
136.0	137.0											
137.0	138.0											
138.0	139.0											
139.0	139.8											
139.8	140.6											
140.6	142.0											
142.0	143.0											
143.0	144.0											
144.0	145.0											
145.0	146.0											
146.0	146.8											
146.8	148.0											
148.0	149.0											
149.0	150.0											
150.0	151.0											
151.0	152.0											
152.0	153.0											
153.0	154.0											
154.0	155.0											
155.0	156.0											
156.0	157.0											
157.0	158.0											
158.0	159.0											
159.0	160.0											
160.0	161.0											
161.0	162.0											
162.0	163.0											
163.0	164.2											
164.2	165.2											
165.2	166.0											
166.0	167.0											
167.0	168.0											
168.0	169.0											
169.0	170.0											
170.0	171.0											
171.0	172.0											
172.0	173.0											
173.0	174.0											
174.0	174.7											
174.7	176.0											
176.0	177.0											
177.0	178.0											
178.0	179.4											
179.4	180.1											
180.1	181.0											
181.0	182.0											
182.0	183.0											
183.0	184.0											
184.0	185.0											
185.0	186.0											

DESCRIPTIVE LOG

Upper contact graphitic.

140.6 – 146.8 // MEDIUM GRAINED GREEN FELDSPAR PHYRIC ARENACEOUS VOLCANICLASTIC

PET 143.3m — Moderately broken few thick carbonate-quartz-pyrite veins. No real layering but overall fines up hole. Doubtful facing evidence. Some pink K-spar alteration overprint. Strongly chloritic at base.
Bottom contact sharp 45° LCA.

146.8 – 164.2 // VERY FINE GRAINED BLEACHED PINK GREEN SILICEOUS VOLCANI-CLASTIC

Very fine anastomosing texture, minor thin chloritic bands, rare arenaceous + pyritic clasts. Vague layering in minor coarse grained bands @ 40° LCA.
Minor quartz-carbonate veinlets and rare coarse pyrite.
154 – 158 : Very orange pink moderately well laminated 45° LCA, generally very fine grained but irregular patches of medium grained felsic material.
158 – 161 : Irregular quartz-carbonate veinlets and breccia zones. PET 162.5m
163 – 164.2 : Strong grey green with 3mm laminations (45° LCA). Some irregular laminations and clasts of medium grained arenaceous material. No faulting evident. Trace to 3% fine grained pyrite on lamination planes.
Bottom contact obscured.

164.2 – 174.7 // MEDIUM GRAINED RED DACITIC FELDSPAR PHYRIC VOLCANICLASTIC. (PET 167.7m)

Weak to moderate quartz veining, chloritic patches. Weakly broken.

174.7 – 179.4 // STRONGLY CHLORITIC MEDIUM GRAINED FELDSPAR PHYRIC INTENSELY BROKEN DACITIC LAVA

Very strongly broken, strongly chloritised,

SHEET 4 OF

75 8124

124

SHLMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION

DRILL LOG SHEET

CONTINUATION SHEET

PROJECT	CATTLEY RANGE	HOLE NAME	CRD 88-1
LOGGED BY	J. RANDELL	TOTAL DEPTH	306.4m

DISTANCE FROM COLLAR TO TOP	DISTANCE FROM COLLAR TO BOTTOM	Cu	Pb	Zn	Ag	Au	SAMPLE Nº	CORE ANGLE	ROCK TYPE	SHAPE	DESC CODE	GRAPHIC LOG	DESCRIPTIVE LOG
186.0	187.0												and carbonate veined. Fault Zone. Considerable orange brown siderite carbonate veining.
187.0	188.0												179.4 – 180.1 // SILICEOUS CARBONATED FAULT BRECCIA.
													Upper contact obscured. Lower contact 20° LCA. Predominantly silicified and carbonated, minor chlorite. Trace to 2% disseminated pyrite.
													180.1 – 187.0 // QUARTZ FELDSPAR PHYRIC RHYODACITIC INTRUSIVE.
													Pink siliceous, moderately quartz carbonate veined with irregular chlorite patches. Weakly broken. Upper contact 20° LCA. Lower contact 45° LCA.
													187.0 – 216.9 // FINE GRAINED FELDSPAR PHYRIC ANDESITIC LAVA.
													Very fine grained strongly chloritic with upper 3cms strongly bleached. 191 – 192.9 : Intensely broken ground, strongly chloritic clay zones. FAULT. 194.3 – 195.4 Moderately bleached strongly carbonate veined and broken. 195 – 207.5 : Massive uniform fine grained rare thin quartz veinlets. 207.5 – 211 : Moderate quartz - carbonate veining + some thick veins to 15cms. Generally @ 60° LCA. 211 – 211.5 : Thin irregular quartz chlorite porphyry intrusive. Contacts sharp 50-55°.
											PET		214-5m
													211.5 – 216.9 : Fine to medium grained matrix.
216.0	216.9												216.9 – 225.2 // ULTRAFINE GRAINED CHALCEDONIC IRREGULARLY LAMINATED CHERT.
216.9	218.0												
218.0	219.0												
219.0	220.0												
220.0	221.0												
221.0	222.0												
222.0	223.0												
223.0	224.0												
224.0	225.2												
											PET		217.2 Upper contact sharp @ 50° LCA.
													Grey green to black, very finely laminated chert with pellets (35° LCA), breccia appearance in others.

ASSAY INFORMATION

SHEET 5 OF

258125

125

SHLMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION

DRILL LOG SHEET

CONTINUATION SHEET

PROJECT	CATTLEY RANGE	HOLE NAME	CRD 88-1
LOGGED BY	J. RANDELL	TOTAL DEPTH	306.4m

ASSAY INFORMATION

DISTANCE FROM COLLAR TO TOP	TO BOTTOM	Cu	Pb	Zn	Ag	Au	SAMPLE NO	CORE ANGLE	ROCK TYPE	GRAIN	ALTER CODE	GRAPHIC LOG	DESCRIPTIVE LOG
225·2	226·0												Minor stwy siderite carbonate veining. Lower contact sharp 45-50°LCA.
226·0	227·0												225·2 – 240·1 // FINE TO MEDIUM GRAINED FELDSPAR PHYRIC DACITIC LAVA.
227·0	228·0												226-229: Thick 1-5cm carbonate-quartz-chlorite-siderite(? sph) veins.
228·0	229·0												225.6-240·1: Pink-green very strongly bleached and carbonate veined altering to rhyodacite.
229·0	230·0												Lower contact sharp @ 50-55°LCA.
230·0	231·0												240·1 – 244·9 // VERY FINE GRAINED TOTALLY SILICIFIED IRREGULARLY LAMINATED CHERT.
231·0	232·0												240·1 – 242: Irregular breccia zones, chloritic with small infill of dacitic lava.
232·0	233·0												Contact sharp with 4cm graphite.
233·0	234·0												241·5-242: Fine arenaceous with some lapilli size clasts. Irregular poor laminations at 35°LCA.
234·0	235·0												243-244·9: Strong breccia, coarse quartz-carbonate veinlets, pink K-feldspar alteration.
235·0	236·0												244·9 – 250·2 // FINE GRAINED PINK GREEN CHLORITIC CLOTTED DACITIC LAVA.
236·0	237·0												Strongly silicified, weakly carbonated veining.
237·0	238·0												Lower contact sharp 45°LCA.
238·0	239·0												250·2 – 261·8 // VERY FINE GRAINED CHALCEDONIC CHERT.
239·0	240·1												Irregular quartz-carbonate veinlets and laminated.
240·1	241·0												253·9 – 255: Strongly broken, chloritic, puggy in places. Contains rare clasts of dacitic lava.
241·0	242·0												At 258·2m, 1-2% blebby sph, gal, py
242·0	243·0												260·2 – 261·8: Moderately chloritic, but as strongly silicified.
243·0	244·0												
244·0	244·9												
244·9	246·0												
246·0	247·0												
247·0	248·0												
248·0	249·2												
249·0	250·2												
250·2	251·0												
251·0	252·0												
252·0	253·0												
253·0	254·0												
254·0	255·0												
255·0	256·0												
256·0	257·0												
257·0	258·0												
258·0	259·0												
259·0	260·0												
260·0	261·0												
261·0	261·8												

SHEET 6 OF

7581126

126

SHILMET SYSTEM
METRIC
DECIMAL POINTS AS REQUIRED

The Shell Company of Australia Limited
METALS DIVISION
DRILL LOG SHEET
CONTINUATION SHEET

PROJECT	CATTLEY RANGE	HOLE NAME	CRD 88-1
LOGGED BY	J. RANDELL.	TOTAL DEPTH	306.4m

DISTANCE FROM COLLAR TO TOP	TO BOTTOM	Cu	Pb	Zn	Ag	Au			SAMPLE Nº	CORE ANGLE	ROCK TYPE	CHAR	DESC CODE	GRAPHIC LOG	DESCRIPTIVE LOG
261.8	263.0														261.8 - 268.7 // FINE TO MEDIUM GRAINED FELDSPAR PHYRIC SERICITIZED AND CARBONATE - QUARTZ VEINED DACITIC VOLCANICLASTIC
263.0	264.0														
264.0	265.0														
265.0	266.0														
266.0	267.0														
267.0	268.0														
268.0	268.7														
268.7	270.0														
															Upper contact sharp @ 65°LCA.
															Strongly sericitized + veined with carbonate quartz. Strongly silicified.
															268.3 - 268.7: Very strongly broken, quartz veined.
															Bottom contact faulted.
															268.7 - 290.3 // RED GREEN MEDIUM GRAINED FELDSPAR PHYRIC DACITIC LAVA.
															Mottled, green chlorite patches, weakly quartz-carbonate veined.
															273.7 - 274.0: Breccia zone, strong matrix sericite - chlorite.
															279.8 - 290.3: Very strong pink + green alteration pink K-spar + green breccia. Moderate carbonate veining, 55°LCA.
															Bottom contact diffuse.
290.3	291.0														290.3 - 294.3 // PINK RED VERY FINE GRAINED FELSIC VOLCANICLASTIC (UPPER ASH)
291.0	292.0														
292.0	293.0														
293.0	294.3														
															Non laminated, weakly quartz-carbonate veined. Strong carbonate veining @ 293m.
															Bottom contact sharp 50°LCA.
															294.3 - 306.4 // GREEN PINK MEDIUM GRAINED FELDSPAR PHYRIC DACITIC LAVA.
															Generally massive weakly quartz - carb veined. Some strong pink K-feld. alteration.
															E.O.H. 306.4m.

