883001

PASMINCO EXPLORATION

EL 37/89 BULGOBAC HILL
ANNUAL REPORT

AUGUST 1993 – AUGUST 1994

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JG Purvis & Associates Pty Ltd

DATE: August 1994

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Pasminco Exploration – Burnie
– Melbourne
– Rosebery

SUBMITTED BY:

ACCEPTED BY:

BURNIE
AUGUST 1994

883002

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1 SUMMARY

The principal activity on EL 37/89 in the past year was the drilling of a deep hole (BHD5, 771m), at **High Point.**

Unfortunately, the hole had to be abandoned while still short of the target Que-Hellyer Volcanics Mixed Sequence, when the rod string broke in a major fault at 754-771m within the Hangingwall Volcanics.

Intense fuchsite alteration in the fault zone, along with increasingly strong hydrothermal alteration in the basal section of the hole and indications from a DHEM survey of conductive material below the hole, are very encouraging and a new hole is planned to complete the test of the BHD5 target.

The drilling of BHD5 highlighted the complex structure at **High Point.** A ground magnetic survey over the Mt Charter Fault and a petrological/lithogeochemical study comparing BHD5 with Aberfoyle hole MAC27, were undertaken to help resolve questions of geology. A major structure, the Dividing Fault, has been identified as that causing the loss of both BHD5 and BHP hole HP4/4A. It is apparent both BHD5 and HP4 drilled almost directly down this structure.

At **Sock Creek,** drillhole BHD4 was surveyed with DHEM but no anomalies were detected. No further work is recommended in this area.

The overall mineral potential of the EL has been reviewed. Apart from the Que-Hellyer Volcanics at **High Point**, the only other area with identified mineral potential is at **South Mt Charter**, where the intersection of the Mt Charter and Henty faults remains virtually unexplored. An initial programme of grid-based mapping, geochemistry and ground magnetics is recommended here as an initial assessment of this area.

The 10 sq km EL 7/93, pegged in the **South Mt Charter** area in April 1993, was amalgamated into the Bulgobac Hill EL in October 1993. The latter now covers an area of 49 sq km.

2 INTRODUCTION

This report covers exploration done on Bulgobac Hill EL 37/89 between 2nd August 1993 and 2nd August 1994. The work programme for the coming year is outlined.

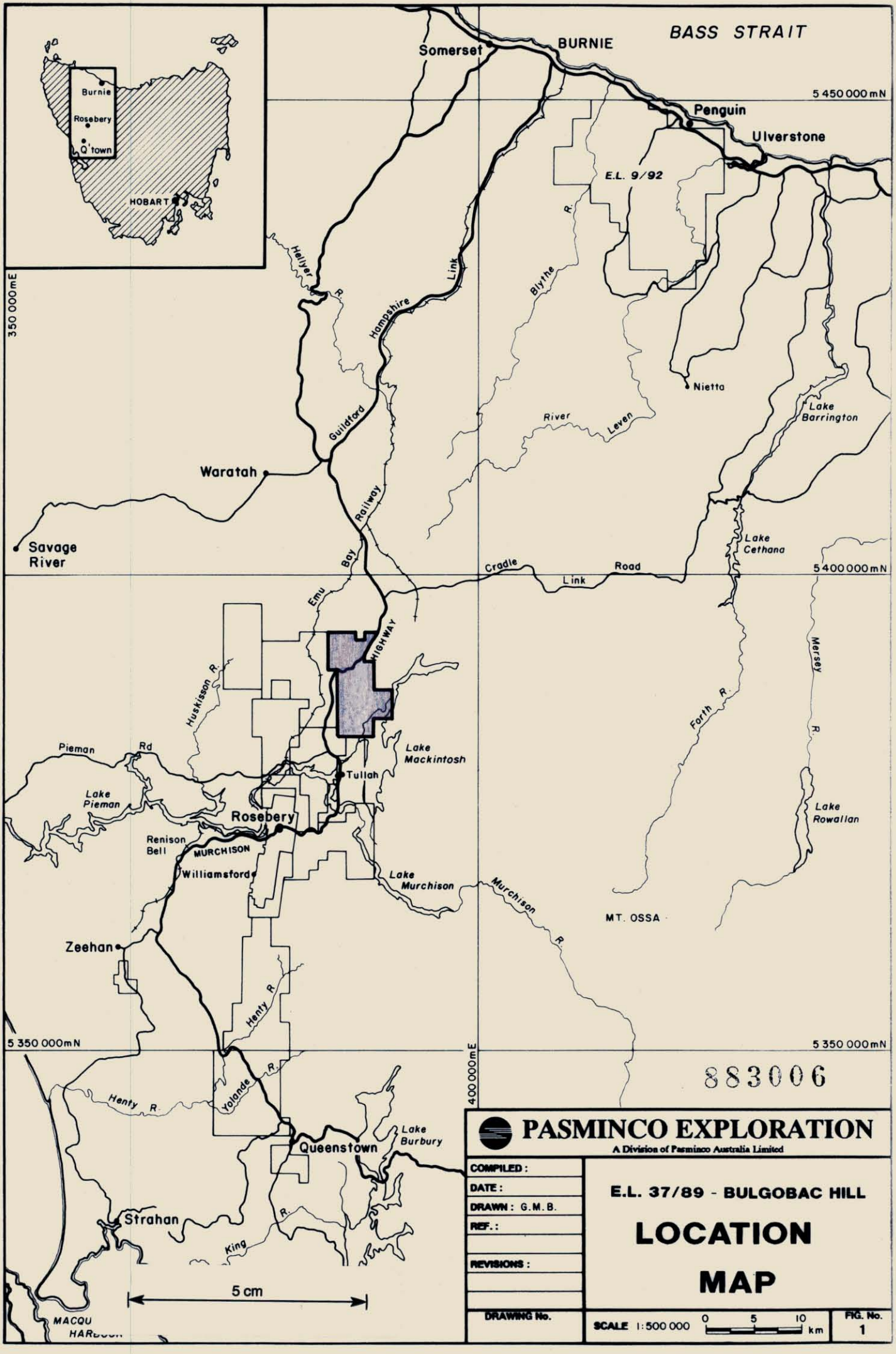
EL 37/89 comprises 49sq km of Cambrian Mt Read Volcanics, 5km SW of Hellyer Mine in Western Tasmania (Figure 3). A Hellyer-type volcanogenic Pb-Zn-Cu-Ag-Au massive sulphide deposit is the main target of the exploration programme.

The EL covers rugged heavily-vegetated terrain bisected by the Murchison Highway. Access away from the highway is via 4WD tracks and on foot along cut gridlines.

Previous exploration on the EL area (ie: prior to Pasminco's involvement in 1990), was largely carried out in the period 1963 to 1989 when the ground was part of Comstaff's EL 5/63. No mineralized shows or old workings are known on the EL from any prospecting that may have occurred prior to Comstaff.

Comstaff and JV partners (Pruessag after 1977 and BHP after 1985), using EM and stream sediment surveys, discovered and drilled zinc-dominated mineralization in the volcanics at **Sock Creek** (14 drillholes), **Sock Creek South** (4 holes) and **High Point** (4 holes). BHP drilled 9 shallow diamond drillholes (each less than 50m) at **Tullabardine Gorge**, without encountering mineralization.

In work up to August 1993, Pasminco concentrated its efforts on testing the mineralized zone in Que-Hellyer Volcanics at **High Point,** where they drilled a further 3 diamond drillholes. Pasminco also drilled a deep hole at the **Sock Creek** prospect, covered the EL with detailed aeromagnetics and photogrammetry, and extended regional-scale gravity surveys over the majority of the EL area.



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DATE :	
DRAWN : G.M.B.	
REF. :	
REVISIONS :	
DRAWING No.	

E.L. 37/89 - BULGOBAC HILL

LOCATION MAP

SCALE 1:500 000 0 5 10 km

FIG. No. 1

In the year under review, work done has included:

* The drilling of deep hole BHD5 (771.1m) at **High Point.**
* DHEM surveys in BHD5 (**High Point**) and BHD4 (**Sock Creek**).
* Detailed ground magnetic survey at **High Point.**
* Lithogeochemical / petrological study at **High Point,** based on hole BHD5.
* Relogging and further sampling of BHP hole HP4/4A at **High Point.**

3 TENURE

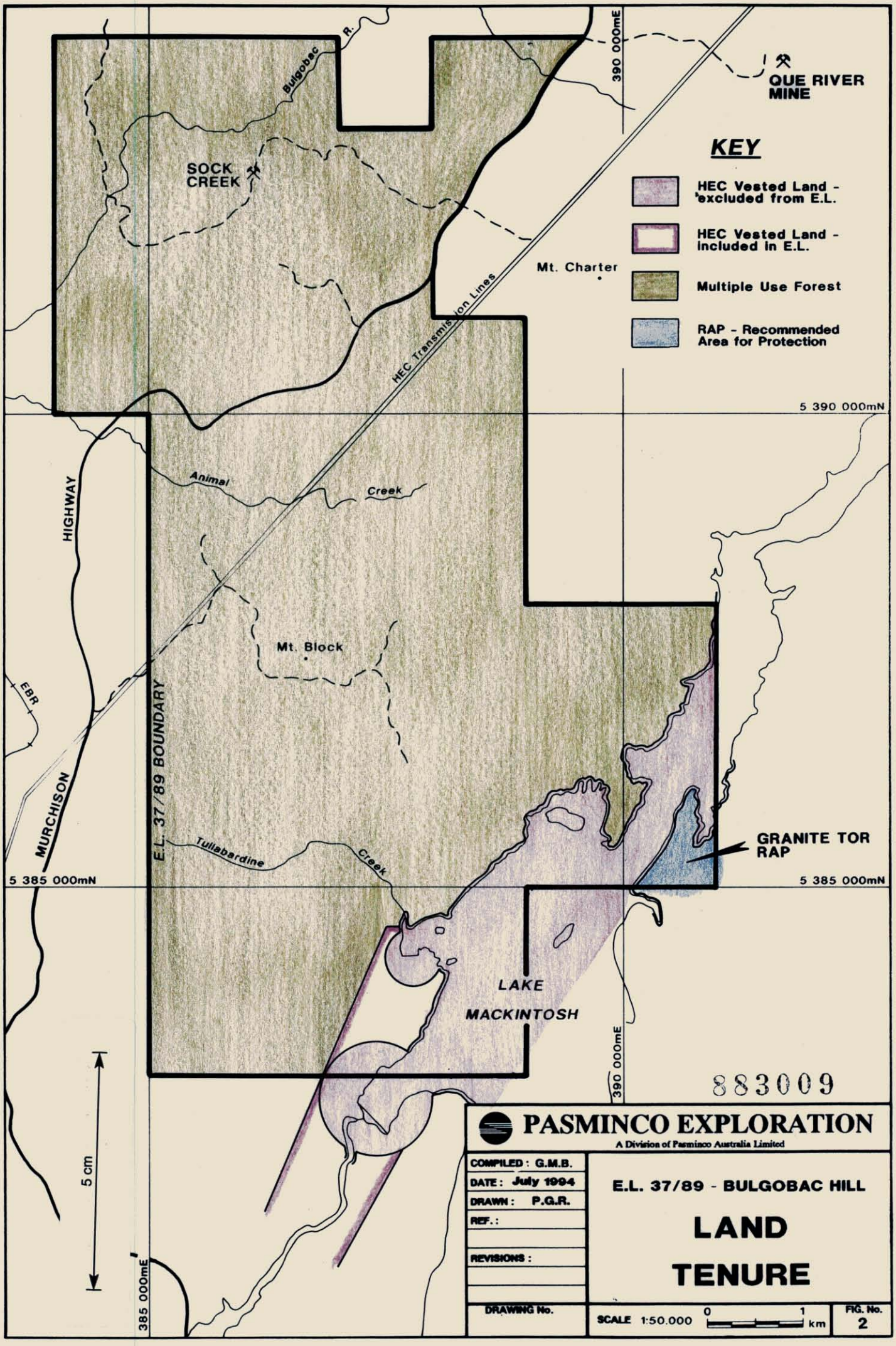
The Bulgobac Hill Exploration Licence 37/89, initially covering 32sq km, was granted to Pasminco Mining Rosebery in March 1990 and transferred to Pasminco Exploration in August that year.

In May 1992, 7sq km in the Lake Mackintosh area was acquired (EL 17/92) and added to the Bulgobac Hill EL.

A further 10sq km in the South Mt Charter area was applied for in April 1993. This EL (7/93) was amalgamated into EL 37/89 in October 1993.

The Bulgobac Hill EL 37/89 now covers 49sq km and a 12 month renewal of tenure is being sought from September 1994.

The EL is almost entirely Unallocated Crown Land designated as Multiple Use Forest Land. (see Figure 2).


390 000mE
QUE RIVER MINE
KEY
HEC Vested Land - excluded from E.L.
HEC Vested Land - included in E.L.
Multiple Use Forest
RAP - Recommended Area for Protection
Bulgobac R.
SOCK CREEK
Mt. Charter
HEC Transmission Lines
5 390 000mN
HIGHWAY
Animal Creek
Mt. Block
EBR
MURCHISON
E.L. 37/89 BOUNDARY
Tullabardine Creek
GRANITE TOR RAP
5 385 000mN
LAKE MACKINTOSH
385 000mE
5 cm
883009
PASMINCO EXPLORATION
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COMPILED : G.M.B.
DATE : July 1994
DRAWN : P.G.R.
REF. :
REVISIONS :
DRAWING No.
E.L. 37/89 - BULGOBAC HILL
LAND TENURE
SCALE 1:50.000
0 1 km
FIG. No. 2

4 GEOLOGY

The geology of EL 37/89 is shown in Figures 3 & 4.

The EL covers two main groups of the Cambrian Mt Read Volcanics – the Central Volcanic Complex (CVC), and correlates of the Dundas Group. The Central Volcanic Complex units occur in the southern part of the EL and comprise rhyodacitic lavas and volcaniclastics (mostly pyroclastics with minor epiclastics).

Rocks of the Dundas Group and correlates cover the northern half of the EL. They comprise the Que–Hellyer Volcanics (a mafic volcanic complex), sediments, quartz–feldspar porphyry bodies, and dacitic volcanics (mainly lavas). The boundary between the Central Volcanic Complex and the Dundas Group within the EL area is gradational, facing and dipping to the west, with the Dundas Group apparently conformably overlying the CVC.

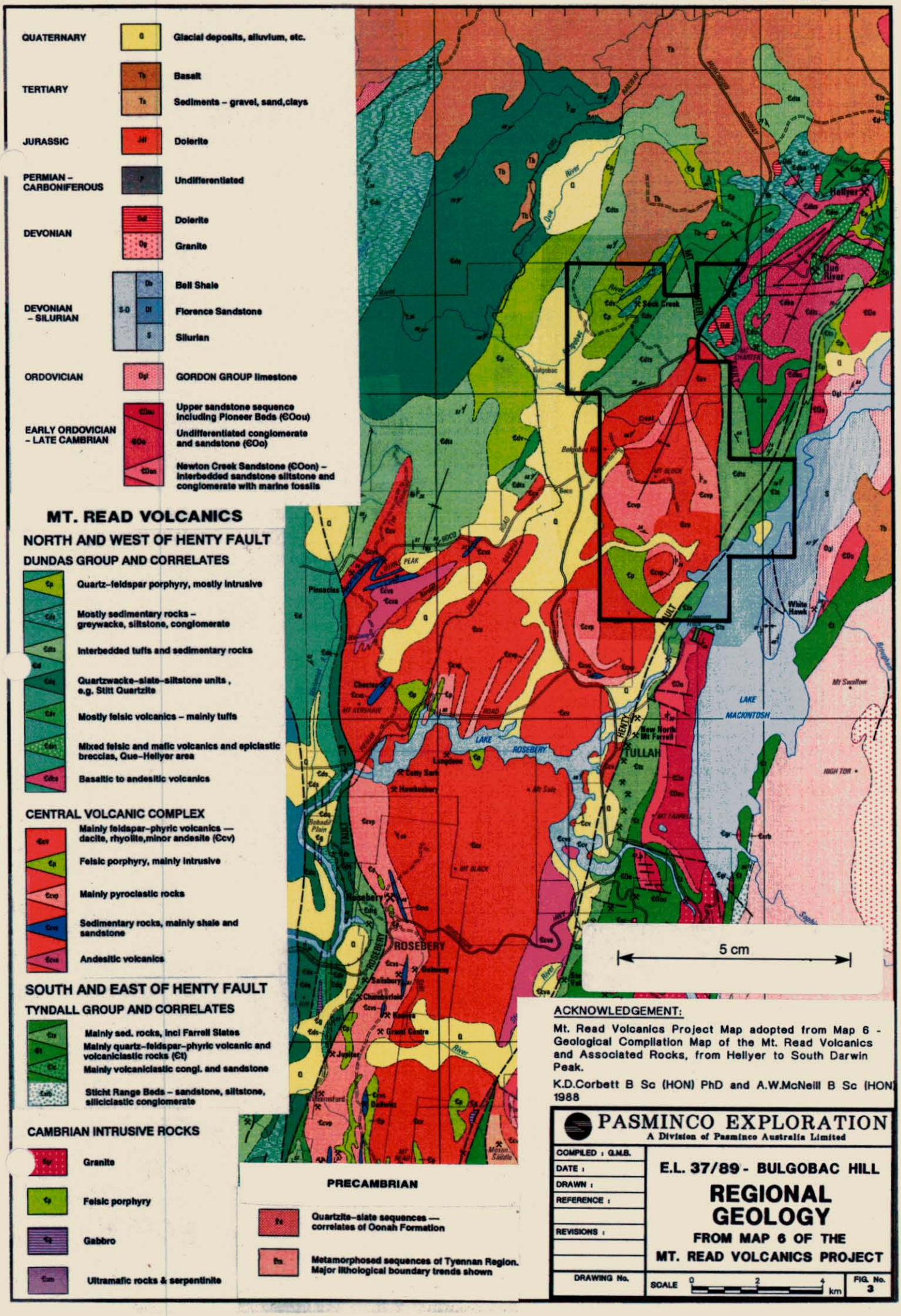
Maior structures on the EL area include the NE–trending Henty Fault and the N–S trending Mt Charter Fault. However, magnetic and gravity data highlights the presence of several major unmapped or poorly–mapped structures, largely buried and mainly trending E–W (see Figure 4).

Three zinc–dominated and gold–silver–poor sulphide occurrences are known on the Bulgobac Hill EL. These comprise a zone of broadly stratiform dispersed sphalerite–pyrite mineralization in altered Que–Hellyer Volcanics adjacent to the Mt Charter Fault at **High Point**, sphalerite with lesser pyrite–galena–chalcopyrite in net–veins on the contact between quartz–feldspar porphyry and black shale at **Sock Creek**, and weak disseminated sphalerite in black shale at **Sock Creek South**.

At **Sock Creek** the mineralization attains grades up to 10% Zn over 1.7m, with a general tenor around 2–5% Zn over 5–10m. At **High Point** the mineralization consistently averages 0.2–0.5% Zn over intervals typically 40–100m thick. The mineralization at **Sock Creek South** has a best intersection of 1m @ 2.5% Zn.

No other sulphide occurrences of note are known anywhere on the EL.

883011



ACKNOWLEDGEMENT:

Mt. Read Volcanics Project Map adopted from Map 6 - Geological Compilation Map of the Mt. Read Volcanics and Associated Rocks, from Hellyer to South Darwin Peak.

K.D.Corbett B Sc (HON) PhD and A.W.McNeill B Sc (HON) 1988

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COMPILED : G.M.B.	E.L. 37/89 - BULGOBAC HILL
DATE :	**REGIONAL GEOLOGY**
DRAWN :	FROM MAP 6 OF THE MT. READ VOLCANICS PROJECT
REFERENCE :	
REVISIONS :	
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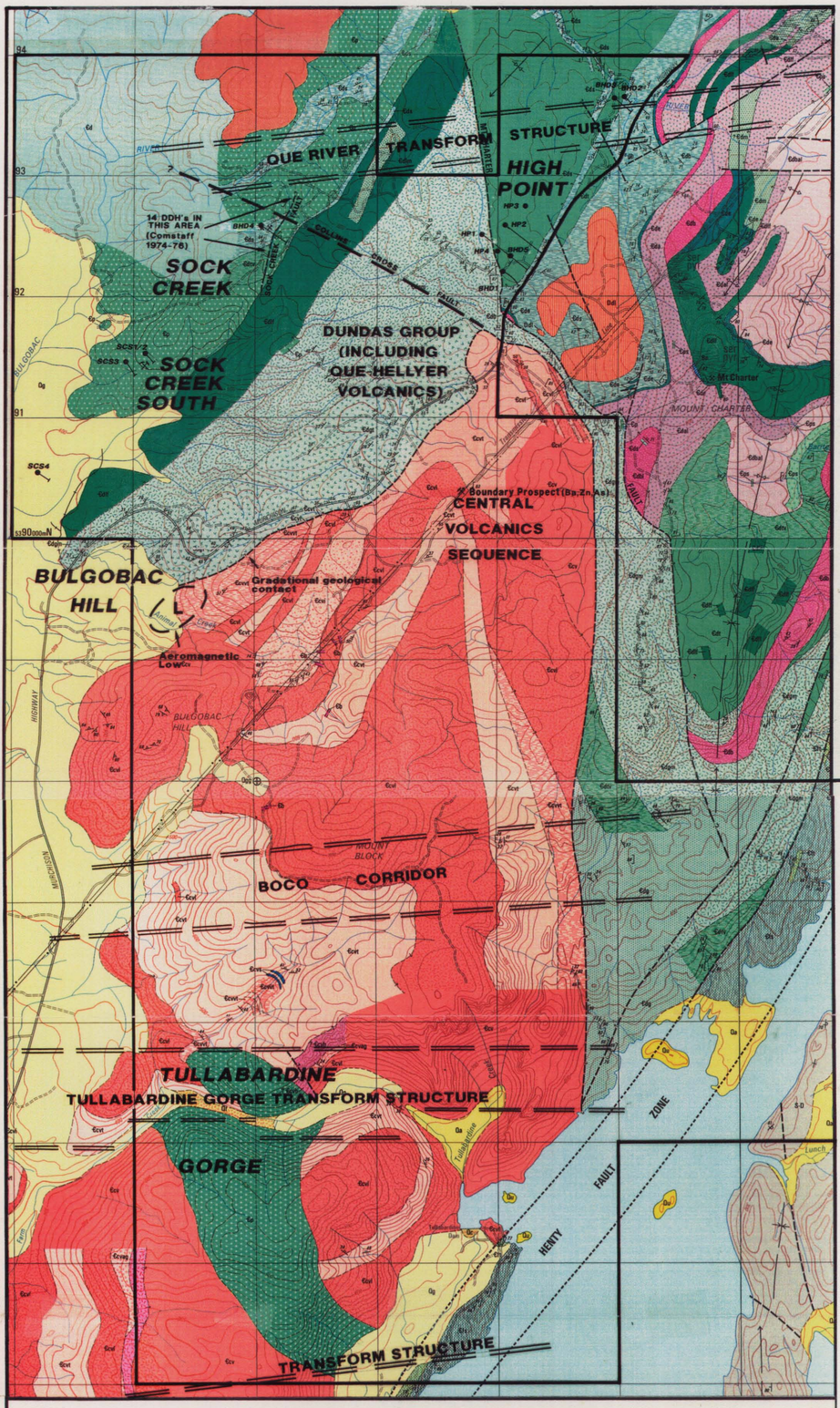

QUATERNARY

Qa — Alluvium, swamp deposits.

Qg — Glacial deposits, mostly till.

TERTIARY

Tb — Basalt.

WEST OF HENTY FAULT ZONE

DUNDAS GROUP

CAMBRIAN

- Qfp — Quartz-feldspar porphyry.
- Cfpr — Felsic intrusive, commonly spherulitic and flow-banded, feldspar-quartz-phyric.
- Cdg — Lithicwacke with interbedded siltstone and mudstone and intercalations of felsic tuff (Cdt).
- Cdt — Felsic tuff, generally quartz-feldspar-phyric, often well bedded, with pumice clasts in some cases.
- Cds — Dominantly shale, siltstone and mudstone, generally black and pyritic, with basal lenses of epiclastic agglomerate (Cds).
- Cdba — Basaltic lavas and breccias, including pillow lavas with inter-pillow chert.
- Cda — Andesitic lavas, breccias and tuffs.
- Cd — Epiclastic breccias and grits with clasts of basalt, andesite, felsic lava and massive sulphide (Cde) Intercalations of andesitic volcanics (Cda), vesicular basaltic-andesitic lava (Cdba), flow-banded spherulitic felsic lava (Cdfl) and massive sulphide shown.
- Cdm — Felsic lava, generally flow-banded and spherulitic, feldspar-quartz-phyric.
- Cdbal — Lower sequence of basaltic and andesitic lavas, breccias and tuffs. Some basaltic (Cdbl) and andesitic (Cdal) units shown. Some intercalations of felsic tuff (Cdtv)
- Cdt — Felsic tuff with intercalations of fine grained vitric tuff and minor felsic lavas (Cdtv).
- Cdg — Lithicwacke sandstone, commonly micaceous, with interbedded siltstone, felsic tuff and minor basaltic-andesitic volcanics.

WEST AND SOUTH OF MT CHARTER

- Cfp — Quartz-feldspar porphyry intrusives with possible minor lavas and tuffs
- Cds — Dominantly black shale and siltstone with intercalations of felsic vitric tuff (Cdtv).
- Cdlm — Felsic lava, mostly feldspar-phyric, massive to vesicular, with zone of flow breccia and epiclastic rocks indicated (Cdlm).
- Cdsm — Dominantly micaceous lithicwacke with interbedded siltstone.
- Cdg — Dominantly tuffaceous lithicwacke with interbedded siltstone.

CENTRAL VOLCANIC SEQUENCE

- Cvt — Felsic pyroclastic rocks, generally feldspar-phyric. Some units of fiamme-bearing ignimbritic tuff (Ccvt) and fine grained vitric tuff (Ccvt) shown.
- Cvl — Felsic lava, generally feldspar-phyric.

INTRUSIVE ROCKS

DEVONIAN

Ddl — Dolerite

CAMBRIAN

Cfp — Quartz-feldspar porphyry

Cfpr — Felsic intrusive, commonly spherulitic and flow-banded, feldspar-quartz-phyric.

5 cm

OVERPRINTS AND MINERALIZATION

pyr — Alteration in volcanic rocks, usually with strong schistosity. ser = sericite, pyr = pyrite

Area of strongly cleaved or disrupted rocks, usually associated with fault zones.

PQ — Massive sulphide lens with mine designation where applicable

Ba — Barite.

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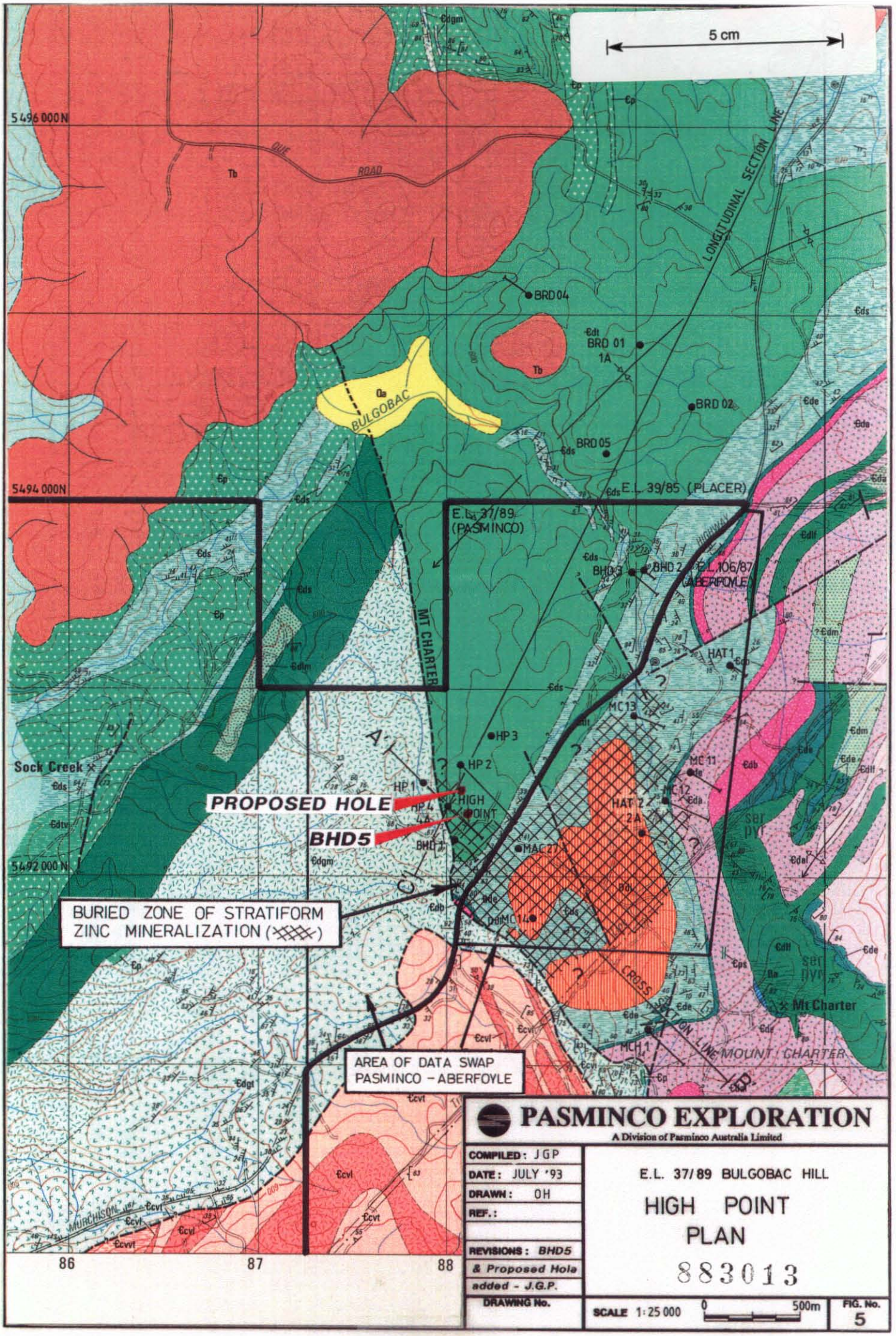
COMPILED : J.G.P.	E.L. 37/89 - BULGOBAC HILL
DATE :	GEOLOGY
DRAWN : G.M.B.	
REFERENCE : Maps 1 & 2 of The Mt. Read Volcanics Project.	
REVISIONS :	
DRAWING No.	SCALE 1:25,000 (0 500 m)
	FIG. No. 4

S83012



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COMPILED: JGP	E.L. 37/89 BULGOBAC HILL
DATE: JULY '93	HIGH POINT
DRAWN: OH	PLAN
REF.:	883013
REVISIONS: BHD5 & Proposed Hole added - J.G.P.	
DRAWING No.	SCALE 1:25 000 0 500m
	FIG. No. 5

5 RESULTS

5.1 Drillhole BHD5, High Point

5.1.1 PLANNING

Vertical hole BHD5 spudded in on 15th February 1994 at 5392338mN, 388130mE, just NE of the Mt Charter Fault and centrally within the High Point prospect area (Figures 5 & 15). The hole was abandoned at 771.1m on 14th June after the drill rods broke in a major fault zone. The drill log is Appendix 1 and the drill section Figure 16.

BHD5 resulted from recommendations in the 1992–93 Annual Report (Purvis, 1993a). These followed a study showing all drilling up to that time had not extended deep enough to reach the target Mixed Sequence unit within the Que–Hellyer Volcanics. (The Mixed Sequence hosts the Hellyer and Que River deposits).

BHD5 aimed to test the concept of a postulated massive sulphide accumulation within epiclastics of the Mixed Sequence, deposited in a narrow graben alongside (ie: NE of) the Mt Charter Fault. The planned depth of the hole was 1000m.

Deepening of BHP hole HP4/4A (600m, vertical, 115m west of BHD5), was considered but found to be impossible due to blockages of damaged steel casing and other drilling equipment. HP4/4A's difficult drilling history is similar to that of BH5 and this hole was also abandoned prematurely. There is now good evidence that the same structure is responsible for the problems in both holes – see section **6.**

The site chosen for BHD5 was directly above the thickest known development of stratiform zinc mineralization in the Hangingwall Volcanics, and adjacent to the inferred junction of the Mt Charter Fault with the SW extension of the Jack Fault. As these structures are both considered syn–volcanic their intersection was a likely site of hydrothermal fluid inflow. The hole site was140m NE of the Mt Charter Fault (as mapped) and took account of its sub–vertical to steep NE dip, as well as its poor exposure and possible easterly offset in this vicinity.

It was recognized before drilling began that the proximity of these structures could contribute to poor ground conditions in the hole.

5.1.2 STRATIGRAPHY

BHD5 encountered drilling difficulties due to several major fault zones, all at very low angle to LCA. The largest faults, comprising intervals of shattering, cataclasite and pug, were at 600–634.1m (where the NQ rods became stuck), and at 753.9–771.1m (where the BQ rods stuck and broke off, causing abandonment of the hole). Within these two faults small intervals of black shale with unbroken but ragged and brecciated contacts with the host mafic volcanics, indicated earlier (now annealed) faulting episodes.

It is apparent BHD5 was collared beside a major near-vertical structural zone which affected the hole at intervals all the way down. The fault zones above 600m are an order of magnitude less severe than those at 600–635m and 754–771m, and are probably outliers of the main fault represented by the two lower zones (see Figure 16).

To 192.3m the hole intersected typical crystal-lithic sandstone/breccia of the Southwell SubGroup, with the Que River Shale from 192.3 to 412.95m. The depth to the base of the Que River Shale is 200m greater than expected and the significance of this is discussed in section 6.

Below 412.95m the hole encountered brecciated basalts and andesites of the Que-Hellyer Hangingwall Volcanics (ie: Hellyer Basalt equivalents). Virtually throughout the mafic section black shale is the predominant component of the breccia matrix. An unusual andesitic lava with visible quartz phenocrysts, occurs at 575–600m just above the upper major fault.

Details of the geology of the hole are in Appendix 1 and Figure 16.

5.1.3 MINERALIZATION

The zone of stratiform disseminated zinc mineralization was encountered as a series of diffuse intervals commencing at 400m in the basal part of the Que River Shale and extending to 670m. The mineralized zone is centred in the 91.5m interval from 403.5–495m, averaging 0.17% Zn. Overall, the tenor is slightly weaker than in adjacent holes HP1, HP4/4A and BHD1.

Best intersections are: 24m @ 0.2% Zn (427–451m, basaltic breccias containing highly-pyritic fragments); 6m @ 0.32% Zn, 0.1% Pb, (455–461m, andesitic lava breccias with pyrite–sphalerite disseminated through matrix). The maximum zinc value is 0.87% over 0.95m at the base of the Que River Shale. Lead values are generally <0.1% and precious metal values negligible. Slightly elevated (0.15–0.25%) barium values accompany the zinc mineralization.

A highly encouraging feature is intense fuchsite alteration of the mafic volcanics in the bottom major fault zone below 754m, with much of the volcanics bright lime green in colour. Weak fuchsite alteration is also present at intervals in the mafics below the upper major fault zone at 634m and this accompanies steadily–increasing hydrothermal alteration (carbonate–chlorite–sericite–silica ±epidote), that is apparent in both hand specimen and thin section in the basal 100m of the hole (see section **5.2.3.**)

Although moderately–strong in places in adjacent hole HP4/4A, fuchsite alteration of the intensity in the bottom of hole BHD5 has not been seen before at High Point. The Hellyer deposit is directly indicated by its hangingwall fuchsite "plume", and the alteration in the bottom of BHD5 may be likewise indicating mineralization in the volcanics beneath the hole.

5.2 Lithogeochemical / Petrological Study – Hole BHD5

5.2.1 INTRODUCTION

Dr A. Crawford of the University of Tasmania examined 12 petrological samples from BHD5. Most of these samples were also analysed for a comprehensive suite of major and trace elements. Both sets of results appear in the log (Appendix 1).

Crawford was asked to undertake a petrological/lithogeochemical study comparing BHD5 with Aberfoyle hole MAC27, 320m to the SE, to clarify and subdivide the Hangingwall Volcanics stratigraphy. MAC27 had intersected the Mixed Sequence and the main purpose of the study was to determine how far short of this unit BHD5 was when the hole was lost. It was also to examine whether the major faults in the hole repeated or offset sub-units of the stratigraphy.

Note, since Crawford's report an expanded study has been launched to include all the High Point drillholes. BHP hole HP4/4A has also recently been relogged and more comprehensively sampled, to assist the expanded study. The understated Cr AAS analyses in BHD5 are being repeated by XRF.

5.2.2 REPORT BY DR A. CRAWFORD

"COMPARISON OF LAVA SEQUENCES IN MAC27 AND BHD5

Figure 6 is a plot of the main geochemical and petrographic groupings that I have identified in these two adjacent drillholes (set some 320m apart). Before possible correlations are suggested, several points need to be made.

First, there is no reason to expect any flows, even fluid basalts, to be regionally extensive sheets continuous over many square km. If the Que-Hellyer lavas were erupted from stratocone volcanoes (which is unlikely in my opinion), flows would be very irregular, lensoidal, and unlikely to be present on all sides of an edifice. If instead they were erupted from a more fissure-like series of vents, as I think is more likely, flows may be more regionally extensive, but it still would be unusual for individual flows to be mappable over areas of the scale of an EL.

Second, any attempt to define flow units and seek correlations between such units stands or falls on the basis of the criteria employed in erecting the definitions. For the present study, I focussed on Ti/Zr values and P2O5 contents of mafic rocks (>4% MgO), as these parameters are unaltered by low-grade metamorphism, closely reflect source compositions, and are accurately measured by XRF. Abundances of Cr in the Hellyer Basalts are also useful, as my data shows that there is a large range of compositions present in the Hellyer Basalt, varying from primitive very Cr-rich

(>1200ppm) basalts to Cr-poor basaltic andesites and evolved basalts (Cr<700ppm). Petrographic data usually can effectively distinguish between the more Cr-rich and Cr-poor mafic flow units, and serve as a substitute diagnostic parameter in the absence of compositional data.

For MAC27, the continuous core-grind data were valuable in subdividing this drilled sequence, and I am confident that the units differentiated on Figure 6 are real. Less data were available for BHD5, but enough data were available to make some useful attempts at correlation with MAC27. The following points combine petrographic and compositional data.

1 A distinctive set of flow units with obvious quartz and rounded albite xenocrysts in thin section occurs at the top of the basalt successions in both MAC27 (≈330-650m depth) and BHD5 (≈450-610m depth). Several compositional units are included in both holes in the quartz xenocryst-bearing succession, and all have Ti/Zr values of 18-30. In MAC27, a unit with notably higher Ti/Zr (30-42) occurs above the quartz xenocryst-bearing unit; this unit is absent in BHD5. This same quartz xenocryst-bearing unit has been recognized in adjacent drillholes including the BHP High Point holes, and Aberfoyle's HAT-1 (my own data). It is absent however, in the Placer deep holes several km to the north (just S of the Que Road). It may 'die out' at, or abut against, an eastward extrapolation of the Que Fault. In general, this quartz xenocryst-bearing unit is compositionally closer to an andesite than a basalt in terms of SiO2 contents, having ≈55-60% SiO2.