ASSAY INFORMATION

SURVEY 7 OF

758127

127
SHEET 1

CORE RECOVERY

CRD 88-1

758128

J. RANDELL
JUN 88.

DEPTH	INTERVAL	RECOVERY	DEPTH	INTERVAL	RECOVERY	DEPTH	INTERVAL	RECOVERY
0			61.0	3.0	3.0	121.0	1.1	1.1
3.6	3.6	—	64.0	3.0	3.0	121.2	0.2	0.2
4.7	1.1	1.1	67.0	3.0	3.0	123.5	2.3	2.3
5.7	1.0	1.0	68.9	1.9	1.9	125.3	1.8	1.8
6.4	0.7	0.7	72.0	3.1	3.1	127.0	1.7	1.7
7.6	1.2	1.2	75.1	3.1	3.1	128.8	1.8	1.8
9.0	1.4	1.4	78.2	3.1	3.1	129.7	0.9	0.9
10.1	1.1	1.1	81.3	3.1	3.1	130.4	0.7	0.7
12.2	2.1	2.1	84.4	3.1	3.1	131.0	0.6	0.6
13.1	0.9	0.9	87.5	3.1	3.1	133.0	2.0	2.0
13.8	0.7	0.7	90.6	3.1	3.1	136.0	3.0	3.0
15.2	1.4	1.0/71%	93.7	3.1	3.1	138.2	2.2	2.2
16.0	0.8	0.8	94.7	1.0	1.0	139.5	1.7	1.7
16.4	0.4	0.4	96.6	1.9	1.9	140.4	0.9	0.9
18.6	2.2	2.2	97.5	0.9	0.9	140.9	0.5	0.5
21.6	3.0	3.0	97.6	0.1	0.1	142.5	1.6	1.6
23.0	1.4	1.4	98.2	0.6	0.6	144.9	2.4	2.4
25.0	2.0	2.0	100.0	1.8	1.8	148.0	3.1	3.1
28.0	3.0	3.0	101.7	1.7	1.7	151.0	3.0	3.0
30.2	2.2	2.2	103.0	1.7	1.7	154.0	3.0	3.0
33.2	3.0	3.0	104.6	1.3	1.3	157.0	3.0	3.0
34.0	0.8	0.8	106.0	1.6	1.6	159.6	2.6	2.6
35.1	1.1	1.1	107.5	1.4	1.4	162.7	3.1	3.1
37.0	1.9	1.9	109.0	1.5	0.9/67%	165.2	2.5	2.5
40.0	3.0	3.0	110.3	1.3	1.3	168.3	3.1	3.1
43.0	3.0	3.0	111.1	0.8	0.8	171.1	2.8	2.8
44.7	1.7	1.7	113.2	2.1	2.1	172.9	1.8	1.8
47.8	3.1	3.1	115.0	1.8	1.8	174.8	1.0	1.0
50.9	3.1	3.1	117.4	2.4	2.4	176.0	1.2	1.2
[illegible]	1.1	1.1	117.8	0.4	0.4	176.5	0.5	0.5
55.0	3.0	3.0	118.3	0.5	0.5	177.5	1.0	1.0
58.0	3.0	3.0	119.9	1.6	1.6	178.0	0.5	0.5

128

758129

SHEET 2

CORE RECOVERY

CRD 88-1

J. RANDELL
JUN 88.

[redacted] H	INTERVAL	RECOVERY	DEPTH	INTERVAL	RECOVERY	DEPTH	INTERVAL	RECOVERY
179.4	1.4	1.4	252.7	2.7	2.7			
[redacted]80.2	0.8	0.8	253.4	0.7	0.6/85%			
183.3	3.1	3.1	253.7	0.3	0.3			
[redacted]86.4	3.1	3.1	255.9	2.2	2.2			
[redacted]89.3	2.9	2.9	256.0	0.1	0.1			
[redacted]91.3	2.0	2.0	259.0	3.0	3.0			
[redacted]91.9	0.6	0.3/50%	262	3.0	3.0			
192.9	1.0	0.7/70%	265	3.0	3.0			
[redacted]196	3.1	3.1	268	3.0	3.0			
199	3.0	3.0	268.3	0.3	0.3			
[redacted]202	3.0	3.0	271.0	2.7	2.7			
[redacted]205	3.0	3.0	274.0	3.0	3.0			
[redacted]208	3.0	3.0	277	3.0	3.0			
[redacted]211	3.0	3.0	278.9	1.9	1.9			
214	3.0	3.0	280	1.1	1.1			
[redacted]217	3.0	3.0	283	3.0	3.0			
219.4	2.4	2.4	286	3.0	3.0			
[redacted]221	1.6	1.6	288.9	2.9	2.9			
221.3	0.3	0.3	292	3.1	3.1			
[redacted]222.5	1.2	1.2	294.3	2.3	2.3			
[redacted]223.2	0.7	0.6/89%	297.4	3.1	3.1			
223.5	0.3	0.3	300.5	3.1	3.1			
[redacted]224.2	0.7	0.7	303.6	3.1	3.1			
226	1.8	1.8	305.3	1.7	1.7			
[redacted]229	3.0	3.0	305.9	0.6	0.6			
231.9	2.9	2.9	306.4	0.5	0.5			
[redacted]235	3.1	3.1						
238	3.0	3.0						
[redacted]241	3.0	3.0						
[redacted]	3.0	3.0						
247	3.0	3.0						
[redacted]250	3.0	3.0						

APPENDIX 4

Whole Rock Analyses, Harker Diagrams
and Down Hole Plots, CRD 86-1

758131

CLASSIC COMLABS LTD

Analytical Laboratories (INC IN W.A.)

305 South Road, Mile End South, South Australia, 5031
Telephone: (08) 43 5722 Fax: (08) 234 0321 Telex: LABCOM AA89323

Mr. David Hall
Billiton Australia Ltd
30 Mersey Main Rd
Spreyton
DEVONPORT
TAS 7310 Australia

JOB NUMBER: 8AD1570

Your Reference: 11629/LD51/JPR

Date Received: 10-MAY-1988 Turnaround 31 days
Date Relayed: 10-JUN-1988
Date Reported: 10-JUN-1988

Number of Samples: 18

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

Report Comprising: Cover Sheet
Pages 1 to 5

Comments:

Enclosed is Amdel report for job 8AD1570 and a copy of Amdel invoice for your reference.

Report Dist'n: Carbon Copies(CC),Electronic Media(EM),Magnetic Media(MM)

Type	Recipient	Location	Date	Copies

Approved Signature:

for

Harry Fishman
Managing Director.
CLASSIC COMLABS LTD
(Please address any enquiries to Mr. Trevor Francis)

This report relates specifically to the sample(s) tested in so far as that the sample(s) is truly representative of the sample source as supplied.

131

758132

amdel
technology and enterprise

Amdel Limited
(Incorporated in S.A.)
31 Flemington Street,
Frewville, S.A. 5063

Telephone: (08) 372 2700

P.O. Box 114,
Eastwood, S.A. 5063

Telex: AA82520
Facsimile: (08) 79 6623

NATA CERTIFICATE
6 June 88

Mr T Francis
Classic Comlabs Ltd
305 South Road
MILE END SA 5031

REPORT AC 3275/88

YOUR REFERENCE:	8AD1570
REPORT COMPRISING:	Cover sheet PAGES I1-I4
DATE RECEIVED:	12 May 1988
Approved Signatory:	Don Patterson

D. Patterson

Manager, Chemistry Services

for Dr William G. Spencer
General Manager
Applied Sciences Group

The report relates specifically to the sample tested and also the entire batch in so far as the sample is truly representative of the sample source.
mk

102

amdel

758133

SEE TCR 87-2682

Analysis code ORE 2/1,2 Report AC 3275/88 Page 11

NATA Certificate Results in percentages

	CRD 86-1 10	CRD 86-1 16	CRD 86-1 21	CRD 86-1 25	CRD 86-1 50
SiO2	64.2	70.2	68.0	69.2	60.5
TiO2	0.87	0.33	0.34	0.88	0.88
Al2O3	13.7	13.4	14.1	13.9	12.1
Fe2O3	7.85	4.76	4.58	3.72	5.95
MnO	0.35	0.28	0.26	0.02	0.24
MgO	1.40	1.08	1.14	0.83	2.54
CaO	0.39	0.19	0.64	0.46	3.64
Na2O	0.03	0.16	0.54	0.17	0.04
K2O	4.44	4.02	4.12	4.78	4.12
P2O5	0.22	0.11	0.09	0.21	0.21
LOI	6.70	6.20	6.05	5.30	9.40
Totals	100.1	100.7	99.9	99.5	99.6
Ba	0.055	0.039	0.039	0.055	0.041
Sr	0.001	0.001	0.002	0.003	0.004
Zr	0.004	0.022	0.023	0.009	0.010

Total FE as Fe2O3

5405958 N

403025 E

Analysis code ORE 2/1.2 Report AC 3275/88 Page 12

NATA Certificate Results in percentages

	CRD 86-1 85	CRD 86-1 100	CRD 86-1 130	CRD 86-1 160	CRD 86-1 190
SiO2	53.7	66.2	66.9	66.7	66.4
TiO2	0.70	0.31	0.34	0.33	0.31
Al2O3	10.3	12.9	13.6	13.5	12.1
Fe2O3	7.90	3.62	3.28	3.60	3.88
MnO	0.67	0.34	0.21	0.13	0.41
MgO	3.22	1.13	0.69	0.72	1.53
CaO	6.15	3.42	3.44	3.16	3.30
Na2O	0.02	0.55	0.82	2.36	0.77
K2O	3.38	3.98	4.14	3.44	3.64
P2O5	0.30	0.12	0.11	0.11	0.11
LOI	12.3	7.25	6.45	6.25	7.65
Totals	98.6	99.8	100.0	100.3	100.1
Ba	0.029	0.043	0.027	0.022	0.028
Sr	0.004	0.002	0.003	0.005	0.002
Zr	0.005	0.016	0.021	0.021	0.018

Total FE as Fe2O3

amdel

758135

Analysis code ORE 2/1,2 Report AC 3275/88 Page 13

NATA Certificate Results in percentages

	CRD 86-1 200	CRD 86-1 210	CRD 86-1 220	CRD 86-1 230	CRD 86-1 240
SiO2	56.3	61.7	66.3	66.9	62.5
TiO2	0.61	0.32	0.28	0.32	0.46
Al2O3	10.6	13.6	11.8	13.8	14.3
Fe2O3	7.95	3.20	2.68	2.54	4.18
MnO	0.51	0.22	0.24	0.21	0.22
MgO	2.96	1.68	1.06	0.86	1.63
CaO	5.25	4.38	4.70	3.60	3.54
Na2O	<0.01	0.05	0.02	0.07	0.05
K2O	3.40	4.16	3.76	4.34	4.60
P2O5	0.23	0.09	0.08	0.10	0.14
LOI	11.2	8.60	8.00	6.80	7.70
Totals	99.0	98.0	98.9	99.5	99.3
Ba	0.038	0.041	0.031	0.046	0.045
Sr	0.005	0.009	0.003	0.003	0.003
Zr	<0.002	0.009	0.009	0.016	0.012