2 More primitive clinopyroxene+olivine-phyric lavas typically underlie the quartz xenocryst-bearing unit in both holes BHD5 and MAC27. These have notably higher Ti/Zr values (38-45), and high Cr contents. In BHD5, this high Ti/Zr unit is separated from the overlying more evolved lavas by a major fault zone at 600-634m. This fault does not appear to repeat the overlying stratigraphy, and might be inferred to have had little effect on the stratigraphic succession drilled, if the sequence of compositional units in MAC27 can be taken as a guide.

3 No felsic lavas were drilled in BHD5, although sample 038111, a mass flow unit occurring with black shale and basaltic lavas in a highly sheared major fault zone at the base of the

hole (754–771mEOH), contains clasts of dacitic to rhyolitic lava. Dacitic lavas occur in MAC27 (Figure 6) at depths around 850m, occurring within a sequence of high Ti/Zr (42–46) primitive augite+olivine–phyric basalts. Dacites also occur near the base of Placer deep holes BRD05 and BRD01, several km N of BHD5, where they are also overlain by primitive basalts with Ti/Zr >30. It may be that the mass flow unit in the fault zone near the base of BHD5 may be derived from the dacite domes and flows better represented in MAC27 and the Placer holes.

4 The same mass flow unit discussed above contains clasts of undoubted Animal Creek Greywacke. In Placer hole BRD01, Animal Creek Greywackes occur within 100m below the dacites in the lower part of that hole, although some tuffs and andesites occur interbedded with the greywackes. This may suggest that the base of BHD5 is relatively close to the base of the lava succession. However, just above, and within the basal fault zone in BHD5, occur some rather evolved basalts with Ti/Zr values around 20–22. No matching greywackes , or basal basaltic lavas with Ti/Zr ≈20–22 were recorded from MAC27, although they do occur adjacent to dacites in BRD01. Because sample 038110 (Ti/Zr=22) occurs above the main fault zone at the base of BHD5, I don't believe that it is a fault–repeated part of the unit described in 1. above from the 550–600m level in BHD5.

SUMMARY:

Although it is difficult to be certain, I suggest on the basis of these comparisons with nearby drillholes that the base of BHD5 probably corresponds to the ≈800–850m level of MAC27, around the interval containing the dacites. A prognosis for deepening BHD5 would (if it stayed within the Que–Hellyer succession and did not cross out into Animal Creek Greywacke or something else below the Charter Fault), predict it intersecting a small section of basalts before encountering dacites, and probably a small thickness of andesites before passing into Animal Creek Greywacke. From the Placer holes, it is evident that the so–called Que Footwall Andesites thin dramatically to the west of the highway, in sharp contrast to the Que River Shale, which thickens markedly to the west. I believe that the general level of the dacites in all these holes probably corresponds to the "Mixed Sequence" at the Que and Hellyer mines."

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COMPARISON OF STRATIGRAPHY
BHD5 and MAC27

(Crawford, 1994)

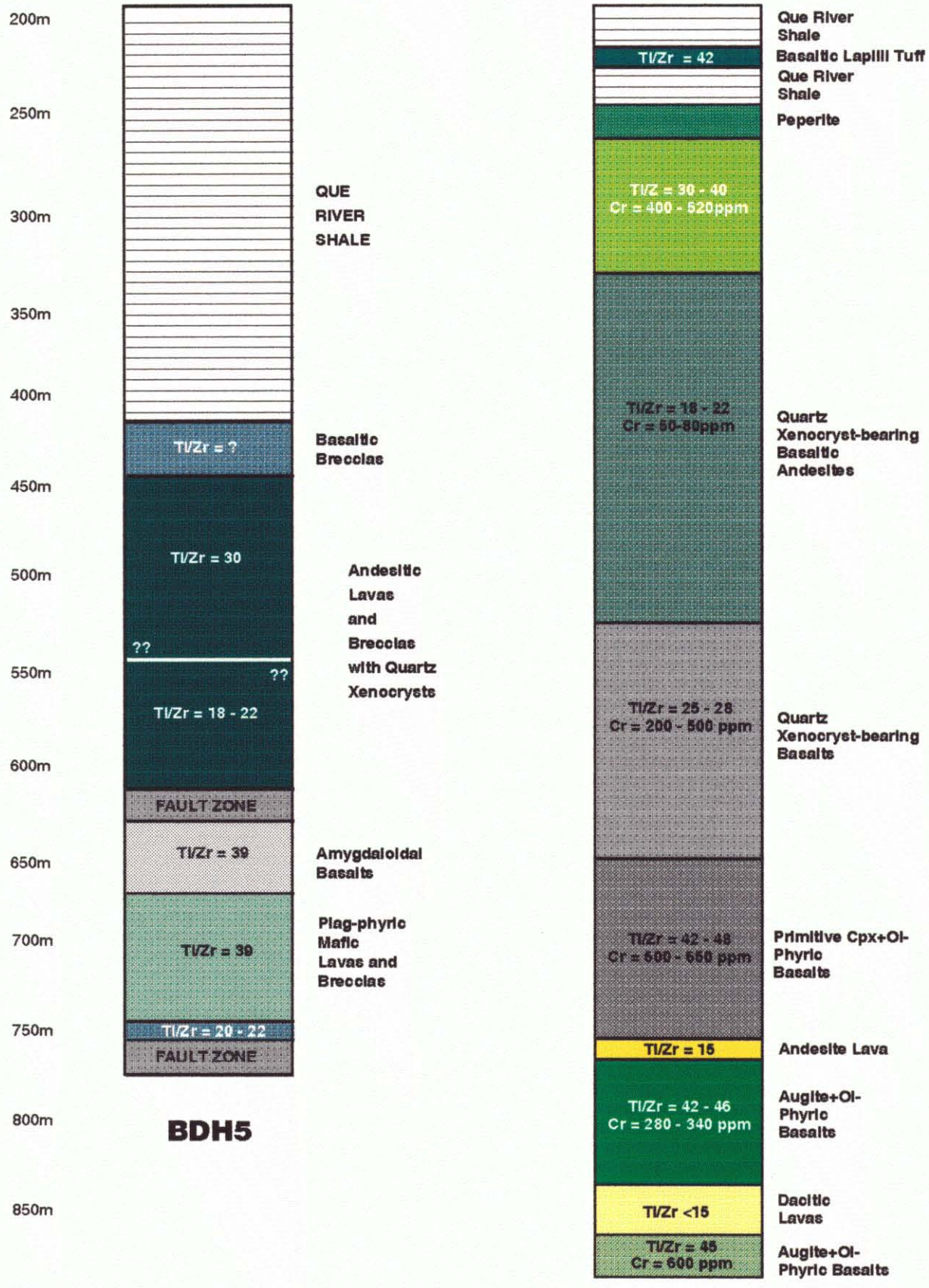

Figure 6

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STRATIGRAPHIC CORRELATION BETWEEN BHD5 and MAC27

(Purvis, 1994)

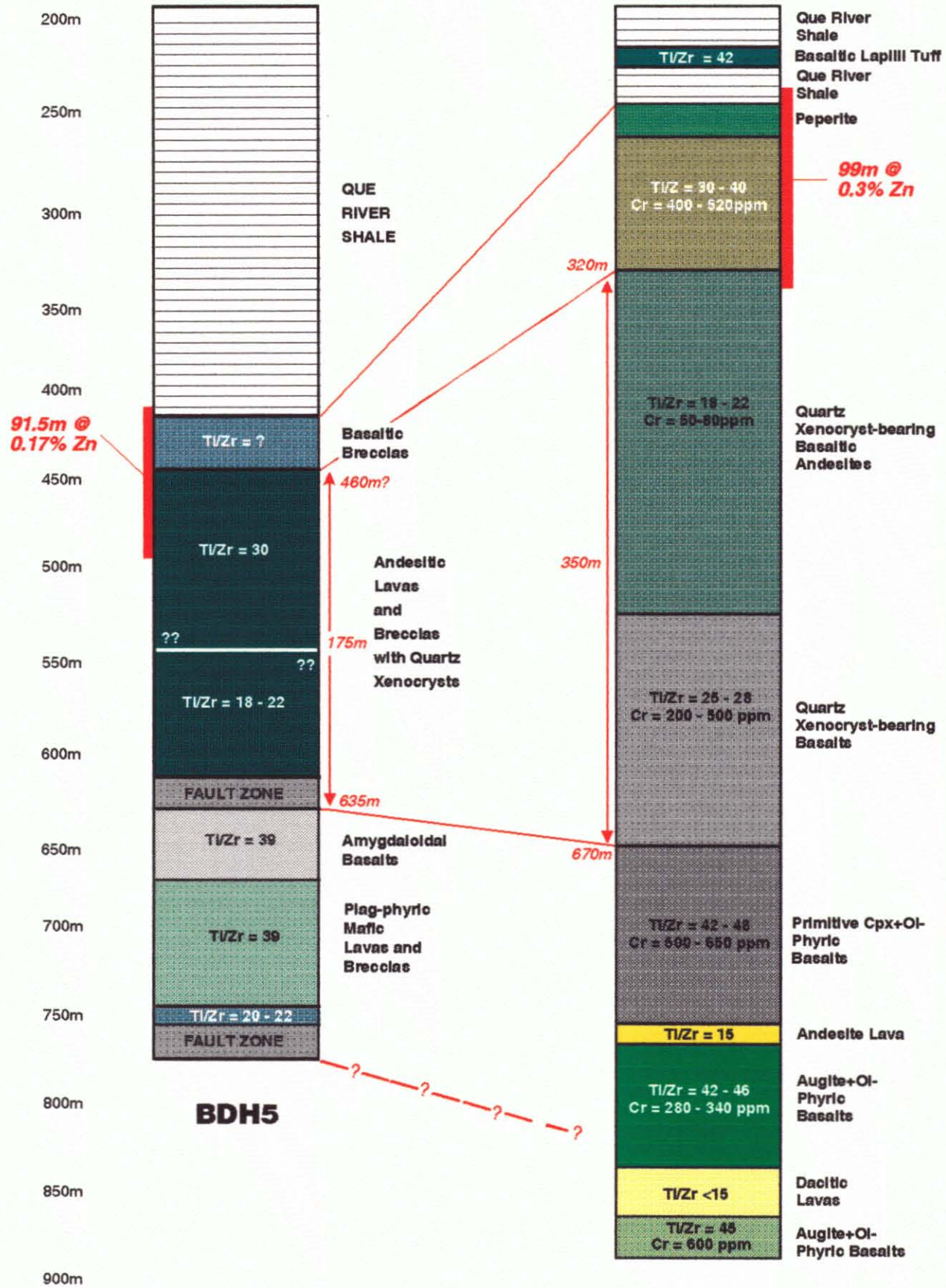


Figure 7

5.2.3 COMMENTS

Some comments can be made on the above study: (see Figure 7).

1 Quartz-bearing andesitic unit (SiO2 55-60%, Cr 50-250ppm, Ti/Zr 18-30):

This unit extends from 320m to 670m in MAC27, a downhole interval of 350m and approximate true width of **310m**. In BHD5 the unit probably extends from the basalt/andesite contact at 457m (lack of sampling precludes accurate definition of this upper limit), to the base of the upper major fault zone at 635m (Crawford places the lower boundary at 610m apparently on the basis of the petrology, but the lithogeochemistry puts the change at 635m). This gives the unit in BHD5 a downhole extent of 150-175m and a true width of about **130-150m**.

The basal 160m-180m section of the quartz-bearing unit is apparently missing from BHD5. The inference is that it has been removed by the major fault at 600-635m.

2 Position of zinc-mineralized zone:

In both BHD5 and MAC27 the disseminated zinc mineralized zone is in broadly the same stratigraphic position. It extends from the basal part of the Que River Shale down through a section of basaltic peperites and other breccias, into the upper part of the quartz-bearing andesitic unit. Crawford says the basaltic unit, with its high Ti/Zr ratios of 30-42, is missing from BHD5 but this would appear to be simply a function of the lack of petrological sampling - logging identified basaltic breccias in this stratigraphic interval in BHD5.

3 Basal section of BHD5:

Although Crawford uses both petrological / lithogeochemical and other geological indications to correlate the base of BHD5 with around 800-850m in MAC27 (ie: close to the level of the Mixed Sequence), it is evident the correlation between the two holes is not as strong below the upper major fault zone in BHD5 (635m) as above it.

Below approximately 725m the mafic volcanics display strong and increasing hydrothermal alteration in thin section (carbonate–chlorite–sericite–silica). This alteration is evident (although generally not conspicuous) macroscopically and coincides with visible fuchsite alteration, also intensifying downhole. The deepest sample (038112 @ 769m), described petrologically as extremely altered, displays very strong Na2O depletion (0.17%) – the only sample to do so.

It is apparent that at its base BHD5 was entering a zone of very strong hydrothermal alteration.

5.3 **DHEM Survey, Hole BHD5** (N.Hughes)

On June 1st, 1994, drillhole BHD5 was surveyed with the CRONE DHEM system by Outer Rim Exploration Services of Townsville, Qld. Three component data was collected from a collar and west loop in the interval 630m to 750m. Above and below this section the hole is cased. The objective of the surveys was i) to detect any conductive massive sulphide mineralization close to the hole, and ii) to obtain any orientation information about the Mt Charter Fault in the vicinity of the hole.

The data is presented as stacked profiles of the decay of the secondary magnetic field for the three orthogonal components at a scale of 1: 1000, in a lin–log format, in Appendix 3. Survey specifications can be found on the attached linear data profiles. A geographic location map of the transmitter loops and drillhole location at a scale of 1: 10,000 is shown in Figure 8.

The results of the surveys do not indicate any conductive massive sulphide body close to the hole. What is evident from the axial (Z) data is a build up in the later time windows with depth indicating conductive material below the hole, probably formational.

The X and Y data for the collar loop suggests the secondary current circulation patterns (smoke ring) have migrated from predominantly northwest of the hole to west of the hole. This is not the case for the west loop where the secondary current flow is predominantly north of the hole for all time windows, and probably reflects the position and increased size of the loop.

The data does not appear to be affected by the Mt Charter Fault. However, the two loops used are positioned such that they would null couple or at least minimally? couple to a steeply dipping feature that transects them.

5.4 **Ground Magnetics Survey, High Point** (N.Hughes)

During June 1994 staff from Pasminco's Burnie office undertook ground magnetics surveys over part of the High Point grid using a pair of Geometrics G856 proton precession magnetometers. Measurements were made at 5m intervals along 3.5km of grid lines which were nominally 100m apart (7600N to 8100N*, local grid – see Figure 9).

Field data was diurnally corrected using the MAGLOC programme from Geometrics. Because the G856 is incapable of recording a location for each magnetic measurement these were added later from field notes (which are included in Appendix 4).

The objective of the survey was to try to map the position and orientation of the Mt Charter Fault, as well as any offsets.

Processing of the data included editing out any spikes directly attributable to drill–collars and also upward continuing the data 5m to subdue near–surface noise. Both processes were undertaken with INTREPID.

The data is displayed as both a contour map and as profiles in Figure 10 and Figure 11 at a scale of 1: 5000.

RESULTS

The position of the Mt Charter Fault is shown on Figure 10 from both mapping and from the ground magnetics coverage. The fault manifests itself as a magnetic low, or break, from line 8100N to 7800N. South of 7800N the position of the fault is unclear from the magnetics, although it has been mapped on surface. Of interest is the apparent termination of the magnetic low trend by an apparent east–west trend. It is concluded that the data be incorporated with both airborne coverage and other ground coverage, from the Aberfoyle data swap, to further define, if possible, the Mt Charter Fault and the existence of an east–west trend (fault).

* The area north of 8100N was surveyed by Pasminco in 1991 (Purvis 1992).

5.5 Drillholes BHD1&3: Additional Lithogeochemical & Petrological Sampling

In July and October 1993 additional lithogeochemical sampling was undertaken in holes BHD1 and BHD3, to fill gaps in the High Point lithogeochemical database. As seen in section **5.2.** this database helps determine stratigraphic correlations within the Que-Hellyer Volcanics. The samples from BHD1 were also examined petrologically (the first petrological samples taken from this hole).

The sampling results appear in Appendix 2.

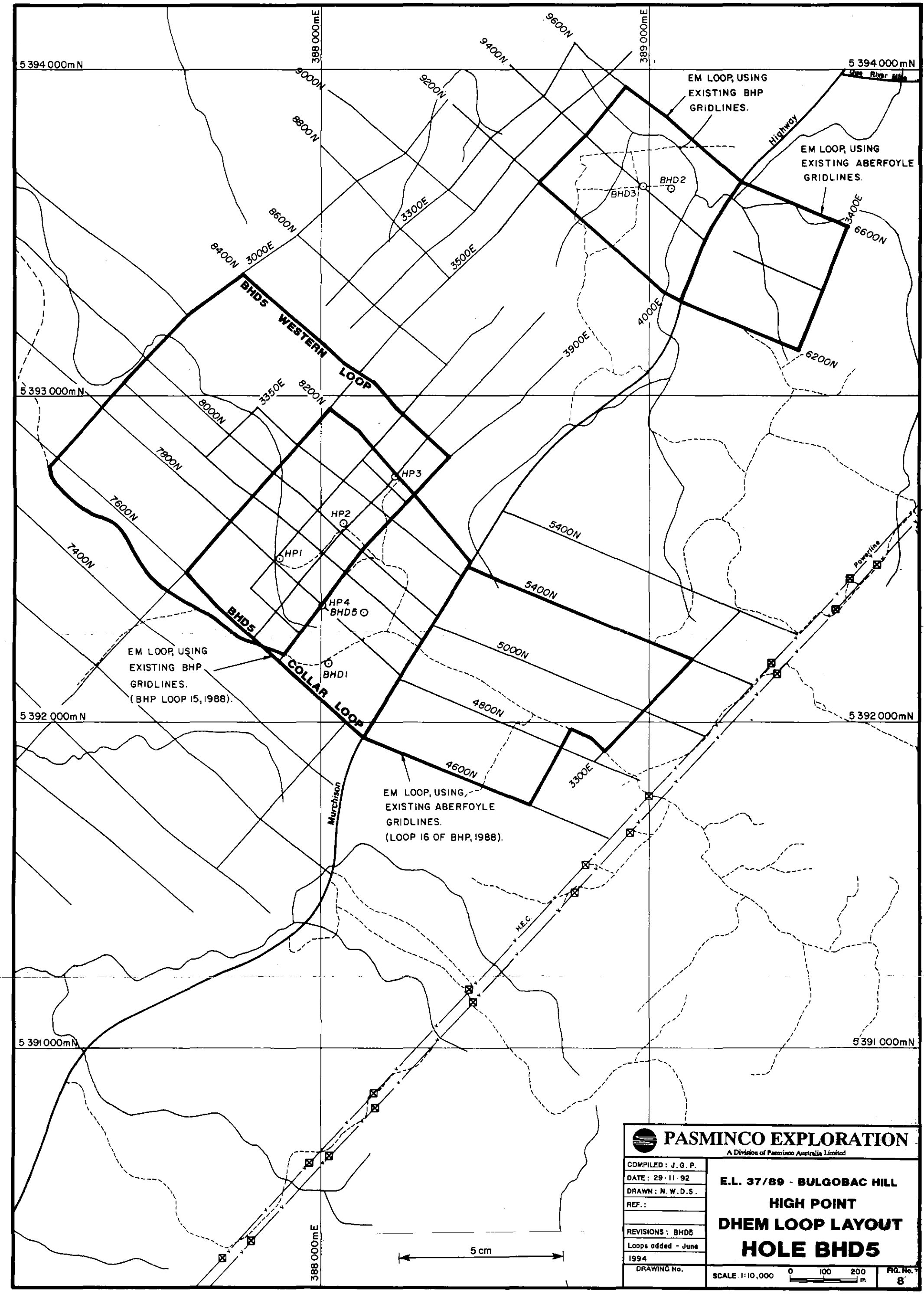
5.6 DHEM Survey, Hole BHD4, Sock Creek (N.Hughes)

Drillhole BHD4 was logged with the Crone DHEM system from two 600m x 600m transmitter loops (Figure 12), by Outer Rim Exploration of Townsville, on December 3rd 1993. Only the axial component data was collected as no anomalies were detected during these surveys to warrant the collection of X and Y data.

The surveys used a 10ms time base and 0.5ms ramp. Seventeen channels of data were recorded between 0.076 - 6.646 ms. Loop current was nominally 4 amps for both loops.

The data is displayed as linear profile plots in Appendix 5.

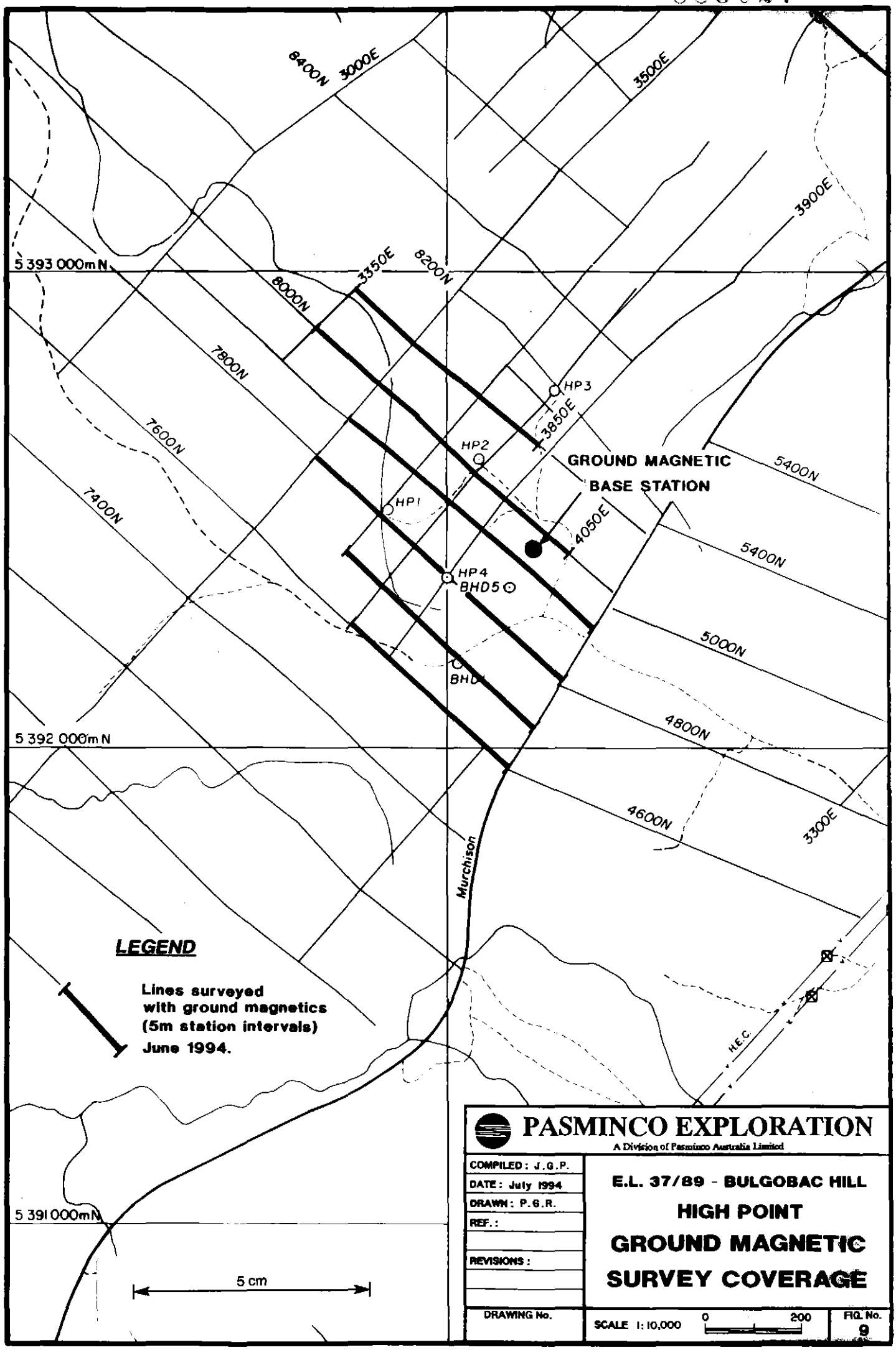
The response near the top of the hole appear to be dominated by "self" or "system" response. The slight bow in the early channels and the increase at depth in the moderate channels is due to the slower migration of the "smoke ring" than in other areas in Tasmania, because of the ground being slightly more conductive.



PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

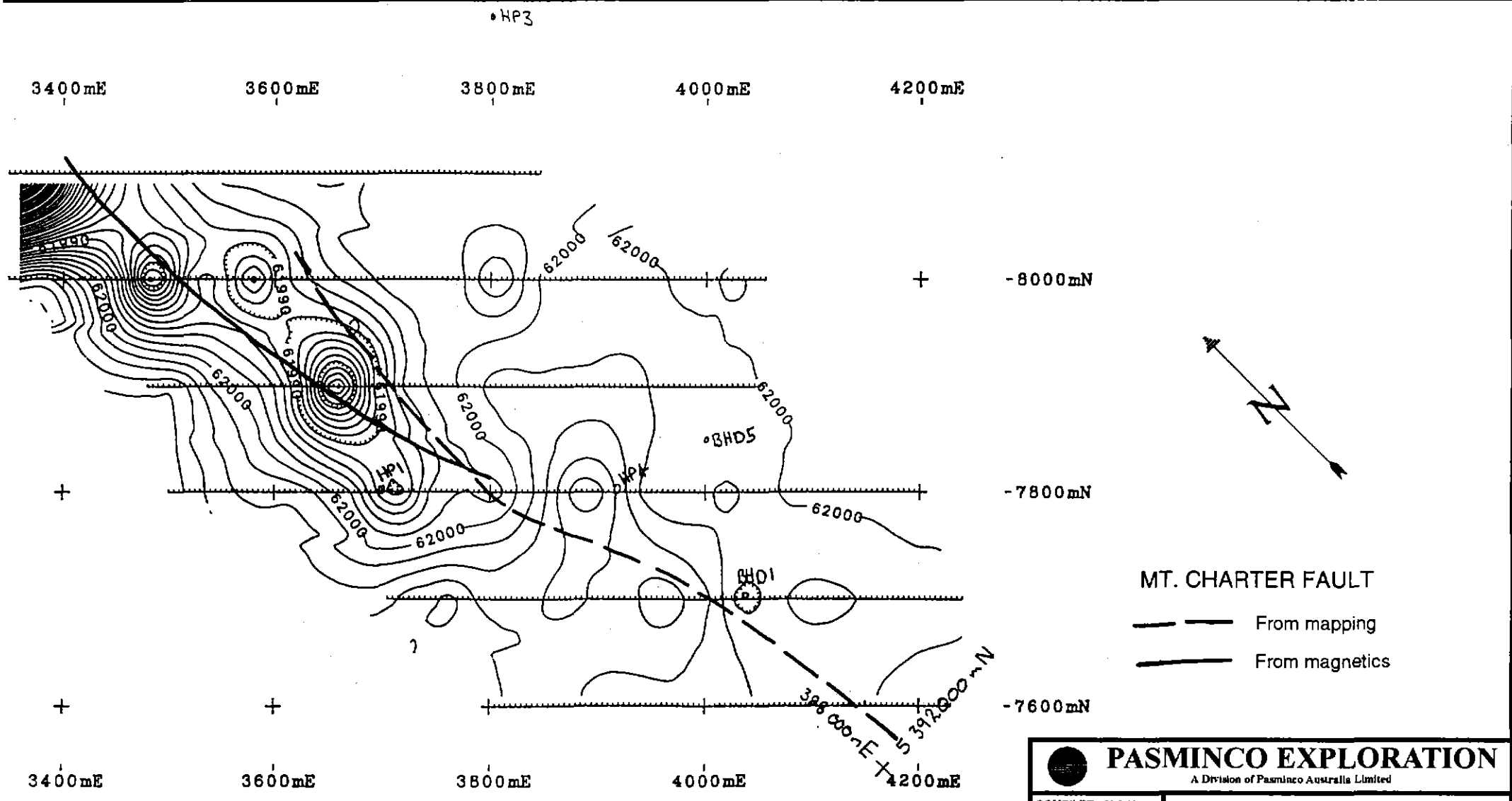
COMPILED : J. G. P.	E.L. 37/89 - BULGOBAC HILL
DATE : 29 - 11 - 92	HIGH POINT
DRAWN : N. W. D. S.	DHEM LOOP LAYOUT
REF. :	HOLE BHD5
REVISIONS : BHD5 Loops added - June 1994	
DRAWING No.	SCALE 1:10,000 (0 100 200 m)
	FIG. No. 8

883627



PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : J.G.P.	E.L. 37/89 - BULGOBAC HILL
DATE : July 1994	HIGH POINT
DRAWN : P.G.R.	GROUND MAGNETIC
REF. :	SURVEY COVERAGE
REVISIONS :	
DRAWING No.	SCALE 1:10,000 (0 – 200)
	FIG. No. 9

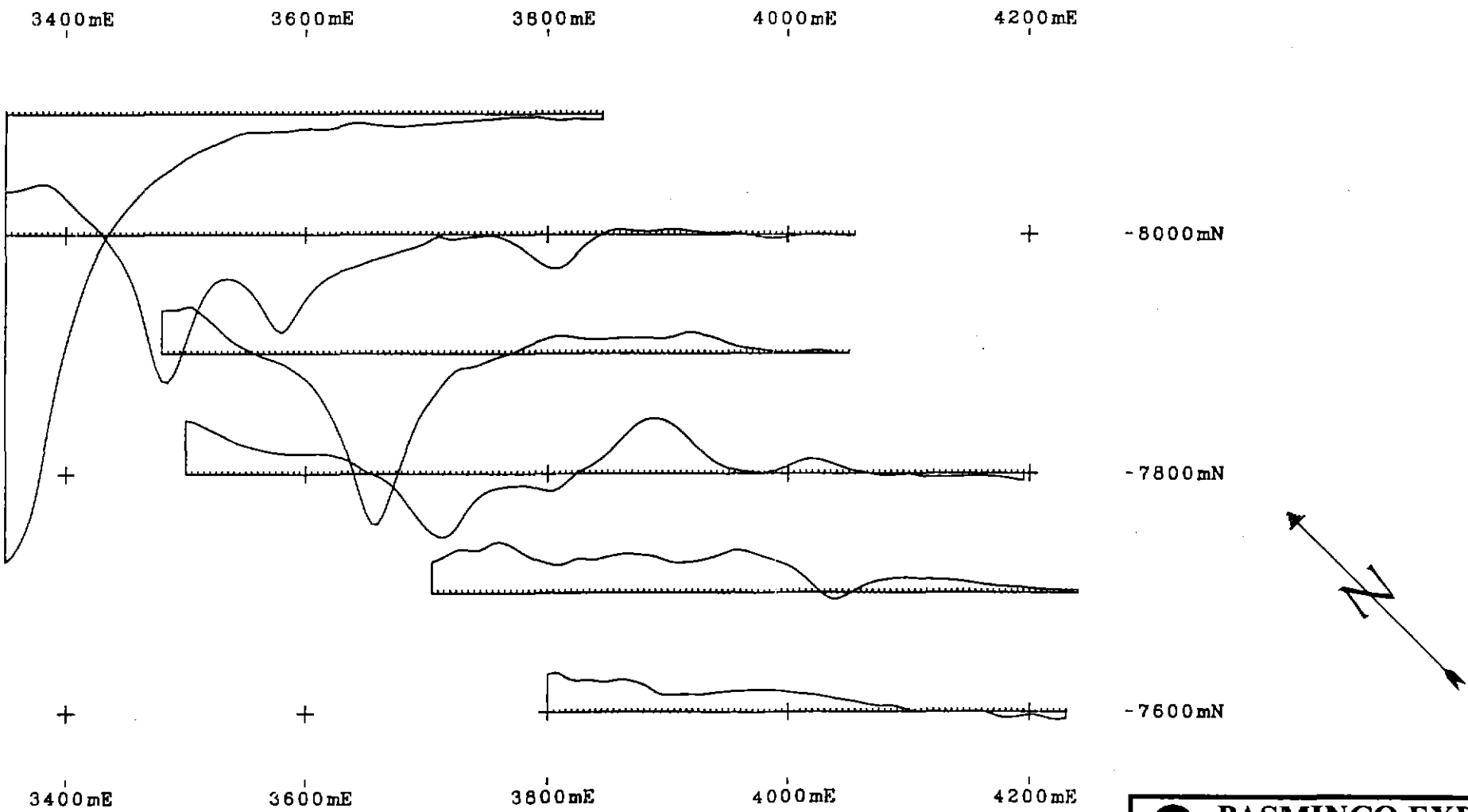


PASMINCO EXPLORATION

A Division of Pasminco Australia Limited

COMPILED : N.A.H.	E.L. 37/89 - BULGOBAC HILL
DATE : August 1994	HIGH POINT
DRAWN : N.A.H.	GROUND MAGNETIC CONTOURS
REF. :	G856 + Base Station
Survey June 1994	Contour Interval - 2nT
REVISIONS :	Processing - Upward Continued 10m
MAP PAS 1084	SCALE 1:5000 (0 — 100 m)
	FIG. No. 10

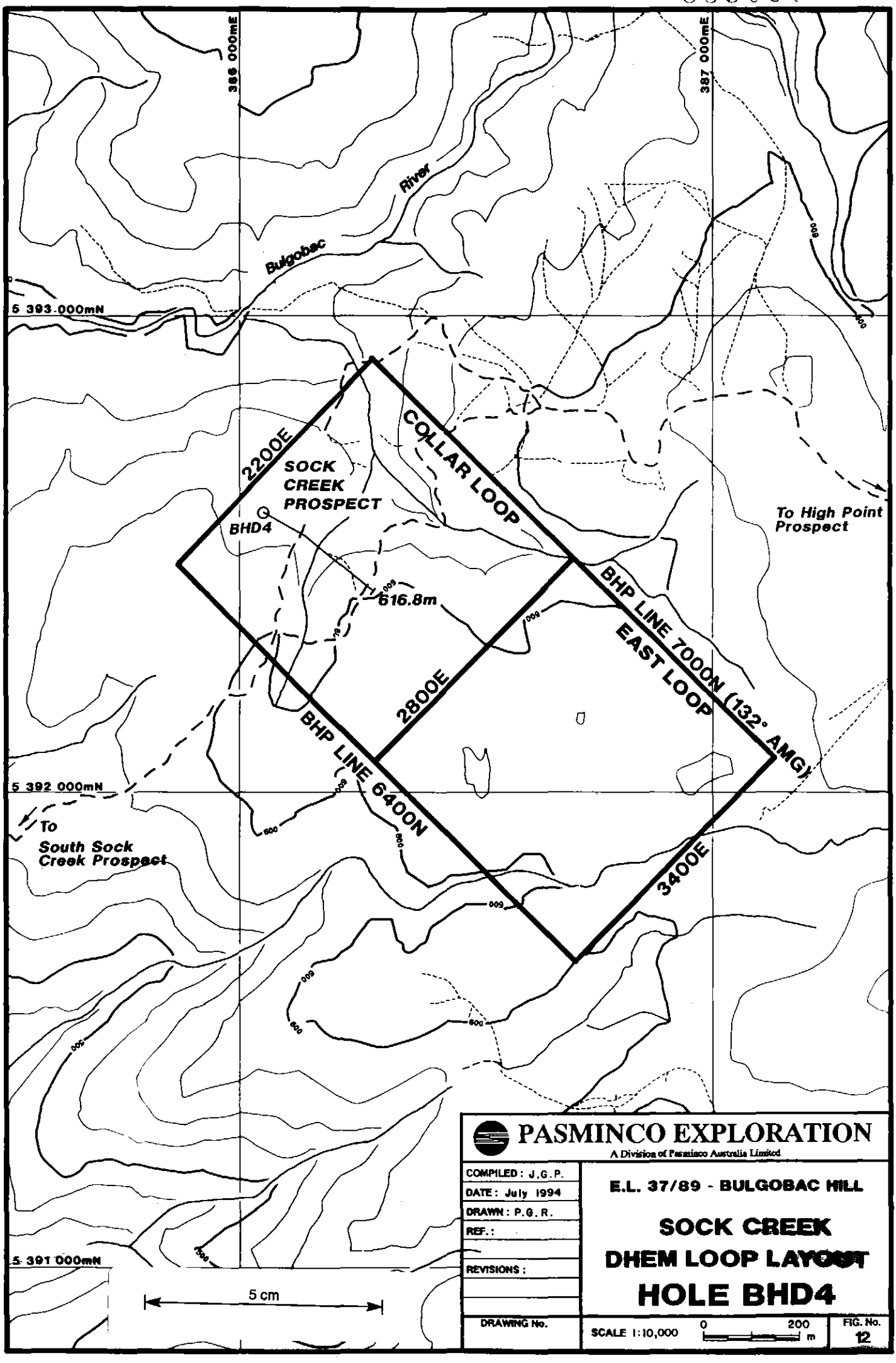
8830228



PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : N.A.H.	E.L. 37/89 - BULGOBAC HILL
DATE : August '94	HIGH POINT
DRAWN : N.A.H.	GROUND MAGNETIC PROFILES
REF. :	G856 + Base Station
Survey June 1994	Base - 62000 nT, Scale - 10 nT/cm
REVISIONS :	Processing - Upward Continued 10m
MAP PAS 1085	SCALE 1:5000 (0 — 100 m)
	FIG. No. 11

883030



PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : J.G.P.
DATE : July 1994
DRAWN : P.G.R.
REF. :
REVISIONS :
DRAWING No.