Total FE as Fe2O3

Analysis code ORE 2/1.2 Report AC 3275/88 Page 14

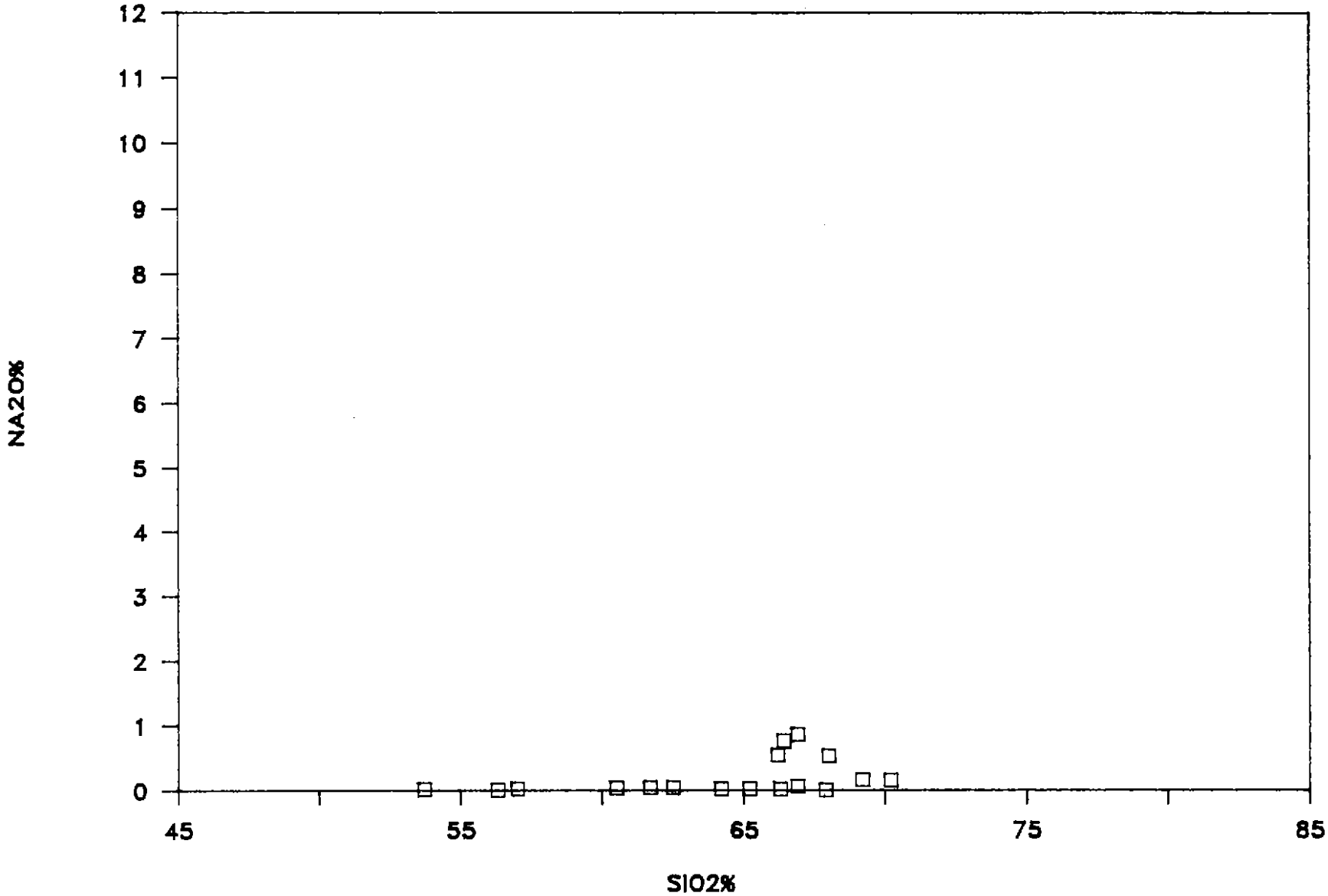
NATA Certificate Results in percentages

	CRD 86-1 255	CRD 86-1 265	CRD 86-1 277
SiO2	57.0	65.2	67.9
TiO2	0.43	0.33	0.15
Al2O3	13.9	13.4	13.3
Fe2O3	5.80	3.16	2.08
MnO	0.33	0.25	0.19
MgO	2.06	0.92	0.78
CaO	5.10	3.52	3.84
Na2O	0.03	0.03	<0.01
K2O	4.66	4.46	4.36
P2O5	0.15	0.11	0.07
LOI	9.60	7.15	6.75
Totals	99.1	98.5	99.4
Ba	0.048	0.052	0.059
Sr	0.004	0.003	0.003
Zr	0.015	0.018	0.009