E.L. 37/89 - BULGOBAC HILL

SOCK CREEK
DHEM LOOP LAYOUT
HOLE BHD4

SCALE 1:10,000 0 200 m

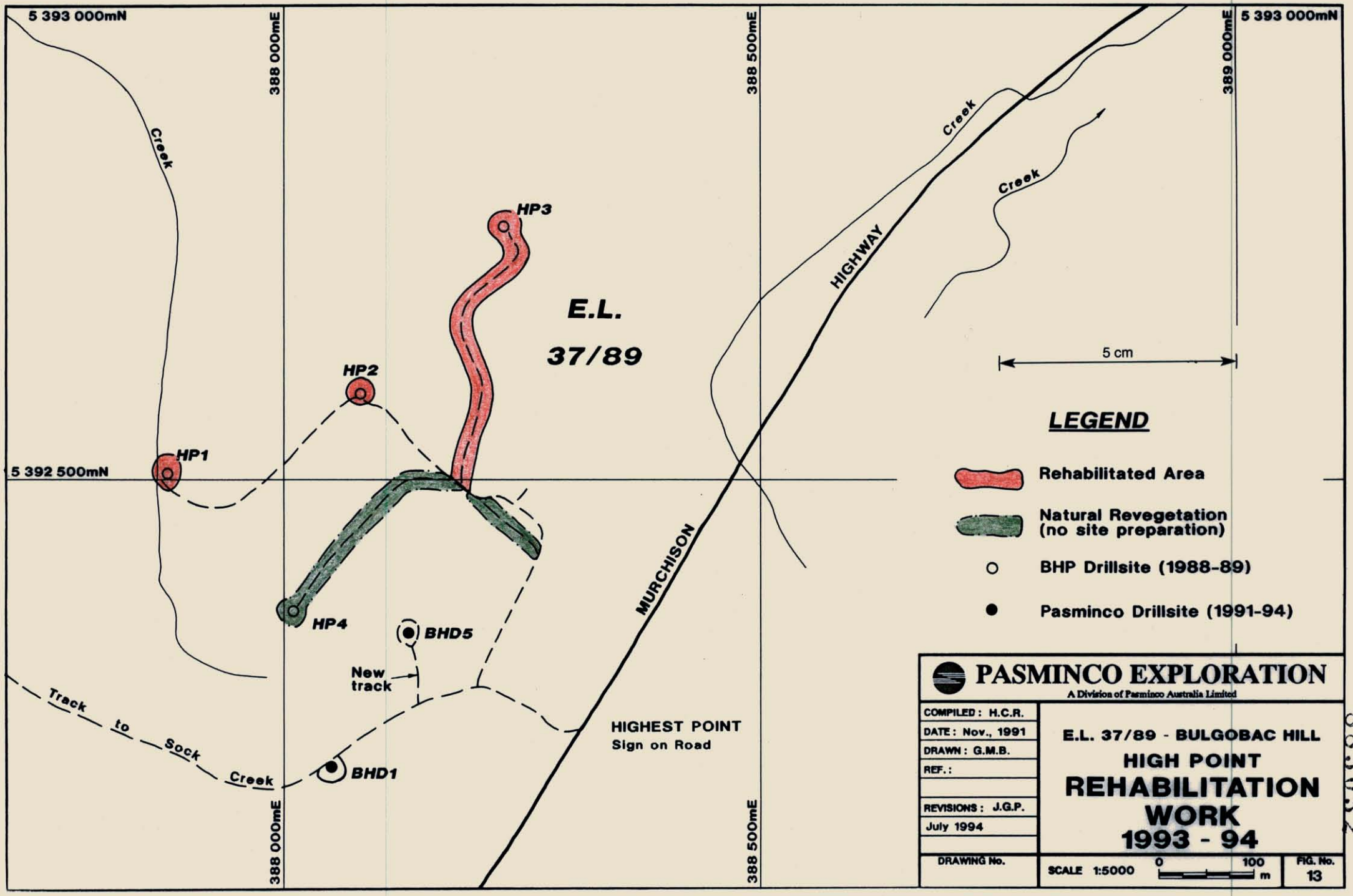
FIG. No. 12

5.7 Environmental Rehabilitation

See Figure 13.

The site of 1991 Pasminco drillhole BHD1 was rehabilitated in February 1994, using the excavator employed to pull the drill rig onto the BHD5 site. Stockpiled topsoil was pulled back over the old site and local slashed vegetation (mainly Tea-Tree), placed on the new surface.

The 60m new drill track, site and sump for BHD5 was constructed in low Tea-Tree and Eucalypt scrub using an excavator. On the access track vegetation only was cleared, with the topsoil being left in place. The site, sump and track will be rehabilitated when the rig is removed.


5 393 000mN
388 000mE
388 500mE
389 000mE
5 392 500mN
Creek
HP1
HP2
HP3
HP4
BHD1
BHD5
New track
Track to Sock Creek
E.L. 37/89
HIGHWAY
MURCHISON
HIGHEST POINT
Sign on Road
5 cm
LEGEND
Rehabilitated Area
Natural Revegetation (no site preparation)
BHP Drillsite (1988-89)
Pasminco Drillsite (1991-94)
PASMINCO EXPLORATION
A Division of Pasminco Australia Limited
COMPILED : H.C.R.
DATE : Nov., 1991
DRAWN : G.M.B.
REF. :
REVISIONS : J.G.P.
July 1994
DRAWING No.
E.L. 37/89 - BULGOBAC HILL
HIGH POINT
REHABILITATION WORK
1993 - 94
SCALE 1:5000
0 100 m
FIG. No. 13

6 DISCUSSION - HIGH POINT

The intense fuchsite alteration in the basal section of BHD5 is a positive sign for mineralization at depth in this vicinity, by analogy with the plume above the Hellyer deposit. The steady increase in overall hydrothermal alteration in this basal part of BHD5 and indications of conductive material below the hole, are also encouraging. Further, the stratigraphic correlations suggest that any mineralization close beneath the hole could well be in the target Mixed Sequence.

Obviously the drill test has to be completed but the major fault that caused the loss of BHD5 must be avoided. This is the second hole to be lost in this vicinity, which is clearly highly structurally complex. An understanding of the structural picture is essential to successfully complete a new drill test.

Before drilling started two faults were thought to be present - the N-S trending, vertical to steeply NE-dipping Mt Charter Fault (known), and the SW-NE trending (vertical?) Jack Fault (largely inferred). The indications now are that there is a third near-vertical structure and it is this one that has caused the loss of both BHD5 and HP4/4A. (See Figure 15).

The fault zones in BHD5 appear to be all part of a single very large near-vertical fault. The huge brittle fault at 117-165m in HP4, 100m to the NW along section, is also semi-parallel LCA ie: near-vertical. (The geology in HP1, 75m directly beneath the base of HP4, shows the fault actually has the steepest of north dips near surface, while the faults in the base of BHD5 indicate it rolls over to dip very steeply south at depth).

When the author designed and drilled holes HP1 and HP2 for BHP in 1988, it was apparent the base of the Que River Shale in the northerly block including HP2 was 190m downthrown with respect to that containing HP1, 200m further south. The author inferred a major fault (hereafter termed the Dividing Fault) to lie between the two holes, but the exact position and trend of this structure was not evident.

In BHD5 the base of the Que River Shale is at 413m (275m RL), and occurs uphole of the two more-major fault zones. In HP4, the base of the QRS is at 508m RL and (importantly) this position correlates with that in adjacent hole HP1. A structure with a throw of around 200m, BHD5 block down, must pass between the Que River Shale in HP4/4A and BHD5. Clearly, this is the Dividing Fault. Its surface trace must pass within 10-20m of the collars of both holes.

Crawford's lithogeochemical/petrological study independently confirms that the major fault at 600-635m in BHD5 is the Dividing Fault. In MAC27, the only hole in the immediate area to have intersected the Mixed Sequence, this unit lies 460m below the base of the Que River Shale. In BHD5, Crawford infers the hole is close to the Mixed Sequence only 300m below the shale. The difference is accounted for by the 160-180m demonstrated to be missing from the basal part of the quartz-bearing andesite unit in BHD5 (see Figure 7).

The conclusion is that the upper 635m of BHD5 is in the upthrown block on the northern side of the Dividing Fault which cuts the hole at 600-635m. The rest of the hole is in the southern downthrown block, with the hole re-entering, but not crossing, the Dividing Fault below 754m.

Using the base of the Que River Shale reference plane, it can be seen HP2, HP3 and the upper part of BHD5, are all in the downthrown block which makes up the northern half of the High Point prospect area. Holes HP1, HP4/4A and BHD1 are in the upthrown block making up the southern half of the prospect. (Purvis,1993a, b). Further east, the good correlation of the Que River Shale in Aberfoyle's hole MAC27 with this unit down-dip in BHD5, would suggest both holes are in the downthrown block with the Dividing Fault passing south of MAC27.

The drilling thus suggests the Dividing Fault has an arcuate trace and a strike approximating local grid east-west (AMG 132°), passing just south of the collars of both HP4/4A and BHD5, and curving south of MAC27. Westwards, the fault trend suggests it is responsible for the abrupt southern termination of the magnetic low along the Mt Charter Fault just south of the collar of HP1. The Dividing Fault does have a surface expression (negative relief) but it is very subtle. As mentioned before, the fault is essentially verticle with a very steep northerly dip near surface, rolling over to steep southerly dip at depth. (Interestingly, available evidence suggests that the Mt Charter Fault does the same).

The magnetic termination implies the Dividing Fault cuts and post-dates the Mt Charter Fault. The sinuous trace of the latter at this point could also be taken to indicate that the Dividing Fault offsets it (south block east). But as seen on Figure 15, ground mapping finds no evidence for any cut-off or offset on the Mt Charter Fault in the vicinity of the Dividing Fault intersection. The critical piece of data in this regard is the (unfaulted) volcanics in the bottom of HP4A – this hole would have encountered Animal Creek Greywacke if the Mt Charter Fault was offset to the east along the Dividing Fault. The Mt Charter Fault and Dividing Fault seem to trend straight across each other. The influence of the Jack Fault is unknown, but appears to be minimal.

Examination of the aeromagnetics is illuminating. As can be seen in Figure 14 the Dividing Fault shows as a major slightly arcuate feature extending NW from the Mt Charter dolerite body SE of MAC27, through BHD5 and HP4/4A, to the magnetic low termination on the Mt Charter Fault just south of HP1.

Any new drillhole to complete the test of the BHD5 target has to avoid the major structures while remaining close enough to maintain the validity of the test. A vertical hole is preferred because the target horizon RL is not exactly known. The risk is that most structures in the area also seem to be near-vertical. Keeping at a safe distance on surface of about 130m NE of the Mt Charter Fault, there are two principal new site options: approximately 130m NNW or 200m SSE of BHD5.

The NNW option puts the proposed hole on a low hill where there are clearly no major structures close to surface, but within the downthrown block north of the Dividing Fault and therefore requiring a hole up to 1200m deep. The SSE option requires a shorter hole (probably just less than 1000m), but has the disadvantage of being relatively close (220m) to Aberfoyle's hole MAC27. Although Aberfoyle didn't drill all the Mixed Sequence (not testing the more-prospective lower part beneath the dacite level), the DHEM didn't give any encouragement.

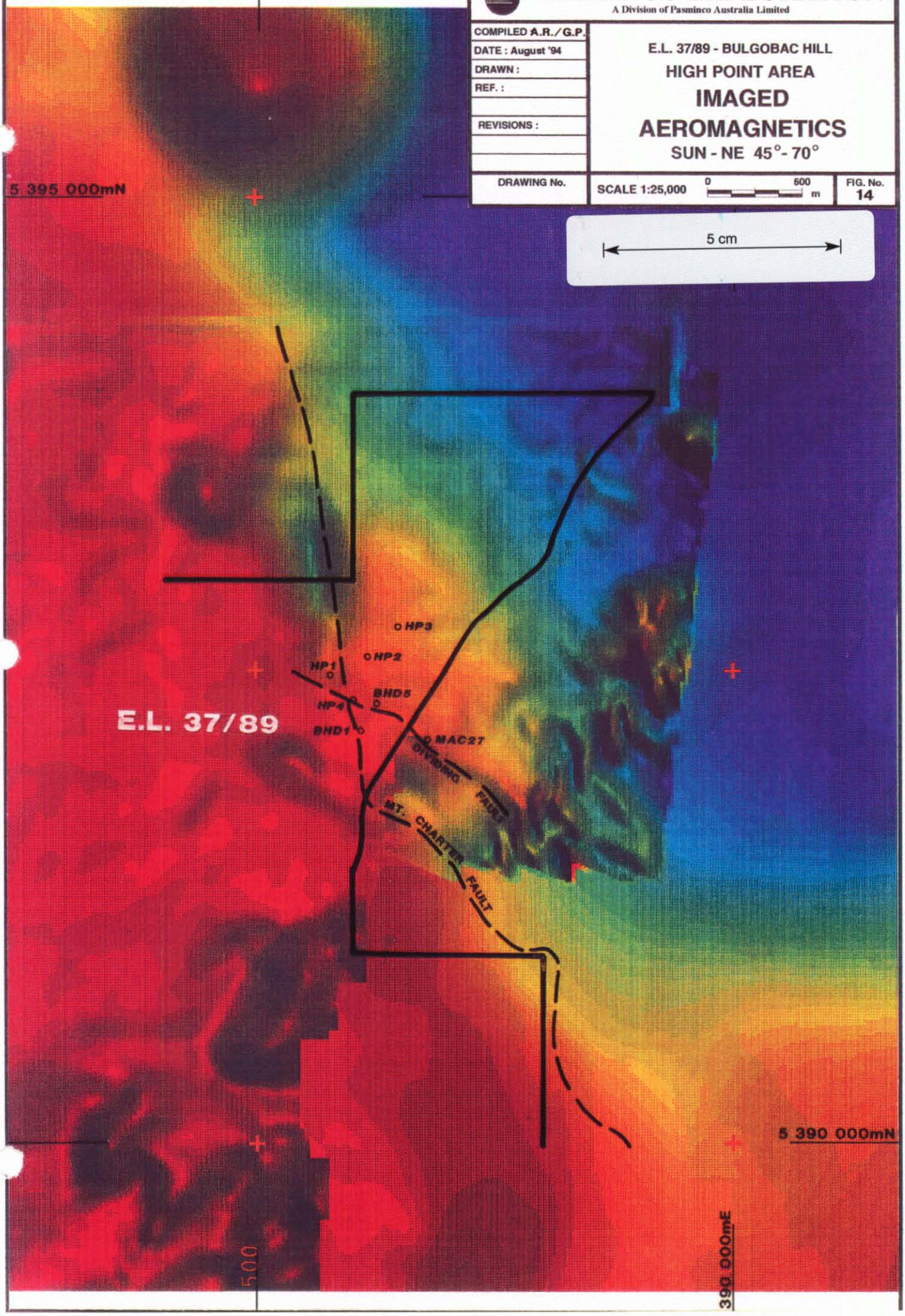
The NNW option would be further (440m) from MAC27 and for this reason it is favoured. A 1200m vertical hole located 130m NNW of BHD5 is recommended and shown as Site B on Figure 15.

883036

PASMINCO EXPLORATION

A Division of Pasminco Australia Limited

COMPILED A.R./G.P.	E.L. 37/89 - BULGOBAC HILL
DATE : August '94	HIGH POINT AREA
DRAWN :	**IMAGED**
REF. :	**AEROMAGNETICS**
REVISIONS :	SUN - NE 45°- 70°
DRAWING No.	SCALE 1:25,000 (0 — 500 m)
	FIG. No. 14



7 REVIEW OF MINERAL POTENTIAL OF THE EL

In September 1995 Bulgobac Hill EL has to be reduced by half (25 sq km). It is appropriate now to review current thoughts on the mineral potential of the EL.
Refer to Figure 4.

Because they host two major basemetal massive sulphide orebodies, the Que-Hellyer Volcanics are the most prospective rocks on the EL. These occur at depth beneath an area of 2 sq km to the NE of the Mt Charter Fault – the High Point prospect.

The major limitation to exploration here is the +800m depth to the most prospective horizon, the Mixed Sequence. Apart from BHD3, drilled in 1993 near the northern EL boundary, the Mixed Sequence has yet to be tested at High Point. There are presently several potential sites at which it could be tested based on geological, particularly structural, criteria.

To the W and SW of the Mt Charter Fault (the Sock Creek area), the Que-Hellyer stratigraphic position is occupied by a unit of rhyodacite lavas. No mineralization or proper hydrothermal alteration is known in these rocks. The lavas are underlain by the unprospective Animal Creek Greywacke and overlain by the Southwell SubGroup, part of the younger volcano-sedimentary covering sequence of the Mt Read Volcanics.

Although the Sock Creek and Sock Creek South zinc mineralization occurs in the Southwell SubGroup, the prospectivity of these rocks is not rated highly. Because:

1 The known mineralization appears weak and restricted (notwithstanding the potential for 100-200,000t @ 5-10% Zn at Sock Creek Prospect -Purvis, 1993). Notably, associated pyritization is minimal or absent.

2 There is a lack of decent hydrothermal alteration (ie: quartz-sericite-pyrite), either associated with the known mineralization or elsewhere.

3 The rocks are moderately dipping and reasonably well exposed. The chances for large undetected alteration or mineralized zones are small. The old prospectors never found any showings in the Southwell SubGroup.

4 The whole area has been covered by UTEM on 200m-spaced lines.

Future exploration in the Sock Creek area is probably tied to conceptual deep (+1000m?) structural/stratigraphic targets. Pasminco drilled the only obvious one of these with an unsuccessful deep hole under the Sock Creek mineralization in 1993.

The southern two-thirds of the EL is covered by the Mt Block Volcanics - massive rhyodacitic lavas, sub-volcanic intrusives, porphyries and very minor epiclastic horizons. In both composition and setting they are equivalents of the Mt Black Volcanics which occur hangingwall to the Rosebery deposit. Although much of the Mt Block Volcanics are almost flat-lying, the very rugged topography means they are well exposed. The whole area has been covered by UTEM.

Again, there is a lack of strong hydrothermal alteration (the rocks are characterized by silica-albite-hematite alteration), and no old showings. The only known mineralization is the Boundary Prospect - a very minor occurrence of quartz-barite-sphalerite-pyrite-arsenopyrite veining exposed by the HEC during power line construction. Drilling showed the "mineralization" to be negligible.

The Mt Block Volcanics are considered unprospective. Any mineral potential would have to be in rocks beneath them, presumably older volcanics of Rosebery age. Leaman (1993) considered on the basis of gravity data that wedges of Que-Hellyer Volcanics could be present in places beneath the Mt Block Volcanics at depths in excess of 1000m.

The only remaining identified mineral potential on the EL (outside of High Point) is considered to be in the South Mt Charter area, around the Henty Fault - Mt Charter Fault intersection. This is a virtually unexplored "grassroots" target.

South Mt Charter is a rugged inaccessible area above the western shore of Lake Mackintosh. Previous exploration has been very limited and even the geology is poorly known. No systematic detailed grid-based work has been carried out here. The prospectivity of this area derives from the fact that the intersection of the Mt Charter and Henty faults, clearly originally major synvolcanic extensional structures controlling the development of the Que-Hellyer "rift", must have been a site of concentrated extension during the Cambrian volcanism and associated hydrothermal episodes.

Geological, geochemical and magnetic surveys on wide-spaced gridlines (400m) are all that is required to initially assess this area and allow a decision to be made as to whether more intensive exploration is warranted.

8 EXPENDITURE

Total expenditure on EL 37/89 for the twelve months ending June 1994 has been **$217 713.** This brings the total expenditure on the licence since it's inception to **$866 876.** A breakdown of the expenditure is given below.

	$
Personnel & Oncosts	33 281
Travel & Accommodation	2 351
Geological Consultants	24 738
Geophysical Contractors	2 365
Analytical Costs	4 784
Geophysical Surveys – DHEM	5 134
Track Cutting & Gridding	4 870
Drilling (including access & core processing/storage)	93 085
Other Contractors	2 936
Environmental	254
Stores & Supplies	2 343
Vehicles & Equipment	5 298
Computing	1 844
Tenement Costs	1 720
Office Running Costs	12 918
Administration Fee	19 792
TOTAL EXPENDITURE	**$217 713**

9 CONCLUSIONS

1 There are encouraging signs for mineralization within the target Mixed Sequence unit a short distance beneath hole BHD5 at High Point. These signs include intense fuchsite alteration and increasing general hydrothermal alteration at the base of the hole, as well as DHEM indications of conductive material below the hole.

2 The drill test commenced by BHD5 needs to be completed by a new hole in this vicinity.

3 Because of the structural complexities, all drilling and drill planning at High Point requires extra care.

4 The lack of DHEM responses in hole BHD4 at Sock Creek extinguishes hope for significant mineralization at accessible depth in this area.

5 The only remaining identified mineral potential on the EL outside of High Point is around the intersection of the Mt Charter and Henty faults in the South Mt Charter area.

10 RECOMMENDATIONS

1 A new drillhole (BHD6, vertical, 1200m) is recommended to complete the BHD5 drill test. The recommended site is 130m NNW of BHD5.

2 Initial geological, geochemical and ground magnetic surveys on 400m-spaced gridlines, are recommended in the South Mt Charter area.

3 No further exploration should be carried out at Sock Creek.

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Unpub Pasminco Expln Report, 13th October 1993.

10 KEYWORDS & LOCALITY

Keywords

ZINC, MAFIC VOLCANICS, STRUCTURE, VOLCANOGENIC, CAMBRIAN, DRILLING, GEOPHYSICS BOREHOLE, GEOCHEMISTRY, ALTERATION

Locality

BURNIE SK55-3: BULGOBAC HILL, QUE RIVER, HELLYER

APPENDICES

Appendix 1

Log of Hole BHD5, High Point

HOLE No. BHD 5

PASMINCO EXPLORATION
DIAMOND DRILL CORE RECORD

LOCATION	TASMANIA
PROJECT	BULGOBAC HILL EL37/89
PROSPECT	HIGH POINT
DESIGNED BY	J.G. PURVIS
LOGGED BY	J.G. PURVIS
RELOGGED	
COMMENCED	15·2·94
COMPLETED	14·6·94
DRILLED BY	F. ORTNER
DRILL RIG	MINDRILL 66

OBJECTIVE

TO TEST FOR MASSIVE SULPHIDES IN QUE-HELLYER MIXED SEQUENCE AT DEPTH ADJACENT TO THE AT CHARTER FAULT AND CLOSE TO ITS INTERSECTION WITH THE INTERPRETED SW EXTENSION OF THE JACK FAULT.

RESULT

HOLE LOST IN MAJOR FAULT ZONE WITHIN QUE-HELLYER HANGINGWALL VOLCANICS. STRATIFORM ZINC MINERALIZED ZONE ENCOUNTERED IN UPPER PART OF HW VOLCANICS. BASAL FAULT STRONGLY FUCHSITE-ALTERED.

LOCATION/SURVEY DATA (AMG)

Grid	AMG		RL Collar m	687·3	
Northing m	5392338·3		Bearing Collar	192°	
Easting m	388129·7		Dip Collar	−90°	
DH Survey Type	EASTMAN SINGLE SHOT CAMERA		Length Hole m	771·1m	

Depth m	Bearing	Dip	Depth m	Bearing	Dip
0	192°	−90°	706	252°	−82·75°
31	192°	−88·75°	733	258°	−82·5°
64	227°	−89°	771·1	258°	−82·5°
100	252°	−89°			
130	252°	−88·5°			
164	249°	−88·5°			
194	252°	−88·3°			
224	243°	−88·1°			
260	242°	−87·7°			
290	232°	−87°			
320	231°	−86·5°			
350	233°	−86°			
383	237°	−85·5°			
413	240°	−84·5°			
428	240°	−84·25°			
446	242°	−84·1°			
470	243°	−84·5°			
500	244°	−84·25°			
533	245°	−84°			
563	248°	−84·25°			
596	248°	−84·25°			
643	252°	−84°			
673	254°	−83·5°			

SIGNIFICANT INTERSECTIONS

From m	To m	Interval m	Zn	Pb	Ag	Au		Comments
412	412·95	0·95	0·87%	0·2%	2	<0·008		Que River Shale. Maximum sample value
403·5	495	91·5	0·17%	<0·1%	<1	<0·008		Stratiform Zinc Zone in Que-Hellyer
including:								Hangingwall Volcanics.
427	451	24	0·20%	<0·1%	<1	<0·008		Mineralized basaltic breccias
455	461	6	0·32%	0·10%	<1	0·015		Andesitic lava breccias

SIGNIFICANT CORE LOSS

From m	To m	% Lost
0	3	93
73	75·6	48
113·6	115·5	69

POOR GROUND CONDITION ZONES

From m	To m	Condition
76·2	114·5	Strong brittle fault - badly fractured + broken, with pug.
600	634·1	Major brittle fault zone - cataclasite, pug, badly broken
753·9	771·1	" " " " " " " "

HOLE SIZE

Size	Depth m
HW	8·5
HQ	132
NQ	634·1
BQ	771·1

HOLE CONDITIONS AFTER COMPLETION

Collar	Steel cap on 4m of cemented - in HW casing.
Steel Casing	HW: 0-4m + 7·5-8·5m; NQ: 512·2-627·7m; BQ: 751·9-771·1m
PVC Casing	None.
Ground Water	—
Wedge	—
Drill Pad	—

8830471

PROJECT: HIGH POINT

HASMINCO EXPLORATION
SUMMARY DIAMOND DRILL CORE LOG

HOLE No. BHD5

Graphic Scale 1:

From m	Interval m	Code	Description	Depth	Graphic

SUMMARY LOG - BHD5

Collar: 5392338mN, 388130mE, 687mRL. Dip: Vertical.

0 - 192.3m: SOUTHWELL SUBGROUP

0 - 76.2m: Coarse Crystal-Lithic Sandstone / Breccia
Weakly altered. Minor py & sp.

76.2 - 114.5m: Black Shale
Up to 2% disseminated py.

114.5 - 129.5m: Fine Volcaniclastic Sandstone
Trace py.

129.5 - 192.3m: Fine Pumiceous Crystal-Lithic Breccia
Minor py. Pyritic mafic lava clasts below 155m, and rare small massive py clasts.

192.3 - 412.95m: QUE RIVER SHALE

192.3 - 210.75m: Pyritic Black Shale
3% bedded disseminated py, locally 10%.

210.75 - 215.3m: Mafic Volcanic (Dyke?)
Unmineralized.

215.3 - 386.0m: Calcareous Pyritic Black Shale
3% bedded dissem py, large zones 3-5%. Minor sp below 333m.

386.0 - 389.05m: Mafic Volcanic Dyke
Trace py, sp & cp.

389.05 - 412.95m: Calcareous Pyritic Black Shale
3% bedded dissem py. Sp (gn & cp) in calcite veinlets.

From m	Interval m	Code	Description	Depth	Graphic

412.95 - 771.1m: QUE-HELLYER VOLCANICS

412.95 - 422.0m: Polymict Basaltic Breccio-Conglomerate
3-5% disseminated py-sp.

422.0 - 457.0m: Mineralized Basaltic Breccias
3-5% py, 1-2% sp, dissem. Frags with up to 40% py & 5% sp.

457.0 - 498.2m: Andesitic Lava Breccias
1-5% disseminated py-sp.

498.2 - 574.2m: Brecciated Andesitic Lava
Minor to 1% disseminated py-sp-po.

574.2 - 600.0m: Partly-Brecciated Quartz-Phyric Amygdaloidal Mafic Lava
Unusual rock. Minor to 1% dissem & veinlet py-po-sp.

600.0 - 634.1m: Major Fault
Low angle to LCA. Sheared mafics & shale. Up to 3% py-sp.

634.1 - 664.7m: Brecciated Amygdaloidal Basalt
Weak silica-fuchsite alteration. Up to 2% py-po-sp.

664.7 - 670.3m: Altered and Mineralized Interflow Zone
Sil-py(+fuchsite) altered breccia bands. 10% py, 2-3% sp.

670.3 - 722.1m: Brecciated Amygdaloidal Mafic Lava
Up to 2% sp-py.

722.1 - 741.7m: Massive Amygdaloidal Mafic Lava
Weak fuchsite alteration increasing with depth. Minor py-cp.

741.7 - 753.9m: Mafic Lava Quench-Breccias
Black shale matrix. 1-3% disseminated py.

753.9 - 771.1m: Major Fuchsite-Altered Fault Zone
Low angle to LCA. Strong fuchsite alteration. Up to 2% py.

END OF HOLE

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

PROJECT: HIGH POINT, EL 37/89

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION			
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth

LOG OF HOLE BHD5

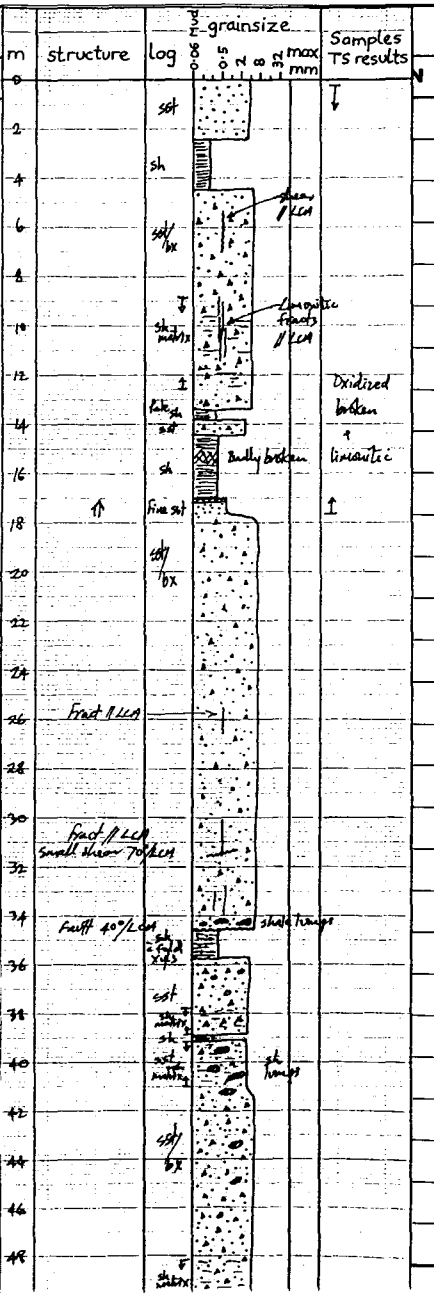
0 - 192.3m: SOUTHWELL SUBGROUP

0 - 76.2m: COARSE CRYSTAL-LITHIC SANDSTONE / BRECCIA

Lithology: Grey. Brown to 17.5m. Massive. Uniform.
V coarse gr feld-qtz xyl-lithic sst to fine epiclastic bx.
(Felds av 3-5mm, qtz av 2-4mm, to 10mm. Clasts av <10mm, to 30mm).
Grey-black shale in bands, irreg lumps & as sst matrix in discrete zones.
(Shale unlith when disrupted by sst/bx mass flows).
Clasts mostly sil-alb alt qtz-feld porph (source of matrix xyls).
Also sil-alb alt felsic lavas & rare fine pumice.
At 40.2 & 50.4m: 30mm alt basalt clasts with gn-sp-py in vesicles.
Alteration: Strongly oxidized to 17.5m, sl leaching of carb to base.
Mod (locally v strong) silif, weak albite-sericite-chlorite alt.
Veining: Rare comb-structured qtz veins.
Structure: Sl variations in grainsize reflect crude layering.
Thin uphole-fining qtzose sst intervals denote tops of xyl-lithic mass-flow pulses, eg: @ 17.5m, 41.8m, 52.1-53.5m, 57.5m.
Bedding (shale bands): 70°/LCA @ 15.5m (cleav 35°/LCA, same sense); 60°/LCA @ 41m & 52m; 55°/LCA @ 66.25m.
V weak cleav in shale bands.
Broken in places by fract & shear set // LCA, mainly above 17m & in basal 12m.
Puggy faults in shale 40°/LCA (// cleav) @ 34.5-34.8m & 66-66.2m.
Basal contact badly broken by fault //LCA, commencing @ 74.5m.
Mineralization: 0-17.5m: Limonite stains and fract-fillings.
Minor dissem py & sp (some sp in porph lithics).
1% py @ 38-42m & 70-72m.

76.2 - 114.5m: BLACK SHALE

Lithology: Sl carbonaceous dk grey to black shale, with v minor silty component in places.
Above 83m: bands of feldspathic sst with shaley matrix, (sst contains minor qtz grains & rare small lithics of altered mafic volcs).
Some beds of weakly sericitic siltstone & sst below 108m.
Alteration: Essentially unaltered (trace sericite-chlorite).
Veining: Minor sericite & chlorite microveinlets (esp in fault at 103m).



CODES			
LITHO	STRUCT	ALTN	MIN

8830469

5 cm

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

PROJECT: HIGH POINT, EL37/89

Graphic Scale 1: 200

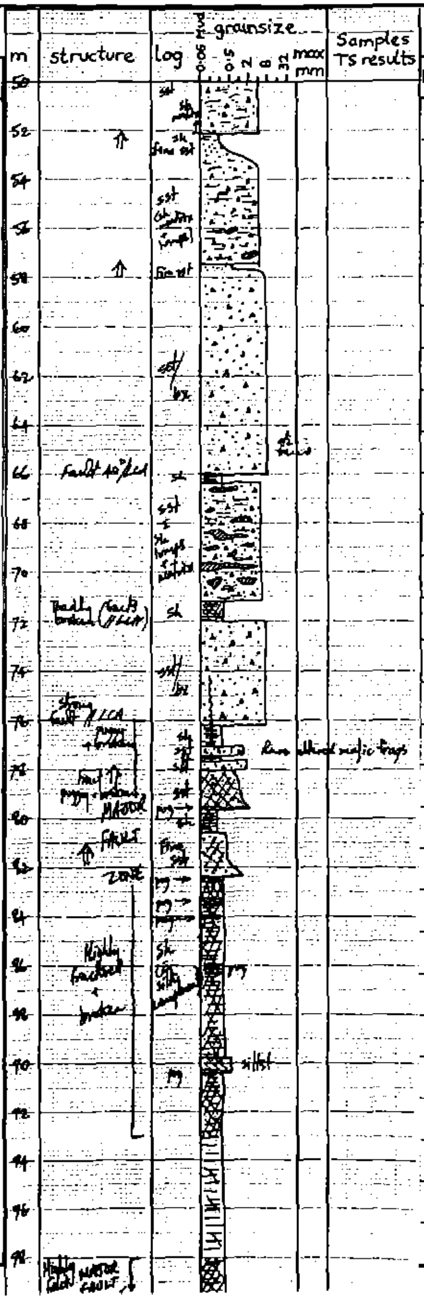
CORE RECOVERY				DESCRIPTION		
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)

Structure: Regular bedding (to LCA): 75° @ 78m, 72° @ 84m, 67° @ 94m, 30° @ 104m, 67° @ 111.5m. Bedding //LCA 101-104m (in fault).
Uphole fining in sst bands 78.25-79.6m & 81.6-82.4m.
No visible cleavage.
Badly broken 76.2-93m, 97.8-108.7m & 113-114.5m, by major brittle faults (one fault?) //LCA, centred on pug zones 82-87m & 101-103m.
Basal contact broken due to faulting & core barrel mislatch.
Mineralization: 76.2-97m: Minor dissem py. Rare cp on fracts.
97-111m: 1-2% fine dissem py, bedded in places.
111-114.5m: Minor dissem py.

114.5 - 129.5m: FINE VOLCANICLASTIC SANDSTONE
Lithology: Grey. Hard. Fi gr. Even-grained & massive.
Silic, vitric (now sericitic) volcanomict sst, composed of abraded qtz, feld & lithic grains.
Lithics incl tiny frags of black shale & volc glass (some pumice).
Occasional larger sericitized qtz-feld phyric pumice frags to 60mm thick.
Alteration: Weak blotchy sericite, silica, carb, albite.
Veining: Leached vughy fracts after carb veinlets (some remanent carb in places).
Structure: Bedding only above 118m (58°/LCA @ 117m). Uncleaved.
Mod broken by strong fract set //LCA.
Grainsize coarsens downhole in basal 1m - basal contact gradational.
Mineralization: Trace dissem py.

129.5 - 192.3m: FINE PUMICEOUS CRYSTAL-LITHIC BRECCIA
Lithology: Grey. Massive. Hard. Siliceous.
Open-framework polymict bx, fining uphole to coarse sst.
Angular clasts, overall av 3-10mm, in sandy matrix.
Clasts packed in basal 3m, av 10-40mm (to 140mm).
Most abund clasts: pumice, felsic lavas (perlitic or qtz-feld phyric), black shale.
Less common: fi gr seds, mafic lavas (amygdaloidal or perlitic), rare qtz-feld porph.
Matrix: Qtz & feld xyl grains, lithic grains & abund tiny pumice frags.
Traces of black shale in matrix near base of unit.
Small black shale rafts @ 162.75-163.15m &163.7-164.1m.
Alteration: Weak-mod silica>sericite (conc in matrix).
Strong carbonatization in basal 1m.
Many clasts strongly altered before incorp into unit (eg: felsic lavas ble-sil-alb; mafics ble±pyritic, rarely fuchsitic).

Depth



CODES			
LITHO	STRUCT	ALTN	MIN

050388

5 cm

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

PROJECT: HIGH POINT, EL 37/89

Graphic Scale 1: 200

Page 5 of 27

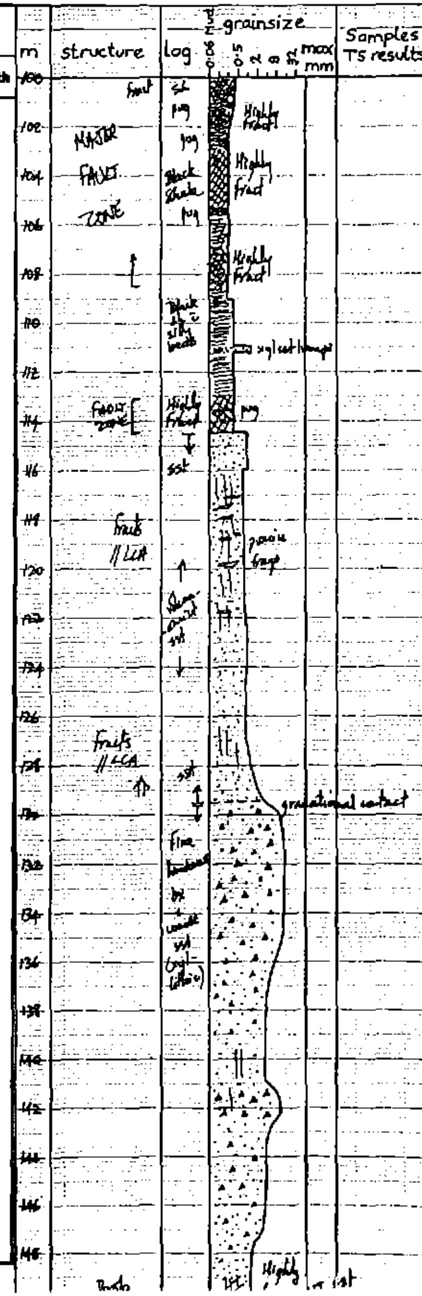
CORE RECOVERY				DESCRIPTION				CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	LITHO	STRUCT	ALTN	MIN

Veining: Minor qtz-carb veinlets (carb leached around fracts).
Structure: Poorly-developed bedding (denoted by grainsize & clast abundance variations, & weak clast orientation): 65°/LCA @ 130m &142m, 60°/LCA @ 163.5m.
Broken at intervals by strong fract set 0-10°/LCA. No cleavage.
Basal contact abrupt, sheared & broken.
Mineralization: 129.5-190.5m: Minor dissem py.
Below 155m, some highly pyritic mafic lava clasts.
25 x 8mm massive py clast @ 158.65m.
190.5-192.3m: 2-3% py, dissem & conc on clast margins. Several massive py clasts to 10mm & pyritic mafic clasts.

192.3 - 412.95m: QUE RIVER SHALE

192.3 - 210.75m: PYRITIC BLACK SHALE
Lithology: Carbonaceous & often calcareous black shale with 1mm interbeds of calcareous fine sandy material.
Some graphite on shears & fracts.
Alteration: Calcareous character poss due to weak-mod carbonatization.
Veining: Qtz-calcite veinlets common in basal 4m, minor elsewhere.
Structure: Fine regular bedding: 79°/LCA @ 197m, 67°/LCA @ 205m.
Badly broken at intervals by strong fracts & shears @ <15°/LCA (prob a single structure, centred in strong puggy fault 209-209.5m).
Basal contact abrupt, fractured & veined, 55°/LCA.
Mineralization: 5-7% py to 195m, 2-3% below this (patchy, <1-10%).
Ultra fi gr dissem, commonly bedded.
70x10mm lense of massive py @ 197.5m. Py framboids to 15x3mm.
Minor sp-gn in qtz-carb veinlets on basal contact.