Total FE as Fe2O3

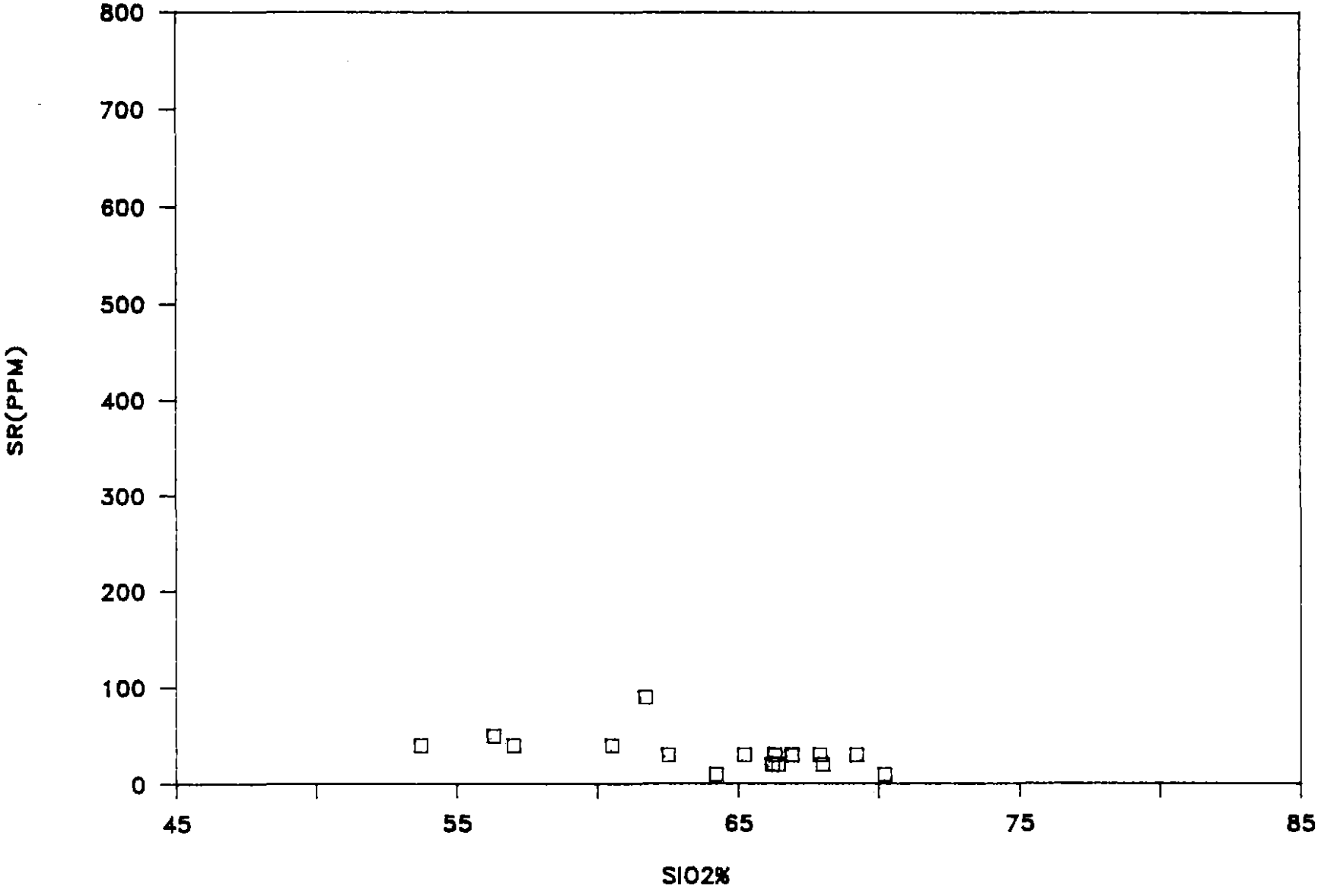
CATTLEY RANGE

CRD 86-1

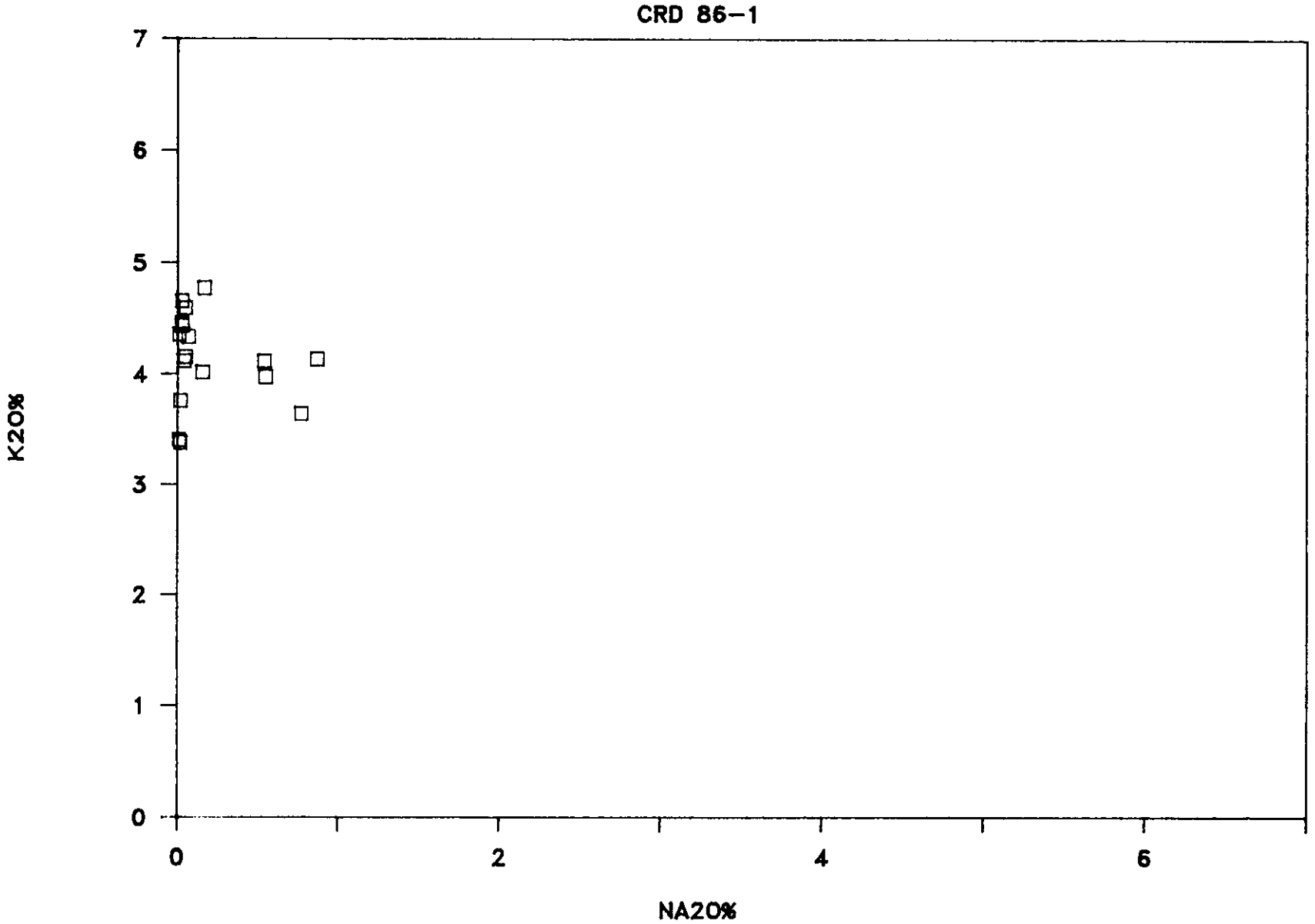


CATTLEY RANGE

CRD 86-1

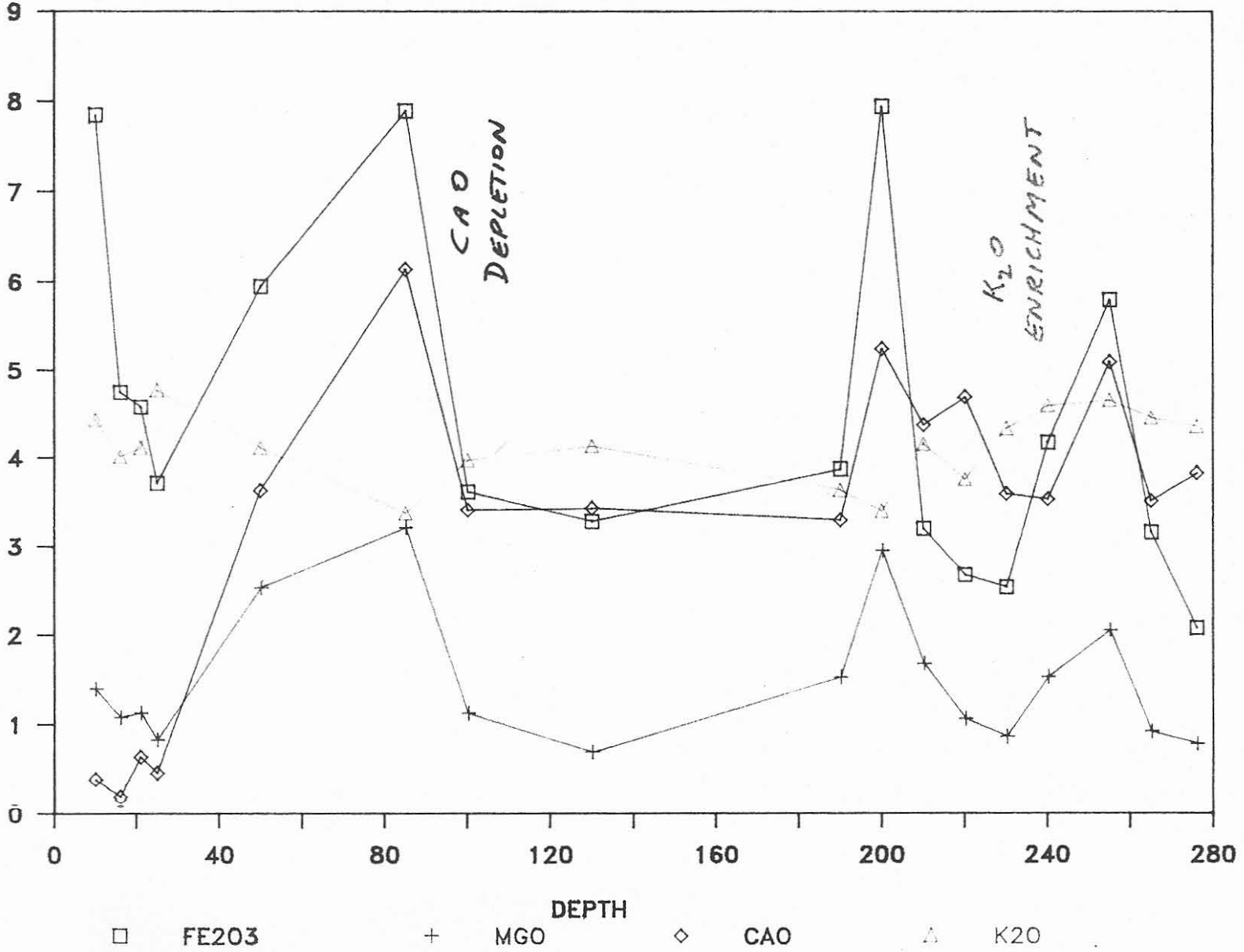


CATTLEY RANGE



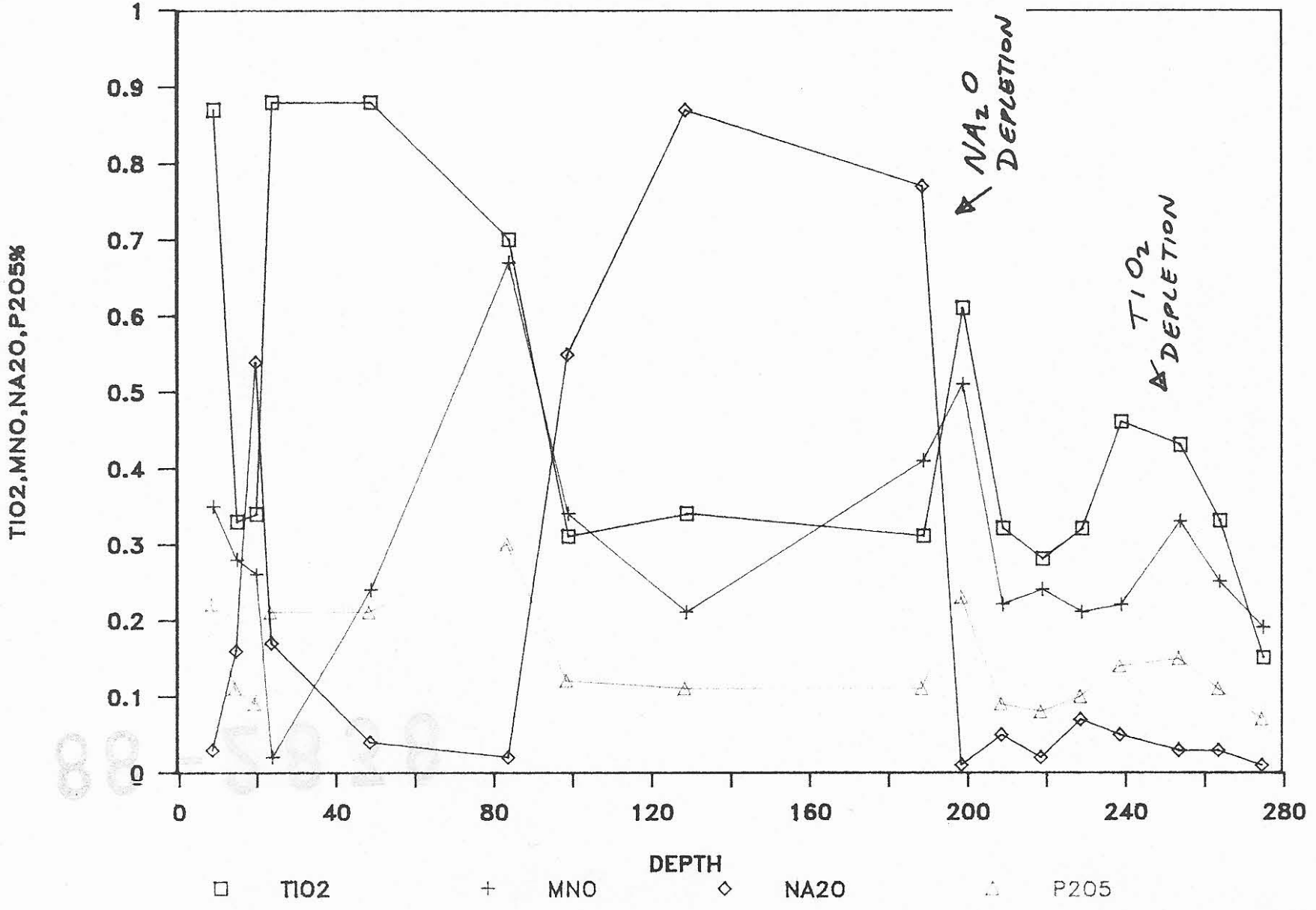
CATTLEY RANGE

CRD 86-1



CATTLEY RANGE

CRD 86-1



T TERTIARY — Vesicular basalt
S-D SILURO-DEVONIAN — Quartzite shales
θ ORDOVICIAN — Siliciclastics
CAMBRIAN
Cvv, Cvla CATTLEY/LOONGANA — Mixed volcaniclastics, minor porphyry, lava; Andesitic lavas
Cvlr — Acid volcanics probably lava
Css — Micaceous greywacke
Ct — Fine to coarse epiclastics
Cps — Intrusive porphyry
Cdt — Mixed volcaniclastics
Cds — Sediments, shales, silts
Cdb QUE/HELLYER — Basaltic lavas
Cdm — Mixed epiclastic, breccias, mineralized horizon
Cdal — Andesitic lavas
Cdbal — Mixed basalt-andesite
CAMBRIAN — Intrusive Granitoid
PC PRECAMBRIAN — Tyennan Basement
EM Sounding
DDH

St Valentines Peak
TWO HUMMOCKS ALTERATION ZONE
Tb 100m
Tb 50m
Tb 15m
Tb 70m
Tb 100m
Tb 27m
Tb 140m
15
Tb 136m
Cvrdq 282m
Tb 255m
Tb 193m
14
Tb 190m
Tb 222m
Tb 330m
88-1
86-1
CATTLEY ANDESITE VOLCANIC COMPLEX
EL 36/79
EL 14/85
EL 47/87
EL 90/87
TALBOTS LAGOON
Black Bluff
LAKE LEA
POSTULATED CATTLEY FAULT
MT. CRIPPS TRANSFER FAULT
HENTY FAULT ZONE
QUE HELLYER COMPLEX
Murchison Highway
Cradle Mt Link Road
410000N
400000N
390000N
5 cm

758142
7815
88-2838

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: GEOLOGICAL RELATIONSHIP TO THE QUE HELLYER VOLCANIC COMPLEX

Author JPR	Date 6/88	Scale 1:100 000	
Drawn OH	Office TAS	Revised	Date
Drawing No. D/LD 51/032			Fig. No. 2

DUNDAS GROUP

TURBIDITE REWORKING	>700	Cdg	DISTAL EPICLASTIC SEDIMENTS	Greywacke (sandstone)	siltstone mudstone		
REWORKING DISTAL VOLCANIC INPUT	270	Cdt	EPICLASTIC	Felsic ash falls qtz - feldspar			
QUIESCENCE	250	Cds	SEDIMENTS	Shale Siltstone Pyrite		Epiclastic agglomerate Cde	
SECOND VOLCANIC EPISODE	170	Cdb	LAVA	Pillow basalt	inter pillow chert		
	130	Cdba	LAVA	Andesite	intermediate volcaniclastic		
HIATUS	100	Cdm	EPICLASTIC BRECCIA	Grits & breccias of felsic lava, massive sulp., basalt, andesite	basaltic - andesitic lava Cda Cdba	Felsic lava Cdlf Massive sulphide	100m
	70	Cdlf	LAVA	Felsic, qtz + Feldspar phyric			
MAIN VOLCANISM	400	Cdbal	LAVA	Basalt - Andesite Cdal, Cdbl		Felsic volcaniclastic Cdtv	
ONSET OF VOLCANISM	110	Cdtv	VOLCANICLASTIC	Felsic		Felsic lava	
REWORKING TURBIDITE	> 150	Cdg	EPICLASTIC	Micaceous Sandstone	Siltstone Felsic tuff	basalt - andesite lava	

TYPE DOMINANT ——→ MINOR

ORE FORMATION + ALTERATION

TYNDAL GROUP

>1700m	Ctc	EPICLASTIC	Conglomerate		sandstone siltstone
450	Ctt	VOLCANICLASTIC	Felsic fine to coarse	Felsic lava (< 120m)	
140	Cts	SEDIMENT	Lithic wacke	siltstone	

NOTES

1. *Total lava package 770 m thickness*
2. *Hiatus of < 100m*
3. *Compositional differentiation at onset of hiatus*
4. *Alteration confined to hiatus*
5. *Major quiescence period is not economically important*

5 cm

758143

88-2838

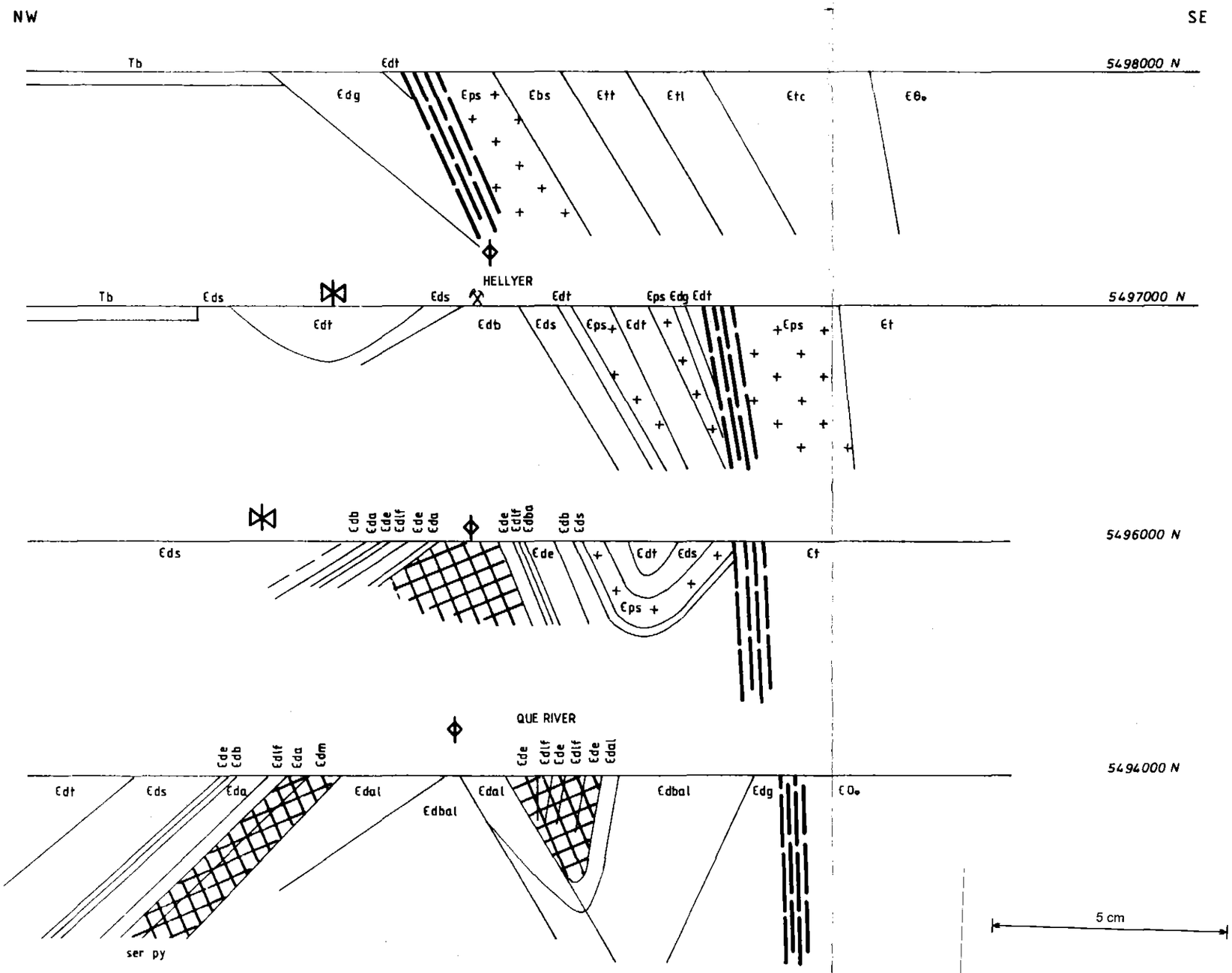
7816

Billiton Australia
The Metals Division of The Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: STRATIGRAPHIC COLUMN QUE - HELLYER

Author JPR	Date 6/88	Scale 1:1000	
Drawn OH	Office TAS	Revised	Date
Drawing No. D / LD 51/034			Fig No. 3



NOTES

1. *Alteration restricted to a particular stratigraphic interval Edm.*
2. *Alteration persists at least 1·5kms laterally from ore.*
3. *Sections show effect of shallow north plunging anticline on exposure of relative levels.*
4. *HFZ transgresses the regional strike and terminates the structure.*

758144

7817

88-2838

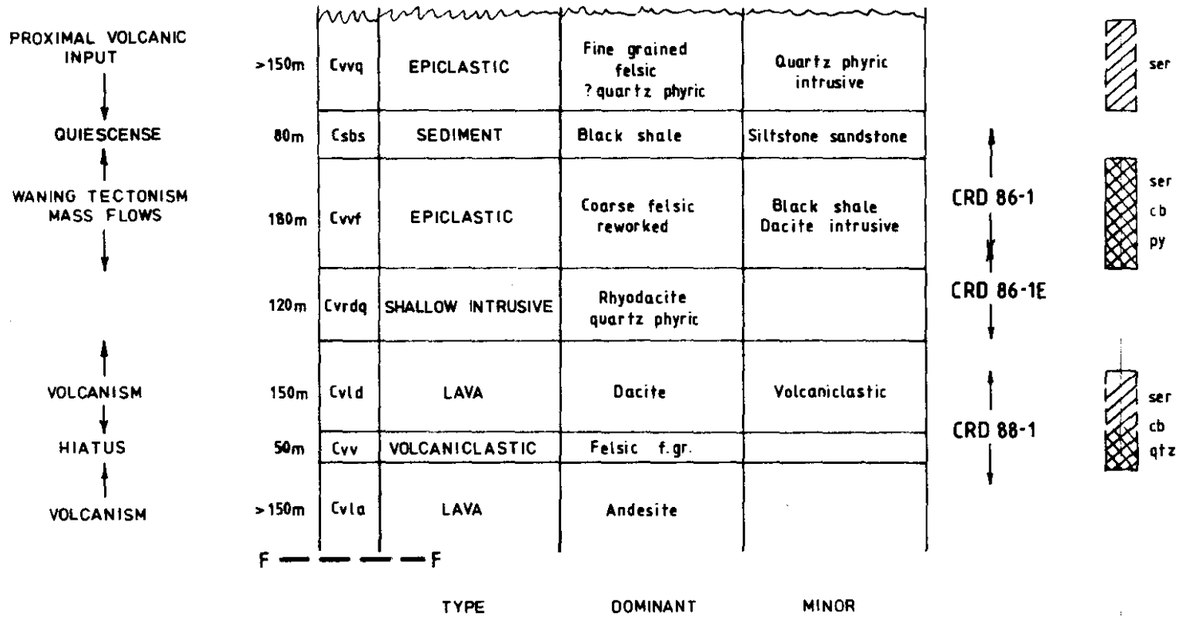
Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: QUE - HELLYER
NW - SE SECTIONS
THROUGH VOLCANIC COMPLEX

Author JPR	Date 6/88	Scale 1:25,000	
Drawn OH	Office TAS	Revised	Date

Drawing No. D/LD 51/033 Fig. No. 4



NOTES

1. *Alteration very strong in Cvvf with dominant sericite - subordinate carbonate - pyrite.*
2. *Hiatus between Cvla and Cvld shows moderate alteration and quartz veining.*
3. *Contact between Cvvf and Cvld may be an important ore bearing horizon although in this area it is obscured by intrusive rhyodacite.*