210.75 - 215.3m: MAFIC VOLCANIC (DYKE?)
Lithology: Pale grey-green. Med gr. Uniform.
Chloritized ferromags to 2mm in pale groundmass.
Calcite & chlorite amygdales to 3mm.
Alteration: Strongly carbonatized. Trace chloritization.
Veining: Calcite veinlets. Qtz-calcite veins to 80mm in upper 0.5m.
Structure: Sl fractured & broken.
Basal contact ground away (0.8m of core lost).
Mineralization: None.



883051

5 cm

PROJECT: HIGH POINT, EL 37/89

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHDS

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION								CODES			
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	m	structure	log	grainsize 8 4 2 1 ½ ¼ max mm	Samples TS results	N	LITHO	STRUCT	ALTN	MIN

215.3 - 386.0m: PYRITIC CALCAREOUS BLACK SHALE

Lithology: Black carbonaceous highly calcareous shale. Uniform.
Graphitic where fractured & sheared.
Alteration: Calcareousness may be strong carbonatization.
Veining: Minor calcite veining, gen assoc with faulted & fract zones.
Shale less calcareous in zones of calcite veining (suggests veins are sweat-outs).
Structure: Fine regular bedding (to LCA): 66° @ 225m & 269m; 63° @ 247m; 60° @ 283m; 55° @ 293m; 51° @ 310m; 45° @ 328m; 42° @ 347m; 39° @ 368m; 28° @ 384m.
V weak cleavage //LCA.
Gen unbroken. Badly broken at intervals due to faults & fracts 5-15°/LCA.
Strong brittle fault 15°/LCA @ 218-220.2m.
Ditto 249.9-251.3m (shearing 10-15°/LCA, fault margins 60°/LCA).
Brittle fault 15°/LCA @ 262.4-263m.
Basal contact abrupt, 38°/LCA (// bedding).
Mineralization: V fi gr dissem py 1-10%, conc in 1mm bedded laminae (some massive).
25mm semi-massive py @ 248m. 5mm massive py @ 252.7m.
Gen 2-3% py, except:
3-5% py @ 215.3-233m, 286-304m, 346-357m & 362-366m.
Minor py & sp @ 383-386m, all in calcite veinlets.
Below 333m (increasing with depth), minor sp-py>cp in some calcite veins.

386.0 - 389.05m: MAFIC VOLCANIC DYKE

Lithology: Pale grey-green. Massive.
Fi-med gr mafic with chloritized ferromags av 1mm.
Common calcite or chlorite amygdales to 7mm.
Weakly developed sub-ophitic texture in central part of unit.
Thin selvages of finer grainsize on both contacts.
Alteration: Strongly carbonatized. Weakly chloritized.
Veining: Irreg calcite veins. Greasy talc-carb on fracts.
Structure: Mod fract & broken.
Basal contact abrupt & sl irreg, 40°/LCA.
Mineralization: Trace py-sp-cp, dissem & on fracts.

5 cm

PROJECT: HIGH POINT, EL 37/89

P. BMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHDS

Graphic Scale 1: 200

Page 7 of 27

CORE RECOVERY				DESCRIPTION				CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	LITHO	STRUCT	ALTN	MIN

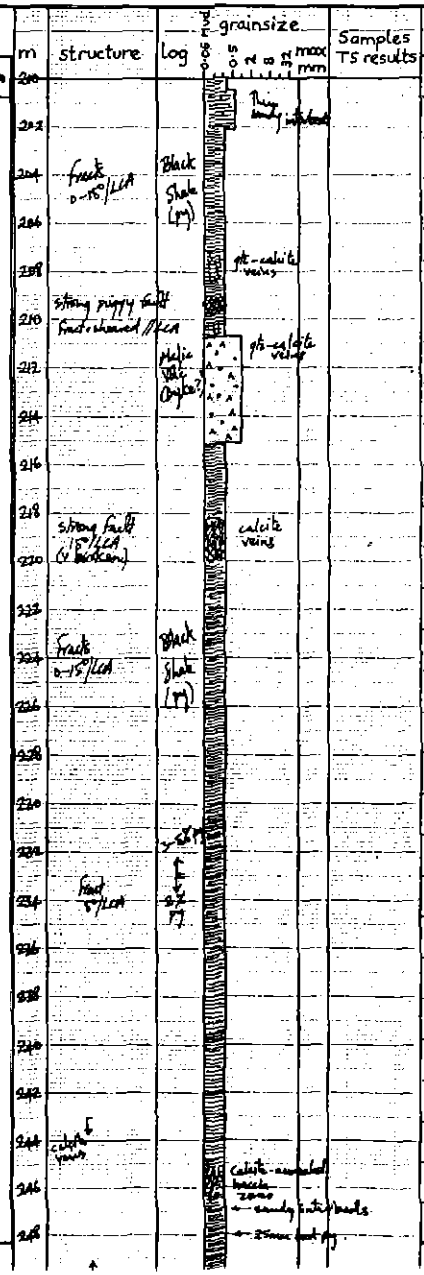
389.05 - 412.95 m: PYRITIC CALCAREOUS BLACK SHALE

Lithology: Highly calcareous black carbonaceous shale.
Below 396m, some beds to 300mm of med gr calcareous qtz-mica sst. These more common towards base, where they have black shale matrix.
Alteration: Calcareousness poss due to strong carbonatization.
Veining: Minor calcite veinlets, abund 403-408.5m (around fault).
Structure: Reg bedding in shale. Soft-sed disruption in sst beds.
Some sst beds fine uphole. Flame structures show facing uphole @ 411.5m.
Bedding: 39°/LCA @ 398.5m; 47°/LCA @ 411.5m.
Weak cleavage in shale, 5°/LCA.
Fract & broken 396-408m (v badly in faults).
Strong brittle fault 397-398m, 20-40°/LCA (same sense as bedding).
Brittle fault, 15-20°/LCA @ 407.45-407.6m (same sense as bedding).
Basal contact a sharp sl irreg depositional surface 60°/LCA. Uphole fining evident in top few cm of unit immediately beneath.
Mineralization: V fi gr bedded dissem py, incl semi-massive laminae.
Sp>gn-cp in calcite veinlets gen //LCA.
389.05-401.5m: 2% py, rare sp-gn.
401.5-405.5m: 5% py (2-10%), minor sp>gn.
405.5-407.5m: 2% sp, minor py>cp.
407.5-412.95m: 2-3% py, minor sp (2% sp, minor cp-gn, in basal 1m).

412.95 - 771.1m: QUE - HELLYER VOLCANICS

412.95 - 422.0m: POLYMICT BASALTIC BRECCIO-CONGLOMERATE

Lithology: Greenish-grey. Polymict.
Peperite (upper half) & epiclastic breccio-conglomerate (lower half).
Clasts: mafic lavas (carbonatized pyritic amygdaloidal, or bleached sericitized perlitic). Lesser seds (shale & qtzose sst).
Clasts gen angular (some rounded), to 150mm, av 20-30mm.
Subord matrix of grey-black shale often replaced by carbonate.
To 418m shale mostly in matrix, below this mostly in irreg clasts.
Alteration: Mod-strong carbonatization (esp matrix).
Minor sericite-silica alt.
Some lava clasts have bleached (±pyrite) rims.
Veining: Numerous tiny calcite veinlets cut clasts & matrix.
Structure: Poorly sorted. Crude stratification. Bedding 25°/LCA.
Largely unbroken.
Small brittle fault, 8°/LCA, centred 414.25m.



5 cm

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

PROJECT: HIGH POINT, EL 37/89

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION				CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	LITHO	STRUCT	ALTN	MIN
						Gradational change at base.					
						Mineralization: Approx 3-5% py, minor sp, trace gn.					
						Py dissem in clasts & matrix, conc in amygdaloidal lava clasts (to +10%). Sp dissem in clasts & matrix, rarely in calcite veinlets.					
						422 - 457m: MINERALIZED BASALTIC BRECCIAS					
						Lithology: Dk grey-green.					
						Coarse basaltic peperite, mixed with lesser polymict epiclastic breccio-conglomerate & minor hyaloclastite.					
						Subord matrix of black shale & qtz-mica sst, or (uncommonly) finely frag mafic volc material. All extensively replaced by calcite.					
						Dominated by angular altered & mineralized amygdaloidal basalt clasts & blocks to 2.5m (av 20-200mm).					
						Lesser clasts of sparsely feld-phyric mafic lava (chloritized, poorly sulphidic), small sub-rounded clasts of ble silif perlitic lavas, shale & qtz-mica sst. Rare small clasts of flow-banded ble silif prob dacite.					
						Alteration: Stronger than in unit above.					
						Strongly carbonatized. Minor rhodocrosite @ 445m.					
						Patchy silicification. Weak chlorite-sericite. Talc-carb on fracts.					
						Discrete highly carb-py or silica-py altered basalt clasts. Other clasts (gen basalt) have similar alt/min in thin rims only.					
						Veining: Abund tiny calcite veinlets & short lensy calcite net-veins.					
						These cut by comb-struct qtz>carb veins (to 170mm), high angle to LCA.					
						Structure: Bedding in sst @ 434m: 30°/LCA.					
						Small brittle faults: 70°/LCA @ 435.2m, 15°/LCA @ 451.4-451.7m.					
						Gradational change at base - occurs 456.3-457.7m.					
						Mineralization: Variable. Py>sp, dissem in clasts & (less) in matrix.					
						Basalt clasts (esp silif types) commonly 5-40% py &1-5% sp.					
						Overall: 3-5% py, 1-2% sp, trace gn & cp. Best sp: 446.5-452m.					
						Pyritic clasts more abund towards top of unit.					
						457 - 498.2m: ANDESITIC LAVA BRECCIAS					
						Lithology: Dark greenish-grey. Hyaloclastite breccias.					
						Highly angular, often fractured, frags to 0.7m of feld-phyric mafic lava in subord net-vein matrix of fine volc material, cemented or replaced by silica or calcite.					
						Minor peperite zones with silif shale or limey mud matrix.					
						Lava has sparse feld phenos av 1mm, & fine calcite or chlorite amygdales. Small perlitic mafic frags in upper few metres of unit.					

m | structure | log | grainsize | Samples TS results

8803534

5 cm

PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

PROJECT: HIGH POINT, EL 37/89

HOLE No. BHD5

Graphic Scale 1: 400 (Note scale change)

CORE RECOVERY: From m | Interval m | % | RQD

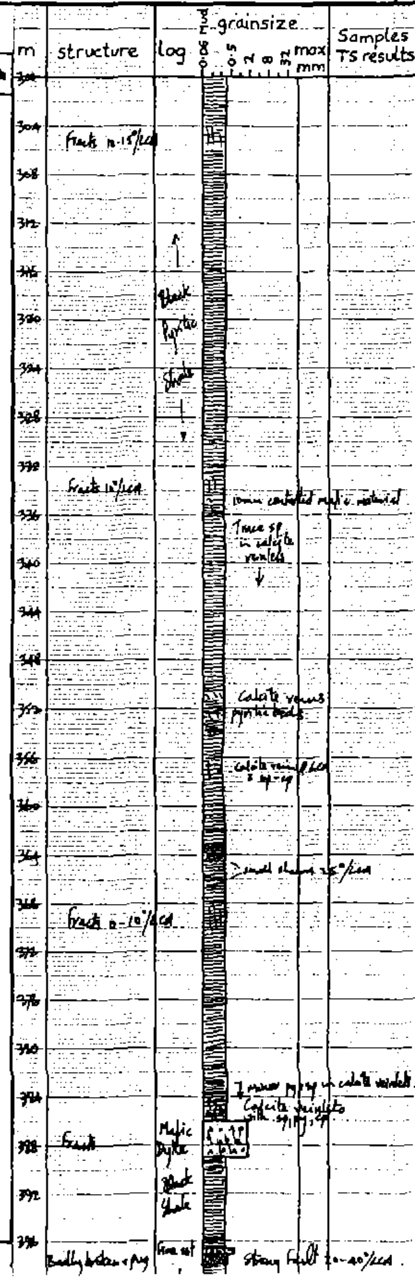
DESCRIPTION: From m | Interval m | (Incl. LITHOLOGY, STRUCTURE & ALTERATION) | Depth

CODES: LITHO | STRUCT | ALTN | MIN

Alteration: Mod-strong carbonatization & chloritization.
Weakly sericitized, strongest assoc with fault @ 497m.
Bx matrix strongly silif & mod bleached (affects some smaller lava frags).
Talc-carb in faults.
Veining: Abund irreg veinlets, lensy veins & patches of calcite, often as invasion of breccia matrix at low angle to LCA.
These cut by fewer comb-structured qtz>carb veins at high angle to LCA.
Structure: Bedding 60°/LCA in chlor siltst/sst interval 458.8-459.2m.
Largely unbroken (minor fractures @ 10-25°/LCA).
Strong brittle fault 497-497.65m, 30°/LCA, sericitized cataclasite.
Small brittle faults @ 483.9m (35°/LCA) & 491.7m (45°/LCA).
Gradational change at base.
Mineralization: Sp(>gn) & py, fi gr dissem & small veinlets (low angle to LCA).
Sulphs conc in bx matrix, in silif lava frags & in/on frag margins (esp py).
457-462m: 3-5% py, 2-3% sp. 5% sp in silif lava frag 458.1-458.8m.
462-476m: 1-2% py (& po below 470m), 1% sp, minor gn-cp.
476-495m: 1-2% sp-gn>py-po. Mainly in bx matrix.
495-498.2m: Minor py>sp.

<u>498.2 - 574.3m: BRECCIATED ANDESITIC LAVA</u>

Lithology: Greenish-grey. Fi-med gr.
Finely & sparsely feldspar-phyric amygdaloidal lava, seamed by calcite-annealed fractures & breccia zones with irreg net-vein habit.
Felds av 1mm, in fi gr groundmass.
Amygdales of calcite, chlorite or qtz, av <2mm, up to 20mm.
Breccia zones typically <30mm wide, comprise small highly angular lava frags in calcite cement (less commonly chalcedonic silica or black shale).
Alteration: Weak chlorite>sericite alt.
Patchy silicification ±bleaching, strongest around 510m, 524m & 533m. This alt commonly affects the small frags in breccia zones.
Strong sericitization assoc with fault @ 539-540m.
<u>Not</u> carbonatized.
Veining: Abund irreg veinlets, veins & bx-fill, of calcite±qtz, at all angles. These cut by later comb-structured veins to 100mm of qtz-calcite, at high angle to LCA.
Structure: Largely unbroken in upper half, increasingly broken with depth, mainly in & around faults as follows:
501m: Brittle fault, 30°/LCA.
506.8-507.3m: Strong brittle fault with 0.5m of pug, 10°/LCA.
539-540.3m: Brittle fault with sericite & chlorite alt, 0-20°/LCA.



88305

5 cm

PROJECT: HIGH POINT, EL 37/89

PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD 5

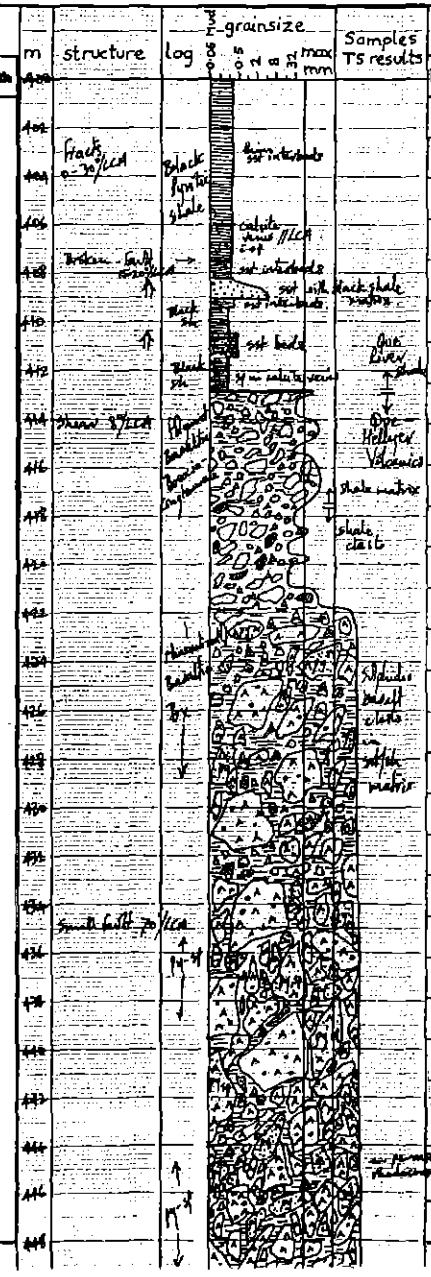
Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION				CODES			
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	LITHO	STRUCT	ALTN	MIN

551-551.7m: Brittle fault with pug, 25°/LCA.
564-565.4m: Strong brittle fault with pug & talc-carb material, 10-20°/LCA.
Basal contact abrupt & irreg, 45°/LCA.
Mineralization: 498.2-510m: 1% sp>po-py-gn. Trace cp. Dissem, conc in breccia matrix & in amygdales.
510-563.8m: Persistent minor dissem sp>gn-po-py>cp (trace only 526-545m).
Sulphs best in silif zones (eg: 1-2% sp-gn 523.5-525m), or where shale occurs in breccia matrix (eg: 1% sp>gn, 558-561m).
Cp blebs in 10mm calcite-qtz vein //LCA @ 535.6-536.1m.
563.8-565.8m: 1-2% py-sp, dissem & veinlets, in fault zone.
565.8-574.3m: Minor to 1% sp-py.

574.3 - 574.75m: BLACK PYRITIC SHALE
Black carbonaceous shale with disrupted lenses of fine calcareous sst.
Calcite veinlets.
Upper & lower 100mm v hard - possibly baked.
5% dissem & veinlet py>po.
Bedding 40°/LCA. Basal contact sharp, sl irreg, 30°/LCA (// bedding).

574.75 - 600m: BRECCIATED AMYGDALOIDAL QUARTZ-PHYRIC MAFIC LAVA
Lithology: Greenish-grey. Unusual rock.
Fi-med gr amygdaloidal feld-phyric mafic lava with grains of qtz.
Felds av 1mm, qtz 1-2mm, neither abund.
Many qtz grains poss replacing felds, as felds more common (& qtz less so) in massive unsilif section of unit below fault @ 594m.
However, some qtz bi-pyramidal & apparently 1° phenos.
Abund qtz or calcite amygdales, av 1-2mm, to 15mm.
Lava fract & partly brecciated (hyaloclastitic) to 592m, massive & less amygdaloidal below this. Top 2m peperite (lava frags in silif black shale matrix). Minor black shale in bx matrix 581-584.6m.
Alteration: Patchy silif (± bleaching) where brecciated, esp bx matrix & smaller lava frags in it.
Weak sericite>chlorite alt (sericite rims qtz grains & amygdales).
Talc-carb in fault @ 591-594m & on fracts in basal 1m.
Mod-strong carbonatization below 594m.
Veining: Abund irreg calcite veinlets, cut by minor thin comb-structured calcite-qtz veins.



5 cm

PASMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

PROJECT: HIGH POINT, EL 37/89

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION			CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	LITHO	STRUCT	ALTN	MIN

Structure: Sl broken above 594m (fracts low angle to LCA).
Badly broken 591-593.8m (strong brittle fault <15°/LCA @ 593-593.8m).
Basal "contact" fault plane 5°/LCA.
Mineralization: 574.75-576.75m: 1-2% sp-py-po, dissem & veinlets.
576.75-594m: Minor to 1% po>sp-py>cp.
594-600m: Trace py.

600 - 634.1m: MAJOR BRITTLE FAULT ZONE
Lithology: Grey.
600-605.3m: Qtz-bearing amygdaloidal feld-phyric mafic lava as above.
605.3-607.2m: Cleaved black shale. Annealed fault contacts (U: 90°/LCA).
607.2-615.55m: Feld-phyric amygdaloidal mafic lava. Sl brecciated.
615.55-617.7m: Black shale, faulted contacts, U: 15°/LCA, L: 70°/LCA.
617.7-634.1m: Feld-phyric amygdaloidal mafic lava as before.
Alteration: Patchy mod carbonatization. Minor silif & chloritization.
Greasy lime green or white talc-carb along faults & fracts.
Veining: Abund irreg calcite(±qtz) veinlets. Minor reg comb-structured qtz-calcite veins to 80mm.
Structure: Prob single major brittle fault almost //LCA.
Shale contacts @ 605.3 & 607.2m suggest annealed earlier fault episode.
Gen badly fractured, shattered & broken, with zones of cataclasite & pug.
Zones of strongest faulting (with dominant shear & fract angles to LCA):
601.4-604.25m: //; 611.6-612.4m: 5°; 613.5-616.5m: 0-25°; 617.7-622.8m: 5-25° (major fault zone, centred 619-621m); 628.8-634.1m: //.
Cleavage in shale @ 606m: 45°/LCA.
Bedding in shale @ 617.3m: 60°/LCA.
Mineralization: 600-605.3m: Minor dissem py. 1% sp 603-603.5m.
605.3-607.2m: 2-3% sp-py, minor gn-cp. Sp in calcite veinlets, py dissem.
607.2-615.55m: Minor py & sp. Dissem & in veinlets.
615.55-616.9m: 2-3% fine dissem py, minor sp.
616.9-617.7m: 3% sp, minor py-gn-cp. Mainly in qtz-calcite veinlets.
617.7-634.1m: Minor to 1% pyrite, dissem & in faults. Trace dissem sp.

634.1 - 635.1m: AMYGDALOIDAL FELDSPAR-PHYRIC MAFIC LAVA
Same rock type as in fault zone above.
Common 1-2mm diffuse feld phenos. Small calcite amygdales.
Strongly silicified. Veinlets of qtz-calcite.
1% fine dissem pyrite.

5 cm

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHDS

PROJECT: HIGH POINT, EL 37/89

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION				CODES			
From m	Interval m	%	RQD	From m	Interval m	(Incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	LITHO	STRUCT	ALTN	MIN

Basal contact 15°/LCA - an annealed strong fault (highly deformed zone).

635.1 - 638.0m: SILICIFIED BLACK SHALE

Lithology: Grey to black. Disrupted & altered black shale.
Alteration: Intense silif. Bleached.
Veining: Abund tiny qtz-carb veinlets. Talc-carb veinlets on fracts.
Structure: Badly broken 636.5-637.5m by brittle fault almost //LCA.
Basal contact abrupt 15°/LCA. Basal 0.6m mixed shale & mafic lava below.
Mineralization: 3-5% fine dissem py, minor sp, increasing with depth.

638.0 - 664.7m: PARTLY-BRECCIATED AMYGDALOIDAL BASALT

Lithology: Pale green. Med gr.
Abund small ferromag phenos. Calcite amygdales to 15mm.
Zones of peperitic & hyaloclastitic brecciation -former more common, with irreg vein-like matrix of pale grey bleached & silif (baked?) shale.
Alteration: Mod silica (±pyrite, bleaching & fuchsite) alteration, conc in & around matrix of brecciated zones.
The trace fuchsite alteration is best around 644m & 660m.
Weak chloritization. Patchy carbonatization below 653m.
Veining: Abundant irreg calcite veins & patches.
Minor larger & more regular comb-structured qtz-carb veins.
Structure: Largely unbroken.
Basal contact abrupt, 30°/LCA.
Mineralization: 638-640.75m: 5-7% py, minor sp. Small massive sooty stringers & patches, & fi gr dissem.
640.75-645m: 2% py-po-sp (py-po dissem/stringers; sp in calcite veins).
645-648m: 1% dissem sp, minor py-po.
648-664.7m: Minor to 1% dissem py-po-sp. Conc on margins of calcite veins, & in silif shale of bx matrix.

664.7 - 670.3m: ALTERED & MINERALIZED INTERFLOW ZONE

Lithology: Grey & dk green. Hard. Mixed zone. Partly broken.
Bands of altered polymict (epiclastic?) fine mafic breccia interspersed with intervals of chloritized variable mafic lavas.
Bx: 664.7-666m, 666.8-668.7m & 669.15-670.3m. Frags av <15mm of amygdaloidal, hornblende-phyric, or feld-phyric mafic lavas
Feld-phyric mafic lava 666-666.8m & amygdaloidal basalt 668.7-669.15m.

m | structure | log | grainsize | Samples TS results | N

8830538

5 cm

PROJECT: HIGH POINT, EL 37/89

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

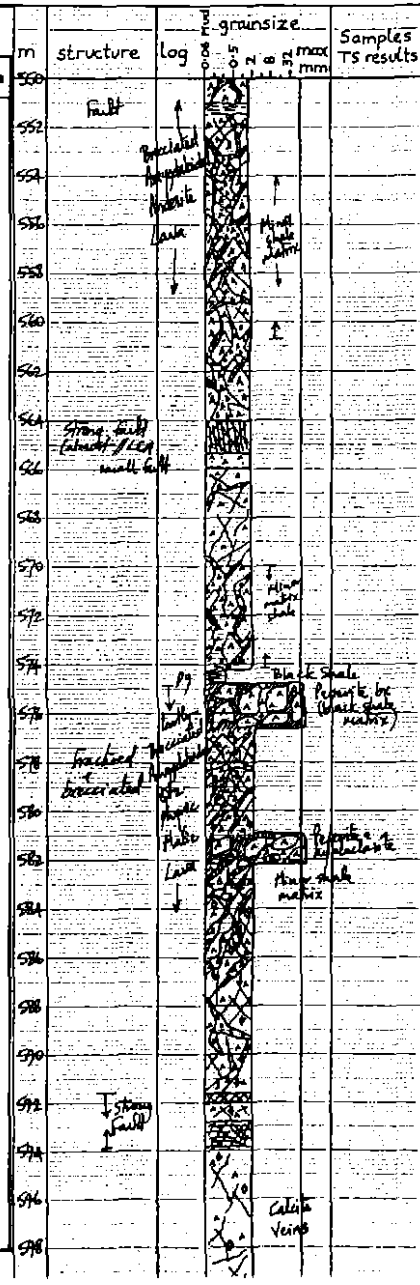
Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION			
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth

Alteration: Strong silica-pyrite-bleaching alteration, strongest in upper bx band & upper part of central bx band.
Horn-bearing mafic clasts more alt than others (highly bleached, silif & fuchsitic, with dissem sp).
Patchy carbonatization & chloritization.
Veining: Minor calcite veinlets & qtz-calcite veins (to 150mm).
Structure: V weak 1° alignment of clasts: 30°/LCA in upper & lower bx bands, & 25-40°/LCA in central bx. Lower contact of central bx 30°/LCA.
Basal contact of unit gradational.
Mineralization: Bx bands: 7-20% dissem py, 2-3% dissem sp, trace gn.
Sulphs conc in bx matrix. Best in central bx band where small massive patches & stringers //LCA.
Trace py & sp in lava intervals.

670.3 - 722.1m: BRECCIATED AMYGDALOIDAL MAFIC LAVA

Lithology: Dk grey-green. Fi-med gr.
Amygdaloidal mafic lava with abund ferromags (incl olivine).
Feld phenos in places (av 1mm). Calcite & chlorite amygdales av <3mm.
Extensive hyaloclastitic & peperitic brecciation, with net-vein matrix of fine silif mafic material or grey bleached silif "cherty" shale.
Massive unbrecciated lava intervals to 1.8m.
Alteration: Mod-strong silif (±bleaching) conc in bx matrix & smaller lava frags within matrix.
Mod chlorite-carbonate alt of lava. Talc-carb on fracts.
Trace fuchsite below 685m, esp in silif & bleached sp-gn bearing lava frags 693-699m.
Veining: Abund irreg calcite veins.
Fewer reg comb-struct qtz-calcite(±chlorite) veins to 150mm.
Structure: Gen unbroken, except along minor fracts (low angle to LCA) & small brittle faults: 5°/LCA @ 715.7m, 20°/LCA @ 721m.
Small ductile shear 30°/LCA @ 721.8m.
Basal "contact" abrupt & irreg.
Mineralization: Variable dissem py>sp, conc in bx matrix.
Some sp in calcite veins & amygdales.
670.3-671.6m: 2% sp, 2% py.
671.6-693m: 2% py>po-sp, trace gn. 5% sulphs in matrix-rich zones.
693-699m: 3% sp-py-po>gn, conc in highly alt small lava frags in bx.
699-722.1m: Av 1% (patchy), py-po-sp. Trace cp & gn.



CODES				
N	LITHO	STRUCT	ALTN	MIN

5cm

PROJECT: HIGH POINT, 37/89

PLACER MINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD 5

Graphic Scale 1: 200

Page 14 of 27

CORE RECOVERY				DESCRIPTION					CODES			
From m	Interval m	%	RQD	From m	Interval m	(incl LITHOLOGY, STRUCTURE & ALTERATION)	Depth	Samples TS results	LITHO	STRUCT	ALTN	MIN

722.1 - 741.7m: MASSIVE AMYGDALOIDAL MAFIC LAVA

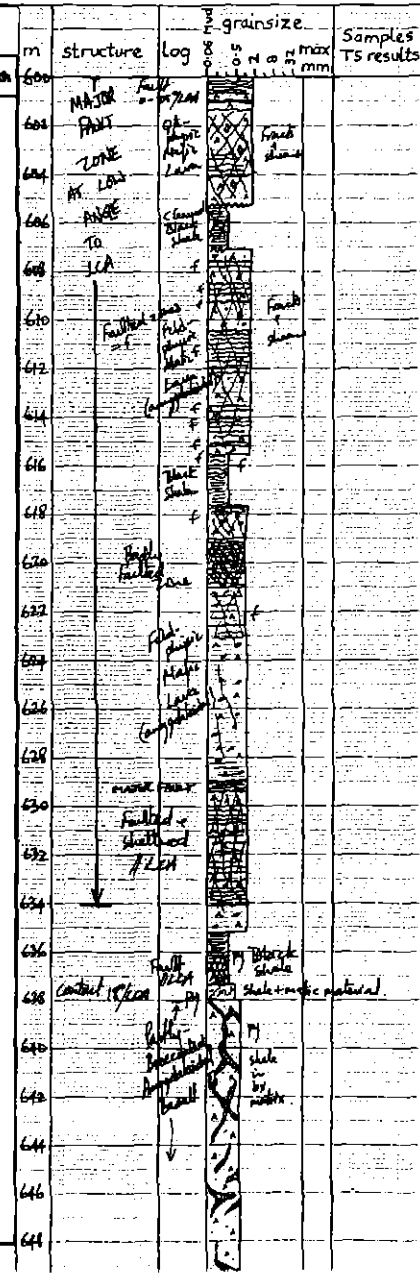
Lithology: Dk grey-green. Med gr.
Prob same lava as in above unit. Abund ferromag phenos to 2mm.
Occasional zones with feld phenos, 1-2mm (felds not gen evident).
Amygdales av <5mm, of calcite, chlorite or qtz.
Alteration: Strong carbonatization below 733m (weak above).
Weak-mod chloritization (increasing with depth).
V weak pervasive fuchsite alt throughout, increasing with depth.
Veining: Abund calcite veins & veinlets, commonly as irreg net-veins cementing local lava bx zones.
Structure: Largely unbroken.
Basal contact a strong ductile shear, 20°/LCA (extends to 742.4m).
Mineralization: V minor dissem py, po, cp.
30mm calcite-cp vein @ 734.25m. Blebs of cp 738-738.3m.

741.7 - 753.9m: MAFIC LAVA QUENCH-BRECCIAS

Lithology: Dk grey-green. Fi-med gr.
Above 747m, peperite: initimate mixture of amygdaloidal mafic lava & grey-black shale, (bx so fine shale seems to be replacing lava groundmass).
Below 747m, mainly hyaloclastite: finely fragmented feld-phyric andesite in fi gr mafic matrix. Zones of massive lava (largely non-amyg) to 1.5m.
Devitrification texture evident in places below 745m.
Alteration: Mod chloritization, weak patchy carbonatization (lava).
Trace fuchsite, esp in faults & shears.
Below 747m, weak sericite-bleaching & albitization of felds.
Veining: Common calcite veins & veinlets, cutting patchy more-diffuse veinlets of qtz towards base of unit.
Structure: Badly broken in places above 749m by set of fracts & small brittle faults 10-30°/LCA, centred 744-749m.
Hyaloclastite bx frags orientated 30°/LCA @ 749m.
At base abrupt start of ductile shear zone below, 45°/LCA.
Mineralization: 741.7-747m: 2-3% dissem py (assoc with shale matrix).
747-753.9m: 1% dissem py (varies). Rare sp & cp.

753.9 - 771.1m: MAJOR FUCHSITE-ALTERED FAULT ZONE

Lithology: Creamy lime green, green, black & white.
Med gr amygdaloidal basalt & minor black shale, now extensively tectonically-brecciated, ductile-deformed & retextured.



5 cm

883060

P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD 5

PROJECT: HIGH POINT, EL 37/89

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION				CODES				
From m	Interval m	%	RQD	From m	Interval m	(incl. LITHOLOGY, STRUCTURE & ALTERATION)	Depth	N	LITHO	STRUCT	ALTN	MIN
						Shale as cataclasite matrix & deformed stringers, at intervals gen above 761.5m.						
						Poss minor fine qtzose sst frags in cataclasite 758-761.5m.						
						Alteration: Strong fuchsite>carbonate-bleaching(±sericite) alt.						
						Fuchsite best 756-766m, gen pervasive, some conc on shears & fracts.						
						Patchy strong chloritization & silif (latter only in places below 765m).						
						Veining: Myriad of intersecting carb>>qtz veins/veinlets. Often irreg & lensy, offset by microfracts, common as frags in cataclasite.						
						Minor veins of palest-pink rhodocrosite in upper 1m.						
						Structure: Badly fract, sheared & broken, worse with depth.						
						Extensive zones of strongly-lineated ductile deformation, shattering & cataclasite (some annealed), & pug.						
						Largest cataclasite or pug zones: 757.5-761.5m, 763-766m, 767-768.3m, 770-771.1m (latter strongest, mostly pug).						
						Shearing av 30°/LCA in unbroken deformed zones & annealed cataclasite. Fracts & pug zones essentially //LCA.						
						Mineralization: 753.9-758m: 1-2% dissem py. Patchy, in & around shale.						
						758-761.5m: Minor to 1% py, dissem, assoc with shale.						
						761.5-768.3m: Trace py.						
						768.3-770m: 1-2% dissem py, assoc with silif lava.						
						770-771.1m: Trace py.						
						END OF HOLE						

m | structure | log | grainsize (vf f m c vc max mm) | Samples TS results

8830061

5 cm

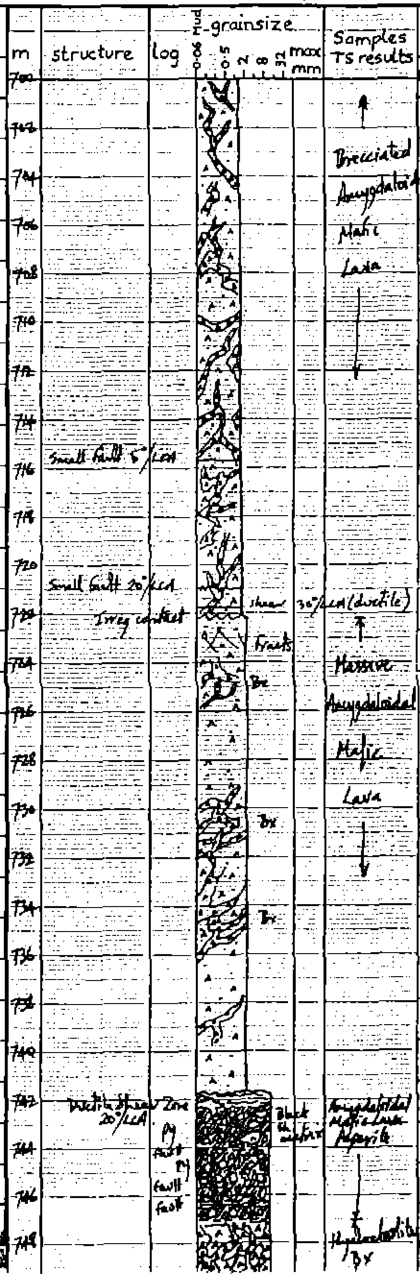
PROJECT: HIGH POINT, EL 37/89

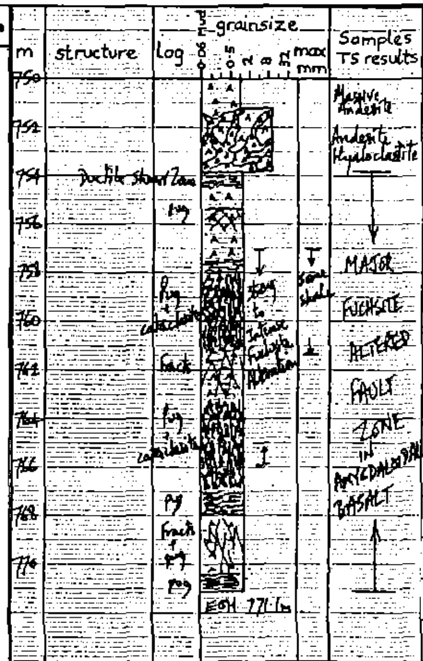
P. SMINCO EXPLORATION
DIAMOND DRILL CORE LOG

HOLE No. BHD5

Graphic Scale 1: 200

CORE RECOVERY				DESCRIPTION		CODES			
From m	Interval m	%	RQD	(LITHOLOGY, STRUCTURE & ALTERATION)	Depth	LITHO	STRUCT	ALTN	MIN