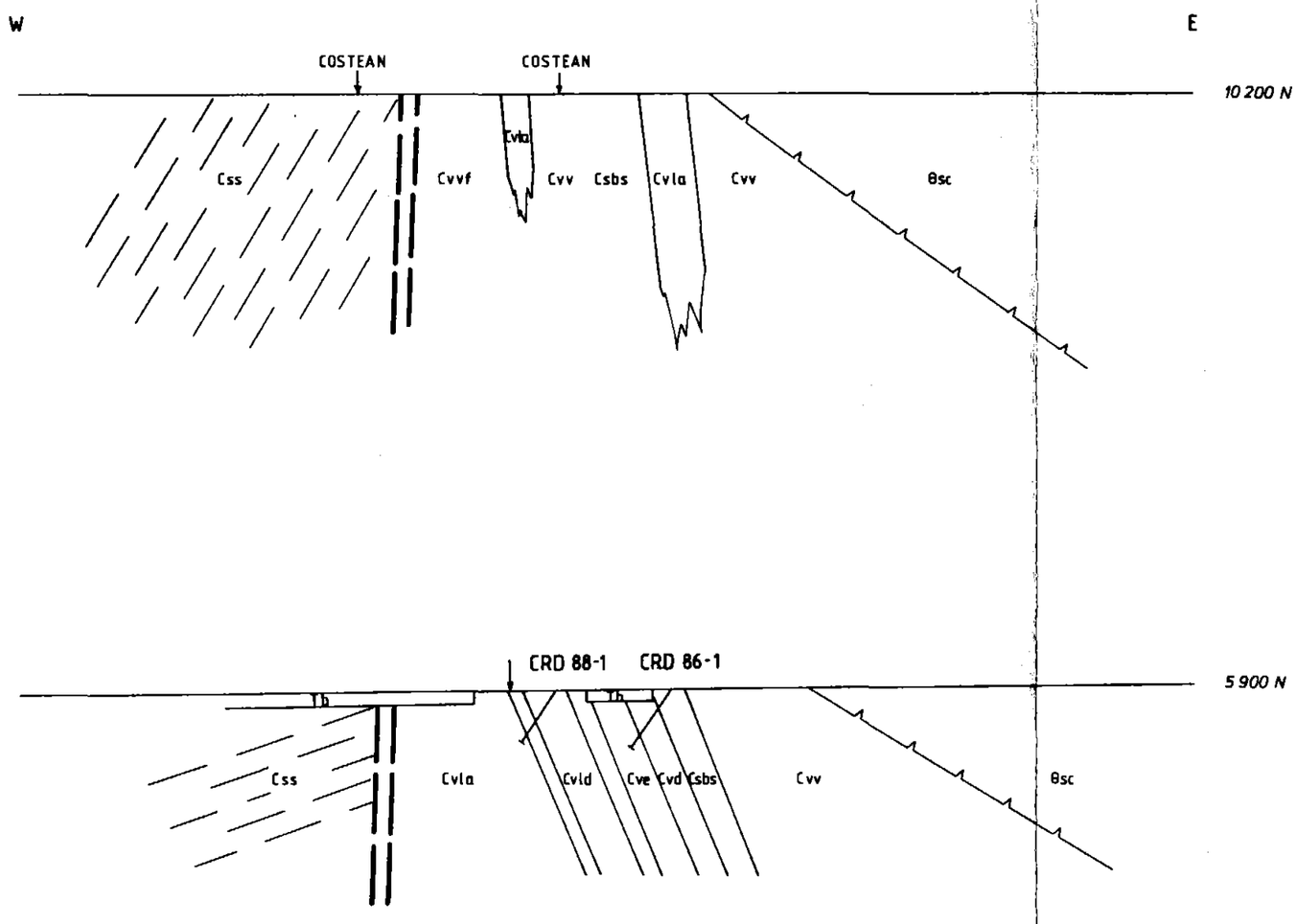
758145 7818

5 cm

88-2838

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE		
Title	STRATIGRAPHIC COLUMN SOUTH END		
Author JPR	Date 6/88	Scale 1:1000	
Drawn DH	Office TAS	Revised	Date
Drawing No. D/LD 51/036			Fig. No. 5



758146

5 cm

7819

88-2838

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: E-W SECTIONS THROUGH PROSPECT

Author JPR	Date 6/88	Scale 1:25,000	
Drawn OH	Office TAS	Revised	Date
Drawing No. D/LD 51/035			Fig. No. 6

400 000 m E

401

402

141° 50'

403

404

405

406

407

408 000 m E

s 413 000 m N

412

411

s 410 000 m

409

408

407

406

41° 30'

405

404

403

402

401

s 400 000 m N

RIVER

Black Marsh Creek

LEVEN

SHEET 1

MEDWAY

BLACK MARSH ROAD

RIVER

SHEET 2

ROAD

MAYDAY

Cattley Creek

SHEET 3

COBBERS CREEK RD

MT CATTLEY

SHEET 4

LEVEN RIVER

SHEET 5

RANGE

MT PROSPECT

BLUFF

SHEET 6

BLACK

CATTLEY RANGE E.L. 39/83

DEVONPORT

CATTLEY RANGE

0 1 2km

5 cm

758147

88-2838

7820

Billiton Australia

The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE
Title	INDEX PLAN OF 1:5000 SCALE SHEETS

Author	Dept.	Scale	1:20,000
Drawn	Date	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 7		Drawing No.	LD51/1037

402 000E
403 000E
404 000E
405 000E
406 000E
5412 000N
5411 000N
5410 000N

Creek
RIVER
RING
ROAD
CATTLEY
Leyen
CREEK
River
Falls
flying fox
• 631
• 668
medium forest with
low dense vegetation
600
650
700
750
800
850
900
950

5 cm

758148

88 - 2838

7921

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE		
Title	TOPOGRAPHIC BASE PLAN (ENLARGEMENT OF GOVERNMENT PLAN) SHEET 1		
Author J.P.R.	Dept.	Scale 1:5000	
Drawn	Date	Revised	Date
Checked	Date	S'ceded	Date
Sheet No.	FIG No. 8	Drawing No.	LD51/1036

402 000E

403 000E

404 000E

405 000E

5410 000N

5409 000N

5408 000N

BLACK HANDY

CATTLEY

5 cm

758149

88-2838

7822

Billiton Australia
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Project	CATTLEY RANGE
Title	TOPOGRAPHIC BASE PLAN (ENLARGEMENT OF GOVERNMENT PLAN) SHEET 2

Author J.P.R.	Dept.	Scale 1:5000	
Drawn	Date	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 9		Drawing No. LD51/1031	

402 000E

403 000E

404 000E

405 000E

406 000E

5408 000N

5407 000N

5406 000N

0976

LEVEN ROAD

458

698

UPPER RIVER

RIVER ROAD

05

750

CREEK

981

894

868

944

5 cm

758150

88-2838

7823

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: TOPOGRAPHIC BASE PLAN
(ENLARGEMENT OF GOVERNMENT PLAN)
SHEET 3

Author J.P.R.	Dept.	Scale 1:5000	
Drawn	Date	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 10		Drawing No. LD51/1035	

402 000E

403 000E

404 000E

405 000E

406 000E

5406 000N

5405 000N

5404 000N

ATAH 64

EAST

CATTLEY

MOUNT

CATTLEY PLAIN

5 cm

758151

88-2838

7824

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: TOPOGRAPHIC BASE PLAN
(ENLARGEMENT OF GOVERNMENT PLAN)

SHEET 4

Author J.P.R.	Dept.	Scale 1:5000	
Drawn	Date	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No.11		Drawing No. LD51/1033	

758152

88 - 2838

7825

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE
Title	TOPOGRAPHIC BASE PLAN (ENLARGEMENT OF GOVERNMENT PLAN) SHEET 5
Author J.P.R. Dept.	Scale 1:5000
Drawn Date	Revised Date
Checked Date	S'ceded Date
Sheet No. FIG No. 12	Drawing No. LD51/1034

5402 000E
5403 000E
5404 000E
5405 000E
5406 000E

5402 000N
5401 000N
5400 000N

700
702
720
800
856
888
898

(transmission line under construction)

BLACK ROCKY MOUNT

5 cm

758153

88-2838 7826

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE
Title	TOPOGRAPHIC BASE PLAN (ENLARGEMENT OF GOVERNMENT PLAN) SHEET 6

Author J.P.R.	Dept.	Scale 1:5000	
Drawn	Date	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 13		Drawing No. LD51/1032	

E.L. 39/83 BOUNDARY

E.L. 36/79
E.L. 39/83

N.B. Accurate position of this grid and Anomalies needs checking on the ground.

Max 1200 Pb 0·27 Au

DD 87 CN 1
10m-0·19% Zn

Max-Min N.H. Recommended

DIGHEM

INPUT

I.P.

No EM Coverage North of 10600N

EM 37 LOOP 1

CGS TAN

16013 16011 16010 16009 16007 16006 16005 16003 16002 16001

14-399 14-400 14-377

13155 13153

LEGEND

TERTIARY	Tb	Pillowed vesicular basalt	
ORDOVICIAN	Osc	Pebble to boulder conglomerate	
	Oss	Polymict pebble conglomerate	
CAMBRIAN	Cvv	Undifferentiated volcaniclastic	
	Cve	Undifferentiated epiclastic	
	Csbs	Black graphitic shale	
	Cssl	Fine silty sediment	
	Cvpq	Quartz phyric porphyry; rhyolite to rhyodacite	
	Cvrdq	Rhyodacitic quartz phyric volcanic	
	Cvld	Dacitic lava feldspar phyric	
	Cvla	Andesitic lava feldspar phyric	

ser	Alteration sericite
sil	silica
q	Quartz phyric
f	Feldspar phyric
c	Coarse grained
o	Stream sediment
•155 Pb	Soil sample
x13519	Rock chip
	Diamond drill hole
	Outcrop
	Subcrop

	EM37 Anomaly
	Dighem Anomaly
	I.P. Anomaly
	Dip Strike Bedding So
	Dip Strike Cleavage Si
	Facing
	Creek
	Track

5 cm

758154

88-2838 7827

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE		
Title	GEOLOGICAL GEOPHYSICAL COMPILATION		
	SHEET 1		
Author JPR	Dept. TAS	Scale 1:5000	
Drawn OH	Date 6/88	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 14		Drawing No. D/LD 51/028	

758155

5 cm

LEGEND

TERTIARY		Tb	Pillowed vesicular basalt
ORDOVICIAN		Osc	Pebble to boulder conglomerate
		Os	Polymict pebble conglomerate
CAMBRIAN		Cvv	Undifferentiated volcaniclastic
		Cve	Undifferentiated epiclastic
		Csbs	Black graphitic shale
		Cssl	Fine silty sediment
		Cvpq	Quartz phyric porphyry rhyolite to rhyodacite
		Cvrdq	Rhyodacitic quartz phyric volcanic
		Cvld	Dacitic lava feldspar phyric
		Cvla	Andesitic lava feldspar phyric

ser / sil	Alteration	sericite / silica
q	Quartz phyric	
f	Feldspar phyric	
c	Coarse grained	
o	Stream sediment	
•155 Pb	Soil sample	
×13519	Rock chip	
	Diamond drill hole	
	Outcrop	
	Subcrop	

EM 37 Anomaly
Dighem Anomaly
I.P. Anomaly
Dip Strike Bedding S_0
Dip Strike Cleavage S_1
Facing
Creek
Track

88-2838 1
7828

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE		
Title	GEOLOGICAL GEOPHYSICAL COMPILATION — SHEET 2		
Author JPR	Dept. TAS	Scale 1:5000	
Drawn O.H.	Date 6/88	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 15		Drawing No. D/LD 51/029	

LEGEND

TERTIARY	Tb	Pillowed vesicular basalt
ORDOVICIAN	Osc	Pebble to boulder conglomerate
	Osa	Polymict pebble conglomerate
CAMBRIAN	Cvv	Undifferentiated volcaniclastic
	Cve	Undifferentiated epiclastic
	Csbs	Black graphitic shale
	Cssl	Fine silty sediment
	Cvpq	Quartz phyric porphyry rhyolite to rhyodacite
	Cvrdq	Rhyodacitic quartz phyric volcanic
	Cvld	Dacitic lava feldspar phyric
	Cvla	Andesitic lava feldspar phyric

ser / sil	Alteration	sericite / silica
q	Quartz phyric	
f	Feldspar phyric	
c	Coarse grained	
o	Stream sediment	
•155Pb	Soil sample	
× 13519	Rock chip	
	Diamond drill hole	
	Outcrop	
	Subcrop	

EM 37 Anomaly
Dighem Anomaly
I.P. Anomaly
Dip Strike Bedding S_0
Dip Strike Cleavage S_1
Facing
Creek
Track

CRD88-1
AMG: 5406150 N
402590 E
(L.V. 1995)

758156

5 cm

88-2838

7829

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE
Title	GEOLOGICAL GEOPHYSICAL COMPILATION — SHEET 3

Author J P R	Dept. TAS	Scale 1:5000	
Drawn O H	Date 6/88	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 16		Drawing No. D/LD 51/030	

758157

LEGEND

TERTIARY	Tb	Pillowed vesicular basalt
ORDOVICIAN	Osc	Pebble to boulder conglomerate
	Osa	Polymict pebble conglomerate
CAMBRIAN	Cvv	Undifferentiated volcaniclastic
	Cve	Undifferentiated epiclastic
	Csbs	Black graphitic shale
	Cssl	Fine silty sediment
	Cvpq	Quartz phyric porphyry rhyolite to rhyodacite
	Cvrdq	Rhyodacitic quartz phyric volcanic
	Cvld	Dacitic lava feldspar phyric
	Cvla	Andesitic lava feldspar phyric

ser / sil	Alteration sericite / silica
q	Quartz phyric
f	Feldspar phyric
c	Coarse grained
o	Stream sediment
•155 Pb	Soil sample
x 13519	Rock chip
◎	Diamond drill hole
	Outcrop
	Subcrop

○	EM 37 Anomaly
○	Dighem Anomaly
▭	I.P. Anomaly
	Dip Strike Bedding S_0
	Dip Strike Cleavage S_1
	Facing
	Creek
	Track

5 cm

88-2838

7830

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: GEOLOGICAL GEOPHYSICAL COMPILATION

SHEET 4

Author JPR	Dept. TAS	Scale 1:5000	
Drawn OH	Date 6/88	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 17		Drawing No. D/LD 51/031	

11 000 E

11 500 E

12 000 E

12 500 E

10 800 N

10 600 N

10 400 N

10 200 N

10 000 N

CREEK

CATTLEY

Auger

165

910

Vser Vser V leached V Sct organics Vt ser

Pb

Pb Anomalous

Zn Anomalous

Auger hole

Pb Zn

Auger

Vss Vt soils Sslt Vt ser Vser Vt ser leached organic leached

650 320 175 110

120 75 100

COSTEAN

Auger

Auger

Pb Zn

Auger

or br fV Vt ser Vt ser Vt Sslt Vt ser ferrug Vss Sct fVcb fV leached V leached leached

110 125 175 160 80 75 150 340 COSTEAN 170

85 120 90 195 195

Pb Zn

Auger

Auger

leached? leached volc leached fV Recent grits leached clay V ferrug felds V(or br) yell. green fV or br fV leached fV or br fV leached soils

85 155 130

Auger

Pb Zn Cu

120 105 130 130 95 155

65 70 65 70 60 70

LEGEND

fV	Feldspar phyric intermediate volcanic
V	Undifferentiated volcanic
Sct	Cherty siltstone
Vt	Tuffaceous volcaniclastic
Vss	Arenaceous volcaniclastic
Sslt	Siltstone

758158

5 cm

Pb $\bar{x} + 2\sigma n = 100$

Zn $\bar{x} + 2\sigma n = 100$

7831

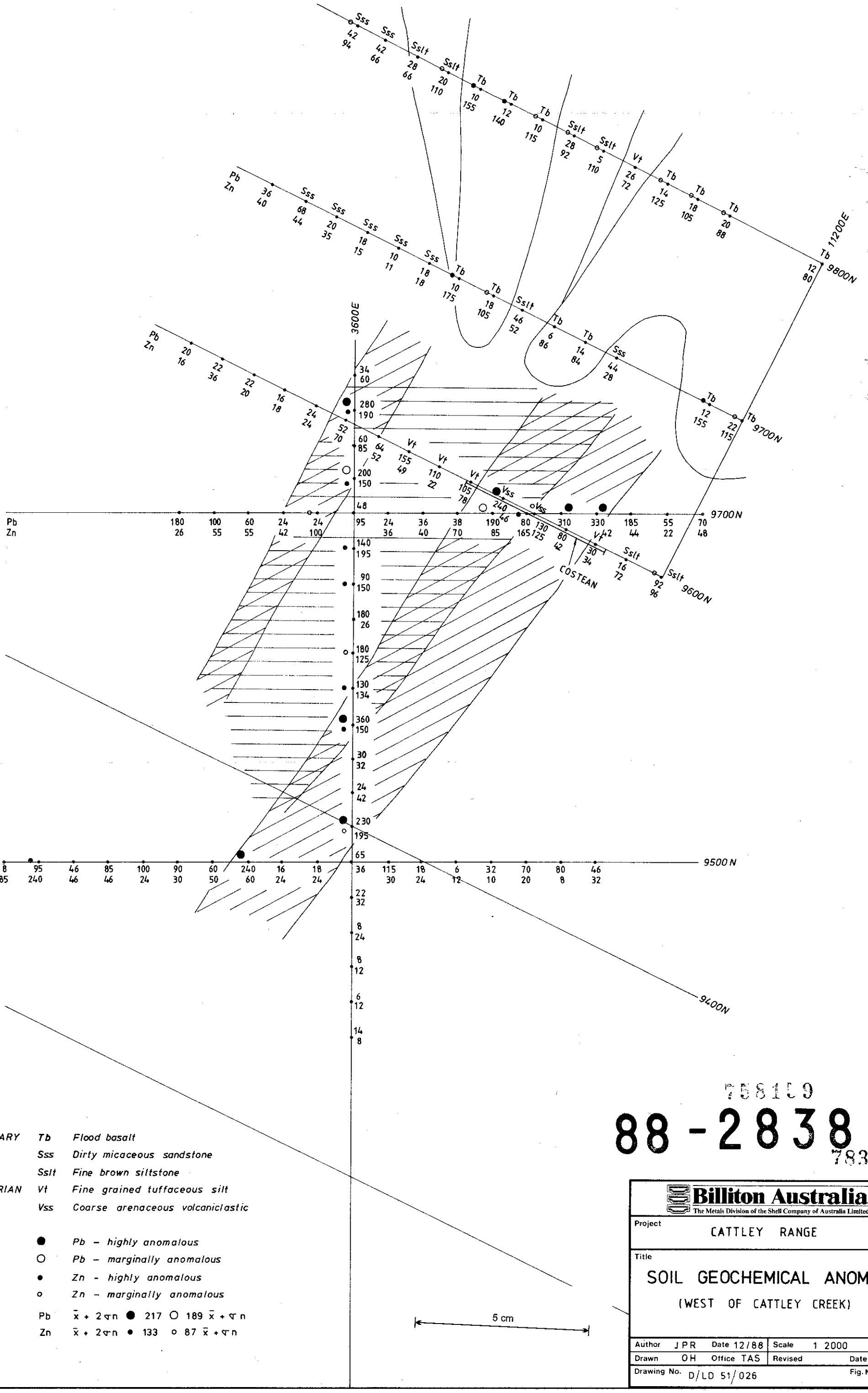
88-2838

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: SOIL GEOCHEMICAL ANOMALY EAST OF CATTLEY CREEK

Author J.P.R.	Date 11/87	Scale 1:5000	
Drawn O.H.	Office TAS	Revised	Date
Drawing No. D/LD 51/024			Fig. No. 18



TERTIARY Tb Flood basalt
Sss Dirty micaceous sandstone
Sslt Fine brown siltstone
CAMBRIAN Vt Fine grained tuffaceous silt
Vss Coarse arenaceous volcaniclastic

● Pb – highly anomalous
○ Pb – marginally anomalous
• Zn – highly anomalous
o Zn – marginally anomalous

Pb $\bar{x} + 2\sigma n$ ● 217 ○ 189 $\bar{x} + \sigma n$
Zn $\bar{x} + 2\sigma n$ • 133 o 87 $\bar{x} + \sigma n$

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project	CATTLEY RANGE		
Title	SOIL GEOCHEMICAL ANOMALY (WEST OF CATTLEY CREEK)		
Author	J P R	Date 12/88	Scale 1 2000
Drawn	O H	Office TAS	Revised Date
Drawing No.	D/LD 51/026		Fig. No. 19

11670E 11700E 11750E 11800E 11850E

10600N		4	10		4	32		18	6		910	42		20	9		18	16		4	8		4	6					
		V			Sct			Org			Vtser																		
	Cu	3	4	5	12	13	8	12	13	8	6	9	15	9	13	12	11	17	30	13	7	5	12	15	5				
AAS	Zn	56	48	92	135	180	105	88	145	115	140	120	130	94	52	80	130	175	130	210	135	105	190	220	76				
	Ag	<1	<1	<1	<1	<1	1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	1	1	<1	<1	1	<1				
	Pb	78	140	330	330	260	210	240	950	260	1020	730	940	570	590	540	710	520	1040	600	480	630	410	360	180				
XRF	Ba	630	610	490	420	380	520	400	590	250	420	470	260	340	220	360	280	300	380	470	400	520	300	400	300				
	As	20	12	11	46	68	32	34	46	17	38	13	36	22	12	17	17	24	20	22	20	13	28	10	5				
F.A.	Au	0·01	0·01	<0·01	<0·01	0·01	<0·01	<0·01	0·01	<0·01	0·01	<0·01	<0·01	<0·01	<0·01	0·01	<0·01	0·01	<0·01	<0·01	<0·01	<0·01	<0·01	<0·01	<0·01				

5 cm

10400N 22 10 80 46 44 34 650 120 320 75 175 100 110 85 95 55

Vss Vt

red-yel red-br cb fine lam red-or Mn cb 85°E red or fine 75°E Mixed volcanics & intercalated siltstones Minor silts only or-bl chl cb Minor chert inter-calated Minor ferru. qtz vng

	Cu	<2	2		2	2	7	17	12	10	20	13	22	7	6	5	7	20	6	13	8	9	10	8	7	8	12	9	19	12	18	24	16
AAS	Zn	24	20		28	26	115	54	86	60	88	54	96	24	24	26	58	125	210	86	42	54	68	105	110	88	98	94	185	64	48	44	84
	Ag	<1	<1		<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1
	Pb	105	74		135	50	64	110	125	140	92	96	105	26	260	54	42	78	70	195	100	170	190	115	410	370	250	390	310	200	82	94	350
XRF	Ba	165	175		480	310	430	370	380	330	360	330	360	300	380	360	430	410	450	550	480	550	510	600	410	520	370	320	340	480	400	480	670
	As	12	18		8	4	32	46	40	72	48	42	34	7	10	6	22	36	38	78	40	58	64	68	50	36	26	36	50	50	48	34	17
F.A.	Au	0·01	<0·01		<0·01	<0·01	0·01	<0·01	<0·01	<0·01	<0·01	<0·01	<0·01	<0·01	0·01	<0·01	<0·01	<0·01	<0·01	0·03	0·02	<0·01	0·01	<0·01	<0·01	<0·01	<0·01	<0·01	0·01	<0·01	<0·01	<0·01	0·01