5 cm

88 3062

PASMINCO EXPLORATION
DIAMOND DRILL CORE ASSAY DATA

HOLE No. BHD5

PROJECT: HIGH POINT

SAMPLE						ASSAYS (ppm unless specified)																			COMMENTS
Number	Type	From m	To m	Interval m	Recovered m	Cu	Pb	Zn	Ag / Au	As / Ba	Rb / Sr	V / Nb	Y / Zr	Al_2O_3 / SiO_2 (%)	TiO_2 / Fe_2O_3	MnO / Na_2O	CaO / K_2O	MgO / P_2O_5	LOI / SO_3	Cr	
36064	Split NQ	401·5	403·5	2		81	314	613	<1 / 0.020	434											Black Shale with 5% py.
065	" "	403·5	405·5	2		53	906	2280	1 / 0.009	455											" " " " "
066	" "	405·5	407·5	2		32	468	4712	1 / 0.016	653											Black Shale with 2% sp in calcite veins.
067	" "	407·5	409·5	2		48	480	1180	<1 / <0.008	665											Black Shale ± 2-3% py, minor sp.
068	" "	409·5	412·0	2·5		51	501	897	1 / <0.008	650											" " " " "
069	" "	412·0	412·95	0·95		118	1964	8700	2 / <0.008	693											Black Shale ± 2% py, 2% sp, minor gn
36070	" "	412·95	415	2·05		49	169	350	<1 / <0.008	860											Mafic vdc bx with 3-5% py, minor sp.
071	" "	415	417	2		73	368	909	<1 / 0.017	849											" " " " "
072	" "	417	419	2		30	327	474	<1 / <0.008	814											" " " " "
073	" "	419	421	2		29	273	675	<1 / <0.008	878											" " " " "
074	" "	421	423	2		51	459	954	<1 / <0.008	696											Brecciated Qtz-Hellyer HW Volcs
075	" "	423	425	2		36	344	735	<1 / <0.008	518											
076	" "	425	427	2		50	534	1116	<1 / <0.008	1821											
077	" "	427	429	2		59	1270	1577	1 / <0.008	921											
078	" "	429	431	2		23	983	1523	<1 / <0.008	1626											
079	" "	431	433	2		33	1406	2801	<1 / <0.008	874											
36080	" "	433	435	2		28	880	1792	<1 / <0.008	1036											
081	" "	435	437	2		30	746	1874	<1 / <0.008	1049											
082	" "	437	439	2		28	711	2240	<1 / <0.008	1990											
083	" "	439	441	2		43	582	1940	<1 / <0.008	1936											
084	" "	441	443	2		18	30	861	<1 / <0.008	474											
085	" "	443	445	2		30	218	2664	<1 / <0.008	1175											
086	" "	445	447	2		39	417	1775	<1 / <0.008	1001											
087	" "	447	449	2		113	81	2649	<1 / <0.008	1366											
088	" "	449	451	2		85	136	2178	<1 / <0.008	598											
36089	" "	451	453	2		20	10	155	<1 / <0.008	351											
Laboratory	ANALABS, COOEE + PERTH			Analytical Method		AAS	AAS	AAS	AAS / FA 30g	XRF											
PASEX: 0249 Job No. 111310.60.10155		Date 5·5·94		Detection Limit		2	3	2	1 / 0.008	10											

5 cm

PROJECT: HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL CORE ASSAY DATA

HOLE No. BHD5

SAMPLE						ASSAYS (ppm unless specified)						COMMENTS
Number	Type	From m	To m	Interval m	Recovered m	Cu	Pb	Zn	Ag	Au	Ba	
36090	Split NQ	453	455	2		164	13	344	<1	<0.008	502	Brecciated Pre-Hellyer HW Volcanics
091	" "	455	457	2		53	943	2976	<1	<0.008	607	
37828	" "	457	459	2		55	1405	5200	<1	0.012	1135	
829	" "	459	461	2		47	668	1534	<1	0.030	1000	
37830	" "	461	463	2		43	161	407	<1	0.078	1669	
831	" "	463	465	2		33	45	89	<1	<0.008	1611	
832	" "	465	467	2		71	758	1144	<1	<0.008	1273	
833	" "	467	469	2		58	749	1345	<1	<0.008	1659	
834	" "	469	471	2		41	539	758	<1	<0.008	1572	
835	" "	471	473	2		42	831	1150	<1	0.020	1817	
836	" "	473	475	2		49	790	1189	<1	<0.008	2333	
837	" "	475	477	2		46	834	2059	<1	<0.008	1628	
838	" "	477	479	2		42	998	1514	<1	<0.008	2328	
839	" "	479	481	2		36	739	1411	<1	0.015	1760	
37840	" "	481	483	2		76	990	1931	<1	0.110	1694	
841	" "	483	485	2		60	171	950	<1	<0.008	661	
842	" "	485	487	2		21	245	1762	<1	0.017	1060	
843	" "	487	489	2		34	321	1679	<1	0.031	1671	
844	" "	489	491	2		41	1151	1504	<1	0.014	1648	
845	" "	491	493	2		48	1138	2503	<1	0.041	1018	
846	" "	493	495	2		73	1113	2444	<1	0.032	755	
847	" "	495	497	2		6	12	63	<1	<0.008	573	
848	" "	497	499	2		11	3	957	<1	<0.008	390	
849	" "	499	501	2		22	65	1801	<1	<0.008	1372	
37850	" "	501	503	2		61	526	1113	<1	<0.008	1498	
851	" "	503	505	2		64	734	928	<1	<0.008	1755	
Laboratory	ANALABS, COOKE + PERTH			Analytical Method		AAS	AAS	AAS	AAS	FA 309	XRF	
Job No.	PASEX: 0249	Date	5.5.94	Detection Limit		2	3	2	1	0.008	10	

8830964

5 cm

PASMINCO EXPLORATION
DIAMOND DRILL CORE ASSAY DATA

PROJECT: HIGH POINT

HOLE No. BHDS

SAMPLE						ASSAYS (ppm unless specified)																				COMMENTS
Number	Type	From m	To m	Interval m	Recovered m	Cu	Pb	Zn	Ag / Au	As / Ba	Rb / Sr	V / Nb	Y / Zr	Al_2O_3 / SiO_2 (%)	TiO_2 / Fe_2O_3	MnO / Na_2O	CaO / K_2O	MgO / P_2O_5	LOI / SO_3	Cr	
37852	Split NQ	505	507	2		69	485	677	<1 / <0.008	1216											Brecciated Qtz-Heliyer HW Volcanics
853	"	507	509	2		38	521	677	<1 / <0.008	1456											
854	"	509	511	2		31	197	284	<1 / <0.008	1023											
855	"	511	513	2		27	50	467	<1 / <0.008	1350											
856	"	513	515	2		26	24	289	<1 / <0.008	1152											
857	"	515	517	2		22	22	412	<1 / <0.008	1254											
858	"	517	519	2		30	38	389	<1 / <0.008	1707											
859	"	519	521	2		26	475	950	<1 / <0.008	1463											
37860	"	521	523	2		49	538	874	<1 / <0.008	1735											
861	"	523	525	2		178	1594	2617	<1 / <0.008	617											
862	"	525	527	2		44	346	291	<1 / <0.008	1869											
036092	"	527	527.5	0.5		28	46	198	<1 / 0.010	3 / 2603	77 / 610	14.5 / 5	16 / 102	15.51 / 55.6	0.50 / 6.20	0.35 / 3.15	6.64 / 2.92	4.12 / 0.229	4.56 / 0.08	115	Massive amygdaloidal andesite
37863	"	558	559.5	1.5		40	379	1926	<1 / <0.008	1576											Brecciated Qtz-Heliyer HW Volcanics
864	"	559.5	561	1.5		21	128	1833	<1 / <0.008	1075											
865	"	561	562.5	1.5		20	148	1097	<1 / <0.008	1911											
866	"	562.5	563.8	1.3		109	225	1274	<1 / <0.008	1274											
867	"	563.8	565.8	2		72	350	3639	1 / 0.008	781											
868	"	565.8	567.2	1.4		117	53	2417	<1 / <0.008	423											
869	"	567.2	568.8	1.6		36	77	814	<1 / <0.008	1795											
37870	"	568.8	570.2	1.4		37	155	631	<1 / <0.008	2006											
871	"	570.2	571.5	1.3		42	385	929	<1 / 0.011	872											
872	"	571.5	573	1.5		29	163	888	<1 / 0.026	1456											
873	"	573	574.3	1.3		50	312	772	<1 / 0.010	1032											
38032	"	574.3	574.8	0.5		79	268	340	1 / 0.011	31.5 / 1553											
38033	"	574.8	576.75	1.95		44	251	282	<1 / 0.009	19.5 / 2936											
036093	"	577.2	577.7	0.5		44	624	919	1 / <0.008	6.5 / 1103	42 / 744	126 / 10	27 / 177	12.72 / 56.9	0.54 / 6.38	0.22 / 2.94	8.21 / 1.32	5.23 / 0.321	4.73 / 0.46	92	Unusual qtz-phyric mafic lava
Laboratory	ANALABS, COOKE + PERTH				Analytical Method	AAS	AAS	AAS	AAS / FA 30g	HMO / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	AAS
Job No. 0249 / 111310.60.10155; 1444 / 111310.60.10231; 1446 / 111310.60.10249		Date	5.5.94; 3.6.94; 15.7.94		Detection Limit	2	3	2	1 / 0.008	0.5 / 10	5 / 5	5 / 3	5 / 5	0.05 / 0.1	0.01 / 0.01	0.01 / 0.05	0.01 / 0.01	0.01 / 0.005	0.01 / 0.01	7	

69063

5 cm

PASMINCO EXPLORATION
DIAMOND DRILL CORE ASSAY DATA

PROJECT: HIGH POINT

HOLE No. BHD 5

Number	Type	From m	To m	Interval m	Recovered m	Cu	Pb	Zn	Ag / Au	As / Ba	Rb / Sr	V / Nb	Y / Zr	Al_2O_3 / SiO_2	TiO_2 / Fe_2O_3	MnO / Na_2O	CaO / K_2O	MgO / P_2O_5	LOI / SO_3	Cr	COMMENTS
036096	Split NQ	597	597.9	0.9		45	33	84	<1 / <0.008	3 / 1536	62 / 429	123 / 9	26 / 174	11.93 / 55.2	0.55 / 6.24	0.21 / 2.82	7.82 / 2.42	4.23 / 0.317	8.06 / 0.06	177	Amygdaloidal feld-phyric mafic lava.
036094	" "	605.3	607.2	1.9		95	843	2627	1 / 0.014	130 / 406											Black shale c 2-3% sp-py.
038034	" "	615.55	616.9	1.35		21	130	326	<1 / 0.011	50.5 / 605											Black shale c 2-3% py, minor sp
036095	- "	616.9	617.7	0.8		46	599	2888	1 / 0.023	12 / 210											Black shale c 3% sp > py-gn-cp.
036097	" -	623.6	624.6	1.0		32	56	138	<1 / 0.009	2 / 1323	51 / 637	154 / 8	23 / 139	15.92 / 58.0	0.50 / 6.01	0.22 / 3.15	5.06 / 2.21	4.07 / 0.178	3.84 / 0.02	129	Amygdaloidal feld-phyric mafic lava.
038035	" BQ	635.1	636.5	1.4		28	45	346	<1 / <0.008	8 / 140											Brecciated Que-Hellyer HW Volcanics
036	" "	636.5	638.0	1.5		37	220	1041	<1 / 0.009	37.5 / 882											↓
037	" "	638.0	639.5	1.5		53	603	906	1 / <0.008	78.5 / 532											
038	" -	639.5	640.75	1.25		70	267	392	2 / 0.008	62 / 860											
038065	" "	640.75	643.2	2.45		47	244	602	1 / 0.019	17.5 / 895											
066	" "	643.2	645.0	1.8		54	504	889	1 / 0.013	17.5 / 1089											
067	" "	645.0	647.2	2.2		62	761	1314	1 / 0.011	9.5 / 491											
036098	" "	647.2	648.0	0.8		49	176	784	<1 / <0.008	4.5 / 671	7 / 323	199 / 7	20 / 88	11.74 / 48.6	0.58 / 8.79	0.55 / 2.64	10.32 / 0.31	9.71 / 0.153	6.35 / 0.15	159	Basalt lava c calcite amygdales
038068	" "	664.7	666.0	1.3		121	1055	1128	2 / 0.013	80 / 667											Brecciated Que-Hellyer HW Volcanics
069	" "	666.0	666.8	0.8		43	25	166	1 / <0.008	4.5 / 814											
038070	- "	666.8	667.8	1.0		100	1742	3269	2 / 0.011	85.5 / 1792											
071	" "	667.8	668.7	0.9		101	711	1348	1 / 0.010	29.5 / 1365											
072	" -	668.7	670.3	1.6		106	540	921	1 / 0.011	67.5 / 1657											↓
036099	" "	680.9	681.6	0.7		83	18	170	1 / 0.009	15 / 1363	28 / 461	263 / 7	18 / 71	16.51 / 43.8	0.53 / 9.31	0.53 / 3.52	8.49 / 0.87	8.42 / 0.317	7.40 / 0.25	218	Amygdaloidal mafic lava. Minor [illegible]
038108	" "	710.5	711.4	0.9		84	9	114	<1 / 0.012	3.5 / 538	14 / 570	229 / <3	16 / 64	14.16 / 48.5	0.44 / 8.46	0.25 / 2.58	9.27 / 0.42	7.76 / 0.262	7.45 / 0.08	247	Amygdaloidal mafic lava.
038109	- "	729.4	730.0	0.6		151	<3	147	<1 / 0.021	1.5 / 641	14 / 273	245 / <3	20 / 72	14.74 / 49.1	0.46 / 9.11	0.26 / 2.95	6.28 / 0.54	7.74 / 0.268	8.15 / 0.11	392	" " "
038073	" "	742.0	743.5	1.5		63	22	143	<1 / 0.009	36 / 325											
074	- "	743.5	745.0	1.5		44	19	125	<1 / 0.012	70.5 / 313											
075	- "	745	747	2		24	11	99	<1 / 0.011	55.5 / 387											
038110	" -	750.1	750.9	0.8		63	27	467	<1 / <0.008	12 / 288	40 / 143	223 / 7	22 / 125	15.19 / 54.6	0.46 / 8.63	0.24 / 2.79	2.85 / 1.01	6.19 / 0.225	7.30 / 0.69	140	Feldspar-phyric Andesite
038112	" "	769.0	770.0	1.0		5	5	68	<1 / <0.008	6 / 381	76 / 53	138 / 10	20 / 138	11.42 / 54.4	0.45 / [illegible]	0.30 / 0.17	6.71 / 2.14	4.33 / 0.239	12.44 / 2.40	261	Silicified amygdaloidal basalt 1-2% py.
Analytical Method						AAS	AAS	AAS	AAS / FA309	NAA40 / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	AAS	
Detection Limit						2	3	2	1 / 0.008	0.5 / 10	5 / 5	5 / 3	5 / 5	0.05 / 0.1	0.01 / 0.01	0.01 / 0.05	0.01 / 0.01	0.01 / 0.005	0.01 / 0.01	7	

Laboratory: ANALABS, COOEE + PERTH

Job No.: AAS: 1444. 111310.60.10239; XRF: 1446. 111310.60.10249

Date: 1.7.94; 15.7.94

PROJECT: HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA

HOLE No. BHD5

MAGNETIC SUSCEPTIBILITY

HOLE : BHD5

DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS
3	0	45.5	0.11	79.5	0.18	113.5	0.04
4.5	0.03	46.5	0.11	80.5	0.19	114.5	0.08
5.9	0.06	47.5	0.12	81.5	0.1	115.5	0.04
6.8	0.06	48.5	0.15	82.5	0.09	116.5	0.11
10.4	0.15	49.5	0.2	83.5	0.05	117.5	0.08
13.5	0.08	50.5	0.16	84.5	0.1	118.5	0
15.5	0.11	51.5	0.17	85.8	0.13	119.5	0.05
16.5	0.04	52.5	0.09	86.5	0.18	120.5	0.07
19.5	0.12	53.5	0.12	87.5	0.1	121.5	0.08
20.5	0.1	54.5	0.12	88.5	0.13	122.5	0.07
21.5	0.12	55.5	0.04	89.5	0.08	123.5	0.01
22.5	0.17	56.5	0.02	90.5	0.05	124.5	0.08
23.5	0.1	57.5	0	91.5	0.15	125.5	0.05
24.5	0.07	58.5	0.12	92.5	0.16	126.5	0.08
25.5	0.11	59.5	0.13	93.5	0.24	127.5	0.07
26.5	0.14	60.5	0.1	94.5	0.2	128.5	0.05
27.5	0.07	61.5	0.15	95.5	0.04	129.5	0.11
28.5	0.06	62.5	0.11	96.5	0.08	130.5	0.04
29.5	0	63.5	0.1	97.5	0.1	131.5	0.11
30.5	0.08	64.5	0.08	98.5	0.14	132.5	0.06
31.5	0.17	65.5	0.1	99.5	0.12	133.5	0.05
32.5	0.02	66.5	0.11	100.5	0.15	134.5	0.14
33.5	0.08	67.5	0.1	101.5	0.11	135.5	0
34.5	0.08	68.5	0.13	102.5	0.13	136.5	0.08
35.5	0.17	69.5	0.11	103.5	0.17	137.5	0.12
36.5	0.04	70.5	0.26	104.5	0.12	138.5	0.02
37.5	0	71.5	0.11	105.5	0.21	139.5	0.02
38.5	0.14	72.5	0.15	106.5	0.06	140.5	0.07
39.5	0.12	73.5	0.1	107.5	0.14	141.5	0.03
40.5	0.13	74.5	0.05	108.5	0.18	142.5	0.11
41.5	0.05	75.5	0.07	109.5	0.3	143.5	0.06
42.5	0.09	76.5	0.19	110.5	0.18	144.5	0.08
43.5	0.1	77.5	0.12	111.5	0.15	145.5	0.07
44.5	0.09	78.5	0.18	112.5	0.12	146.5	0.02
147.5	0.01	181.5	0.1	215.5	0.07	269	0.1
148.5	0.05	182.5	0.15	216.5	0.06	272	0.07
149.5	0.03	183.5	0	217.5	0.16	275	0.1
150.5	0.03	184.5	0.06	218.5	0.07	278	0.03
151.5	0.03	185.5	0.04	219.5	0.08	278.5	0.08
152.5	0.04	186.5	0.08	220.5	0.11	281	0.03
153.5	0.08	187.5	0.04	221.5	0.1	284	0.08
154.5	0.03	188.5	0.13	222.5	0.08	287	0.06
155.5	0.01	189.5	0.01	223.5	0.13	290	0.08
156.5	0.03	190.5	0.05	224.5	0.15	293	0.08
157.5	0.05	191.5	0.09	225.5	0.13	296	0.07
158.5	0.02	192.5	0.08	226.5	0.1	299	0.11
159.5	0.08	193.5	0.09	227.5	0.12	303	0.11
160.5	0.05	194.5	0.08	228.5	0.13	306	0.12
161.5	0.04	195.5	0.14	229.5	0.15	309	0.09
162.5	0.21	196.5	0.09	230.5	0.14	312	0.12
163.5	0.08	197.5	0.11	231.5	0.08	314	0.22
164.5	0.07	198.5	0.17	232.5	0.08	317	0.1
165.5	0	199.5	0.13	233.5	0.08	320	0.07
166.5	0	200.5	0.15	234.5	0.07	320.9	0.1
167.5	0.03	201.5	0.1	235.5	0.11	323.9	0.07
168.5	0	202.5	0.14	236.5	0.06	327.5	0.03
169.5	0.05	203.5	0.09	237.5	0.08	330.5	0.12
170.5	0.08	204.5	0.17	240.5	0.05	333.8	0.04
171.5	0	205.5	0.23	244	0.08	336.8	0.08
172.5	0	206.5	0.2	247	0.08	340.3	0.07
173.5	0.04	207.5	0.11	250.2	0.08	343.3	0.08
174.5	0.06	208.5	0.1	251.1	0.05	346.8	0.14
175.5	0.08	209.5	0.05	252.1	0.05	350.6	0.18
176.5	0.06	210.5	0.07	254	0.07	353.6	0.23
177.5	0.02	211.5	0.22	257	0.08	355.6	0.15
178.5	0.05	212.5	0.25	260	0.08	359	0.3
179.5	0.1	213.5	0.13	263	0.03	362	0.2
180.5	0.03	214.5	0.2	266	0	364.6	0.15
367.6	0.15	414.7	0.05	448.7	0.15		
369.8	0.3	415.7	0.02	449.7	0.06		
373.2	0.08	416.7	0.09	450.7	0.18		
376.2	0.08	417.7	0.08	451.7	0.07		
379.7	0.13	418.7	0.08	452.7	0.08		
382.7	0.1	419.7	0.07	453.7	0.19		
384.7	0.1	420.7	0.08	454.7	0.16		
387.7	0.28	421.7	0.02	455.7	0		
388.7	0.24	422.7	0.03	456.7	0.21		
389.7	0.14	423.7	0.03	457.7	0.26		
390.7	0.06	424.7	0.11	458.7	0.27		
391.7	0.11	425.7	0.04	459.7	0.11		
392.7	0.06	426.7	0.21	460.7	0.07		
393.7	0.1	427.7	0.21	461.7	0.25		
394.7	0.18	428.7	0	462.7	0.08		
395.7	0.03	429.7	0.13	463.7	0.12		
396.7	0.08	430.7	0.2	464.7	0.2		
397.7	0.03	431.7	0.31	465.7	0.27		
398.7	0.09	432.7	0.11	466.7	0.23		
399.7	0.1	433.7	0.11	467.7	0.14		
400.7	0.14	434.7	0.12	468.7	0.22		
401.7	0.12	435.7	0.15	469.7	0.2		
402.7	0.28	436.7	0.17	470.7	0.2		
403.7	0.23	437.7	0.2	471.7	0.31		
404.7	0.03	438.7	0.19	472.7	0.19		
405.7	0.13	439.7	0.22	473.7	0.29		
406.7	0.12	440.7	0.17	474.7	0.29		
407.7	0.16	441.7	0.11	475.7	0.26		
408.7	0.12	442.7	0.12	476.7	0.25		
409.7	0.09	443.7	0.14	477.7	0.19		
410.7	0.03	444.7	0.11	478.7	0.27		
411.7	0.07	445.7	0.28	479.7	0.18		
412.7	0.06	446.7	0.27	480.7	0.23		
413.7	0.13	447.7	0.19	481.7	0.13		

PROJECT: HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA
MAGNETIC SUSCEPTIBILITY

HOLE No. BHD5

HOLE: BHD5

DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS	DEPTH	M.SUS
482.7	0.25	516.7	0.15	550.7	0.22	584.7	0.41	618.7	0.11	652.7	0.28	686.7	0.17	721.7	0.24	755.7	0.17
483.7	0.22	517.7	0.17	551.7	0.18	585.7	0.48	619.7	0.07	653.7	0.32	687.7	0.19	722.7	0.31	756.7	0.18
484.7	0.28	518.7	0.08	552.7	0.21	586.7	0.3	620.7	0.08	654.7	0.55	688.7	0.27	723.7	0.18	757.7	0.02
485.7	0.21	519.7	0.25	553.7	0.15	587.7	0.47	621.7	0.16	655.7	0.33	689.7	0.18	724.7	0.21	758.7	0.09
486.7	0.25	520.7	0.11	554.7	0.11	588.7	0.25	622.7	0.09	656.7	0.25	690.7	0.23	725.7	0.12	759.7	0.08
487.7	0.14	521.7	0.24	555.7	0.22	589.7	0.2	623.7	0.1	657.7	0.1	691.7	0.45	726.7	0.16	760.7	0.05
488.7	0.26	522.7	0.16	556.7	0.16	590.7	0.16	624.7	0.19	658.7	0.31	692.7	0.31	727.7	0.21	761.7	0.07
489.7	0.29	523.7	0.08	557.7	0.17	591.7	0.17	625.7	0.1	659.7	0.28	693.7	0.25	728.7	0.17	762.7	0.13
490.7	0.23	524.7	0.13	558.7	0.12	592.7	0.15	626.7	0.13	660.7	0.48	694.7	0.32	729.7	0.28	763.7	0.1
491.7	0.21	525.7	0.13	559.7	0.15	593.7	0.05	627.7	0.14	661.7	0.35	695.7	0.31	730.7	0.26	764.7	0.14
492.7	0.3	526.7	0.15	560.7	0.25	594.7	0.12	628.7	0.1	662.7	0.32	696.7	0.47	731.7	0.29	765.7	0.2
493.7	0.31	527.7	0.16	561.7	0.21	595.7	0.19	629.7	0.13	663.7	0.33	697.7	0.55	732.7	0.21	766.7	0.11
494.7	0.15	528.7	0.15	562.7	0.31	596.7	0.19	630.7	0.17	664.7	0.35	699.7	0.29	733.7	0.22	767.7	0.12
495.7	0.1	529.7	0.22	563.7	0.17	597.7	0.18	631.7	0.15	665.7	0.15	700.7	0.37	734.7	0.24	768.7	0.18
496.7	0.14	530.7	0.1	564.7	0.09	598.7	0.2	632.7	0.08	666.7	0.03	701.7	0.19	735.7	0.24	769.7	0.23
497.7	0.09	531.7	0.14	565.7	0.11	599.7	0.15	633.7	0.22	667.7	0.25	702.7	0.32	736.7	0.25	770.7	0.08
498.7	0.22	532.7	0.07	566.7	0.15	600.7	0.22	634.7	0.1	668.7	0.39	703.7	0.24	737.7	0.24	771.1	0.04
499.7	0.25	533.7	0.2	567.7	0.31	601.7	0.07	635.7	0.02	669.7	0.17	704.7	0.33	738.7	0.18		EOH
500.7	0.18	534.7	0.29	568.7	0.23	602.7	0.12	636.7	0.03	670.7	0.18	705.7	0.15	739.7	0.19		
501.7	0.27	535.7	0.13	569.7	0.22	603.7	0.07	637.7	0.03	671.7	0.33	706.7	0.22	740.7	0.23		
502.7	0.48	536.7	0.17	570.7	0.23	604.7	0.07	638.7	0.03	672.7	0.24	707.7	0.1	741.7	0.1		
503.7	0.3	537.7	0.13	571.7	0.19	605.7	0.08	639.7	0.32	673.7	0.44	708.7	0.25	742.7	0.33		
504.7	0.58	538.7	0.07	572.7	0.29	606.7	0.19	640.7	0.23	674.8	0.17	709.7	0.21	743.7	0.3		
505.7	0.25	539.7	0.08	573.7	0.84	607.7	0.18	641.7	0.28	675.7	0.22	710.7	0.2	744.7	0.36		
506.7	0.3	540.7	0.17	574.7	0.39	608.7	0.16	642.7	0.1	676.7	0.1	711.7	0.2	745.7	0.17		
507.7	0.29	541.7	0.13	575.7	0.26	609.7	0.12	643.7	0.45	677.7	0.16	712.7	0.24	746.7	0.14		
508.7	0.19	542.7	0.29	576.7	0.31	610.7	0.1	644.7	0.59	678.7	0.22	713.7	0.13	747.7	0.2		
509.7	0.13	543.7	0.19	577.7	0.25	611.7	0.15	645.7	0.66	679.7	0.21	714.7	0.26	748.7	0.25		
510.7	0.23	544.7	0.08	578.7	0.25	612.7	0.15	646.7	0.57	680.7	0.35	715.7	0.12	749.7	0.24		
511.7	0.22	545.7	0.21	579.7	0.34	613.7	0.13	647.7	0.29	681.7	0.18	716.7	0.19	750.7	0.11		
512.7	0.32	546.7	0.23	580.7	0.25	614.7	0.27	648.7	0.27	682.7	0.19	717.7	0.24	751.7	0.27		
513.7	0.26	547.7	0.26	581.7	0.5	615.7	0.2	649.7	0.47	683.7	0.27	718.7	0.13	752.7	0.1		
514.7	0.17	548.7	0.18	582.7	0.34	616.7	0.1	650.7	0.19	684.7	0.14	719.7	0.5	753.7	0.27		
515.7	0.25	549.7	0.15	583.7	0.37	617.7	0.1	651.7	0.32	685.7	0.1	720.7	0.28	754.7	0.21		

PROJECT :
HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA
CORE RECOVERY

HOLE No. **BHD5**

FROM	TO	REC	%REC	FROM	TO	REC	%REC	FROM	TO	REC	%REC	FROM	TO	REC	%REC	FROM	TO	REC	%REC	FROM	TO	REC	%REC
0	3	0.2	6.67	81.4	82.7	1.1	84.62	130.5	132	1.7	113.33	199.3	200.2	1.2	133.33	257	260	3	100.00	350.6	353.6	3	100.00
5.9	6.8	0.9	100.00	82.7	83.6	0.8	88.89	132	134	1.6	80.00	200.2	201.8	1.6	112.50	260	263	3	100.00	353.6	356.6	3	100.00
6.8	10.4	3.4	94.44	83.6	84.9	1.3	100.00	134	137	3	100.00	201.8	202.4	0.8	133.33	263	266.5	3.6	102.86	356.6	359	3.3	137.50
10.4	13.5	3.2	103.23	84.9	86.2	1.5	115.38	137	137.8	0.8	100.00	202.4	203.6	0.6	50.00	266.5	269	2.4	96.00	359	362	3	100.00
13.5	15.5	2.2	110.00	86.2	87.6	1.6	114.29	137.8	140.8	3.2	106.67	203.6	204	0.7	175.00	269	272	3.5	116.67	362	364.6	2.7	103.85
15.5	16.5	0.8	80.00	87.6	88.4	1	125.00	140.8	141.6	0.8	100.00	204	204.4	0.4	100.00	272	275	3	100.00	364.6	367.6	3	100.00
16.5	19.5	2.7	90.00	88.4	89.9	1.7	113.33	141.6	144.6	3.2	106.67	204.4	206.2	1.8	100.00	275	278	3	100.00	367.6	369.8	2.5	113.64
19.5	22.5	2.56	85.33	89.9	90.5	0.8	133.33	144.6	146	1.3	92.86	206.2	207.3	1.3	118.18	278	278.5	0.5	100.00	369.8	373.2	3.7	108.82
22.5	25.5	3.4	113.33	90.5	91.4	1.1	122.22	146	149	3.1	103.33	207.3	209.7	2.1	87.50	278.5	281	2.5	100.00	373.2	376.2	3.1	103.33
25.5	28.5	3	100.00	91.4	92.5	0.6	54.55	149	150.7	1.7	100.00	209.7	211.1	1.6	114.29	281	284	3	100.00	376.2	379.7	3.7	105.71
28.5	31.5	3.1	103.33	92.5	94.5	1.2	60.00	150.7	152	1.1	84.62	211.1	212.3	1.2	100.00	284	287	3	100.00	379.7	382.7	3	100.00
31.5	34.5	3.1	103.33	94.5	96.2	1.8	105.88	152	155	3.2	106.67	212.3	215.3	2	66.67	287	290	3	100.00	382.7	384.7	2.2	110.00
34.5	37.5	3	100.00	96.2	98.1	2.1	110.53	155	157.6	2.6	100.00	215.3	216.3	1	100.00	290	293	3	100.00	384.7	387.7	3	100.00
37.5	40.2	2.9	107.41	98.1	98.8	0.9	128.57	157.6	161	3.3	97.06	216.3	217.9	2.7	168.75	293	296	3	100.00	387.7	390	2.7	117.39
40.2	43.4	3.3	103.12	98.8	99.8	1	100.00	161	164	3.3	110.00	217.9	218.2	0.5	166.67	296	299	3	100.00	390	392	2	100.00
43.4	46.5	3	96.77	99.8	100.5	0.9	128.57	164	165.3	1.3	100.00	218.2	219.6	1.6	100.00	299	302	3	100.00	392	395	3	100.00
46.5	49.5	3.1	103.33	100.5	101.4	0.8	88.89	165.3	168.3	3.2	106.67	219.6	220.1	0.5	166.67	302	303	1	100.00	395	396.4	1.4	100.00
49.5	52.5	3.1	103.33	101.4	103.1	1.5	88.24	168.3	169.8	1.5	100.00	220.1	222	2.2	115.79	303	306	3	100.00	396.4	398	1.3	81.25
52.5	54.2	1.9	111.76	103.1	104.2	1.4	127.27	169.8	172.8	3.1	103.33	222	222.8	0.8	100.00	306	309	3	100.00	398	401	3	100.00
54.2	55.5	1.2	92.31	104.2	105	0.8	100.00	172.8	175.9	3.1	100.00	222.8	223.1	0.3	100.00	309	312	3	100.00	401	402.6	2	125.00
55.5	58.5	3	100.00	105	106	1.1	110.00	175.9	177.3	1.6	114.29	223.1	224	0.9	100.00	312	314	2	100.00	402.6	404.9	2.4	104.35
58.5	61.5	3	100.00	106	107	1	100.00	177.3	178.6	1.3	100.00	224	226.2	2.4	109.09	314	317	3	100.00	404.9	408.7	4	105.26
61.5	64.5	3	100.00	107	107.6	0.6	100.00	178.6	180.5	2.1	110.53	226.2	227.5	1.6	123.08	317	320	3	100.00	408.7	413	4.4	102.33
64.5	66.1	1.6	100.00	107.6	108.5	1.1	122.22	180.5	182	1.5	100.00	227.5	231	3.5	100.00	320	320.9	0.9	100.00	413	416.2	3.46	108.12
66.1	67.5	1.1	78.57	108.5	109.3	0.9	112.50	182	185	3.2	106.67	231	234	3	100.00	320.9	323.9	3	100.00	416.2	419	3	107.14
67.5	70.5	3.1	103.33	109.3	112.4	3.3	106.45	185	186.5	1.5	100.00	234	237.5	3.5	100.00	323.9	327.5	3.4	94.44	419	422	3	100.00
70.5	71.2	0.9	128.57	112.4	113.6	1.2	100.00	186.5	188.9	2.4	100.00	237.5	240.5	3	100.00	327.5	330.5	3.1	103.33	422	425	3	100.00
71.2	73	1.8	100.00	113.6	115.5	0.6	31.58	188.9	190.7	1.7	94.44	240.5	244	3.5	100.00	330.5	333.8	3.3	100.00	425	428	3	100.00
73	75.2	1.1	50.00	115.5	116.4	3	103.45	190.7	193.4	3	111.11	244	247	3	100.00	333.8	336.8	3.4	113.33	428	431	3	100.00
75.2	75.6	0.25	62.50	116.4	121.5	3.1	100.00	193.4	195.5	2.1	100.00	247	250.2	3.2	100.00	336.8	340.3	3.7	105.71	431	434	3	100.00
75.6	76.5	0.9	100.00	121.5	123	1.8	120.00	195.5	195.7	0.2	100.00	250.2	251.1	1	111.11	340.3	343.3	3	100.00	434	437	3	100.00
76.5	78.2	2.1	123.53	123	124.5	1.5	100.00	195.7	196.7	1.2	120.00	251.1	252.1	1	100.00	343.3	346.8	3.5	100.00	437	440	3	100.00
78.2	79.7	1.5	100.00	124.5	127.5	3	100.00	196.7	198.3	0.7	43.75	252.1	254	2	105.26	346.8	349.8	3	100.00	440	443	3	100.00
79.7	81.4	1.9	111.76	127.5	130.5	3	100.00	198.3	199.3	0.9	90.00	254	257	3	100.00	349.8	350.8	1	125.00	443	446	3	100.00

PROJECT :
HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA
CORE RECOVERY

HOLE No. **BHD5**

FROM	TO	REC	%REC	FROM	TO	REC	%REC	FROM	TO	REC	%REC	FROM	TO	REC	%REC
446	448.9	2.7	93.10	541.7	544.7	3	100.00	625.4	628.9	3.3	94.29	716.6	718.7	2.1	100.00
448.9	451.9	3	100.00	544.7	548	3.4	103.03	628.9	631.9	3.1	103.33	718.7	721.7	3	100.00
451.9	455	3	96.77	548	551	3	100.00	631.9	633.5	1.6	100.00	721.7	724.7	3	100.00
455	458	3	100.00	551	554	3	100.00	633.5	634.1	0.6	100.00	724.7	727.7	3	100.00
458	459	1	100.00	554	557	3	100.00	634.1	637.4	3.3	100.00	727.7	730.7	3	100.00
459	461	3	150.00	557	559.5	2.5	100.00	637.4	640.8	3.3	97.06	730.7	733.7	3	100.00
461	464	3	100.00	559.5	562.5	3	100.00	640.8	643.7	3	103.45	733.7	736.7	3	100.00
464	467	3	100.00	562.5	564.8	2.3	109.52	643.7	646.7	3	100.00	736.7	739.7	3	100.00
467	470	3	100.00	564.8	565.5	0.8	88.89	646.7	649.7	3	100.00	739.7	742.7	3	100.00
470	473	3	100.00	565.5	569	3.5	100.00	649.7	652.7	3	100.00	742.7	745.2	2.5	100.00
473	476	3	100.00	569	572	3	100.00	652.7	655.7	3	100.00	745.2	746.7	1.3	86.67
476	479	3	100.00	572	575.2	3.3	103.12	655.7	657.6	1.9	100.00	746.7	748.9	2.2	100.00
479	482	3	100.00	575.2	578	2.8	100.00	657.6	660.6	3	100.00	748.9	752.1	3.3	103.13
482	483	1	100.00	578	580.3	2.5	100.00	660.6	664.1	3.6	102.86	752.1	754.8	2.7	100.00
483	486	3	100.00	580.3	583.3	3	100.00	664.1	667.1	3.2	106.67	754.8	755.6	1	125.00
486	488	2	100.00	583.3	585.2	2	105.26	667.1	668.6	1.4	93.33	755.6	757.8	2.1	95.45
488	491	3	100.00	585.2	588.2	3	100.00	668.6	671.6	3	100.00	757.8	758.5	0.9	128.57
491	494	3	100.00	588.2	590.2	1.8	90.00	671.6	673.7	2.1	100.00	758.5	760.5	2	100.00
494	497	3	100.00	590.2	593.2	3.1	103.33	673.7	675.6	1.86	97.89	760.5	761.4	1.5	166.67
497	498.9	1.9	100.00	593.2	593.3	0.1	100.00	675.6	678.6	3.2	106.67	761.4	762.4	1	100.00
498.9	501.9	3	100.00	593.3	594.5	1.4	116.67	678.6	682	3.6	105.88	762.4	763.1	0.8	85.71
501.9	505.4	3.4	97.14	594.5	596	1.45	96.67	682	685.4	3.2	94.12	763.1	763.7	0.7	116.67
505.4	508.4	3	100.00	596	599	3	100.00	685.4	688.4	3	100.00	763.7	765	1.5	115.38
508.4	512	3.5	97.22	599	601.1	2.3	109.52	688.4	691.4	3.3	110.00	765	766.6	1.9	118.75
512	515	3	100.00	601.1	604.1	3.4	113.33	691.7	694.7	3	100.00	766.6	767.6	1	100.00
515	518	3	100.00	604.1	606	1.9	100.00	694.7	697.7	3	100.00	767.6	768.1	0.4	80.00
518	521	3	100.00	606	609.2	3.6	112.50	697.7	700.7	3	100.00	768.1	769.5	1.2	85.71
521	524	3	100.00	609.2	610.8	1.6	100.00	700.7	701.5	0.9	112.50	769.5	770.6	1	90.91
524	527	3	100.00	610.8	613.8	3	100.00	701.5	703.7	2	90.91	770.6	771.1	0.5	100.00
527	530	3	100.00	613.8	615.8	2	100.00	703.7	706.7	3	100.00	EOH	EOH	EOH	0.00
530	533	3	100.00	615.8	618	2.6	118.18	706.7	709.7	3	100.00				
533	536	3	100.00	618	621.1	3	96.77	709.7	712.7	3	100.00				
536	539	3	100.00	621.1	622.4	0.9	69.23	712.7	713.6	0.87	96.67				
539	541.7	2.7	100.00	622.4	625.4	3.1	103.33	713.6	716.6	3	100.00				

HOLE No. BHD5

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA

PROJECT: HIGH POINT

PETROLOGY

SAMPLE NUMBER: 036092 BHDS, 527m
SUMMARY:

This sample is a fairly well-preserved basaltic andesite lava composed of about 3-5 modal% of albitized, slightly resorbed plagioclase phenocrysts and a few small fresh augite phenocrysts set in an intergranular-textured groundmass consisting of equant granular augite (mainly carbonate-altered) and more lathlike plagioclase with altered interstitial mesostasis. Occasional vesicles, and common small spots in the groundmass are replaced by polycrystalline quartz, epidote and chlorite. A single xenocryst of strongly resorbed volcanic quartz about 1mm across is present, and has a fine-grained augitic reaction rim. A minor amount of deep red sphalerite(?) or very thinly-sectioned heamatite occurs in a quartz-epidote vesicles-filling, and a few narrow calcite veinlets cut the rock.

SAMPLE NUMBER: 036093 BHDS, 577.4m
SUMMARY:

This sample is a rather evolved basaltic lava with around 10 modal% of small fresh augite phenocrysts, often occurring in multi-crystal clots, and less than 3-4 modal% each of altered albitized and slightly resorbed plagioclase phenocrysts or xenocrysts, altered olivine phenocrysts mainly less than 0.5mm long, and common large resorbed quartz xenocrysts. The latter are up to 2mm across, have narrow reaction rims of fine-grained augite, and show remarkable resorption and reaction shapes; a few preserve small rounded melt inclusions, typical of quartz phenocrysts in rhyolitic magmas. Plagioclase phenocrysts are replaced by prehnite and sericite. The fine-grained groundmass consists of tiny granular augite crystals set in altered glass charged with feathery plagioclase microlites. Veinlets of calcite, quartz, quartz-calcite, and quartz with minor pyrite are present.

SAMPLE NUMBER: 036096 BHDS, 597.3m
SUMMARY:

This sample is another quartz-xenocryst-bearing evolved basaltic lava that also contains about 5-8 modal% of fresh small augite phenocrysts and about 2-4 modal% of resorbed albitized plagioclase phenocrysts or xenocrysts. A few former small olivine phenocrysts are replaced by sugary quartz and calcite. The groundmass texture is quite close to that of 036093, with small granular augite crystals and more lath-like plagioclase microlites set in altered and recrystallized devitrified glass. Abundant spots of secondary quartz occur throughout the groundmass, and chloritic alteration is widespread. A few calcite-quartz veinlets transect the sample.

SAMPLE NUMBER: 036097 BHDS, 624.25m
SUMMARY:

This sample is an evolved basaltic to basaltic andesite lava with about 5 modal% of albitized plagioclase phenocrysts and sparse small fresh augite phenocrysts, but no quartz xenocrysts. The intergranular-textured groundmass consists of small equant fresh augite plates and abundant laths of plagioclase with abundant interstitial chlorite after glassy mesostasis. Ragged spots of polycrystalline quartz are abundant throughout the groundmass, and tension gashes and veinlets composed of quartz, calcite, epidote and prehnite are common. Some deep red magnetite or sphalerite (?) occurs intergrown with quartz in several patches.

SAMPLE NUMBER: 036098 BHDS, 647.2m.
SUMMARY:

This sample is a primitive strongly porphyritic, quenched basaltic lava. It is dominated by well-formed phenocrysts around 1mm long of fresh augite and altered olivine. The olivine phenocrysts are composed of very fine-grained sugary quartz and chlorite, and several contain small euhedral red chromite inclusions. Augite phenocrysts often occur in multi-crystal clots, sometimes together with olivine. The groundmass of this lava shows a quenched texture consisting of intermeshed tiny quench clinopyroxene microlites and dendrites with rare plagioclase microlites, and interstitial chlorite. Large patches and tension gashes are filled by chlorite-calcite-quartz intergrowths with common deep red hematite or magnetite.

PASMINCO EXPLORATION

PROJECT: HIGH POINT DIAMOND DRILL HOLE SUPPLEMENTARY DATA

PETROLOGY

SAMPLE NUMBER: 036099 BHD5, 681·2m
SUMMARY:

This sample is a strongly porphyritic basaltic lava, more evolved than the previous sample, but less evolved than the samples carrying quartz xenocrysts. The phenocryst assemblage is dominated by subequal proportions of fresh augite and albitized plagioclase, most crystals being less than 1mm long. Plagioclase phenocrysts are partially altered to prehnite and sericite. The groundmass consists of abundant plagioclase laths and microlites and notably less common small augite granules set in altered devitrified glassy mesostasis. Small patches of chlorite and chlorite-calcite occur in the groundmass.

SAMPLE NUMBER: 036100 BHD5, 689m
SUMMARY:

This sample is an evolved basaltic andesite lava breccia that shows quite strong hydrothermal alteration. The original phenocryst assemblage was plagioclase (~20 modal%) and augite (~10 modal%), but all augite has been replaced by calcite. Plagioclase phenocrysts are albitized, but lack sericite alteration; they commonly occur in clots of 4 or 5 crystals. The groundmass of this sample originally consisted of an almost trachytic-textured intergrowth of plagioclase laths and microlites with minor interstitial altered augite and abundant tiny FeTi oxide grains. Diffuse and pervasive zones of thorough dissolution-recrystallization to very fine-grained silica-carbonate-pyrite cut the rock, and calcite veins are common, many carrying disseminated pyrite.

SAMPLE NUMBER: 036108 BHD5, 711·4m
SUMMARY:

This sample was an augite+olivine+plagioclase-phyric basaltic lava, in which augite phenocrysts made up around 10-15 modal% and the other phenocrysts only about 5 modal%, with plagioclase subordinate to olivine. Augite is fresh, and usually occurs as clots of crystals, whereas olivine phenocrysts (some carrying small chromite inclusions) are replaced by fine-grained silica and chlorite±calcite. Plagioclase is albitized, and often contains epidote trails and grains. The groundmass is an intergrowth of quenched plagioclase and small granular augite crystals, all set in an altered mesostasis rich in chlorite and murky fine-grained epidote. Several discontinuous veinlets composed of quite coarsely-crystalline calcite are present.

SAMPLE NUMBER: 036109 BHD5, 729·7m
SUMMARY:

This sample is a very strongly altered formerly augite+olivine-phyric primitive basaltic lava. Former augite phenocrysts make up around 15-20 modal% of the rock and are now replaced by dirty brown carbonate. Less abundant olivine phenocrysts, many with small chromite inclusions, are replaced by fine-grained sugary silica and calcite. A few albitized plagioclase phenocrysts are also present. The groundmass is quite strongly altered, and consists of altered plagioclase laths, chlorite, patchy and spotty quartz, and stylolite-like trails of insoluble oxides and messy brown epidote. The latter mineral also occurs in meandering veinlets, intergrown with quartz. Hydrothermal calcite-chlorite alteration pervades this sample.

SAMPLE NUMBER: 036110 BHD5, 750·9m
SUMMARY:

This sample is another strongly hydrothermally altered basaltic lava, although the protolith of this sample was more evolved than the previous sample. It consists of about 20 modal% of albitized and partially sericitized plagioclase phenocrysts, and much less altered augite and olivine, in subequal amount and both replaced by sugary silica and calcite. The groundmass is strongly altered and recrystallized, with abundant chlorite, sericite, silica and calcite. Disseminated pyrite occurs in some sugary quartz veinlets, but it is very fine-grained and patchy.

PASMINCO EXPLORATION

PROJECT: HIGH POINT **DIAMOND DRILL HOLE SUPPLEMENTARY DATA**

HOLE No. BHD5

PETROLOGY

SAMPLE NUMBER: 038111 BHD5, 760·9m

SUMMARY:

This sample is a rather coarse-grained, foliated and fractured mass flow unit composed of fragments from more than 3cm across to silt-sized grains. The largest fragments include one welded(?) vitric tuff that is strongly sericitized, and several devitrified sparsely quartz-phyric rhyolitic lavas with strong carbonate alteration. Other lithic fragments include siltstone, volcaniclastic fine sandstone, and several 2-5mm-sized greywacke fragments with detrital quartz and muscovite, strongly resembling typical Animal Creek Greywacke. The matrix of this sample was probably largely vitric ash, although it has been volumetrically diminished by pressure solution and limited development of a weak fracture cleavage. This sample reflects a sudden and pronounced change from the basalt-dominated sequence extending at least 240m above this level in BHD5. The presence of Animal Creek Greywacke fragments is important, and suggests that the stratigraphic level of this sample is relatively close to the base of the Que-Hellyer Volcanics.

SAMPLE NUMBER: 038112 BHD5, 769m

SUMMARY:

This sample is an extremely altered basaltic lava breccia. Original phenocrysts included olivine and augite, although both have been totally obliterated by the intense alteration, so that only a few diagnostic outlines and crystal sites survive. Large areas of the slide, probably mainly interstitial areas between fragments, have been replaced by fine-grained sugary silica aggregates, and cut by narrow quartz veinlets. In even the best preserved fragments, few relics of the original texture are preserved, and pervasive, intense carbonate-sericite alteration overprints the rock. Disseminated pyrite forms a minor component of this sample.

SPECIFIC GRAVITY DATA

DEPTH	WEIGHT	VOLUME	S.G.
25.0	825	312	2.64
46.8	928	366	2.54
67.3	777	308	2.52
85.1	509	208	2.45
99.2	922	358	2.58
119.2	922	354	2.60
139.9	431	165	2.61
159.9	435	164	2.65
180.0	459	178	2.58
199.8	526	189	2.78
220.2	542	200	2.71
240.5	467	174	2.68
260.1	427	158	2.70
280.0	483	178	2.71
303.0	414	153	2.71
320.1	746	276	2.70
342.1	394	147	2.68
360.0	540	196	2.76
382.0	461	169	2.73
399.9	502	184	2.73
421.0	327	122	2.68
440.0	342	124	2.76
461.0	300	111	2.70
480.0	342	127	2.69
500.1	250	92	2.72
520.0	238	87	2.74
540.5	559	205	2.73
561.8	289	104	2.78
580.0	695	247	2.81
600.0	402	151	2.66
618.0	410	154	2.66
640.8	95	35	2.71
660.6	312	113	2.76
682.0	245	85	2.88
700.7	435	156	2.79
721.0	400	146	2.74
739.5	321	118	2.72
760.4	334	122	2.74

Appendix 2

Holes BHD1 and BHD3, High Point

Additional Lithogeochemical and Petrological sampling

PASMINCO EXPLORATION
DIAMOND DRILL CORE ASSAY DATA

HOLE No. BHD 1

PROJECT: HIGH POINT

Number	Type	From m	To m	Interval m	Recovered m	Cu	Pb	Zn	Ag / Au	As / Ba	Rb / Sr	V / Nb	Y / Zr	Al_2O_3 / SiO_2 (%)	TiO_2 / Fe_2O_3	MnO / Na_2O	CaO / K_2O	MgO / P_2O_5	LOI / SO_3	Cr	COMMENTS
034295	Whole NQ	151.15	151.4	0.25		61	301	1270	<1 /	4 / 279	34 / 293	298 / 8	22 / 139	15.16 / 48.6	0.63 / 8.33	0.35 / 4.15	6.97 / 0.66	5.69 / 0.392	8.71 / 0.28	325	Carbonatized basalt
034296	" "	204.4	204.7	0.3		61	558	1644	1 /	3 / 153	<5 / 355	144 / 11	25 / 183	11.96 / 59.4	0.50 / 5.38	0.31 / 4.92	6.43 / 0.13	3.32 / 0.329	7.11 / 0.22	319	Basalt c̄ xenocrysts of qtz
034299	" "	373.7	373.9	0.2		53	201	734	<1 /	6 / 634	31 / 390	196 / 7	23 / 142	10.24 / 42.3	0.64 / 5.45	0.34 / 3.29	17.36 / 0.92	7.08 / 0.389	11.36 / 0.32	907	Basalt c̄ calcite amygdales
034360	¾ Split NQ	401.65	401.9	0.25		125	30	770	<1 /	4 / 682	29 / 506	189 / 12	23 / 196	16.96 / 54.2	0.55 / 7.22	0.47 / 6.11	3.83 / 0.87	4.93 / 0.330	4.60 / 0.12	170	Basalt c̄ xenocrysts of qtz
036022	" " "	475.7	475.9	0.2		<2	<3	126	<1 /	4 / 1611	87 / 252	163 / 10	27 / 176	15.25 / 58.0	0.47 / 7.82	0.34 / 3.77	2.28 / 2.70	4.65 / 0.286	4.61 / 0.03	82	Basalt c̄ feldspar phenos + qtz.
036023	Whole NQ	539.4	539.7	0.3		27	7	354	<1 /	3 / 903	45 / 284	176 / 12	26 / 176	15.87 / 56.5	0.49 / 8.59	0.38 / 4.51	2.53 / 1.40	4.53 / 0.303	4.59 / 0.18	79	Carbonatized feldspar-phyric basalt.
Laboratory: ANALABS, COOEE + PERTH				Analytical-Method		AAS	AAS	AAS	AAS /	HA101 / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF / XRF	XRF	
Job-No. 111310.60.09820		Date 24.11.93		Detection-Limit		2	3	2	1 /	1 / 10	5 / 5	5 / 3	5 / 5	0.05 / 0.1	0.01 / 0.01	0.01 / 0.05	0.01 / 0.01	0.01 / 0.005	0.01 / 0.01	5	

LITHOGEOCHEMICAL SAMPLING BY J. G. PURVIS, JULY + OCTOBER 1993

PASEX: 1424

883075

PROJECT: HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA
PETROLOGY

HOLE No. BHD 1

SAMPLE: PASMINCO 034295 BHD1 at High Point BHD1, 151.2m

SUMMARY: This sample is a rather coarse-grained, carbonate-altered formerly plagioclase+olivine±augite-phyric basaltic lava basically typical of the Hellyer basalt.

HAND SPECIMEN:

This is a massive dark grey-green, fairly coarse-grained and apparently aphyric basaltic lava with calcite veinlets.

THIN SECTION DESCRIPTION:

This sample is a very sparsely plagioclase+olivine-phyric, almost holocrystalline basaltic lava. About 1-2 modal% of the rock consists of small (<1mm long) euhedral albitized plagioclase phenocrysts that often occur in clusters of three or four intergrown crystals. These have distinctive trails of chloritized melt inclusions. Former olivine phenocrysts, also less than 1mm long, are totally replaced by calcite and occasionally carry small deep red chromite inclusions. A few possible former augite phenocrysts are now composed of polycrystalline albite and quartz.

The groundmass of this rock is quite coarse-grained and almost holocrystalline in texture. It consists of an intersertal intergrowth of randomly arranged albitized plagioclase laths around 0.5mm long, with interstitial chloritized augite, leucoxene-altered FeTi oxide grains, and subordinate chloritized mesostasis in angular interstices between plagioclase laths. Fine-grained calcite is abundant overprinting both plagioclase and chlorite, and blebby secondary silica occurs commonly in chloritic segregations. Veins of calcite are common, and several areas of rather coarsely crystalline calcite also occur overprinting the groundmass. Several small spots of anhedral pyritic aggregates are present, and at least one grain of deep yellow sphalerite occurs in a calcite vein.

This is a rather carbonate-altered plagioclase+olivine± augite-phyric basaltic lava, essentially typical of the Hellyer basalt, except that it is coarse-grained enough to suggest that it from the core of a rather thick flow

SAMPLE: PASMINCO 034296 BHD1, 204.5m

SUMMARY: This sample is a distinctive, formerly olivine-phyric basaltic lava that carries significant xenocrysts of albitized plagioclase and volcanic quartz, probably from interaction with a felsic magma.

HAND SPECIMEN:

This is a dark grey fine-grained basaltic lava with occasional altered plagioclase phenocrysts.

THIN SECTION DESCRIPTION:

This sample is an unusual plagioclase+olivine-phyric basaltic lava that carries about 15-20 rounded and resorbed xenocrysts of volcanic quartz. Plagioclase phenocrysts are mainly 1-2mm long, albitized, and many are notably rounded and reacted, with a light speckling of sericite. These may be xenocrystic. Former olivine phenocrysts are euhedral, mainly <1mm long, but totally replaced by very fine-grained silica partially overprinted by calcite. A striking feature of this obviously basaltic lava is the presence of quite common xenocrysts of quartz, to 2mm across. These are rounded, embayed and resorbed, but contain chloritized melt inclusions.

The groundmass of this rock was probably vitrophyric, with abundant albitized plagioclase laths set in devitrified glass that has recrystallized to quartz-chlorite and tiny leucoxene blebs after small FeTi oxides. Abundant fine-grained calcite overprints the groundmass, and a few small calcite veinlets cut the rock; these host a small number of discrete pyrite grains, although these are volumetrically insignificant.

This is a distinctive lava, and I have described before (for BHP) similar basaltic lavas from this area that contain quartz xenocrysts. I assume that both the rounded plagioclase xenocrysts and the quartz xenocrysts derive from this basaltic magma interacting with a quartz+plagioclase-saturated felsic (rhyolitic) magma in the magmatic system below this region. Metamorphic grade is prehnite-pumpellyite facies, but the common carbonate alteration is probably distal hydrothermal in origin.

SAMPLE: PASMINCO 034299 BHD1, 373.8m

SUMMARY: This sample is a low-grade metamorphosed strongly augite+olivine-phyric basaltic lava with strong affinities to typical mafic Hellyer basalts.

HAND SPECIMEN:

This is a dark grey augite-phyric basaltic lava with common spots of calcite alteration and a calcite vein carrying abundant fine-grained pyrite.

THIN SECTION DESCRIPTION:

This sample is a quite strongly augite+altered olivine-phyric basaltic lava. About 20 modal% of the rock consists of well-formed fairly stubby fresh phenocrysts of clear augite rarely larger than 1mm long. These often occur in small clusters. Former small olivine phenocrysts are present but relatively uncommon, and all are altered to calcite and chlorite. Two or three deep red chromite phenocrysts were also noted.

The groundmass of this rock is a microphyric intergrowth of tiny albitized plagioclase laths, less abundant equant augite crystals (< 0.1mm long), and abundant tiny leucoxene blebs set in a murky devitrified glass that is largely replaced by chlorite and much less common fine-grained calcite. Occasional microshear zones composed of messy very fine-grained epidote, calcite and magnetite(?). Calcite veinlets are commonly foliated and sheared.

This is a typical rather mafic Hellyer-type basaltic lava, with a low grade prehnite-pumpellyite facies metamorphic overprint and weak carbonate hydrothermal alteration.

PROJECT: HIGH POINT

PASMINCO EXPLORATION
DIAMOND DRILL HOLE SUPPLEMENTARY DATA
PETROLOGY

HOLE No. BHD1

SAMPLE: PASMINCO 034300 BHD1, 401.8m

SUMMARY: This sample is a sparsely augite+olivine-phyric basaltic lava that, like 036299, carries xenocrysts of quartz and albite probably derived from interaction with a rhyolitic magma.

HAND SPECIMEN:

This is a dark grey sparsely porphyritic basaltic lava with occasional small vesicles and patchy calcite veining.

THIN SECTION DESCRIPTION:

This sample is a sparsely olivine+augite-phyric basaltic lava that carries a few rounded and reacted quartz xenocrysts and slightly more abundant, quite resorbed albitized plagioclase phenocrysts. The augite phenocrysts are small (<1mm), fresh and subhedral, and make up around 1 - 2 modal% of this rock. Much less abundant are former small olivine phenocrysts that are 0.5-1mm sized euhedral crystals replaced by fine-grained polycrystalline quartz and calcite. Five or six 1-2mm-sized albitized plagioclase phenocrysts that are quite resorbed and rounded are probably xenocrystic. The same applies for the three or four 1-2mm sized quartz crystals that are rounded and embayed volcanic shapes with rounded chloritized melt inclusions.

The groundmass of this rock is a microphyric intergrowth of albite laths and more equidimensional small, fresh augite crystals set in chloritized devitrified glass speckled with tiny leucoxene blebs. Small calcite patches are common, and several calcite veinlets cut the sample, some carrying small aggregates of very fine-grained pyrite. A few spots of secondary quartz contain several patches of what is probably orange-yellow sphalerite, although without reflected light, it is difficult to distinguish this from hematite. Occasional small rather streaky vesicles are filled by chlorite.

This is a Hellyer basalt-type basaltic lava carrying the same quartz and plagioclase xenocrysts like sample 036099. It shows a low-grade regional metamorphic burial alteration overprint.

SAMPLE: PASMINCO 036022 BHD1, 475.8m

SUMMARY: This sample is a rather evolved Hellyer-type basaltic lava with plagioclase phenocrysts and xenocrysts, and also volcanic quartz xenocrysts similar to those in several of the preceding samples.

HAND SPECIMEN:

This is a patchy dark grey-green metabasalt with obvious lighter green domains of more intense alteration.

THIN SECTION DESCRIPTION:

This sample is a sparsely vesicular plagioclase-phyric basaltic lava fairly similar to the preceding sample except that this rock has significantly more plagioclase phenocrysts (~5-8 modal%). The plagioclase phenocrysts include both rather rounded and resorbed albitized crystals to about 2mm long, lightly speckled with sericite. Less abundant albitized plagioclase phenocrysts are more euhedral (ie. not resorbed), but there are no fresh or altered mafic phenocrysts in this sample, indicating that it is probably a fairly evolved basaltic composition. Four or five xenocrysts of resorbed quartz are also present in this rock, identical to those in samples 34300 and 34299. Vesicles are mainly <1mm across, occasionally larger, and are filled by chalcedonic silica or polycrystalline quartz.

The groundmass of this basalt is a microphyric to vitrophyric intergrowth of albitized plagioclase laths and microlites, much less abundant chlorite-altered stubby augite crystals, and small leucoxenitized FeTi oxide crystals set in devitrified glass. Occasional epidote-calcite veinlets cut the sample, and host small localized aggregates of tiny pyrite(?) crystals. The metamorphic grade of this sample is prehnite-pumpellyite facies.

SAMPLE: PASMINCO 036023 BHD1, 539.5m

SUMMARY: This sample is a plagioclase-phyric evolved basaltic lava almost identical to 036022, except that it shows extensive zones of fine-grained carbonate alteration with minor associated pyrite and sphalerite.

HAND SPECIMEN:

This is a dark grey to black sparsely plagioclase-phyric basaltic lava with extensive connecting paler colour zones that are quite strongly altered fluid conduits.

THIN SECTION DESCRIPTION:

In the cores of the freshest parts of this lava, it is clearly a moderately plagioclase-phyric (~5 modal%) basaltic lava with small quartz-filled vesicles and not uncommon quartz xenocrysts, overall very similar indeed to 036022. Plagioclase phenocrysts include both resorbed blocky crystals that are probably xenocrystic, and euhedral smaller phenocrysts. There were no former mafic phenocrysts in this sample. The groundmass of these fresher zones is composed of small albitized plagioclase microlites in a chlorite-dominated intergrowth after devitrified glass that contains common tiny blebs of quartz. Some of the quartz-filled vesicles also contain small intergrown crystals of intensely pleochroic carbonate that may be ankerite or siderite.

More than half of this thin section is represented by zones of strong alteration separating less altered domains described above. In these altered zones, the groundmass texture is considerably disrupted, almost obliterated in places, and chlorite is almost absent. In contrast to the fresh zones, fine-grained calcite is common and segregations of polycrystalline quartz are scattered throughout, many of these hosting pyrite aggregates and occasional anhedral areas of deep yellow sphalerite.

This sample is an evolved basaltic lava almost identical to 036022 that shows an almost false brecciated texture due to extensive fine-grained calcite-pyrite alteration.

PAMINCO EXPLORATION
DIAMOND DRILL CORE ASSAY DATA

HOLE No. BHD 3

PROJECT : HIGH POINT, BULGOBAC HILL EL

SAMPLE						ASSAYS (ppm unless specified)																COMMENTS
Number	Type	From m	To m	Interval m	Recovered m	Cu	Pb	Zn	Ag	Au	As / Ba	Rb / Sr	V / Nb	Y / Zr	Al_2O_3 / SiO_2 %	TiO_2 / Fe_2O_3 %	MnO / Na_2O %	CaO / K_2O %	MgO / P_2O_5 %	LOI / SO_3 %	Cr	
032731B	SPLIT NQ	284·0	285·0	1·0		60	254	315	<0·5		18 / 210	8 / 280	140 / 7	20 / 140	15·49 / 55·3	0·50 / 6·24	0·13 / 6·33	3·93 / 0·20	4·72 / 0·201	5·42 / 1·59	140	
732B	" "	338·0	339·0	1·0		32	53	223	<0·5		3 / 1050	30 / 330	160 / 6	20 / 150	13·65 / 57·3	0·66 / 6·81	0·20 / 4·15	4·97 / 1·29	5·10 / 0·348	5·68 / 0·24	280	
733B	" "	424·0	425·0	1·0		64	9	222	<0·5		5 / 1900	20 / 510	120 / 3	18 / 180	11·45 / 50·6	0·33 / 6·87	0·28 / 3·20	11·14 / 0·94	7·25 / 0·127	6·44 / 1·37	780	
034297	Whole NQ	535·0	535·3	0·3		233	109	301	<1		<1 / 2790	83 / 394	335 / 16	26 / 223	14·38 / 44·0	0·77 / 10·53	0·35 / 1·42	3·25 / 2·89	9·85 / 0·560	6·77 / 0·04	1140	← LITHOGEOCHEMICAL SAMPLING BY J.G. PURVIS, NOVEMBER 1993
032734	SPLIT NQ	453·0	454·5	1·5		109	125	1740	0·8	0·008												
735	" "	454·5	456·0	1·5		114	629	1220	1·3	<0·008												
736	" "	456·0	457·5	1·5		121	240	560	1·0	<0·008												
737	" "	457·5	459·0	1·5		125	29	67	0·7	<0·008												
738	" "	459·0	460·5	1·5		136	26	57	<0·5	<0·008 <0·008												
739	" "	460·5	461·7	1·2		143	17	91	<0·5	<0·008												
034298	Whole NQ	618·5	618·8	0·3		6	<3	83	<1		<1 / 316	74 / 74	117 / 6	24 / 137	14·25 / 61·6	0·46 / 7·85	0·18 / 2·58	2·66 / 1·79	3·54 / 0·163	5·10 / 0·12	98	
032740B	SPLIT NQ	464·0	465·0	1·0		116	5	104	<0·5		6 / 250	35 / 580	260 / 6	20 / 140	16·93 / 49·9	0·66 / 6·79	0·12 / 4·83	5·09 / 0·89	6·15 / 0·360	6·13 / 1·84	110	
032741	" "	466·5	467·5	1·0		130	95	168	<0·5	0·008												
742	" "	467·5	469·0	1·5		110	40	133	<0·5	<0·008												
743	" "	469·0	470·5	1·5		39	<5	154	<0·5	<0·008												
744	" "	470·5	472·0	1·5		95	<5	108	<0·5	<0·008 <0·008												
745	" "	472·0	474·0	2·0		71	<5	142	<0·5	<0·008												
032746B	" "	487·0	488·0	1·0		118	72	285	<0·5		3 / 1650	35 / 510	250 / 5	20 / 130	15·21 / 53·4	0·58 / 7·39	0·16 / 4·06	5·97 / 1·75	5·57 / 0·347	5·58 / 0·39	210	
747B	" "	534·0	535·0	1·0		124	218	491	<0·5		5 / 160	5 / 420	170 / 7	20 / 120	9·79 / 45·0	0·47 / 6·56	0·30 / 3·16	17·16 / 0·18	5·96 / 0·630	10·82 / 0·33	660	
748B	" "	585·0	586·0	1·0		43	<5	153	<0·5		2 / 550	35 / 330	250 / <3	15 / 55	15·80 / 51·8	0·44 / 8·94	0·26 / 4·10	6·21 / 0·89	4·70 / 0·125	6·66 / 8·13	20	
749B	" "	650·5	651·4	0·9		12	<5	42	<0·5		25 / 470	85 / 120	6 / 9	35 / 190	14·66 / 65·8	0·38 / 4·64	0·18 / 4·09	2·24 / 2·11	1·52 / 0·093	3·96 / 0·58	10	
032753B	" "	659·0	660·0	1·0		17	<5	13	<0·5		<2 / 320	75 / 80	<5 / 11	30 / 200	13·39 / 68·7	0·41 / 2·26	0·26 / 4·66	2·86 / 1·90	0·90 / 0·103	4·17 / 0·19	5	
754B	" "	687·0	688·0	1·0		6	<5	25	<0·5		4 / 510	95 / 150	<5 / 12	35 / 190	13·53 / 67·0	0·37 / 4·08	0·21 / 3·88	3·57 / 2·07	0·91 / 0·091	4·39 / 0·17	5	
755B	" "	699·0	700·0	1·0		<5	<5	28	<0·5		4 / 550	140 / 75	17 / 11	35 / 240	15·00 / 63·6	0·39 / 4·81	0·20 / 2·27	3·34 / 3·25	1·23 / 0·105	5·36 / 0·03	25	
756B	" "	742·5	743·5	1·0		<5	<5	16	<0·5		4 / 320	90 / 75	<5 / 15	30 / 220	13·35 / 68·3	0·35 / 3·04	0·15 / 3·36	3·72 / 1·92	1·06 / 0·086	4·23 / 0·33	13	
757B	" "	770·0	771·0	1·0		<5	<5	37	<0·5		<2 / 290	85 / 150	6 / 14	35 / 250	14·58 / 66·2	0·37 / 3·95	0·10 / 4·47	3·10 / 1·79	1·31 / 0·080	3·79 / 0·01	11	
Laboratory	ANALABS CODEE + PERTH			Analytical-Method		AAS	AAS	AAS	AAS	F/A	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF	XRF
Job-No. 0175, 0174 14-24		Date JANUARY 1992		Detection-Limit		5	5	5	0·5	0·008	2 / 10	5 / 5	5 / 3	5 / 5	0·05 / 0·1	0·01 / 0·01	0·01 / 0·05	0·01 / 0·01	0·01 / 0·005	0·01 / 0·01	5	

Appendix 3

DHEM Data, Hole BHD5, High Point

883080

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: Collar
Date	: Jun 1, 1994	File name	: BHD5CZ.PEM
Time Base	: 10.00 ms	# Readings	: 25
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 17	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 800m X 800m	Receiver	: Digital #106
Current	: 4 Amps	Operator	: Geoffrey Dunn

Loop Coordinates (X,Y,Z)

1. 387580m, 5.39245e+06m, 0m
2. 388130m, 5.39195e+06m, 0m
3. 388460m, 5.39248e+06m, 0m
4. 388030m, 5.39295e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 388129m, 5.39234e+06m, 0m
2. 192deg, 90deg, 15.5m
3. 243deg, 88deg, 231.5m
4. 231deg, 86.5deg, 88m
5. 237deg, 85.5deg, 62m
6. 240deg, 84.5deg, 23.5m
7. 252deg, 84deg, 237.5m
8. 254deg, 83.5deg, 31.5m
9. 252deg, 82.5deg, 30m
10. 258deg, 82.5deg, 32m
11. 260deg, 82.5deg, 16.5m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	76	104	90	2	104	131	117
3	131	171	151	4	171	225	198	5	225	292	259
6	292	378	335	7	378	490	434	8	490	639	565
9	639	828	733	10	828	1075	952	11	1075	1395	1235
12	1395	1809	1602	13	1809	2348	2078	14	2348	3046	2697
15	3046	3951	3498	16	3951	5121	4536	17	5121	6646	5884

883081

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: Collar
Date	: Jun 1, 1994	File name	: BHD5CXY.PEM
Time Base	: 10.00 ms	# Readings	: 50
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 17	Coil Area	: 2800 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 800m X 800m	Receiver	: Digital #106
Current	: 4 Amps	Operator	: Geoffrey Dunn

Loop Coordinates (X,Y,Z)

1. 387580m, 5.39245e+06m, 0m
2. 388130m, 5.39195e+06m, 0m
3. 388460m, 5.39248e+06m, 0m
4. 388030m, 5.39295e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 388129m, 5.39234e+06m, 0m
2. 192deg, 90deg, 15.5m
3. 243deg, 88deg, 231.5m
4. 231deg, 86.5deg, 88m
5. 237deg, 85.5deg, 62m
6. 240deg, 84.5deg, 23.5m
7. 252deg, 84deg, 237.5m
8. 254deg, 83.5deg, 31.5m
9. 252deg, 82.5deg, 30m
10. 258deg, 82.5deg, 32m
11. 260deg, 82.5deg, 16.5m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	76	104	90	2	104	131	117
3	131	171	151	4	171	225	198	5	225	292	259
6	292	378	335	7	378	490	434	8	490	639	565
9	639	828	733	10	828	1075	952	11	1075	1395	1235
12	1395	1809	1602	13	1809	2348	2078	14	2348	3046	2697
15	3046	3951	3498	16	3951	5121	4536	17	5121	6646	5884

883082

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: West
Date	: Jun 2, 1994	File name	: BHD5WXY.PEM
Time Base	: 10.00 ms	# Readings	: 52
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 17	Coil Area	: 2800 sq m
Sync Type	: Cable	Polarity	: -
Loop Size	: 900m X 1000m	Receiver	: Digital #106
Current	: 3 Amps	Operator	: Geoffrey Dunn

Loop Coordinates (X,Y,Z)

1. 387880m, 5.3922e+06m, 0m
2. 388400m, 5.39282e+06m, 0m
3. 387750m, 5.39338e+06m, 0m
4. 387160m, 5.39275e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 388129m, 5.39234e+06m, 0m
2. 192deg, 90deg, 15.5m
3. 243deg, 88deg, 231.5m
4. 231deg, 86.5deg, 88m
5. 237deg, 85.5deg, 62m
6. 240deg, 84.5deg, 23.5m
7. 252deg, 84deg, 237.5m
8. 254deg, 83.5deg, 31.5m
9. 252deg, 82.5deg, 30m
10. 258deg, 82.5deg, 32m
11. 260deg, 82.5deg, 16.5m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	76	104	90	2	104	131	117
3	131	171	151	4	171	225	198	5	225	292	259
6	292	378	335	7	378	490	434	8	490	639	565
9	639	828	733	10	828	1075	952	11	1075	1395	1235
12	1395	1809	1602	13	1809	2348	2078	14	2348	3046	2697
15	3046	3951	3498	16	3951	5121	4536	17	5121	6646	5884

883083

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: **Pasminco Exploration**	Hole	: **BHD5**
Grid	: **Bulgobac**	Tx Loop	: **West**
Date	: Jun 2, 1994	File name	: BHD5W.PEM
Time Base	: 10.00 ms	# Readings	: 26
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 17	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: -
Loop Size	: 900m X 1000m	Receiver	: Digital #106
Current	: 3 Amps	Operator	: Geoffrey Dunn

Loop Coordinates (X,Y,Z)

1. 387880m, 5.3922e+06m, 0m
2. 388400m, 5.39282e+06m, 0m
3. 387750m, 5.39338e+06m, 0m
4. 387160m, 5.39275e+06m, 0m

Hole Coordinates (X,Y,Z) or (Azimuth,Dip,Length)

1. 388129m, 5.39234e+06m, 0m
2. 192deg, 90deg, 15.5m
3. 243deg, 88deg, 231.5m
4. 231deg, 86.5deg, 88m
5. 237deg, 85.5deg, 62m
6. 240deg, 84.5deg, 23.5m
7. 252deg, 84deg, 237.5m
8. 254deg, 83.5deg, 31.5m
9. 252deg, 82.5deg, 30m
10. 258deg, 82.5deg, 32m
11. 260deg, 82.5deg, 16.5m

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	76	104	90	2	104	131	117
3	131	171	151	4	171	225	198	5	225	292	259
6	292	378	335	7	378	490	434	8	490	639	565
9	639	828	733	10	828	1075	952	11	1075	1395	1235
12	1395	1809	1602	13	1809	2348	2078	14	2348	3046	2697
15	3046	3951	3498	16	3951	5121	4536	17	5121	6646	5884

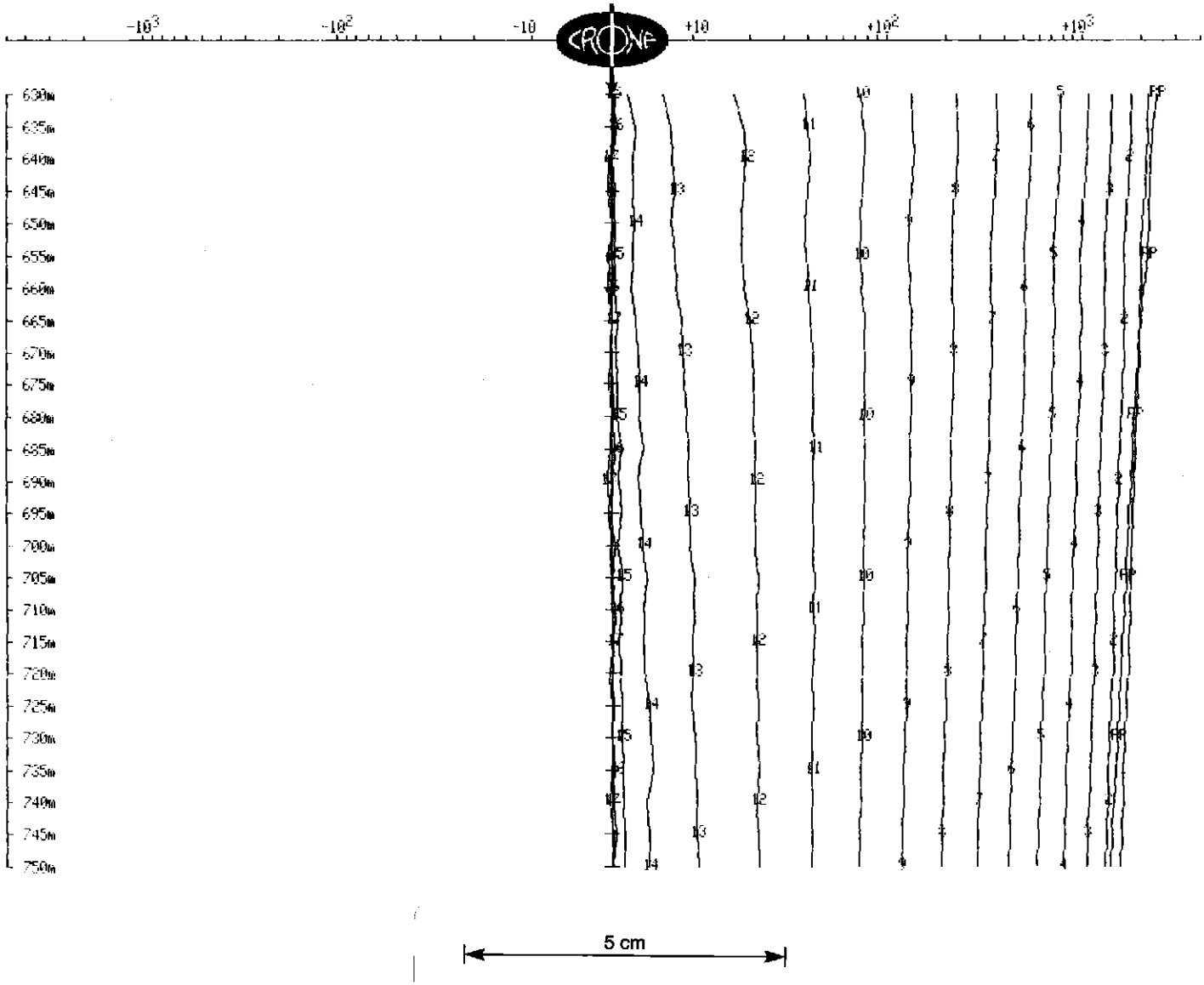
883084

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: Collar
Date	: Jun 1, 1994	File name	: BHD5CZ.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 17 channels and PP