LEGEND

- Q V — Quartz phyric andesite lava
- V — Feldspar phyric andesite lava
- Fine brown siltstone
- Black siliceous siltstone
- Chert

ser Sericite
cb Carbonate
q Quartz veining
Mn Manganese staining

10200N 80 44 175 85 160 120 80 90 75 195 150 195 340 65 28 32

or-gr massive Alluvial Wash Owen scree (conglomerate, sands) Mn Buck quartz Siliceous black shale cb Siliceous Cherty Siliceous cb fel cb spot fgn py cb quartz fine phyric lam

Pb Zn
100 50
Auger sample

10000N 6 9 30 8 30 7 65 42 85 46 155 70 130

758160 7833

88-2838

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: COSTEAN PROFILES (EAST OF CATTLEY CREEK)

Author JPR	Date 12/87	Scale 1:500	
Drawn OH	Office TAS	Revised	Date
Drawing No. D/LD 51/025			Fig. No. 20

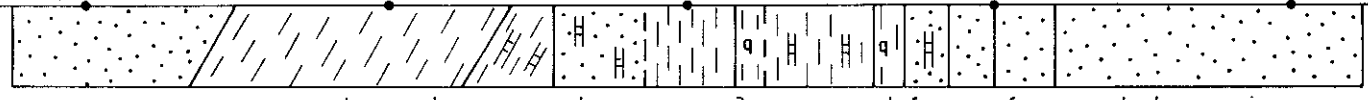
11050E 11100E 11150E

9700N

46 52 Sslt | 6 86 Tb | 14 84 Tb | 44 28 Vss | 12 155 Tb

9600N

110 22 | 107 78 | 240 46 | 80 165 | 80 42 | 30 34 | 16 72 Sslt



AAS	Cu	22	14	12	8	11	28	14	17	10	13	16	7	4	4	4	3	7		9	5	2	2	2	2
	Zn	140	130	150	76	145	115	165	220	220	290	430	125	135	105	175	76	56		130	62	44	46	50	60
	Ag	<1	1	<1	<1	1	1	<1	<1	<1	<1	<1	1	<1	<1	<1	<1	<1		<1	<1	<1	<1	<1	<1
XRF	Pb	36	36	40	36	180	310	175	880	450	150	160	96	50	52	76	90	58		76	76	92	200	140	86
	Ba	450	520	470	240	350	390	260	450	560	670	690	730	830	550	470	740	460		1120	1120	1000	930	860	970
	As	2	5	5	3	18	22	11	48	26	40	28	32	24	15	32	14	18		15	7	8	12	3	3
F.A.	Au	0·02	0·05	0·02	0·01	<0·01	<0·01	<0·01	0·03	0·02	<0·01	<0·01	0·01	0·01	0·01	<0·01	<0·01	0·01		0·01	<0·01	<0·01	0·01	<0·01	<0·01

300 150

9400 N

230 115

758161

7834

Fine to coarse micaceous sandstone

Fine grained siltstone

Calcaceous siltstone

ferr ferruginous
qtz quartz veining
cb carbonate
py pyrite

5 cm

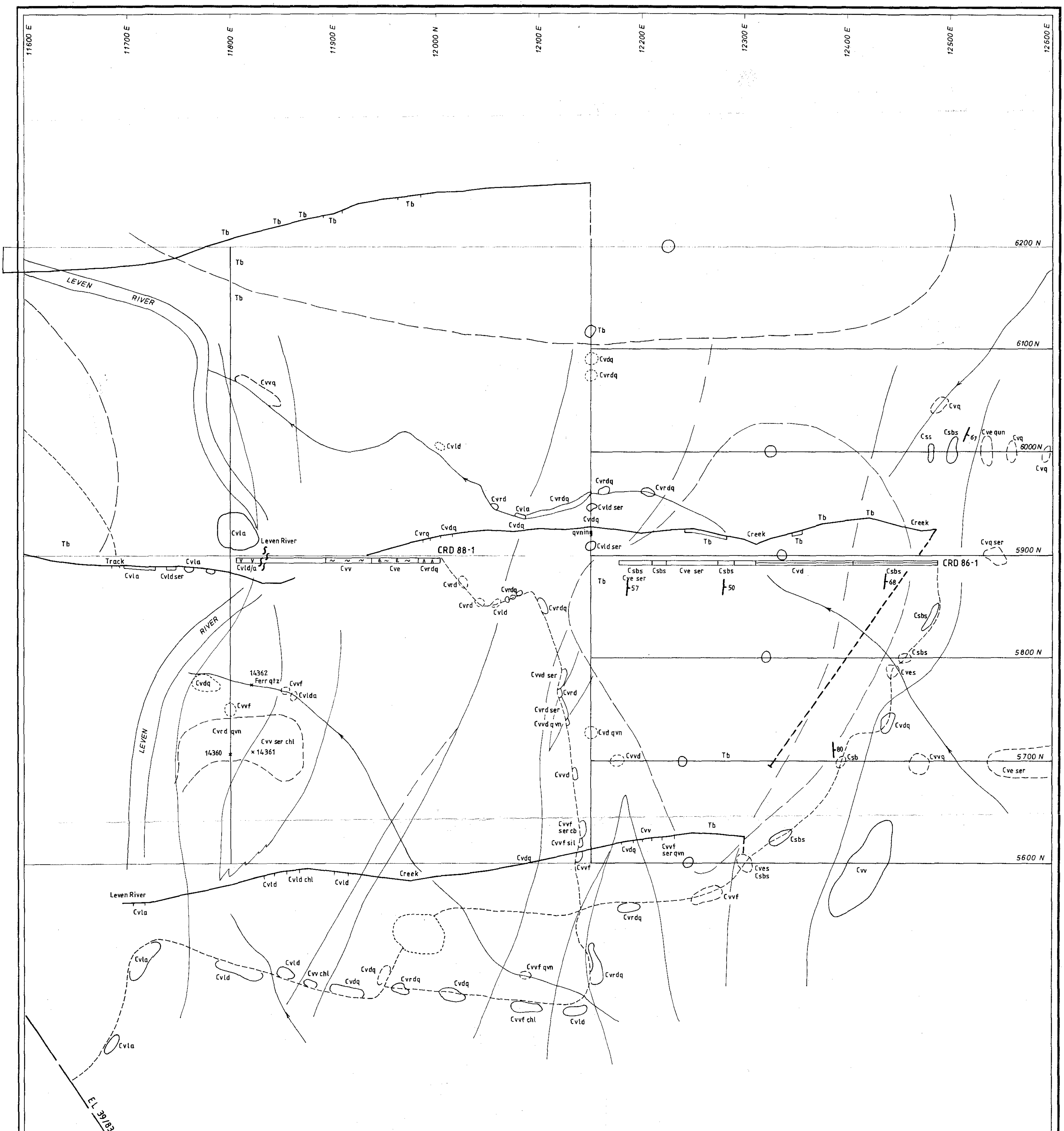
88-2838

Billiton Australia

Project: CATTLEY RANGE

Title: COSTEAN PROFILE (WEST OF CATTLEY CREEK)

Author JPR Date 11/87 Scale 1:500
Drawn OH Office TAS Revised Date
Drawing No D/LD 51/027 Fig. No. 21



LEGEND

	Tb	Tertiary basalt
	Cve	Cambrian undiff. epiclastics
	Cvvf	Cambrian feldspar phyric volcaniclastics
	Cvvq	Cambrian quartz phyric volcaniclastics
	Cves	Cambrian arenaceous epiclastic
	Csbs	Cambrian black shale
	Csl	Cambrian fine silts
	Cvq	Cambrian quartz phyric volcanic
	Cvd	Cambrian dacitic volcanic
	Cvdq	Cambrian quartz phyric dacitic lava/intrusive
	Cvrdq	Cambrian quartz phyric rhyodacitic lava intrusive
	Cvla	Cambrian feldspar phyric andesitic lava
	Cvlda	Cambrian feldspar phyric dacite-andesite lava

Sirotem anomaly
Grid line profile
Track

0 50 100 150 200M

5 cm

758162

88-2838

7835

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: DETAILED GEOLOGICAL PLAN OF AREA AROUND DRILL HOLE CRD 86-1

Author J P R	Dept. TAS	Scale 1:2500	
Drawn O H	Date 6/88	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 22		Drawing No. D / LD 51/037	

LEGEND AND STRATIGRAPHIC COLUMN

Age	Symbol	Unit	Description
TERTIARY	Tb	FLOOD BASALT	Pillowed and vesicular very fresh
	Csbs	LAMINATED BLACK SHALE	Same as unit below (Csbs).
	∧ ∧	DACITIC INTRUSIVE OR LAVA	Variable quartz + feldspar, less felsic than unit below (Cvirdq).
	Csbs	LAMINATED BLACK SHALE	Finely pyritic laminated, weakly graphitic.
	~ E ~	COARSE EPICLASTIC BRECCIA	Similar to unit below (mass debris flow) but evidence of reworking apparent. Very strong sericite + carbonate alteration.
	~ E ~	MIXED SEQUENCE EPICLASTICS SILTS SANDS	Alternating fine epiclastics, siltstones and arenites, strongly sericitized.
	Cvirdq ∧ ∧	QUARTZ-FELDSPAR PHYRIC RHYODACITIC INTRUSIVE	Medium grained variable quartz + feldspar, overall composition from dacite to rhyolite.
CAMBRIAN	~ E ~	COARSE DACITIC EPICLASTIC	Pebble to cobble size subangular to sub-rounded clasts, polymict (black shale and volcanic). Strongly sericitised. Probable mass debris flow.
		FINE SILTSTONE AND ARENITE	Minor constituents, some grading evident
	Cvvf	FINE GRAINED SILICEOUS VOLCANICLASTIC	Often sericitized poorly layered vitric ash.
	Cvla Va Va	ANDESITIC LAVA	Fine to medium grained feldspar phyric.
		MOTTLED CHERT	Poorly laminated extremely fine grained.
	Cvvf	FINE GRAINED DACITIC VOLCANICLASTIC	Often chalcedonic, strongly K-spar altered, probable vitric ash.
	Cvld V V	DACITIC LAVA	Feldspar phyric, quartz carbonate veined, fine to medium grained.

ser	sericite
sid	siderite
cb	carbonate
chl	chlorite
q	quartz
py	pyrite
gal	galena
sph	sphalerite
lam	laminated
graph	graphitic

758163

88-2838

7836

Billiton Australia
The Metals Division of the Shell Company of Australia Limited

Project: CATTLEY RANGE

Title: DIAMOND DRILL SECTION
CRD 86-1 CRD 88-1
LINE 5900N

Author J P R	Dept. TAS	Scale 1:1000	
Drawn OH	Date 7/88	Revised	Date
Checked	Date	S'ceded	Date
Sheet No. FIG No. 23		Drawing No. D/LD 51/038	