Scale: 1:1000



PAS1091a

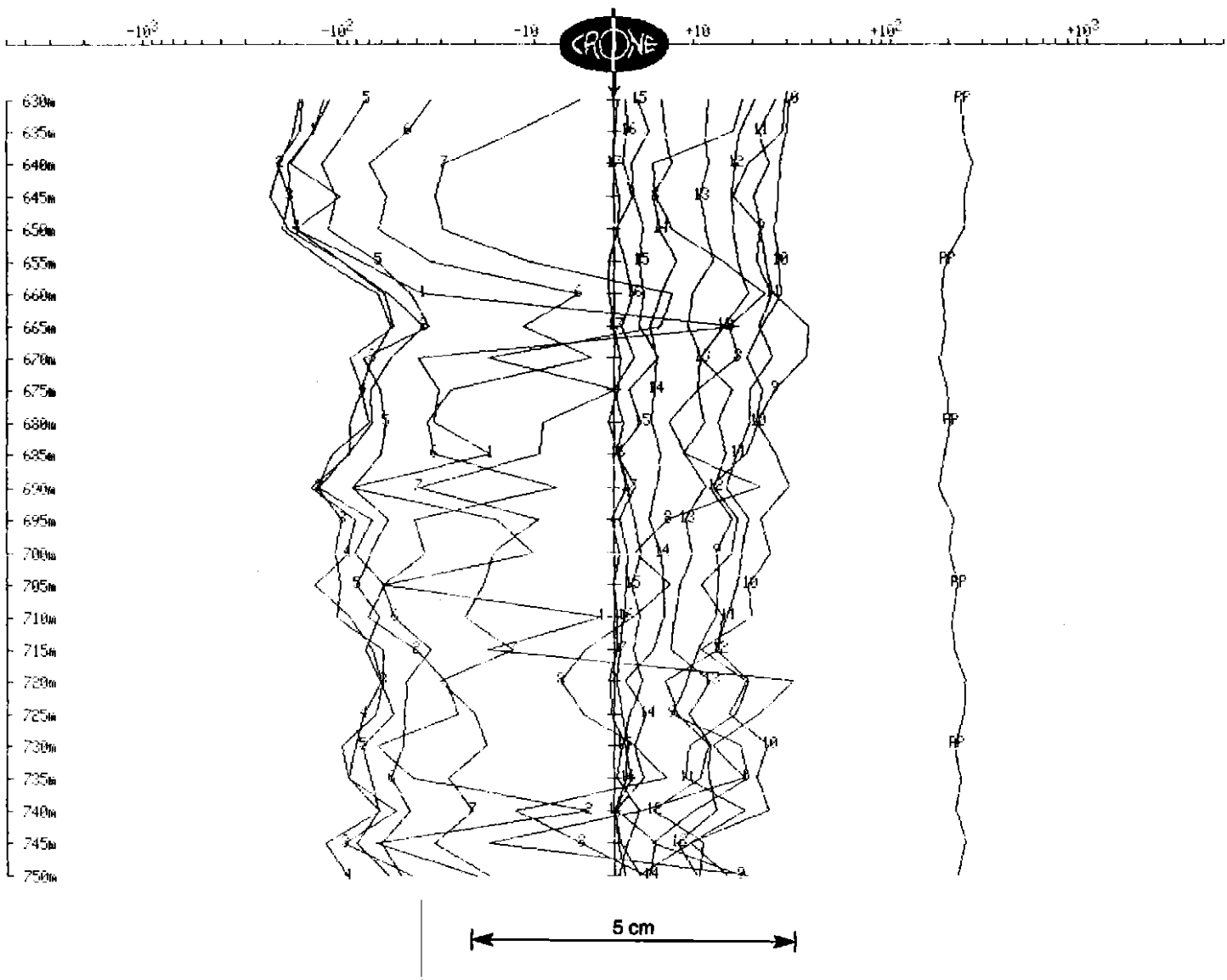
883085

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: Collar
Date	: Jun 1, 1994	File name	: BHD5CXY.PEM

Data Corrected for Probe Rotation using Cleaned PP
X COMPONENT dBx/dt nanoTesla/sec - 17 channels and PP

Scale: 1:1000



PAS10816

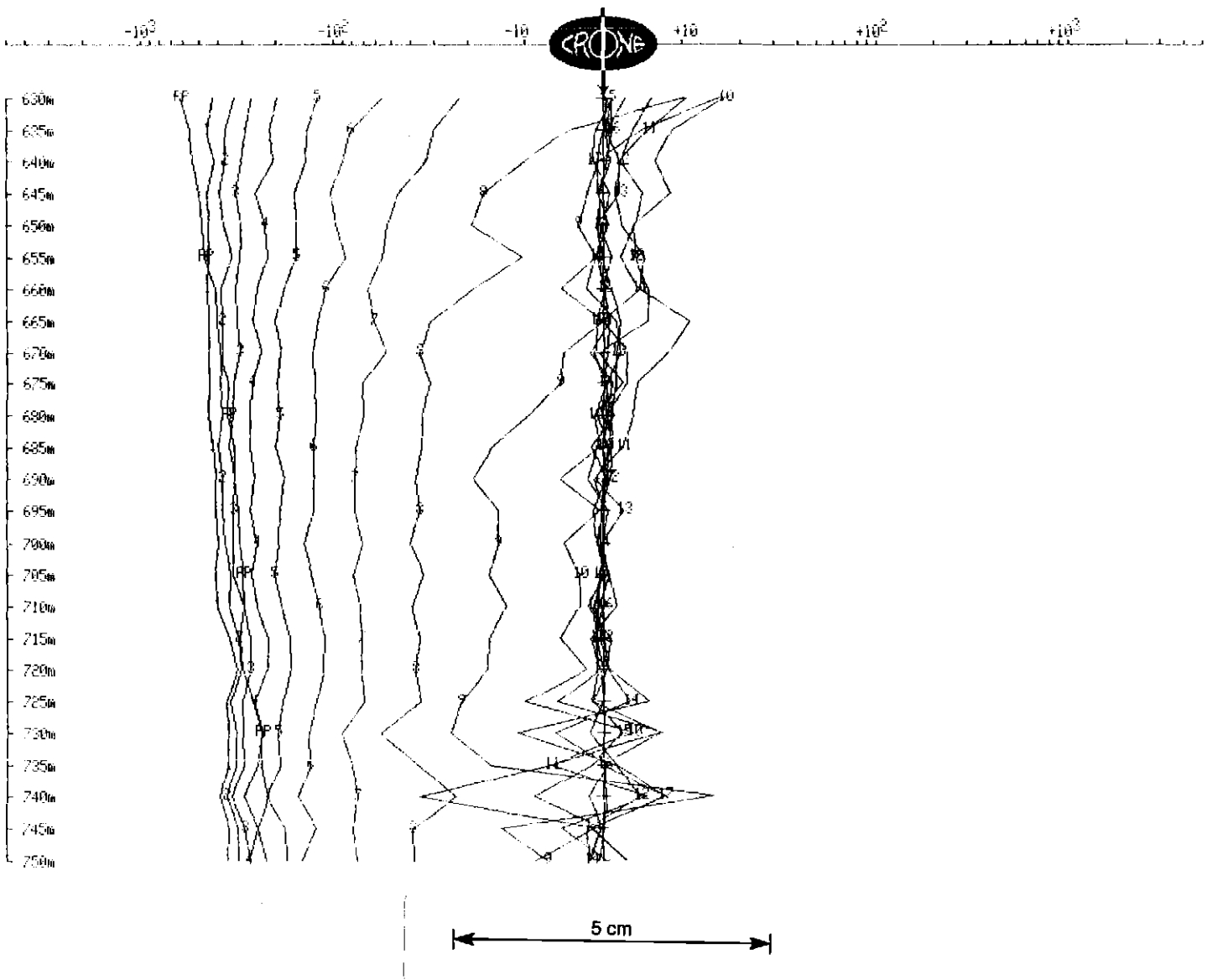
883086

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: Collar
Date	: Jun 1, 1994	File name	: BHD5CXY.PEM

Data Corrected for Probe Rotation using Cleaned PP
Y COMPONENT dBy/dt nanoTesla/sec - 17 channels and PP

Scale: 1:1000



PP510891C

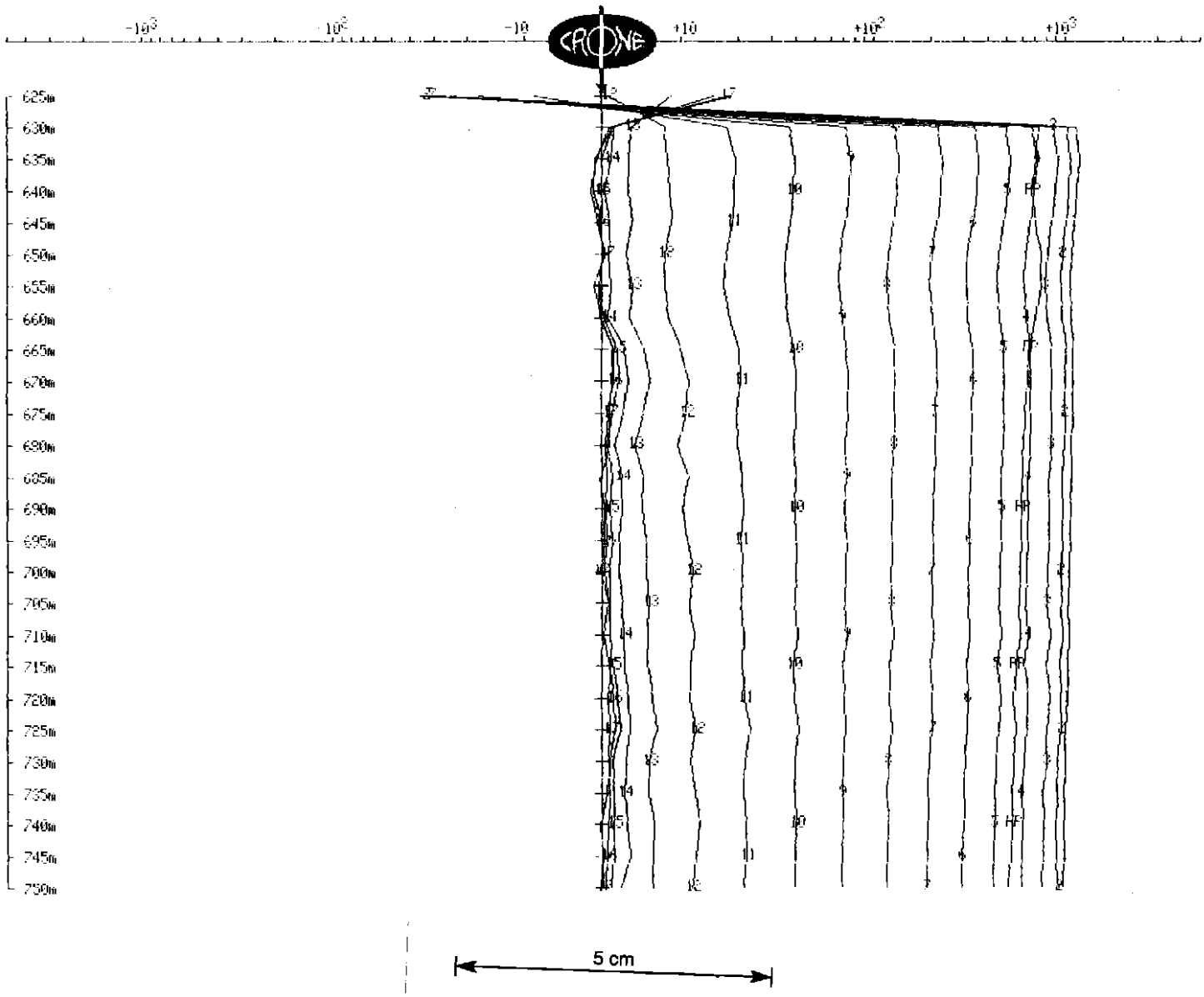
883087

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: West
Date	: Jun 2, 1994	File name	: BHD5W.PEM

Z COMPONENT dBz/dt nanoTesla/sec - 17 channels and PP

Scale: 1:1000



Bs1082u

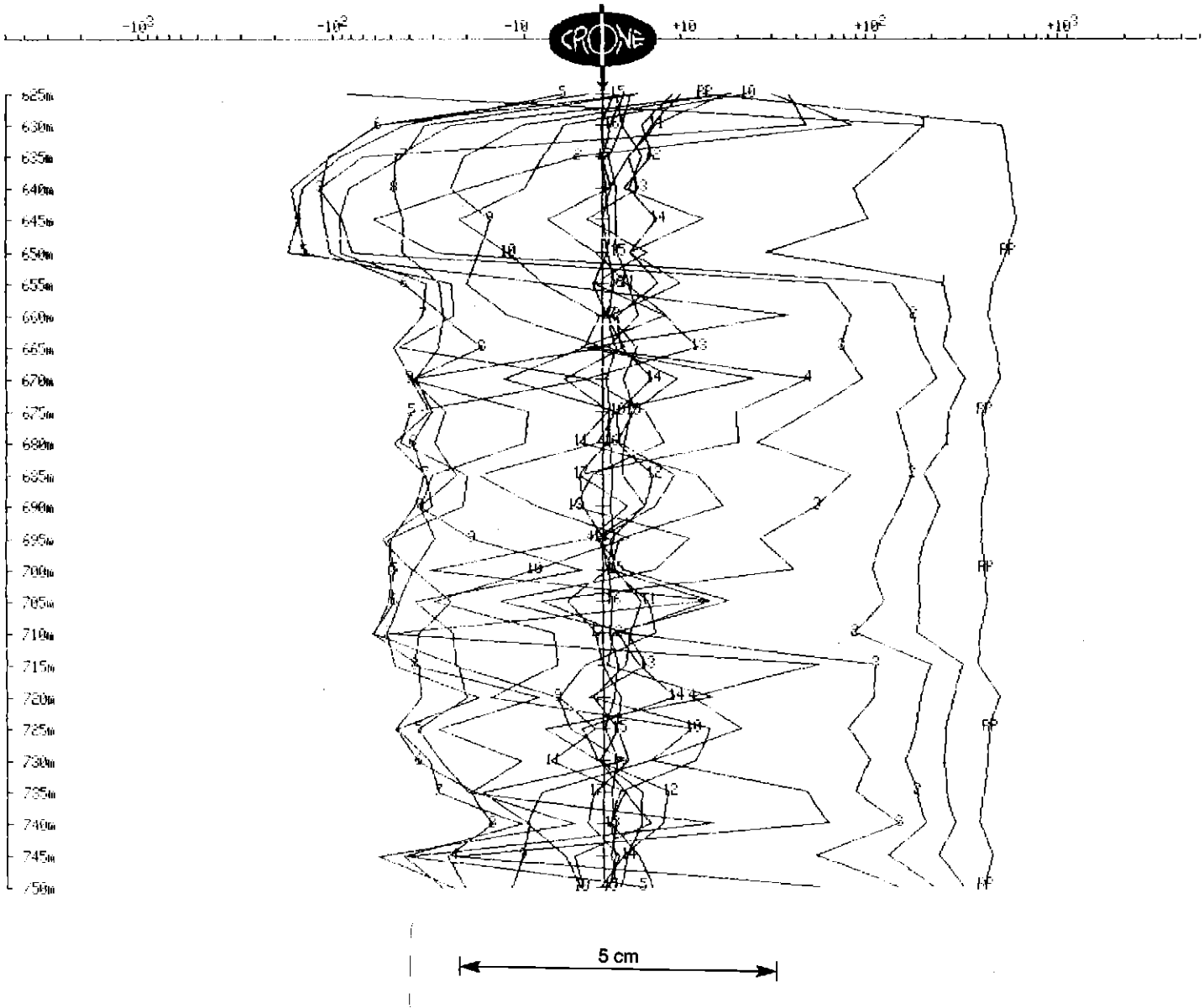
883088

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: West
Date	: Jun 2, 1994	File name	: BHD5WXY.PEM

Data Corrected for Probe Rotation using Cleaned PP
X COMPONENT dBx/dt nanoTesla/sec - 17 channels and PP

Scale: 1:1000



PAS10926

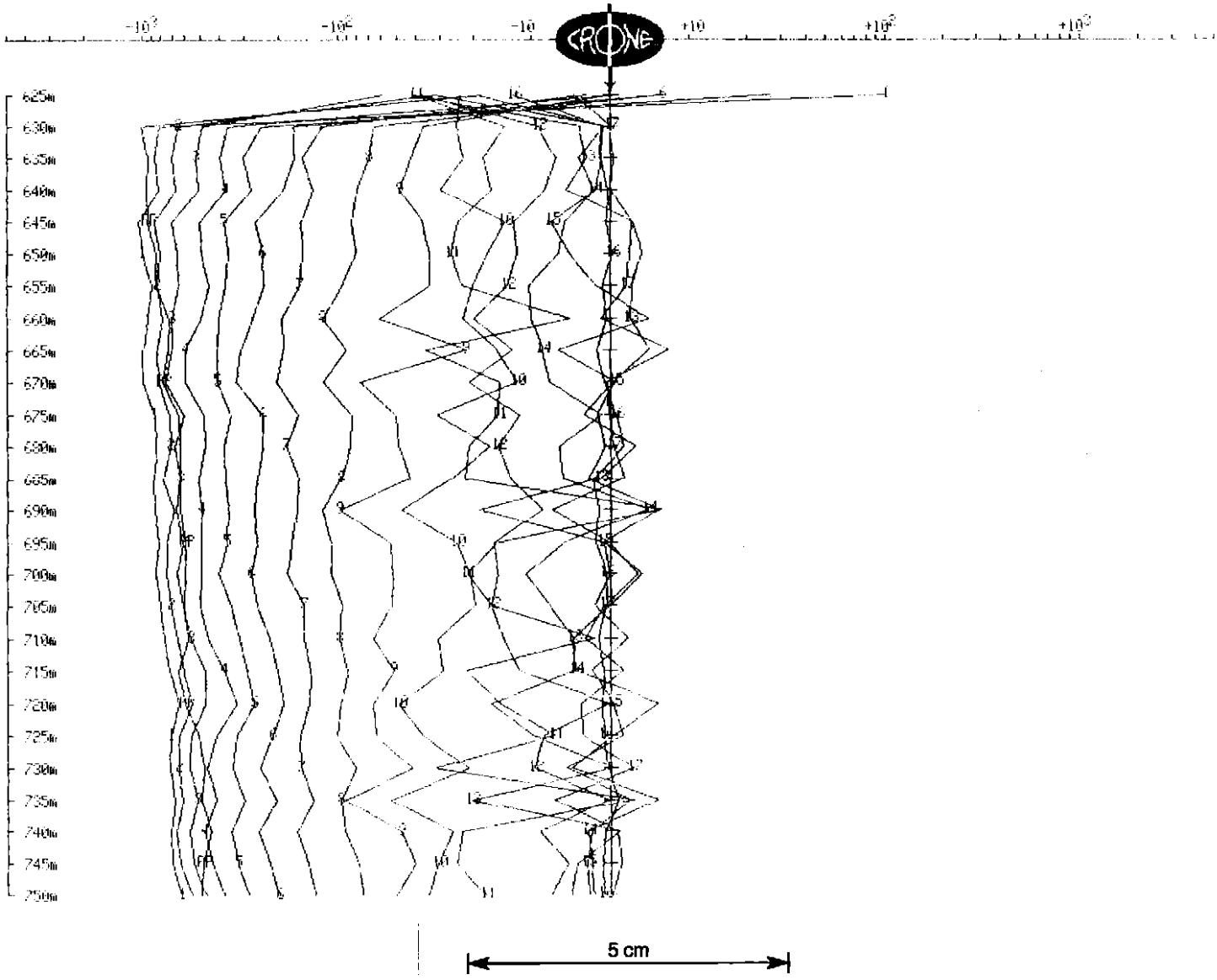
883089

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD5
Grid	: Bulgobac	Tx Loop	: West
Date	: Jun 2, 1994	File name	: BHD5WXY.PEM

Data Corrected for Probe Rotation using Cleaned PP
Y COMPONENT dBy/dt nanoTesla/sec - 17 channels and PP

Scale: 1:1000



PPBHB2c

Appendix 4

Ground Magnetic Survey Data, High Point

883091

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7600	3800	622162
7600	3805	622186
7600	3810	622256
7600	3815	622112
7600	3820	622154
7600	3825	622144
7600	3830	622148
7600	3835	622172
7600	3840	622170
7600	3850	622140
7600	3855	622124
7600	3860	622178
7600	3865	622154
7600	3870	622160
7600	3875	622176
7600	3880	622114
7600	3885	622176
7600	3890	622142
7600	3895	622100
7600	3900	622102
7600	3905	622126
7600	3910	622116
7600	3915	622138
7600	3920	622134
7600	3925	622128
7600	3930	622122
7600	3935	622116
7600	3950	622136
7600	3955	622128
7600	3960	622132
7600	3965	622132
7600	3970	622134
7600	3975	622136
7600	3980	622130
7600	3985	622128
7600	3990	622136
7600	3995	622146
7600	4000	622138
7600	4005	622134
7600	4010	622140
7600	4015	622136
7600	4020	622128
7600	4025	622128
7600	4030	622132
7600	4035	622130
7600	4040	622128
7600	4045	622124
7600	4050	622122
7600	4055	622126
7600	4060	622122
7600	4065	622120
7600	4070	622130

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

883092

NORTHING	EASTING	READING
7600	4075	622110
7600	4080	622106
7600	4085	622110
7600	4090	622106
7600	4095	622104
7600	4100	622148
7600	4105	622102
7600	4110	622100
7600	4115	622106
7600	4120	622100
7600	4125	622102
7600	4130	622102
7600	4135	622108
7600	4140	622104
7600	4145	622096
7600	4150	622104
7600	4155	622108
7600	4160	622098
7600	4165	622114
7600	4170	622124
7600	4175	622126
7600	4180	622120
7600	4185	622098
7600	4190	622082
7600	4195	622092
7600	4200	622096
7600	4205	622102
7600	4210	622118
7600	4215	622122
7600	4220	622116
7600	4225	622116
7600	4230	622096
7600	4235	622090
7600	4240	622100
7600	4245	622124
7600	4050	622122
7700	4250	622130
7700	4240	622104
7700	4235	622106
7700	4230	622108
7700	4225	622120
7700	4220	622114
7700	4215	622108
7700	4210	622116
7700	4205	622128
7700	4200	622128
7700	4195	622124
7700	4190	622122
7700	4185	622122
7700	4180	622122
7700	4175	622126

883093

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7700	4170	622132
7700	4165	622128
7700	4160	622136
7700	4150	622138
7700	4145	622132
7700	4140	622136
7700	4135	622140
7700	4130	622138
7700	4125	622132
7700	4120	622138
7700	4115	622142
7700	4110	622140
7700	4105	622132
7700	4100	622142
7700	4095	622146
7700	4090	622146
7700	4085	622136
7700	4080	622130
7700	4075	622136
7700	4070	622136
7700	4065	622120
7700	4060	622124
7700	4055	622106
7700	4050	622094
7700	4045	622076
7700	4040	622054
7700	4035	622052
7700	4030	622062
7700	4025	622102
7700	4020	622100
7700	4015	622112
7700	4010	622144
7700	4005	622154
7700	4000	622154
7700	3995	622146
7700	3990	622152
7700	3985	622154
7700	3980	622148
7700	3975	622162
7700	3970	622172
7700	3965	622160
7700	3960	622174
7700	3955	622184
7700	3950	622158
7700	3945	622156
7700	3940	622144
7700	3935	622140
7700	3930	622142
7700	3925	622128
7700	3920	622134
7700	3915	622128
7700	3910	622130

883094

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7700	3905	622110
7700	3900	622128
7700	3895	622138
7700	3890	622162
7700	3885	622156
7700	3880	622150
7700	3875	622158
7700	3870	622162
7700	3865	622170
7700	3860	622158
7700	3855	622152
7700	3850	622158
7700	3845	622150
7700	3840	622136
7700	3835	622122
7700	3830	622168
7700	3825	622190
7700	3820	622140
7700	3815	622126
7700	3810	622122
7700	3805	622118
7700	3800	622148
7700	3795	622146
7700	3790	622138
7700	3785	622142
7700	3780	622156
7700	3775	622174
7700	3770	622192
7700	3765	622182
7700	3760	622216
7700	3755	622210
7700	3750	622158
7700	3745	622144
7700	3740	622144
7700	3735	622164
7700	3730	622182
7700	3725	622184
7700	3720	622146
7700	3715	622138
7700	3710	622138
7700	3705	622118
7700	3700	622112
7800	3500	622166
7800	3505	622202
7800	3510	622172
7800	3515	622156
7800	3520	622150
7800	3525	622154
7800	3530	622144
7800	3535	622138
7800	3540	622126

883095

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7800	3545	622112
7800	3550	622118
7800	3555	622130
7800	3560	622110
7800	3565	622106
7800	3570	622104
7800	3575	622108
7800	3580	622110
7800	3585	622108
7800	3590	622102
7800	3595	622104
7800	3600	622114
7800	3605	622112
7800	3610	622112
7800	3615	622116
7800	3620	622122
7800	3625	622114
7800	3630	622104
7800	3635	622100
7800	3640	622104
7800	3645	622100
7800	3650	622038
7800	3655	622086
7800	3660	622072
7800	3665	622070
7800	3670	622074
7800	3675	622050
7800	3680	622038
7800	3685	622008
7800	3690	621930
7800	3695	621808
7800	3700	621726
7800	3705	624804
7800	3710	623664
7800	3715	621388
7800	3720	621786
7800	3725	621928
7800	3730	621998
7800	3735	622032
7800	3740	622040
7800	3745	622054
7800	3750	622054
7800	3755	622052
7800	3760	622050
7800	3765	622054
7800	3770	622052
7800	3775	622046
7800	3780	622056
7800	3785	622054
7800	3790	622048
7800	3795	622036
7800	3800	622030

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HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7800	3805	622024
7800	3810	621988
7800	3815	622108
7800	3820	622008
7800	3825	622134
7800	3830	622066
7800	3835	622074
7800	3840	622082
7800	3845	622100
7800	3850	622108
7800	3855	622116
7800	3860	622132
7800	3865	622154
7800	3870	622162
7800	3875	622206
7800	3880	622180
7800	3885	622196
7800	3890	622282
7800	3895	623318
7800	3900	621970
7800	3905	622186
7800	3910	622166
7800	3915	622150
7800	3920	622128
7800	3925	622110
7800	3930	622102
7800	3935	622088
7800	3940	622076
7800	3945	622074
7800	3950	622074
7800	3955	622064
7800	3960	622074
7800	3965	622070
7800	3970	622064
7800	3975	622054
7800	3980	622062
7800	3985	622066
7800	3990	622072
7800	3995	622068
7800	4000	622078
7800	4005	622082
7800	4010	622096
7800	4015	622116
7800	4020	622094
7800	4025	622106
7800	4030	622094
7800	4035	622086
7800	4040	622076
7800	4045	622074
7800	4050	622060
7800	4055	622056
7800	4060	622060

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

883097

NORTHING	EASTING	READING
7800	4065	622058
7800	4070	622058
7800	4075	622042
7800	4080	622044
7800	4085	622042
7800	4090	622048
7800	4095	622044
7800	4100	622086
7800	4105	622046
7800	4110	622042
7800	4115	622044
7800	4120	622044
7800	4125	622048
7800	4130	622048
7800	4135	622042
7800	4140	622040
7800	4145	622038
7800	4150	622048
7800	4155	622046
7800	4160	622042
7800	4165	622048
7800	4170	622042
7800	4175	622042
7800	4180	622042
7800	4185	622044
7800	4190	622026
7800	4195	622032
7800	4200	622044
7900	4050	62209
7900	4045	622098
7900	4040	622092
7900	4035	622078
7900	4030	622120
7900	4025	622106
7900	4020	622102
7900	4015	622096
7900	4010	622092
7900	4005	622090
7900	4000	622090
7900	3995	622094
7900	3990	622092
7900	3985	622096
7900	3980	622100
7900	3975	622104
7900	3970	622104
7900	3965	622104
7900	3960	622100
7900	3955	622102
7900	3950	622116
7900	3945	622124
7900	3940	622136

883098

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7900	3935	622132
7900	3930	622126
7900	3925	622132
7900	3920	622166
7900	3915	622150
7900	3910	622128
7900	3905	622120
7900	3900	622118
7900	3895	622112
7900	3890	622128
7900	3885	622124
7900	3880	622136
7900	3875	622124
7900	3870	622120
7900	3865	622130
7900	3860	622132
7900	3855	622122
7900	3850	622126
7900	3845	622114
7900	3840	622112
7900	3835	622114
7900	3830	622116
7900	3825	622118
7900	3820	622122
7900	3815	622132
7900	3810	622140
7900	3805	622130
7900	3800	622126
7900	3795	622120
7900	3790	622108
7900	3785	622114
7900	3780	622102
7900	3775	622094
7900	3770	622090
7900	3765	622088
7900	3760	622092
7900	3755	622090
7900		622082
7900	3750	622078
7900	3745	622074
7900	3740	622058
7900	3735	622100
7900	3730	622114
7900	3725	622080
7900	3720	622062
7900	3715	622038
7900	3710	622024
7900	3705	622012
7900	3700	622054
7900	3695	621964
7900	3690	621938
7900	3685	621894

883099

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
7900	3680	621862
7900	3675	621818
7900	3670	621714
7900	3665	621644
7900	3660	621662
7900	3655	621700
7900	3650	621818
7900	3645	621866
7900	3640	621938
7900	3635	621970
7900	3630	621982
7900	3625	622000
7900	3620	622022
7900	3615	622052
7900	3610	622068
7900	3605	622072
7900	3600	622066
7900	3595	622076
7900	3590	622086
7900	3585	622088
7900	3580	622092
7900	3575	622096
7900	3570	622092
7900	3565	622092
7900	3560	622102
7900	3555	622104
7900	3550	622120
7900	3545	622092
7900	3540	622118
7900	3535	622138
7900	3530	622156
7900	3525	622180
7900	3520	622160
7900	3515	622182
7900	3510	622254
7900	3505	622210
7900	3500	622158
7900	3495	622186
7900	3490	622180
7900	3485	622192
7900	3480	622166
8000	3350	622162
8000	3355	622180
8000	3360	622162
8000	3365	622192
8000	3370	622182
8000	3375	622206
8000	3380	622212
8000	3385	622212
8000	3390	622230
8000	3395	622176

883100

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
8000	3400	622164
8000	3405	622168
8000	3410	622152
8000	3415	622126
8000	3420	622138
8000	3425	622132
8000	3430	622116
8000	3435	622100
8000	3440	622090
8000	3445	622064
8000	3450	622056
8000	3455	622034
8000	3460	622018
8000	3465	621958
8000	3470	621850
8000	3475	621736
8000	3480	621680
8000	3485	621722
8000	3490	621750
8000	3495	621794
8000	3500	621900
8000	3505	621928
8000	3510	621976
8000	3515	622016
8000	3520	622042
8000	3525	622044
8000	3530	622040
8000	3535	622042
8000	3540	622042
8000	3545	622034
8000	3550	622022
8000	3555	622006
8000	3560	621992
8000	3565	621970
8000	3570	621916
8000	3575	621878
8000	3580	621804
8000	3585	621888
8000	3590	621938
8000	3595	621966
8000	3600	621992
8000	3605	622006
8000	3610	622016
8000	3615	622022
8000	3620	622030
8000	3625	622028
8000	3630	622044
8000	3635	622032
8000	3640	622022
8000	3645	622026
8000		622038
8000		622042

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

883101

NORTHING	EASTING	READING
8000	3650	622040
8000	3655	622040
8000	3660	622040
8000	3665	622048
8000	3670	622054
8000	3675	622054
8000	3680	622052
8000	3685	622056
8000	3690	622060
8000	3695	622056
8000	3700	622152
8000	3705	622066
8000	3710	622028
8000	3715	622080
8000	3720	622096
8000	3725	622084
8000	3730	622066
8000	3735	622076
8000	3740	622086
8000	3745	622096
8000	3750	622084
8000	3755	622084
8000	3760	622070
8000	3765	622066
8000	3770	622064
8000	3775	622058
8000	3780	622012
8000	3785	621768
8000	3790	621406
8000	3795	627136
8000	3800	621842
8000	3805	621898
8000	3810	622002
8000	3815	622048
8000	3820	622072
8000	3825	622072
8000	3830	622072
8000	3835	622092
8000	3840	622098
8000	3845	622108
8000	3850	622106
8000	3855	622090
8000	3860	622088
8000	3865	622082
8000	3870	622078
8000	3875	622086
8000	3880	622076
8000	3885	622088
8000	3890	622098
8000	3895	622098
8000	3900	622094
8000	3905	622080

883102

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

NORTHING	EASTING	READING
8000	3910	622084
8000	3915	622084
8000	3920	622066
8000	3925	622076
8000	3930	622086
8000	3935	622088
8000	3940	622088
8000	3945	622090
8000	3950	622088
8000	3955	622078
8000	3960	622078
8000	3965	622074
8000	3970	622068
8000	3975	622072
8000	3980	622064
8000	3985	622066
8000	3990	622074
8000	3995	622078
8000	4000	622076
8000	4005	622078
8000	4010	622078
8000	4015	622086
8000	4020	622082
8000	4025	622076
8000	4030	622074
8000	4035	622070
8000	4040	622068
8000	4045	622074
8000	4050	622082
8100	3350	621146
8100	3355	621158
8100	3360	621274
8100	3365	621224
8100	3370	621248
8100	3375	621290
8100	3380	621424
8100	3385	621512
8100	3390	621612
8100	3395	621676
8100	3400	621692
8100	3405	621712
8100	3410	621764
8100	3415	621810
8100	3420	621838
8100	3425	621868
8100	3430	621874
8100	3435	621892
8100	3440	621908
8100	3445	621910
8100	3450	621920
8100	3455	621926

HIGH POINT MAGNOTOMETER SURVEY JULY 1994

883103

NORTHING	EASTING	READING
8100	3460	621942
8100	3465	621958
8100	3470	621968
8100	3475	621972
8100	3480	621974
8100	3485	621976
8100	3490	621984
8100	3495	622000
8100	3500	622010
8100	3505	622004
8100	3510	622024
8100	3515	622018
8100	3520	622030
8100	3525	622018
8100	3530	622026
8100	3535	622032
8100	3540	622044
8100	3545	622048
8100	3550	622056
8100	3555	622046
8100	3560	622038
8100	3565	622036
8100	3570	622042
8100	3575	622042
8100	3580	622038
8100	3585	622032
8100	3590	622042
8100	3595	622048
8100	3600	622054
8100	3605	622052
8100	3610	622042
8100	3615	622040
8100	3620	622038
8100	3625	622038
8100	3630	622046
8100	3635	622062
8100	3640	622066
8100	3645	622060
8100	3650	622054
8100	3655	622050
8100	3660	622046
8100	3665	622056
8100	3670	622050
8100	3675	622048
8100	3680	622050
8100	3685	622050
8100	3690	622054
8100	3695	622062
8100	3700	622056
8100	3705	622054
8100	3710	622054
8100	3715	622056

HIGH POINT MAGNOTOMETER SURVEY *JULY 1994*

883104

NORTHING	EASTING	READING
8100	3720	622058
8100	3725	622056
8100	3730	622052
8100	3735	622050
8100	3740	622050
8100	3745	622054
8100	3750	622058
8100	3755	622052
8100	3760	622058
8100	3765	622064
8100	3770	622062
8100	3775	622060
8100	3780	622064
8100	3785	622062
8100	3790	622066
8100	3795	622068
8100	3800	622058
8100	3805	622048
8100	3810	622050
8100	3815	622054
8100	3820	622060
8100	3825	622062
8100	3830	622054
8100	3835	622052
8100	3840	622050
8100	3845	622044
8100	3850	622068

Appendix 5

DHEM Profile Plots, Hole BHD4, Sock Creek

X,Y & Z CO-ORDINATES FOR BHD4 LOOPS			
POINT	NORTHING	EASTING	R.L
1	5392480	385850	590
2	5392705	386075	565
3	5392780	386147	550
4	5392890	386250	520
5	5392915	386275	530
6	5392770	386426	575
7	5392620	386586	590
8	5392490	386710	580
9	5392290	386915	615
10	5392065	387145	610
11	5391915	386990	600
12	5391640	386710	600
13	5391710	386640	610
14	5391825	386530	585
15	5391910	386437	615
16	5392105	386285	605
17	5392235	386100	590
18	5392350	385990	610
19	5392125	386352	615
20	5392265	386485	615

883107

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: West
Date	: 3rd Dec. 1993	File name	: BHD4ZW.AM2
Time Base	: 10.00 ms	# Readings	: 55
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 17	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 600m X 600m	Receiver	: Digital #105
Current	: 4 Amps	Operator	: Adrian Page

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	76	104	90	2	104	131	117
3	131	171	151	4	171	225	198	5	225	292	259
6	292	378	335	7	378	490	434	8	490	639	565
9	639	828	733	10	828	1075	952	11	1075	1395	1235
12	1395	1809	1602	13	1809	2348	2078	14	2348	3046	2697
15	3046	3951	3498	16	3951	5121	4536	17	5121	6646	5884

General Comments

20m Stations to 100m then 10m Stations to 600m EOH

Axial component only.

883108

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: Collar
Date	: 3rd Dec. 1993	File name	: BHD4ZC.AM2
Time Base	: 10.00 ms	# Readings	: 61
Ramp Time	: 0.50 ms	Stn Units	: Metric
# Channels	: 17	Coil Area	: 6500 sq m
Sync Type	: Cable	Polarity	: +
Loop Size	: 600m X 600m	Receiver	: Digital #105
Current	: 4.4 Amps	Operator	: Adrian Page

Channel Times (usec)

Ch	Start	End	Center	Ch	Start	End	Center	Ch	Start	End	Center
PP	-198	-99	-149	1	76	104	90	2	104	131	117
3	131	171	151	4	171	225	198	5	225	292	259
6	292	378	335	7	378	490	434	8	490	639	565
9	639	828	733	10	828	1075	952	11	1075	1395	1235
12	1395	1809	1602	13	1809	2348	2078	14	2348	3046	2697
15	3046	3951	3498	16	3951	5121	4536	17	5121	6646	5884

General Comments

20m Stations to 100m then 10m Stations to 615m EOH
Axial component only.

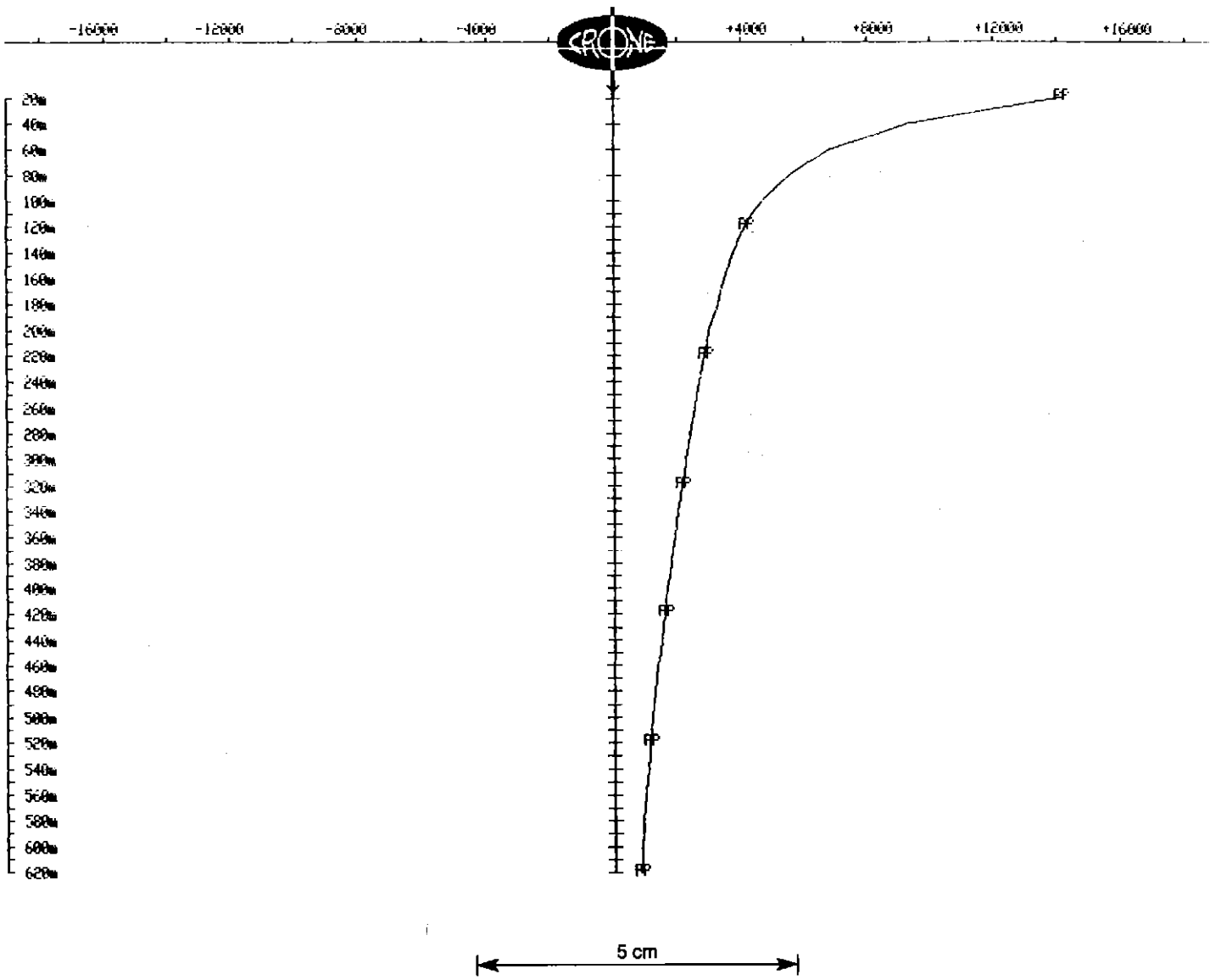
883109

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: Collar
Date	: 3rd Dec. 1993	File name	: BHD4ZC.AM2

Z COMPONENT dBz/dt nanoVolt/Amp-m² - 17 channels and PP

Scale: 1:5000 Unit Scale: 1cm = 2000



5 cm

Fig 1

883110

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: Collar
Date	: 3rd Dec. 1993	File name	: BHD4ZC.AM2

Z COMPONENT dBz/dt nanoVolt/Amp-m² - 17 channels

Scale: 1:5000 Unit Scale: 1cm = 50

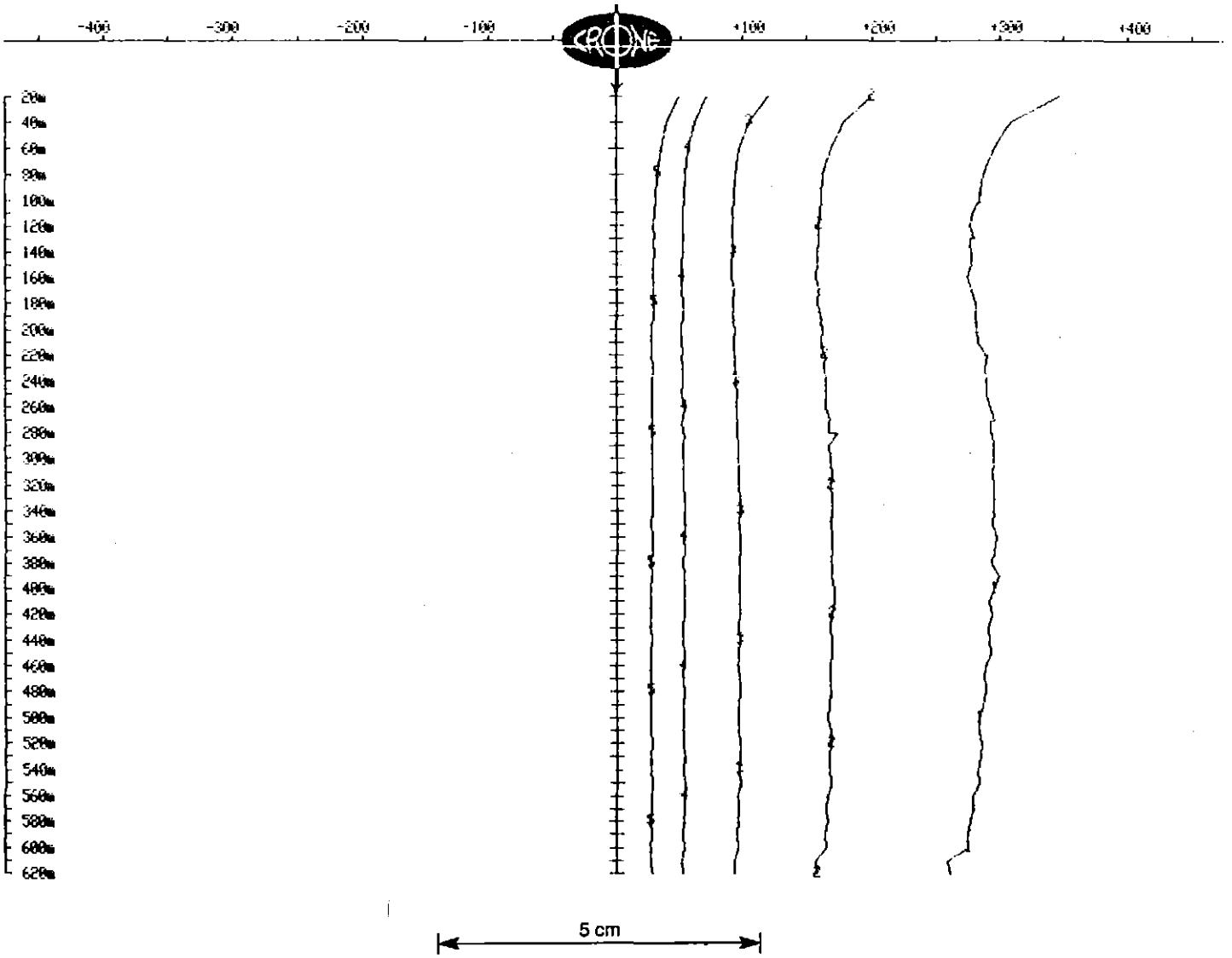


Fig 2

883111

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: Collar
Date	: 3rd Dec. 1993	File name	: BHD4ZC.AM2

Z COMPONENT dBz/dt nanoVolt/Amp-m² - 17 channels

Scale: 1:5000 Unit Scale: 1cm = 5

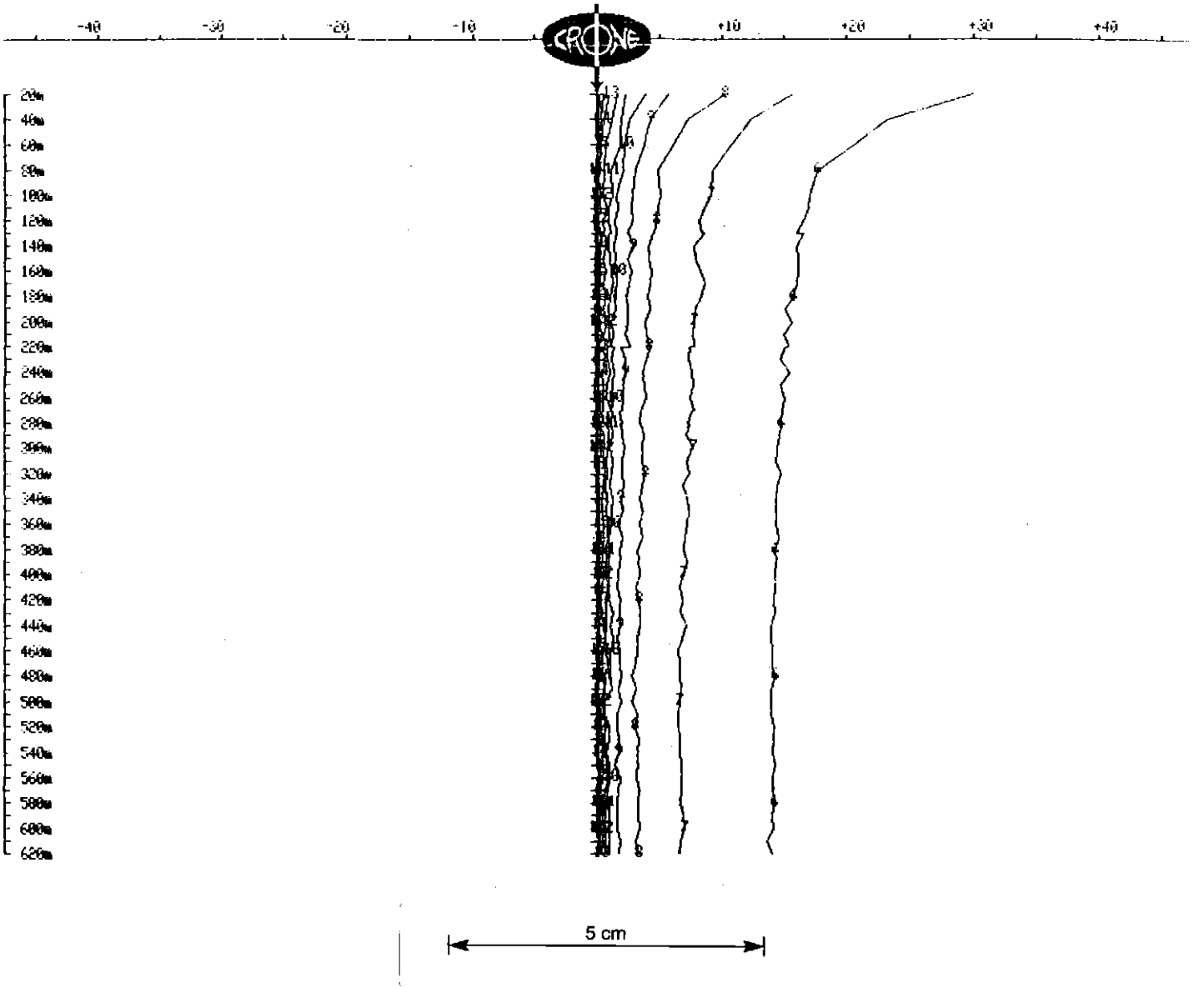


Fig 3

883112

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: West
Date	: 3rd Dec. 1993	File name	: BHD4ZW.AM2

Z COMPONENT dBz/dt nanoVolt/Amp-m² - 17 channels and PP

Scale: 1:5000 Unit Scale: 1cm = 50

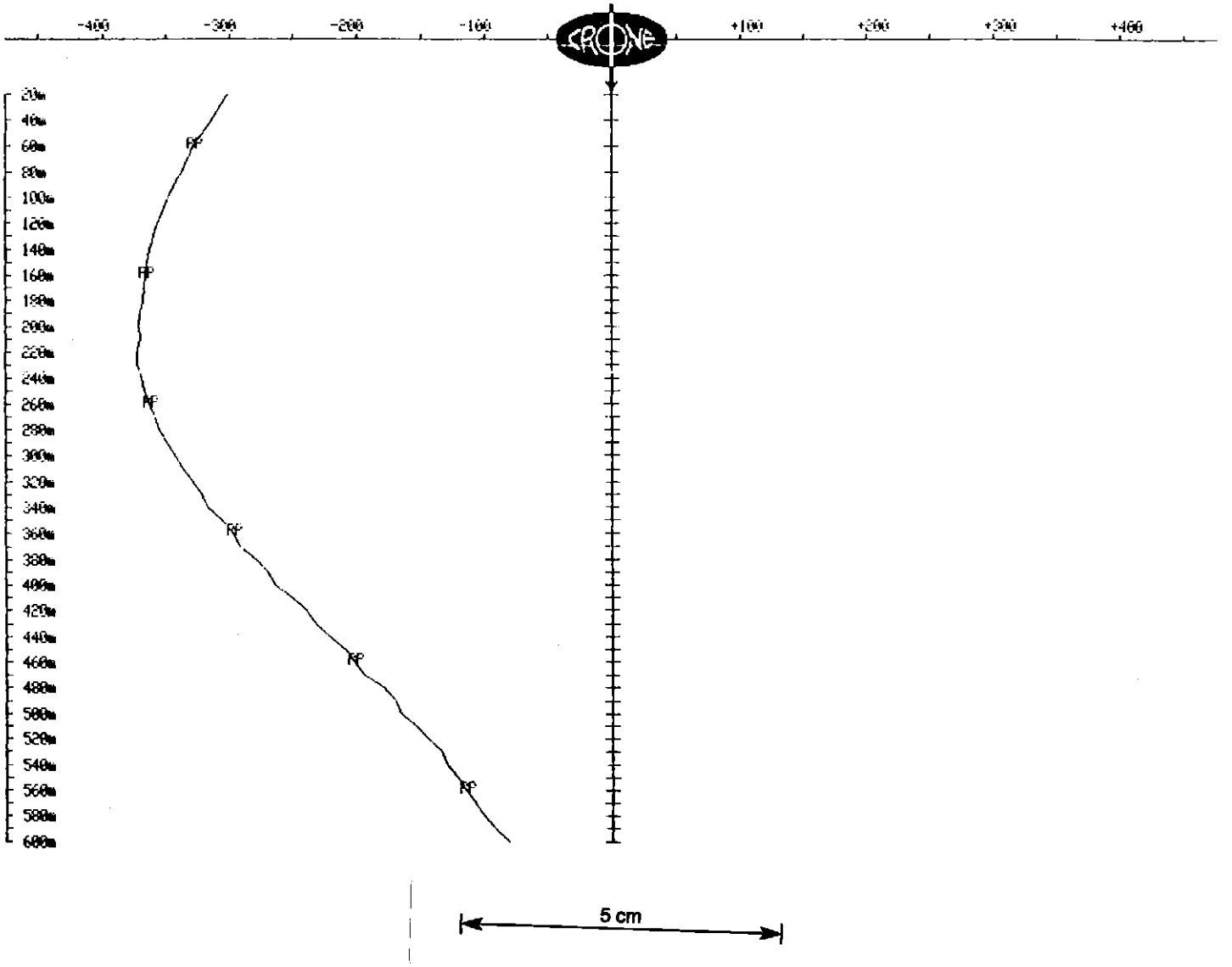


Fig 4

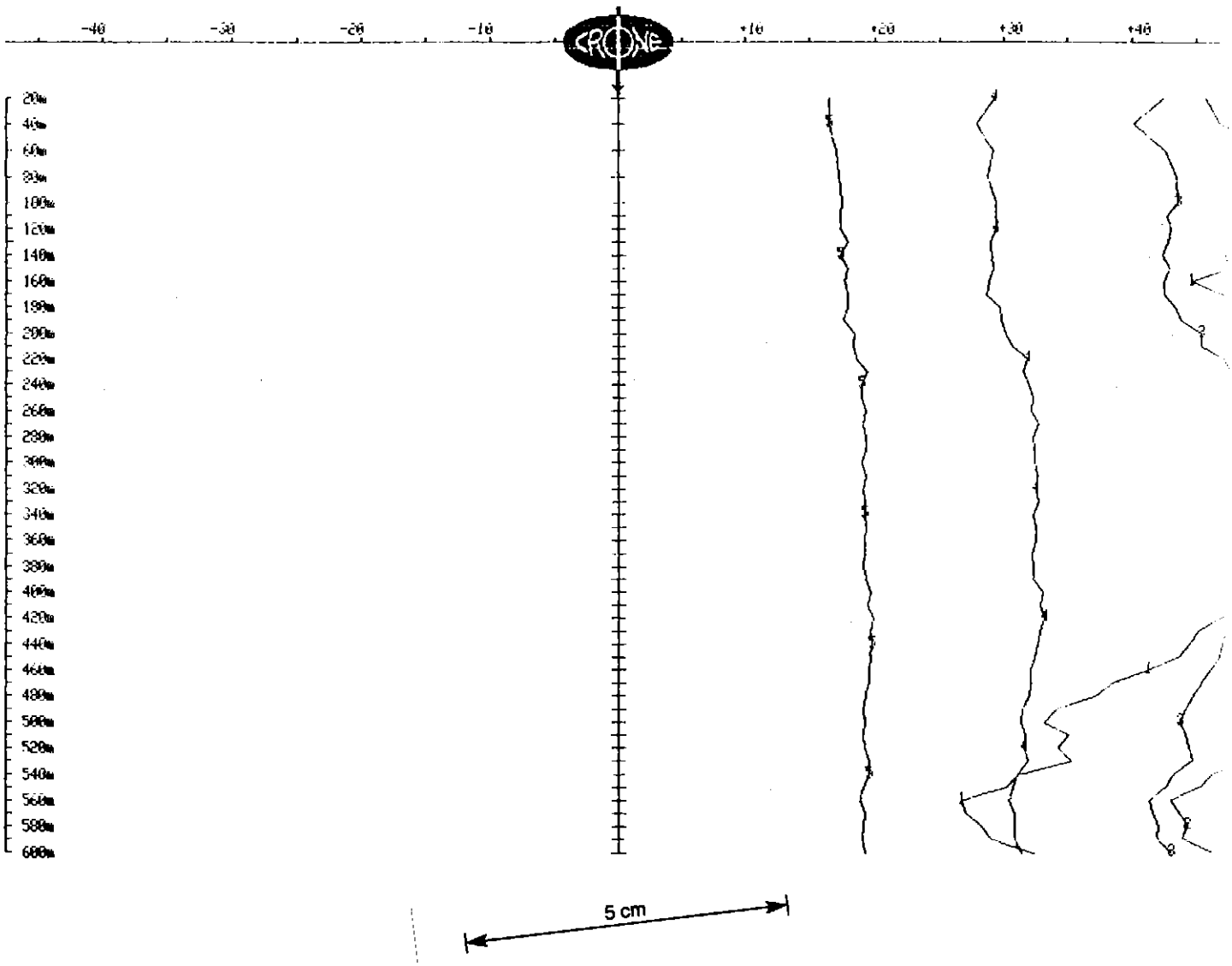
883113

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: West
Date	: 3rd Dec. 1993	File name	: BHD4ZW.AM2

Z COMPONENT dBz/dt nanoVolt/Amp-m² - 17 channels

Scale: 1:5000 Unit Scale: 1cm = 5



Figs

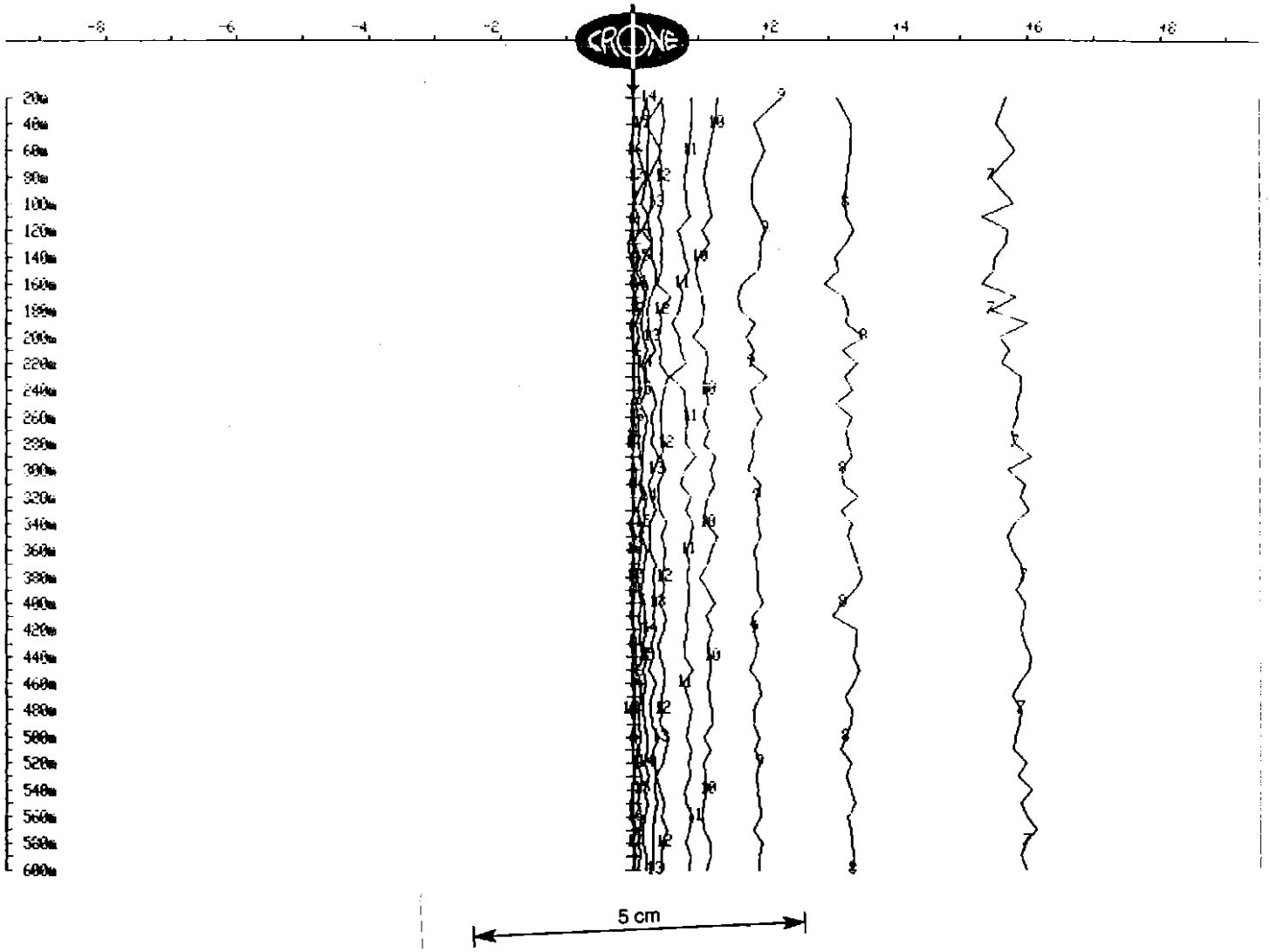
883114

OUTER-RIM EXPLORATION SERVICES
Operating Crone PEM System
BOREHOLE PEM

Client	: Pasminco Exploration	Hole	: BHD04
Grid	: Sok Creek	Tx Loop	: West
Date	: 3rd Dec. 1993	File name	: BHD4ZW.AM2

Z COMPONENT dBz/dt nanoVolt/Amp-m² - 17 channels

Scale: 1:5000 Unit Scale: 1cm = 1

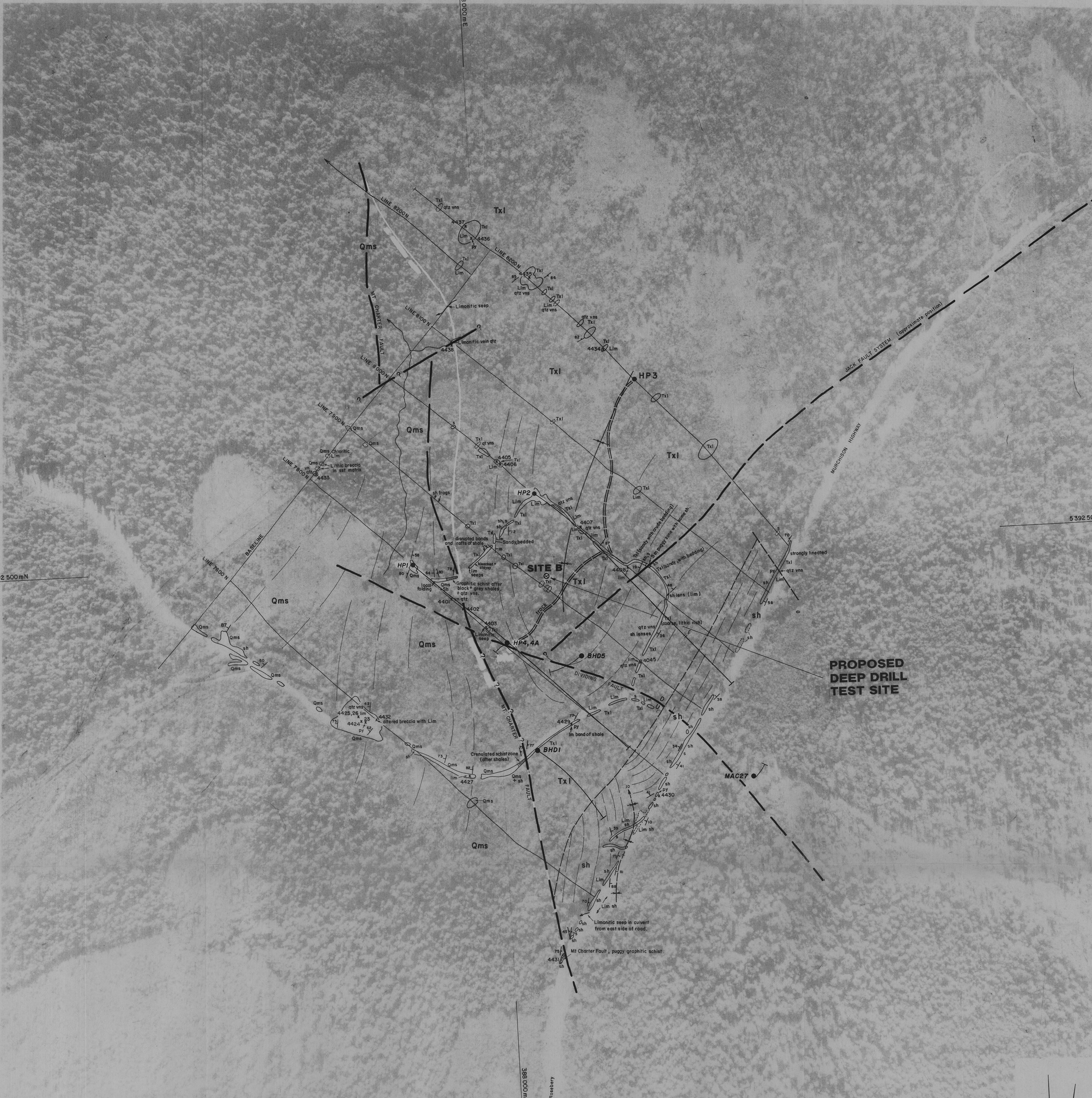


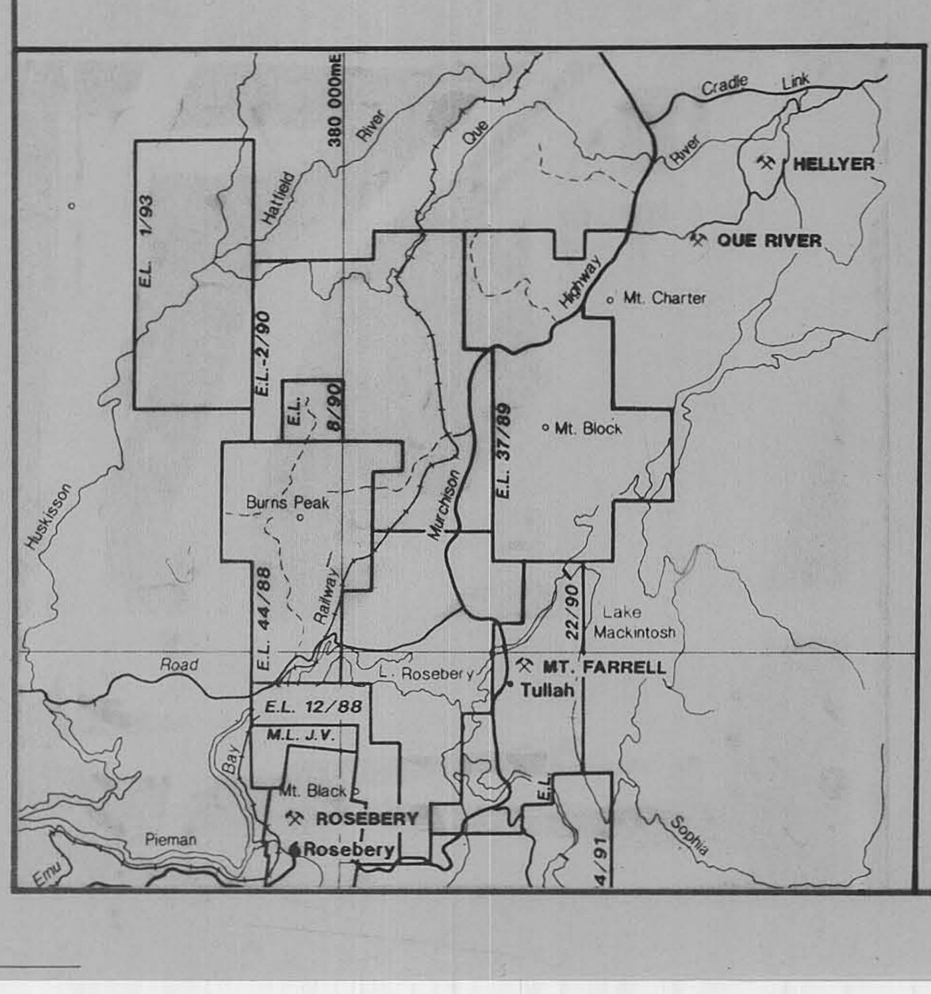
5 cm

Fig 1

FIGURES

535-GEO-4029





LEGEND

CAMBRIAN

WEST OF MT. CHARTER FAULT ZONE

ANIMAL CREEK GREYWACKE

Qms — QUARTZ-MICA-LITHIC SANDSTONE
Often feldspathic. Intercalations of shale and siltstone. Unaltered. Occasionally weakly pyritic. Occasional qtz ± chlor veins.

EAST OF MT. CHARTER FAULT ZONE

SOUTHWELL SUBGROUP

Txl — CRYSTAL LITHIC SANDSTONE & BRECCIA
Epiclastic unit of rhyolitic and dacitic provenance. Varies from coarse lithic-rich breccias to sandy quartz-feldspar crystal rich sections, latter sometimes displaying bedding. Occas. lenses of dk grey silic shale and sltst. Weakly altered (sericitisation-bleaching-chloritisation-silicification) Weakly pyritic in places.

QUE RIVER SHALE

sh — *Finely bedded black and grey shale. Partly carbonaceous. Lesser siltstone and sandstone. Locally strongly pyritic*

MT CHARTER FAULT ZONE
Puggy, grey and black, partly graphitic SCHIST after black carbonaceous SHALES. Minor sandstone/siltstone intercalations.

● BHD5 — *Pasminco diamond drill hole*
● HP2 — *BHP diamond drill hole*
30 30 — *Bedding ; Schistosity*
Outcrop ; Suboutcrop
Interpreted geological contact
Trend lines ; Fault
Synclinal axis with plunge
x 4430 — *Grab rock sample (outcrop or float)*
4431 — *Chip sample.*

ABBREVIATIONS

sh	shale
s	sandstone
Lim	limonite, limonitic
py	pyrite
qtz vn	quartz vein

Grid North (A.M.G.) 12° Mag. North

94-3607

SCALE 1:2500 (Approx)
0 100 200 300 m

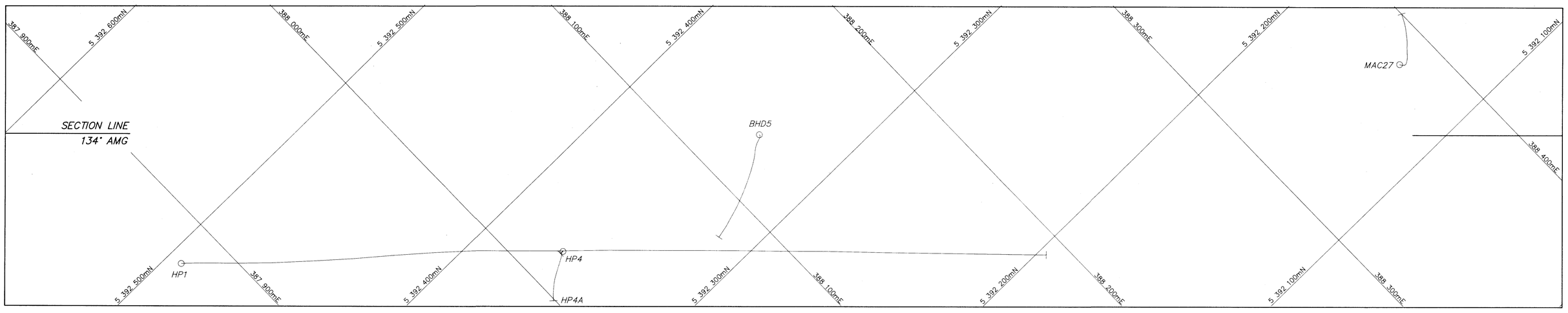
5 cm

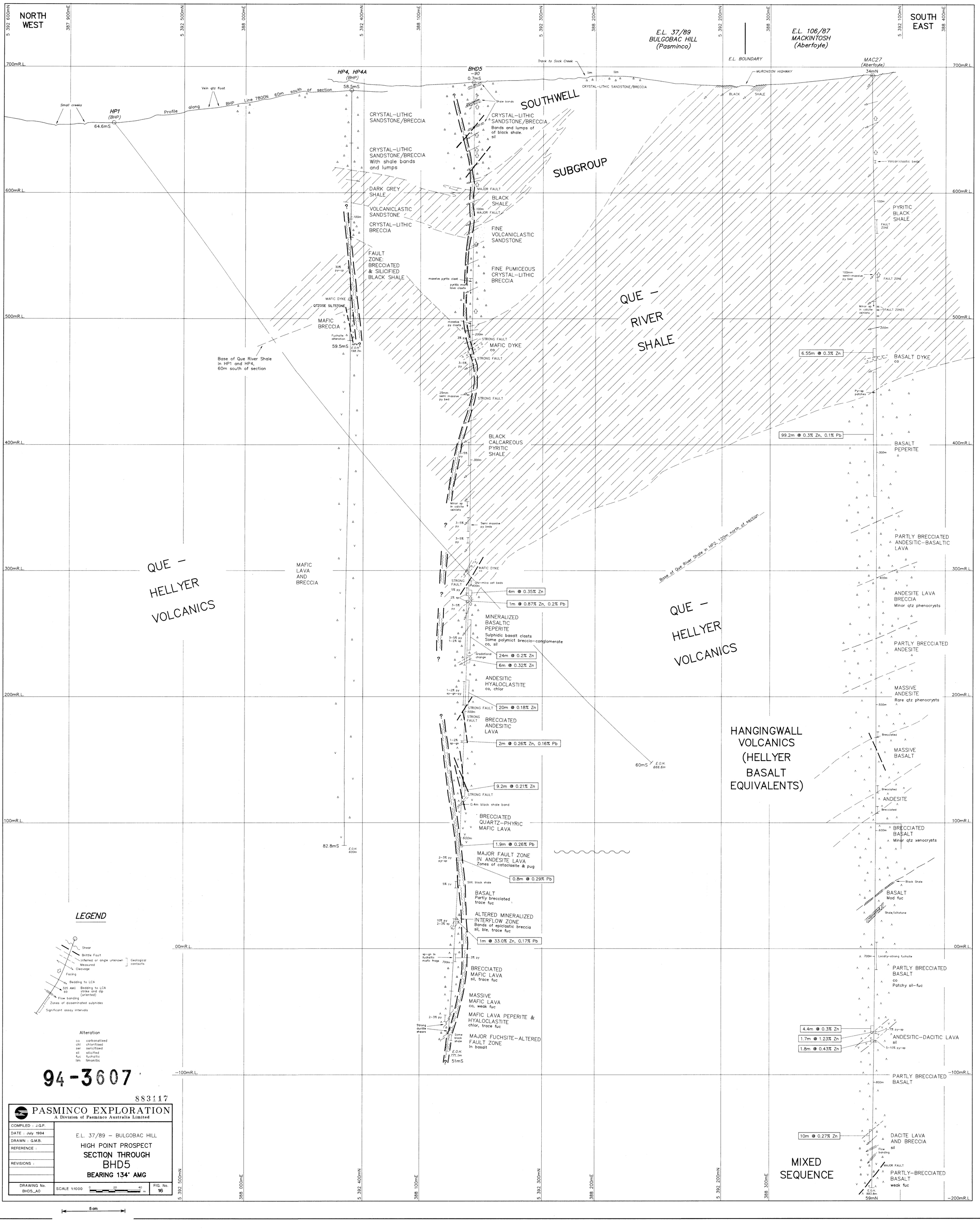
883116

NOTE: After Purvis, BHP - 1988

PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : J.G.P.	E.L. 37/89 - BULGOBAC HILL
DATE : Aug. 1988	HIGH POINT
DRAWN : M. Rosker	**GEOLOGY**
REF. :	
REVISIONS : J.G.P. 1994	
DRAWING No.	SCALE 1:2500 approx.
FIG. No. 15	





LEGEND

Shear
Brittle Fault
Inferred or angle unknown
Measured
Geological contacts
Cleavage
Facing
Bedding to LCA
325 AMG 60 Bedding to LCA strike and dip (oriented)
Flow banding
Zones of disseminated sulphides
Significant assay intervals

Alteration

co	carbonatised
chl	chloritised
ser	sericitised
sil	silicified
fuc	fuchsitic
lim	limonitic

94-3607

883117

PASMINCO EXPLORATION
A Division of Pasminco Australia Limited

COMPILED : J.G.P.	E.L. 37/89 – BULGOBAC HILL
DATE : July 1994	HIGH POINT PROSPECT
DRAWN : G.M.B.	SECTION THROUGH
REFERENCE :	BHD5
REVISIONS :	BEARING 134° AMG
DRAWING No. BHD5_A0	SCALE 1:1000 (0 20 40 m) FIG. No. 16

5 cm